G20/OECD INFE REPORT ON ADULT FINANCIAL LITERACY IN G20 COUNTRIES



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OECD INTERNATIONAL NETWORK ON FINANCIAL EDUCATION

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FOREWORD

Financial education has gained a prominent position in the global policy agenda. It is now universally recognised as a core component of the financial empowerment of individuals and the overall stability of the financial system. Three sets of high-level principles endorsed by G20 Leaders reflect this: Innovative Financial Inclusion (2010), Financial Consumer Protection (2011), and National Strategies for Financial Education (2012). In addition, in 2016, a new set of high-level principles on Digital Financial Inclusion were approved by G20 Leaders. Principle 6 recognises the importance and relevance of financial literacy competencies to allow consumers and small businesses (and especially groups at risk or vulnerable) to take full advantage of the increasingly digitalised financial landscape.

The 2013 G20/OECD publication, 'Advancing National Strategies for Financial Education' and the 2015 OECD/INFE Policy Handbook, both promote the development of reliable data on the levels of financial literacy to support the designing phases of national strategies for financial education. At their summit in St Petersburg in September 2013, G20 Leaders also welcomed practical tools to increase financial literacy and supported using the OECD/INFE financial literacy and financial inclusion measurement toolkit (OECD/INFE toolkit).

In 2016, the OECD/INFE Survey of Adult Financial Literacy Competencies provided an analysis of 30 countries and economies. The internationally comparable data used in the survey were collected using the toolkit. The report highlighted worryingly low levels of financial literacy around the world. It emphasised the need for longer-term strategic approaches to financial education and repeat measures of financial literacy to show progress over time and reveal gaps in provision.

This report responds to a call by G20 Leaders in the 2016 Hangzhou Action Plan for the OECD/INFE to coordinate data collection on financial literacy across G20 countries and to prepare a report for their next Summit. In this respect, a progress report including available data was shared with, and welcomed by, G20 Finance Ministers and Central Bank Governors at their meeting in Baden Baden in March 2017. This final version of the report includes information about various aspects of financial literacy within the 21 participating countries, analysing the results from 101,596 survey respondents. It has been prepared by the OECD/INFE Secretariat, with input from public authorities and relevant academics in G20 countries and two guest countries, the Netherlands and Norway, in co-operation with the G20 German presidency.

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The publication was prepared by Adele Atkinson with oversight by Flore-Anne Messy in the Financial Affairs Division of the OECD Directorate for Financial and Enterprise Affairs. The editing team included Jennah Huxley, Pamela Duffin and Pauline Arbel.

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EXECUTIVE SUMMARY

At the launch of the most recent PISA assessment of the financial literacy of students, the OECD Secretary-General stated that 'financial literacy is an essential life skill'. He explained that 'financial literacy can make a crucial difference in the lives of people, in their opportunities, in their success. It is a foundation stone for well-being, for entrepreneurship, for social mobility, for inclusive growth'. This report seeks to explore the extent to which adults in G20 countries have this essential life skill. The Netherlands and Norway are also included as guest countries under the German G20 presidency.

National survey data is used to compare the financial knowledge, behaviour, attitudes and inclusion of 101,596 adults aged 18 to 79 in 21 countries. In most cases, data were collected using the OECD/INFE Financial Literacy and Financial Inclusion Measurement Toolkit.[1]

As shown in Figure 1, **there is considerable scope for improvement in terms of overall levels of financial literacy**, with average scores across the G20 countries that submitted sufficient data of just 12.7 out of a possible 21 (made up of a total possible 7 points for knowledge, 9 for behaviour and 5 for attitudes). France (14.9), Canada (14.6) and the People's Republic of China (hereafter 'China') (14.1) are the only three G20 countries achieving an average above 14 (along with guest country, Norway), whilst four score below 12 (India, Argentina, Italy and Saudi Arabia).

The vast majority of G20 countries have a national strategy in place to tackle these issues, and several have revised their strategies to take into account new information and developments (see Table 1). These ongoing efforts must be sustained and improved to impart awareness, knowledge, and understanding.

Table 1. Status of National Strategies in G20 Countries in 2017

Status of the national strategy (NS)	Countries
A NS is being revised or a second NS is being implemented	Australia; Indonesia; Japan; United Kingdom; United States
A (first) NS is being implemented	Brazil; Canada; France; India; Russian Federation; South Africa; Turkey
A NS is being actively designed	Argentina; China; Italy; Korea; Mexico; Saudi Arabia

Many people do not have basic financial knowledge. On average across G20 countries, fewer than half of adults (48%) could answer 70% of the financial knowledge questions correctly (the minimum target score). In particular, understanding of diversification and compounding is weak, two concepts that are essential for people to recognise the consequences of financial decisions such as paying the minimum

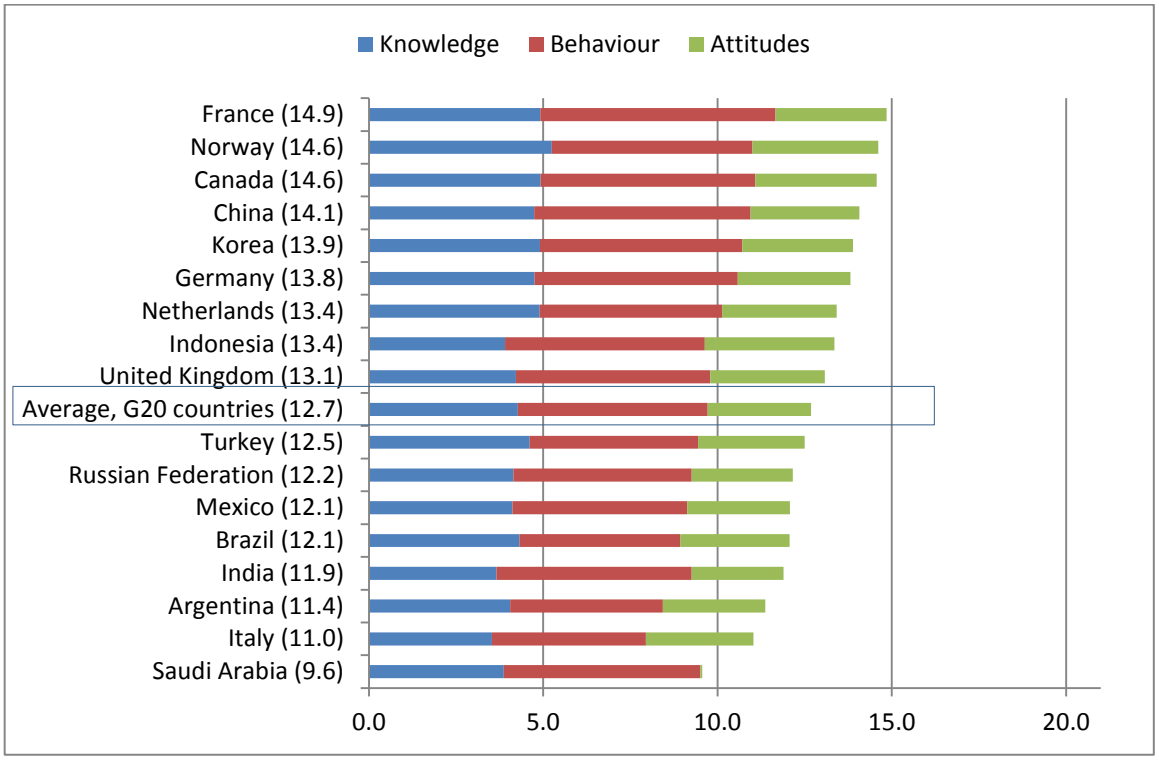
[1] There is some variation in the number of countries represented in the various figures and tables in this report due to the extent to which they applied the OECD/INFE Toolkit when collecting data or provided data that could be compared with questions from the OECD/INFE Toolkit.

repayment on credit cards, and to manage their increasing responsibility for personal financial security in retirement. Four in ten people did not understand diversification and only 27% of respondents were able to both calculate simple interest and recognise the additional benefit of compounding over five years.

Furthermore, the difference between the percentage of men and women achieving the minimum target score for financial knowledge in G20 countries stands at 11 percentage points, with men significantly more likely to achieve this score than women in all but three of the countries with comparable data. Clearly, **financial education must be designed to take into account the significant differences in knowledge across men and women**, as recommended in the OECD/INFE Policy Guidance on Addressing Women's and Girls' Needs for Financial Awareness and Education endorsed by G20 Leaders in 2013.

Figure 1. Financial knowledge, attitudes and behaviour

Stacked points (weighted data): all respondents, sorted by overall score out of 21 (reported in parenthesis)



'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight, irrespective of sample size or population size. Overall scores presented in parenthesis. These may not exactly reflect the sum of the three components due to rounding. G20 countries that are excluded from this chart do not have comparable data.

Financial knowledge provides the foundation for informed decisions, but a number of behaviours or actions are also required to improve financial well-being. This report shows that **on average in G20 countries[2], only 52% of adults reached the minimum target of exhibiting 6 of the 9 behaviours** discussed.

Budgeting is widely accepted as being a valuable approach to money management and a component of financial literacy, as indicated in the G20/OECD INFE Core Competencies Framework on Financial

2 The number of G20 countries included in each figure may vary depending on availability of comparable data.

Literacy for Adults developed in 2016 and the PISA financial literacy assessment (OECD, 2014; OECD, 2017a). However, on average across G20 countries only three in five households were using a budget (60%), and there was wide variation by country. In addition, on average across G20 countries, a quarter of people did not agree with the statement 'before I buy something I carefully consider whether I can afford it'; a quarter did not always pay bills on time and over a third had faced a situation where their income didn't cover their living costs in the last 12 months. Such indicators provide a stark reminder that **financial education should also target behaviour, possibly including through the use of digital tools** to encourage budgeting, mindful shopping or regular bills payments, for example.

The way in which people choose financial products is a particular concern, with only a small minority (15%) using independent sources to compare across products and providers. Additional analysis at the country level will help in this regard, making it possible to identify the typical behaviours of consumers choosing different types of products, and thus address them in a more targeted way. It is likely that, in some countries, consumers need better access to high-quality independent information and impartial product comparison tools.

The various indicators of financial inclusion considered in this report show wide variation in terms of formal product awareness and use, and the reliance on family and friends. For example, only two thirds of respondents, on average across G20 countries held a specific payment product, with fewer than 10% of respondents in Brazil (8%) and Indonesia (2%) using such products – although in Indonesia most respondents had a savings product, suggesting that this may be used as a substitute. Additionally, across G20 countries 19% of respondents had turned to family or friends to provide them with informal savings or credit facilities, rising to over half of respondents in India (54%).

At the same time, **on average, people who held a payment product or savings product had higher levels of financial literacy than those who didn't**; a finding that is consistent with the results of PISA financial literacy assessments of 15-year-olds (see OECD, 2014 and OECD, 2017a). This is an important reminder that consumer protection and financial inclusion initiatives are complements to financial education, ensuring safe access to appropriate products for all people, irrespective of their previous experience or current level of financial literacy.

The cross comparable data available in this report, as well as recent research on the impact of particular programmes, have made it possible to identify existing effective approaches and emerging new ones; while calling for further actions by policy makers at a national level and globally. **More refined policy guidance will be developed to support the implementation of effective financial education initiatives in an increasingly digitalised financial world**. This will build on the activities and expectations of member countries and the research committee, and will include additional data analysis to further understand the needs of different target audiences, as well as data collection efforts using relevant OECD instruments to track levels of financial literacy among adults and students. In addition, the OECD is committed to actively supporting and encouraging further research and evaluation and their dissemination through a global database. Direct support to implementation of financial education programmes will also continue to be vital moving forward.

INTRODUCTION

Financial literacy and financial education have gained prominent positions in the global policy agenda as indicated by the High-level Principles on National Strategies for Financial Education developed by the OECD/INFE, which were endorsed by G20 Leaders in 2012.

Reliable data provides evidence of the need for financial education, and indicates which groups of the population are most in need. Repeated measures also help to indicate where improvements have been made and what more needs to be done. There is additional benefit in knowing how economies compare on key measures of financial literacy, in order to identify those with successful financial education policies and those facing similar challenges, and to promote common solutions.

This report therefore goes beyond the national level by comparing levels of financial literacy and financial inclusion across G20 countries (and two guest countries) and identifies common patterns that may indicate shared challenges or effective solutions.

Background

The 2013 OECD G20 Publication 'Advancing National Strategies for Financial Education', recognised that reliable data on the levels of financial literacy provide essential information during the development phase of national strategies for financial education and effective initiatives. G20 Leaders, at their Summit in St Petersburg in September 2013, further welcomed practical tools to increase financial literacy and supported the use of the OECD/INFE financial literacy and financial inclusion measurement toolkit used to collect data for this report (G20, 2013). In the 2016 Hangzhou Action Plan, G20 Leaders then called for the OECD/INFE to coordinate data collection on financial literacy across G20 countries and to prepare a report for their next Summit.

Data collection in G20 countries

This report has been developed in response to the call from G20 Leaders in 2016. It includes some data from all G20 countries and two guest countries, and provides a high-level summary of financial literacy and financial inclusion, as well as policy implications. It follows a progress note shared with G20 Finance Ministers and Central Bank Governors at their meeting in Baden Baden in March 2017, which included initial analysis on available data.

The OECD invited all G20 countries to collect data using the OECD/INFE toolkit and submit data for analysis. This final report covers – to various extents- all G20 countries and two invited guest countries (the Netherlands and Norway):

- In total, 16 G20 countries, and the two guest countries, have collected data on most, or all, of the core questions in the OECD/INFE toolkit offering almost fully cross-comparable datasets;
  - Brazil, Canada, France, the Russian Federation, South Africa[3], Turkey, the United Kingdom; plus the Netherlands and Norway (guest countries) had already collected data for the 2016 exercise
  - China, Germany, India, Indonesia, Italy and Mexico[4] collected data specifically for this report
  - Argentina, Korea and Saudi Arabia submitted data collected for other purposes
- Two countries have shared financial literacy data collected using different instruments (Australia and the United States)[5], and,
- One has used a combination of some questions from the OECD/INFE toolkit and other questions developed for the national context (Japan).

All analyses relate to responses to social surveys.[6] Where data has been collected using instruments other than the OECD/INFE Toolkit, every effort has been made to identify comparable questions, but users should treat these comparisons with caution. Further information about the data is provided in Annex 3.

3 South Africa applied the majority of the questions in the OECD/INFE toolkit, but does not have all the data necessary to make the financial behaviour score or overall score.

4 Data on financial inclusion for Mexico is not included. There is an independent source of data on this topic, the Encuesta Nacional de Inclusión Financiera (ENIF), which has been carried out by Mexico's National Statistics Institute (INEGI) in 2012 and 2015.

5 Further information about the approach taken to creating comparable variables from these datasets can be provided upon request to the OECD.

6 Social survey interviewers are encouraged to double check apparently inconsistent answers in order to ensure robust data. However, note that responses are not typically verified against other data-sources such as bank statements or public administration records.

I. MEASURING FINANCIAL LITERACY

The OECD is at the forefront of financial literacy measurement worldwide, having developed comprehensive measurement tools for adults and youth. In 2016, the OECD published an International Adult Survey of Financial Literacy Competencies covering 30 countries and economies (OECD, 2016a), and the second international assessment of financial literacy among 15-year-olds within the OECD Programme of International Student Assessment (PISA) was published in May 2017; with a third one planned for 2018.

> Financial literacy is *'a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial well-being.'*
>
> OECD/INFE High-level Principles on National Strategies for Financial Education (2012)

Financial Literacy measurement was one of the first three priorities of the OECD/INFE, and work began in 2009 to develop a common method that could be used to create a baseline measure of financial literacy among adults and track changes over time. A core questionnaire and supporting toolkit was subsequently developed, tested and made available online.

The toolkit incorporates a questionnaire and methodological guidance on who to interview, and how to prepare the interviewers for their task. It also includes additional questions that can be used to enrich national datasets. Reflecting the OECD definition of financial literacy endorsed by G20 Leaders in 2012, the OECD/INFE toolkit was designed to capture information about respondents' financial knowledge, behaviour and attitudes, as well as data on financial inclusion.

The questionnaire is designed to collect comparable information that can be used to create scores to indicate their levels of financial literacy. It covers topics such as keeping track of finances, making-ends-meet, longer-term financial planning and choosing financial products.

The toolkit is based on extensive preparatory work, including analyses of national questionnaires and an iterative feedback process with OECD/INFE members and external experts. OECD/INFE members were also invited to review the questions in 2014, and approved an updated version of the toolkit in 2015. The 2015 version includes several questions intended to capture aspects of financial well-being in addition to questions on financial literacy and inclusion.[7]

The original version of the toolkit was tested in an international pilot study in 2010 across 14 countries: Albania, Armenia, British Virgin Islands, the Czech Republic, Estonia, Germany, Hungary, Ireland, Malaysia, Norway, Peru, Poland, South Africa and the UK (Atkinson and Messy, 2012). A more detailed report was published in 2016, comparing data from 30 countries and economies, including 17 OECD countries (OECD, 2016).

7 The US Consumer Financial Protection Bureau (CFPB) define financial well-being as: "a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future, and is able to make choices that allow them to enjoy life."

This report

This report builds on previous OECD measurement work to explore the financial knowledge, attitude and behaviour, plus financial inclusion, in G20 countries[8] as well as the Netherlands and Norway. The data are primarily drawn from national surveys undertaken using the OECD toolkit and submitted to the OECD (see Annex 3 for more information about the process). Every effort has been taken to ensure that the data are largely comparable, but differences in sampling and data collection methods and time periods should be taken into account when considering the results as should data using different survey instruments, as is the case particularly for Australia and the United States.

