

FOR RELEASE July 8, 2015

**Updated August 13, 2015:** This new edition includes corrected estimates for Iceland, Luxembourg, the Netherlands and Taiwan, and some related aggregated data.

# A Global Middle Class Is More Promise than Reality

*From 2001 to 2011, Nearly 700 Million  
Step Out of Poverty, but Most Only  
Barely*

**FOR FURTHER INFORMATION  
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## About This Report

This report examines changes in the distribution of the global population by income from 2001 to 2011. Of special interest is the change in the global middle-income population, or the global middle class. The analysis encompasses 111 countries, which accounted for 88% of the global population and 85% of world output in 2011. The study is among the first to make use of 2011 purchasing power parities (PPPs) that are based on the latest available benchmark estimates of price levels around the world.

Estimates are presented for the world and for the major regions, such as Asia & South Pacific, Africa, and Europe. The report also highlights trends in selected major countries, such as in China and India; trends in the U.S. and other advanced economies; and developments in Eastern Europe.

The key data sources for this report are the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database.

This report is a collaborative effort based on the input and analysis of the individuals listed below. In addition, Fatima Ghani made key contributions in the earlier stages of the research. Find related reports online at [pewresearch.org/global](http://pewresearch.org/global)

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## A Note on Terminology and Methods

This report divides the population in each country into five groups based on the daily per capita consumption or income of a family. The use of both measures is necessitated because for some countries, such as India and China, only consumption data are available, and for other countries, such as Brazil and Argentina, only income data are available. The terms “income” and “consumption” are used interchangeably, and people are referenced with respect to their “income” status.

The five income groups are people who are poor and living on \$2 or less daily, low income (\$2.01-10), middle income (\$10.01-20), upper-middle income (\$20.01-50), and high income (more than \$50). For ease of exposition, the report refers to income ranges in whole numbers, such as \$10-20 in reference to who is middle income.

All dollar figures are expressed in 2011 prices and converted to 2011 purchasing power parity dollars. Purchasing power parities (PPPs) are exchange rates adjusted for differences in the prices of goods and services across countries.

The terms “middle income” and “middle class” are used interchangeably in the report, as are the terms “poor” and “in poverty.”

The estimates of population distributions by income are for 2001 and 2011. For most countries, however, survey data from exactly those two years are not available. Thus, the distributions for 2001 and 2011 are typically estimated by projecting changes in income or consumption from the dates of the surveys to either 2001 or 2011.

Percentage point changes, sums, differences and other computations are done before numbers are rounded.

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## Overview

The first decade of this century witnessed an historic reduction in global poverty and a near doubling of the number of people who could be considered middle income. But the emergence of a truly *global* middle class is still more promise than reality.

In 2011, a majority of the world's population (56%) continued to live a low-income existence, compared with just 13% that could be considered middle income by a global standard, according to a new Pew Research Center analysis of the most recently available data.

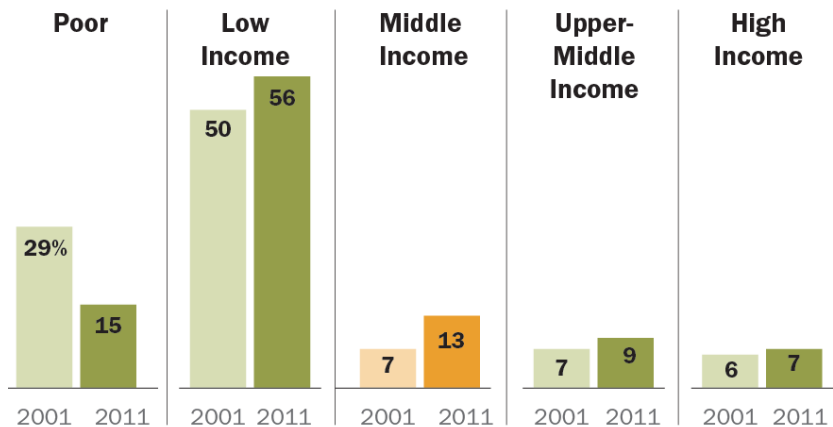
And though there was growth in the middle-income population from 2001 to 2011, the rise in prosperity was concentrated in certain regions of the globe, namely China, South America and Eastern Europe. The middle class barely expanded in India and Southeast Asia, Africa, and Central America.

Even those newly minted as middle class enjoy a standard of living that is modest by Western norms. As defined in this study, people who are middle income live on \$10-20 a day, which translates to an annual income of

\$14,600 to \$29,200 for a family of four. That range merely straddles the official poverty line in the United States—\$23,021 for a family of four in 2011.<sup>1</sup>

### Poverty Plunges from 2001 to 2011 and the Global Middle-Income Population Increases, but Most People Remain Low Income

*% of global population by income*



Note: The poor live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices. People are grouped by the daily per capita income or consumption of their family, the choice of metric depending on how the source data for a country are collected.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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<sup>1</sup> U.S. Census Bureau (<http://www.census.gov/hhes/www/poverty/data/threshld/index.html>)

In 2011, only 16% of the world's population was living on \$20 or more daily, a little above the U.S. poverty line. By global standards, that constitutes an upper-middle or high-income existence. And most of these people still lived in the economically advanced countries in North America, Europe and the Asia-Pacific region.

This is not to suggest that developed nations do not struggle with their own issues of income inequality and poverty. But, in a global context, a much greater share of Americans and Europeans are middle or higher income than are people in emerging and developing nations.

Perhaps more importantly from an international perspective, the gap in living standards between the world's economically advanced countries and emerging and developing nations barely narrowed in the first decade of this century. In 2001, 91% of the world's high-income people lived in North America and Europe; in 2011, the share was 87%.

These are among the key findings of a study that is one of only a few to analyze change in the world's middle-income population at the start of the 21st century. The 111 countries covered in the study accounted for 88% of the global population and 85% of world output in 2011. The study is also among the first to make use of the 2011 purchasing power parities (PPPs) that are based on the latest available benchmark estimates of price levels around the world.<sup>2</sup> Purchasing power parities are exchange rates corrected for differences in the prices of goods and services across countries and are essential for rendering income data comparable across countries.

### **Purchasing Power Parities**

**Dollar figures estimated** for this study are expressed in **2011 prices** and are converted to **2011 purchasing power parity dollars**. Purchasing power parities (PPPs) are exchange rates adjusted for differences in the prices of goods and services across countries. In principle, one PPP dollar represents the same standard of living across countries. The U.S. serves as the base country for price comparisons and for currency conversions. Thus, for the U.S., one US\$ equals one PPP\$. But for India, for example, the rupee to US\$ conversion rate—46.67 in 2011—is different from the rupee to PPP\$ rate—14.975 for individual consumption expenditures by households. Thanks to the lower cost of living in India, this means that only Rs. 14.975, not Rs. 46.67, is needed to obtain what \$1 buys in the U.S.

The 2011 PPP estimates used in this study are the latest available benchmark estimates and are based on a round of international price comparisons conducted that year (World Bank, 2014a). Estimates from other sources that are mentioned in this report are typically based on PPPs from 2005, that is, they are derived from a round of international price comparisons conducted in 2005 (World Bank, 2008).

<sup>2</sup> Existing estimates of the size of the global middle class are based on either 2005 purchasing power parities, e.g., [Kharas, 2010](#), or even earlier rounds of international price comparisons, e.g., [Milanovic and Yitzhaki \(2002\)](#).



## Who is Middle Income?

This study divides the population in each country into five groups based on a family's daily per capita consumption or income.<sup>3</sup> The five groups are labeled poor, low income, middle income, upper-middle income, and high income. Of the four thresholds that separate these different income groups, two are especially important to keep in mind. The first is \$2, the minimum daily per capita income that must be exceeded to exit poverty.<sup>4</sup> The second is \$10, the threshold that must be crossed to attain middle-income status. The thresholds are expressed in 2011 prices and 2011 purchasing power parities.

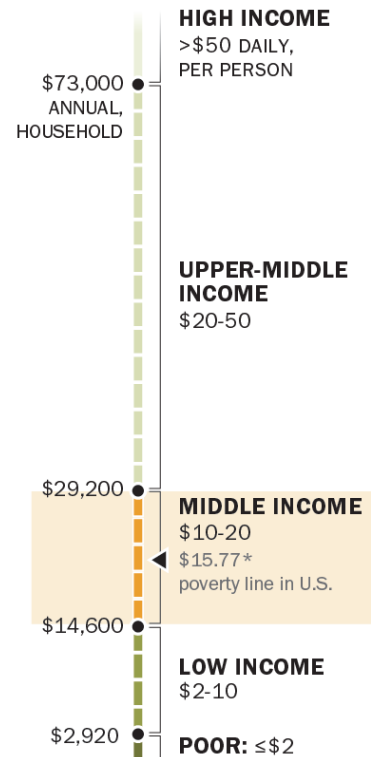
A middle-income threshold of \$10 follows a practice that is gaining acceptance among economists. The same, or virtually the same, threshold has been applied by the World Bank (2007, 2015), researchers at the Organization for Economic Cooperation and Development (Kharas, 2010), the development community (Birdsall, 2010; Birdsall, Lustig and Meyer, 2013, and Dadush and Shaw, 2011) and the private sector (Court and Narasimhan, 2010). There is growing consensus that the \$10 threshold, which is five times the poverty line used in this study, is associated with economic security and “insulates” people from falling back into poverty.

<sup>3</sup> For some countries, such as India and China, only consumption data are available, and for other countries, such as Brazil and Argentina, only income data are available, necessitating the use of both measures. For the sake of convenience, we use the terms “income” and “consumption” interchangeably and reference people with respect to their “income” status. The per capita conversion is a relatively simple method for comparing economic well-being across families of different sizes. Methods that allow for economies of scale in household consumption (see [Pew Research Center, 2012](#), for example) are perhaps more desirable but require access to underlying microdata from the household surveys. That is feasible with the Luxembourg Income Study, the source data for 21 countries covered in this report, but not with PovcalNet data, the source for the remaining 90 countries. The standardization of consumption or income into daily terms is consistent with the literature and general practices in the area. The World Bank, for example, expresses the global poverty standard in daily per capita terms. See the appendix for more details on the methodology used in this study.

<sup>4</sup> The \$2 poverty line used in this study is akin to the World Bank's global standard for extreme poverty. Officially, the World Bank's extreme poverty line is \$1.25 and it represents an average of the national poverty lines in 15 of the poorest countries ([World Bank, 2015](#) and [Ravallion, Chen and Sangraula, 2009](#)). But the Bank's poverty line is expressed in 2005 purchasing power parity dollars, not in the 2011 purchasing parity dollars used in this study. Preliminary research suggests the Bank's poverty line will move close to \$2 when it incorporates the 2011 purchasing power parities that reflect the latest methods and understanding of price differences across countries ([Deaton and Aten, 2014](#), [Financial Times, 2014](#), and [Chandy and Kharas, 2014](#)).

## Who Is Middle Income, Globally Speaking? Budget for a Four-Person Household

*Definitions of income tiers based on family income or consumption for a four-person household in 2011 purchasing power parities and 2011 prices*



\*In 2011, a family of four earning less than \$23,021 annually was considered poor by the U.S. Census Bureau.

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The \$10 threshold for middle-income status has secured favor in part due to evidence from Latin America. It is estimated that households in Chile, Mexico and Peru have less than a 10% probability of falling into poverty if their per capita income is at least \$10 per day.<sup>5</sup> Middle-income thresholds were also derived from surveys in five Latin American countries in which people were asked to self-identify their economic class. The threshold fell at about \$10 in Colombia, Mexico and Peru, at \$16 in Brazil, and at \$20 in Chile.<sup>6</sup>

Coincidentally, the \$10 threshold also is close to the median daily per capita income of U.S. households living in poverty (\$11.45 in 2011).<sup>7</sup> This means that a large share of poor people in the U.S. would also fail to meet the global middle-income standard.

The income thresholds are fixed over time and across countries as they are converted to 2011 prices and expressed in 2011 PPP dollars. Thus, given the fixed \$10 middle-income threshold, we can see whether the percentage of the population that is middle income has shrunk, grown or remained the same in different countries over the course of the century's opening decade. We can also examine shifts in the proportion of the population that is middle income at the regional and global levels.

### **Middle Income or Middle Class**

The terms “middle income” and “middle class” are often used interchangeably. This is especially true among economists who typically define the middle class in terms of income or consumption. But being middle class can connote more than income, be it a college education, white-collar work, economic security, owning a home, or having certain social and political values. Class could also be a state of mind, that is, it could be a matter of self-identification. The interplay among these many factors is examined in studies by Hout (2007) and Savage et al. (2013), among others.

This report uses income or consumption (depending on how data have been collected for a country) to group people. For that reason, the term “middle income” is used more often than not. However, “middle class” is also used, either to describe the overarching issue or to refer to work by other researchers.

<sup>5</sup> Ferreira, Messina, Rigolini, Lopez-Calva, Lugo and Vakis, 2012

<sup>6</sup> Dang and Lanjouw (2014), Alwang, Siegel and Jorgensen (2001) and the World Bank (2014b) present different methods for defining economic vulnerability and explain how different countries have done so in practice. Not surprisingly, estimates vary by country, the definition of economic security, and choice of methodology. The European Union defines an “at-risk-of-poverty line” equal to 60% of the national median income after social transfers and adjustments for household size. In Vietnam, the vulnerability line is set at 1.3 times the national poverty line.

<sup>7</sup> Unpublished Pew Research Center estimate from the Current Population Survey Annual and Social Economic Supplement.

**What it Means to Be Poor or Low Income**

The \$2 poverty line used in this study anticipates that the World Bank's global standard for extreme poverty, now at \$1.25, will move close to \$2 when it incorporates 2011 purchasing power parities, rather than the 2005 PPP currently in use ([Financial Times, 2014](#)).

More concretely, a poverty line of \$2 approximates the ground reality in India. The official poverty line in India currently is about \$1.90. In 2014, the [India Planning Commission](#) proposed raising the poverty line to \$2.46. The proposal is based on actual consumption patterns of Indian families and is deemed sufficient to meet minimum daily calorie requirements. However, at the proposed poverty line, food consumption alone would take up 57% of a rural family's budget and 47% of an urban family's budget.

Poverty lines in the developed world are very different, reflecting their higher standards of living. In the U.S., the poverty line in 2011 was \$15.77 per day per capita for a household with four people (the precise poverty line varies by [household size and composition](#)). The poverty line is defined as the income three times the cost of an economy food plan as determined by the U.S. Department of Agriculture ([Orshansky, 1965](#)). In July 2011, the daily per capita cost of the [USDA's thrifty food plan](#) was \$5.07 for a family of four with two children ages 6-8 and 9-11 years. This budget allows for meals at home that consist of grains, vegetables, fruits, milk products, meat, beans and other foods, and that meet the U.S. government's nutrition standards.

The sharp contrast in poverty standards across developing and advanced countries suggests that simply living on more than \$2 per day is not necessarily a middle-income standard of living. For instance, people living on \$5 per day are still some distance removed from meeting the nutrition standards established in advanced economies and meeting other essential needs. Research also shows a substantial likelihood of falling back into poverty until income approaches a certain level above the poverty threshold.

## Why the Middle Matters

Living on \$10 a day may not sound like a middle-income existence to someone in the U.S., Germany or Taiwan, but the notion that an individual is on a firm enough footing to not worry about mere subsistence or falling back into extreme poverty is considered by many in business, political and economic circles to matter a great deal.

Dobbs et al. (2012) have hailed the emergence of a new “global consuming class,” people earning \$10 or more daily,<sup>8</sup> as a phenomenon that has major ramifications for purchasing power and demand-driven growth in numerous developing and emerging markets from now through 2025. Wilson and Dragusanu (2008), too, have commented on the potential for deeper pockets in developing countries to radically alter levels of consumption and open investment opportunities for businesses in the coming decades.

On the political front, the U.S. National Intelligence Council (2012) has described the growth of middle class in the developing world as a “global megatrend” and posited that as people are able to purchase and save more, they will be motivated to push for social and political changes that preserve or advance their long-term interests. More broadly, numerous political scientists have argued that economic equality and opportunity are essential for the existence and stability of democratic institutions.<sup>9</sup> And although cause and effect between democracy and growth has proved harder to establish,<sup>10</sup> it is worthwhile to note that recent research has found

### What About Inequality?

The size of a country’s middle class depends in part on the extent of inequality. A more equal distribution of income may be associated with a bigger middle-income population. However, the two issues are also distinct for analytical reasons.

This study focuses on the size of the global middle class, that is, the number of people who live on \$10 to \$20 daily. The middle-income population changes as more or fewer people live within this budget. Note, however, that the average income of this group does not change much over time because it always only includes people living on \$10 to \$20 daily. The same is true for the lower-income or higher-income groups identified in this study—their populations may change freely, but their incomes are less flexible because they lie within predefined boundaries. This means that the income of one group relative to the income of another group changes little over time.

For studies of inequality, the central concern is to compare the incomes of different groups and how their relative incomes change over time. A typical question might be to compare the income of the poorest 10% of the population with the income of the richest 10%. In this case, the size of the two groups is fixed—each consists of 10% of the population. But their incomes are flexible, free to rise or fall to any level. Global income inequality is studied in detail by Milanovic (1999, 2011) and Lakner and Milanovic (2013), among others.

<sup>8</sup> McKinsey’s threshold is based on the application of 2005 purchasing power parities.

<sup>9</sup> Lipset (1959) and Fukuyama (2011)

<sup>10</sup> Ferreira, Messina, Rigolini, Lopez-Calva, Lugo and Vakis (2012)

that education and income are strong determinants of the quality of political institutions.<sup>11</sup>

The importance of the middle class is not limited to developing and emerging markets. In the developed world, economists who have studied whether income inequality is a drag on economic growth have pointed to the potential stimulus that may be provided by a larger middle class. This may happen because lower- and middle-income families are likely to spend greater shares of their incomes on goods and services (Ostry, Berg and Tsangarides, [2014](#); Summers and Balls, [2015](#); Dabla-Norris et al., [2015](#)) or because these families have greater incentives to invest in education in more equal societies (Cingano, [2014](#)).

In short, many argue that growth in the middle class, whether in the developing or developed world, can be an economic and political game-changer. The question addressed by this report is whether we have yet to see the emergence of a truly global middle class—one that has the potential to dramatically alter the trajectory of societies around the world.

## Middle-Income Numbers on the Rise

In the 111 countries included in this study, 783 million residents were middle income in 2011, compared with 398 million in 2001. Thus, the middle-income population—those living on \$10-20 per day—nearly doubled, increasing by 386 million in the first decade of the new century.

The increase in the middle-income population from 2001 to 2011 was more than twice that for the upper-middle category of \$20-50 per day (175 million), and more than four times the increase in the number of high-income people living on more than \$50 daily (88 million). Both empirically and analytically, the definition of “middle income” as living on \$10-20 per day focuses on what was the principal steppingstone for the majority of people who joined the ranks of the middle class early in this century.

## Broader Measures of the Global Middle-Income Population

This study purposefully focuses on a modest income range to define middle-class status, one that is significantly removed from the experience of poverty but does not encompass the highest reaches of the global income distribution. But broader definitions of “middle income” are also possible. For example, one could extend the upper bound of the middle category to \$50 per day—closer to what might be considered middle class in the U.S., where the median income in 2011 was \$54 per day. Using the definition of \$10-50 per day, 1.4 billion people were middle income in 2011,

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<sup>11</sup> Murin and Wacziarg ([2014](#))

compared with 806 million in 2001. That is a 70% increase in the share of the world's population that could be considered middle income.<sup>12</sup>

Other studies of the global middle class use even broader definitions and project swelling numbers in the future. Goldman Sachs defines the middle-income range as \$16 to \$82 daily and estimates that 1.5 billion people were middle class in 2008. The McKinsey Quarterly, using a range of \$9 to \$77 daily, pegs the size of the middle class at nearly 2 billion in 2009. Finally, Homi Kharas reports that about 2 billion people were middle class in 2009, based on an income range of \$10 to \$100 daily.<sup>13</sup>

If a range of \$10 to \$100 were used in this study, the size of the middle-income population in 2011 would be 1.7 billion people, or more than double the estimate using the \$10-20 per day definition of middle-income status. As alluded to above, however, a broad definition of the global middle class, one that ranges up to \$100 per day, obscures the fact that the growth of the middle class was concentrated at the lower end of the income range.

## The Global Middle-Income Population Doubled in Size from 2001 to 2011, but the Largest Increase Is in the Low-Income Population

*Global population by income tier, in millions*

INCOME GROUP	2001	2011	CHANGE, 2001 to 2011
ALL	5,513	6,186	+674
Poor	1,617	949	-669
Low	2,749	3,444	+694
<b>Middle</b>	<b>398</b>	<b>783</b>	<b>+386</b>
Upper-middle	408	583	+175
High	340	428	+88

Note: The poor live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices. The analysis covers 88% of the global population.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database. Population estimates are from the World Bank, World Development Indicators.

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<sup>12</sup> Percentage changes and other statistics are computed prior to the rounding of numbers.

<sup>13</sup> See Wilson and Dragusanu (2008), Kharas (2010), and Court and Narasimhan (2010). The precise middle-income range used by Wilson and Dragusanu is \$6,000 to \$30,000 annually. Court and Narasimhan, the authors of the McKinsey Quarterly report, use a household income range of \$13,500 to \$113,000 annually. For a household of four, the daily per capita range would be \$9 to \$77. The methodologies and data sources vary across these studies and from those used in this report. An example of these differences is that this report uses 2011 purchasing power parities but the cited research uses 2005 purchasing power parities, albeit projected to other years in some cases.

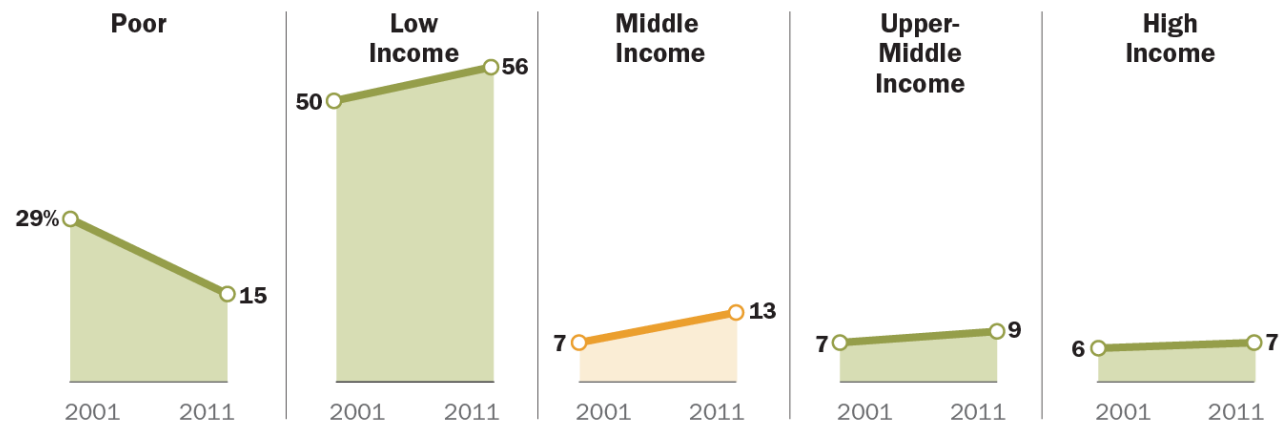
## Low-Income Ranks Also Swell

As significant as the rise of the middle class has been, middle-income status is still beyond the grasp of many people in developing and emerging markets. Though poverty plunged in historic fashion from 2001 to 2011, it did as much to swell the ranks of low-income earners as to boost the ranks of the middle class.<sup>14</sup> The majority of the world's population remains low income.

A review of the changing sizes of different income groups brings this point home. From 2001 to 2011, the share of the world's population that subsisted on \$2 or less per day halved from 29% to 15%. At the same time, the share of people classified as low income (\$2-10 per day) increased from 50% of the world's population to 56%. That 6 percentage point increase, in turn, was matched by a similar increase in the share of the world's population that could be considered middle income (5 percentage points). Meanwhile, the share of the world's population in higher-income categories barely changed between 2001 and 2011: Those who are upper-middle income increased from 7% to 9% of the global population, and high-income earners ticked up from 6% to 7%.

### Steep Dive in Poverty from 2001 to 2011, but Most People Are Still Either Poor or Low Income

*% of global population by income*



Note: The poor live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices. People are grouped by the daily per capita income or consumption of their family, the choice of metric depending on how the source data for a country are collected.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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<sup>14</sup> See Bourguignon and Morrisson (2002) for trends in global poverty from 1820 to 1992.

Shifting from percent shares to absolute numbers, the scale of poverty's plunge and the expansion of the global low-income population—and the reasons behind each—come into clearer focus. From 2001 to 2011, 669 million people moved out of poverty. All of this decline, and more, was due to improved living standards. If there had been no change in the income distribution from 2001 to 2011,<sup>15</sup> population growth alone would have raised the number of people who are poor by 198 million. In actual fact, however, the number of poor people did not increase by 198 million, it decreased by 669 million. This means that economic growth, by generally raising incomes and pushing people up the ladder, worked to eliminate poverty for 867 million people in the 2000s.

## Economic Growth Drives Change in Global Middle-Income Population and Number of Poor from 2001 to 2011

*Change in the size of income tiers that is due to growth in population and growth in income (millions)*

INCOME GROUP	TOTAL CHANGE	CHANGE DUE TO GROWTH IN	
		POPULATION	INCOME
ALL	+674	+674	0
Poor	-669	+198	-867
Low	+694	+336	+358
<b>Middle</b>	<b>+386</b>	<b>+49</b>	<b>+337</b>
Upper-middle	+175	+50	+125
High	+88	+42	+46

Note: The poor live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices. The analysis covers 88% of the global population. Estimated change due to population growth alone assumes there was no change in the income distribution from 2001 to 2011.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database. Population estimates are from the World Bank, World Development Indicators.

