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The Gender Gap in Financial Literacy: A Global Perspective

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Introduction

Financial illiteracy is widespread, and individuals lack knowledge of even the most basic economic principles. One striking feature of the empirical data on financial literacy is the large and persistent gender difference (Lusardi and Mitchell, 2014).

Because women face unique financial challenges, they need financial knowledge in order to build a financially secure future. Women's distinct challenges arise from life expectancies that are longer than men's, lower lifetime income than men, and career interruptions due to child rearing. As women are likely to spend at least part of their retirement in widowhood, they have different savings needs than men. Moreover, women are much less likely to plan and, thus, less likely to be prepared for their retirement than men (Lusardi and Mitchell, 2008). Further, lower financial skills combined with fewer available resources puts women's financial security after retirement at risk.

Low financial knowledge has substantial consequences because it is linked to several other financial decisions. Those who are more financially literate are more likely to invest in the stock market and pay attention to fees, to borrow at low costs, to accumulate retirement wealth, and to diversify risk (see, e.g., Lusardi and Mitchell, 2008; van Rooij et al., 2011; Lusardi and de Bassa Scheresberg, 2013; Lusardi and Mitchell, 2014; Lusardi and Tufano, 2015). Thus, it is important to know the extent of women's understanding of basic financial concepts as well as the degree to which financial skills fall short.

Many papers show that women display lower financial literacy and confidence than men, leaving them at a potential disadvantage. Even those for whom financial knowledge is likely to be very important—for example widows or single women—know little about concepts relevant for day-to-day financial decision making. This is in line with the paper by Bucher-Koenen et al. (2016) that investigates gender differences in the United States, Germany, and the Netherlands, which finds a persistent gender gap in financial literacy that is independent of socioeconomic background as well as cultural and institutional context.

While existing literature shows strong evidence on the gender gap, the samples are often restricted to one country or a handful of countries (Fonseca et al., 2012; Bucher-Koenen et al., 2016). With data from the 2014 Standard & Poor's Ratings Services Global Financial Literacy Survey (S&P Global FinLit Survey), we can elevate the existing research on the gender gap to a global level, making this report the first to analyze and discuss the gender gap worldwide. The very comprehensive S&P Global FinLit Survey data set allows us to study differences in the financial literacy rates between men and women around the world.

Measuring financial literacy around the world

The Standard & Poor's Ratings Services Global Financial Literacy Survey (S&P Global FinLit Survey) delivers the most comprehensive global gauge of financial literacy to date. It builds on early initiatives by the International Network on Financial Education (INFE) of the Organisation for Economic Co-operation and Development (OECD), the World Bank's Financial Capability and Household Surveys, the Financial Literacy around the World (FLAT World) project, and numerous national survey initiatives that collect information on financial literacy. More than 150,000 nationally representative and randomly selected adults in more than 140 economies were interviewed.[1] By showing where financial skills are strong and where they are lacking, the S&P Global FinLit Survey can help stakeholders design policies and programs to improve the financial well-being of individuals around the world.

Financial literacy was measured using questions assessing basic knowledge of four fundamental concepts in financial decision making: numeracy (interest), compound interest, inflation, and risk diversification. The wording of the questions is as follows (the answer options are in brackets, with the correct answer in bold.)

- *Numeracy (Interest)*
  Suppose you need to borrow 100 US dollars. Which is the lower amount to pay back: 105 US dollars or 100 US dollars plus three percent? [105 US dollars; **100 US dollars plus three percent**; don't know; refuse to answer]

- *Compound Interest*
  Suppose you put money in the bank for two years and the bank agrees to add 15 percent per year to your account. Will the bank add more money to your account the second year than it did the first year, or will it add the same amount of money both years? [**more**; the same; don't know; refuse to answer]

  Suppose you had 100 US dollars in a savings account and the bank adds 10 percent per year to the account. How much money would you have in the account after five years if you did not remove any money from the account? [**more than 150 dollars**; exactly 150 dollars; less than 150 dollars; don't know; refuse to answer]

- *Inflation*
  Suppose over the next 10 years the prices of the things you buy double. If your income also doubles, will you be able to buy less than you can buy today, the same as you can buy today, or more than you can buy today? [less; **the same**; more; don't know; refuse to answer]

- *Risk Diversification*
  Suppose you have some money. Is it safer to put your money into one business or investment, or to put your money into multiple businesses or investments? [one business or investment; **multiple businesses or investments**; don't know; refuse to answer]

A person is defined as financially literate when he or she demonstrates understanding (via correct answers to the questions) of at least three out of the four financial concepts noted above. This definition was chosen because the concepts are basic and this is what would correspond to a passing grade.

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[1] For more information about this survey, the methodology and some of the main findings, see Klapper, Lusardi, and van Oudheusden (2015).

Worldwide financial literacy gender gap

In general, financial literacy around the world is rather low. Worldwide, 33% of adults are financially literate, i.e., they demonstrate understanding of at least three out of four concepts. In other words, 77% of the global adult population—roughly 3.5 billion people—most of them in developing economies, lack an understanding of basic financial concepts.

Importantly, the S&P Global FinLit Survey shows lower financial literacy rates among women for the great majority of countries. Figure 1 compares the percentage of women to the percentage of men who are financially literate by country. Each marker represents a different country. If men and women had equal financial skills, the dots would lie on the 45-degree line. As seen in the figure, in most economies around the world, men have a better understanding of basic financial concepts than women.

Figure 1: Financial literacy rates among men and women around the world
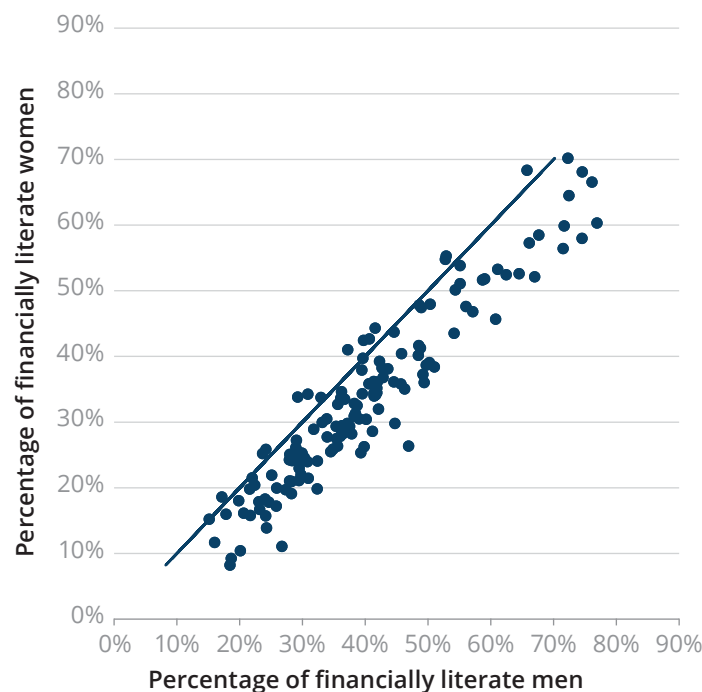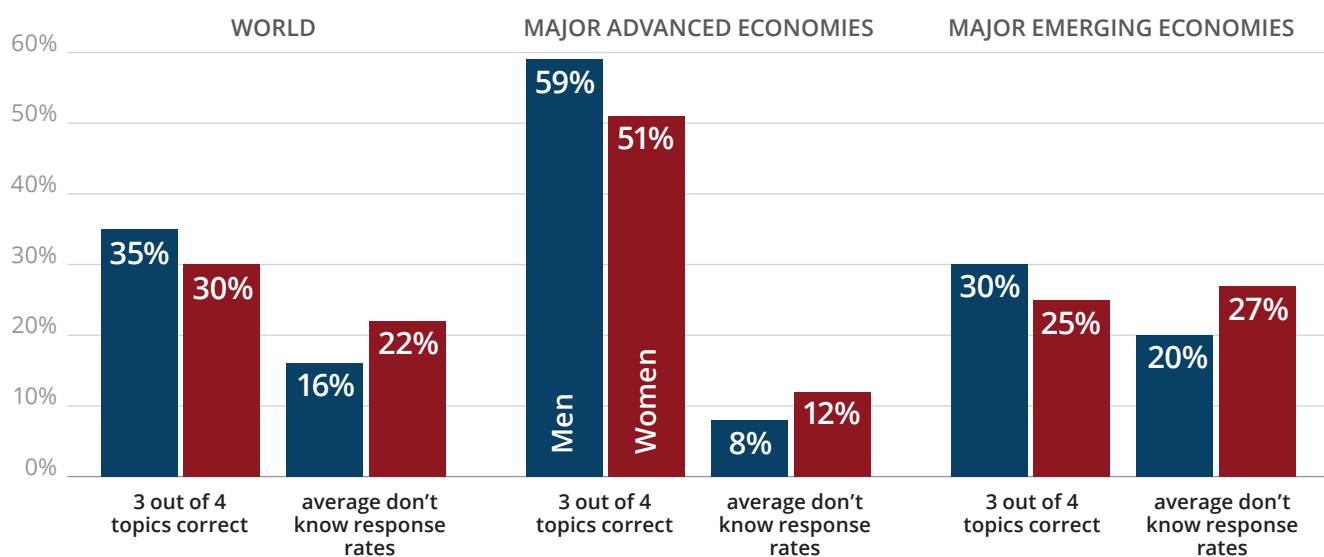

Source: S&P Global FinLit Survey.