Whilst some countries have sampled young adults and the very elderly to inform their national initiatives, the international analyses presented here only take into account responses from people aged from 18 to 79 year olds. Sample sizes range from 1,000 to over 25,000.[9]

Financial literacy is a complex phenomenon and so the sections that follow aim to discuss various different factors, as independent components and combined into meaningful scores to facilitate comparison and make it possible to identify specific similarities and differences. Information about the way in which results are combined into scores can be found in Annex 2.

After providing an overview of the approach to measuring financial literacy (**Section I**), the report contains descriptive text, tables and figures on:

- **Section II**. Financial knowledge;
- **Section III**. Financial behaviours; and
- **Section IV**. Attitudes to longer-term financial planning.

Section V reports an overall score for financial literacy for each country; and **Section VI** provides analysis on aspects of financial inclusion. **Section VII** concludes by discussing the policy implications of the results.

Annex 1 includes data tables for all figures. **Annex 2** contains a guide to creating financial literacy scores and **Annex 3** provides a table of information about the data received from participating countries, including date of data collection, sampling design and whether the data can be shared for research purposes.

There is some variation in the number of countries represented in the various figures and tables in this report due to the extent to which they applied the OECD/INFE toolkit when collecting data or asked similar questions. The G20 averages used in this report refer to the average across only those G20 countries that have submitted relevant, comparable data. The number of G20 countries included in each of these calculations therefore depends on the availability of data.

8 Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russian Federation, South Korea, Saudi Arabia, South Africa, Turkey, United States, United Kingdom.

9 Countries were asked to collect data from at least 1,000 respondents to facilitate this comparative study. Some countries collected additional data to enable them to look at particular regions or subgroups of the population in more detail.

II. FINANCIAL KNOWLEDGE

Financial knowledge is an important component of financial literacy, necessary for undertaking activities such as following news about the economy and financial landscape, comparing financial products and services and making appropriate, well-informed financial decisions. A basic knowledge of financial concepts and the ability to apply numeracy skills in a financial context ensure that consumers can act autonomously to manage their financial matters and react to news and events that may have implications for their financial well-being. The evidence indicates that, indeed, higher levels of financial knowledge are associated with positive outcomes such as stock market participation and planning for retirement, as well as a reduction in negative outcomes such as debt accumulation (see for example Hastings et al, 2013 for a summary of this literature, Mahdzan and Tabiani, 2013 for details of a study in Malaysia; Clark et al, 2015 for a study of retirement savings in the United States).

The responses to seven questions (see Table 2) are used in this report to compare levels of financial knowledge.

Table 2. Financial knowledge questions

Text[1]	Possible responses	Purpose	Notes
Five brothers are going to be given a gift of $1,000 in total to share between them. Now imagine that the <brothers> have to wait for one year to get their share of the $1,000 and inflation stays at <X> percent. In one year's time will they be able to buy.	Multiple choice [correct response depends on inflation used]	To test ability to understand how inflation impacts on purchasing power	This question has been slightly revised since 2010 to reflect the varying levels of inflation in different countries. Correct responses depend on the level of inflation
You lend $25 to a friend one evening and he gives you $25 back the next day. How much interest has he paid on this loan?	Open response [correct response 'none'/'zero/'0]	To test understanding of interest without difficult arithmetic	It is intended that this question can be asked even when interest is forbidden, since it only discusses a situation where interest was *not* paid
Suppose you put $100 into a <no fee, tax free> savings account with a guaranteed interest rate of 2% per year. You don't make any further payments into this account and you don't withdraw any money. How much would be in the account at the end of the first year, once the interest payment is made?	Open response [correct response $102]	To test ability to calculate simple interest on savings	This question provides some indication of the respondents' ability to handle percentages, and understanding of savings growth.

Text[1]	Possible responses	Purpose	Notes
….and how much would be in the account at the end of five years [add if necessary: remembering there are no fees or tax deductions]? Would it be…more than $110, exactly $110 or less than $110?	Multiple choice [Correct response More than $110, but only taken into account if previous question is correct]	To test whether respondent is aware of the additional benefit of compounding	This question builds on the previous one. It avoids the need to undertake additional calculation, and only requires that the respondent recognises that compounding means they will get more than 5 times the simple interest.
An investment with a high return is likely to be high risk/ or *If someone offers you the chance to make a lot of money it is likely that there is also a chance that you will lose a lot of money.*	True/False [Correct response to both versions is *true*]	To test whether respondent understands the typical relationship between risk and return	Alternative wording available to simplify the language where necessary
High inflation means that the cost of living is increasing rapidly	True/False [Correct response is *true*]	To test understanding of the meaning of the term inflation	
It is usually possible to reduce the risk of investing in the stock market by buying a wide range of stocks and shares or *It is less likely that you will lose all of your money if you save it in more than one place.*	True/False [Correct response to both versions is *true*]	To test whether respondent is aware of the benefit of diversification	Alternative wording available to simplify the language where necessary

1. Note that words or phrases in < > can be edited to fit the national context.

Box 1. Method note on the financial knowledge score

The OECD core questionnaire in the OECD/INFE toolkit contains sufficient financial knowledge questions to provide a good overview of a person's basic knowledge, and indicate their ability to retain information and apply knowledge to particular problems.

The questions vary in style and content in order to avoid undue biases that could be caused by different ways of processing information across certain types of people or cultural norms. Some questions require a completely free response whilst others provide a list of possible answers, from which the respondent must choose. The questionnaire also encourages respondents to say if they don't know the answer to something, in order to dissuade them from guessing.

The financial knowledge score counts the number of correct responses across the 7 questions reported in Table 2. In the case of compound interest, the response is only considered to be correct if the respondent could also calculate simple interest (i.e. Column 5 of Table 3).[10] The analysis of responses to each of the questions testing financial knowledge shows that the spread of difficulty in the core questionnaire is appropriate for an international study; differentiating between higher and lower levels of knowledge across individuals and economies.

Tests of the reliability of this approach indicate that respondents' performance on the three true/false questions (see Table 2 for question wording) is a little different from their performance on the other questions, reflecting the increased chance of guessing the correct answer. The Cronbach alpha statistic (a measure of internal consistency) for the knowledge score is 0.591; marginally below the target of 0.7 due to the responses on these true/false questions.

As with most tests, the questions used to indicate levels of financial knowledge cover only a subset of the financial knowledge that may be of use to a consumer; it should not be assumed that financial education that taught these seven principles would be sufficient to equip individuals with all the knowledge that they need.[11] In particular, some important aspects of financial knowledge are very specific to a country, such as understanding value added tax, or knowing about the retirement provision provided by the state, and would not be appropriate to test in an international context.

The percentage of correct responses to the financial knowledge questions varies notably by country (Table 3).[12]

Knowledge of different concepts and terms

A small majority of people in G20 countries (53%) knew what would happen to the purchasing power of money if inflation stayed at the same rate for one year, although the percentage varies considerably by country, from 14% in Indonesia through to 74% in Mexico, and 76% in guest country Norway.

10 As it would be unreasonable to ask a respondent to calculate compound interest, the question relies on multiple choice options centred on the value of five times the simple interest that they were asked to calculate in the previous question. It is assumed that if they could not calculate simple interest, they would not be able to answer the compound interest question correctly.

11 See OECD/INFE (2015), OECD/INFE Core competencies framework on financial literacy for youth and OECD (2016b), G20/OECD INFE Core competencies framework on financial literacy for adults.

12 Some datasets exclude certain questions, either because a previous version of the questionnaire was used, or due to decisions taken at the national level.

Four out of five respondents, on average across G20 countries, showed an understanding of the concept of interest and correctly identified that none had been paid in the question posed (Table 3: Column 2). However at least three in ten respondents failed to answer this correctly in Italy (54% gave a correct answer), India (67% correct), Saudi Arabia (69% correct) and South Africa (70% correct).

On average, across G20 countries, half of respondents (51%) were able to calculate simple interest on savings (Col 3). This proportion dropped to less than half the population in Mexico (12%), Argentina (22%), India (42%), South Africa (42%), Saudi Arabia (46%), Italy (47%) and the Russian Federation (48%).

Just under half of respondents (42%) gave a correct response to the multiple choice question on interest compounding, on average in G20 countries. With the exception of respondents in guest countries the Netherlands (56%) and Norway (58%) only a minority were able to both calculate simple interest and correctly identify that the value of interest following 5 years of compounding would be more than five times the simple interest (Column 5), showing a worrying lack of competency in this important aspect of financial literacy. Across G20 countries, just 27% of respondents managed to achieve a score on this aspect of financial literacy.[13]

Most people understood the basic relationship between risk and return; 78% gave the correct answer across G20 countries. The definition of inflation was also relatively well known in most countries although in Brazil (58%) two in five were unable to answer this question. The concept of diversification appears to be slightly more challenging (59%, on average in G20 countries gave a correct response), particularly in Italy (37%), the Russian Federation (41%), and Indonesia (48%) where fewer than half of respondents were correct. A similar question also posed a problem to half of all respondents in Japan (46%).[14]

[13] These results indicate a lack of confidence among respondents in answering the questions in some cases, which is also a sign of low skills.

[14] The concept is tested in Japan using the statement: 'Buying a single company's stock usually provides a safer return than a stock mutual fund'.

Table 3. Financial knowledge

Percentage correct responses (weighted data): all respondents

	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
	Time value of money	**Interest paid on loan**	**Calculation of interest plus principal**	**Compounding over 5 years**	**Correct response to both simple interest and compounding**	**Risk and return***	**Definition of inflation**	**Diversification***
Question code in 2015 toolkit	QK3	QK4	QK5	QK6	QK5&6	QK7a	QK7b	QK7c
Country								
Argentina	69	87	22	37	8	68	91	59
Brazil	65	78	50	30	18	84	58	77
Canada	57	93	58	56	39	86	92	68
China	70	78	74	55	42	74	77	57
France	59	94	57	54	34	87	87	75
Germany	71	86	58	53	39	77	80	65
India	41	67	42	35	15	78	73	50
Indonesia	14	76	78	38	36	73	67	48
Italy	48	54	47	33	23	73	71	37
Japan	56		66	43	39	75	61	46
Korea	71	83	52	53	35	88	80	81
Mexico	74	92	12	32	3	80	87	64
Russian Federation	65	88	48	46	27	78	67	41
Saudi Arabia	27	69	46	34	33	67	71	60
South Africa	25	70	42	36	13	76	86	55
Turkey	55	84	54	32	19	90	84	74
United Kingdom	38	83	57	52	36	74	80	52
Average, G20 countries	**53**	**80**	**51**	**42**	**27**	**78**	**77**	**59**
Netherlands	65	92	76	61	56	73	74	53
Norway	76	91	80	65	58	86	74	59

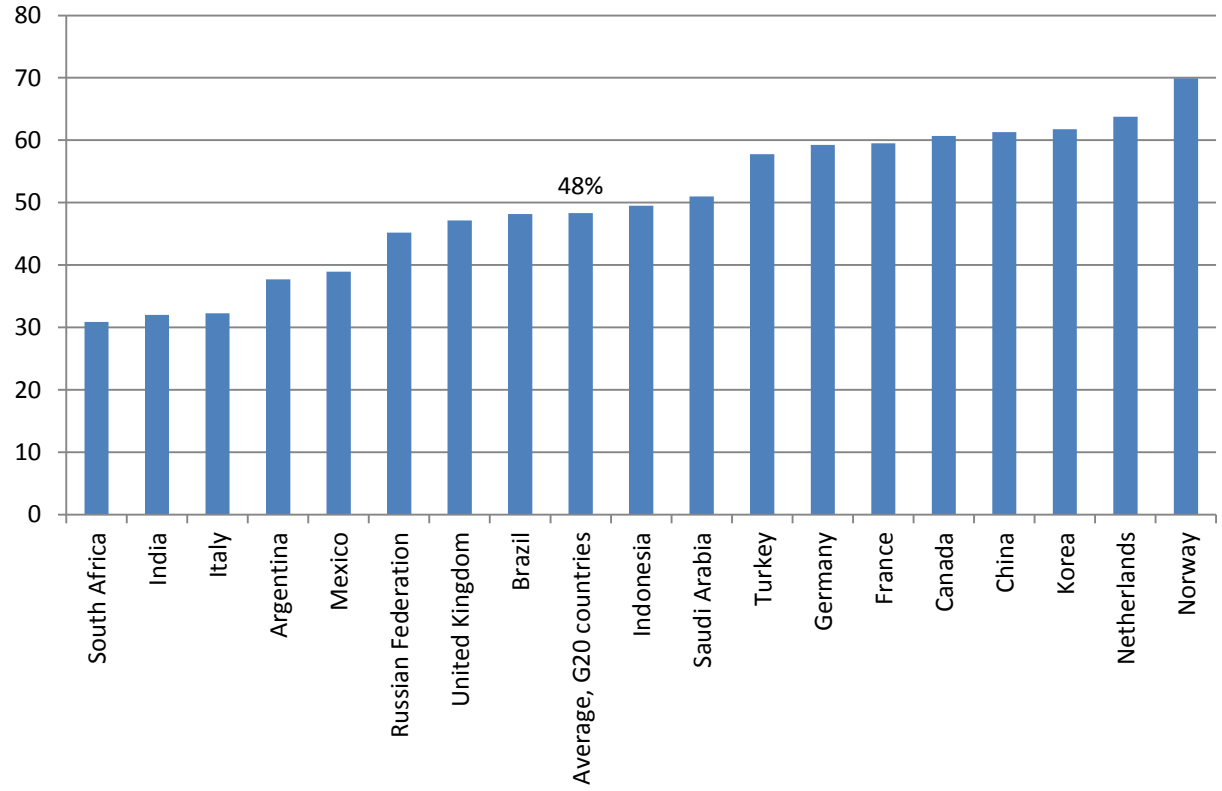
'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight, irrespective of sample size or population size. *Two of the concepts tested in the financial knowledge section of the questionnaire have two forms of wording in order to be applicable in the maximum number of countries and respondents. Results for Japan in Column 8 relate to the statement: 'Buying a single company's stock usually provides a safer return than a stock mutual fund'. G20 countries that are excluded from this chart do not have comparable data.

Minimum target scores on financial knowledge

Figure 2 focuses on the proportion of the population who achieved a minimum target score of at least 5 out of 7 on the knowledge questions (i.e. answering at least 70% of the questions correctly). This shows that, on average across G20 countries, fewer than half of adults (48%) could answer 70% of the financial knowledge questions correctly; whilst more than three in five adults reached the minimum target score in Korea (62%). The two guest countries, the Netherlands (64%) and Norway (70%), have the highest proportions achieving the minimum target score for knowledge (Figure 2).

Figure 2. Minimum target score (5 or more) on financial knowledge

Percentages (weighted data): all respondents



'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight, irrespective of sample size or population size. G20 countries that are excluded from this chart do not have comparable data.

Self-assessed levels of financial knowledge

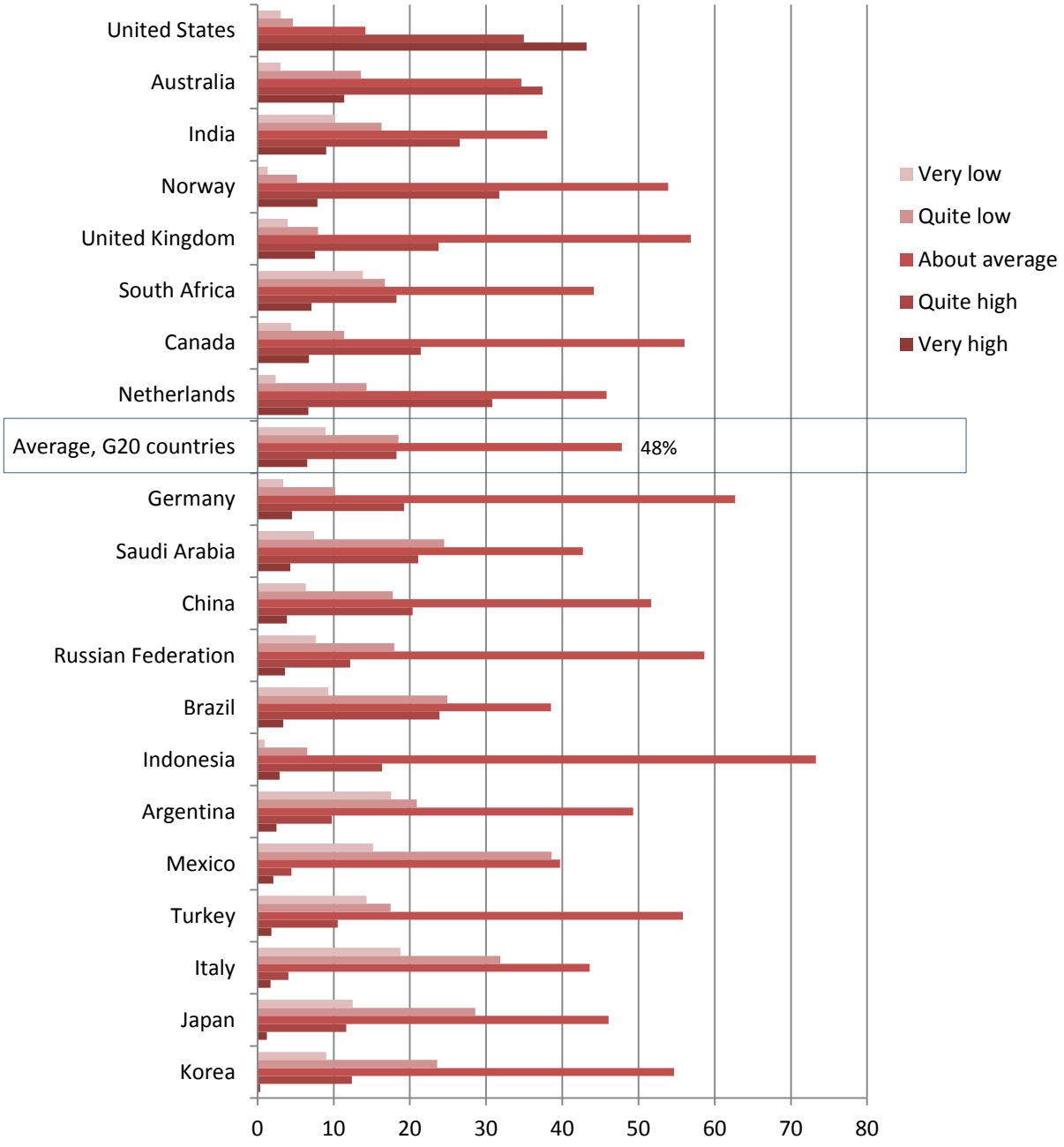
It is interesting to consider whether people know the extent to which they have relevant knowledge and information in a financial context. Figure 3 reports responses to a self-assessment question of how the respondent felt their financial knowledge compares with that of other adults in their country.[15] There was a very strong tendency for respondents to say that they are about average in all countries (3 on the 5 point scale), with almost half of respondents (48%) doing so on average across G20 countries. In the US, a very similar question elicited a very high level of confidence, with more than 40% of individuals reporting that they have very high levels of financial knowledge. Results from a similar question in Australia indicate that 11% of people strongly disagreed that they have difficulty understanding financial matters.[16] Conversely, in Japan (12%), Turkey (14%), South Africa (14%), Mexico (15%), Argentina (18%) and Italy (19%) at least one in 10 of the population rated their own levels of knowledge as very low.