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The total increase in the low-income population from 2001 to 2011—694 million—is slightly greater than the decrease in the number of the poor population. Population growth and economic growth are estimated to have worked in almost equal parts to raise the low-income population, by 336 million and 358 million, respectively.

The increase in the middle-income population from 2001 to 2011 is 386 million, a little more than half as much as the increase in the low-income population. But the increase in the middle-income population was almost entirely due to economic growth, as rising incomes added 337 million people to the middle class, compared with the addition of 49 million due to population growth.

<sup>15</sup> In other words, in 2011, the same proportions of the global population are assumed to be poor, low income, etc. as the proportions in 2001.



In sum, the share of the world's population living a low-income existence and the share living a middle-income existence increased similarly (6 percentage points and 5 points, respectively) from 2001 to 2011. When we consider the number of people who entered each category due to improved living standards, the expansion of the low-income tier slightly outpaces the growth of the middle-income tier (358 million vs. 337 million). But when all sources of change are accounted for, the increase in the low-income population exceeds the increase in the middle-income population by nearly two-to-one (694 million vs. 386 million).

While the doubling of the global middle class, from 7% in 2001 to 13% in 2011, is certainly a major shift with potentially major economic and political ramifications, it is important to keep in mind that, at the end of the first decade of the 21st century, the vast majority of the world's population (71%) remained either poor or low income.

### The Distribution of the Global Population by Income: A More Detailed Picture

This report analyzes changes in the distribution of the world's population by income, using five income brackets or categories: poor, low income, middle income, upper-middle income and high income. These categories capture the key shifts in the global population by income levels between 2001 and 2011. But the distribution of the world's population varies not only across but also within these income categories.

For the chart below, the global population was divided into 200 groups with incomes ranging from \$0-1, \$1-2, \$2-3, and so on up to a maximum of \$199 or greater per capita per day. The height of a bar depicts the percentage of the global population that earns (or consumes) a given amount daily. The chart does not depict income intervals beyond \$50 because of the small shares of the global population that live on those budgets.

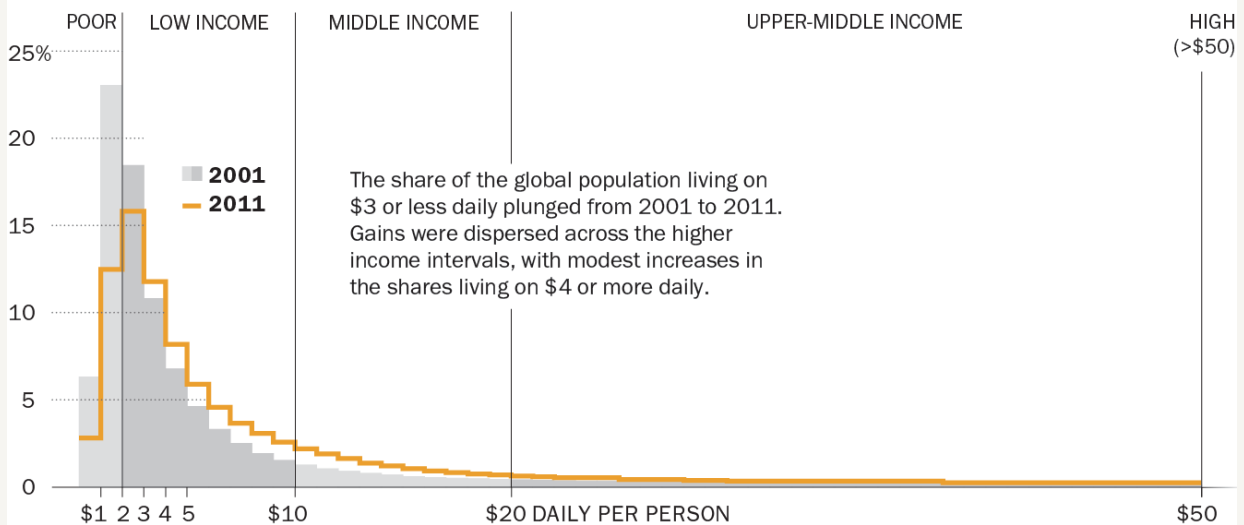
In 2001, 23% of people worldwide lived on \$1-2 per day. This is also the highest bar of the histogram, meaning a daily income of \$1-2 was the most prevalent standard of living in the world in 2001. Very few people lived on more than \$10 per day. Indeed, the shares of the global population with incomes greater than \$20 per day are virtually undetectable.

There are clear signs of improvement in the income distribution from 2001 to 2011 as the share of the global population living on \$3 or less per day fell significantly. In 2011, the most common standard of living was \$2-3 per day, with 16% of the global population at that level. It can also be seen that greater shares of the global population were living on more than \$3 per day in 2011 than in 2001 (represented by the upward shift in the histogram at income levels greater than \$3 per day).

However, the chart also makes clear that while the number of poor people plunged in the opening decade of the 21st century, most low-income earners in 2011 lived closer to the poverty line (\$2 per day) than the threshold for middle-income status (\$10 per day). Indeed, in both 2001 and 2011, living on either \$1-2 or \$2-3 per day was the most probable outcome, globally speaking. Overall, in both years, the vast majority of people live on less than \$10 per day.

### How Many Live on How Much?

*Share of global population that lives on a given level of income or consumption*



Note: Income (or consumption) is expressed in 2011 purchasing power parities in 2011 prices. The height of the bars shows the share of the global population that lives on \$0-1, \$1-2, and so on. Incomes beyond \$50 daily per person are not shown because of the small shares of the global population that live on those budgets. For example, 0.18% of the global population lived on \$50-51 per day in 2011. The population shares living on higher budgets diminish steadily thereafter.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database.

## The Uneven Geography of the Emerging Middle Class

In addition to middle-income earners remaining a relatively small portion of the world's population, the growth in the middle class has been concentrated in particular regions. In particular, China, South America and Eastern Europe are home to some of the biggest increases in middle-income populations. By contrast, Africa and much of Asia, including India, have lagged behind.

The story of China is remarkable. Three decades after the introduction of economic reforms in 1978, the share of China's population that is middle income stood at 18% in 2011—up by 15 percentage points from 3% in 2001. In absolute terms, 203 million people in China crossed the middle-income threshold of \$10 per day from 2001 to 2011.

Eastern Europe, too, witnessed a significant expansion of the middle-income population. The region experienced significant economic contractions after the fall of the Berlin Wall in 1989, but many nations reclaimed economic ground in the first decade of this century.<sup>16</sup> Examples from the region include Belarus, where the share that is middle income rose from 21% in 2001 to 53% in 2011, and Romania, where the share increased from 6% to 25% over the same period.<sup>17</sup> In the region overall, the middle-income population increased by 39 million.

Countries in South America and Mexico also led the way in expanding their middle-income populations. From 2001 to 2011, some 63 million people in these countries crossed the \$10 per day threshold. Booming commodity prices and income redistribution policies contributed to rising incomes in a number of South American countries. Argentina, Ecuador, Peru and Brazil all had double-digit increases in the percentage of their populations living a middle-income existence.

In contrast to China, most other Asian countries had relatively little growth in their middle classes. India is a case in point. Although the poverty rate in India fell from 35% in 2001 to 20% in 2011, the share of the Indian population that could be considered middle income increased from 1% to just 3%. Instead of a burgeoning middle class, India's ranks of low-income earners swelled. Many of these were people hovering closer to \$2 than \$10 in daily income, and thus still a ways from the transition to middle-income status.

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<sup>16</sup> The gains experienced by some of these countries from 2001 to 2011 follow on the heels of losses experienced in the decade after the fall of the Berlin Wall. In Russia, for example, gross domestic product (GDP) per capita (in constant 2011 PPP dollars) decreased 24% from 1991 to 2001, but then it rebounded up by 62% from 2001 to 2011, according to World Bank estimates. See Milanovic (2014) for a broader discussion of trends in East Europe's transition countries.

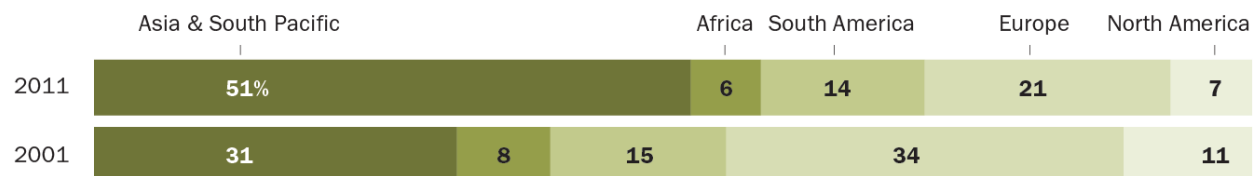
<sup>17</sup> Russia and Ukraine also made significant gains, but the extent to which recent political and military events may unwind some of these gains is not known. The ongoing decline in crude oil prices may also have an impact on Russia's economy. The International Monetary Fund (2015) recently projected that the Russian economy will contract by 3% in 2015 and by an additional 1% in 2016.

African countries experienced some of the most dramatic declines in poverty rates from 2001 to 2011; however, few countries had much of an increase in the share of middle-income earners. Similar to India, most of the movement was from poverty to low-income status. Ethiopia, for example, experienced a decline of 27 percentage points in the share of people who could be considered poor. This translated into an increase of 26 percentage points in the country's share of low-income earners and only a 1-point increase in middle-income earners. In Nigeria, one of the region's most dynamic economies, the share of the poor fell 18 percentage points from 2001 to 2011, resulting in a 17 percentage point increase in low-income earners and just a 1-point boost in the share of the population that could be considered middle income.

At a global scale, China's economic trajectory over the course of the century's first decade looms large. Home to more than 1.3 billion people, or nearly 20% of the world's population, China alone accounted for more than one-in-two additions to the global middle-income population from 2001 to 2011. The result was a pivot to the east, with the share of the world's middle-income population residing in Asia & South Pacific increasing from 31% in 2001 to 51% in 2011.<sup>18</sup>

## The Share of the Global Middle-Income Population Living in Asia & South Pacific Rises from 2001 to 2011

*% of the global middle-income population by region*



Note: This chart depicts the regional distribution of the global middle-income population in 2011. It is one of several charts showing the regional distribution of the global population living at different income levels. The income groups are as follows: The poor who live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices. Central America and the Caribbean are not shown. See the appendix for a list of the countries included in each region and the share of a region's population accounted for by those countries.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database.

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<sup>18</sup> Gains in China, in sheer numbers, swamped the increase in the middle-income population in South America. Thus, the share of South America in the global middle-income population is virtually unchanged.

## High-Income Populations Still Clustered in Economically Advanced Nations

Advanced economies in Europe and North America are home to most of the world's upper-middle income and high-income populations. The gap between them and the rest of the world on this score narrowed only slightly from 2001 to 2011, despite the booming Chinese economy.

In 2001, 75% of the global population that was upper-middle income, those living on \$20 to \$50 daily, lived in Europe and North America. By 2011, the share living in Europe and North America fell to 63%. The regions gaining shares were Asia & South Pacific—up from 14% in 2001 to 23% in 2011—and South America, which was up from 8% to 10%. China alone raised its share of the global upper-middle income population from 1% in 2001 to 10% in 2011.<sup>19</sup>

But Europe and North America continue to dominate the top rung of the income ladder. Some 87% of the global high-income population, with \$50 or more at their disposal daily, lived there in 2011, compared with 91% in 2001. Within this group, Western Europe gained on the U.S. with respect to the shares of their populations that are high income. Among the countries included in this study, several had higher shares of their populations living on more than \$50 per day in 2011 than the U.S.<sup>20</sup> In order, they are Norway, Luxembourg, Denmark, the Netherlands, Iceland, Germany, Finland and Canada. Of this group, all but Denmark, Germany and Luxembourg lagged behind the U.S. on this front in 2001.

Globally, there was little change in the share of people living at the higher ends of the income scale. As noted, only 16% of the global population lived on more than the middle-income level in 2011, up slightly from 14% in 2001. This comprises the 9% of the global population that was upper-middle income in 2011 and the 7% that was high income. Thus, stepping over the \$20 daily threshold is still beyond the means of most of the global population.

At the same time, many people in advanced economies live on incomes above this threshold. In the U.S., for example, the median daily per capita income was \$56 in 2011 and 88% of the population lived on more than \$20 per day.<sup>21</sup> A similar scenario unfolds in other advanced economies, underscoring the vast economic gulf that separates them from the rest of the world.

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<sup>19</sup> The number of people who were upper-middle income in Asia & South Pacific increased 79 million from 2001 to 2011. China accounted for 56 million of this increase.

<sup>20</sup> Due to lack of data, not all advanced countries are covered in this study. Missing countries include Japan, South Korea, Singapore, Sweden and Switzerland.

<sup>21</sup> See Appendix Table A3 for median daily per capita incomes in the countries included in this study.

## Road Map to the Report

The analysis in this report encompasses 111 countries with a combined population of 6.2 billion in 2011, or 88% of the global population. These countries also accounted for 85% of global output in 2011. Thus, estimates of the distribution of the global population by income are unlikely to change with the inclusion of more countries. Meanwhile, counts of people—such as how many are middle income—are slightly underestimated.

Estimates are presented for the world and for the major regions, such as Asia & South Pacific, Africa, and Europe. The report also highlights trends in selected major countries, such as in China and India; trends in the U.S. and for its partners in Western Europe; and developments in Eastern Europe.

The dates chosen for the analysis are predicated on the availability of data. The end point is 2011 because more recent data are scarcely available. Also, the latest benchmark estimates of purchasing power parities—exchange rates corrected for differences in the prices of goods and services across countries—are for 2011. This is one of the first studies to make use of the 2011 parities, which represent a step forward in methodology and the latest understanding of how the cost of living compares across countries.<sup>22</sup> The starting point, 2001, is one decade earlier and marks the beginning of the century.

Data for 90 of the 111 countries included in the report come from the World Bank’s PovcalNet database. A simpler, user-friendly version of these data was provided by the Center for Global Development (see the appendix for details).<sup>23</sup> For most countries, data in PovcalNet represent consumption levels. The major exception is South American countries, which feature data on income. Data for the 21 remaining countries are derived from the Luxembourg Income Study database. These countries all provide data on household income.

Overall, the 111 countries in the study were selected on the basis of the availability of data for dates at or around 2001 and 2011. Data for exactly those two years were not available for most countries, however. Thus, estimates of the population distributions by income for those dates are typically the results of projections of survey data from years close to 2001 and 2011. The estimates are also subject to limitations that may be present in the source data. The appendix describes the methodology in detail and also notes the major limitations of the data.

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<sup>22</sup> Deaton and Aten (2014)

<sup>23</sup> The Center for Global Development’s version of PovcalNet data is available at [www.cgdev.org/povcalnet](http://www.cgdev.org/povcalnet). Dykstra, Dykstra and Sandefur (2014) describes the center’s methodology. PovcalNet data are available at <http://iresearch.worldbank.org/PovcalNet/>, and the Luxembourg Income Study database may be accessed at <http://www.lisdatacenter.org/>.

The remainder of the report is organized as follows: The next section presents in text, charts and maps estimates of the distribution of the global population by income in 2001 and 2011, and also of the distributions in the major regions of the world. Subsequent sections highlight trends in individual countries and areas experiencing growth in middle-income populations, such as China and countries in Eastern Europe and Latin America; changes in India and other countries, such as in Africa, that experienced declines in poverty but minimal change in their middle-income populations; and trends in advanced economies, such as the U.S. and countries in Western Europe, which generally held on to their economic advantage over most of the rest of the world.

## Mapping the Global Population: How Many Live on How Much, and Where

The global middle-income population is nearing the 1 billion mark. In the 111 countries included in this study, the middle-income population nearly doubled from 398 million in 2001 to 783 million in 2011.<sup>24</sup> As discussed in the next section, much of this increase—203 million—emanated from China alone. The remainder of the growth was principally located in Eastern Europe and South America.

The most notable changes from 2001 to 2011 were the decrease in poverty and the increase in the low-income population. The number of people who were poor fell from 1.6 billion in 2001 to 949 million in 2011, or by 669 million. In this same period, the low-income population increased from 2.7 billion to 3.4 billion, or by 694 million.

The increase in the low-income population was nearly two times as much as the increase in the middle-income population. It was also concentrated in Africa and Asia. Economic growth in China and India was instrumental to this process, as the two countries combined pulled 489 million people out of poverty and added 435 million to the global low-income population. Overall, the comparative changes in the low-income and middle-income populations demonstrate that crossing the \$10 threshold persisted as a difficult challenge in the first decade of the 21 century.

The global population share that is upper-middle income increased from 408 million in 2001 to 583 million in 2011, a change of about 175 million, and the high-income population increased from 340 million to 428 million, a change of 88 million during that decade. These gains were scattered mostly among more advanced economies in North America and Europe, in countries that are considered by the World Bank to be upper-middle income or high income.

### Regional Patterns in the Distributions of Populations by Income

There is a distinct regional pattern to the distribution of people by income. Vast majorities of people in Africa and Asia & South Pacific are either poor or low income. In sharp contrast, most people in North America and Europe are either upper-middle income or high income. The standards of living in South America and Central America & the Caribbean fall in between.<sup>25</sup>

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<sup>24</sup> The countries included in this study account for 88% of the global population—6.2 billion of the total global population of 7 billion in 2011. This means that estimates of numbers of people in this report, e.g., the number who are middle income, likely understate the true count. It is unlikely, however, that proportions, e.g., the share of the global population that is middle income, are affected.

<sup>25</sup> See the appendix for the list of countries by region and also for the distributions of people by income in each country within a region.



Below is a summary of some of the key regional patterns in terms of population distribution by income. In addition, these patterns are illustrated in a series of maps that follows.

### **Asia & South Pacific and Africa**

Asia & South Pacific is one of the poorest regions in the world but, propelled by economic growth in China, is also home to an emerging middle-income population. The share of Asia & South Pacific's population that is poor more than halved, falling from 36% in 2001 to 16% in 2011. Over the same period, the share that is low income increased from 58% to 69%, and the share that is middle income rose from 4% to 11%. As detailed in later sections, economic reforms in China and India were the key contributors to the decline in the region's poverty, but the growth in the middle-income population was realized largely in China.

Africa is the poorest region in the world. Nearly four-in-ten Africans (39%) were poor in 2011, although this share is down notably from 2001 when about half (49%) lived in poverty.<sup>26</sup> The formerly poor appear to have transitioned mostly into low-income status, as the share of this group of Africans increased from 45% in 2001 to 54% in 2011. Thus, the share of Africa's population that is either poor or low income barely changed from 2001 to 2011, edging down from 94% to 92% in that decade. Middle-income people in Africa represented only 6% of the population in 2011, virtually unchanged from 2001.

### **Latin America**

South America started from a higher place than Asia & South Pacific or Africa in 2001—less poor and more middle income—and raised the share of its middle-income population by more over the course of the decade. In 2001, the poverty rate in South America was 17%, and it took until 2011 for the poverty rate in Asia & South Pacific to fall below that level. By then, the poverty rate in South America had fallen to 7%. The proportion of the population that is low-income also fell in South America, from 55% in 2001 to 46% in 2011.

Through a combination of economic growth and income redistributing policies,<sup>27</sup> the end result for South America is an increase in the share of middle-income population from 16% to 27% and an increase in the share of the population that is upper-middle income from 9% to 15%. Overall, 47% of South America's population lived at or above the middle-income level in 2011. Thus, South America is near the threshold when the majority of its population lives at or above the middle-income standard.

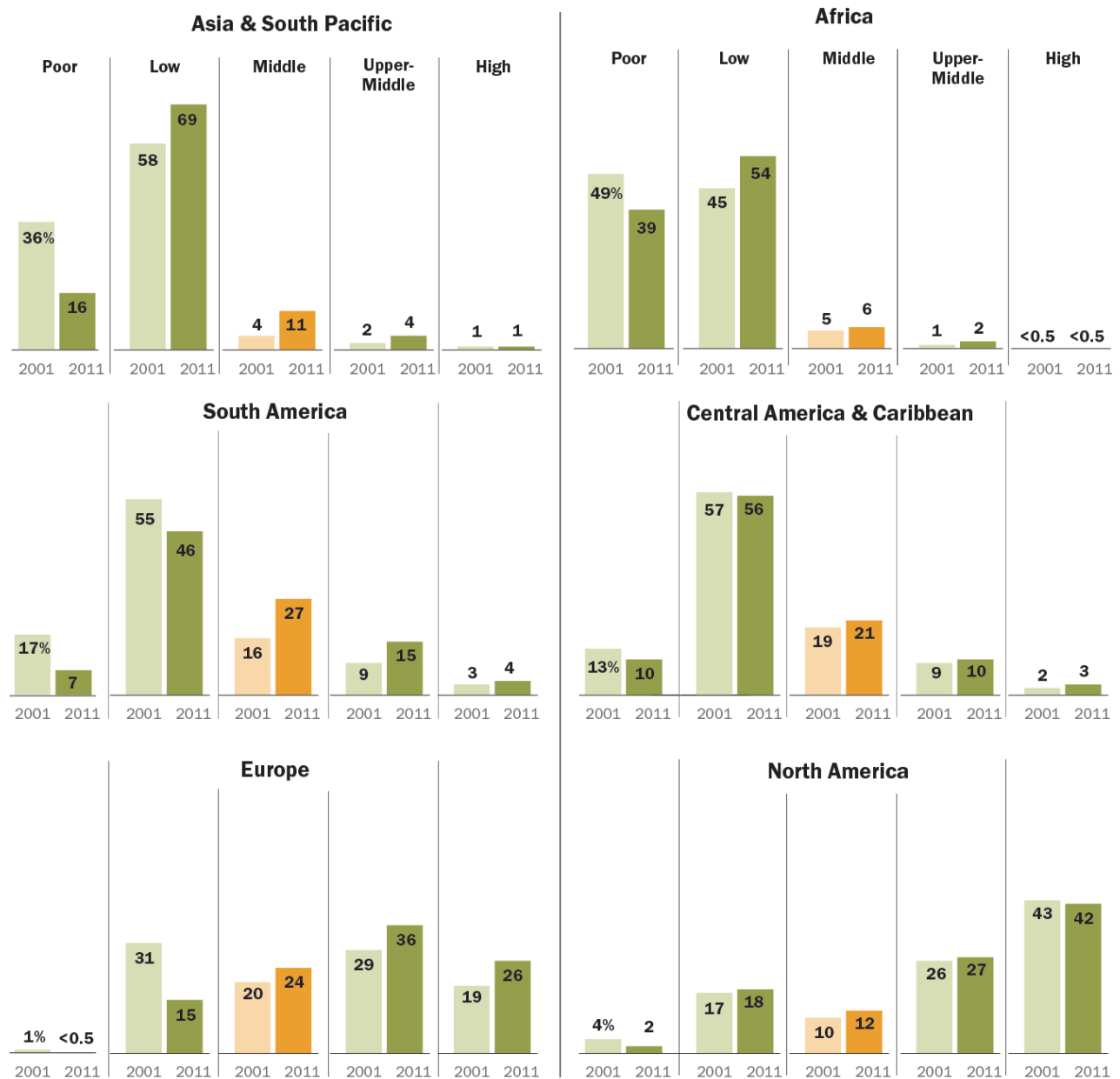
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<sup>26</sup> Economic growth in Africa in the past decade is attributed to an increase in the working-age population, rising commodity prices, structural reforms and fewer armed conflicts. See Leke, Lund, Roxburgh and van Wamelen (2010), Cho and Tien (2014) and World Bank (2015).

<sup>27</sup> Sosa and Tsounta (2013) and Ferreira, Messina, Rigolini, Lopez-Calva, Lugo and Vakis (2012)

## A Middle-Income Population Emerges in South America, but Is Scarce in Africa and Asia & South Pacific; Majorities in Europe and North America Are Upper-Middle or High Income

*% of regional populations by income, 2001 and 2011*



Note: The poor live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices. See the appendix for a list of the countries included in each region and the share of a region's population accounted for by those countries.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

Little changed in the distribution of the population by income in Central America & the Caribbean from 2001 to 2011. Poverty modestly declined in the region, from 13% in 2001 to 10% in 2011, and the share of its middle-income population modestly increased, from 19% to 21%. Most people in Central America & the Caribbean are low income—the share of this income group was 57% in 2001 and 56% in 2011.

### **Europe and North America**

Europe and North America are home to most of the world's advanced economies. Thus, by global standards, poverty in these regions is virtually absent and the shares of low-income and middle-income populations are relatively low. Instead, majorities of their populations are either upper-middle income or high income.

The Great Recession of 2007-2009 was a setback to economic growth in both North America and Europe. Most prominently, the U.S. economy stumbled through the decade from 2001 to 2011, growing at less than 1% annually on average.<sup>28</sup> Even these slight gains did not make their way to American families whose median income actually decreased from 2001 to 2011.<sup>29</sup> Since the U.S. dominates the North American region, economically and demographically, stagnation there translated to regionwide stasis.

Due to the lackluster performance of the U.S. economy, there was no substantial change in the income distribution in North America from 2001 to 2011. The share of the middle-income population in the region moved up from 10% in 2001 to 12% in 2011, the share of the low-income population inched up from 17% to 18%, and the share of the high-income population eased down from 43% to 42%.

Most economies in Western Europe also experienced modest growth from 2001 to 2011. However, unlike in the U.S., this did result in an increase in family incomes in many countries.<sup>30</sup> Also, the transition countries in Eastern Europe, including the former Soviet republics, entered the recession on a stronger path to growth and weathered its effects better. For these reasons, Europe overall showed more economic progress than North America in the 2000s.<sup>31</sup>

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<sup>28</sup> References to economic growth in this section are based on trends in GDP per capita in constant prices and in national currencies as published by the International Monetary Fund.