In concrete numbers, worldwide, 35% of men are financially literate compared with 30% of women (Figure 2). Moreover, this gender gap is found in both advanced economies (e.g., Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States—the so-called G7) as well as emerging economies (e.g., Brazil, the Russian Federation, India, China, and South Africa—the so-called BRICS) around the world. As can be seen in Figure 2, the gap is, on average, around 5% across the BRICS, and 8% for the G7 countries. However, when comparing these average numbers, it must be noted that across the G7, a higher fraction of the population answers three out of the four concepts correctly compared to the population of the BRICS. In the G7 countries, on average, 55% of adults are financially literate, whereas in the BRICS, on average, 28% of the adult population is financially literate. Thus, basic financial knowledge and skills differ enormously

between the G7 and BRICS economies. However, despite these differences, the gender gap in financial literacy persistently occurs across different countries within both advanced and emerging economies.

An important finding emerges when examining the answers respondents provided to the financial literacy questions. Women are disproportionately more likely than men to respond to a question with "do not know." Strikingly, this finding holds true across countries. Figure 2 shows the percentages of "do not know" responses of men and women globally and for major advanced and emerging economies. For all three breakdowns, the "do not know" responses are higher for women than men. This finding is consistently observed in other studies as well (e.g., Lusardi and Mitchell, 2014).

Figure 2: Financial skills by gender: Percentage of adults with "correct" or "don't know" answers
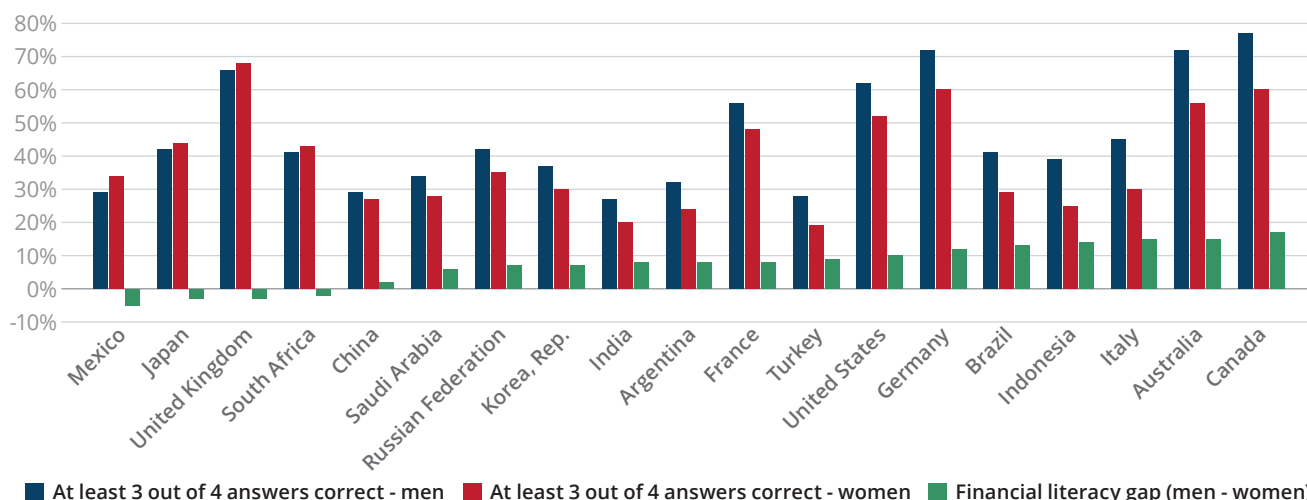

Source: S&P Global FinLit Survey.

In what follows, we focus on the G20 countries, which comprise a mix of the world's largest advanced and emerging economies. Members of the G20 are 19 individual countries (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, the Republic of Korea, Mexico, the Russian Federation, Saudi Arabia, South Africa, Turkey, the United Kingdom, and the United States) along with the European Union. These countries represent about two-thirds of the world's population and 85% of the global gross domestic product. Thus, focusing on these countries allows us to compare the gender gap in financial literacy among countries whose size and strategic importance gives them a particularly crucial role in the global economy. We can also focus on countries whose economic systems share similarities.

Figure 3 depicts the percentages of financially literate men and women along with the gender gap for the G20 countries. Overall, financial literacy rates tend to be higher in high-income economies such as Canada, Australia, Germany, the United States, and the United Kingdom. However, we find large variation in rates even among the G20 countries. Further, we see, on one hand, comparable literacy rates for men and women for Japan, the United Kingdom, South Africa, and China. On the other hand, Canada, Australia, Italy, Indonesia, and Brazil are among the countries with the highest gender gaps.

Figure 3: Percentage of financially literate adults among the G20 countries

■ At least 3 out of 4 answers correct - men   ■ At least 3 out of 4 answers correct - women   ■ Financial literacy gap (men - women)

Source: S&P Global FinLit Survey.

In order to explore the connection between a country's income level and its gender gap, Figure 4 shows the distribution of the gender gap in financial literacy for the World Bank's four country income classification groups (low, lower middle, upper middle, and high). The boxplots show the median, mean (cross), and the upper and lower quartiles, which represent 50% of all countries of the respective income group. Interestingly, the pattern of gender differences in financial literacy does not change with income level. A similar gender gap is seen in both high- and low-income economies. This important finding reveals that the gender difference is not limited to just a few countries, but exists around the world, in developing as well as advanced economies, and is independent of the country's income level. Thus, the gender gap in financial literacy is large and persistent across countries, and there is no evidence that income helps explain it. Further, it is important to note that financial literacy rates are overall much lower among low-income countries. This fact points out that women's financial knowledge is particularly low in those economies.

Figure 4: Boxplots of the gender gap distribution split by country income levels
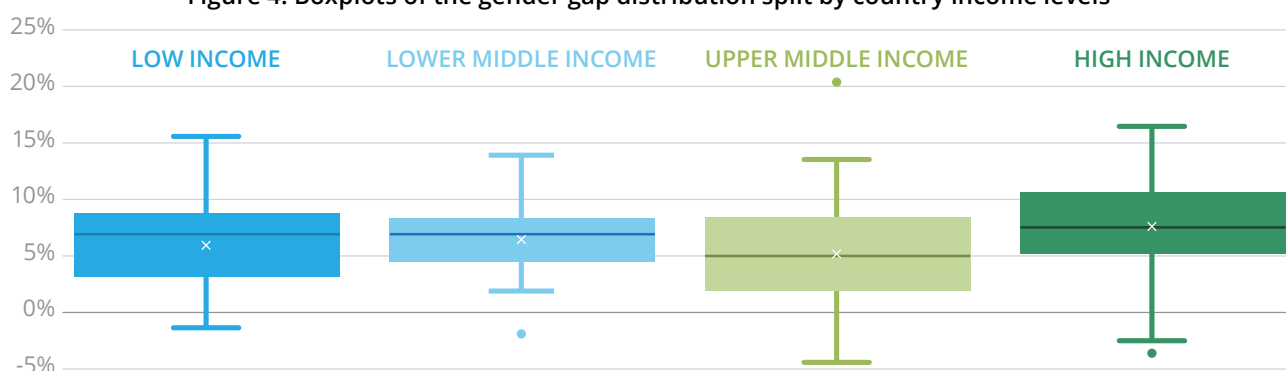
Source: S&P Global FinLit Survey and World Bank country classification as of March 2014.
Note: For the 2014 fiscal year, low-income economies are defined as those with a gross national income per capita, of $1,035 or less in 2012; lower middle-income economies are those with a gross national income per capita between $1,036 and $4,085; upper middle-income economies are those with a gross national income per capita between $4,086 and $12,615; and high-income economies are those with a gross national income per capita of $12,615 or more. https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

Saving, financial fragility, and borrowing among women

In this section we focus on the relationship between financial literacy and saving and borrowing among women, as well as financial fragility across the G20 economies. Further, we compare the financial choices of men and women and relate those to their understanding of financial concepts.

Saving

The fraction of people who personally saved or set aside money by using an account at a bank or another type of formal financial institution (formal saving mechanism) over the past 12 months, is highly variable among the G20 countries (Figure 5). Furthermore, formal saving is more prevalent among men than women. Interestingly, the gender gap among the G20 for the use of formal saving mechanisms is the largest in Italy, at 22% (with 23% of women using formal saving vs. 45% of men), followed by France at 12% (46% of women vs. 58% of men), and Saudi Arabia at 11% (9% of women vs. 20% of men).