15 The question (QK1) is 'Could you tell me how you would rate your overall knowledge about financial matters compared with other adults in <country name>?' with possible responses: very high, quite high, about average, quite low, very low. The wording was chosen so that it would be possible to test against the national data.

16 Could you please tell us how strongly you agree or disagree with each statement regarding your own financial situation 'I have difficulty understanding financial matters' Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree'.

Figure 3. Self-reported financial knowledge

Percentages (weighted data): missing responses excluded, sorted by 'very high'



'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight, irrespective of sample size or population size. Percentage responding don't know or refusing on the self-assessed knowledge question (QK1) are excluded from this Figure. G20 countries that are excluded from this chart do not have comparable data. US data refers to a similar question from the FINRA Investor Education Foundation survey,' On a scale from 1 to 7, where 1 means very low and 7 means very high, how would you assess your overall financial knowledge' which has been rescaled; refusals are not included. Australian data refers to a similar question from the AFAB Tracker which has been rescaled, 'I have difficulty understanding financial matters' Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree'.

Overconfidence can be a particular concern as it can lead to poor decisions; for example people who believe that they are knowledgeable have been shown to be more likely to make investment decisions by themselves, and their portfolios are less likely to be diversified (Chu et al, (2017). In Brazil, India and South Africa the average score for people who considered themselves to have high or very high levels of financial knowledge was actually slightly lower than those who thought that they were the same as most people (Figure 4), although in Brazil and South Africa, the average levels of knowledge were indeed lower among those rating themselves below average. In all three countries, it is particularly likely that a sizeable portion of those people who rated themselves highly were overconfident.[17]

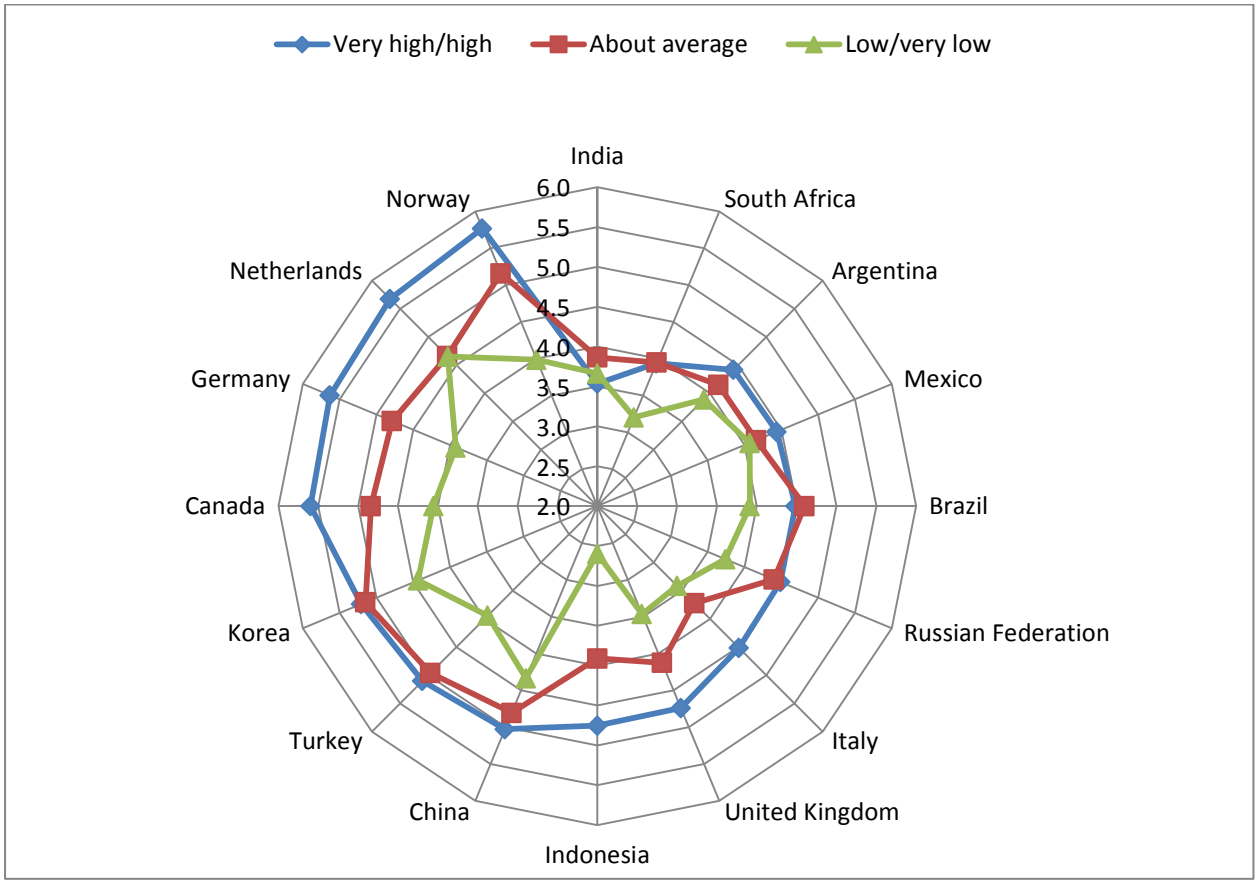
However, Figure 4 suggests that overconfidence is not a general issue. People who rated their financial knowledge as being higher than average financial knowledge in their country did, typically, have higher scores than other people in their country; i.e. there is a positive correlation between self-assessed knowledge and the financial knowledge score.

Interestingly Figure 4 also indicates that in most countries people had a good idea of how their knowledge compared with that of other people in their country. This is particularly the case in countries with higher average scores. It seems from these results that people understand where they fit on the national distribution even if they would have a very different position on a global scale. This can be highlighted by looking at the average knowledge scores for people in two different economies. In China, for example, people who judged their knowledge to be lower than average across the country, nevertheless had higher levels of financial knowledge (4.3) than those considering themselves to be high scorers in countries such as South Africa (3.9).

[17] Countries interested in exploring this issue may find it useful to analyse the potential relationship with self-assessed financial knowledge and behaviour when choosing products.

Figure 4. Average financial knowledge score by self-assessed knowledge

Average financial knowledge score (max 7) by self-assessed knowledge: very high/high; average; low/very low (weighted data): missing responses to self-assessed knowledge excluded



Percentage responding don't know or refusing on the self-assessed knowledge question (QK1) are excluded from this Figure. Participating countries that are excluded from this table do not have comparable data. This analysis was undertaken after combining those who saw themselves as having high or very high levels of knowledge; and also combining those who saw themselves with low or very low levels. G20 countries that are excluded from this chart do not have comparable data.

Gender differences in financial knowledge

The G20 Leader's Declaration in June 2012 recognising the need for women (and youth) to gain access to financial services and financial education, showed the importance of addressing women's financial literacy as a way to improve their financial empowerment, opportunities, and well-being (OECD, 2013b). This is particularly important given that on average, women live longer than men, have shorter working lives and earn less and thus need to make sound financial plans for their immediate and longer-term financial security from a young age. One of the first steps in this process is undertake analysis to better understand the differences in levels of financial literacy between women and men.

Box 2. Gender differences in the financial literacy performance of 15-year-olds and adults

Financial literacy of 15-year-olds by gender

In 2015, the financial literacy of students in 15 participating countries and economies was assessed as part of the OECD PISA assessment (OECD, 2017a). Seven G20 countries and economies participated in this exercise: Brazil, Australia, the Russian Federation, the United States, and Italy, Beijing-Shanghai-Jiangsu-Guangdong, China and Canadian provinces of British Columbia, Manitoba, New Brunswick, newfoundland and Labrador, Nova Scotia, Ontario and Prince Edward Island, as well as guest country, the Netherlands.

Analysis of the PISA financial literacy data by gender indicates that in Italy, boys perform significantly better than girls, whilst girls perform significantly better than boys in Australia. In contrast, there is no significant gender difference in the other participating G20 countries or the Netherlands. However, additional analyses show that in the provinces of China, Italy, and the United States boys perform better than girls with similar levels of mathematics and reading, suggesting that girls are not reaching their potential in financial literacy in these economies.

Comparison with the financial knowledge of adults by gender

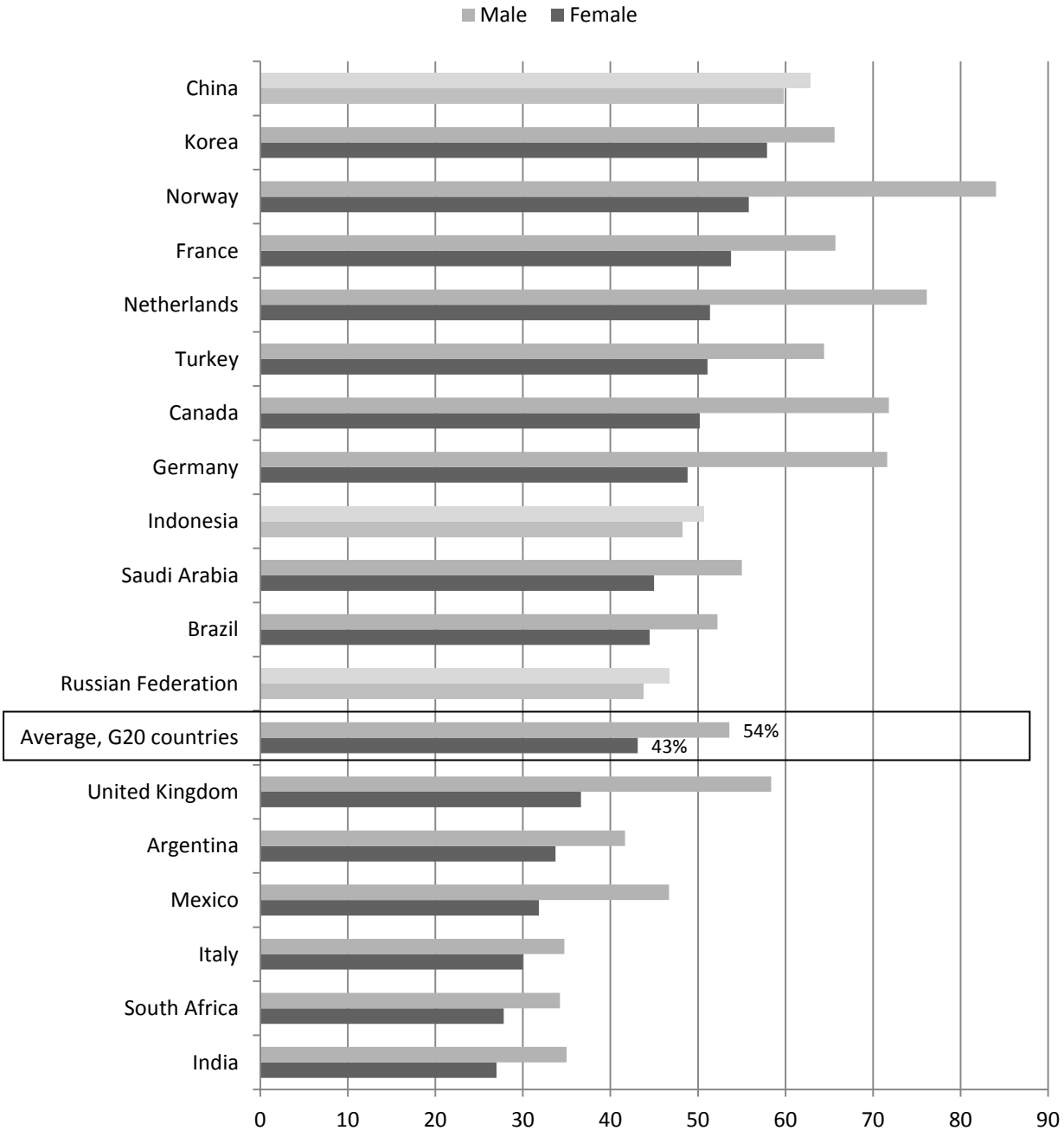
Tentative comparisons are possible of the gender differences in financial knowledge across the adult populations and 15-year-olds for Brazil, Italy and the Russian Federation; and to some extent the situation in Canada and China can also be compared. Data are also available for both adults and youth in the Netherlands. Such comparisons should always be made with caution due to differences in the approach to data collection and analysis, but can provide some high-level indication of similarities and differences.

In Italy, men perform better than women, just as male students perform better than female students. In China and the Russian Federation there no significant gender differences in financial knowledge among adults or students. However, there are significant differences in the financial knowledge of adults by gender in Brazil, Canada and the Netherlands that are not evident among 15-year-olds. This may be due to the different measurement approach but may also indicate that there is a generational divide in these countries. Further analysis would be required to fully explore the relationship between gender and financial literacy, and the driving factors behind observed differences by age.

There are notable gender differences in the level of financial knowledge in some countries, and across G20 countries, 11% more men than women achieved the minimum target score for financial knowledge on average in G20 countries (54% of men and 43% of women: figure 5). In all but three of the countries with sufficient data, there is a statistically significant difference between the proportion of men and women achieving the minimum target score on the financial knowledge questions. These differences are particularly large in Canada and the United Kingdom (both with 22 percentage point differences), Germany (23 percentage points) and both guest countries (the Netherlands, 25 percentage point difference and Norway 28 percentage points). In China, Indonesia and the Russian Federation, there is no significant difference in the proportions of men and women achieving the minimum target score. Box 2 discusses how these variations compare with the findings of the PISA financial literacy assessment of 15-year-olds.

Figure 5. Minimum target score (5 or more) on financial knowledge by gender

Percentages (weighted data): all respondents, sorted by percentage of females achieving minimum target score. Differences significant at 0.01 are identified using darker bars**.**



'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight, irrespective of sample size or population size. Gender differences significant at 0.01 are indicated by darker bars. G20 countries that are excluded from this chart do not have comparable data.

III. FINANCIAL BEHAVIOUR

The actions and behaviours of consumers are what ultimately shape their financial situations and well-being in both the short and longer-term. Some types of behaviour, such as putting off bill payments, choosing financial products without shopping around or using credit to make up a shortfall in income may impact negatively on the financial situation of individuals and their financial well-being. At the same time, the increasing digitalisation of finance is altering consumers' interactions with a vast array of (new) financial providers. Increasing the need to understand behaviour and identify emerging trends (OECD, 2017b). It is therefore essential to try to assess financial behaviour in a survey of financial literacy.

This report considers a range of positive and negative behaviours such as thinking before making a purchase, paying bills on time, budgeting, saving, and borrowing to make ends meet showing considerable variation in such behaviours within and across countries as well as common trends.

Financial control

There are many actions that people can take on a day to day or regular basis to be in control of their finances and ensure their financial resilience in the longer term, with a view to maximising their financial well-being. Several such behaviours are considered below.