<sup>29</sup> More generally, this is the manifestation of a longer-running phenomenon in the U.S.: the decrease in the share of labor in national income (Elsby, Hobijn and Sahin, 2013).

<sup>30</sup> In a related vein, Jaumotte (2012) shows that the labor share of national income edged up in advanced economies in Europe from 2000 to 2011 but declined steadily in the U.S.

<sup>31</sup> At the same time, much of Europe has lagged behind the U.S. since 2011. The Euro Area experienced negative growth in 2012 and 2013 (International Monetary Fund, 2014), and concerns have arisen about the Russian economy in view of the events in Ukraine, economic sanctions, and declining oil prices.

In Europe, 31% of the population was low income in 2001 and this share was cut in half to 15% by 2011. The gains were scattered through the middle and higher reaches of the income distribution. The share of the European population that is middle income increased from 20% in 2001 to 24% in 2011, the share that is upper-middle income rose from 29% to 36%, and the share of the high-income population expanded from 19% to 26%.

North America does retain the distinction of being the highest income region in the world. In 2011, 42% of the population in North America was high income, living on more than \$50 per day, compared with 26% in Europe. But a smaller proportion of Europe's population is poor or low-income compared with North America—15% vs. 19%. Put another way, proportionally more Europeans (85%) than North Americans (81%) are at least middle income, living on \$10 or more daily in 2011.

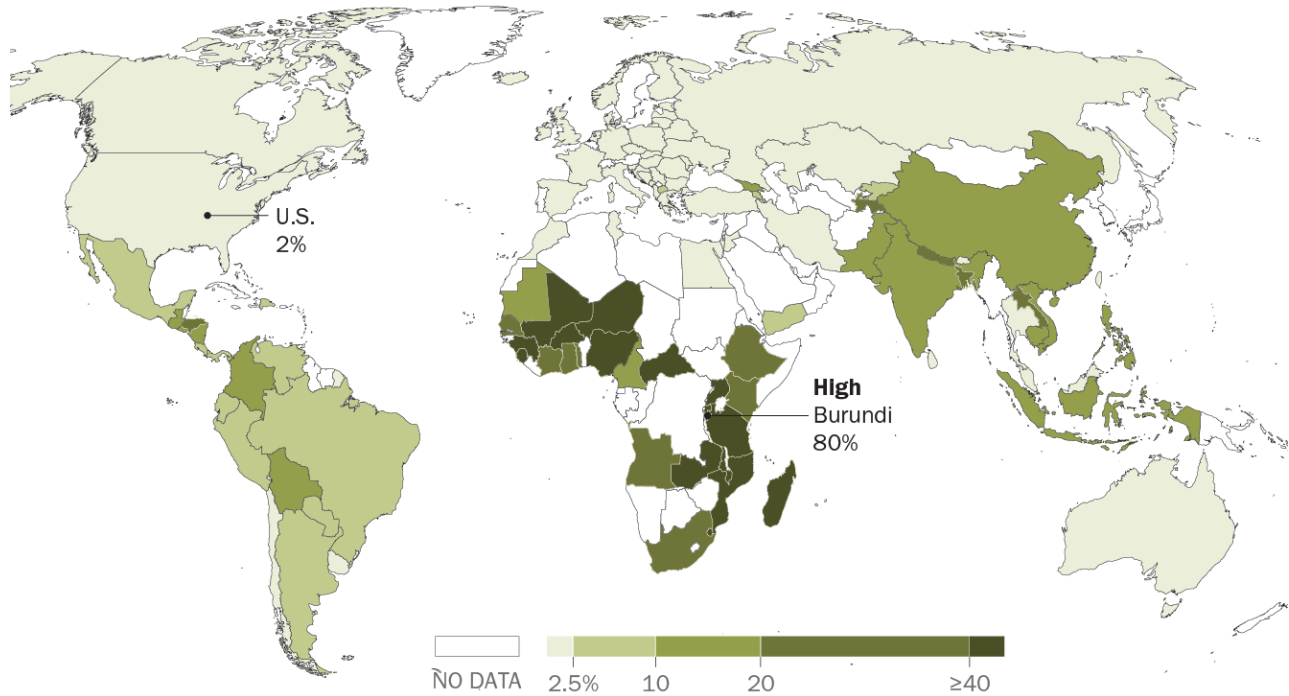
## **Picturing the Global Population in Maps, by Income**

The maps that follow depict the shares of populations, within broad ranges, that are poor, low income, middle income, upper-middle income and high income in individual countries in 2011. More precise information on each country is presented in the appendix. The maps reveal the following at a glance:

- Countries in Africa and Asia are the poorest. The share of the population that is poor exceeds 40% in several countries in Africa, topping out at 80% in Burundi.
- A low-income status is the prevalent standard for people in most of Africa and Asia. Some nine-in-ten people (89%) in Armenia are low income.
- As a share of the country's population, middle-income families are more commonplace in Eastern Europe, which includes Russia, and in Latin America. In Slovakia, 59% of the population is middle income.
- Populations that are upper-middle income are concentrated in North America and Western Europe but are emergent in parts of Eastern Europe and South America. Slovenia, where 71% of the population is upper-middle income, leads this group.
- Outside of North America and Western Europe, few countries have significant high-income populations. More of Norway's population is high income—77%—than any other country included in the study.

## Poverty Rates Are Highest in Africa and Asia

*% of country's population that is poor in 2011*



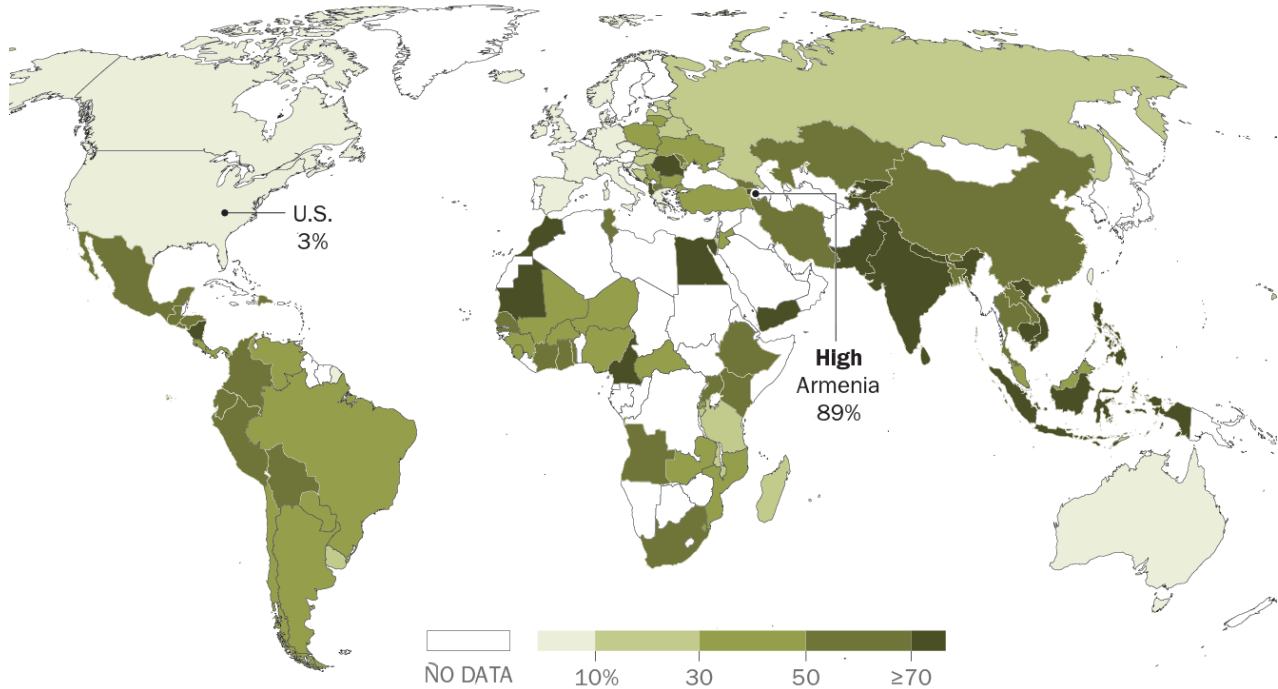
Note: This map shows the proportion of people within a country that were poor in 2011. It is one of five maps showing the shares of population in each country that live at different income levels. The income groups are as follows: The poor who live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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## Majority of People Are Low Income in Many Countries in Africa and Asia

*% of country's population that is low income in 2011*



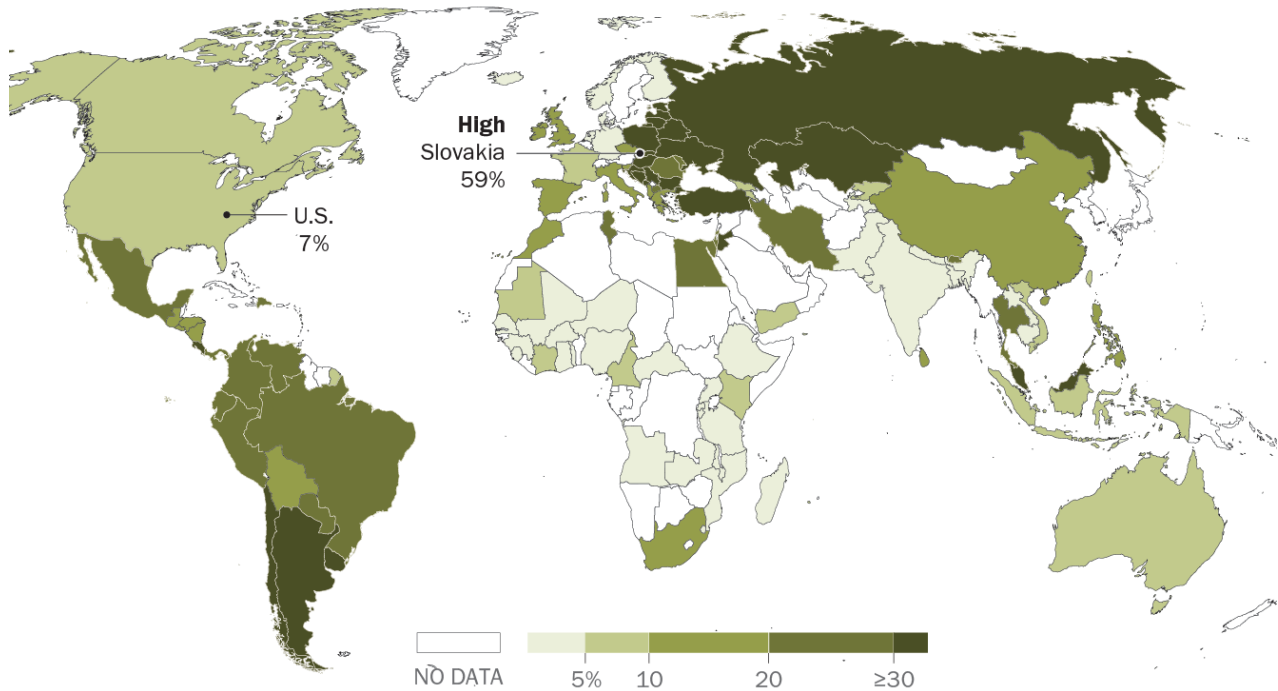
Note: This map shows the proportion of people within a country that were low income in 2011. It is one of five maps showing the shares of population in each country that live at different income levels. The income groups are as follows: The poor who live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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## Middle-Income Populations Are Most Prevalent in Latin America, Eastern Europe

*% of country's population that is middle income in 2011*



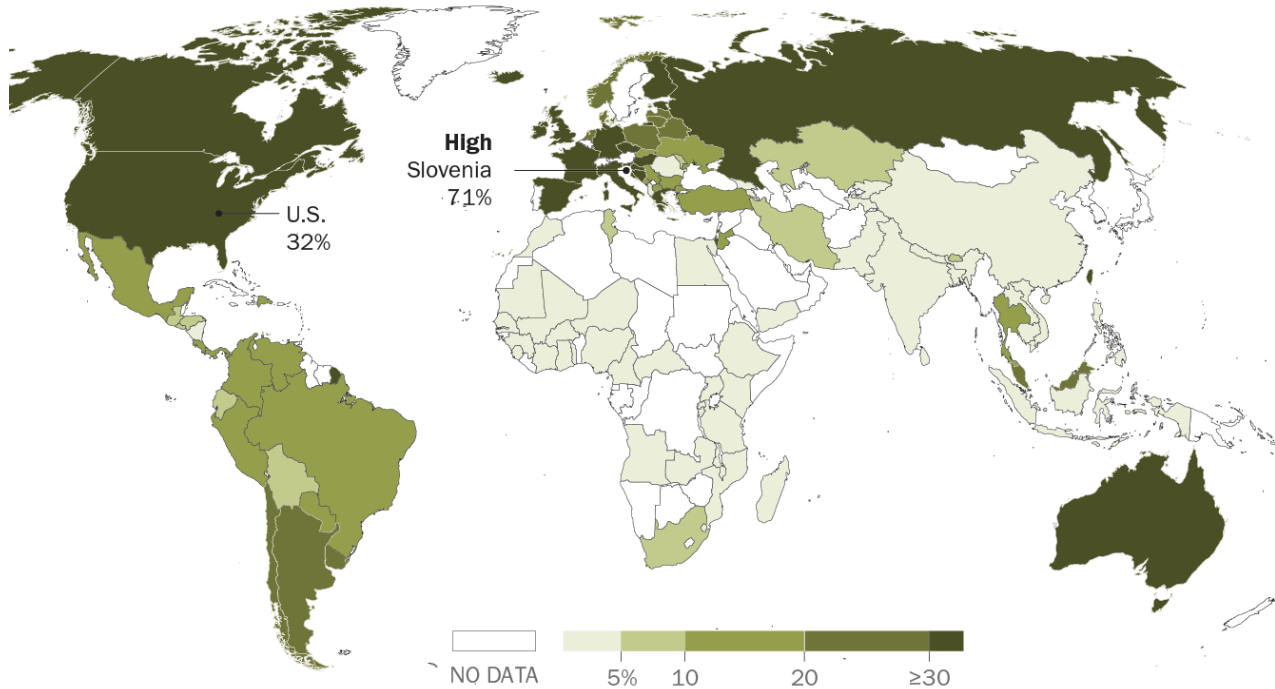
Note: This map shows the proportion of people within a country that were middle income in 2011. It is one of five maps showing the shares of population in each country that live at different income levels. The income groups are as follows: The poor who live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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## North America, Europe Are the Principal Domains of the Upper-Middle Income

*% of country's population that is upper-middle income in 2011*



Note: This map shows the proportion of people within a country that were upper-middle income in 2011. It is one of five maps showing the shares of population in each country that live at different income levels. The income groups are as follows: The poor who live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices.

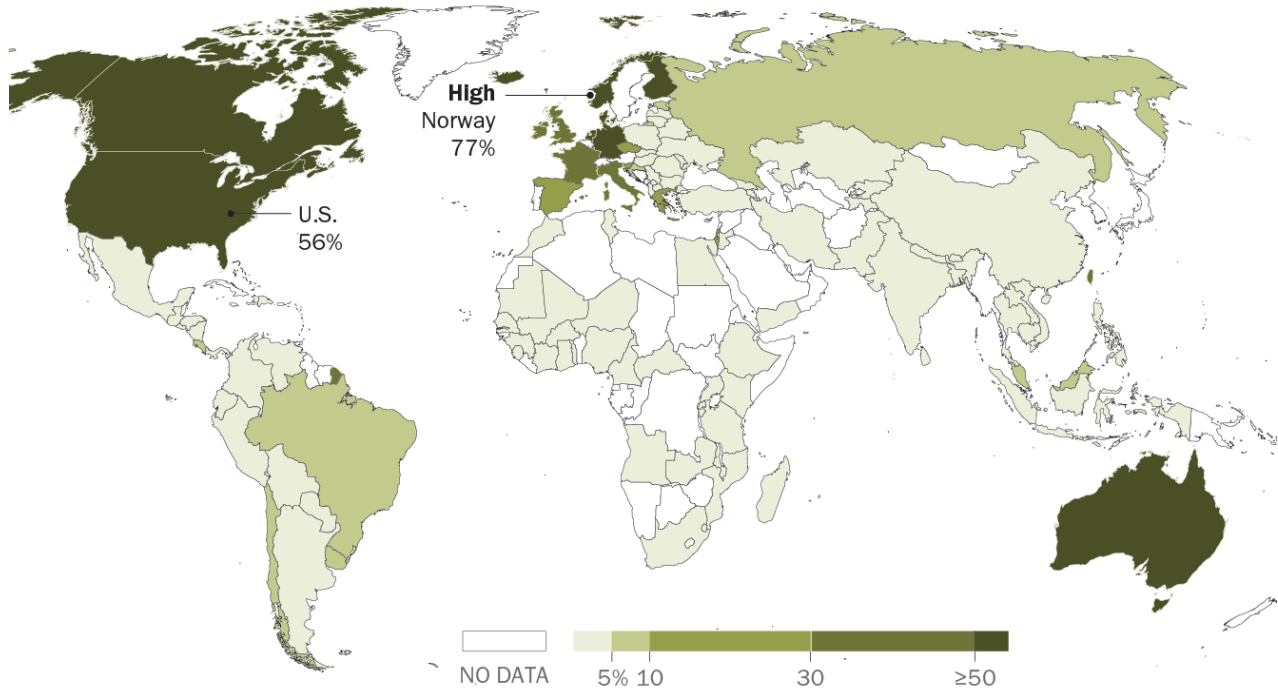
Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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## High Income Populations Are Scarce Outside of North America, Western Europe

*% of country's population that is high income in 2011*



Note: This map shows the proportion of people within a country that were high income in 2011. It is one of five maps showing the shares of population in each country that live at different income levels. The income groups are as follows: The poor who live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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## Where in the World Are the New Middle Classes?

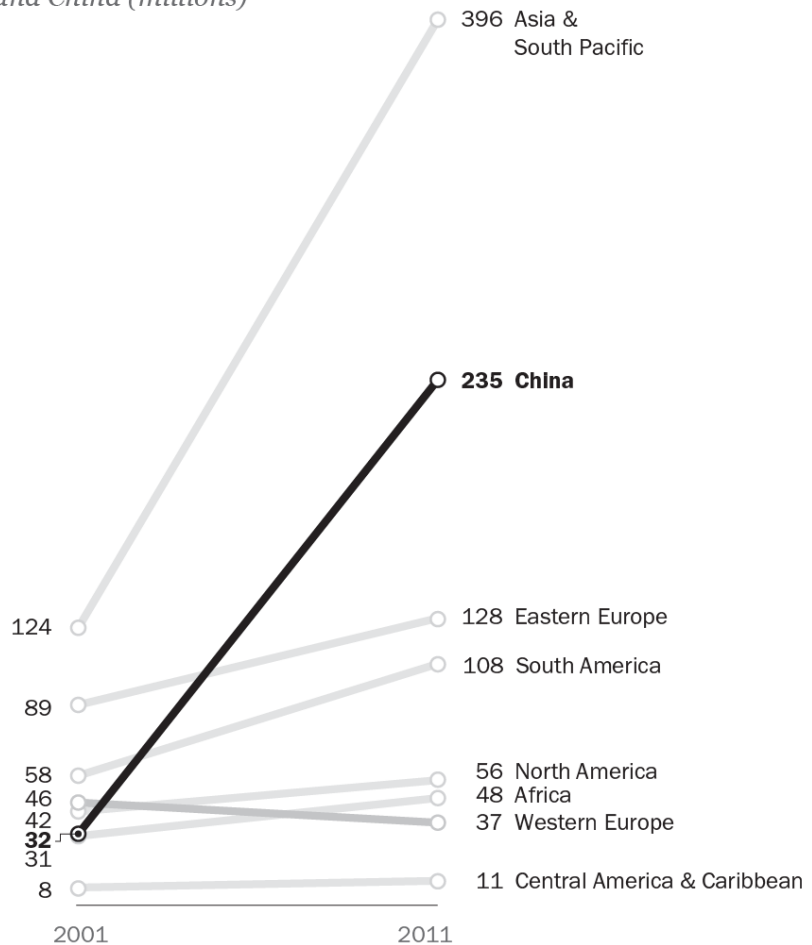
Globally, the middle-income population increased by 386 million from 2001 to 2011. More than half of this increase—203 million—emanated from China alone. Other key contributions came from countries in South America, which collectively raised the middle-income population by 50 million, and Eastern Europe, which added 39 million.

The role of advanced economies in the growth of the new middle classes was limited. That is because most residents in these countries are already either upper-middle income or high income by global standards. In fact, the middle-income population in Western Europe actually decreased from 2001 to 2011 as people moved into higher income brackets (see the final section of the report on trends in advanced economies.)

This section summarizes trends in countries and regions responsible for most of the growth in the share of the world's population that is middle income. More detailed information on the income

### New Middle-Income Populations Emerge in China, South America, Eastern Europe

Number of middle-income people in major regions and China (millions)



Note: Middle-income people live on \$10.01-20 daily; figures expressed in 2011 purchasing power parities in 2011 prices. See the appendix for a list of the countries included in each region and the share of a region's population accounted for by those countries.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database. Population estimates are from the World Bank, World Development Indicators.

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distributions in these and other countries is in the appendix.

## China Makes a Strong Push Up the Ladder

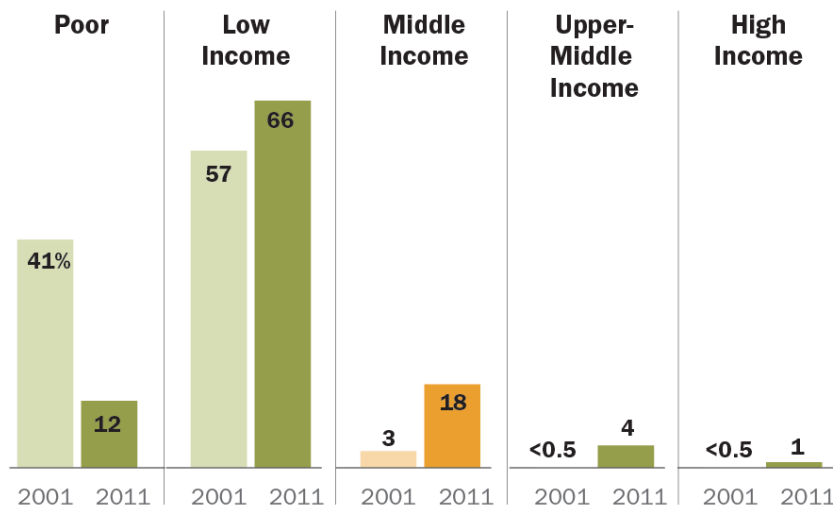
Economic developments in China are instrumental in shaping global trends. China currently ranks as the world's largest economy and is home to about one-in-five people globally.<sup>32</sup> Thanks to rapid economic growth in the first decade of the new century, China emerged as the principal contributor to an expanding global middle-income population.

From 2001 to 2011, the poverty rate in China fell from 41% to 12%, resulting in the movement of 356 million people out of poverty. Some of this led to an increase in China's low-income population. The size of this group, one step out of poverty but not yet middle income, increased by 163 million, and its share rose from 57% to 66%.

China had even more success increasing the size of its middle-income population, which jumped from 32 million in 2001 to 235 million in 2011, an increase of 203 million. The share of the middle-income population rose from 3% to 18%, a sixfold increase in the span of a single decade.

### Share of Middle Income in China Increases Sixfold from 2001 to 2011, but Majority Are Low Income or Poor

*% of China's population by income*



Note: The poor live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network)

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<sup>32</sup> According to the International Monetary Fund, China accounted for 16.3% of global output in 2014, compared with 16.1% for the U.S. In 2011, China accounted for 14.4% and the U.S. accounted for 16.6%. The estimates are based on purchasing power parity-adjusted estimates of GDP.

The increase in Chinese who are upper-middle income and high income is also notable. Barely discernible in 2001, only 4 million people in China were estimated to be either upper-middle income or high income in that year. By 2011, the combined size of these groups had increased to 67 million, accounting for 5% of China's population.

Rising living standards in China are also evident in the earnings of its residents. In 2001, the most prevalent standard of living in China was \$2 per day, with 31% of its population living on that amount. By 2011, the share living on just \$2 plunged 22 percentage points, to 9%. Over the same period, the median daily per capita income in China increased \$2.36 to \$5.34, a gain of 126%.<sup>33</sup>

As China added to its middle-income population, its share in the global middle class nearly quadrupled from 2001 to 2011. In 2001, the 32 million middle-income people in China accounted for 8% of the global middle-income population. In 2011, China's middle-income population of 235 million accounted for 30% of the global middle-income population.

Recent progress notwithstanding, China's journey is far from complete. Despite impressive economic growth and upward mobility for millions, more than three-fourths of its population remained poor (12%) or low income (66%) in 2011. And although this is down considerably from 2001, when 97% of Chinese were either poor or low income, a sizable gap in living standards remains between China and advanced economies.

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<sup>33</sup> The increase of 126% in median daily per capita in China, as measured from household surveys, may be an understatement. GDP per capita in constant prices and in national currency in China increased 159% from 2001 to 2011, according to data from the International Monetary Fund. Gaps between estimates from national income accounts and household surveys are commonly observed around the world, including in the U.S. The issue is discussed in detail by Deaton (2003), who also notes that the gap is especially large in India. See the methodology appendix for more on this issue.

## The Growing Middle Class in South America and Mexico

In South America, booming commodity prices and income redistribution policies helped spur the growth of populations that are middle income and upper-middle income. Some countries, such as Argentina and Chile, transformed from being majority low income or poor in 2001 to being majority middle-income or better in 2011. Brazil ended the decade close to this tipping point. Mexico kept pace with its neighbors to the south, joining the ranks of countries in which about a quarter (26%) of the population is middle income.