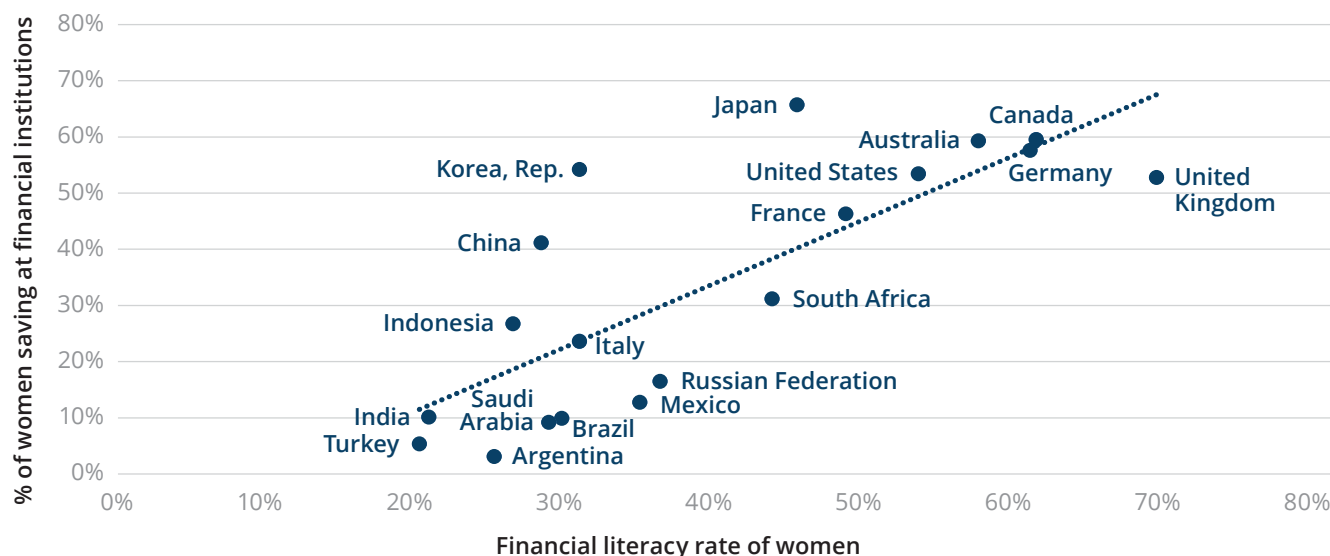**Figure 5: Percentage of men and women saving at financial institutions**
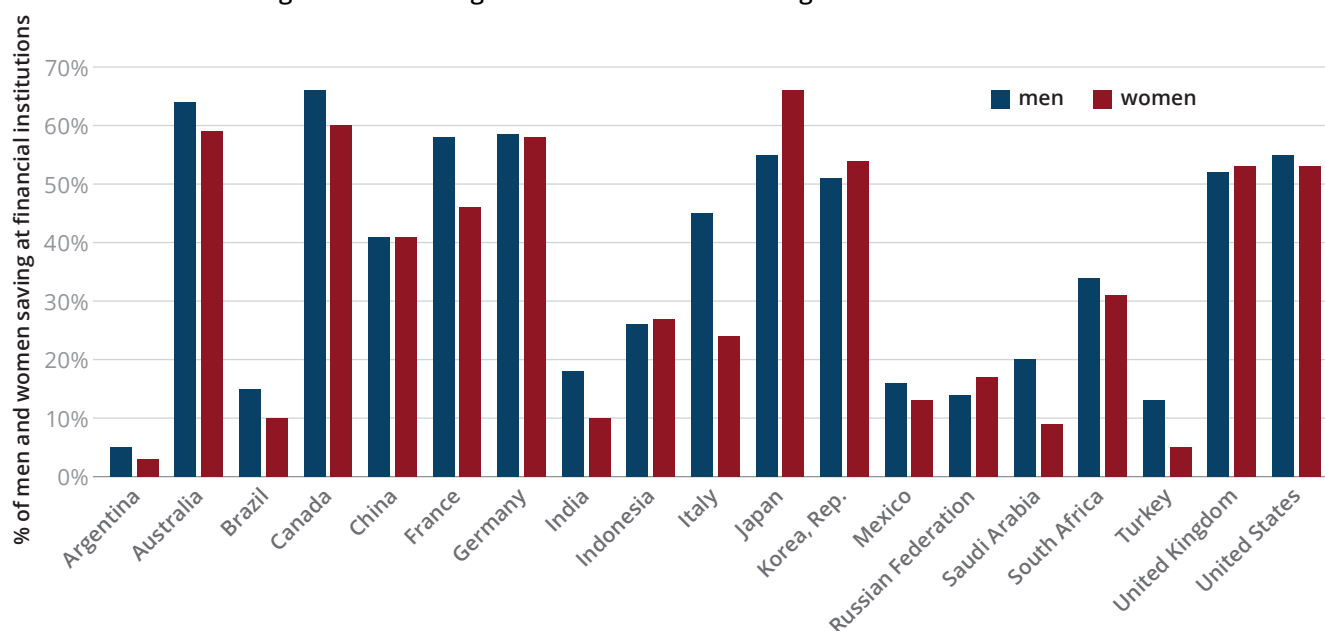
Source: Global Findex Database 2014.

Furthermore, Figure 6 shows that financial literacy among women is positively correlated with formal saving habits. In other words, those with high financial literacy are more likely to save at a financial institution. The same positive relationship is seen for men as well (Figure 7). Both graphs simply show a positive correlation between financial knowledge and formal savings rather than a causal relationship.
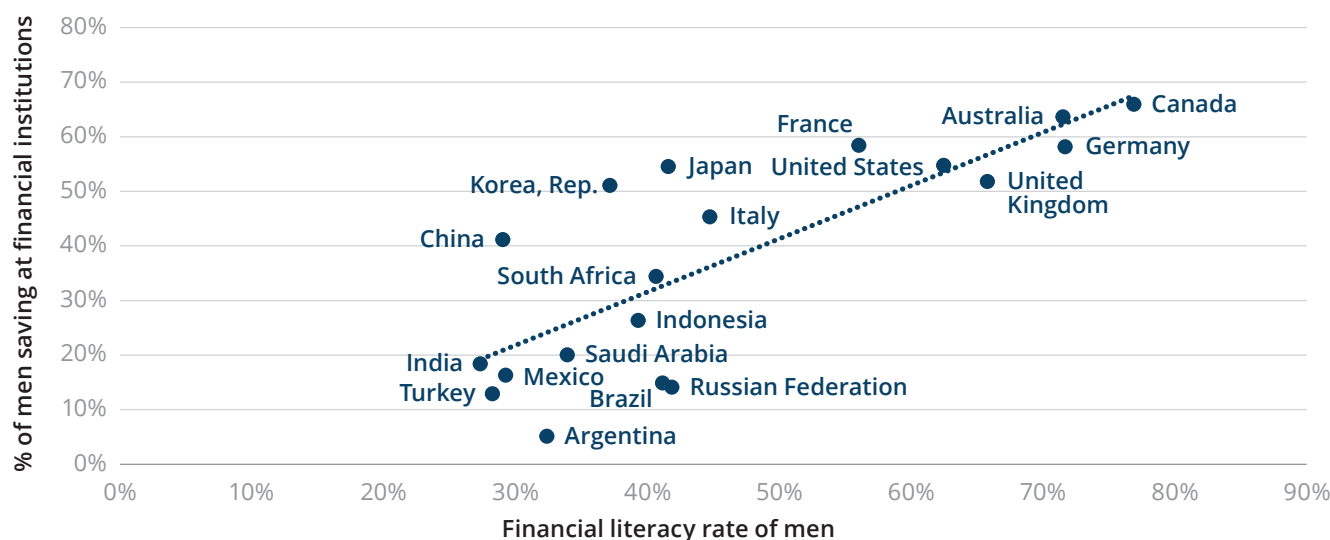
Figure 6: Financial literacy among women and percentage of women saving at financial institutions

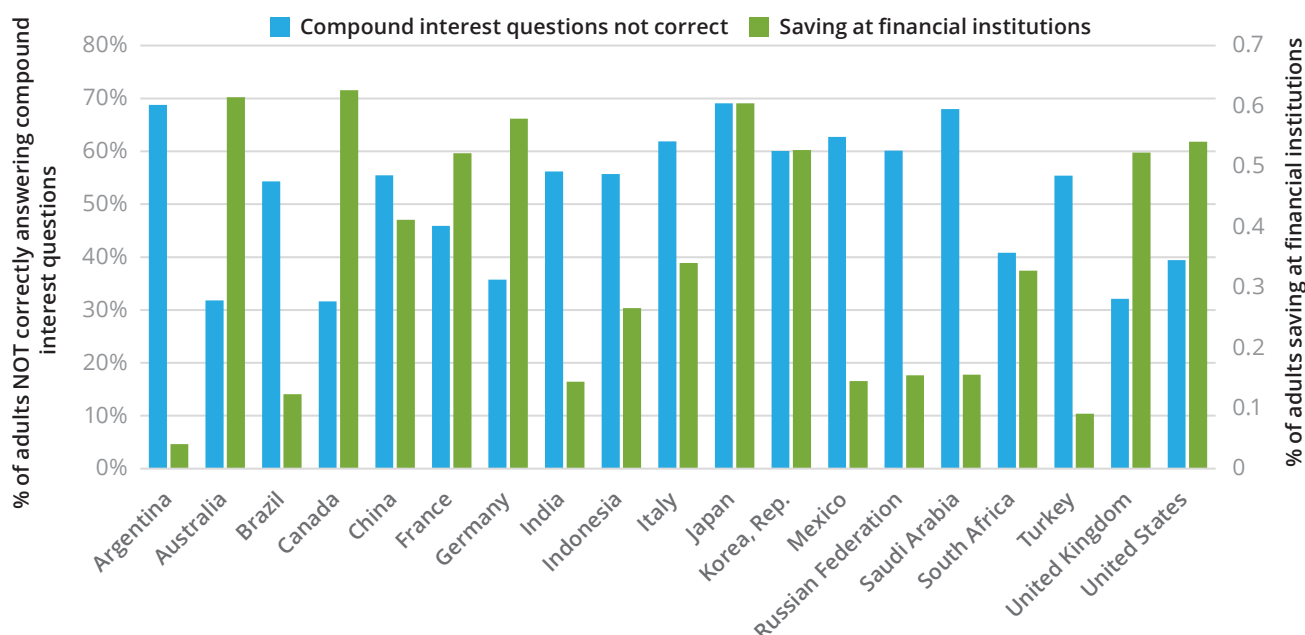*Source: S&P Global FinLit Survey and Global Findex Database 2014.*

Figure 7: Financial literacy among men and percentage of men saving at financial institutions

Source: S&P Global FinLit Survey and Global Findex Database 2014.

Even though we find a positive link between formal saving habits and financial knowledge, many individuals may not be fully benefitting from what their accounts have to offer, as a large fraction of the population lacks financial skills. Figure 8 shows the percentages of adults in each country who are not able to correctly answer the two compound interest questions in the S&P Global FinLit Survey along with the fraction of the population who saves using an account at a bank or other financial institution. Overall, the fraction of people not able to correctly answer the two compound interest questions ranges from 32% in Canada to 69% in Argentina and Japan. Even though in most G20 countries individuals use an account at formal financial institutions, around two-thirds of the population do not grasp compound interest.