Using a budget

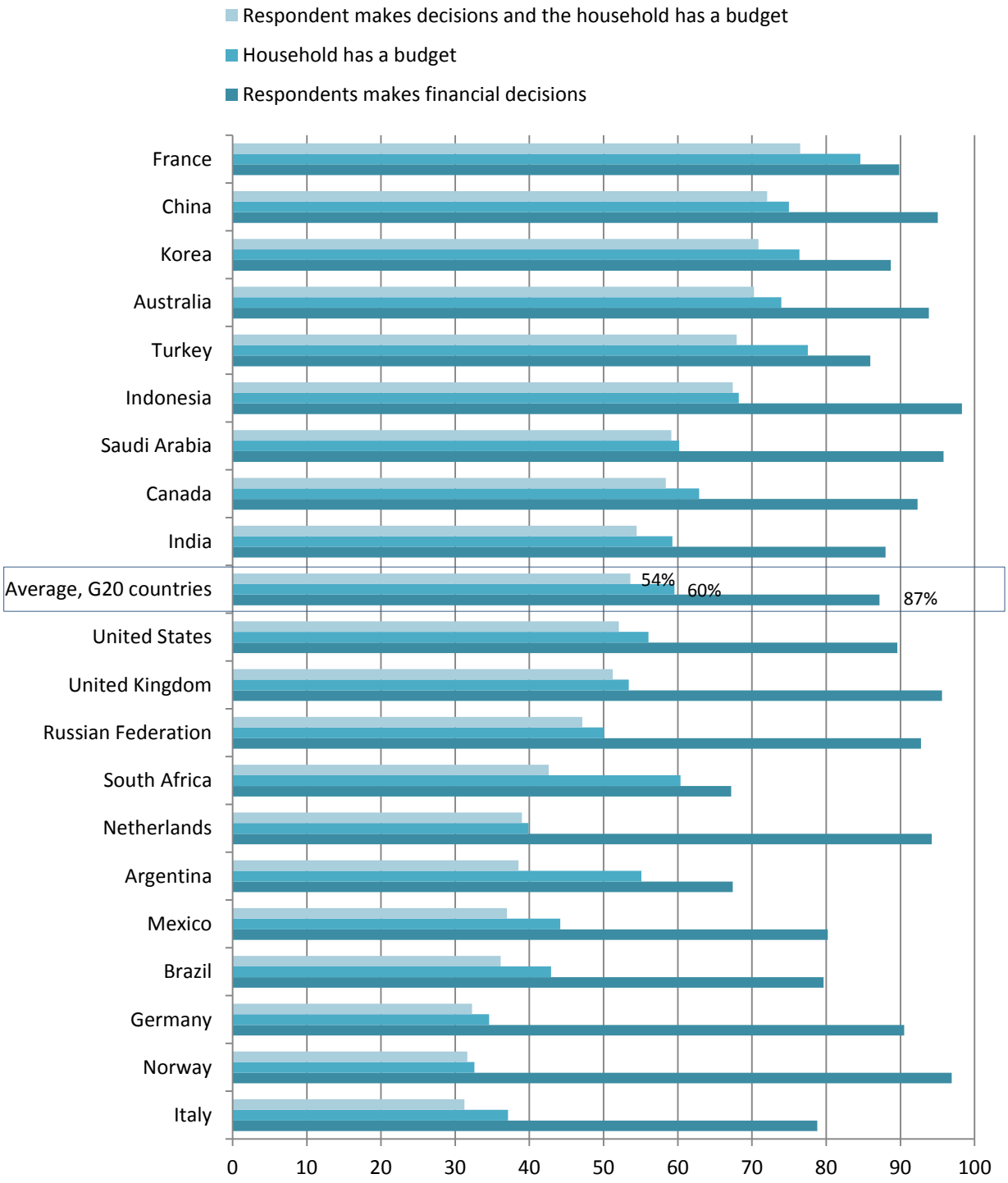
Budgeting is widely accepted as being a valuable tool for money management and a component of financial literacy, as indicated in the G20/OECD INFE Core Competencies Framework on Financial Literacy for Adults developed in 2016. However, the use of a budget to manage financial decisions was far from universal in participating countries (Figure 6).[18] On average across G20 countries only three in five households were using one (60%); varying from 35% in Germany (and 33% in guest country Norway) to more than three quarters of households in China (75%), Korea (76%), Turkey (78%) and France (85%).[19]

[18] The OECD/INFE questionnaire defines a household budget as 'A household budget is used to decide what share of your household income will be used for spending, saving or paying bills' (QF1).

[19] Strictly speaking these percentages reflect the proportion of people who live in a household with a budget, since the data are collected at the individual, rather than household level.

Figure 6. Making financial decisions in a household with a budget

Percentages (weighted data): all respondents, sorted by making decisions in household with a budget



'% making decisions and reporting that the household has a budget' is shown as a subset of respondents reporting that they make financial decisions. 'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight, irrespective of sample size or population size. G20 countries that are excluded from this chart do not have comparable data. Australian budgeting data is derived from statements about having a budget over the last 6 months (F2); Australian decision making data is derived from statements about who manages day-to-day financial issues (D3). US data on making decisions is derived from a question on planning and budgeting time periods, using those who responded that they 'don't know' to be a proxy for not making decisions.

Taking responsibility for financial decisions

Almost nine in ten people claimed to be at least partly responsible for making financial decisions in their household, on average across G20 countries (87%) (Figure 6). This varies from over 95% in China (95%), the United Kingdom (96%), Saudi Arabia (96%), Norway (97%) and Indonesia (98%), to slightly less than 70% in Argentina (67%) and South Africa (67%).

Combining information about household budgets and responsibility for financial decisions indicates that, on average over half of respondents in G20 countries (54%) took some responsibility for financial decisions and lived in a household with a budget.[20] This was particularly the case in France (76%), China (72%) and Korea (71%), whilst in some other countries, fewer than a third were in this situation (Italy (31%), Germany (32%), and guest country Norway, (32%).

Making considered purchases

Most people agreed or completely agreed that they carefully consider purchases – the average across G20 countries is 76%. More than half of respondents did so in every country, with lowest proportions found in Indonesia (63%), Korea (69%) and the UK (69%) (Table 4).

Paying bills on time

Timely bill payment also appears to be the norm for people in G20 countries (75%), with more than nine in ten doing so in France (95%), Germany (92%) and the guest country Norway (91%). However, the G20 average indicates that across those countries, on average one in four people were not always paying their bills on time and in South Africa, slightly fewer than half of respondents agreed that they were doing so (48%).

Keeping watch of financial affairs

People typically reported that they were keeping a close watch on their financial affairs, a behaviour that may help them better manage their finances day-to-day or spot errors or fraudulent activity on their accounts, for example. On average across G20 countries almost seven in ten people were doing so (68%). This behaviour is particularly prevalent in France (89%) and Germany (88%). In contrast, in Korea (43%) and Turkey (50%) no more than half of respondents agreed that they keep a close watch.

[20] It is this combined measure, rather than indicators of budgeting or responsibility, that is use in the financial behaviour score, as the indicator needs to be at the individual level. Furthermore the high proportions of people taking some responsibility means that such information adds little value to a score by itself.

Table 4. Agrees with financial behaviour statements

Percentages agreeing or strongly agreeing (weighted data): all respondents

Country	Behaviour statements			
	Before I buy something I carefully consider whether I can afford it	I pay my bills on time	I keep a close personal watch on my financial affairs	I set long term financial goals and strive to achieve them
Argentina	84	69	76	49
Brazil	73	65	60	46
Canada	76	87	78	58
China	76	76	70	68
France	93	95	89	61
Germany	73	92	88	59
India	72	74	72	64
Indonesia	63	62	65	66
Italy	81	73	62	27
Japan	70	84	57	47
Korea	69	72	43	46
Mexico	75	83	67	59
Russian Federation	72	70	65	46
Saudi Arabia	91	77	81	68
South Africa	80	48	65	49
Turkey	80	66	50	44
United Kingdom	69	84	75	45
United States				57
Average, G20 countries	**76**	**75**	**68**	**53**
Netherlands	80	86	74	39
Norway	85	91	76	44

'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Respondents who agreed: i.e. put themselves at 1 or 2 on the scale. Average, all countries reports the mean of the country percentages. Each country is therefore given equal weight, irrespective of sample size or population size. G20 countries that are excluded from this chart do not have comparable data. US data refers to a similar question from the FINRA Investor Education Foundation survey on a 7 point scale which has been rescaled, 'I set long term financial goals and strive to achieve them'.

Financial resilience

Active saving

Core competencies on financial literacy typically stress the importance of rainy day saving as well as saving for longer-term goals. The indicator used here to measure this takes into account the various ways in which people typically put money aside for the future; including the use of formal and informal financial products and services. It counts only the responses that are considered to be deliberate actions. Holding a balance on a current account is not considered to be active saving, because there is no behaviour or process involved, and those with access to a current account will also have access to additional products more suited to saving (see Box 2 for a discussion of this, and Annex 2 for more information about how the responses are used to create a financial behaviour score).

On average across G20 countries, more than six in ten adults were active savers (64%) (Figure 7). However there are large variations in the proportion of respondents who reported saving in some way in the last 12 months. In China, the vast majority of adults were saving in some way (96%); similarly in Saudi Arabia (91%), Indonesia (87%) and France (83%), as well as guest country Norway (84%), more than four out of five respondents were active savers. In contrast, in Brazil (30%) and Argentina (24%), no more than three in ten adults were exhibiting this behaviour.

Box 3. Identifying people who are actively saving

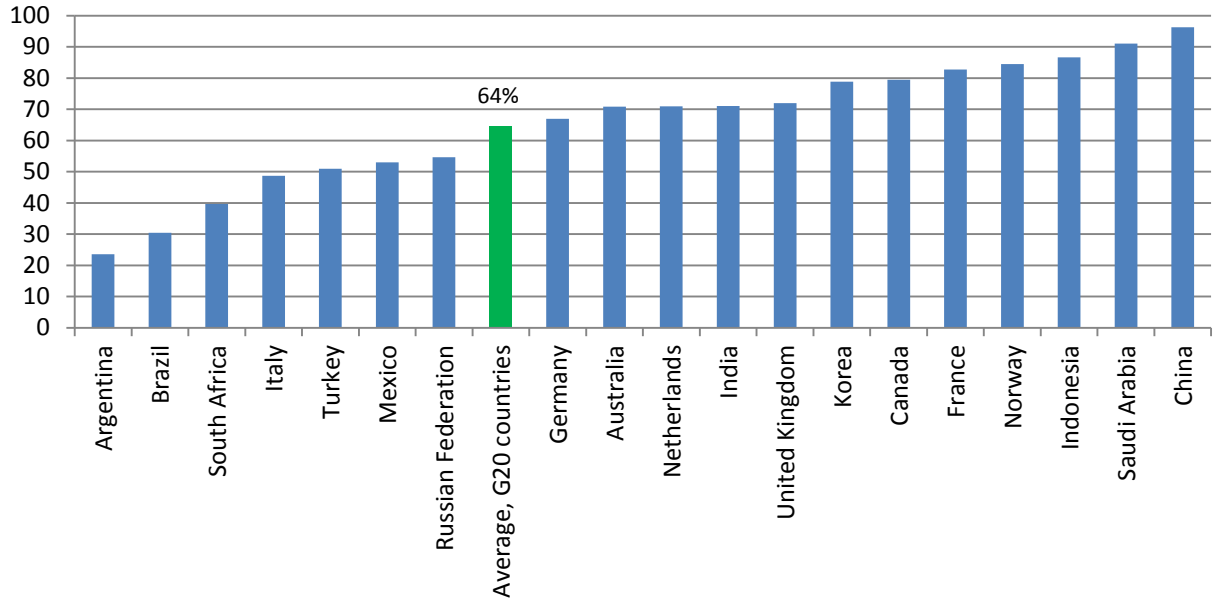
Financial literacy includes a number of behaviours that can promote financial well-being. One of these is saving. Active savers exhibit a behaviour that can help them to smooth income and expenditure flows, thus supporting their budgeting behaviour. People who build savings are also likely to be more resilient to financial shocks and better able to meet financial goals. The indicator of active saving used in this report therefore seeks to identify such recent behaviour. It is based on a question that allows multiple responses and looks back over a 12 month time period in order to identify recent behaviour even when the respondent saves irregularly. This time period is used to take into account intermittent behaviour related to income or expenditure fluctuations such as seasonal work or annual holidays.

There are questions within the core questionnaire that may indicate whether or not a person has savings, including questions on product holding and a question on covering living expenses following a loss of income. These are not used as behaviour indicators, as they do not necessarily indicate a *current* behaviour; an individual may hold an old savings account without using it to save, and a household may be able to cover living costs very easily through a second source of income.

Alternative approaches look at the stock of saving, but it could be argued that this is an outcome of financially literate behaviour rather than an indicator of the behaviour itself. It also depends on many factors, including the amount of time an individual has been saving, the amount of disposable income available to save, the extent to which savings have earned interest and the extent to which they are being spent.

Figure 7. Active savers

Percentages (weighted data): all respondents



'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight, irrespective of sample size or population size. Brazil only asked this question to people with an income but the percentage reported is of all participants. This will slightly reduce the overall scores for Brazil (41% of those with an income were active savers; 30% of all respondents). G20 countries that are excluded from this chart do not have comparable data. Australian active saving data is derived from statements about the approaches to saving used in the last 6 months (F9).

Making ends meet and facing external shocks

An individual's ability to make ends meet when income or expenditure fluctuates depends on a number of factors including their savings behaviour, resourcefulness and adaptability. This section looks at reported behaviours, and particularly borrowing, when income does not quite cover living costs (see Table 5).

Table 5. Questions on making ends meet

Question wording	Responses	Notes
Sometimes people find that their income does not quite cover their living costs. In the last 12 months, has this happened to you, personally?	Responses yes/no	The indicator created from these questions gives a score of 1 to respondents who have either a) not faced a shortfall in income (indicating good financial literacy skills in terms of budgeting and financial management) or b) fallen behind but did not resort to borrowing to pay their bills. Those who borrowed to make ends meet score 0 on this measure.[21]
What did you do to make ends meet the last time this happened?	Multiple responses allowed	

On average across G20 countries almost two in five people (37%) had faced a situation where income didn't quite cover living costs in the last 12 months. In Argentina (71%), Mexico (55%) and Turkey (50%), at least half of respondents had faced such a shortfall (Figure 8).

Given the likelihood of facing a shortfall from time to time, it is important that people have strategies that do not create further financial difficulties in the future. The indicator in Figure 8 looks at the extent to which people reported that their strategy for overcoming a shortfall had included borrowing. Such behaviour is not sustainable and is therefore a concern to policy makers. It may suggest a lack of preparation through rainy-day-savings or a preference to maintain living standards despite reduced resources, for example.[22] Borrowing to make ends meet is also a potential sign of hardship and poverty which should be addressed.

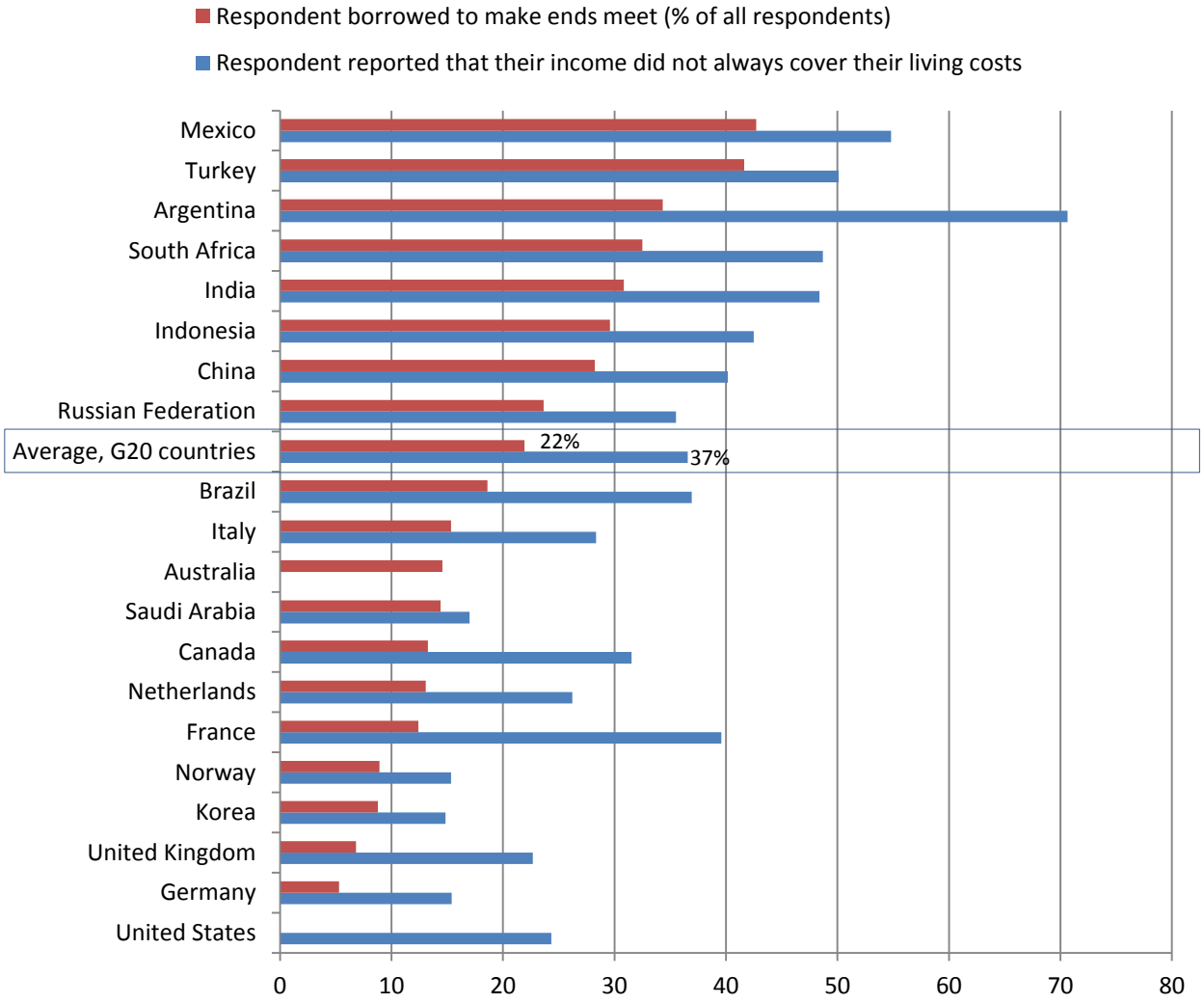
On average in G20 countries, 22% of all respondents had resorted to borrowing to make ends meet in the previous 12 months. This proportion was over 2 in 5 in Mexico (43%) and Turkey (42%), but as low as one in 20 in Germany (5%). However, it is important to note that even in Germany one in three of those people who had faced a shortfall had resorted to borrowing, a similar proportion to that in France and the United Kingdom.

21 Those who did not answer this question therefore score 1 on this measure by default. In countries with high levels of refusals this should be taken into account when creating a behaviour score.

22 Borrowing to make ends meet is also a potential sign of hardship and poverty, creating an important reminder that some behaviours are shaped through lack of alternative courses of action, at least in the short-term.