The 10 countries from South America included in this study represent nearly 100% of the region's population. These countries and Mexico realized

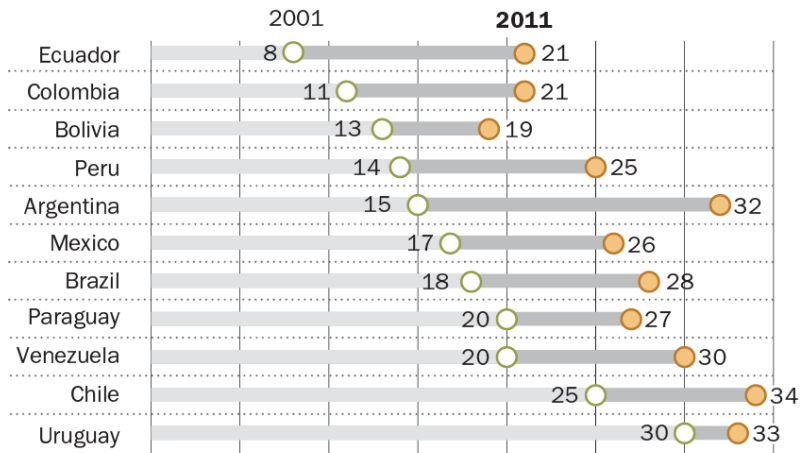
noticeable growth in their populations that are middle income and upper-middle income. In 2001, the middle-income share of the population was 20% or higher in only four countries. By 2011, this was true in Mexico and in nine of the 10 countries in South America.

The most notable growth in the middle-income population was in Argentina, where the share more than doubled from 15% in 2001 to 32% in 2011. Sizable growth also occurred in Ecuador (up from 8% to 21%), Colombia (11% to 21%), Peru (14% to 25%), Brazil (18% to 28%), and Venezuela (20% to 30%). The share in Mexico increased from 17% to 26% during the first decade of the 21st century.

Similarly, the share of the populations that are upper-middle income climbed into the double digits in 10 of the 11 countries by 2011, compared with four countries in 2001. Argentina again led the way; those who are upper-middle income constituted 7% of the population in 2001 and 24% in

### Widespread Growth in the Share of the Middle-Income Populations in South America and Mexico, 2001 to 2011

*% of a country's population that is middle income*



Note: Middle-income people live on \$10.01-20 daily; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network)

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2011. Significant changes also took place in Uruguay, where the share increased from 20% to 30%, and in Chile where the share rose from 15% to 23%.

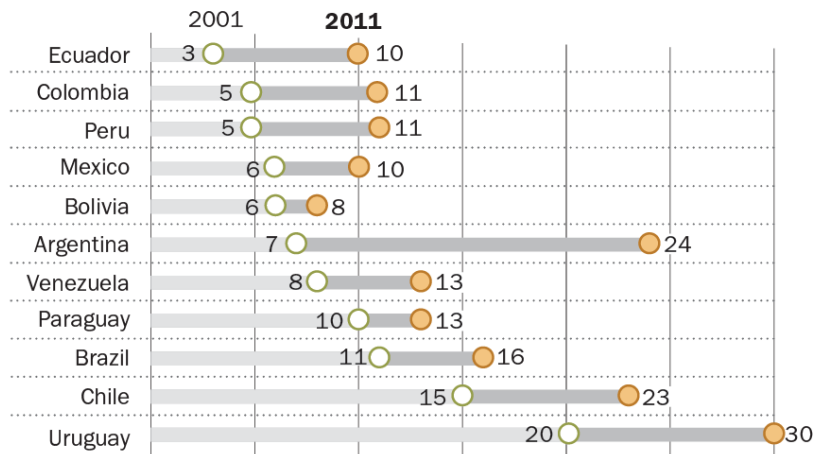
Collectively, the 11 Latin American countries highlighted in this section added 63 million people to the global middle-income population from 2001 to 2011, accounting for 16% of the global increase. They also added 36 million to the global population of those who are upper-middle income, which amounted to 20% of the increase worldwide. Somewhat ironically, the share of these countries in the global middle-income population fell from 19% in 2001 to 18% in 2011, a side effect of

China's dominance in the global trend. But their global share of those who are upper-middle income did increase, rising from 9% to 13% over the course of the century's first decade.

The countries in South America and Mexico are still some distance from having fully acquired middle-income status, however. Nearly two-thirds or more of the populations in Bolivia, Colombia, Ecuador, Mexico and Peru was poor or low income in 2011. And, generally speaking, South American countries are not yet in the same place as Eastern Europe with respect to developing middle-income or more well-to-do populations.

## Populations that Are Upper-Middle Income Emerge in South America and in Mexico, 2001 to 2011

*% of a country's population that is upper-middle income*



Note: People who are upper-middle income live on \$20.01-50 daily; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network)

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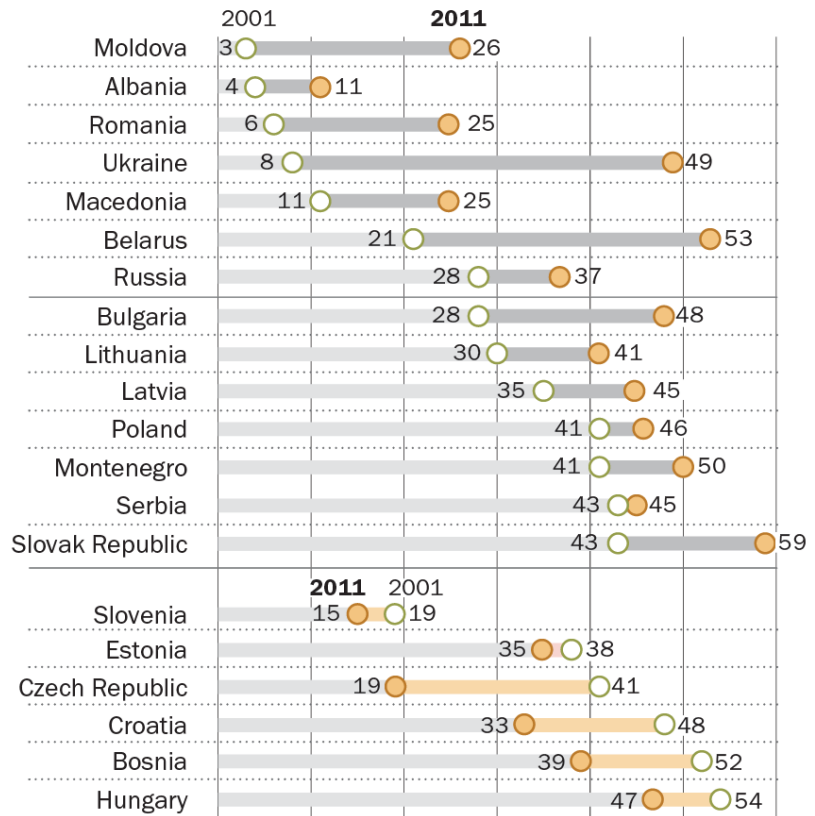
## The Transition to Middle-Income Status in Eastern Europe

As countries in Eastern Europe transition from state-controlled to market economies, the share of their populations that is middle income or upper-middle income has expanded. In some cases this is a boomerang phenomenon, as economic gains offset earlier losses in the years immediately following the fall of the Berlin Wall and collapse of the Soviet Union. In Russia, for example, national income per capita decreased 24% from 1991 to 2001, but then it increased 62% from 2001 to 2011.<sup>34</sup>

This study encompasses 20 countries in Eastern Europe accounting for 99% of the region's population in 2011. In 2001, the share of middle-income people in these countries ranged from a low of 3% in Moldova to a high of 54% in Hungary. By 2011, the share ranged from 11% in Albania to 59% in the Slovak Republic. Hidden within this sweeping perspective are some remarkable gains in the share of middle-income earners.

### Many Countries in Eastern Europe Experienced Significant Growth in New Middle-Income Populations from 2001 to 2011

*% of a country's population that is middle income*



Note: Middle-income people live on \$10.01-20 daily; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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<sup>34</sup> The reference is to GDP per capita in constant 2011 PPP dollars as estimated by the World Bank. Milanovic (2014) contains a broader discussion of trends in Eastern Europe's transition countries.

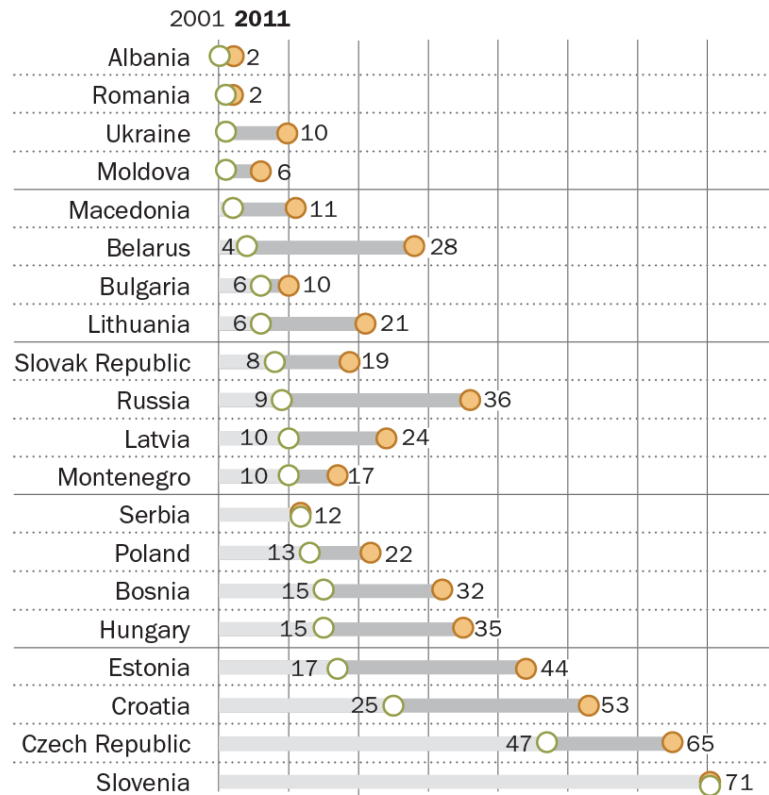
The most notable increase in the middle-income population is in Ukraine, where the share of this group jumped from 8% in 2001 to 49% in 2011. Among others, noteworthy gains also occurred in Belarus (from 21% to 53%), Moldova (3% to 26%), Bulgaria (28% to 48%) and Romania (6% to 25%). In Russia, the middle-income population increased from 28% of the overall population in 2001 to 37% in 2011.

In six countries—Bosnia, Croatia, the Czech Republic, Estonia, Hungary and Slovenia—the share of the middle-income population is estimated to have fallen from 2001 to 2011. In the Czech Republic, for example, the share fell from 41% in 2001 to 19% in 2011. But these shifts are not a sign of economic regression. Instead, they are the result of people moving further up the economic ladder.

Indeed, the percentage of Eastern Europe's population that could be considered upper-middle income increased significantly in the first decade of the 21st century. In Hungary, for instance, the share of those who are upper-middle income more than doubled from 15% in 2001 to 35% in 2011. A similar phenomenon occurred in Bosnia (where the share rose from 15% in 2001 to 32% in 2011), Estonia (17% to 44%) and Croatia (25% to 53%). In the Czech Republic, the share of those who are upper-middle income increased from 47% to 65%. Large gains in the share of those who are upper-middle income were also registered in Russia (up from 9% in 2001 to 36% in 2011), Belarus (4% to 28%) and Latvia (10% to 24%).

## Widespread Growth in the Share of Eastern Europeans Who Are Upper-Middle Income, 2001 to 2011

*% of a country's population that is upper-middle income*



Note: People who are upper-middle income live on \$20.01-50 daily; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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Collectively, the countries in Eastern Europe raised their middle-income population by 39 million, accounting for 10% of the global change from 2001 to 2011. These countries also boosted 56 million people to a status of upper-middle income in that decade, contributing 32% to the worldwide increase. But not all countries in Eastern Europe have transitioned into economies dominated by populations that are middle income or upper-middle income. Countries that are lagging include Albania, where 86% of the population was poor or low income in 2011. Likewise, a clear majority of people in Romania (73%), Macedonia (64%) and Moldova (68%) were poor or low income in 2011.<sup>35</sup>

## Other Countries with Sizable Growth in the Middle Class

Besides China, South America and Eastern Europe, where has the middle class expanded the most between 2001 and 2011? In addition to the countries discussed in the section above, this section looks at the countries that round out the list of the top 30 nations in terms of growth in the share of middle-income populations, and separately, the list of the top 30 nations in terms of growth in the share of populations that are upper-middle income.<sup>36</sup>

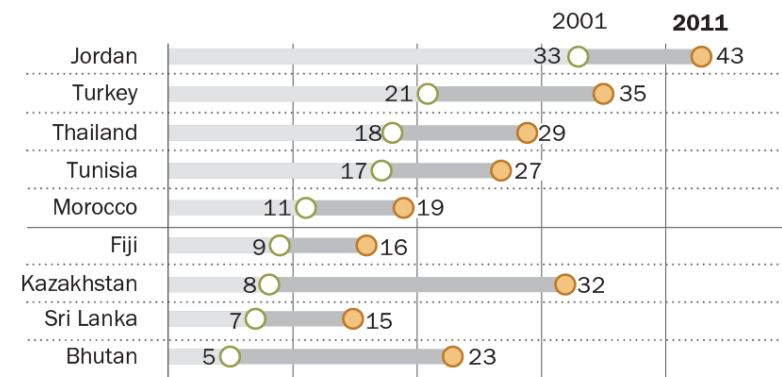
### Other Top countries in Terms of Middle-Income Gains

The nine countries that complete the list of the top 30 with the largest gains in the shares of their middle-income populations are mostly from Asia & South Pacific. These countries are Bhutan, Fiji, Jordan, Kazakhstan, Sri Lanka, Thailand and Turkey. Two countries from Africa, Morocco and Tunisia, round out the list.

In this group of countries, Jordan, Turkey and Kazakhstan

### Tunisia, Morocco and Seven Countries from Asia & South Pacific Are Among the Top 30 Gainers in Shares of Middle-Income Populations

*% of a country's population that is middle income*



Note: Middle-income people live on \$10.01-20 daily; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network)

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<sup>35</sup> See the appendix for the detailed distribution of the population by income in each country.

<sup>36</sup> An alternate metric might be the change in the middle-income population. This would give weight to countries with bigger populations. For example, the middle-income population increased by 12 million in Indonesia, one of only eight countries in which the middle-income population increased by more than 10 million. But the share of Indonesia's population that is middle income was only 5% in 2011.

lead in the share of the population that is middle income. In Jordan, the share in 2011 was 43%, up from 33% in 2001. The share also increased by double digits in Turkey, from 21% in 2001 to 35% in 2011. Kazakhstan experienced the greatest increase, with the share of its middle-income population jumping from 8% in 2001 to 32% in 2011.

In three countries—Thailand, Tunisia and Bhutan—about one-in-four people were middle income in 2011. All three also experienced double-digits gains in the shares from 2001 to 2011. Morocco, Fiji and Sri Lanka experienced slightly smaller gains in the share of middle-income earners, with all three nearing the day when at least one-in-five people within their borders will have attained middle-income status.

Collectively, this group of nine countries added 32 million people to the global middle-income population, 8% of the global increase of 386 million. Thailand and Turkey are the two most populous countries in the group and added 8 million and 12 million, respectively. Bhutan is the least populous of the group and contributed 139,000 people to the worldwide increase in the middle-income population.

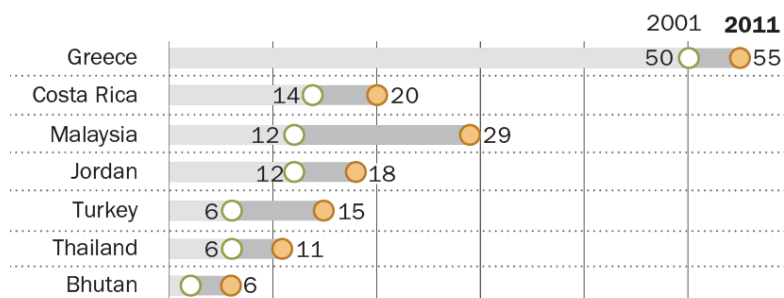
### Other Top Countries in Terms of Gains among those who are Upper-Middle Income

The seven countries that exhaust the list of the top 30 with the largest gains in the shares of their populations that are upper-middle income are also mostly from Asia & South Pacific. These are Bhutan, Jordan, Malaysia, Thailand and Turkey. One country from Western Europe—Greece—and one from Central America—Costa Rica—finish off the list.

Greece, still counted as one of the advanced economies in the world by the International Monetary Fund, leads this group of countries in the share of the population that is upper-middle

### Greece, Costa Rica and Five Countries from Asia & South Pacific Are Among the Top 30 Gainers in Shares of People Who Are Upper-Middle Income

*% of a country's population that is upper-middle income*



Note: People who are upper-middle income live on \$20.01-50 daily; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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income. In 2011, 55% of people in Greece were upper-middle income, up from 50% in 2001.<sup>37</sup> Among these countries, Malaysia experienced the greatest increase in the share that is upper-middle income, rising from 12% in 2001 to 29% in 2011. The share of the population that is upper-middle income is at or nearing 20% in Costa Rica, Jordan and Turkey.

The total increase from 2001 to 2011 in the population of those who are upper-middle income in these seven countries amounted to 17 million. This represented 10% of the worldwide increase of 175 million. The largest contributors were Turkey (7 million), Malaysia (5 million) and Thailand (4 million).

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<sup>37</sup> Greece is in the grip of a severe economic crisis. According to the World Bank, real final household expenditures per capita in constant national currency in Greece fell at an annual average rate of 4.4% from 2007 to 2013. However, from 2001 to 2011, the period of analysis for this study, real final household expenditures per capita in Greece increased at an annual average rate of 1.3%. This growth likely was sufficient to support a rise in the share of the population in Greece that is upper-middle income from 2001 to 2011.

## Despite Poverty's Plunge, Middle-Class Status Remains Out of Reach for Many

From 2001 to 2011, the poverty rate—the share of people living on \$2 or less daily—fell in 83 of the 111 countries examined in this study.<sup>38</sup> In a few cases, most prominently China, poverty's retreat was accompanied by significant gains in the share of middle-income earners. But in most countries, the majority of people emerging from poverty took only a modest step up the income ladder, changing their status from poor to low income.

This section of the report focuses on those countries where poverty declined dramatically, but an expanded middle class failed to materialize. The case of India is highlighted, given that it is a global demographic and economic force. India stands as a counterpoint to China and underscores China's unique role in boosting the Asia & South Pacific share of the global population that can be considered middle income. Much of the region, similar to Africa, remained either poor or low income as of 2011.

### Poverty Retreats in India, but the Middle Class Barely Expands

The poverty rate in India fell from 35% in 2001 to 20% in 2011. That meant that 133 million Indians exited poverty in that decade, the second-largest drop globally after China. However, the drop in poverty merely resulted in an increase of 273 million in the low-income population, whose share rose from 63% in 2001 to 77% in 2011.

The middle-income population in India barely budged during the decade. Its share increased from 1% in 2001 to 3% in 2011, still small by any measure. The number of middle-income people grew by 17 million, paltry compared with the increase in the low-income population.<sup>39</sup> From these trends, the middle-income threshold appears more like a barrier as only a small share in India stepped across the line from 2001 to 2011.

It is clear from these estimates that India did not keep pace with China in creating a middle class in this century. The median daily per capita income in India increased relatively slowly,

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<sup>38</sup> Countries that did not experience a decline in the poverty rate are mostly advanced economies, such as the U.S. and Germany, in which only about 1% or less of the population is poor (by the global standard).

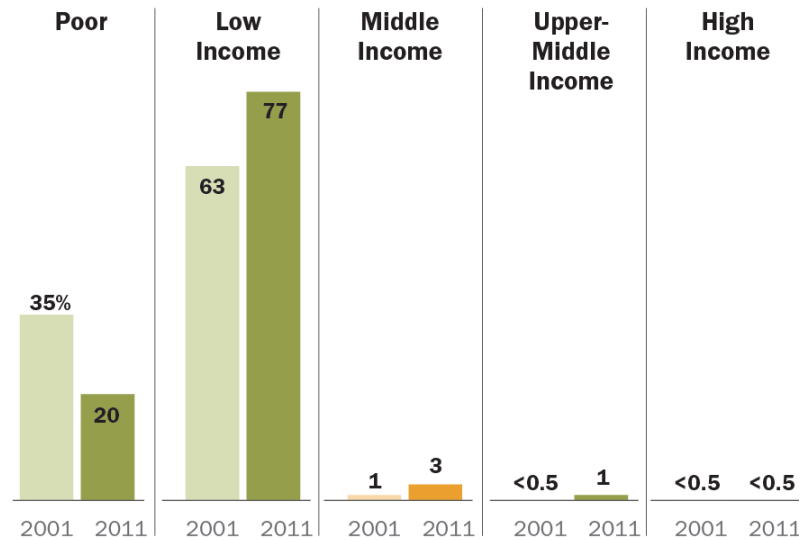
<sup>39</sup> Even though the share of the population that is middle income in India is low and increased little in the 2000s, the increase of 17 million was the fourth largest in the world, trailing only China, Brazil and Ukraine.

rising from \$2.39 in 2001 to \$2.96 in 2011, a gain of only 24%, compared with 126% in China.<sup>40</sup>

The difference in the timing of economic reforms, which began in 1978 in China and in 1991 in India, is likely one reason behind the disparate outcomes. The relative depth of the reforms and differences in investment, both domestic and foreign, are probably among other factors leading to divergent trajectories from 2001 to 2011.<sup>41</sup> Whether India eventually follows China, with a greater share of its population crossing the middle-income threshold of \$10 per day, remains to be seen.

## Poverty Drops Sharply in India from 2001 to 2011, but a Sizable Middle-Income Population Fails to Emerge

*% of India's population by income*



Note: The poor live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network)

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### Is India's Middle Class Underestimated?

The finding that only a small share of India's population is middle income or of a higher status is echoed in previous studies (Birdsall, 2012 and 2015). It is possible that household surveys in India, which record consumption only, understate household well-being as might be measured using income. Deaton (2003) also notes that India is an outlier in the extent to which growth in consumption, as measured in household surveys, lags behind growth in income, as measured from national income accounts. Researchers who adjust household consumption data to account for the gap vis-à-vis estimates of income find that a somewhat larger share of India's population is middle income. Birdsall (2012) finds that 70 million Indians, or 6% of the population, lived on \$10-50 daily in 2010. Kharas (2010) estimates that 5-10% of India's population earned \$10-100 daily in 2010. Both estimates are based on 2005 purchasing power parities.

<sup>40</sup> The growth in median income (actually consumption) in India may understate the true extent of growth. The International Monetary Fund (IMF) estimates of GDP per capita, in constant prices and national currency, show an increase of 82% in India from 2001 to 2011. This issue is discussed in detail by Deaton (2003), who also notes that the gap between estimates from household survey and national accounts is especially large in India.

<sup>41</sup> Growth patterns in India and China are analyzed in Wignaraja (2011), Bosworth and Collins (2007) and Basu (2009).

## Few Countries See Both Poverty Shrink and Middle-Income Ranks Swell

Among the 83 countries in which poverty fell in the first decade of the new century, 26 experienced a decline of at least 15 percentage points. This group includes 22 countries that matched or bettered India's 16 percentage point reduction in the share of their populations that could be considered poor. Some of these countries had very high poverty rates initially, such as Tanzania, where 89% of people were poor in 2001, but others were not so poor, such as Kazakhstan, where the poverty rate in 2001 was 18%. With the exception of Argentina, Ecuador and Moldova, all of these countries are in Africa or Asia & South Pacific.

### Most Countries that Sharply Reduced Poverty Experienced Little Change in the Share of Middle-Income Populations

*26 countries with at least a 15-point decrease in the share of poor from 2001 to 2011*

	% poor in 2001	Percentage point change in share of population, 2001-2011				
		Poor	Low Income	Middle Income	Upper-Middle	High Income
Tajikistan	72	-45	43	2	0	0
Kyrgyzstan	42	-35	26	7	1	0
Bhutan	33	-32	9	18	5	1
Moldova	31	-31	2	23	5	0
Indonesia	49	-31	25	5	1	0
Vietnam	45	-29	25	3	1	0
Nepal	51	-29	28	1	0	0
China	41	-29	9	15	4	1
Cambodia	42	-28	25	3	1	0
Ethiopia	61	-27	26	1	0	0
Niger	79	-26	25	0	0	0
Uganda	65	-25	22	2	0	0
Fiji	27	-23	13	7	2	1
Ecuador	29	-22	1	13	6	1
Armenia	23	-20	16	3	1	0
Tanzania	89	-19	18	1	0	0
Kazakhstan	18	-18	-10	24	4	0
Argentina	21	-18	-20	18	17	3
Nigeria	66	-18	17	1	0	0
Mozambique	83	-16	16	1	0	0
Bangladesh	55	-16	16	0	0	0
Senegal	51	-16	14	2	0	0
India	35	-16	14	1	0	0
Malawi	89	-15	15	1	0	0
Swaziland	66	-15	12	2	1	0
Pakistan	33	-15	14	1	0	0

Note: The poor live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network)

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The greatest decrease in the poverty rate was in Tajikistan, where the poverty rate plunged 45 percentage points, from 72% in 2001 to 27% in 2011. Kazakhstan nearly eliminated poverty in the 2000s: Its poverty rate fell from 18% in 2001 to less than 0.5% in 2011. Likewise, several other countries with poverty rates near 20% or higher in 2001 virtually extinguished poverty by 2011. Countries with this distinction include Bhutan and Moldova, where the initial poverty rates were 33% and 31%, respectively. Kyrgyzstan lowered its poverty rate from 42% in 2001 to 7% in 2011.