Figure 8: Percentage of adults NOT correctly answering the compound interest questions and the fraction of the population saving using an account at formal financial institutions

Source: S&P Global FinLit Survey and Global Findex Database 2014.

Next, we focus on savings for old age and find that women tend to save less for their retirement than men (Figure 9). The fraction of the population saving for their old age varies greatly across G20 countries. Once again, Italy shows a pronounced gender gap of 11% in retirement savings (with 20% of women saving for retirement vs. 31% of men). Among the G20 economies, this gender difference is greater only in the United Kingdom, with a gap of 15%, where, however, 33% of women and 48% of men save for retirement.
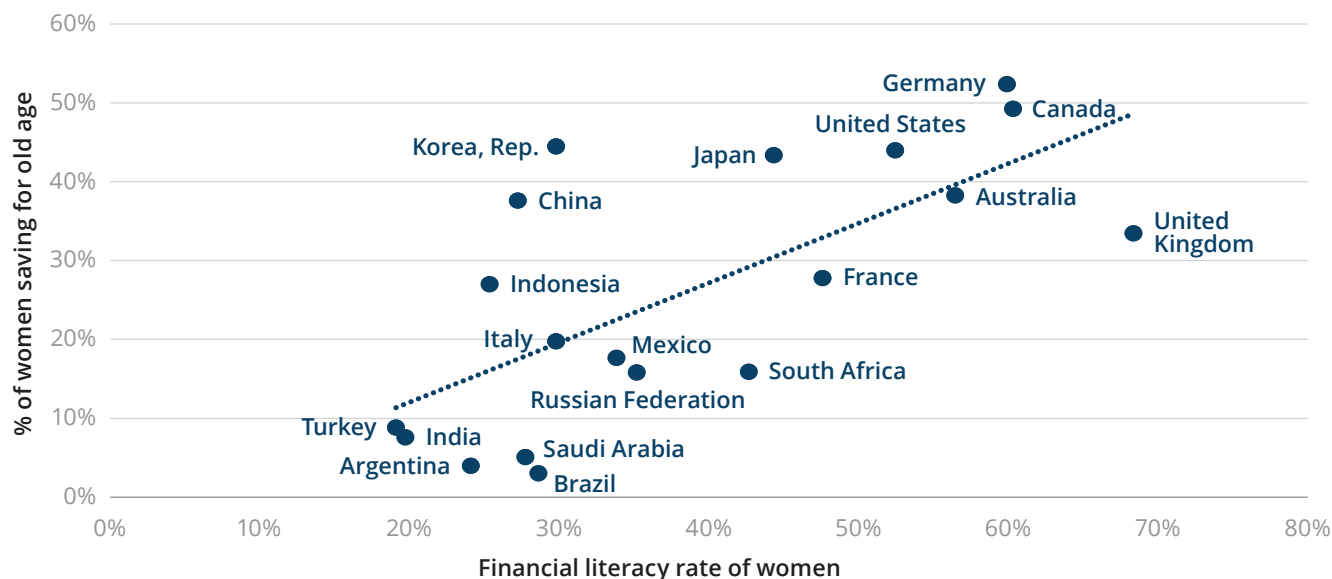
Figure 9: Percentage of men and women saving for old age
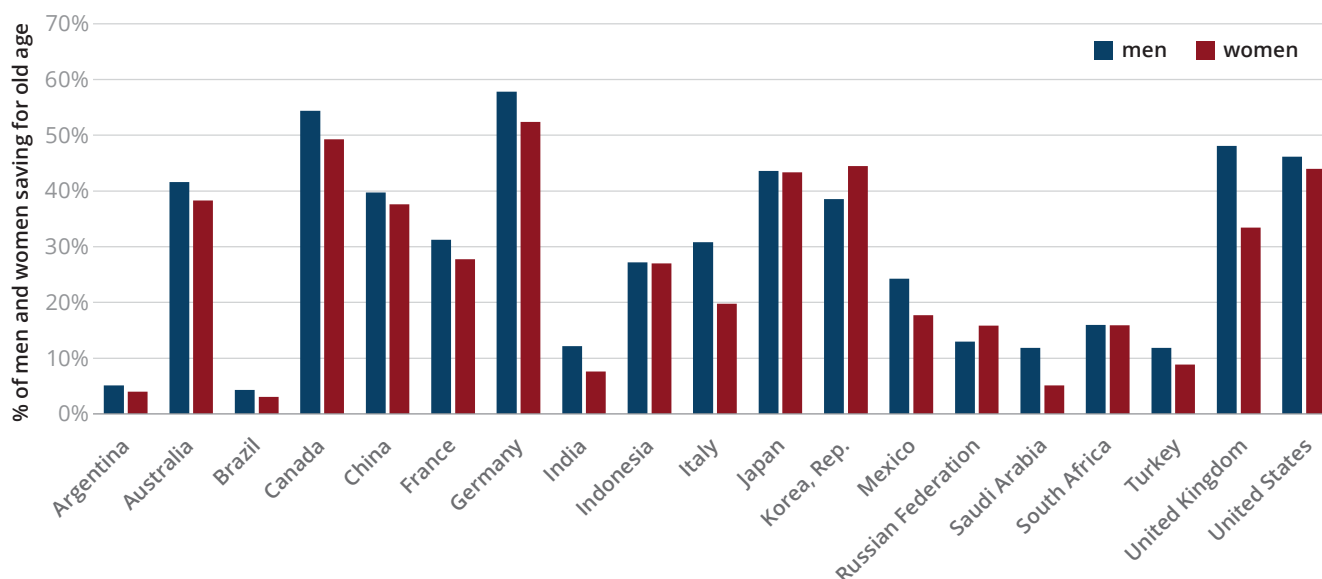
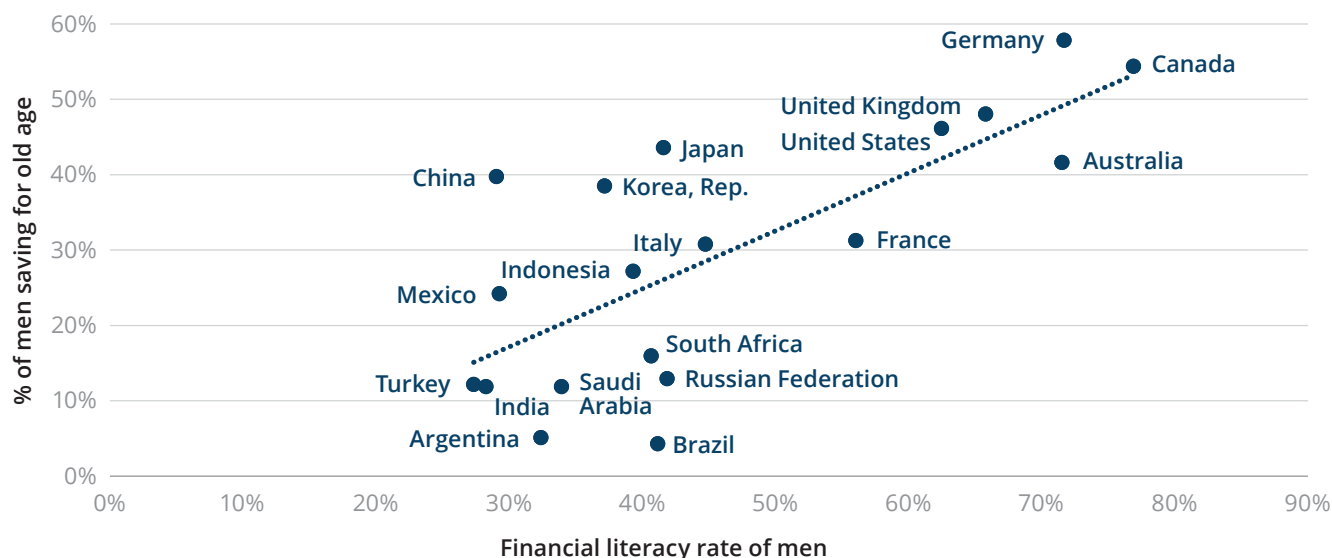*Source: Global Findex Database 2014.*

Further, we see a strong correlation between financial literacy rates and retirement saving behavior among women (Figure 10) as well as among men (Figure 11).[2] This correlation emphasizes the potential effect financial knowledge has on financial behavior and decision making. People with a better understanding of basic financial concepts and life-long consequences of financial decisions are more likely to set aside money for their golden years, a finding that holds true in many empirical studies (Lusardi and Mitchell, 2014).

Figure 10: Financial literacy among women and percentage of women saving for old age

Source: S&P Global FinLit Survey and Global Findex Database 2014.