Figure 8. Making ends meet

Percentages (weighted data): all respondents, sorted by 'borrowed to make ends meet'



'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight, irrespective of sample size or population size. G20 countries that are excluded from this chart do not have comparable data. Australia does not have comparable data on income not covering living costs, and the United States does not have comparable data on borrowing to make ends meet. Derived responses from QF11 and QF12 in the 2015 OECD/INFE toolkit. Australian borrowing to make ends meet data is derived from questions about covering costs of unplanned bills or expenses in the last 6 months (F14). US data on making ends make ends meet is derived from questions on spending more than income (J3) and finding it very difficult to cover expenses and pay bills (J4).

Striving to achieve long-term goals

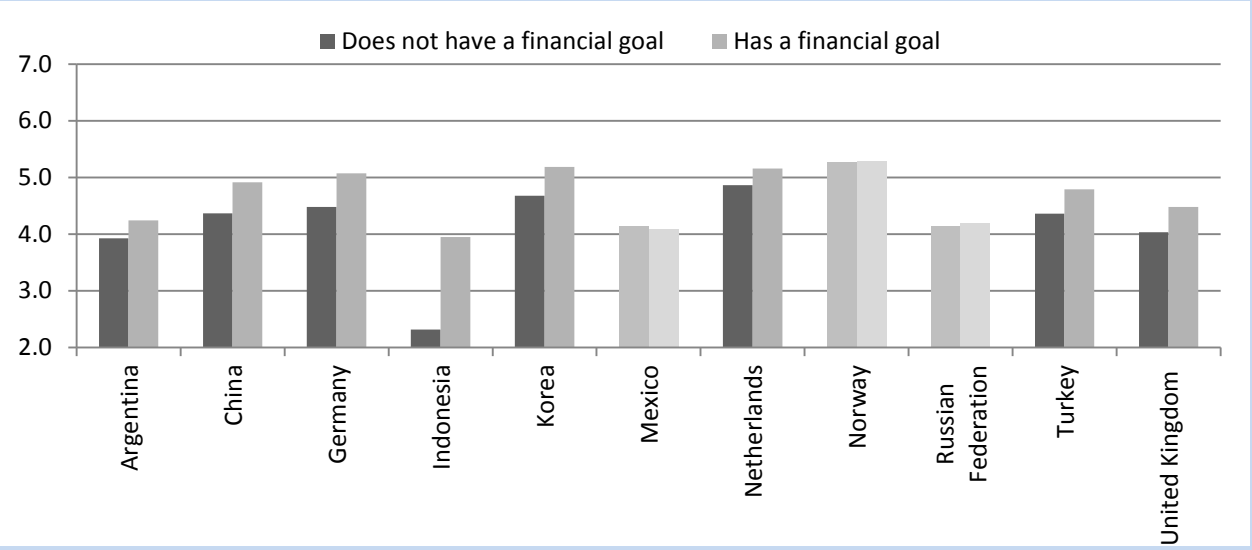
Far fewer people agreed that they have long-term financial goals and strive to achieve them than said they keep a watch on their financial affairs (Table 4). Just over half of respondents (53%) agreed with this statement on average across G20 countries. Only 39% of adults were striving to achieve long term goals in guest country the Netherlands and fewer than three in ten did so in Italy (27%). This positive behaviour is most apparent in China (68%), Saudi Arabia (68%) and Indonesia (66%).

Box 4. Financial knowledge and goal setting

In some countries, respondents were asked specific questions about their financial goals. Figure 9 shows that in eight of the 11 countries that asked these questions, those that had financial goals such as paying their university fees, buying a car or becoming debt free, had significantly higher financial knowledge scores, on average, than those who had no such goals.

Figure 9. Average financial knowledge score by financial goal

Average score, missing data excluded



G20 countries that are excluded from this chart do not have comparable data. Differences significant at 0.01 are identified using darker bars.

Making informed choices of financial products

The G20/OECD INFE Core Competencies Framework on Financial Literacy for Adults indicates that actively seeking information about the relevant features of a financial product when making a choice is an underpinning competency. Ideally such information should be provided in an impartial way, in order to make comparisons across products and providers.

Box 5. Measuring the extent to which people are shopping around for financial products

The indicator for shopping around for a product combines two questions (Table 6). These questions are only asked of people who have made a recent product choice, and where they have chosen more than one it is asked of the most recent product. This design is intended to ensure that the respondent can remember the process by asking them to recall the last time they made a product choice.

Table 6. Questions on choosing products

Question wording	Responses	Notes
Which of the following statements best describes how you made your choice?	a) I considered several options from different companies before making my decision b) I considered the various options from one company c) I didn't consider any other options at all d) I looked around but there were no other options to consider	This question is intended to find out about the extent to which the respondent looked at the alternative products available. A derived variable is created that indicates whether respondents made an attempt to shop around: Responses a and d are given a value of 1. Other responses, including no product choice is given the value 0.
And which sources of information do you feel most influenced your decision {about which one to take out}?	Various examples are given and countries have also included their own under: Product-specific information, best-buy guidance, general advice, media coverage, adverts, other	This question is designed to capture information about the extent to which the respondent made use of different types of information or guidance. Multiple responses are possible: responses are coded 1 if they used some form of product-specific or general information and 2 if they used independent, professional sources of information. [See annex 2 for further details]

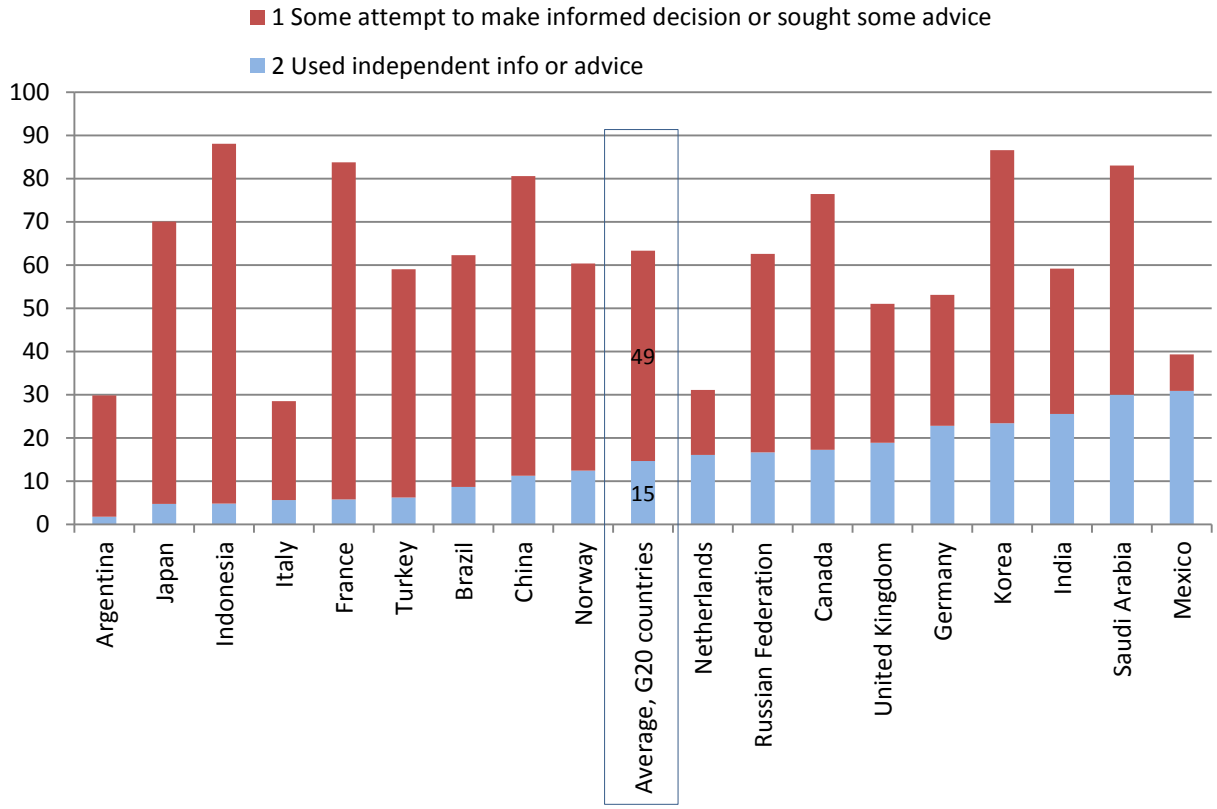
As the OECD/INFE questionnaire provides instruction to ask about the most recent product chosen in the last two years, the variable also partly reflects financial inclusion, or the extent to which people are looking for new or replacement financial products. Furthermore, the approach that a respondent takes will, to some extent, vary according to the product that they chose. For these reasons, it is anticipated that this indicator is more informative in aggregate, showing comparisons across populations or by key subsets, than on an individual level.

It should be noted that the way in which people choose products may change depending on the product to be chosen. The questionnaire includes a question asking which product was bought most recently. This is designed to facilitate national level analyses to understand how behaviour changes depending on the product being bought. This cannot be undertaken at the international level due to the wide range of different product types.

On average in G20 countries, almost half of respondents (49%) had made some attempt to make an informed decision on a financial product (scoring 1 on this measure) and 15% had used independent information or advice (scoring 2 on the measure). The full height of the bars in Figure 10 shows that in Canada, China, France, Indonesia, Japan and Korea, over seven in ten respondents had either made some attempt to make an informed decision or used independent guidance when choosing a financial product (also indicating widespread product purchases in these countries). Furthermore, three in ten respondents in Mexico (31%)[23] and Saudi Arabia (30%), and around a quarter of all respondents in India (26%), Germany and Korea (23%) had sought impartial guidance from sources such as independent advice, best-buy comparisons or the professional press.[24]

Figure 10. Choosing financial products

Percentages (weighted data): all respondents, sorted by 'used independent information or advice'



Derived scores from responses to Qprod2 and Qprod3– see Annex 2. 'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight, irrespective of sample size or population size. G20 countries that are excluded from this chart do not have comparable data.
The information from these two questions was combined into an overall measure of informed decision making, which takes into account take a value of 2 if the respondent used an independent source of information and 1 if they used some other form of information and/or shopped around.

23 Missing data have been imputed for Mexico.

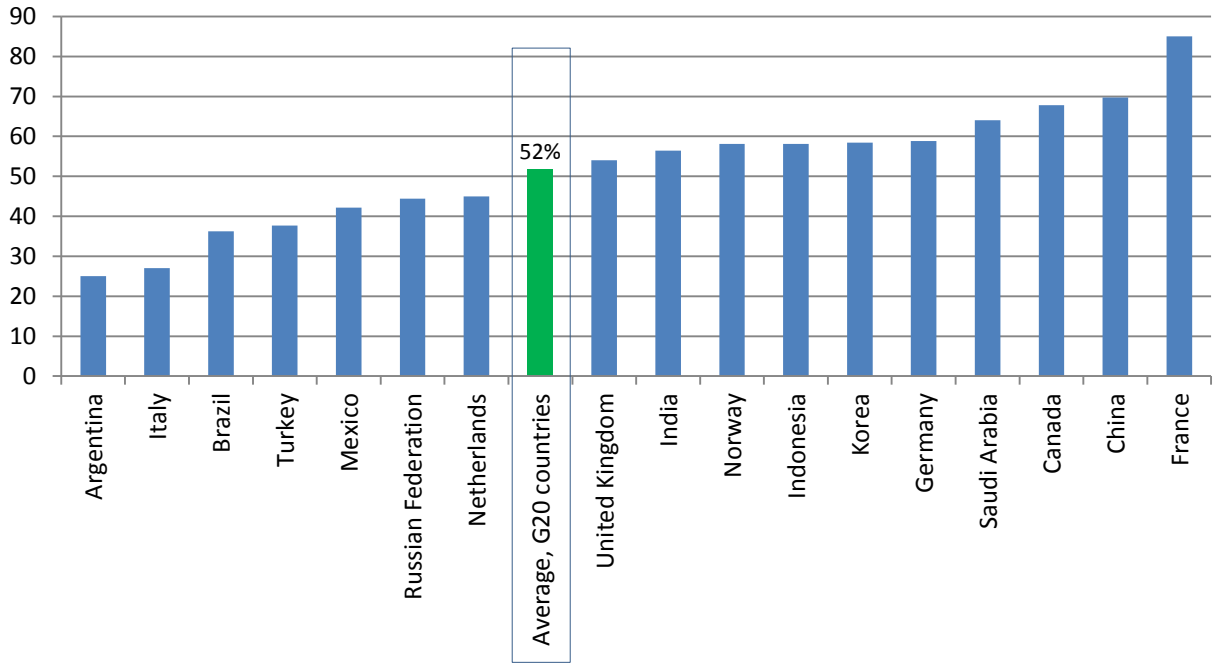
24 In some countries, consumers have relatively little access to best buy guides or other sources of independent information and advice. Changing behaviour in this case may primarily require providing access to impartial information and advice for people choosing financial products. It should also be noted that country level reasons for choosing financial products (such as a move towards compulsory insurance or electronic payments, for example) may account for the very large differences in active product choices across countries.

Minimum target scores on financial behaviour

Just as people need to understand a range of financial concepts to inform their decisions, they also need to behave in a consistently financially literate way across a number of areas. Figure 11 focuses on minimum target scores for financial behaviour. The figure reports the percentage of adults in each country achieving a score of 6 or more, reflecting the proportion of respondents exhibiting at least two thirds of the behaviours discussed above. The average proportion reaching this minimum target across G20 countries is just 52%. France has by far the highest proportion achieving this score, indicating that the majority of people in France (85%) were acting in ways that are likely to benefit their financial well-being; in China (70%) and Canada (68%), large proportions of the population were also behaving in a number of beneficial ways. In contrast, fewer than 30% of respondents in Argentina (25%) and Italy (27%) achieved the minimum target score.

Figure 11. Minimum target score (6 or more) on financial behaviour

Percentages (weighted data): all respondents



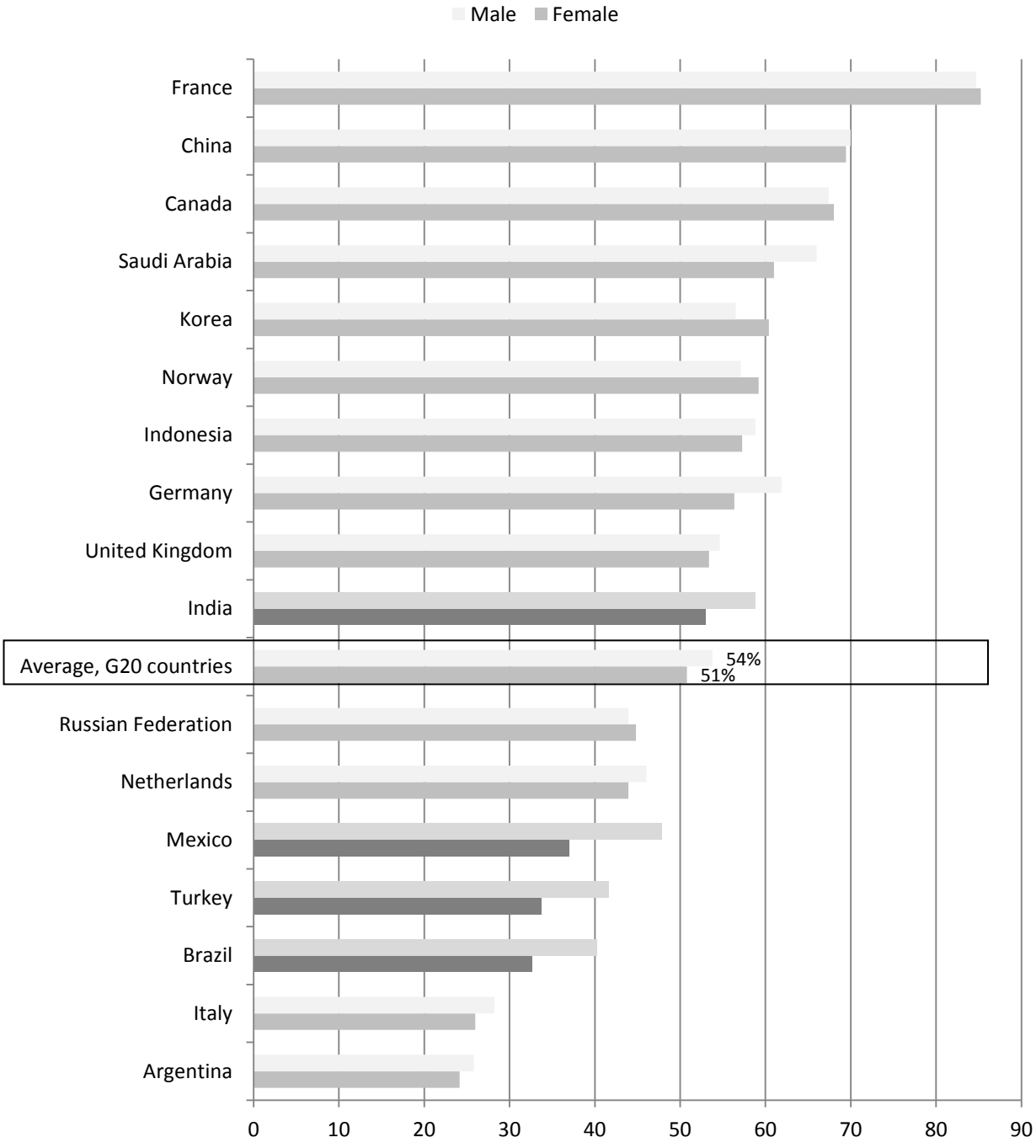
'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data excluding the Netherlands and Norway. Each country is therefore given equal weight, irrespective of sample size or population size. G20 countries that are excluded from this chart do not have comparable data.

Gender differences in financial behaviour

Similar proportions of men and women achieved the minimum target score for behaviour on average in G20 countries (54% of men and 51% of women: Figure 12). A higher proportion of men than women achieved the minimum target financial behaviour scores among the small group of countries with statistically significant differences (Brazil, India, Mexico and Turkey).