It should be noted that in four African countries—Côte d’Ivoire, Kenya, Madagascar and Zambia—poverty actually *increased* significantly from 2001 to 2011. The most notable situation transpired in Zambia, where the poverty rate rose from 47% to 64%. The rate in Kenya increased from 22% to 31%, in Cote d’Ivoire from 17% to 24%, and in Madagascar from 71% to 76%.<sup>42</sup>

In the 26 countries in which the poverty rate fell by at least 15 percentage points from 2001 to 2011, only Bhutan, Moldova, China, Ecuador, Argentina and Kazakhstan experienced double-digit gains in the share of their middle-income populations. The table in this section illustrates how the experience of these countries compares with the other countries that also had major declines in poverty. In most cases, falling poverty rates were almost exclusively associated with burgeoning shares of low-income earners. Few countries had substantial gains among people who are middle income, upper-middle income or high income. Indeed, many countries experienced an almost one-to-one move from poverty to low-income status. A prime example is Tajikistan, where the 45 percentage point drop in poverty from 2001 to 2011 led to a 43 point increase in the share of the low-income population.

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<sup>42</sup> Slow economic growth underlies these developments. For example, the World Bank ([2010](#), [2014b](#)) reports that Zambia was excessively dependent on a single sector—copper—for economic development and that there was scant growth in GDP per capita in Kenya from 1990 to 2012.

## Relationship Between Changes in Poverty and Middle-Income Growth

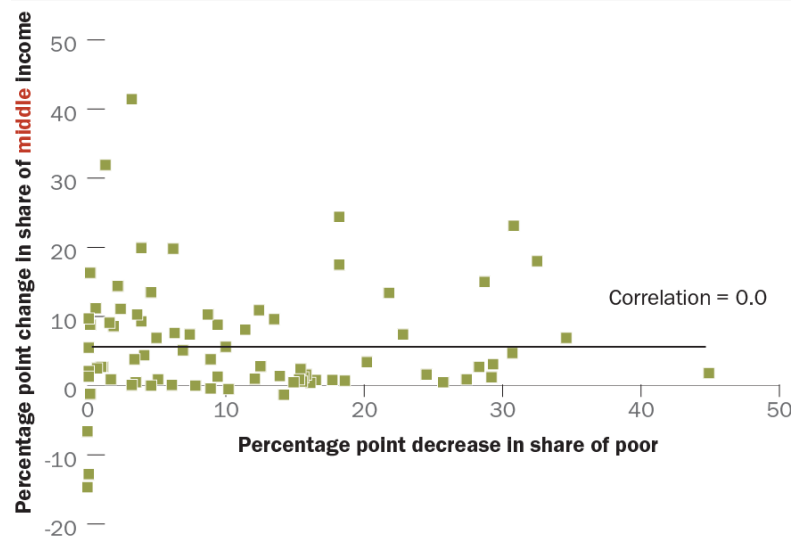
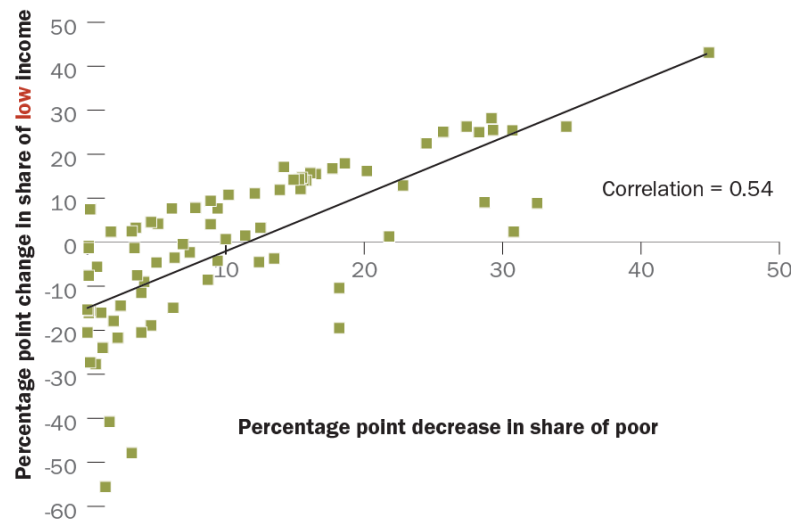
The more general relationship between reductions in poverty and the share of a country's population that is low or middle income is illustrated in the scatter plots. The plots represent 79 countries that are not high income (by the World Bank's classification) and that did not experience an increase in poverty. Across these 79 countries, there is a notably positive association between reductions in poverty and increases in the low-income population. However, there is no discernible association between poverty reduction and growth in the share of the middle-income population from 2001 to 2011.

## Low-Income and Poor Populations Still Widespread in Asia and Africa

As the preceding sections underscore, many of the countries that began the 21st century as largely impoverished continue to be home to populations that are mostly poor or low income. Even in China, where the number of middle-income earners increased substantially between 2001 and

## A Reduction in Poverty Is Related to the Change in the Share of the Low-Income Population but Not to the Change in the Share of the Middle-Income Population

*Advanced economies and countries with an increase in poverty from 2001 to 2011 excluded*



Note: Poor live on \$2 or less daily, low income on \$2.01-10 daily, and middle income on \$10.01-20 daily; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network)

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2011, a majority of the population is still either poor or low income.

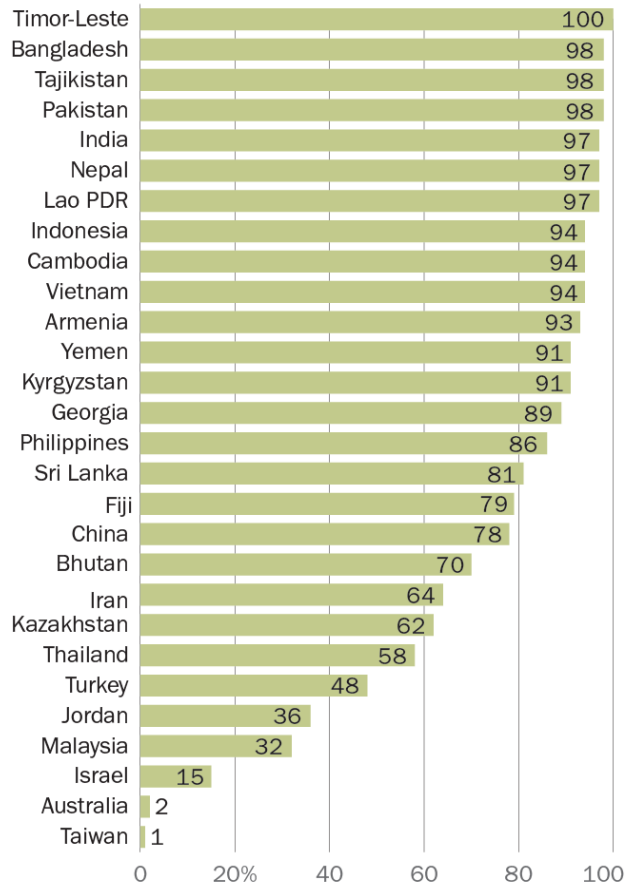
Regionally, the world's poor and low-income populations are concentrated in Asia & South Pacific and Africa. These are vast regions, comprising 76 and 58 countries, respectively, according to United Nations classifications. This study encompasses 28 countries in Asia & South Pacific—accounting for 3.8 billion of the region's population of 4.2 billion in 2011—and 30 countries in Africa—home to 826 million of the continent's population of 1.1 billion.

In 18 of the 28 countries in Asia & South Pacific that are covered in this study, about eight-in-ten or more people were either poor or low income in 2011, living on \$10 or less per day. This group includes India, where 97% of the population is poor or low income, and China, where the share is 78%. In four countries—Bhutan, Iran, Kazakhstan and Thailand—about six-in-ten or more were poor or low income in 2011.

Seven countries in Asia & South Pacific, from among those covered in this study, have at least one-in-five people who are middle income: Jordan (43%), Turkey (35%), Kazakhstan (32%), Malaysia (31%), Thailand (29%), Iran (27%) and Bhutan (23%). Jordan and Malaysia also have significant shares of people who are either upper-middle income or high income, 21% and 37%, respectively. The region also has advanced economies, such as Israel, Australia and Taiwan, in which poverty is virtually absent and the majorities of the population are higher income.<sup>43</sup>

## Most People in Most Countries in Asia & South Pacific Poor or Low Income

*% of population that is poor or low income in 2011*



Note: Poor live on \$2 or less daily and low income on \$2.01-10 daily; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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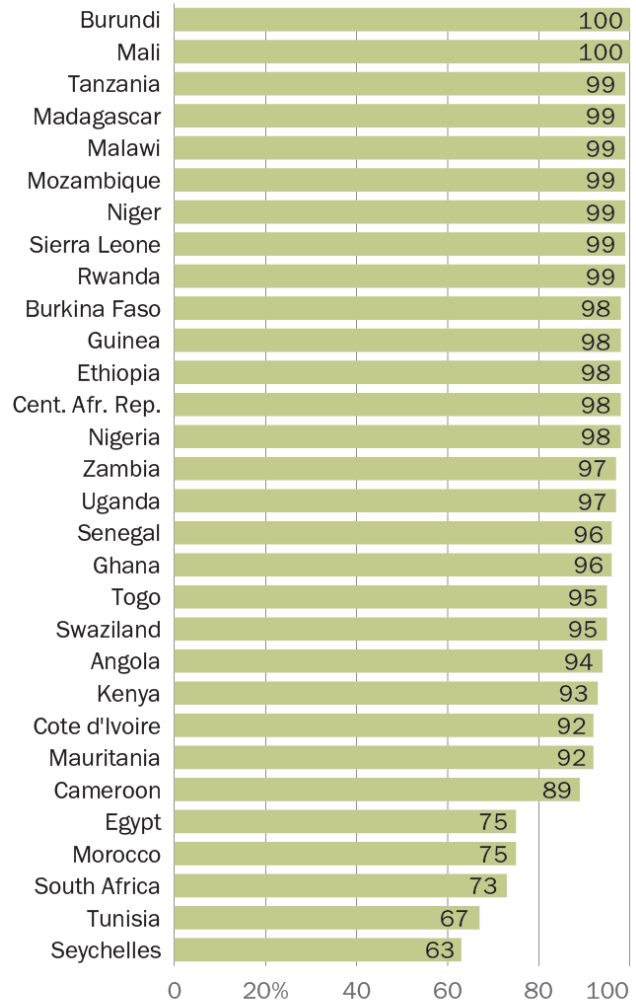
<sup>43</sup> Data on Japan, South Korea, Singapore and several Middle East countries were not available to enable analysis for the period 2001 to 2011.

Africa is the poorest region overall, with more than nine-in-ten people who are poor or low income in almost all 30 countries studied. Only in Seychelles, Tunisia, South Africa, Morocco and Egypt were one-in-five people or more either middle income or better off in 2011. And only Tunisia and Morocco experienced notable growth in the shares of their middle-income population from 2001 to 2011, from 17% to 27% in Tunisia and from 11% to 19% in Morocco. In Egypt, the share of middle-income people increased from 17% in 2001 to 21% in 2011, and in South Africa the share rose from 11% to 14%.

Because the populations of most countries in Asia & South Pacific and Africa are overwhelmingly poor or low income, these two regions account for most of world's poor and low-income populations. This did not change from 2001 to 2011 because the growth in the middle was also limited in these countries.

## Most People in Countries in Africa Are Poor or Low Income

*% of population that is poor or low income in 2011*



Note: Poor live on \$2 or less daily and low income on \$2.01-10 daily; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network)

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## Nine-of-Ten Low-Income People Lived in Asia & South Pacific or Africa in 2011, Up from Eight-in-Ten in 2001

*% of the global low income population by region*



This chart depicts the regional distribution of the global low-income population in 2011 and 2001. It is one of several charts showing the regional distribution of the global population living at different income levels. The income groups are as follows: The poor who live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices. Central America and the Caribbean are not shown. See the appendix for a list of the countries included in each region and the share of a region's population accounted for by those countries.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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## The Share of the Global Poor Living in Asia & South Pacific Falls from 2001 to 2011, and the Share Living in Africa Rises

*% of the global poor population by region*



Note: This chart depicts the regional distribution of the global population living in poverty in 2011 and 2001. Europe's share of the global population in poverty was <0.5% in 2011. It is one of several charts showing the regional distribution of the global population living at different income levels. The income groups are as follows: The poor who live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices. Central America and the Caribbean are not shown. See the appendix for a list of the countries included in each region and the share of a region's population accounted for by those countries.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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In 2001, 75% of the world's population in poverty lived in Asia & South Pacific. An additional 20% lived in Africa, meaning that these two regions accounted for 94% of the global population in poverty. Driven by economic growth in China and India, the share of the global poor residing in Asia & South Pacific dropped to 62% by 2011. Ironically, this had the effect of raising Africa's share of the global poor from 20% in 2001 to 34% in 2011 even though the rate of poverty within Africa fell during that period.

The share of the global low-income population living in Asia & South Pacific and Africa actually increased from a combined total of 82% in 2001 to 89% in 2011. This is a direct consequence of the trends noted earlier in this section: Most of the reduction in poverty in these two regions resulted in larger shares for the low-income population with limited gains in the middle.

## Advanced Economies and the Growth in High-Income Populations

The vast majority of people in advanced economies are upper-middle income or high income by the global standard—more than eight-in-ten, typically. Middle-income populations are scarce in these economies and also diminishing as a share of the populations. Likewise, the share that is upper-middle income is shrinking in most advanced economies, while the share that is high income is rising. For these reasons, this section focuses on the growth of high-income populations in the U.S., Canada and countries in Western Europe.

### Advanced Economies Retain Their Grip on the Global High-Income Population

The overwhelming majority of the world's high-income populations are found in either North America or Europe.<sup>44</sup> There was little change in this reality in the 2000s, serving to emphasize the economic divide that separates the advanced economies from the rest of the world. Even the rapid changes unfolding in China did little to close the gap on this metric from 2001 to 2011.

### About Nine-in-Ten High-Income People Lived in Europe or North America in 2001 and 2011

*% of the global high-income population by region*



Note: This chart depicts the regional distribution of the global high-income population in 2011 and 2001. Africa's share of the global high-income population was <0.5% in 2001. It is one of several charts showing the regional distribution of the global population living at different income levels. The income groups are as follows: The poor who live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices. Central America and the Caribbean are not shown. See the appendix for a list of the countries included in each region and the share of a region's population accounted for by those countries.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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<sup>44</sup> The region of North America includes Mexico.

In 2001, nine-in-ten (91%) high-income people lived in Europe or North America. This share decreased only slightly over the next 10 years, to 87% in 2011. Some of the movement was in the direction of Asia & South Pacific with that region's share climbing from 6% in 2001 to 8% in 2011.<sup>45</sup>

The main realignment in the high-income population was in a shift from North America to Europe. The share of North America in the global high-income population decreased from 54% in 2001 to 46% in 2011, and Europe's share increased from 37% to 41%. As shown further below in this section, several countries in Western Europe had higher shares of high-income populations than the U.S. in 2011.

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<sup>45</sup> Asia & South Pacific's share may be understated because Japan, South Korea and Singapore could not be included in the analysis. Some countries from Western Europe, including Belgium, Sweden and Switzerland, are also missing from the analysis.

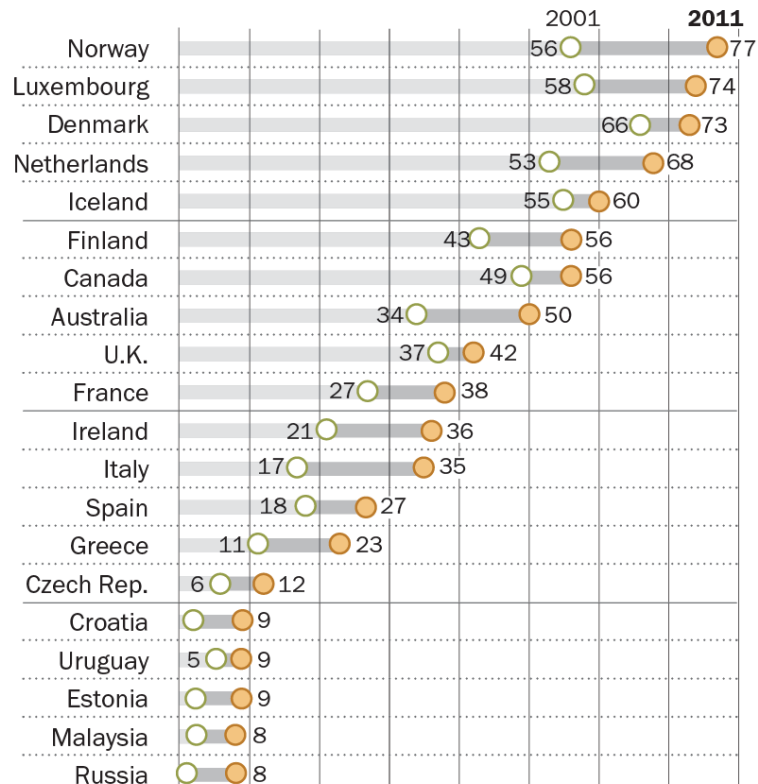
## Countries with the Largest Gains in Shares of High-Income Populations

Members of the OECD, the Organization for Economic Cooperation and Development, dominate the list of countries with the most substantial gains in the shares of high-income people from 2001 to 2011. Norway is the leading country, with the share of its high-income population increasing from 56% in 2001 to 77% in 2011, or by 21 percentage points. Luxembourg is not far behind, raising the share of its high-income population from 58% to 74% in the decade.

Eastern Europe is also represented in this group of high-income gainers, with Croatia, the Czech Republic, Estonia and Russia making their way into the top 20. But in these four countries, only about 10% or less of their populations were at the high-income level in 2011. The same is true for Malaysia and Uruguay, the other two non-OECD members in this list of countries.

### Growth in Share of High-Income Populations from 2001 to 2011 Is Driven by European Countries

*% of population that is high income in 20 countries with the greatest percentage point increase from 2001 to 2011*



Note: High-income people live on more than \$50 daily; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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Most of the OECD members with notable gains in the share of high-income populations from 2001 to 2011 were already quite well off at the start of the decade. Greece, where 11% of the population was high income in 2001, was one of the trailers in the group, along with the Czech Republic and Estonia. Otherwise, the share of high-income people in 2001 ranged from 17% in Italy to 66% in Denmark.

There are two prominent absentees from the list of well-to-do countries that also led the charge up the income bracket in the 2000s. In Germany, the share of people who are high income increased only slightly, from 56% in 2001 to 58% in 2011. As noted, the U.S. had the unfortunate distinction of slipping backwards as the share of its high-income population decreased from 58% in 2001 to 56% in 2011.

## Distributions of People by Income in the U.S., Canada and Europe

The majority of the U.S. population is high income, making it one of only 10 countries (among the 111 analyzed for this report) where this was true in 2011.<sup>46</sup> Also, about one-third of Americans are upper-middle income. But the U.S., among the richest countries in the world, experienced little change on this score in the 2000s. The proportion of Americans who are upper-middle income barely moved from 31% in 2001 to 32% in 2011, and the share that is high income actually fell, as noted, from 58% to 56%.

The lack of movement up the income ladder in the U.S. is the result of two recessions over the period of 2001 to 2011—the first in 2001 and the second from 2007 to 2009. The median annual household income in the U.S. fell from \$53,646 in 2001 to \$50,054 in 2011 ([U.S. Census Bureau](#)).<sup>47</sup> Longer-run trends such as globalization, decline of unions, technological change, and the rising cost of benefits, such as health care, are also said to be factors.<sup>48</sup>

Unlike in the U.S., Canadian residents progressed from upper-middle income to the high-income standard of living. The share of the Canadian population that is upper-middle income decreased from 40% in 2001 to 36% in 2011 and the share that is middle income fell from 9% to 6%. Over the same period, the proportion of high-income residents in Canada increased from 49% to 56%, catching up to the U.S. in the process.

The disparate trends in Canada and the U.S. may be due to the fact that the effects of the Great Recession were milder in Canada.<sup>49</sup> Also, income growth for Canadians in the middle of the income distribution may have been relatively stronger than for Americans in a similar position. Not only is income inequality lower in Canada in comparison with the U.S., but, unlike in the U.S., there was no increase in inequality in Canada from 2001 to 2011.<sup>50</sup>

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<sup>46</sup> The other nine countries are Australia, Canada, Denmark, Finland, Germany, Iceland, Luxembourg, the Netherlands and Norway.

<sup>47</sup> Incomes expressed in 2011 dollars.

<sup>48</sup> Congressional Budget Office ([2011](#)) and Baicker and Chandra ([2005](#))

<sup>49</sup> IMF estimates of GDP in constant prices and national currencies show that Canada averaged an annual growth rate of 1% from 2007 to 2010 compared with 0.3% in the U.S. From 2001 to 2011, Canada averaged 2% annually and the U.S. averaged 1.7%.

<sup>50</sup> The OECD reports that the Gini coefficient, a common measure of income inequality, was 0.317 in Canada in 2001 and 0.316 in 2011. In the U.S., the Gini coefficient increased from 0.360 in 2001 to 0.389 in 2011. A similar view emerges from another measure of inequality, the



The proportion of the high-income population also increased in Western Europe, from 35% in 2001 to 44% in 2011. As in Canada, the share of those who are upper-middle income in Western Europe decreased during this time period, from 49% to 43%. The share of middle-income residents in Western Europe also decreased.

Compared with the U.S., Western Europe overall has a smaller share of its population at the high-income level. But this is not true for all countries in Western Europe. This report covers 13 major countries in Western Europe and, as shown in the next section, the share of the population that is high income in 2011 exceeds the share in the U.S. in many of these countries.

How Western Europe managed to increase the share of its population that is high income but the U.S. did not is not unequivocally clear. Some countries in Western Europe, such as Finland and Luxembourg, averaged a higher rate of growth in national income than the U.S. from 2001 to 2011. At the same time, though, other countries, such as Germany and Denmark, did not keep pace with the U.S. The answer may lie in the distribution of economic gains. Compared with the U.S., the level of income inequality is lower in all 13 Western European countries studied and it also trended up less, if at all, from 2001 to 2011.

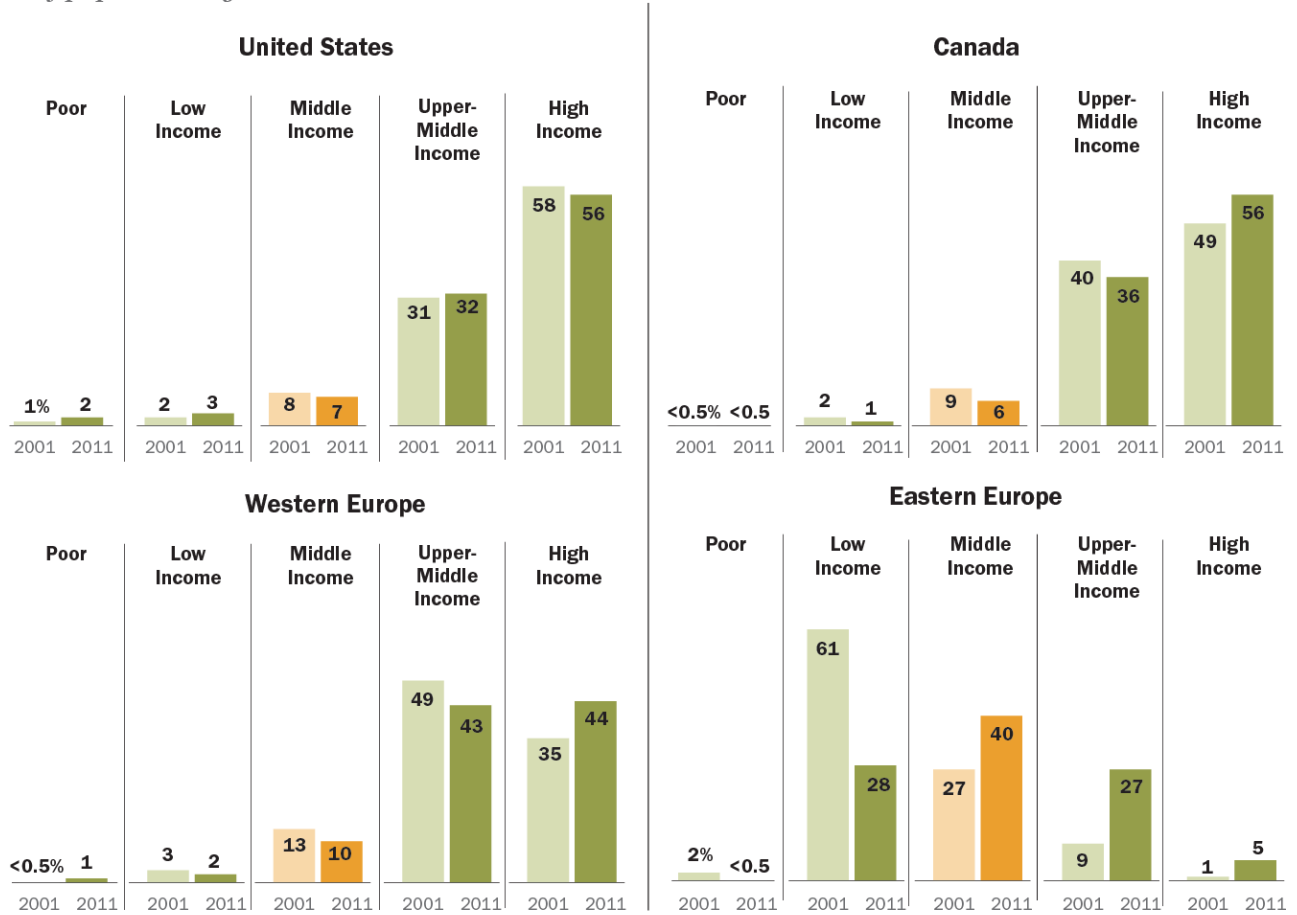
Eastern Europe, composed largely of transition economies, is very different from Western Europe. Only 5% of the population in Eastern Europe was high income in 2011. However, the economies of Eastern Europe were among the world leaders in raising the shares of their population that are middle income and upper-middle income. These trends were discussed in detail in a preceding section and are not reported on again in this section.