Figure 11: Financial literacy among men and percentage of men saving for old age
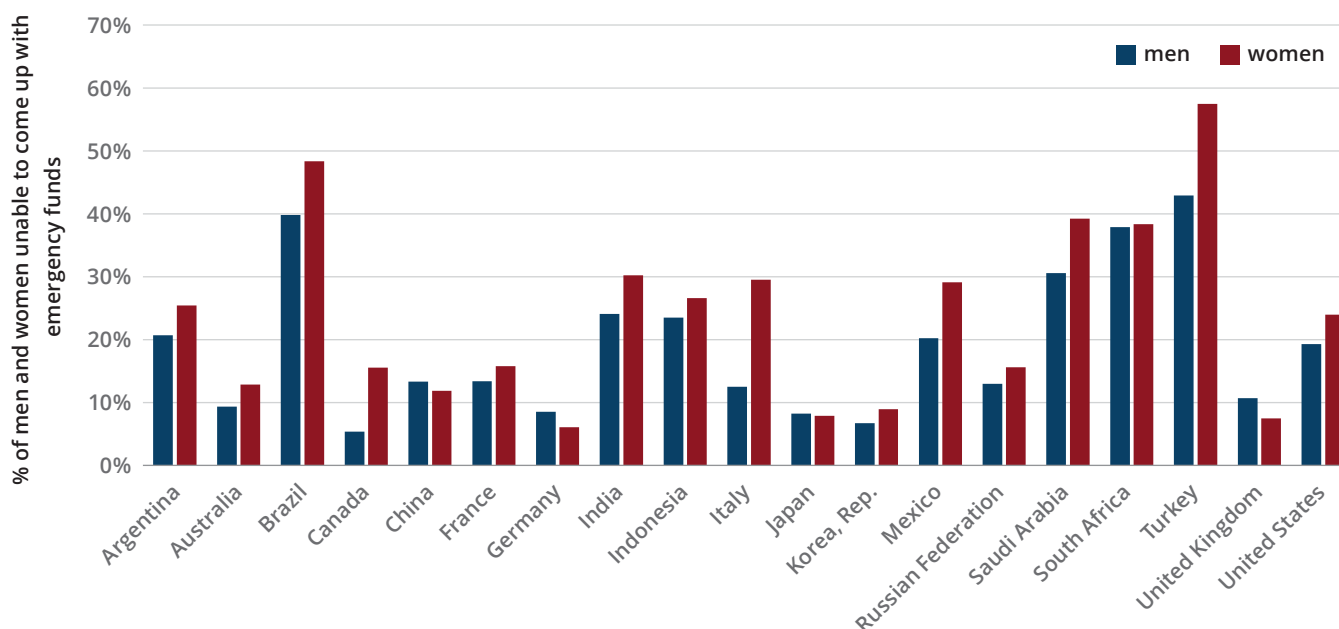

Source: S&P Global FinLit Survey and Global Findex Database 2014.

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[2] The survey question asks whether respondents have personally saved or set aside any money for old age over the past 12 months.

Financial fragility

Financial literacy also strongly correlates with financial fragility (Lusardi and Mitchell, 2017a). Being more financially knowledgeable is associated with a higher probability of being able to handle unexpected financial hardship. The percentage of people age 15 and above who reported that it would not be possible for them to come up with funds to cover an emergency within the following month is the indicator of financial fragility we consider in this report. The emergency amount given on the survey was equal to 1/20 of the gross national income per capita in local currency. A similar measure was discussed in detail in Lusardi, Schneider, and Tufano (2011). As can be seen in Figure 12, a significantly higher percentage of women than men tend to struggle with access to emergency funds. These average percentages range widely across G20 countries, from around 7% in Germany to around 50% in Turkey. The gender differences are highly variable as well, with the largest in Italy (where, on average, 17% more women struggle than men), Turkey (15%), and Canada (10%).

Figure 12: Percentage of men and women unable to come up with emergency funds

Source: Global Findex Database 2014.

Moreover, the S&P Global FinLit Survey data show that the percentage of women who report that they cannot come up with emergency funds is negatively correlated with their financial literacy rates (Figure 13). A similar pattern is seen for men (Figure 14). Thus, the higher the average financial literacy rate among a country's population, the more prepared the country's population is, on average, for financial hardship.

Figure 13: Financial literacy among women and percentage of women unable to come up with emergency funds
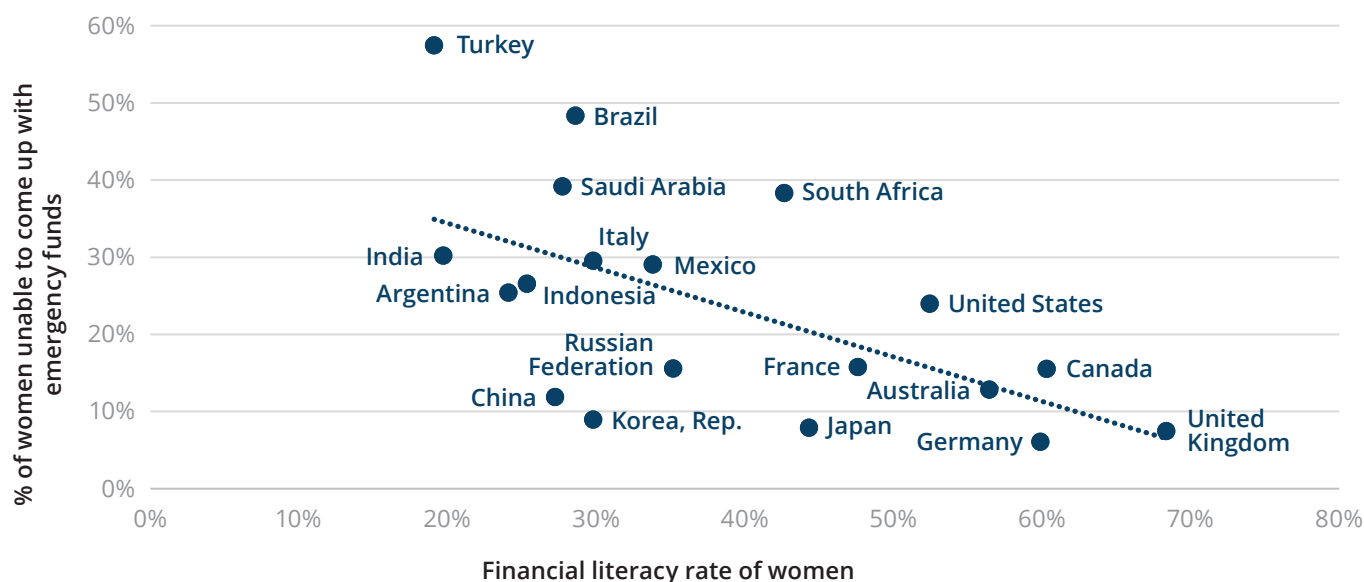
Source: S&P Global FinLit Survey and Global Findex Database 2014.
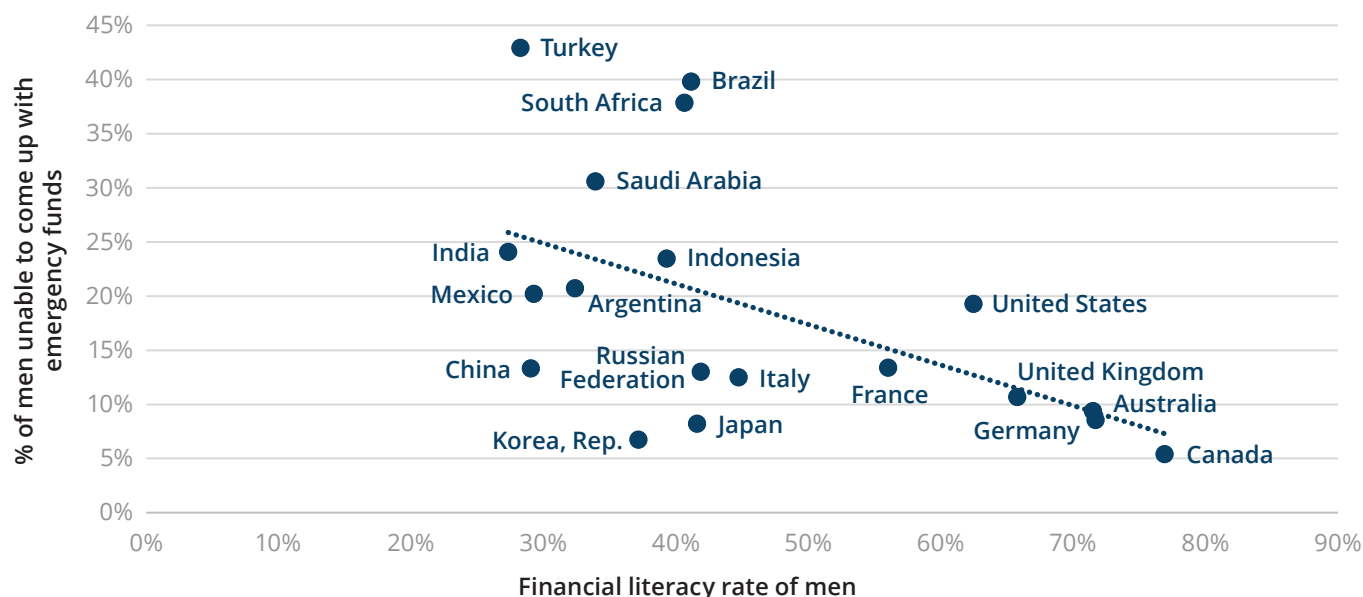
Figure 14: Financial literacy among men and percentage of men unable to come up with emergency funds

Source: S&P Global FinLit Survey and Global Findex Database 2014.

Borrowing

In addition to examining saving data, we can also examine data about borrowing. As shown in Figure 15, in the G20 economies, women are less likely than men to borrow. Survey respondents were asked whether they have, by themselves or together with someone else, borrowed any money from a bank or other type of formal financial institution within the past 12 months.[3] This variable does not include outstanding credit

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[3] In this study, the past 12 months indicate borrowing in the year 2013.

card balances. Interestingly, the percentage of the population using formal borrowing instruments varies a lot across the G20 countries, from an average of less than 10% in Argentina, India, and Japan to around one-quarter of the population in Australia, Canada, and the United States. Moreover, the gender gap in borrowing from formal financial institutions is found to be rather high—around 10%—in Saudi Arabia, Turkey, and the United Kingdom. In all other countries, the average gender gap is around 5%, except for the Russian Federation, which is the only G20 country with more women than men using formal borrowing instruments.