Figure 12. Minimum target score (6 or more) on financial behaviour by gender

Percentages (weighted data): all respondents. Differences significant at 0.01 are identified using darker bars**.**



'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight, irrespective of sample size or population size. Differences significant at 0.01 in bold. G20 countries that are excluded from this chart do not have comparable data.

IV. FINANCIAL ATTITUDES

The OECD/INFE definition of financial literacy recognises that even if an individual has sufficient knowledge and ability to act in a particular way, their attitude will influence their decision of whether or not to act. The responses to three attitude statements are therefore used in this section to gauge respondents' attitudes towards money and planning for the future (Table 7 and Figure 13).

Each of the statements focuses on preferences for the short term through 'living for today' and spending money. These kinds of preferences are likely to hinder behaviours that could lead to improved financial resilience and well-being. More financially literate people would tend to disagree with the statements.

Table 7. Financial attitude questions

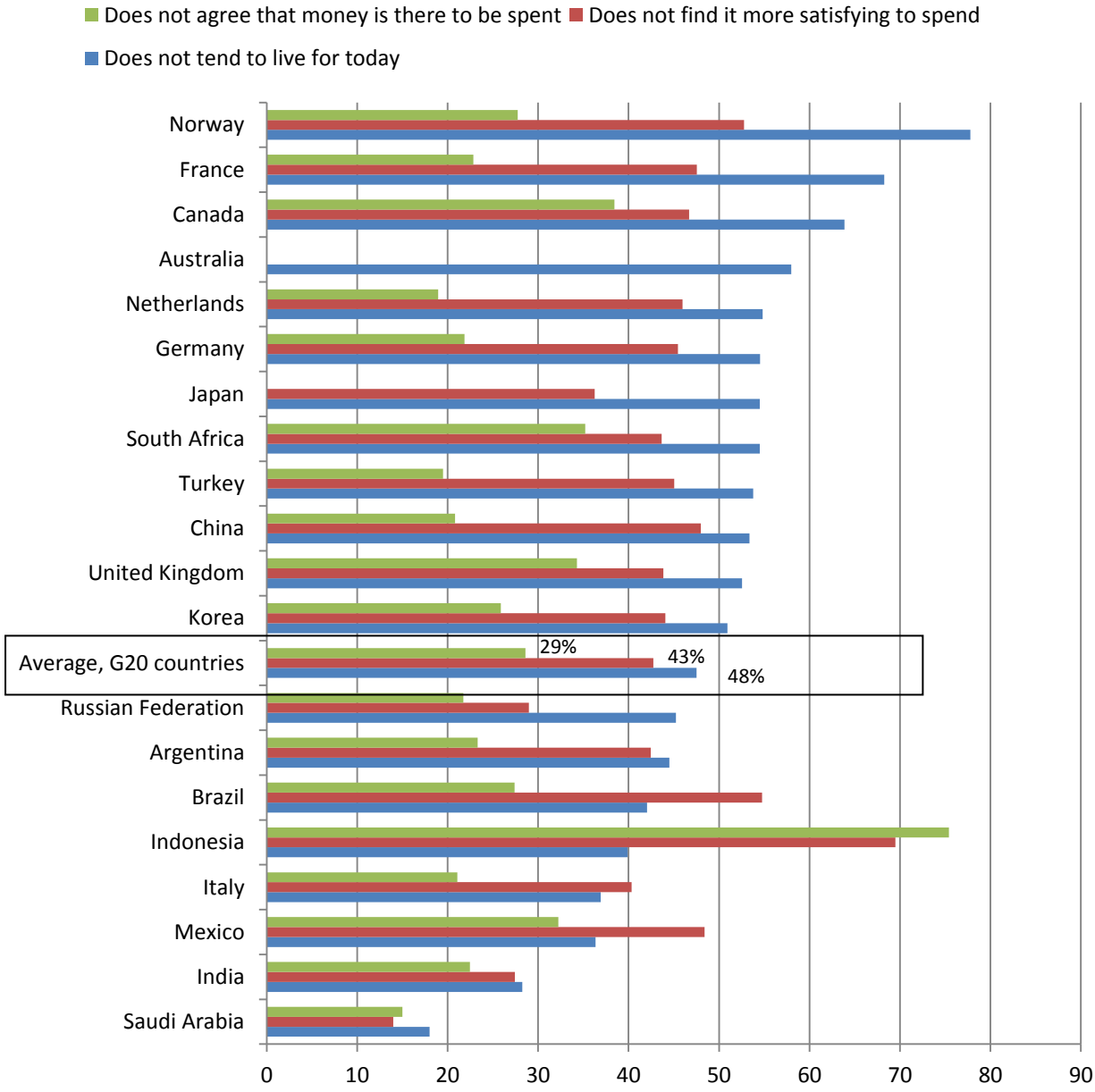
Text	Possible responses	Notes
I tend to live for today and let tomorrow take care of itself ('*living for the day*')	5 point scale: 1=Completely agree; 5=completely disagree	These questions are intended to indicate whether the respondent focuses exclusively on the short term (agrees) or has a preference for longer-term security (disagrees)
I find it more satisfying to spend money than to save it for the long term ('*saving*')		
Money is there to be spent ('*spending*')		

Figure 13 shows the proportion of the population in each participating country that has an attitude that is consistent with higher levels of financial literacy; that is they put themselves at 4 or 5 on the five point scale of the attitude statement. It shows that on average in G20 countries, almost half of people (48%) disagreed that they tend to live for the day and 43% did not agree that it was more satisfying to spend than save. However, only 29% disagreed that money is there to be spent. In almost all countries people's attitudes around living for today are more financially literate than their attitudes towards money and spending. However, the converse is true in Brazil, where financial literacy is strongest in terms of attitudes to spending and saving whilst in Indonesia very few people consider that money must be spent.

Whilst there are similar patterns in the responses to these three questions across countries, the absolute proportions vary considerably. For example, in India (28%) and Saudi Arabia (18%), fewer than three in ten people exhibited financially literate attitudes in relation to living for the day, a difference of around 50 percentage points when compared with guest country Norway (78%) or France (68%).

Figure 13. Respondents taking a longer-term attitude

Percentages (weighted data): all respondents, sorted by 'does not tend to live for today'



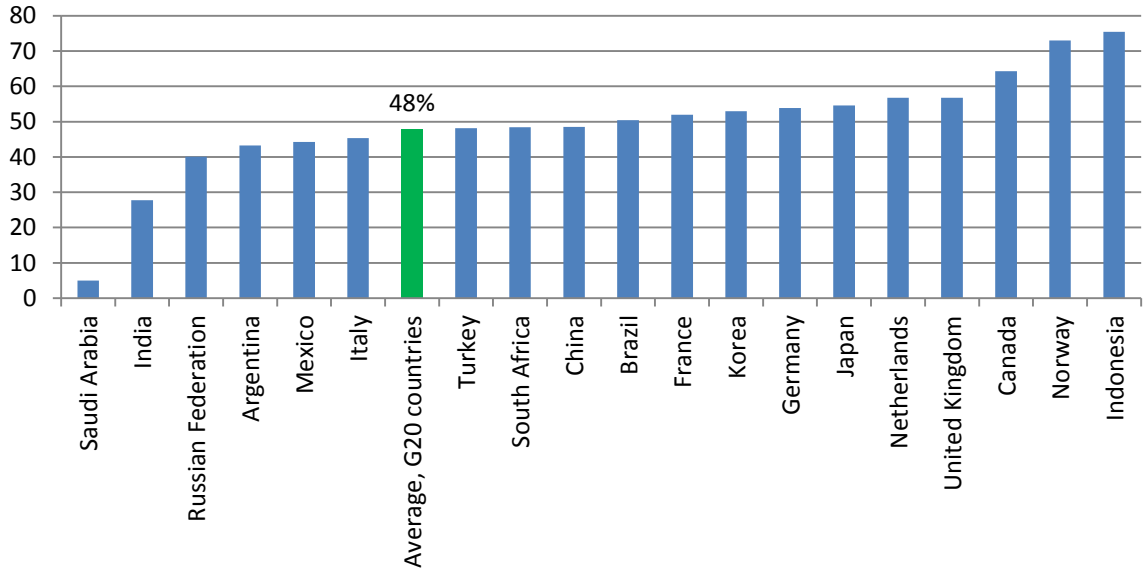
'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight, irrespective of sample size or population size. Percentage putting themselves at 4 or 5 on the scale (disagreeing or strongly disagreeing with statements). Responses to QF10_b, QF10_c and QF10_h. G20 countries that are excluded from this chart do not have comparable data.

Figure 14 summarises the percentage of respondents reaching the minimum target score of three for financial attitude, calculated as the average response across the three questions reported in Figure 13.[25]

The graph shows that on average across G20 countries just under a half of respondents (48%) had financially literate attitudes to spending and the longer term. In the Russian Federation, just four in 10 people indicated an attitude that tends towards the longer term. In contrast, in Canada (64%), Norway (73%) and Indonesia (75%), more than six in 10 did so. Respondents in Saudi Arabia were noticeably lower scoring on this aspect of financial literacy, with just one in 20 achieving the minimum target score.

Figure 14. Minimum target score (more than 3) on financial attitudes

Percentages (weighted data): all respondents



'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight, irrespective of sample size or population size. The score for Japan is based on the average of 2 questions: *I tend to live for today and let tomorrow take care of itself* and *I find it more satisfying to spend money than to save it for the long term*. G20 countries that are excluded from this chart do not have comparable data.

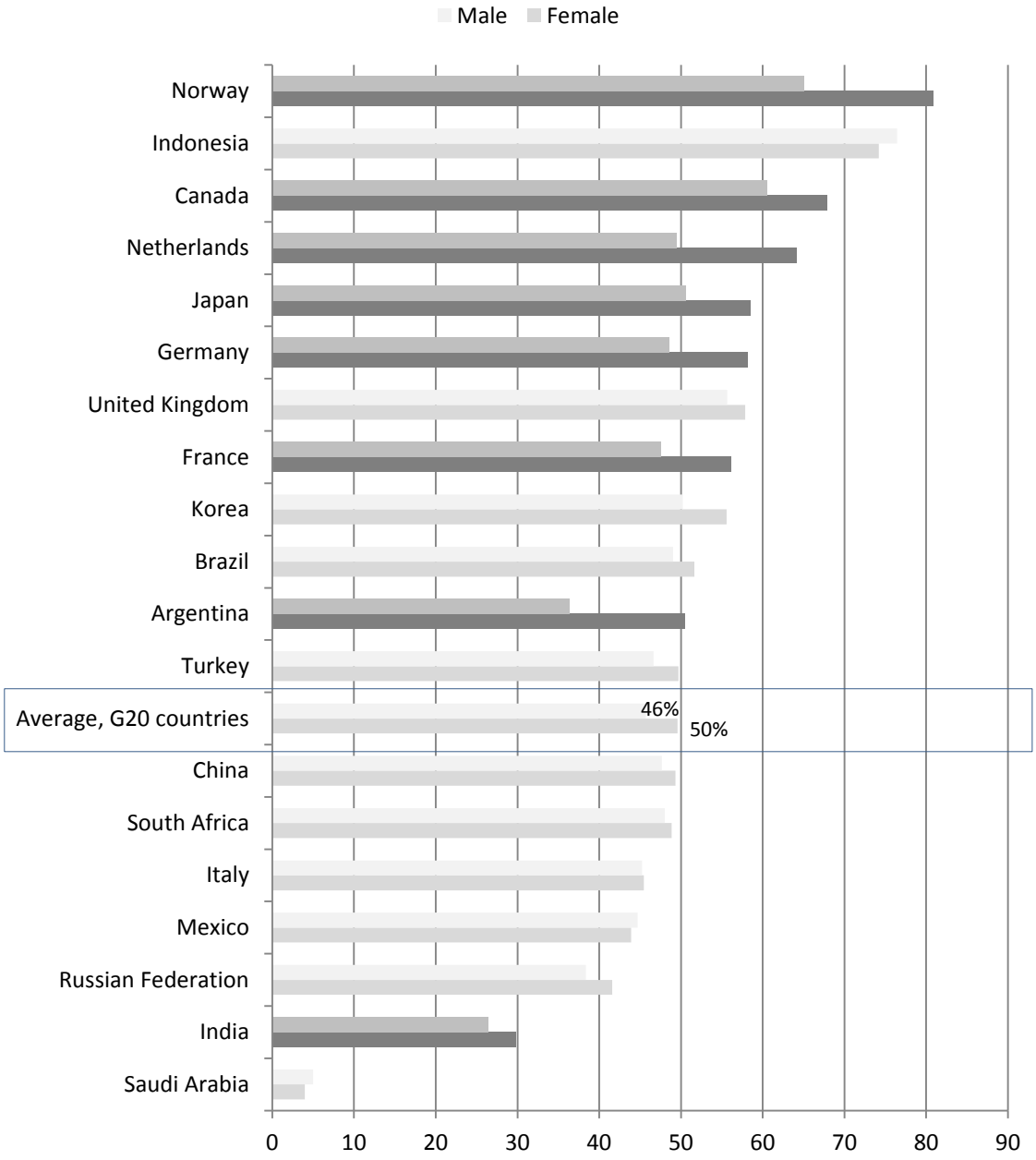
Gender differences in financial attitudes scores

Figure 15 shows that approximately the same proportion of men (46%) and women (50%) on average in G20 countries achieved the minimum target score for financial attitudes. However there are some noticeable differences in financial attitudes between men and women in some countries, with men being significantly less likely to have a positive attitude towards the longer term than women in Argentina, Canada, France, Germany, India, Japan, the Netherlands and Norway. Women in Norway particularly stand out for being more likely to have longer-term attitudes than either their male counterparts in Norway or men and women in other countries.

[25] Three is the mid-point, so anything above this reflects a tendency to have a preference for the longer-term.

Figure 15. Minimum target score (more than 3) on financial attitudes by gender

Percentages (weighted data): all respondents. Differences significant at 0.01 are identified using darker bars**.**



'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight, irrespective of sample size or population size. Differences significant at 0.01 are identified in bold**.** The score for Japan is based on the average of 2 questions: *I tend to live for today and let tomorrow take care of itself* and *I find it more satisfying to spend money than to save it for the long term.* G20 countries that are excluded from this chart do not have comparable data.

V. OVERALL LEVELS OF FINANCIAL LITERACY

Financial literacy is considered to be a complex phenomenon, made up of a combination of knowledge, attitudes and behaviours, as presented in Figure 16.

This chapter provides an indication of overall financial literacy as measured through a sum of the three components discussed in this report.[26] The resulting score is therefore driven primarily by financial behaviour, which contributes up to 9 of the 21 possible points. This reflects the general understanding that financial well-being results primarily from positive behaviours and that financial education therefore needs to ultimately change behaviour to improve financial well-being.

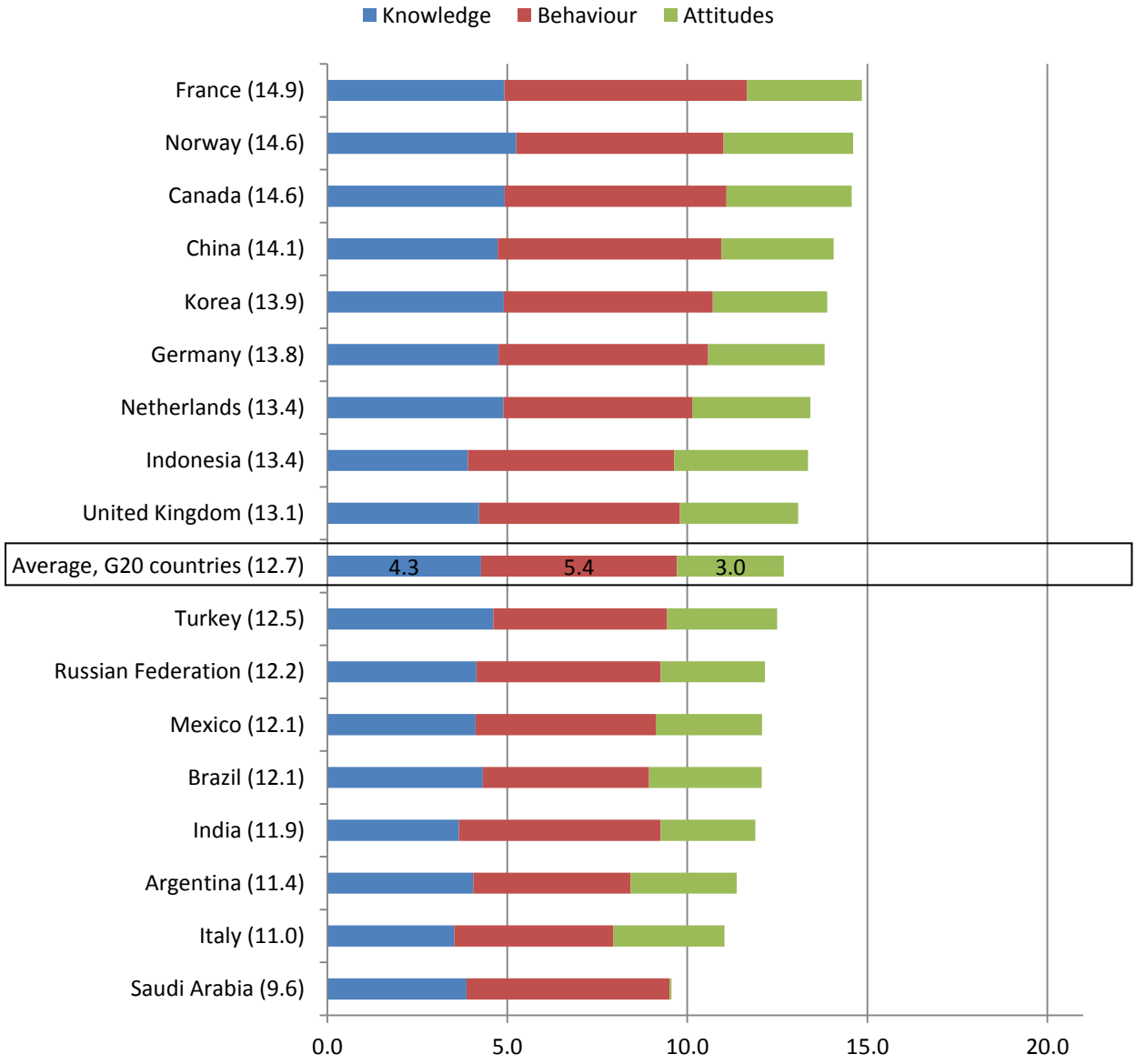
On average in G20 countries, people scored just 12.7 out of a possible 21 for financial literacy. Overall levels of financial literacy are highest in France, due to the extent to which individuals are exhibiting positive financial behaviours. Canada and China are the only other G20 country with an average score above 14 out of 21; along with the guest country, Norway.