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ratio of incomes at the 90th and 50th percentiles of the income distribution. OECD data are available at <http://www.oecd.org/social/income-distribution-database.htm>.

## Incomes Stagnate in the U.S. from 2001 to 2011, but Canada and Europe Advance Up the Ladder

*% of population by income*



Note: The poor live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices. See the appendix for a list of the countries included in Western Europe and Eastern Europe and the share of each region's population accounted for by those countries.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

## Income Growth Stalls in the U.S., and Other Advanced Economies Catch Up

As the U.S. economy more or less stood still from 2001 to 2011, several countries in Western Europe surpassed it in terms of their residents reaching the high-income bracket.

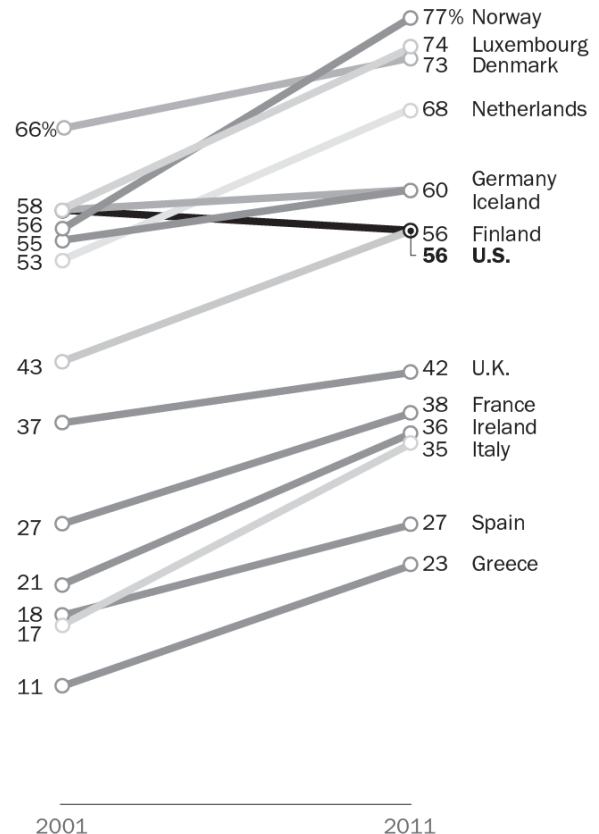
In 2001, only three countries in Western Europe for which data are available—Germany, Luxembourg and Denmark—matched or exceeded the U.S. in the shares of their population that were high income. The shares in the U.S., Germany and Luxembourg were the same—58%—while two-thirds (66%) of the Danish population was high income.

By 2011, the share of the high-income population in the U.S. had slipped to 56%. Partly due to the reversal in the U.S. and partly due to their own economic growth, seven countries in Western Europe had the same or higher shares in the high-income bracket in 2011: Norway (77%), Luxembourg (74%), Denmark (73%), the Netherlands (68%), Iceland (60%), Germany (60%) and Finland (56%). Of this group, only Denmark was better than the U.S. on this front in 2001.<sup>51</sup>

Also, with the exception of Greece, Iceland, Italy and Spain, smaller shares of the populations of countries in Western Europe were living in poverty or with a low income in 2011. In the U.S., 5% of the population was in poverty or low income in 2011. The highest share in Western Europe was Spain at 7%, and the lowest share was 0.1% in Luxembourg. In Canada, only 1.3% of the population was either poor or low income in 2011.

### Several Advanced Economies Surpassed the U.S. in the Share of High-Income Populations

*% of population that is high income*



Note: High-income people live on more than \$50 daily; figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the Luxembourg Income Study database

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<sup>51</sup> This analysis is based on gross household incomes. Because taxes and social contributions are generally higher in Western Europe, a comparison based on disposable household income may find that fewer countries in Europe have higher shares of high-income populations than the U.S. in 2011.

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## Appendix: Methodology and Data Sources

This study estimates the population distributions by per capita income in 2001 and 2011 in 111 countries. The distributions are derived from household survey data collected in each country. For most countries, however, survey data from exactly those two years are not available. Thus, the distributions for 2001 and 2011 are typically estimated by projecting changes in income or consumption from the dates of the surveys to either 2001 or 2011.

This appendix explains the methods used to project income or consumption to 2001 and 2011, describes the household survey data and how they are used to estimate the population distributions by income, specifies the other data that are used, and notes some limitations of the process. An accompanying set of tables presents the population distributions by income in all countries, the major characteristics of countries, such as median income, population and region, and country-specific details on data sources and survey dates.

The countries included in the study had a combined population of 6.2 billion in 2011, or 88% of the global population. They also represented 85% of global output in 2011. The countries range across the spectrum of economic development, from developing, such as Bangladesh and Uganda, to emerging, such as Argentina and Turkey, and to advanced, such as the U.S. and Germany. Countries that could not be included due to the lack of data are also varied, ranging from the high income, such as Austria, Japan, Saudi Arabia, South Korea and Sweden, to the low income, such as Chad, Haiti and Sudan.

Given the diversity of the countries that are analyzed and the population they represent, the estimate of the percentage distribution of the global population by income is unlikely to change if more countries were to be added. But the number of people who are poor, middle income or of some other income level are somewhat undercounted. The extent of the undercount varies by region. The selected countries account for almost 100% of the population of North America and South America in 2011, and 93% of Europe, 88% of Asia & South Pacific, 78% of Africa, and 62% of Central America & the Caribbean.

### Projections of Survey Data to 2001 and 2011

The projection of household survey data to 2001 and 2011 requires three steps:

1. Extrapolate reported income or consumption to 2001 or 2011
2. Express estimates of income or consumption for 2001 and 2011 in 2011 prices
3. Convert income or consumption from local currency units to 2011 purchasing power parities (PPPs)

### **Extrapolation of Income or Consumption**

If the data source is a household survey conducted in a year other than 2001 or 2011, income or consumption from the survey is extrapolated to 2001 or 2011 assuming that it changes at an annual rate equal to 70% of the annual rate of change in real household final consumption expenditures from national income accounts, where household final consumption expenditures are expressed in local currency units and in per capita terms.<sup>52</sup> The reason for using 70% of the rate of change rather than 100% is that national income accounts tend to overstate the level and change in consumption or income as measured by household surveys (Deaton, 2003). The extent of the overstatement will vary from country to country. This study follows the practice adopted by Dadush and Shaw (2011) and Birdsall, Lustig and Meyer (2013) of projecting survey data at 70% of the rate of change in national income account measures.

Although survey data on income or consumption are projected to 2001 and 2011, the underlying distributions are partly frozen at the date of the surveys. In China, for example, the estimates for 2001 are based on survey data from 1999. The distribution of people by consumption in China may change from 1999 to 2001 for two reasons. First, a general rise in consumption pushes everyone up the ladder. Second, some people may reach even higher rungs if they experience higher than average growth in consumption and others may slip down the ladder. The projection method used in this study captures the change due to the general rise in consumption but it does not capture the mobility of people up and down the ladder from 1999 to 2001. The same is true for the estimate of China's distribution in 2011 which is projected from a 2010 survey.

In China's case, this means that the reported change in the population distribution by income from 2001 to 2011 actually reflects somewhat more than a 10-year change because it still represents elements of the distributions from 1999 and 2010. In most other countries, the reported change in the distribution of the population by income is less than 10 years. For example, the survey dates for Russia are 2001 and 2009 and the estimated change in the distribution from 2001 to 2011 is reflective of changes over an eight- to 10-year period.

### **Conversion to 2011 Prices**

It is necessary to convert income or consumption data to 2011 prices because the purchasing power parities for all countries are derived from the round of international price comparisons conducted in that year (additional detail on PPPs and their use in this study are provided in subsequent sections). The conversion is a matter of inflating the survey data by the change in a country's consumer price index (CPI) from the relevant year to 2011.

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<sup>52</sup> See the section on data sources for additional details.

Household survey data for 90 countries are derived from the World Bank’s PovcalNet database (see the section on data sources) which reports all data in 2005 prices regardless of the date of the survey. Therefore, the adjustment for these countries calls for inflating survey data by the change in the cost of living from 2005 to 2011. The household survey data for the remaining 21 countries is collected from the Luxembourg Income Study (LIS) and for these countries the inflation adjustment is carried from the relevant survey date to 2011.

### **Conversion to 2011 Purchasing Power Parities**

The conversion of income or consumption from local currency units to 2011 purchasing power parities requires an intermediate step for most countries. In PovcalNet, all survey data are expressed in 2005 PPPs. Therefore, the data are first reverted to local currency units using the local currency to PPP conversion rates originally employed by the World Bank. Next, the PovcalNet data are converted from local currency units to 2011 PPPs.

In LIS, survey data are expressed in local currency units prevailing at the time. For several countries, the more recent survey data—for 2011 or years near to that—are expressed in euros but the data from years near 2001 are in currencies in existence before the adoption of the euro. These countries are Estonia, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Slovenia and Spain. It was necessary in these cases to convert data from the earlier years to euros because the 2011 PPPs for them are euro-denominated. The rates used for these countries to convert local currency units to the euro are the ones reported by Eurostat (see the section on data sources).

## **Data Sources and the Derivation of Population Distributions by Income**

### **Household Survey Data**

The principal data source for the study, covering 90 of the 111 countries analyzed, is the [World Bank’s PovcalNet](#) database. Estimates for the other 21 countries are derived from the [Luxembourg Income Study](#) database.

Both databases feature household survey data for individual countries from a number of years. A major difference is that the principal variable available for most countries in PovcalNet is consumption and the variable featured in LIS is income. Appendix Table A5 shows whether the data for a country pertains to consumption (72 countries in all) or to income (39 countries).<sup>53</sup> Despite this mix, the more familiar term “population distribution by *income*” is used to reference

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<sup>53</sup>For Honduras, consumption data was used for 2001 projections and income data was used for 2011 projections. The country is listed among the 39 countries with income data.

all estimates. The extent to which consumption-based estimates may differ from income-based estimates is discussed in a subsequent section.

### **Derivation of Population Distributions by Income from PovcalNet Data**

The specific PovcalNet data used in this study is a version created by the [Center for Global Development](#). In the CGD version, the population of each country is divided into 10,000 equal-size groups, where each group represents 0.01% of a country's population. The groups are ranked by per capita income or consumption. CGD researchers determined the income or consumption associated with each group by submitting repeated inquiries to the PovcalNet online tabulator.<sup>54</sup>

To take an example, CGD's dataset includes data on the income distributions for Brazil in 2001 and 2009, the two survey dates closest to 2001 and 2011. From the 2009 survey, with figures reported in 2005 prices and PPPs, CGD tabulations show that 100% of Brazil's population earned PPP \$39,075.14 or less per month per capita, 99.99% of the population earned PPP \$13,795.10 or less, 99.98% of the population earned PPP \$11,355.56 or less, and so on for each 0.01% of the population.

Using the projection method described earlier, the 2009 data for Brazil are extrapolated to 2011. The result, *now in 2011 prices and PPPs*, is as follows: 100% of Brazil's population earned PPP \$53,993.34 or less per month per capita in 2011, 99.99% of the population earned PPP \$19,061.83 or less, 99.98% of the population earned PPP \$15,690.91 or less, and so on for each 0.01% of the population. These estimates of monthly per capita income are converted to daily values for the final stage of estimation.

The finely grained income distribution for Brazil, broken into 10,000 groups of people, is next collapsed into more aggregated sets of population distributions by income. One distribution breaks Brazil's population into 200 income categories: PPP \$1 or less, PPP \$1 to \$2, PPP \$2 to \$3, and so on. The highest category of income, empty of people in most countries, is PPP \$199 or more. The other distribution divides the population into five income groups: poor (PPP \$2 or less), low income (PPP \$2.01 to \$10), middle income (PPP \$10.01 to \$20), upper-middle income (PPP \$20.01 to \$50), and high income (PPP \$50.01 or more).

Determining the share of Brazil's population that earns a given range of income is a straightforward process. The share of the population that lives on PPP \$1 per day or less is directly read from the CGD database (after all extrapolation has been done). Likewise, it is simple to read off the share of Brazil's population that earns PPP \$2 or less. The difference between the two yields

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<sup>54</sup> Dykstra, Dykstra and Sandefur (2014)

the share of Brazil's population earning between PPP \$1 and \$2 per day. The process is repeated to determine the share of the population earning PPP \$2 to \$3, etc.

The process described for Brazil is followed for all other countries for which PovcalNet data are sourced from CGD. The percentage distributions for all countries are eventually converted to head counts based on their populations in 2001 and 2011.<sup>55</sup>

The CGD's version of PovcalNet data was released on April 28, 2014. The World Bank has updated some aspects of the database since that date. For example, while the CGD version features 2009 survey data for China, the World Bank recently added 2010 survey data for China. Thus, to feature the latest available data for some countries, the Pew Research Center itself deconstructed PovcalNet data for the following countries and years: China, 2010; Hungary, 2011; Kazakhstan, 2010, Laos, 2012; Latvia, 2011; and Mozambique, 2008.

Another recent update to the PovcalNet data is the addition of high-income countries. At the moment, PovcalNet provides data for upwards of 150 countries. This includes 41 of the 43 countries that are featured in LIS (the exceptions are South Korea and Taiwan). It is not necessarily the case, however, that both PovcalNet and LIS have data for the same years for every country. For example, the latest available data for Australia in PovcalNet is for 2003, but LIS features Australian data for 2010.

In April 2014, when CGD constructed its version of PovcalNet data, the overlap between PovcalNet and LIS was more limited. Generally speaking, PovcalNet leaned toward lower-income countries and LIS leaned toward higher-income countries. If data for a country for a desired year were available from either source, e.g., for Mexico and Russia, PovcalNet data were used in this study in the interest of maximizing the number of countries for which data come from the same source.

### **Derivation of Population Distributions by Income from LIS Data**

As noted above, the analysis in this study utilizes LIS data for 21 countries (all high income). The CGD version of PovcalNet had no data for 18 of these countries. For the other three countries—the Czech Republic, Estonia and Slovenia—more current data were available from LIS.

The population distributions by income for the LIS countries were estimated directly from the household survey microdata for each country. Survey respondents were assigned the per capita income of their household. These incomes were projected to 2011, expressed in 2011 prices, converted to 2011 PPPs and grouped into 200 categories using the method described above.

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<sup>55</sup> See section on other data sources for more details on population data.

Finally, frequency distributions of the populations by 200 income categories were computed from the microdata.

### Estimates of Population Distributions from PovcalNet vs. Estimates from LIS

Does it matter if data for a country are extracted from PovcalNet or LIS? As an example, the table below shows estimates of the population distributions in Mexico and Russia in 2011 from the two databases. For Mexico, the underlying survey date is 2010 from both data sources. For Russia, the survey date is 2009 in PovcalNet and 2010 in LIS. The PovcalNet data for both countries refer to consumption and the LIS data are for income.

The estimated distributions in Mexico from PovcalNet and LIS are very similar. PovcalNet yields a lower estimate of poverty, consistent with the empirical regularity that consumption is often higher than income at the lower end of the income distribution. The share of the population that is middle income in Mexico is the same regardless of the data source.

In the case of Russia, LIS data lead to a higher estimate of the share of the population that is upper-middle income or high income—50% compared with the estimate of 44% from PovcalNet. This may partly be due to the fact that the estimates from LIS are based on a 2010 survey and the estimates from PovcalNet are derived from a 2009 survey. The share of Russia's population that is middle income is similar across the two databases.

### Population Distribution by Income in Mexico and Russia from Two Different Sources of Data, 2011

*% distribution of population by income*

	Mexico		Russia	
	PovcalNet	LIS	PovcalNet	LIS
Poor	3	7	<0.5	2
Low income	59	54	19	14
Middle income	26	26	37	34
Upper-middle income	10	10	36	43
High income	2	3	8	7

Note: The poor live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices. Data from PovcalNet are for consumption, and data from LIS are for income.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network) and the Luxembourg Income Study database

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## Purchasing Power Parities

Data on purchasing power parities—exchange rates corrected for differences in the prices of goods and services across countries—are needed to express incomes in all countries in a common currency and price level. Two sets of purchasing power parity data, one for 2005 and the other for 2011, are used in the analysis. The PPP data for both years are from the World Bank’s International Comparisons Program. The specific PPPs used in this report are the ones that pertain to individual consumption expenditures by households.

The consumption and income data in PovcalNet are expressed in PPPs derived from a round of international price comparisons conducted in 2005. The PovcalNet data are divided through by the 2005 PPPs to express them in local currency units. The PPP values are available on a country-by-country basis on PovcalNet. The complete set of [2005 PPP](#) data is available on the World Bank’s website. The LIS data are expressed in local currency units and do not require this initial conversion.

The latest available PPPs come from a round of international prices comparisons conducted in 2011. The methods used in this round and the data are available at <http://icp.worldbank.org/>.

In the rare instance that a 2011 PPP was not available from the International Comparisons Program, e.g., for Argentina, an estimate from the [Penn World Table 8.0](#) was used. For one country—Timor-Leste—a 2011 PPP was not available from either the International Comparisons Program or the Penn World Table 8.0. In this case, an “implied PPP conversion rate” from the International Monetary Fund’s [World Economic Outlook database \(IMF WEO\)](#) was used to estimate the change in Timor-Leste’s PPP from 2005 to 2011. The estimated change was then applied to the 2005 PPP used in PovcalNet for Timor-Leste to arrive at an estimate of the 2011 PPP.

## Sources of Other Data

The other data needed for the estimation of population distributions by income in 2001 and 2011 are data on inflation (to express income or consumption in 2011 prices), household final consumption expenditures from national income accounts (to project survey income or consumption to 2001 or 2011), and population (for conversion to per capita terms and to determine head counts by income categories).

For most countries, these data were collected from the World Bank. In the event of missing information, the gaps were filled by data from the IMF’s WEO database (for inflation and national income data) or the United Nations (for population data). Taiwan presents a special case because

the World Bank does not report data for the country. Thus, a combination of data from the IMF WEO database and the Taiwan National Statistics Office is used.

Mostly, the IMF WEO data are used to fill in missing information for a year or two. In Argentina, for example, the CPI through 2009 is reported in the PovcalNet database. This series is extended through 2011 using the CPI reported in IMF WEO. On occasion, alternative indicators are used. For example, in Nigeria, trends in GDP are substituted for changes in household final consumption expenditures data.

Survey data in the LIS database are expressed either in local currency units or in euros depending on the country and the year. For several countries, this means that more recent data, say, 2010 data for Germany, are expressed in euros but earlier data, 2000 in the case of Germany, are expressed in the local currency at the time (German mark). In these cases, factors for converting local currency to the euro were collected from [Eurostat](#).

## Survey Years and Choice of Countries

Of the more than 150 countries collectively covered by PovcalNet and LIS, the 111 countries included in the study were selected on the basis of the availability of data for 2001 and 2011, or for years close to 2001 and 2011. The choice of the latter year—2011—is driven by two considerations: first, it is the latest year for which benchmark estimates of purchasing power parities are available, and second, with a few exceptions, more recent household survey data are not available in PovcalNet or LIS. The starting point, 2001, is chosen so that the analysis may focus on changes in the distribution of the global population by income in the first decade of this century.

Appendix Table A5 shows a list of the 111 countries, whether the survey data for a country are from PovcalNet or LIS, and the dates of the surveys. For 96 countries, the first survey year ranges from 1999 to 2003. This means that projections to 2001 are typically done from a date no more than two years removed. At the other end, for 80 countries, survey data from 2009 to 2012 are available to estimate income distributions for 2011. Survey data for both 2001 and 2011 are available for only five countries: Belarus, Hungary, Poland, Romania and Senegal.

Overall, the gap between survey dates is at least 10 years in 35 countries, eight to nine years in 38 countries, five to seven years in 28 countries, less than five years in three countries (Guinea, Nicaragua and Uruguay), and is “indeterminate” in seven countries for which two projections are done for 2001.

The seven countries for which two projections are done for 2001 are Cambodia, Ghana, India, Kenya, Malawi, Malaysia and Niger. In these countries, the surveys from a date after 2001 were conducted in either 2004 or 2005. However, data were also available from surveys before 2001, with dates ranging from 1993 to 1998. It was decided that combining data from two surveys would yield better estimates of the population distributions by income in these countries in 2001.

In India, for example, the distributions from a 2004 survey and from a 1993 survey are separately projected to 2001. Thus, two estimates are derived for the income of each 1/10,000th population group in India in 2001. The two estimates are then combined using the time-weighted method described in Chen and Ravallion (2004). The total distance between the 1993 and 2004 surveys is 11 years. The 1993 estimates are given a weight of (3/11), and the 2004 estimates are given a weight of (8/11). Alternative weighting methods, such as geometric means, yielded very similar results.

The accompanying table shows the two estimates of the population distributions by income for India from the 1993 and 2004 surveys. Surprisingly, the surveys show a regression in the economic well-being of India's population from 1993 to 2004. The share of India's population that is poor rises from 28% in 1993 to 38% in 2004, and the share that is low income decreases from 70% to 60%. The two surveys agree that scarcely any people in India lived on a middle-income budget or higher.

The two estimates for 2001 are combined using three different methods: a time-weighted average, a simple average, and a geometric average. The results are similar across the three methods. The time-weighted average is the estimate that is reported in this study. Since this method gives a

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### Population Distribution by Income in India: Different Estimates for 2001

*% distribution of population by income*

	2001 Estimate from Survey Year in:		Weighted Average Estimates for 2001 from 1993 & 2004 Surveys		
	1993	2004	Time Weighted	Simple Average	Geometric Average
Poor	28	38	35	33	33
Low income	70	60	63	65	65
Middle income	1	1	1	1	1
Upper-middle income	<0.5	<0.5	<0.5	<0.5	<0.5
High income	<0.5	<0.5	<0.5	<0.5	<0.5

Note: The poor live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices. The time-weighted method follows Chen and Ravallion (2004). The total distance between the 1993 and 2004 surveys is 11 years. The 1993 estimates are given a weight of (3/11), and the 2004 estimates are given a weight of (8/11).

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network)

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higher weight to data from 2004 it results in a somewhat higher estimates of the share that is poor in India compared with the other two methods.

## Consumption vs. Income

As noted above, the principal measure of economic well-being that is featured in PovcalNet is consumption (in 72 of 90 countries), and the variable featured in the 21 LIS countries is income. The estimates from the two sets of surveys are combined in the report in the interest of encompassing as many countries as possible. How might this affect the analysis?

Generally speaking, consumption often exceeds income for lower income families and falls short of income for higher income families. One reason for this is that families may smooth consumption over time, spending more than income in hard times and consuming less than income in good times. Other factors are also at play. For instance, lower income families are more likely to receive government assistance in the form of transfer payments or tax subsidies. Conversely, families with looser budget constraints are more likely to save and invest.<sup>56</sup>

In practical terms, the relationship between income and consumption suggests that a survey of household consumption is less likely to find people living on, say, \$2 or less per day than a survey of household income. At the same time, a survey of consumption is also less likely to find people living on, say, more than \$50 per day. The extent to which this happens will vary from country to country and possibly from year to year.

The accompanying tables show estimates of the population distributions by income and consumption in Mexico and Nicaragua, two among a small number of countries for which both types of data are available in PovcalNet. As expected, there are fewer people consuming \$2 or less per day than earning that amount in the two countries in both 2001 and 2011. But there are more people with an income of \$20 or more than with consumption of that amount, with the slight exception of Mexico in 2011.

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### Population Distributions in Mexico, by Consumption and Income, 2001 and 2011

*% distribution of population by income and consumption*

	2001		2011	
	Consumption	Income	Consumption	Income
\$2 or less	12	13	3	7
\$2.01-10	63	60	59	60
\$10.01-20	17	17	26	22
\$20.01-50	6	8	10	9
More than \$50	1	2	2	2

Note: Dollar figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network)

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<sup>56</sup> See Birdsall (2010) for additional analysis of consumption and income distributions.

With respect to the “middle,” the findings differ across the two countries. In Mexico, the share of people consuming \$10 to \$20 daily is greater than or equal to the share with an income in that range. The opposite is true in Nicaragua. For example, 14% of Nicaraguans had an income of \$10 to \$20 daily in 2011, compared with the 11% whose consumption fell in that range. Overall, however, the differences in the distributions of Mexicans and Nicaraguans by consumption or income are more moderate than profound.

## Other Data Considerations

### Household Surveys vs. National Income Accounts

In this report, changes in the shares of the population that are poor, middle income or high income are estimated from household surveys. It is often the case that household income or consumption as reported in surveys falls short of what is estimated in national income accounts. Underreporting of income or consumption and lack of participation by better-off households are among the factors that are behind this phenomenon. Furthermore, the growth in household consumption or income is often higher as estimated from national income accounts than from household surveys (Deaton, [2003](#)).

The gap between survey estimates and national income account estimates suggests that the size of the middle-income or higher populations may be underestimated in some countries. Likewise, the growth in these populations from 2001 to 2011 may be understated. Some researchers, such as Kharas ([2010](#)), scale the household survey data to reflect national income account estimates. But, as noted by Lakner and Milanovic ([2013](#)), it is not clear if the same scalar should apply across all points of the income distribution. National income accounts also often encompass items that do not bear a clear relationship to household well-being, such as consumption by nonprofit institutions serving households (Deaton, [2003](#)). This study does not attempt to scale the survey data to conform to the national income accounts.