Figure 15: Percentage of men and women borrowing from financial institutions
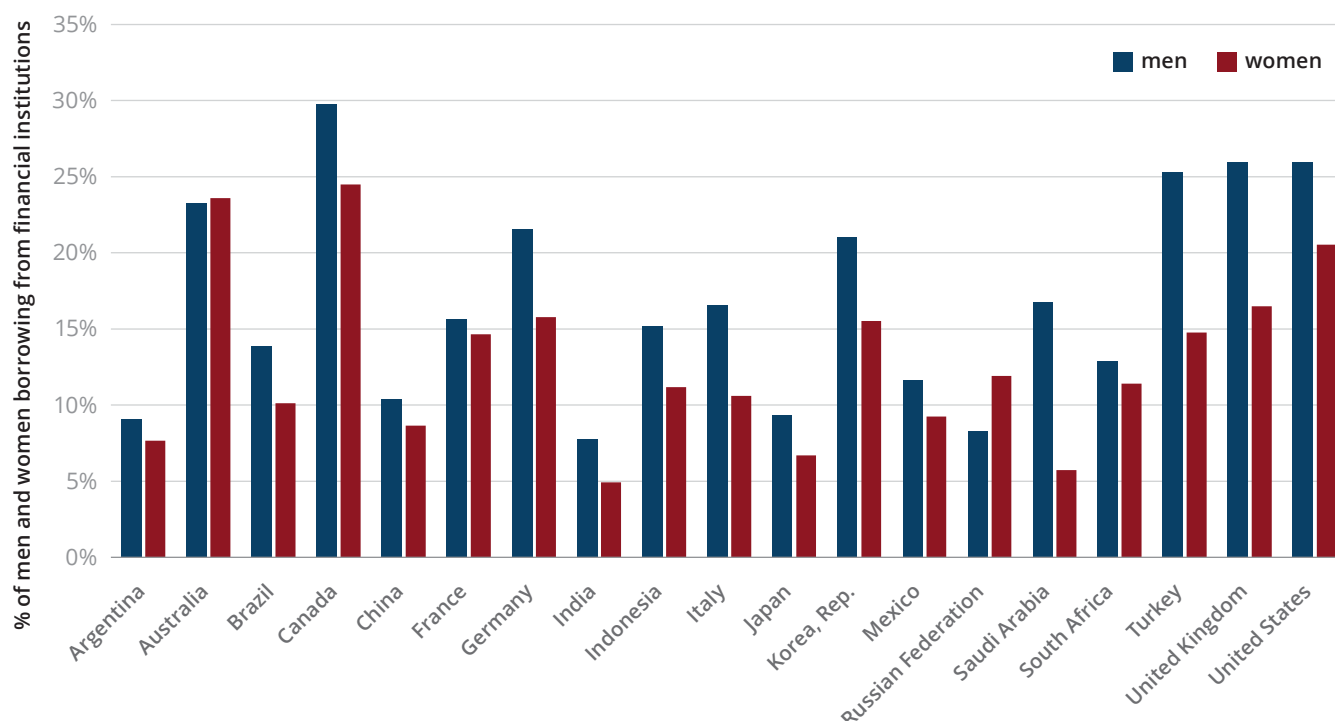
Figure 16 and Figure 17 show the relationship between financial literacy and borrowing from financial institutions for women and men, respectively. We find a strong and positive correlation between financial literacy rates and use of formal credit, with similar correlations for women and men. It is important to note again that these are analyses of the correlation between financial knowledge and financial decision making rather than of causal relationships.

We still find that understanding of financial concepts related to borrowing is rather low, even in the countries with the highest rates of formal credit use (Figure 18). In the G20 countries in which around one-quarter of the population uses formal borrowing (i.e., Canada, Australia, and the United States), only about 60% of population demonstrates understanding of the workings of interest rates. This implies that there are large segments of the population of these countries who are borrowing without fully understanding the effects that interest rates have on the total amounts owed.

Figure 16: Financial literacy among women and percentage of women borrowing from financial institutions
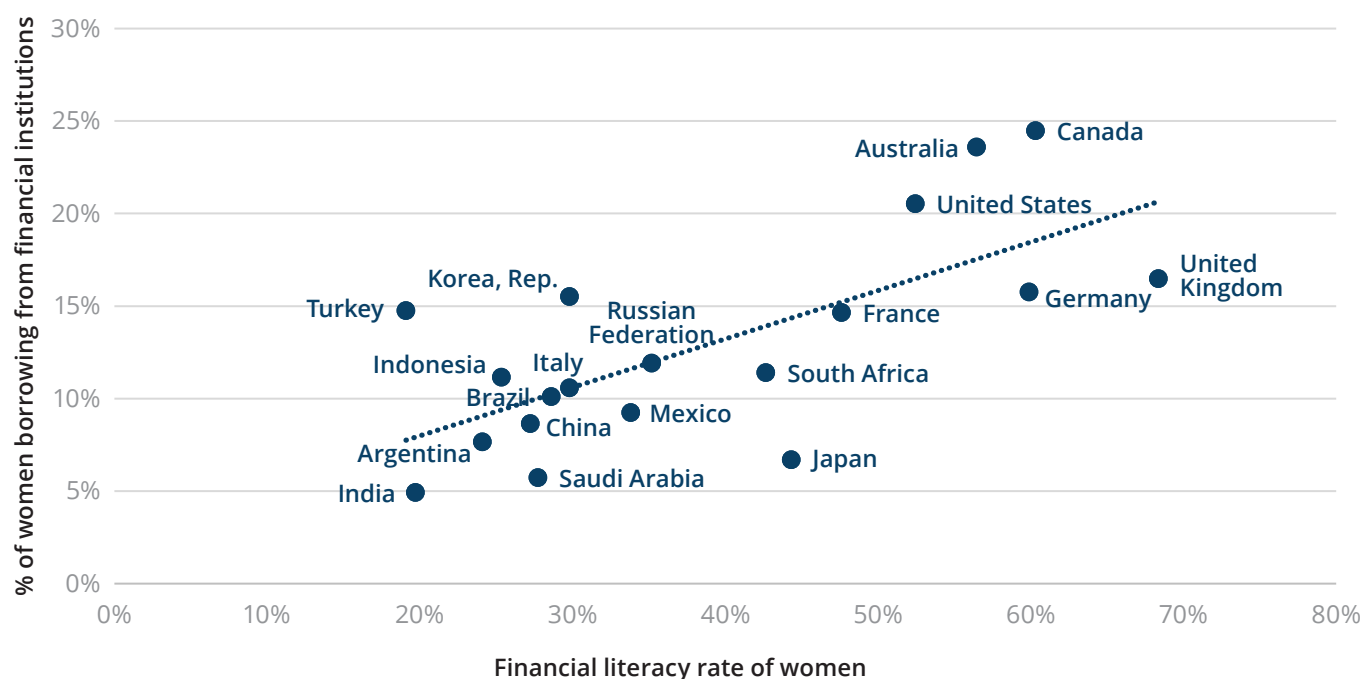
Source: S&P Global FinLit Survey and Global Findex Database 2014.

Figure 17: Financial literacy among men and percentage of men borrowing from financial institutions
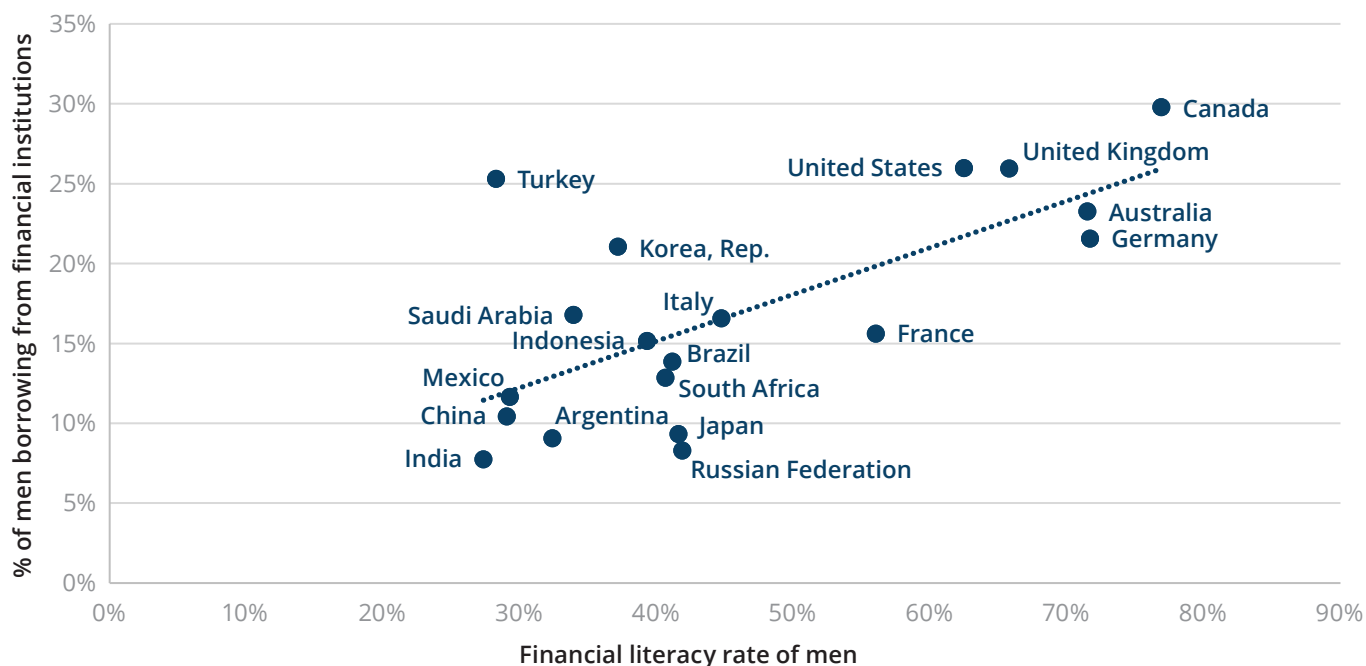
Source: S&P Global FinLit Survey and Global Findex Database 2014.