Figure 16 indicates that countries with similar levels of overall financial literacy nevertheless face different challenges in terms of improving these levels. For example, compared with Indonesia, the Netherlands has relatively high levels of knowledge, but people are exhibiting fewer positive financial behaviours.

[26] The basis for combining the three components of financial literacy is based on the definition of financial literacy, not on the statistical properties of such a combination. As countries have some relative strengths and weaknesses in terms of the three components we would not expect them to be strongly correlated.

Figure 16. Financial knowledge, attitudes and behaviour

Stacked points (weighted data): all respondents, sorted by overall score out of 21 (reported in parenthesis)



'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight, irrespective of sample size or population size. Overall scores presented in parenthesis. These may not exactly reflect the sum of the three components due to rounding. G20 countries that are excluded from this chart do not have comparable data.

VI. FINANCIAL INCLUSION

It is globally recognised that financial literacy and financial inclusion[27], along with a robust consumer protection framework, are vital to the empowerment of individuals and the overall stability of the financial system. It is therefore valuable for policy makers to have information about the levels of financial inclusion of consumers alongside a measure of their financial literacy.

This section provides additional insights into the extent to which people are financially included and active financial consumers. It focuses on seven measures designed to go beyond simple supply side discussion of access and provide a more nuanced view of financial inclusion from the consumer's perspective.[28]

Product holding

A set of four discreet indicators identify respondents that currently hold a) some form of saving or retirement product; b) a payment product, current account or mobile money (excluding credit cards, which are counted as a credit product and other types of accounts that may offer payment facilities such as savings accounts) [29]; c) some form of insurance; and d) some credit product or mortgage. Finally, three exploratory measures look at whether consumers are at least aware of the financial products available nationally, whether they are making financial product choices, and whether they have turned to family or friends to help them to save money or make ends meet.

Figure 17 indicates that on average, payment products were held by the majority of people in G20 countries (66%) and were typically the most common form of financial product held.[30] However, in some countries, (notably Brazil, China, India, Indonesia and South Africa) savings products were more widespread than payment products, and on average across G20 countries a similar proportion held such a product (63%). It is possible that some of these savings products were being used to provide basic banking facilities.

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27 Financial inclusion refers to the process of promoting affordable, timely and adequate access to a wide range of regulated financial products and services and broadening their use by all segments of society through the implementation of tailored existing and innovative approaches including financial awareness and education with a view to promoting financial well-being as well as economic and social inclusion (Atkinson and Messy, 2013).

28 The OECD/INFE will continue to develop such measures in the future and further explore the relationship between financial literacy and inclusion.

29 The four measures use pre-defined categories of products and do not count the same response in more than one measure, and so for example, products designed primarily for other reasons but which include payment facilities are not included in 'payment products'. Note also, that as the payment products categorisation separates out savings accounts and payment accounts, it is not comparable to measures of 'banked' and 'unbanked' consumers, which typically combine both.

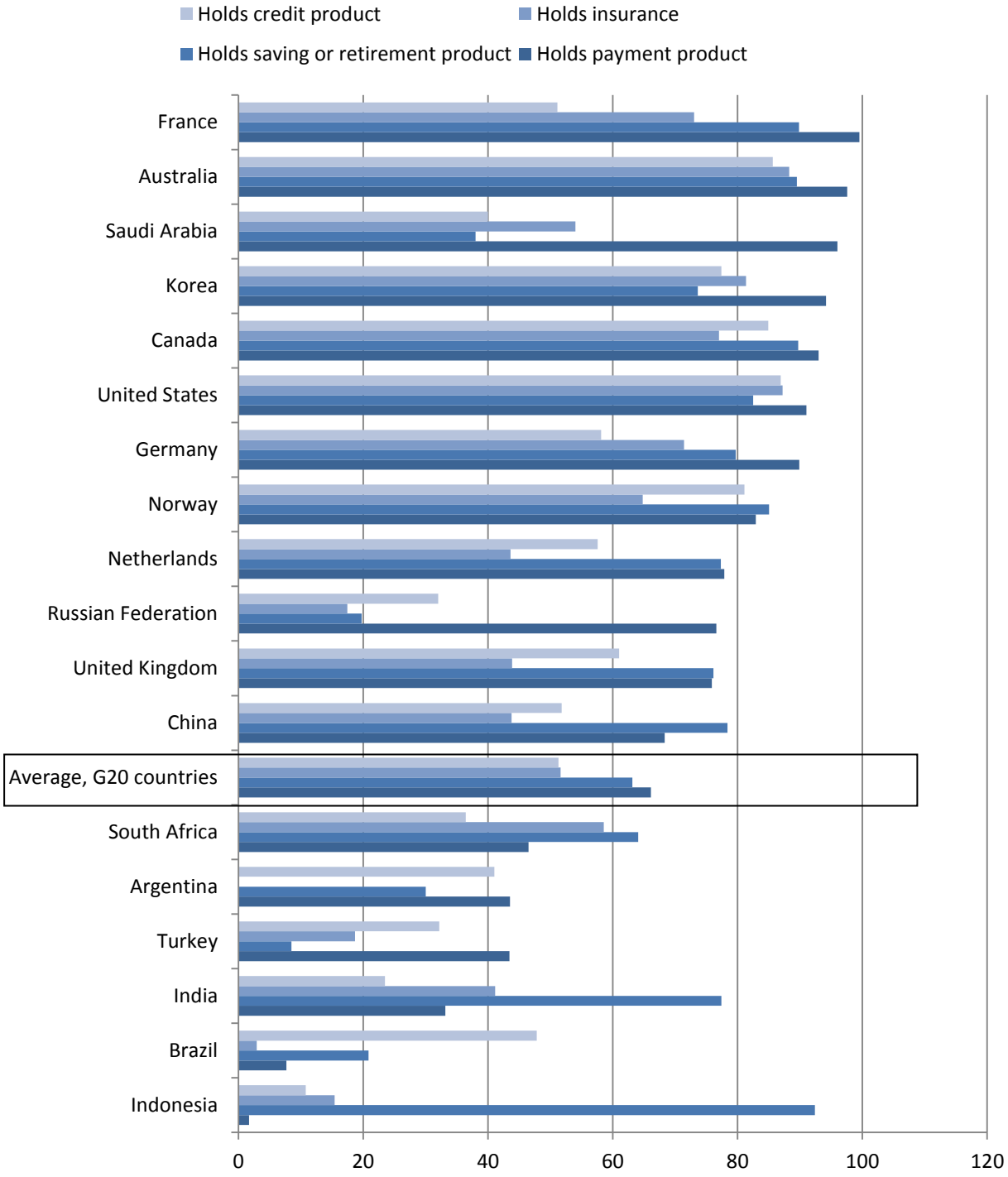
30 Data on financial inclusion for Mexico is not included. There is an independent source of data on this topic, the Encuesta Nacional de Inclusión Financiera (ENIF), which has been carried out by Mexico's National Statistics Institute (INEGI) in 2012 and 2015.

Insurance use varied widely across countries, with just over a half of respondents (52%) on average holding such a product. The measure is capturing the extent to which people has any insurance, including for example car insurance, travel insurance or property insurance (note however that 'life insurance' is counted as a savings product for the purpose of this study). In a few countries, over 80% of the population had some form of insurance (Korea (81%), United States (87%), Australia (88%)), whilst in Brazil (3%), Russian Federation (17%), and Turkey (19%) fewer than one in five respondents claimed to hold any form of insurance. Some of the differences may reflect differences in the extent to which certain insurance policies are mandated as well as supply-side factors.

Credit products were held by half of respondents (51%) on average in G20 countries. This varies from over four out of five respondents in the US (87%), Australia (86%), Canada (85%) and guest country Norway (81%) holding some form of credit product to 23% in India.

Figure 17. Product holding

Percentages (weighted data): all respondents, sorted by percentage holding a payment product



Using the basic categories in the questionnaire, product holding (Qprod1_b) has been coded as follows: Savings product=pension or retirement product, investment account, savings account, stocks and shares, bonds; Payment product=current/checking account, mobile/cell phone payment account, prepaid debit card; Insurance=Insurance; Credit product=mortgage, secured or unsecured bank loan, credit card, microfinance loan. Country specific responses have also been counted where relevant; and may include informal products. There is an independent source of data on financial inclusion for Mexico, the Encuesta Nacional de Inclusión Financiera (ENIF). Other G20 countries that are excluded from this chart do not have comparable data.

Product awareness

Figure 18 shows that on average across G20 countries, four in five adults (83%) were aware of at least five different types of product. In countries such as France (98%), Canada (96%) and the Russian Federation (96%) such levels of awareness are almost universal, whilst in Indonesia fewer than four in ten adults (37%) indicated that they were aware of five different product types.

Active product choice

Financial inclusion stands to benefit consumers most if they continue to monitor their products, and consider making changes when new products or services are available or when pricing structures change. Conversely, consumers that take financial products but then fail to monitor them may, for example, hold insurance that does not meet their needs, have credit products charging unnecessarily high levels of interest or transaction accounts that retain more costly and inconvenient payment facilities such as cheques. Furthermore, the lack of demand-side activity in a financial market is likely to reduce competition and the extent to which providers innovate and modernise their products and services.

There is a large difference in the extent to which people have actively chosen a financial product in the last two years across countries, with more than three in five doing so on average across G20 countries. In Saudi Arabia (100%), China (98%), Indonesia (94%), and guest country, Norway (94%) almost everyone had been an active financial consumer in the last 2 years. Conversely, in Italy (33%), the Netherlands (34%) and Australia (using different questions) (22%), no more than two in five respondents had made a product choice in the last two years.

Interestingly, in Indonesia, where broad product awareness is relatively low, active product choice is relatively high. This may suggest that demand for other types of product will be high once awareness improves.

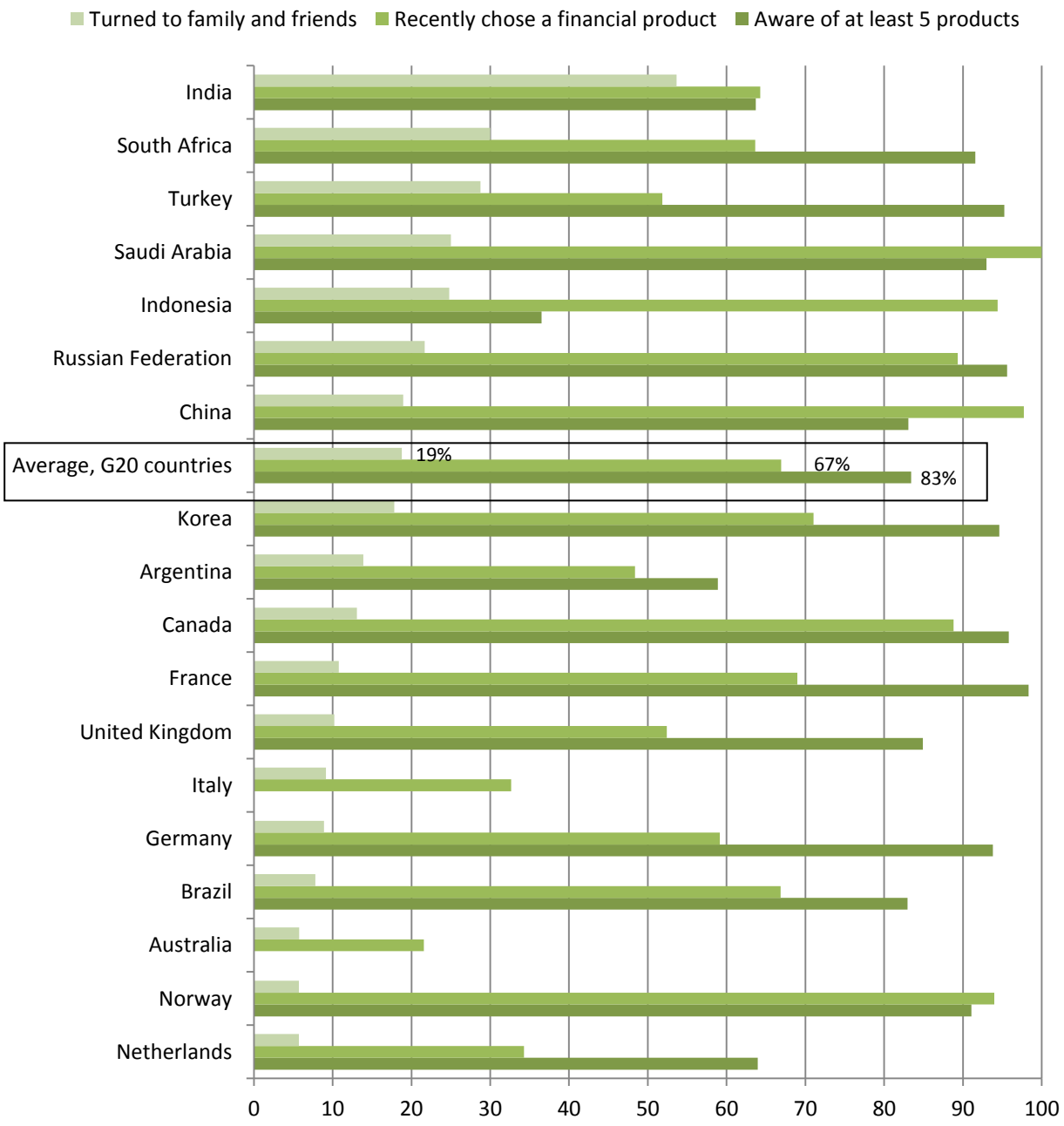
Alternatives to formal financial services

When people lack access to well-designed, affordable financial products they may be more likely to turn to friends and family for help and support. The final indicator discussed here seeks to identify this tendency. It includes those who chose the option ‘giving money to family to save on your behalf’ as a method of saving or the option ‘borrow from family or friends’ as a solution for making ends meet (see Section II for more information about these questions).

Around one in five people turned to family and friends, on average across G20 countries (19%). The results show wide variation, in India, for example 54% of respondents reported relying on family or friends in one of these ways in the last 12 months, compared with only six per cent in the Netherlands and Norway (and Australia, using a different set of questions to create the indicator).

Figure 18. Indicators of financial inclusion

Percentages (weighted data): all respondents, sorted by 'turned to family and friends'



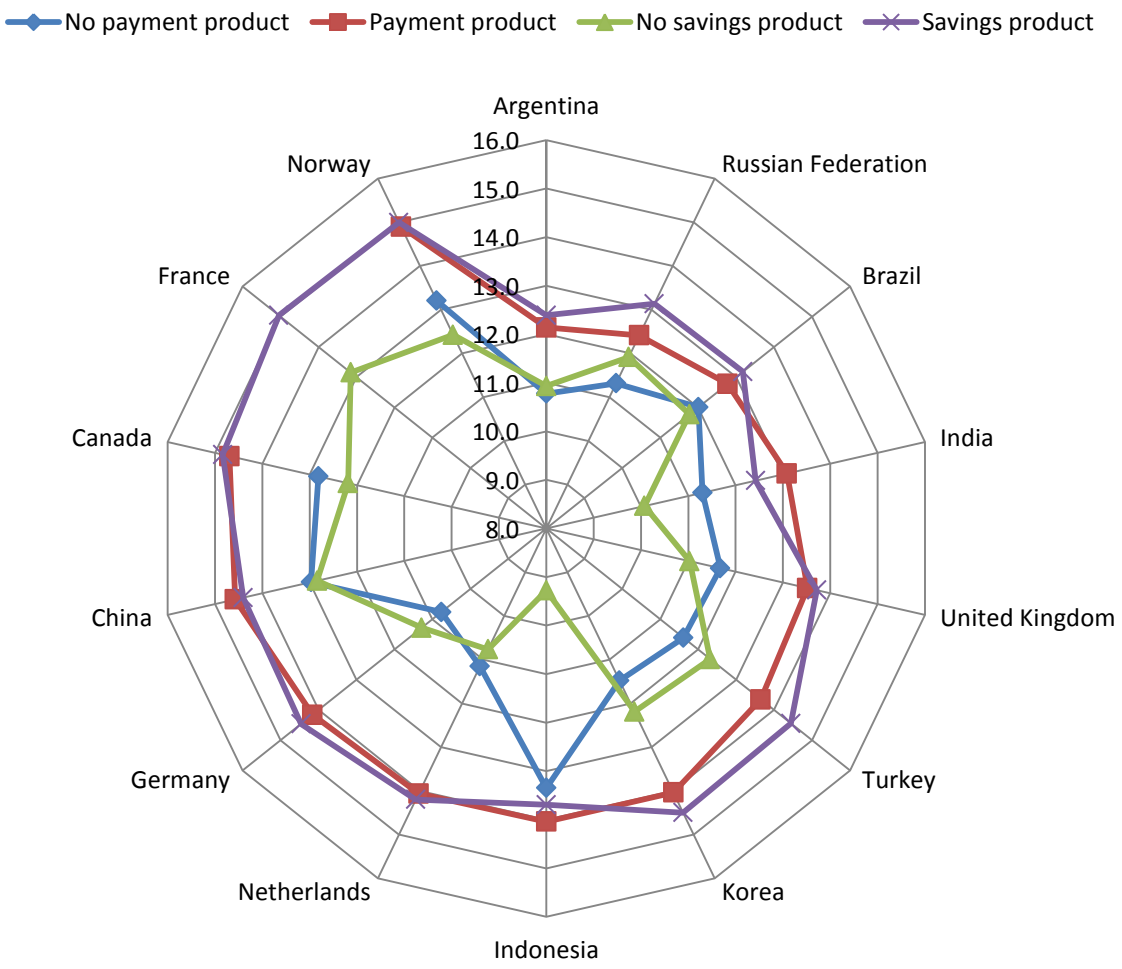
'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight, irrespective of sample size or population size. Responses on products drawn from Qprod1_a (Aware of financial products) and Qprod1_c (Recently chose a financial product). Turned to family and friends uses responses from QF3 and QF13. There is an independent source of data on financial inclusion for Mexico, the Encuesta Nacional de Inclusión Financiera (ENIF). Other G20 countries that are excluded from this chart do not have comparable data. Australian data on turning to family and friends is derived from a statement about borrowing from family and friends following an unplanned bill or expense in the last 6 months (F14). The active product choice data for Australia is based on self-reported data for the last 6 months.