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## Population Distribution in Nicaragua, by Consumption and Income, 2001 and 2011

*% distribution of population by income and consumption*

	2001		2011	
	Consumption	Income	Consumption	Income
\$2 or less	20	24	11	14
\$2.01-10	71	62	75	66
\$10.01-20	7	10	11	14
\$20.01-50	2	3	3	5
More than \$50	<0.5	1	<0.5	1

Note: Dollar figures expressed in 2011 purchasing power parities in 2011 prices.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the Harvard Dataverse Network)

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## Adjusting for Household Size

In accordance with the general practice in this research area, this study determines the economic status of individuals by the per capita income or consumption of their household. This is the simplest possible mechanism for comparing the economic well-being of households of different sizes. It would perhaps be more realistic to allow for economies of scale in household consumption. A household of four, for example, does not need twice as much income as a household of two to experience the same standard of living (see Pew Research Center, [2012](#), for more on this issue).

However, the PovcalNet database reports only per capita household income and it is not possible to adjust for household economies of scale. To be consistent with the reporting of PovcalNet data, this study also converts LIS data to per capita incomes by dividing household income by the number of household members. The per capita income of a household is assigned to each member of the household.

This is not a significant issue for making comparisons from 2001 to 2011 because it is unlikely that household sizes have changed much within countries in the space of a decade. But when comparing across countries with households of different sizes, this results in a relative understatement of the well-being of countries with larger households. For example, the average household size in India is upwards of five, or double the average household size in the U.S. Thus, using per capita income to compare well-being in these two countries likely overstates the gap between them.

## Urban vs. Rural Cost of Living

The 2005 round of benchmark international price comparisons led to concerns about the national representativeness of prices in China, India and Indonesia. In that round of international price comparisons, the [price surveys](#) in China were confined to 11 cities, and rural areas in India were underrepresented. Thus, in the past, many researchers followed the lead of Chen and Ravallion ([2010](#)) and derived urban and rural income distributions for India and China using estimates of an urban PPP and a rural PPP.

The [2011 round of international price comparisons](#) were more comprehensive than the earlier rounds. Whether the national representativeness of prices in China or India remains an issue is unclear because of the lack of independent research on the issue. This report uses the PPPs for all countries as reported by the 2011 International Comparisons Program and does not attempt to impose an urban/rural distinction in any country.

## Appendix Tables

TABLE A1

## Population Distribution by Income Tiers, 2001 and 2011

	2001						2011					
	Population (millions)	Distribution by Income (%)					Population (millions)	Distribution by Income (%)				
Poor		Low	Middle	Upper Middle	High	Poor		Low	Middle	Upper Middle	High	
<b>Africa</b>												
Angola	14.4	46.4	44.8	6.1	2.2	0.4	20.2	32.2	61.9	4.8	1.1	*
Burkina Faso	11.9	72.2	27.0	0.7	0.2	*	16.0	57.3	41.2	1.2	0.3	*
Burundi	6.8	87.5	12.2	0.3	0.1	*	9.5	79.7	20.0	0.3	*	*
Cameroon	16.4	12.2	77.7	7.9	1.9	0.3	21.2	12.2	76.4	9.1	2.3	*
Central African Republic	3.7	66.5	32.3	1.2	*	*	4.4	66.7	31.5	1.6	0.2	*
Côte d'Ivoire	16.4	16.7	71.2	9.2	2.6	0.3	19.4	23.8	68.7	6.0	1.5	*
Egypt	67.2	0.4	79.8	16.6	2.9	0.3	79.4	0.4	75.1	21.0	3.2	0.4
Ethiopia	68.0	61.2	38.2	0.5	0.1	*	89.4	33.8	64.5	1.3	0.3	*
Ghana	19.3	50.7	47.3	1.9	0.2	*	24.8	36.7	59.1	3.3	0.8	*
Guinea	8.9	58.7	39.9	1.1	0.3	*	11.2	55.3	43.2	1.6	*	*
Kenya	32.1	21.9	69.1	6.8	1.8	0.3	42.0	31.1	61.9	5.2	1.4	0.3
Madagascar	16.2	70.8	27.6	1.4	0.2	*	21.7	75.8	23.3	0.7	0.2	*
Malawi	11.6	88.7	11.1	0.2	*	*	15.5	73.2	25.8	0.8	0.2	*
Mali	10.6	62.4	36.6	1.0	*	*	14.4	52.2	47.4	0.5	*	*
Mauritania	2.8	22.9	70.1	6.0	1.0	*	3.7	19.8	72.6	6.1	1.4	0.2
Morocco	29.0	8.5	76.8	11.4	3.0	0.4	32.1	2.2	73.3	19.0	4.9	0.7
Mozambique	18.8	83.2	16.7	0.1	*	*	24.6	66.8	32.2	0.9	0.2	*
Niger	11.4	79.4	20.0	0.5	0.1	*	16.5	53.7	45.1	1.0	0.2	*
Nigeria	126.0	66.4	32.5	1.1	*	*	164.2	48.7	49.4	1.9	0.1	*
Rwanda	8.8	75.5	24.0	0.5	*	*	11.1	63.4	35.1	1.5	*	*
Senegal	10.1	50.8	47.0	1.7	0.4	0.1	13.3	35.1	61.0	3.3	0.7	*
Seychelles	0.1	*	38.8	38.4	19.7	3.1	0.1	0.7	62.4	25.7	11.2	*
Sierra Leone	4.3	58.8	39.2	1.7	0.3	*	5.9	49.9	48.6	1.3	0.2	*
South Africa	44.9	32.7	49.4	10.8	6.0	1.1	51.6	20.2	52.7	13.6	9.4	4.1
Swaziland	1.1	66.4	31.7	1.5	0.4	*	1.2	50.9	43.9	3.9	1.3	0.1
Tanzania	34.9	88.7	11.3	*	*	*	46.4	70.1	29.2	0.7	*	*
Togo	5.0	30.2	67.0	2.7	0.1	*	6.5	31.7	63.8	4.2	0.3	*
Tunisia	9.7	5.8	72.4	16.7	4.6	0.5	10.7	2.2	64.9	27.0	5.5	0.5
Uganda	25.1	65.5	33.3	1.0	0.3	*	35.1	40.9	55.8	2.6	0.7	*
Zambia	10.4	47.5	50.1	1.9	0.5	0.1	13.6	64.4	32.5	2.4	0.8	0.1

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TABLE A1 (continued)

**Population Distribution by Income Tiers, 2001 and 2011**

	2001						2011					
	Population (millions)	Distribution by Income (%)					Population (millions)	Distribution by Income (%)				
		Poor	Low	Middle	Upper Middle	High		Poor	Low	Middle	Upper Middle	High
<b>Asia &amp; South Pacific</b>												
Armenia	3.1	23.3	73.2	2.8	0.6	0.1	3.0	3.1	89.4	6.2	1.1	0.1
Australia	19.4	0.8	2.4	13.1	49.8	33.9	22.3	0.5	1.1	5.9	42.5	50.1
Bangladesh	134.7	55.2	43.7	1.0	0.2	*	152.9	39.1	59.3	1.4	0.3	*
Bhutan	0.6	33.4	59.6	5.2	1.5	0.3	0.7	1.0	68.6	23.2	6.4	0.9
Cambodia	12.5	41.8	55.3	2.2	0.6	0.1	14.6	13.5	80.3	4.9	1.1	0.1
China <sup>1</sup>	1,271.9	40.7	56.5	2.5	0.3	*	1,344.1	12.0	65.6	17.5	4.4	0.5
Fiji	0.8	26.7	62.1	8.6	2.6	*	0.9	4.0	75.0	16.0	4.3	0.7
Georgia	4.4	23.2	70.5	5.0	1.1	0.2	4.5	19.8	69.2	8.8	2.2	*
India	1,059.5	35.4	62.9	1.4	0.3	*	1,221.2	19.8	76.9	2.6	0.6	0.1
Indonesia	212.0	48.7	50.5	0.6	0.1	*	243.8	18.1	75.9	5.3	0.7	*
Iran	66.9	1.8	55.2	28.4	12.4	2.1	75.4	1.6	62.7	27.2	7.6	0.9
Israel	6.4	0.2	13.0	25.7	40.6	20.5	7.8	0.4	15.0	22.1	41.0	21.5
Jordan	4.9	0.1	52.4	33.4	12.3	1.8	6.2	*	36.4	43.1	18.1	2.4
Kazakhstan	14.9	18.3	72.2	7.6	1.8	0.2	16.6	0.1	61.8	31.9	5.9	0.3
Kyrgyzstan	4.9	42.0	57.2	0.8	*	*	5.5	7.4	83.5	7.8	1.4	*
Laos	5.5	35.9	62.3	1.5	0.3	*	6.5	26.5	70.0	2.8	0.6	0.1
Malaysia	23.9	1.1	56.0	28.4	12.4	2.1	28.8	*	32.0	31.1	28.5	8.4
Nepal	23.7	51.0	46.6	1.9	0.5	*	27.2	21.7	74.8	3.1	0.3	*
Pakistan	146.9	33.3	65.2	1.1	0.3	*	176.2	18.1	79.5	2.0	0.4	*
Philippines	79.3	19.3	67.8	9.4	3.0	0.5	95.1	14.2	72.0	10.4	3.2	0.2
Sri Lanka	18.8	12.5	78.1	7.2	1.8	0.3	20.9	1.2	79.6	15.3	3.4	0.5
Taiwan	22.4	*	0.4	6.8	57.9	34.9	23.2	*	0.7	8.7	56.8	33.8
Tajikistan	6.3	72.0	28.0	*	*	*	7.8	27.1	71.1	1.8	*	*
Thailand	63.1	2.7	72.6	17.8	6.2	0.8	66.6	0.3	58.1	28.9	11.4	1.3
Timor-Leste	0.9	81.1	18.4	0.4	*	*	1.1	76.6	23.0	0.4	*	*
Turkey	64.1	4.0	68.1	20.9	6.1	1.0	73.1	1.9	46.4	35.3	14.5	1.9
Vietnam	78.6	45.4	52.2	2.1	0.3	*	87.8	16.1	77.7	5.2	1.0	*
Yemen	18.0	4.3	80.7	12.8	2.2	*	23.3	8.1	83.0	7.2	1.5	0.2

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TABLE A1 (continued)

**Population Distribution by Income Tiers, 2001 and 2011**

	2001						2011					
	Population (millions)	Distribution by Income (%)					Population (millions)	Distribution by Income (%)				
		Poor	Low	Middle	Upper Middle	High		Poor	Low	Middle	Upper Middle	High
<b>Central America &amp; Caribbean</b>												
Costa Rica	4.0	7.7	48.9	25.6	14.2	3.6	4.7	3.6	39.9	30.0	19.9	6.7
Dominican Republic	8.8	4.6	53.8	25.1	12.9	3.6	10.1	2.9	56.3	26.0	12.1	2.7
El Salvador	6.0	17.7	54.7	18.0	8.3	1.4	6.3	11.6	62.3	18.1	6.8	1.3
Guatemala	11.5	10.5	61.2	18.3	7.6	2.4	14.7	11.9	57.1	19.1	9.1	2.7
Honduras	6.4	20.9	56.4	15.3	6.1	1.3	7.8	20.1	50.8	17.8	9.4	1.8
Nicaragua	5.2	20.1	70.8	7.0	1.8	0.3	5.9	11.2	74.9	10.8	2.9	0.2
Panama	3.1	17.0	46.8	20.7	12.0	3.5	3.7	7.0	47.4	26.3	15.2	4.0
<b>Eastern Europe</b>												
Albania	3.1	9.2	86.9	3.8	*	*	2.8	1.8	84.6	11.2	2.1	0.3
Belarus	9.9	1.4	73.6	21.5	3.6	*	9.5	0.1	18.0	53.4	27.7	0.9
Bosnia and Herzegovina	3.9	0.2	32.4	51.8	15.0	0.7	3.8	0.1	24.8	39.0	31.5	4.7
Bulgaria	8.0	3.9	62.0	28.2	5.7	0.2	7.3	*	41.5	48.1	10.3	0.1
Croatia	4.4	0.1	24.8	47.9	25.1	2.1	4.3	0.1	4.3	33.2	53.0	9.4
Czech Republic	10.2	*	7.2	40.6	46.5	5.6	10.5	*	3.5	18.8	65.4	12.2
Estonia	1.4	1.4	41.2	38.0	17.1	2.4	1.3	0.7	11.7	35.1	43.9	8.6
Hungary	10.2	0.2	30.4	53.7	15.1	0.6	10.0	0.1	15.2	47.1	35.4	2.1
Latvia	2.3	*	53.9	35.3	9.7	1.1	2.1	1.5	26.2	45.4	24.2	2.7
Lithuania	3.5	0.9	62.8	29.7	6.5	0.1	3.0	0.3	35.1	40.8	21.4	2.3
Macedonia	2.1	9.5	77.6	11.2	1.7	*	2.1	4.9	58.7	24.7	10.7	1.1
Moldova	3.6	31.3	65.0	3.0	0.7	*	3.6	0.5	67.4	26.0	5.9	0.1
Montenegro	0.6	0.2	48.6	40.8	10.2	0.3	0.6	*	33.0	49.6	16.8	0.6
Poland	38.2	0.2	45.7	40.7	12.5	0.9	38.5	0.1	30.0	46.2	21.6	2.1
Romania	22.1	7.1	86.7	5.7	0.5	*	20.1	0.9	71.8	25.5	1.8	*
Russia	146.0	1.6	60.0	28.0	9.3	1.1	143.0	*	19.2	37.1	35.6	8.1
Serbia	7.5	0.4	43.1	43.1	12.5	1.0	7.2	0.3	42.4	45.1	12.0	0.2
Slovakia	5.4	0.3	47.9	43.1	8.1	0.6	5.4	0.1	20.7	59.3	19.0	0.9
Slovenia	2.0	0.1	2.3	18.6	71.4	7.6	2.1	0.3	3.0	15.2	70.8	10.6
Ukraine	48.7	3.2	88.4	7.8	0.6	*	45.7	0.1	40.5	49.3	10.2	*

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TABLE A1 (continued)

**Population Distribution by Income Tiers, 2001 and 2011**

	2001						2011					
	Population (millions)	Distribution by Income (%)					Population (millions)	Distribution by Income (%)				
		Poor	Low	Middle	Upper Middle	High		Poor	Low	Middle	Upper Middle	High
<b>Western Europe</b>												
Denmark	5.4	0.1	0.2	1.5	32.5	65.8	5.6	0.3	0.4	1.4	25.1	72.8
Finland	5.2	*	0.4	5.3	51.4	42.8	5.4	0.1	0.3	3.1	40.1	56.5
France	61.4	0.1	0.9	14.2	57.5	27.3	65.3	0.2	1.4	9.2	51.3	37.9
Germany	82.3	*	0.6	3.7	37.2	58.4	81.8	0.1	0.4	4.6	35.4	59.5
Greece	11.0	0.5	9.4	29.6	49.8	10.8	11.1	1.0	4.0	16.9	54.9	23.2
Iceland	0.3	0.1	0.4	3.1	41.1	55.4	0.3	0.2	0.6	2.8	36.2	60.3
Ireland	3.9	0.1	1.7	17.0	60.0	21.2	4.6	0.6	2.4	11.4	49.5	36.2
Italy	57.0	1.2	6.3	21.0	54.4	17.1	59.4	1.5	3.7	14.3	45.7	34.8
Luxembourg	0.4	*	0.1	2.3	39.4	58.2	0.5	*	0.1	1.2	24.7	74.0
Netherlands	16.0	0.3	0.6	2.4	43.7	53.0	16.7	*	0.3	2.3	29.4	68.0
Norway	4.5	0.3	0.5	2.2	40.7	56.3	5.0	0.6	0.6	1.5	20.2	77.2
Spain	40.8	0.4	4.3	20.5	56.4	18.4	46.7	1.4	5.5	16.3	49.5	27.3
United Kingdom	59.1	0.3	1.9	14.8	46.3	36.7	63.3	1.1	2.6	12.0	42.3	42.0
<b>North America</b>												
Canada	31.1	0.3	1.7	9.0	40.1	48.9	34.3	0.3	1.0	6.2	36.0	56.4
Mexico	105.3	12.5	63.3	16.9	6.2	1.2	119.4	3.1	59.1	25.7	10.2	1.9
United States	285.0	0.7	2.1	7.6	31.4	58.2	311.6	1.6	3.4	7.4	31.9	55.7
<b>South America</b>												
Argentina	37.3	20.9	56.5	15.0	6.6	1.0	40.7	2.7	37.0	32.5	23.5	4.3
Bolivia	8.7	24.8	54.1	13.5	6.2	1.4	10.3	17.9	53.7	18.6	7.9	2.0
Brazil	177.0	16.0	52.2	17.5	10.6	3.7	196.9	7.3	43.6	27.8	15.9	5.4
Chile	15.6	3.5	51.2	25.3	14.6	5.4	17.3	1.6	33.4	33.8	23.0	8.2
Colombia	40.6	23.8	58.6	11.2	5.0	1.5	47.1	10.4	54.9	20.7	10.8	3.2
Ecuador	12.8	29.1	58.9	7.7	3.3	1.0	15.2	7.4	60.1	21.1	9.6	1.8
Paraguay	5.5	13.3	53.6	20.2	10.2	2.7	6.6	8.3	49.0	27.1	12.9	2.8
Peru	26.4	20.5	59.0	14.0	5.3	1.2	29.6	8.1	54.5	24.8	10.7	1.8
Uruguay	3.3	1.2	44.3	30.1	19.6	4.8	3.4	0.2	28.4	32.8	29.9	8.8
Venezuela	24.9	9.8	60.9	20.2	8.0	1.1	29.5	5.9	49.4	29.5	13.4	1.9

Note: The poor live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices. \* indicates that the share is less than 0.05%. Population estimates are midyear figures. <sup>1</sup> China excludes Macao and Hong Kong.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the [Harvard Dataverse Network](#)) and the [Luxembourg Income Study](#) database. Population estimates are from the World Bank, World Development Indicators, except for Taiwan, which are from the International Monetary Fund, World Economic Outlook Database, October 2014.

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TABLE A2

**Number of People by Income Tiers, 2001 and 2011***In millions*

	2001						2011					
	Population	Population by Income					Population	Population by Income				
		Poor	Low	Middle	Upper Middle	High		Poor	Low	Middle	Upper Middle	High
<b>Africa</b>												
Angola	14.4	6.7	6.4	0.9	0.3	0.1	20.2	6.5	12.5	1.0	0.2	*
Burkina Faso	11.9	8.6	3.2	0.1	*	*	16.0	9.2	6.6	0.2	*	*
Burundi	6.8	6.0	0.8	*	*	*	9.5	7.6	1.9	*	*	*
Cameroon	16.4	2.0	12.7	1.3	0.3	*	21.2	2.6	16.2	1.9	0.5	*
Central African Republic	3.7	2.5	1.2	*	*	*	4.4	3.0	1.4	0.1	*	*
Côte d'Ivoire	16.4	2.7	11.7	1.5	0.4	*	19.4	4.6	13.3	1.2	0.3	*
Egypt	67.2	0.2	53.6	11.1	1.9	0.2	79.4	0.3	59.6	16.7	2.5	0.3
Ethiopia	68.0	41.6	26.0	0.3	0.1	*	89.4	30.2	57.7	1.2	0.3	*
Ghana	19.3	9.8	9.1	0.4	*	*	24.8	9.1	14.7	0.8	0.2	*
Guinea	8.9	5.2	3.5	0.1	*	*	11.2	6.2	4.8	0.2	*	*
Kenya	32.1	7.0	22.2	2.2	0.6	0.1	42.0	13.1	26.0	2.2	0.6	0.1
Madagascar	16.2	11.5	4.5	0.2	*	*	21.7	16.4	5.0	0.2	*	*
Malawi	11.6	10.3	1.3	*	*	*	15.5	11.3	4.0	0.1	*	*
Mali	10.6	6.6	3.9	0.1	*	*	14.4	7.5	6.8	0.1	*	*
Mauritania	2.8	0.6	2.0	0.2	*	*	3.7	0.7	2.7	0.2	0.1	*
Morocco	29.0	2.5	22.3	3.3	0.9	0.1	32.1	0.7	23.5	6.1	1.6	0.2
Mozambique	18.8	15.6	3.1	*	*	*	24.6	16.4	7.9	0.2	*	*
Niger	11.4	9.0	2.3	0.1	*	*	16.5	8.9	7.4	0.2	*	*
Nigeria	126.0	83.6	41.0	1.4	*	*	164.2	79.9	81.0	3.1	0.1	*
Rwanda	8.8	6.6	2.1	*	*	*	11.1	7.1	3.9	0.2	*	*
Senegal	10.1	5.1	4.8	0.2	*	*	13.3	4.7	8.1	0.4	0.1	*
Seychelles	0.1	*	*	*	*	*	0.1	*	0.1	*	*	*
Sierra Leone	4.3	2.5	1.7	0.1	*	*	5.9	2.9	2.9	0.1	*	*
South Africa	44.9	14.7	22.2	4.8	2.7	0.5	51.6	10.4	27.2	7.0	4.9	2.1
Swaziland	1.1	0.7	0.3	*	*	*	1.2	0.6	0.5	*	*	*
Tanzania	34.9	31.0	3.9	*	*	*	46.4	32.5	13.5	0.3	*	*
Togo	5.0	1.5	3.3	0.1	*	*	6.5	2.0	4.1	0.3	*	*
Tunisia	9.7	0.6	7.0	1.6	0.4	0.1	10.7	0.2	6.9	2.9	0.6	*
Uganda	25.1	16.4	8.4	0.2	0.1	*	35.1	14.4	19.6	0.9	0.2	*
Zambia	10.4	4.9	5.2	0.2	*	*	13.6	8.8	4.4	0.3	0.1	*

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TABLE A2 (continued)

**Number of People by Income Tiers, 2001 and 2011***In millions*

	2001						2011					
	Population	Population by Income					Population	Population by Income				
		Poor	Low	Middle	Upper Middle	High		Poor	Low	Middle	Upper Middle	High
<b>Asia &amp; South Pacific</b>												
Armenia	3.1	0.7	2.2	0.1	*	*	3.0	0.1	2.6	0.2	*	*
Australia	19.4	0.2	0.5	2.5	9.7	6.6	22.3	0.1	0.2	1.3	9.5	11.2
Bangladesh	134.7	74.4	58.8	1.3	0.2	*	152.9	59.7	90.7	2.1	0.4	*
Bhutan	0.6	0.2	0.3	*	*	*	0.7	*	0.5	0.2	*	*
Cambodia	12.5	5.2	6.9	0.3	0.1	*	14.6	2.0	11.7	0.7	0.2	*
China <sup>1</sup>	1,271.9	517.1	718.6	32.2	3.9	*	1,344.1	160.8	881.2	235.2	59.7	7.3
Fiji	0.8	0.2	0.5	0.1	*	*	0.9	*	0.7	0.1	*	*
Georgia	4.4	1.0	3.1	0.2	0.1	*	4.5	0.9	3.1	0.4	0.1	*
India	1,059.5	375.1	665.9	15.0	3.3	0.2	1,221.2	242.0	938.5	32.2	7.3	1.1
Indonesia	212.0	103.3	107.1	1.3	0.3	*	243.8	44.0	185.1	12.9	1.8	*
Iran	66.9	1.2	36.9	19.0	8.3	1.4	75.4	1.2	47.3	20.5	5.7	0.6
Israel	6.4	*	0.8	1.7	2.6	1.3	7.8	*	1.2	1.7	3.2	1.7
Jordan	4.9	*	2.6	1.6	0.6	0.1	6.2	*	2.2	2.7	1.1	0.1
Kazakhstan	14.9	2.7	10.7	1.1	0.3	*	16.6	*	10.2	5.3	1.0	*
Kyrgyzstan	4.9	2.1	2.8	*	*	*	5.5	0.4	4.6	0.4	0.1	*
Laos	5.5	2.0	3.4	0.1	*	*	6.5	1.7	4.6	0.2	*	*
Malaysia	23.9	0.3	13.4	6.8	3.0	0.5	28.8	*	9.2	8.9	8.2	2.4
Nepal	23.7	12.1	11.0	0.5	0.1	*	27.2	5.9	20.3	0.8	0.1	*
Pakistan	146.9	48.9	95.8	1.7	0.4	0.1	176.2	31.8	140.0	3.5	0.8	*
Philippines	79.3	15.3	53.8	7.5	2.4	0.4	95.1	13.5	68.4	9.9	3.1	0.2
Sri Lanka	18.8	2.4	14.7	1.4	0.3	0.1	20.9	0.2	16.6	3.2	0.7	0.1
Taiwan	22.4	*	0.1	1.5	13.0	7.8	23.2	*	0.2	2.0	13.2	7.8
Tajikistan	6.3	4.5	1.8	*	*	*	7.8	2.1	5.6	0.1	*	*
Thailand	63.1	1.7	45.8	11.2	3.9	0.5	66.6	0.2	38.7	19.2	7.6	0.9
Timor-Leste	0.9	0.7	0.2	*	*	*	1.1	0.9	0.3	*	*	*
Turkey	64.1	2.6	43.6	13.4	3.9	0.6	73.1	1.4	33.9	25.8	10.6	1.4
Vietnam	78.6	35.7	41.1	1.6	0.3	*	87.8	14.1	68.3	4.5	0.9	*
Yemen	18.0	0.8	14.6	2.3	0.4	*	23.3	1.9	19.3	1.7	0.3	*

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TABLE A2 (continued)