Figure 18: Percentage of adults NOT correctly answering the interest question and the fraction of the population borrowing from formal financial institutions

Source: S&P Global FinLit Survey and Global Findex Database 2014.

Case study: Italy

Of major advanced economies, Italy has the lowest percentage of financially literate people. Only 37% of Italians are able to correctly answer at least three out of four basic financial concepts. Further, among the G20, Italy has the largest gender gap in financial literacy, at 15%; 45% of Italian men are financially literate, whereas only 30% of women are. This gap is comparably high for Australia (15%) and Canada (17%), but in contrast to Italy, in those countries around 7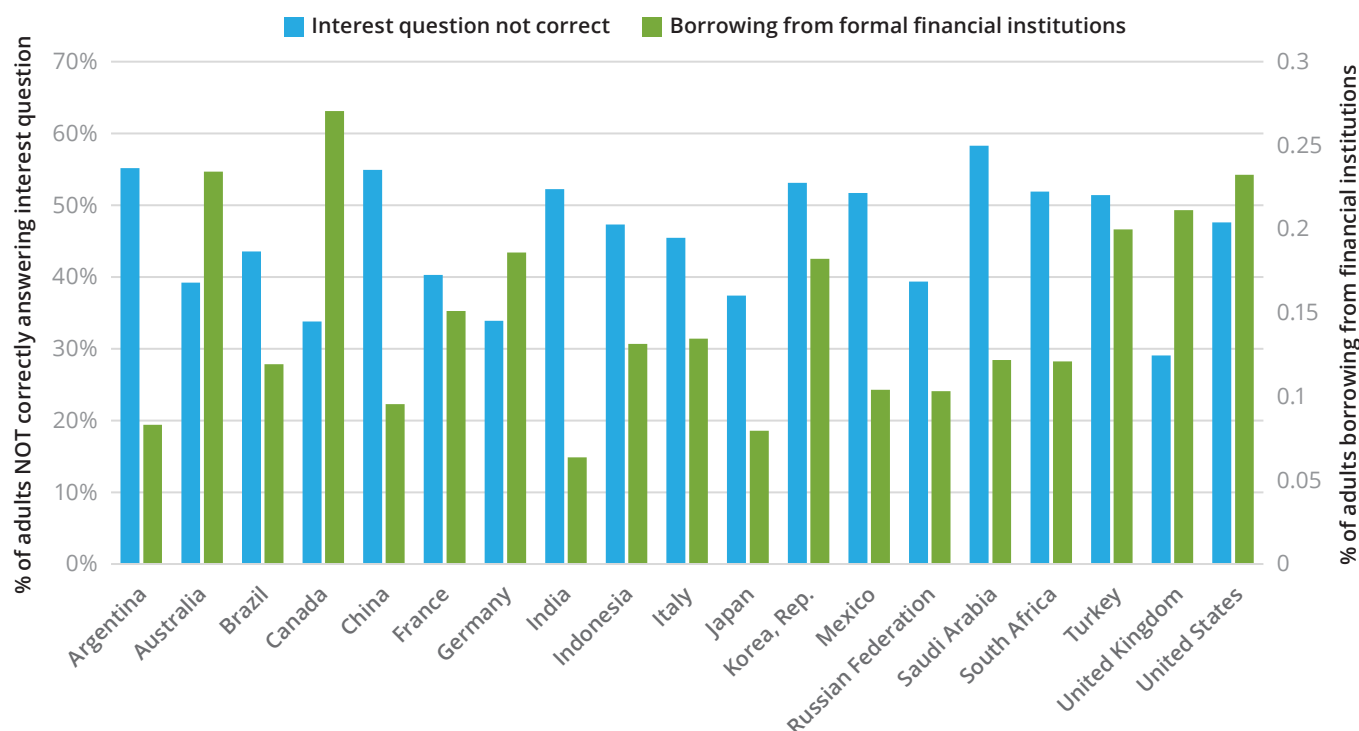5% of men can correctly answer at least three out of the four concepts compared to around 58% of women. Italy's gender gap in relation to the country's financial literacy rate is comparable to countries such as Indonesia and Brazil (Figure 3). Italian women tend to engage less with financial services and institutions than men compared to women in the other major advanced economies (Canada, France, Germany, Japan, the United Kingdom, and the United States). For example, 83% of Italian women have their own or a joint account at a bank, or another type of formal financial institution, whereas the percentage among men stands at 92%. Among the other major advanced economies, 95% to 99% of the population holds an account, on average, and the percentage is similar for men and women. Furthermore, on average, fewer Italian women tend to save for either retirement or unexpected financial hardship than men. This, in combination with low financial literacy, shows the potential vulnerability of women in Italy.

Moreover, the OECD's 2012 and 2015 Programme for International Student Assessment (PISA) financial literacy data confirms the low levels of financial literacy in Italy.[4] Further, Italy is the only country which exhibits a difference in financial literacy between boys and girls (Figure 19). Thus, the gender gap in Italy also exists among the very young (15-year-olds). The study by Bottazzi and Lusardi (2016) uses the PISA data to analyze factors that affect boys' and girls' financial literacy in Italy. The paper documents the impact of the family, in particular the mother, on the financial knowledge of girls. Thus, given the low levels of financial literacy among Italian adults, with no interventions, gender differences in financial literacy may persist for a long time.

Figure 19: PISA 2015 financial literacy score-point differences between boys and girls
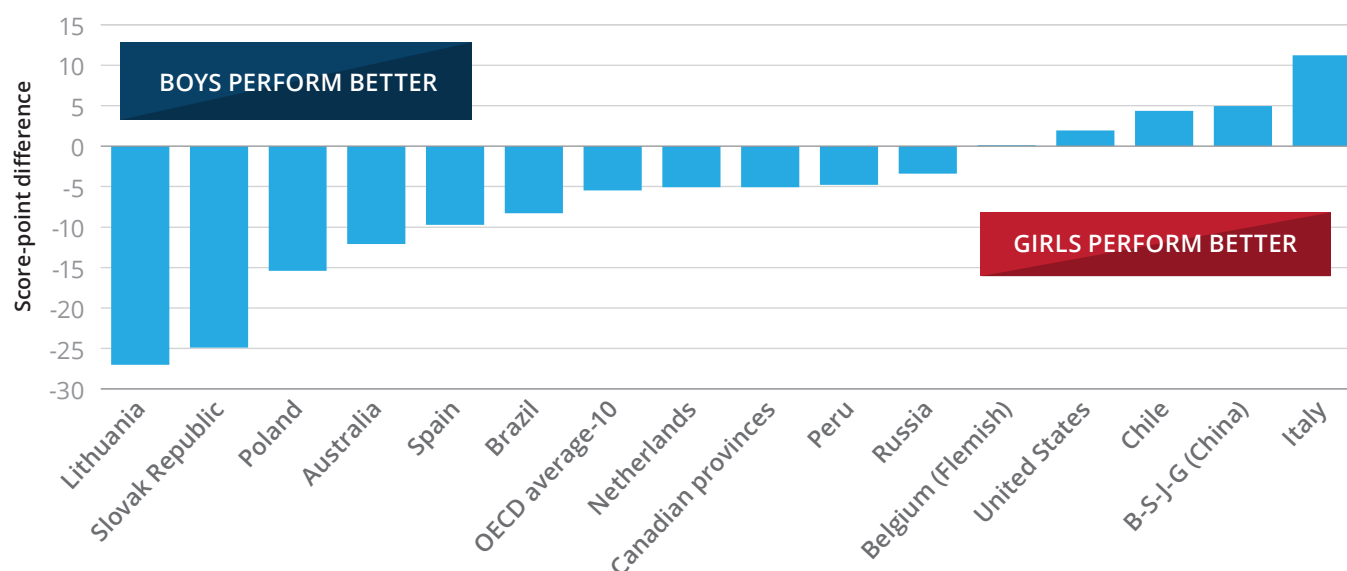
Source: OECD 2015 PISA Financial Literacy Assessment data.

Conclusion

Financial literacy is a skill that is essential if one is to participate in today's economy. Wide-ranging developments in the financial marketplace have contributed to growing concerns about the level of financial literacy of citizens of many countries.

Through analysis of the S&P Global FinLit Survey, the most comprehensive global data set on financial literacy to date, we find that financial illiteracy is widespread, but it is particularly pronounced among women. Worldwide, just one in three adults show an understanding of basic financial concepts, making it clear that billions of people are unprepared to deal with rapid changes in the financial landscape. This is worrisome in itself. However, further concern is raised with the finding of robust evidence of a gender gap in financial literacy around the world. The gap in financial literacy between men and women exists across countries with different financial market development and institutional setups as well as different social and cultural contexts. Moreover, it is independent of a country's income level.

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[4] In 2012, PISA introduced the first optional financial literacy assessment, which measures the proficiency of 15-year-olds in demonstrating and applying financial knowledge and skills. A sample of students were selected from the same schools that completed PISA's core assessments in mathematics, reading, and science.

Furthermore, the gender gap in financial literacy is evident when using a large set of questions that assess understanding of both simple and complex financial concepts among Dutch, American, and German respondents (van Rooij et al., 2011; Bucher-Koenen, 2011; Lusardi and Mitchell, 2017b). Moreover, gender differences are hard to explain. The paper by Bucher-Koenen et al. (2016), for example, concludes that there is no single explanation that can satisfactorily address the differences in financial literacy levels between women and men.

Low levels of financial knowledge have far-reaching consequences, because financial literacy can be linked to important financial decisions. Moreover, women face unique financial challenges due to lower income during their working lives, interrupted employment histories, and longer life expectancies than men. Thus, improving women's financial literacy is key to promoting their financial security.

Not only do women answer fewer financial literacy questions correctly but they are also more likely to state that they do not know the answer to these questions. Many women recognize their lack of knowledge in financial matters (Bucher-Koenen et al., 2016). This awareness makes them an ideal target for financial education programs. Research has shown that financial education programs seem to be particularly successful for women (Clark et al., 2006).

To build financial knowledge in the population at large and among women, specifically, will require financial education. Financial education in schools can advance financial capability among the young. Making personal finance a required course at colleges and universities would equip the young with the necessary skills and knowledge to thrive in today's financial environment. Recent research conducted by Kaiser and Menkoff (2016) shows that financial education has a significant positive impact on financial literacy and financial behavior.

Another possible channel for increasing financial literacy is employer-provided financial education. A study by Lusardi (2004) discusses the impact of interactive seminar-based formats and provides evidence that retirement seminars can foster wealth accumulation and bolster financial security in retirement. Research by Loibl and Hira (2006) shows that employer-provided self-directed learning sources can provide an alternative way for employees to stay current in an environment of constantly changing financial information.

In view of the different financial challenges women need to address, an effective way forward for financial education programs is to target women and men separately and to offer programs that recognize the differences between women and men in terms of financial knowledge, financial behavior, and financial needs.

APPENDIX
Financial Literacy: An Economy-by-Economy Breakdown

Economy	Financially Literate Adults (%)	Economy	Financially Literate Adults (%)	Economy	Financially Literate Adults (%)	Economy	Financially Literate Adults (%)
Afghanistan	14	Côte d'Ivoire	35	Kyrgyz Republic	19	Saudi Arabia	31
Albania	14	Denmark	71	Latvia	48	Senegal	40
Algeria	33	Dominican Republic	35	Lebanon	44	Serbia	38
Angola	15	Ecuador	30	Lithuania	39	Sierra Leone	21
Argentina	28	Egypt, Arab Rep.	27	Luxembourg	53	Singapore	59
Armenia	18	El Salvador	21	Macedonia, FYR	21	Slovak Republic	48
Australia	64	Estonia	54	Madagascar	38	Slovenia	44
Austria	53	Ethiopia	32	Malawi	35	Somalia	15
Azerbaijan	36	Finland	63	Malaysia	36	South Africa	42
Bahrain	40	France	52	Mali	33	Spain	49
Bangladesh	19	Gabon	35	Malta	44	Sri Lanka	35
Belarus	38	Georgia	30	Mauritania	33	Sudan	21
Belgium	55	Germany	66	Mauritius	39	Sweden	71
Belize	33	Ghana	32	Mexico	32	Switzerland	57
Benin	37	Greece	45	Moldova	27	Taiwan, China	37
Bhutan	54	Guatemala	26	Mongolia	41	Tajikistan	17
Bolivia	24	Guinea	30	Montenegro	48	Tanzania	40
Bosnia and Herzegovina	27	Haiti	18	Myanmar	52	Thailand	27
Botswana	52	Honduras	23	Namibia	27	Togo	38
Brazil	35	Hong Kong SAR, China	43	Nepal	18	Tunisia	45
Bulgaria	35	Hungary	54	Netherlands	66	Turkey	24
Burkina Faso	33	India	24	New Zealand	61	Turkmenistan	41
Burundi	24	Indonesia	32	Nicaragua	20	Uganda	34
Cambodia	18	Iran, Islamic Rep.	20	Niger	31	Ukraine	40
Cameroon	38	Iraq	27	Nigeria	26	United Arab Emirates	38
Canada	68	Ireland	55	Norway	71	United Kingdom	67
Chad	26	Israel	68	Pakistan	26	United States	57
Chile	41	Italy	37	Panama	27	Uruguay	45
China	28	Jamaica	33	Peru	28	Uzbekistan	21
Colombia	32	Japan	43	Philippines	25	Venezuela, RB	25
Congo, Dem. Rep.	32	Jordan	24	Poland	42	Vietnam	24
Congo, Rep.	31	Kazakhstan	40	Portugal	26	West Bank and Gaza	25
Costa Rica	35	Kenya	38	Puerto Rico	32	Yemen, Rep.	13
Croatia	44	Korea, Rep.	33	Romania	22	Zambia	40
Cyprus	35	Kosovo	20	Russian Federation	38	Zimbabwe	41
Czech Republic	58	Kuwait	44	Rwanda	26		

Source: S&P Global FinLit Survey.

Financial Literacy Among Women: An Economy-by-Economy Breakdown

Economy	Financially Literate Women (%)	Economy	Financially Literate Women (%)	Economy	Financially Literate Women (%)	Economy	Financially Literate Women (%)
Afghanistan	9	Côte d'Ivoire	31	Kyrgyz Republic	18	Saudi Arabia	28
Albania	12	Denmark	67	Latvia	44	Senegal	37
Algeria	28	Dominican Republic	35	Lebanon	39	Serbia	34
Angola	10	Ecuador	29	Lithuania	36	Sierra Leone	18
Argentina	24	Egypt, Arab Rep.	25	Luxembourg	46	Singapore	52
Armenia	16	El Salvador	18	Macedonia, FYR	17	Slovak Republic	47
Australia	56	Estonia	54	Madagascar	34	Slovenia	39
Austria	51	Ethiopia	30	Malawi	33	Somalia	15
Azerbaijan	26	Finland	58	Malaysia	33	South Africa	43
Bahrain	36	France	48	Mali	34	Spain	48
Bangladesh	14	Gabon	34	Malta	40	Sri Lanka	33
Belarus	34	Georgia	25	Mauritania	29	Sudan	20
Belgium	52	Germany	60	Mauritius	38	Sweden	70
Belize	34	Ghana	30	Mexico	34	Switzerland	53
Benin	32	Greece	42	Moldova	25	Taiwan, China	34
Bhutan	55	Guatemala	20	Mongolia	38	Tajikistan	16
Bolivia	21	Guinea	26	Montenegro	48	Tanzania	36
Bosnia and Herzegovina	24	Haiti	19	Myanmar	47	Thailand	26
Botswana	50	Honduras	20	Namibia	24	Togo	34
Brazil	29	Hong Kong SAR, China	37	Nepal	11	Tunisia	38
Bulgaria	31	Hungary	55	Netherlands	58	Turkey	19
Burkina Faso	29	India	20	New Zealand	57	Turkmenistan	42
Burundi	25	Indonesia	25	Nicaragua	16	Uganda	33
Cambodia	16	Iran, Islamic Rep.	18	Niger	27	Ukraine	35
Cameroon	34	Iraq	25	Nigeria	24	United Arab Emirates	41
Canada	60	Ireland	52	Norway	68	United Kingdom	68
Chad	24	Israel	64	Pakistan	21	United States	52
Chile	39	Italy	30	Panama	25	Uruguay	41
China	27	Jamaica	26	Peru	25	Uzbekistan	20
Colombia	29	Japan	44	Philippines	26	Venezuela, RB	21
Congo, Dem. Rep.	28	Jordan	22	Poland	36	Vietnam	21
Congo, Rep.	26	Kazakhstan	40	Portugal	23	West Bank and Gaza	21
Costa Rica	30	Kenya	36	Puerto Rico	28	Yemen, Rep.	8
Croatia	44	Korea, Rep.	30	Romania	22	Zambia	38
Cyprus	31	Kosovo	17	Russian Federation	35	Zimbabwe	36
Czech Republic	53	Kuwait	40	Rwanda	22		

Source: S&P Global FinLit Survey.

Survey methodology

Surveys are conducted face-to-face in economies where telephone coverage represents less than 80 percent of the population or is the customary methodology. In most economies the fieldwork is completed in two to four weeks. In economies where face-to-face surveys are conducted, the first stage of sampling is the identification of primary sampling units. These units are stratified by population size, geography, or both, and clustering is achieved through one or more stages of sampling. Where population information is available, sample selection is based on probabilities proportional to population size. Otherwise, simple random sampling is used. Random route procedures are used to select sampled households. Unless an outright refusal occurs, interviewers make up to three attempts to survey the sampled household. To increase the probability of contact and completion, attempts are made at different times of the day and, where possible, on different days. If an interview cannot be obtained at the initial sampled household, a simple substitution method is used. Respondents are randomly selected within the selected households by means of the Kish grid. In economies where cultural restrictions dictate gender matching, respondents are randomly selected through the Kish grid from among all eligible adults of the interviewer's gender.

In economies where telephone interviewing is employed, random digit dialing or a nationally representative list of phone numbers is used. In most economies where cell phone penetration is high, a dual sampling frame is used. Random selection of respondents is achieved by using either the latest birthday or Kish grid method. At least three attempts are made to reach a person in each household, spread over different days and times of day.

Data weighting is used to ensure a nationally representative sample for each economy. Final weights consist of the base sampling weight, which corrects for unequal probability of selection based on household size, and the post-stratification weight, which corrects for sampling and nonresponse error. Post-stratification weights use economy-level population statistics on gender and age and, where reliable data are available, education or socioeconomic status. More information on the data collection period, number of interviews, approximate design effect, and margin of error, as well as sampling details for each economy, can be found in Demirguc-Kunt et al. (2015).

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