**Number of People by Income Tiers, 2001 and 2011***In millions*

	2001						2011					
	Population	Population by Income					Population	Population by Income				
		Poor	Low	Middle	Upper Middle	High		Poor	Low	Middle	Upper Middle	High
<b>Central America &amp; Caribbean</b>												
Costa Rica	4.0	0.3	2.0	1.0	0.6	0.1	4.7	0.2	1.9	1.4	0.9	0.3
Dominican Republic	8.8	0.4	4.7	2.2	1.1	0.3	10.1	0.3	5.7	2.6	1.2	0.3
El Salvador	6.0	1.1	3.3	1.1	0.5	0.1	6.3	0.7	3.9	1.1	0.4	0.1
Guatemala	11.5	1.2	7.0	2.1	0.9	0.3	14.7	1.8	8.4	2.8	1.3	0.4
Honduras	6.4	1.3	3.6	1.0	0.4	0.1	7.8	1.6	3.9	1.4	0.7	0.1
Nicaragua	5.2	1.0	3.7	0.4	0.1	*	5.9	0.7	4.4	0.6	0.2	*
Panama	3.1	0.5	1.5	0.6	0.4	0.1	3.7	0.3	1.8	1.0	0.6	0.2
<b>Eastern Europe</b>												
Albania	3.1	0.3	2.7	0.1	*	*	2.8	0.1	2.4	0.3	0.1	*
Belarus	9.9	0.1	7.3	2.1	0.4	*	9.5	*	1.7	5.1	2.6	0.1
Bosnia and Herzegovina	3.9	*	1.3	2.0	0.6	*	3.8	*	1.0	1.5	1.2	0.2
Bulgaria	8.0	0.3	5.0	2.3	0.5	*	7.3	*	3.0	3.5	0.8	*
Croatia	4.4	*	1.1	2.1	1.1	0.1	4.3	*	0.2	1.4	2.3	0.4
Czech Republic	10.2	*	0.7	4.2	4.8	0.6	10.5	*	0.4	2.0	6.9	1.3
Estonia	1.4	*	0.6	0.5	0.2	*	1.3	*	0.2	0.5	0.6	0.1
Hungary	10.2	*	3.1	5.5	1.5	0.1	10.0	*	1.5	4.7	3.5	0.2
Latvia	2.3	*	1.3	0.8	0.2	*	2.1	*	0.5	0.9	0.5	0.1
Lithuania	3.5	*	2.2	1.0	0.2	*	3.0	*	1.1	1.2	0.6	0.1
Macedonia	2.1	0.2	1.6	0.2	*	*	2.1	0.1	1.2	0.5	0.2	*
Moldova	3.6	1.1	2.4	0.1	*	*	3.6	*	2.4	0.9	0.2	*
Montenegro	0.6	*	0.3	0.2	0.1	*	0.6	*	0.2	0.3	0.1	*
Poland	38.2	0.1	17.5	15.6	4.8	0.4	38.5	*	11.6	17.8	8.3	0.8
Romania	22.1	1.6	19.2	1.3	0.1	*	20.1	0.2	14.5	5.1	0.4	*
Russia	146.0	2.3	87.6	40.9	13.5	1.6	143.0	*	27.4	53.0	50.9	11.6
Serbia	7.5	*	3.2	3.2	0.9	0.1	7.2	*	3.1	3.3	0.9	*
Slovakia	5.4	*	2.6	2.3	0.4	*	5.4	*	1.1	3.2	1.0	0.1
Slovenia	2.0	*	*	0.4	1.4	0.2	2.1	*	0.1	0.3	1.5	0.2
Ukraine	48.7	1.6	43.0	3.8	0.3	*	45.7	*	18.5	22.5	4.7	*

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TABLE A2 (continued)

**Number of People by Income Tiers, 2001 and 2011***In millions*

	2001						2011					
	Population	Population by Income					Population	Population by Income				
		Poor	Low	Middle	Upper Middle	High		Poor	Low	Middle	Upper Middle	High
<b>Western Europe</b>												
Denmark	5.4	*	*	0.1	1.7	3.5	5.6	*	*	0.1	1.4	4.1
Finland	5.2	*	*	0.3	2.7	2.2	5.4	*	*	0.2	2.2	3.0
France	61.4	0.1	0.5	8.7	35.3	16.8	65.3	0.1	0.9	6.0	33.5	24.7
Germany	82.3	*	0.5	3.1	30.7	48.1	81.8	0.1	0.3	3.7	28.9	48.7
Greece	11.0	0.1	1.0	3.2	5.5	1.2	11.1	0.1	0.4	1.9	6.1	2.6
Iceland	0.3	*	*	*	0.1	0.2	0.3	*	*	*	0.1	0.2
Ireland	3.9	*	0.1	0.7	2.3	0.8	4.6	*	0.1	0.5	2.3	1.7
Italy	57.0	0.7	3.6	12.0	31.0	9.8	59.4	0.9	2.2	8.5	27.1	20.7
Luxembourg	0.4	*	*	*	0.2	0.3	0.5	*	*	*	0.1	0.4
Netherlands	16.0	*	0.1	0.4	7.0	8.5	16.7	*	0.1	0.4	4.9	11.3
Norway	4.5	*	*	0.1	1.8	2.5	5.0	*	*	0.1	1.0	3.8
Spain	40.8	0.2	1.7	8.4	23.0	7.5	46.7	0.7	2.6	7.6	23.1	12.7
United Kingdom	59.1	0.2	1.1	8.8	27.4	21.7	63.3	0.7	1.6	7.6	26.8	26.6
<b>North America</b>												
Canada	31.1	0.1	0.5	2.8	12.5	15.2	34.3	0.1	0.4	2.1	12.4	19.4
Mexico	105.3	13.1	66.7	17.8	6.5	1.2	119.4	3.6	70.6	30.7	12.2	2.3
United States	285.0	2.1	6.1	21.6	89.3	165.8	311.6	5.0	10.7	23.1	99.3	173.5
<b>South America</b>												
Argentina	37.3	7.8	21.1	5.6	2.5	0.4	40.7	1.1	15.1	13.2	9.6	1.7
Bolivia	8.7	2.1	4.7	1.2	0.5	0.1	10.3	1.8	5.5	1.9	0.8	0.2
Brazil	177.0	28.3	92.3	31.0	18.8	6.6	196.9	14.4	85.9	54.8	31.3	10.6
Chile	15.6	0.5	8.0	3.9	2.3	0.8	17.3	0.3	5.8	5.9	4.0	1.4
Colombia	40.6	9.7	23.8	4.5	2.0	0.6	47.1	4.9	25.8	9.8	5.1	1.5
Ecuador	12.8	3.7	7.5	1.0	0.4	0.1	15.2	1.1	9.2	3.2	1.5	0.3
Paraguay	5.5	0.7	2.9	1.1	0.6	0.1	6.6	0.5	3.2	1.8	0.8	0.2
Peru	26.4	5.4	15.6	3.7	1.4	0.3	29.6	2.4	16.1	7.3	3.2	0.5
Uruguay	3.3	*	1.5	1.0	0.7	0.2	3.4	*	1.0	1.1	1.0	0.3
Venezuela	24.9	2.4	15.1	5.0	2.0	0.3	29.5	1.7	14.6	8.7	3.9	0.6

Note: The poor live on \$2 or less daily, low income on \$2.01-10, middle income on \$10.01-20, upper-middle income on \$20.01-50, and high income on more than \$50; figures expressed in 2011 purchasing power parities in 2011 prices. \* indicates that the share is less than 0.05%. Population estimates are midyear figures. <sup>1</sup> China excludes Macao and Hong Kong.

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the [Harvard Dataverse Network](#)) and the [Luxembourg Income Study](#) database. Population estimates are from the World Bank, World Development Indicators, except for Taiwan, which are from the International Monetary Fund, World Economic Outlook Database, October 2014.

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TABLE A3

**Median Daily per Capita Income, 2001 and 2011***In 2011 purchasing power parities and 2011 prices*

	2001	2011		2001	2011
<b>Africa</b>			<b>Asia &amp; South Pacific</b>		
Angola	\$2.22	\$2.86	Armenia	\$2.98	\$4.53
Burkina Faso	1.38	1.78	Australia	36.59	49.90
Burundi	0.93	1.22	Bangladesh	1.87	2.30
Cameroon	4.13	4.17	Bhutan	2.78	7.19
Central African Republic	1.43	1.36	Cambodia	2.26	3.55
Côte d'Ivoire	4.01	3.42	China	2.36	5.34
Egypt	6.47	7.21	Fiji	3.53	5.76
Ethiopia	1.75	2.48	Georgia	3.40	4.02
Ghana	1.98	2.58	India	2.39	2.96
Guinea	1.73	1.83	Indonesia	2.03	3.40
Kenya	3.54	2.95	Iran	8.71	7.84
Madagascar	1.24	1.19	Israel	25.28	26.91
Malawi	0.85	1.28	Jordan	9.59	12.21
Mali	1.59	1.94	Kazakhstan	3.97	8.62
Mauritania	3.40	3.63	Kyrgyzstan	2.24	4.55
Morocco	4.72	6.38	Laos	2.41	2.86
Mozambique	0.99	1.48	Malaysia	8.71	15.05
Niger	1.13	1.90	Nepal	1.97	3.05
Nigeria	1.46	2.05	Pakistan	2.42	2.95
Rwanda	1.18	1.55	Philippines	3.83	4.15
Senegal	1.97	2.62	Sri Lanka	3.90	5.96
Seychelles	12.15	7.69	Taiwan	40.81	39.74
Sierra Leone	1.70	2.00	Tajikistan	1.53	2.80
South Africa	3.25	4.55	Thailand	5.76	8.64
Swaziland	1.41	1.96	Timor-Leste	1.08	1.37
Tanzania	0.95	1.44	Turkey	6.62	10.30
Togo	2.72	2.83	Vietnam	2.15	3.60
Tunisia	5.78	7.60	Yemen	5.51	4.31
Uganda	1.52	2.34			
Zambia	2.09	1.40			

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TABLE A3 (continued)

**Median Daily per Capita Income, 2001 and 2011***In 2011 purchasing power parities and 2011 prices*

	2001	2011		2001	2011
<b>Central America &amp; Caribbean</b>			<b>Western Europe</b>		
Costa Rica	\$8.74	\$11.37	Denmark	59.67	65.03
Dominican Republic	8.40	8.21	Finland	45.59	54.57
El Salvador	5.71	6.10	France	35.53	42.46
Guatemala	6.01	6.40	Germany	56.34	57.53
Honduras	4.74	5.43	Greece	24.22	32.54
Nicaragua	3.68	4.55	Iceland	53.19	56.03
Panama	6.86	9.07	Ireland	32.31	38.90
			Italy	28.72	38.83
			Luxembourg	56.01	75.31
<b>Eastern Europe</b>			Netherlands	52.16	63.71
Albania	3.84	5.42	Norway	53.88	70.76
Belarus	7.13	15.42	Spain	29.46	32.76
Bosnia and Herzegovina	12.41	15.94	United Kingdom	39.10	43.44
Bulgaria	7.99	11.06			
Croatia	14.53	23.66	<b>North America</b>		
Czech Republic	20.45	26.86	Canada	48.93	55.56
Estonia	11.13	20.79	Mexico	5.51	7.87
Hungary	12.66	17.43	United States	58.56	56.44
Latvia	9.45	14.08			
Lithuania	8.27	12.77	<b>South America</b>		
Macedonia	5.26	7.52	Argentina	4.78	12.35
Moldova	2.73	7.70	Bolivia	4.50	5.83
Montenegro	10.16	12.58	Brazil	6.12	9.76
Poland	10.59	13.48	Chile	9.03	13.33
Romania	4.51	7.48	Colombia	4.05	6.86
Russia	8.18	17.97	Ecuador	3.29	6.92
Serbia	10.92	10.98	Paraguay	6.66	8.56
Slovakia	10.21	13.91	Peru	4.49	7.54
Slovenia	27.38	29.58	Uruguay	10.98	15.72
Ukraine	4.96	11.14	Venezuela	6.32	8.98

Source: Pew Research Center analysis of data from the World Bank PovcalNet database (Center for Global Development version available on the [Harvard Dataverse Network](#)) and the [Luxembourg Income Study](#) database

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TABLE A4

**Region and Country Population, 2001 and 2011***In millions*

	<b>2001</b>	<b>2011</b>
<b>Global Population</b>	<b>6,204.1</b>	<b>6,998.0</b>
<i>Coverage of Global population</i>	5,512.6	6,186.3
<b>Africa Population</b>	<b>827.8</b>	<b>1,057.0</b>
<i>Coverage of Africa population</i>	645.8	825.6
Angola	14.4	20.2
Burkina Faso	11.9	16.0
Burundi	6.8	9.5
Cameroon	16.4	21.2
Central African Republic	3.7	4.4
Côte d'Ivoire	16.4	19.4
Egypt	67.2	79.4
Ethiopia	68.0	89.4
Ghana	19.3	24.8
Guinea	8.9	11.2
Kenya	32.1	42.0
Madagascar	16.2	21.7
Malawi	11.6	15.5
Mali	10.6	14.4
Mauritania	2.8	3.7
Morocco	29.0	32.1
Mozambique	18.8	24.6
Niger	11.4	16.5
Nigeria	126.0	164.2
Rwanda	8.8	11.1
Senegal	10.1	13.3
Seychelles	0.1	0.1
Sierra Leone	4.3	5.9
South Africa	44.9	51.6
Swaziland	1.1	1.2
Tanzania	34.9	46.4
Togo	5.0	6.5
Tunisia	9.7	10.7
Uganda	25.1	35.1
Zambia	10.4	13.6

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TABLE A4 (continued)

**Region and Country Population, 2001 and 2011***In millions*

	<b>2001</b>	<b>2011</b>
<b>Asia &amp; South Pacific Population</b>	<b>3,794.4</b>	<b>4,247.2</b>
<i>Coverage of Asia &amp; South Pacific population</i>	3,368.2	3,756.8
Armenia	3.1	3.0
Australia	19.4	22.3
Bangladesh	134.7	152.9
Bhutan	0.6	0.7
Cambodia	12.5	14.6
China <sup>1</sup>	1,271.9	1,344.1
Fiji	0.8	0.9
Georgia	4.4	4.5
India	1,059.5	1,221.2
Indonesia	212.0	243.8
Iran	66.9	75.4
Israel	6.4	7.8
Jordan	4.9	6.2
Kazakhstan	14.9	16.6
Kyrgyzstan	4.9	5.5
Laos	5.5	6.5
Malaysia	23.9	28.8
Nepal	23.7	27.2
Pakistan	146.9	176.2
Philippines	79.3	95.1
Sri Lanka	18.8	20.9
Taiwan	22.4	23.2
Tajikistan	6.3	7.8
Thailand	63.1	66.6
Timor-Leste	0.9	1.1
Turkey	64.1	73.1
Vietnam	78.6	87.8
Yemen	18.0	23.3
<b>Central America &amp; Caribbean Population</b>	<b>75.2</b>	<b>85.4</b>
<i>Coverage of Central America &amp; Caribbean population</i>	44.9	53.3
Costa Rica	4.0	4.7
Dominican Republic	8.8	10.1
El Salvador	6.0	6.3
Guatemala	11.5	14.7
Honduras	6.4	7.8

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TABLE A4 (continued)

**Region and Country Population, 2001 and 2011***In millions*

	<b>2001</b>	<b>2011</b>
<b>Central America &amp; Caribbean Population (continued)</b>		
Nicaragua	5.2	5.9
Panama	3.1	3.7
<b>Europe Population</b>	<b>729.4</b>	<b>741.3</b>
<i>Coverage of Europe population</i>	680.4	688.6
<b>Eastern Europe Population</b>	<b>336.8</b>	<b>327.7</b>
<i>Coverage of Eastern Europe population</i>	333.2	323.0
Albania	3.1	2.8
Belarus	9.9	9.5
Bosnia and Herzegovina	3.9	3.8
Bulgaria	8.0	7.3
Croatia	4.4	4.3
Czech Republic	10.2	10.5
Estonia	1.4	1.3
Hungary	10.2	10.0
Latvia	2.3	2.1
Lithuania	3.5	3.0
Macedonia	2.1	2.1
Moldova	3.6	3.6
Montenegro	0.6	0.6
Poland	38.2	38.5
Romania	22.1	20.1
Russia	146.0	143.0
Serbia	7.5	7.2
Slovakia	5.4	5.4
Slovenia	2.0	2.1
Ukraine	48.7	45.7
<b>Western Europe Population</b>	<b>392.6</b>	<b>413.5</b>
<i>Coverage of Western Europe population</i>	347.2	365.7
Denmark	5.4	5.6
Finland	5.2	5.4
France	61.4	65.3
Germany	82.3	81.8
Greece	11.0	11.1
Iceland	0.3	0.3
Ireland	3.9	4.6

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TABLE A4 (continued)

**Region and Country Population, 2001 and 2011***In millions*

	<b>2001</b>	<b>2011</b>
<b>Western Europe Population (continued)</b>		
Italy	57.0	59.4
Luxembourg	0.4	0.5
Netherlands	16.0	16.7
Norway	4.5	5.0
Spain	40.8	46.7
United Kingdom	59.1	63.3
<b>North America Population</b>	<b>424.0</b>	<b>468.9</b>
<i>Coverage of North America population</i>	<i>421.4</i>	<i>465.3</i>
Canada	31.1	34.3
Mexico	105.3	119.4
United States	285.0	311.6
<b>South America Population</b>	<b>353.3</b>	<b>398.3</b>
<i>Coverage of South America population</i>	<i>351.9</i>	<i>396.7</i>
Argentina	37.3	40.7
Bolivia	8.7	10.3
Brazil	177.0	196.9
Chile	15.6	17.3
Colombia	40.6	47.1
Ecuador	12.8	15.2
Paraguay	5.5	6.6
Peru	26.4	29.6
Uruguay	3.3	3.4
Venezuela	24.9	29.5

Note: The coverage of a region's population is the total population of the countries shown and included in the analysis of this study. Population estimates are midyear figures.<sup>1</sup> China excludes Macao and Hong Kong.

Source: Global and regional population estimates are from United Nations, Population Division of the Department of Economic and Social Affairs, World Population Prospects: The 2012 Revision, <http://esa.un.org/unpd/wpp/Excel-Data/population.htm>. Country population estimates are from the World Bank, World Development Indicators, except for Taiwan, which are from the International Monetary Fund, World Economic Outlook Database, October 2014.

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TABLE A5

**Description of Data Sources, by Country**

<b>Country</b>	<b>Data Source</b>	<b>Survey Years for Projections</b>		<b>Income or Consumption Data</b>
		<b>2001</b>	<b>2011</b>	
Albania	PovcalNet	2002	2008	Consumption
Angola	PovcalNet	2000	2008	Consumption
Argentina	PovcalNet	2001	2010	Income
Armenia	PovcalNet	2001	2010	Consumption
Australia	Luxembourg Income Study	2001	2010	Income
Bangladesh	PovcalNet	2000	2010	Consumption
Belarus	PovcalNet	2001	2011	Consumption
Bhutan	PovcalNet	2003	2012	Consumption
Bolivia	PovcalNet	2001	2008	Income
Bosnia and Herzegovina	PovcalNet	2001	2007	Consumption
Brazil	PovcalNet	2001	2009	Income
Bulgaria	PovcalNet	2001	2007	Consumption
Burkina Faso	PovcalNet	2003	2009	Consumption
Burundi	PovcalNet	1998	2006	Consumption
Cambodia	PovcalNet	1994, 2004	2009	Consumption
Cameroon	PovcalNet	2001	2007	Consumption
Canada	Luxembourg Income Study	2000	2010	Income
Central African Republic	PovcalNet	2003	2008	Consumption
Chile	PovcalNet	2000	2009	Income
China	PovcalNet	1999	2010	Consumption
Colombia	PovcalNet	2001	2010	Income
Costa Rica	PovcalNet	2001	2009	Income
Côte d'Ivoire	PovcalNet	2002	2008	Consumption
Croatia	PovcalNet	2001	2008	Consumption
Czech Republic	Luxembourg Income Study	2002	2010	Income
Denmark	Luxembourg Income Study	2000	2010	Income
Dominican Republic	PovcalNet	2001	2010	Income
Ecuador	PovcalNet	2000	2010	Income
Egypt	PovcalNet	1999	2008	Consumption
El Salvador	PovcalNet	2001	2009	Income
Estonia	Luxembourg Income Study	2000	2010	Income
Ethiopia	PovcalNet	1999	2010	Consumption
Fiji	PovcalNet	2002	2008	Consumption
Finland	Luxembourg Income Study	2000	2010	Income
France	Luxembourg Income Study	2000	2010	Income
Georgia	PovcalNet	2001	2010	Consumption
Germany	Luxembourg Income Study	2000	2010	Income
Ghana	PovcalNet	1998, 2005	2005	Consumption

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TABLE A5 (continued)

**Description of Data Sources, by Country**

<b>Country</b>	<b>Data Source</b>	<b>Survey Years for Projections</b>		<b>Income or Consumption Data</b>
		<b>2001</b>	<b>2011</b>	
Greece	Luxembourg Income Study	2000	2010	Income
Guatemala	PovcalNet	2000	2006	Income
Guinea	PovcalNet	2003	2007	Consumption
Honduras	PovcalNet	2001	2009	Income
Hungary	PovcalNet	2001	2011	Consumption, 2001 Income, 2011
Iceland	Luxembourg Income Study	2004	2010	Income
India	PovcalNet	1993, 2004	2009	Consumption
Indonesia	PovcalNet	1999	2010	Consumption
Iran	PovcalNet	1998	2005	Consumption
Ireland	Luxembourg Income Study	2000	2010	Income
Israel	Luxembourg Income Study	2001	2010	Income
Italy	Luxembourg Income Study	2000	2010	Income
Jordan	PovcalNet	2002	2010	Consumption
Kazakhstan	PovcalNet	2001	2010	Consumption
Kenya	PovcalNet	1997, 2005	2005	Consumption
Kyrgyzstan	PovcalNet	2002	2011	Consumption
Laos	PovcalNet	2002	2012	Consumption
Latvia	PovcalNet	2002	2011	Consumption
Lithuania	PovcalNet	2001	2008	Consumption
Luxembourg	Luxembourg Income Study	2000	2010	Income
Macedonia	PovcalNet	2000	2010	Consumption
Madagascar	PovcalNet	2001	2010	Consumption
Malawi	PovcalNet	1997, 2004	2010	Consumption
Malaysia	PovcalNet	1997, 2004	2009	Income
Mali	PovcalNet	2001	2010	Consumption
Mauritania	PovcalNet	2000	2008	Consumption
Mexico	PovcalNet	2000	2010	Consumption
Moldova	PovcalNet	2001	2010	Consumption
Montenegro	PovcalNet	2005	2010	Consumption
Morocco	PovcalNet	2000	2007	Consumption
Mozambique	PovcalNet	2002	2008	Consumption
Nepal	PovcalNet	2003	2010	Consumption
Netherlands	Luxembourg Income Study	1999	2010	Income
Nicaragua	PovcalNet	2001	2005	Consumption
Niger	PovcalNet	1994, 2005	2007	Consumption
Nigeria	PovcalNet	2003	2011	Consumption
Norway	Luxembourg Income Study	2000	2010	Income

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TABLE A5 (continued)

**Description of Data Sources, by Country**

<b>Country</b>	<b>Data Source</b>	<b>Survey Years for Projections</b>		<b>Income or Consumption Data</b>
		<b>2001</b>	<b>2011</b>	
Pakistan	PovcalNet	2001	2007	Consumption
Panama	PovcalNet	2001	2010	Income
Paraguay	PovcalNet	2001	2010	Income
Peru	PovcalNet	2001	2010	Income
Philippines	PovcalNet	2000	2009	Consumption
Poland	PovcalNet	2001	2011	Consumption
Romania	PovcalNet	2001	2011	Consumption
Russia	PovcalNet	2001	2009	Consumption
Rwanda	PovcalNet	2000	2010	Consumption
Senegal	PovcalNet	2001	2011	Consumption
Serbia	PovcalNet	2002	2010	Consumption
Seychelles	PovcalNet	1999	2006	Consumption
Sierra Leone	PovcalNet	2003	2011	Consumption
Slovakia	PovcalNet	2004	2009	Consumption
Slovenia	Luxembourg Income Study	1999	2010	Income
South Africa	PovcalNet	2000	2008	Consumption
Spain	Luxembourg Income Study	2000	2010	Income
Sri Lanka	PovcalNet	2002	2009	Consumption
Swaziland	PovcalNet	2000	2009	Consumption
Taiwan	Luxembourg Income Study	2000	2010	Income
Tajikistan	PovcalNet	1999	2009	Consumption
Tanzania	PovcalNet	2000	2007	Consumption
Thailand	PovcalNet	2000	2010	Consumption
Timor-Leste	PovcalNet	2001	2007	Consumption
Togo	PovcalNet	2006	2011	Consumption
Tunisia	PovcalNet	2000	2010	Consumption
Turkey	PovcalNet	2002	2010	Consumption
Uganda	PovcalNet	1999	2009	Consumption
Ukraine	PovcalNet	2002	2010	Consumption
United Kingdom	Luxembourg Income Study	1999	2010	Income
United States	Luxembourg Income Study	2000	2010	Income
Uruguay	PovcalNet	2006	2010	Income
Venezuela	PovcalNet	2001	2006	Income
Vietnam	PovcalNet	2002	2008	Consumption
Yemen	PovcalNet	1998	2005	Consumption
Zambia	PovcalNet	2002	2010	Consumption

Note: The World Bank PovcalNet data used in the study are a version created by the Center for Global Development and are on the [Harvard Dataverse Network](#). The Luxembourg Income Study database is available at <http://www.lisdatacenter.org/>.

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