Financial literacy levels and financial product holding

Figure 19 below reports the average overall levels of financial literacy by two types of product holding; payment products, and savings and investments. It shows that holding either a payment or savings product is associated with a higher overall financial literacy score. The difference in score across these two product types is much less pronounced than the difference between being financially included or excluded on these measures.

Figure 19. Financial literacy levels and financial product holding

Average financial literacy scores (max 21) by product holding (*no payment product/payment product* and *no savings product/savings product)*: sorted by holding a payment product



There is an independent source of data on financial inclusion for Mexico, the Encuesta Nacional de Inclusión Financiera (ENIF). Other G20 countries that are excluded from this chart do not have comparable data.

VII. POLICY IMPLICATIONS

G20 Leaders have recognised the importance of strategic approaches to improve financial literacy and well-being that include regular measurement to assess levels of financial literacy in the population, identify gaps in knowledge and provision and monitor progress (OECD, 2012; OECD, 2015).

This report is clear evidence that G20 countries stand by their commitment to support financial education initiatives through robust data collection and analysis. Along with the recently released 2015 PISA financial literacy results, it also identifies areas of concern which call for further policy interventions. This is ever more urgent as the digitalisation of finance brings new opportunities and challenges to consumers, and especially to vulnerable groups.

The rapidly evolving financial landscape leaves consumers open to many new risks, including various types of digital fraud such as phishing scams and the temptation to succumb to simplified credit offers that play on existing consumer biases. At the same time, new analysis reinforces the message that financial education is an effective approach to improving knowledge and behaviour (Kaiser and Menkhoff, 2017), and digital tools offer new ways of delivering education, information and advice, as well as support for choosing financial products (OECD, 2017b).

Selected policy implications

The evidence in this report reiterates the importance of focusing on financial literacy from a young age. The provision of high-quality, targeted financial education in schools and for young people and adults throughout the life-course is essential to develop knowledge and skills, and shape positive behaviours and attitudes. A National Strategy for Financial Education is an effective way of doing this, as indicated in the OECD/INFE High-level Principles on National Strategies for Financial Education, endorsed by G20 Leaders in 2012, and illustrated by widespread activity in this area among G20 countries (see below).

Table 8. Status of National Strategies in G20 countries in 2017

Status of the national strategy (NS)	Countries
A NS is being revised or a second NS is being implemented	Australia; Indonesia; Japan; United Kingdom; United States
A (first) NS is being implemented	Brazil; Canada; France; India; Russian Federation; South Africa; Turkey
A NS is being actively designed	Argentina; China; Italy; Korea; Mexico; Saudi Arabia

Developing knowledge on key financial concepts for decision making

Financial knowledge is essential for making informed decisions, yet the data presented in this report show very clearly that many people do not know the basics. On average across G20 countries, fewer than half of adults (48%) achieved the minimum target score on financial knowledge.

Financial education must be designed to impart awareness, knowledge, and understanding as highlighted in the G20/OECD INFE Core Competencies on Financial Literacy for Adults. It must also be

sensitive to the significant differences in financial knowledge across men and women and the lower levels of digital literacy among women, whilst aiming to maintain the greater parity across boys and girls identified in some countries in the PISA financial literacy assessment (OECD, 2013b, OECD, 2017a; OECD, 2017b).

Only a small majority of people in G20 countries understood how inflation impacts on their purchasing power, and whilst most people understood the concept of interest, its calculation posed a problem for many, showing that these skills are not sufficiently developed across many G20 countries.

Furthermore with low levels of (confidence and) ability to calculate simple interest, it is no surprise that relatively few people in G20 countries understood how interest compounding makes savings (or debt) grow over time. Such an understanding is fundamental in many financial decisions, suggesting that there is a mismatch between the expectations placed on consumers and their current competencies. Education and consumer protection both have a role to play in making sure that consumers can fully understand the information they rely on to make a decision.

Recognising the purpose of spreading risk is essential for both current and future savers and investors and it is of some concern that on average in G20 countries more than two in five people did not understand the concept of diversification. As longevity improves while individuals become increasingly responsible for building their own retirement income in many countries - with the ongoing shift from pay-as-you-go to funded schemes and from Defined Benefit to Defined Contributions schemes-, it is vital that they have some understanding of the basic principles and risks involved, and/or know where to seek suitable advice.

Recent research indicates that well designed financial education has a significant, positive effect on financial knowledge and that this is also correlated with effects on financial behaviour (Kaiser and Menkhoff, 2017). This is consistent with the correlation found in this report between financial knowledge and goal setting in the majority of countries with relevant information.

Supporting financial control and resilience in a changing financial world

Knowledge provides the foundation for informed decisions, but a number of actions are also required to improve financial well-being. This report focuses on actions to enhance financial well-being, including financial control and improved resilience in the short and longer term as well as appropriate behaviour when choosing financial products. It shows that on average in G20 countries, only 52% of people reached the minimum target of exhibiting six financial behaviours, out of a total of nine discussed.

In some countries, the majority of households were trying to manage without the help of a budget, although a slightly larger proportion claimed to keep watch on their financial affairs. This preference for passive oversight rather than more active planning can have serious consequences in the event of a change in circumstances.

Fortunately, the majority of people in G20 countries reported that they were making considered purchases, making ends meet without resorting to borrowing and paying their bills on time. Despite this, it is important to note that on average across G20 countries a quarter of people did not always make considered purchases; a quarter did not always pay bills on time and over a third had faced a situation where their income didn't cover their living costs in the last 12 months. Over one in five (22%) respondents in G20 countries had also borrowed to make ends meet, showing a significant lack of resilience and preparedness in case of emergencies or external shocks.

Such indicators suggest the need for strategies to strengthen positive behaviours, possibly through the use of digital tools to encourage budget making on a regular basis, mindful shopping or regular bill payments, for example (see OECD, 2017b for discussion of the digital delivery of financial education and

Kaiser and Menkhoff, 2017 for evidence of the impact of financial education on budgeting behaviour). At the same time, it is clear that consumers should be provided with guidance on using credit responsibly, and protected from unregulated and unscrupulous credit providers that may be targeting them at their most vulnerable.

There is wide variation in the extent to which people were active savers across G20 countries, from fewer than a quarter of respondents in Argentina to almost all in China. Whilst these results may, to some extent, reflect cultural differences and ability to making ends meet, they show a worrying lack of action towards building and maintaining a financial security net in some countries.

Results also show that attitudes towards money and the longer-term are rather mixed, with only 48% achieving the minimum target score for financial attitudes, on average across G20 countries. Public awareness campaigns can help to change attitudes and may in turn be particularly useful in underpinning efforts to change behaviour such as spending or saving. It is also important to consider building good habits from childhood, such as through the use of children's savings schemes and financial education initiatives in or outside of schools.

These differences across countries firmly point to the benefit of looking for current good practices and innovative ideas to incentivise savings for a rainy day or to achieve longer term goals. Research indicates that education can change savings behaviour, when carefully timed and delivered at teachable moments (Kaiser and Menkhoff, 2017). Countries may wish to explore their national data to understand the extent to which saving is associated with other factors, such as the use of formal financial products, the propensity to strive to achieve long-term goals or the attitudes of respondents, in order to develop tailored approaches to encourage this important behaviour.

The results also suggest that there may be scope for designing low-cost simple products to meet the needs of consumers to access both secure savings products and credit facilities, whilst taking some of the burden away from family and friends in some countries.

Promoting sound and informed choices of financial products

The way in which people are choosing financial products is a particular concern with only 15% of respondents in G20 countries choosing a product with the help of independent advice or information. Building on further research at the country and global levels to identify consumers' needs and preferences when choosing (traditional and digital) financial products, policy makers and product providers need to act on several fronts to:

- Strengthen efforts to ensure that the provider-specific information especially for complex products (insurance, investment, pension, credit) is timely, clear, not misleading and tested with consumers;

- Make it easier for people to access to high-quality independent information and access impartial product comparison tools (possibly using digital tools); and

- Support the development of appropriate financial advice especially for complex products and vulnerable groups of the population at affordable prices (the role of robo-advice should be further explored in this respect, taking into account the newness of this approach and the potential challenges in its delivery).

Improving financial inclusion

Financial inclusion requires that consumers have access to appropriate formal financial products and understand how such products may benefit them. They also need competencies to choose and review their current product holding and requirements on a regular basis in an informed way, whilst benefiting from a robust financial consumer protection framework.

This report draws on the wealth of information provided by the OECD/INFE toolkit to provide seven measures of financial inclusion. These look at awareness of financial products, recent product choice, product holding across payment or transaction products, savings and retirement products, credit and insurance, and the extent to which people are relying on family and friends to provide an alternative to financial services (specifically to hold savings or provide credit).

The findings show considerable variation across the indicators, and across countries. For example, there is almost universal use of specific payment products[31] in countries such as France (100%) and Australia (98%), but only 66% of respondents hold such products on average across G20. And whilst similar proportions of adults in G20 countries have a savings or retirement product (63%) as a payment product, savings and retirement products are not universal in any of the countries with comparable data.

Analysis of financial literacy scores by product holding indicates an association between financial inclusion and financial literacy, a finding that is consistent with the results of PISA financial literacy assessments of 15-year-olds and suggests an important potential synergy between policies to increase financial literacy and those designed to tackle financial inclusion (see OECD, 2014 and OECD, 2017).

Next steps

The cross comparable data made available through this report, as well as recent meta-analysis on the impact of financial education, have made it possible to identify existing effective approaches and emerging new ones that show promise for raising levels of financial literacy; while calling for further actions by policy makers at a national level and globally.

More refined policy guidance to support the implementation of effective approaches to financial education in an increasingly digitalised financial world can be developed in the future building on the activities of the OECD/INFE and its member countries and research committee including:

- further exploration of the wealth of data collected to develop this report at national levels and for particular target audience and consumers' profile, where permitted;
- further data collection using the OECD/INFE toolkit at national and regional levels (e.g. in Eurasia, Asia, Latin America, Africa) to establish a global database on adult financial literacy;
- future coordinated global data collection based on the toolkit and PISA financial literacy exercises to track progress and gaps in the adult and student populations;
- evaluation and research on the impact of particular programmes including through the development by the OECD/INFE of a global database of evaluated programmes to complement national and global survey on financial literacy levels; and

[31] The indicator of payment products counts current, transaction or checking accounts, mobile phone payment accounts and prepaid debit cards. It is not directly comparable with indicators of 'banked and unbanked'.

- direct support for implementation such as currently being undertaken through specific programmes in Asia, Eurasia, Latin America and voluntary peer review exercises can be further developed to introduce effective practices and their systematic evaluation.

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ANNEX 1: DATA TABLES

Participating countries that are excluded from certain tables do not have comparable data.

Table 9. Number of respondents per country

Count (unweighted data): excluding respondents out of target age-range

Country	Female	Male	Total
Argentina	593	616	1209
Australia	717	646	1363
Brazil	1034	940	1974
Canada	506	496	1002
China	507	516	1023
France	799	707	1506
Germany	528	473	1001
India	8186	12381	20567
Indonesia	461	539	1000
Italy	1158	1119	2277
Japan	12666	12334	25000
Korea	939	881	1820
Mexico	1239	854	2093
Netherlands	474	544	1018
Norway	502	529	1031
Russian Federation	868	774	1642
Saudi Arabia			1690
South Africa	1731	1082	2813
Turkey	1505	1498	3003
United Kingdom	502	498	1000
United States	15271	12293	27564
Total			**101596**

Count of respondents included in analysis marked 'all respondents'; unweighted. In some cases these may vary slightly from data reported elsewhere, due to the age selection criteria.

Table 10. Self-reported financial knowledge

Percentages (weighted data): missing responses excluded

Country	Self-reported level of knowledge (QK1)					Unweighted count
	Very high	Quite high	About average	Quite low	Very low	
Argentina	3	10	49	21	18	1160
Australia	11	37	35	14	3	1363
Brazil	3	24	38	25	9	1943
Canada	7	21	56	11	4	994
China	4	20	52	18	6	1008
Germany	5	19	63	10	3	968
India	9	27	38	16	10	19522
Indonesia	3	16	73	7	1	966
Italy	2	4	44	32	19	2120
Japan	1	12	46	29	12	24294
Korea	0	12	55	24	9	1781
Mexico	2	4	40	39	15	2012
Russian Federation	4	12	59	18	8	1521
Saudi Arabia	4	21	43	25	7	1690
South Africa	7	18	44	17	14	2697
Turkey	2	11	56	17	14	2939
United Kingdom	8	24	57	8	4	982
United States	43	35	14	5	3	26921
Average, G20 countries	**7**	**18**	**48**	**19**	**9**	**94881**
Netherlands	7	31	46	14	2	975
Norway	8	32	54	5	1	984

'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight. G20 countries that are excluded from this table do not have comparable data.

Table 11. Financial knowledge by self-assessed knowledge

Average score by self-assessed knowledge (weighted data):
missing responses on self-assessed knowledge excluded

Country	Average financial knowledge score (out of 7)		
	Very high/high	About average	Low/very low
Argentina	4.4	4.2	3.9
Brazil	4.5	4.6	3.9
Canada	5.6	4.8	4.1
China	5.0	4.8	4.3
Germany	5.6	4.8	3.9
India	3.5	3.9	3.7
Indonesia	4.8	3.9	2.6
Italy	4.5	3.7	3.4
Korea	5.2	5.1	4.4
Mexico	4.4	4.2	4.1
Netherlands	5.7	4.7	4.7
Norway	5.8	5.2	4.0
Russian Federation	4.5	4.4	3.7
South Africa	3.9	4.0	3.2
Turkey	5.1	5.0	3.9
United Kingdom	4.7	4.1	3.5

Table 12. Minimum target score (5 or more) on financial knowledge by gender

Percentage (weighted data): all respondents

Country	Percentage scoring 5, 6, or 7		
	All	Female	Male
Argentina	38	34	42
Brazil	48	44	52
Canada	61	50	72
China	61	60	63
France	59	54	66
Germany	59	49	72
India	32	27	35
Indonesia	50	48	51
Italy	32	30	35
Korea	62	58	66
Mexico	39	32	47
Russian Federation	45	44	47
Saudi Arabia	51	45	55
South Africa	31	28	34
Turkey	58	51	64
United Kingdom	47	37	58
Average, G20 countries	**48**	**43**	**54**
Netherlands	64	51	76
Norway	70	56	84

'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight. G20 countries that are excluded from this table do not have comparable data.

Table 13. Making financial decisions in a household with a budget

Percentage (weighted data): all respondents

Country	Respondent makes decisions by themselves or with someone else	Household has a budget	Respondent makes decisions and the household has a budget
Argentina	67	55	39
Australia	94	74	70
Brazil	80	43	36
Canada	92	63	58
China	95	75	72
France	90	85	76
Germany	91	35	32
India	88	59	54
Indonesia	98	68	67
Italy	79	37	31
Korea	89	76	71
Mexico	80	44	37
Russian Federation	93	50	47
Saudi Arabia	96	60	59
South Africa	67	60	43
Turkey	86	78	68
United Kingdom	96	53	51
United States	90	56	52
Average, G20 countries	**87**	**60**	**54**
Netherlands	94	40	39
Norway	97	33	32

'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight. G20 countries that are excluded from this table do not have comparable data.

Table 14. Active savers

Percentage (weighted data): all respondents

Country	Percentage reporting that they had saved in the last 12 months (QF3)
Argentina	24
Australia	71
Brazil	30
Canada	79
China	96
France	83
Germany	67
India	71
Indonesia	87
Italy	49
Korea	79
Mexico	53
Russian Federation	55
Saudi Arabia	91
South Africa	40
Turkey	51
United Kingdom	72
Average, G20 countries	**64**
Netherlands	71
Norway	84

'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight. This indicator does not include 'building up money in bank account' as this is not considered to be an action. G20 countries that are excluded from this table do not have comparable data.

Table 15. Making ends meet

Percentages (weighted data): all respondents

Country	Respondent reported that their income did not always cover their living costs (QF11)	Respondent borrowed to make ends meet (% of all respondents; QF12)
Argentina	71	34
Australia		15
Brazil	37	19
Canada	32	13
China	40	28
France	40	12
Germany	15	5
India	48	31
Indonesia	43	30
Italy	28	15
Korea	15	9
Mexico	55	43
Russian Federation	36	24
Saudi Arabia	17	14
South Africa	49	33
Turkey	50	42
United Kingdom	23	7
United States	24	
Average, G20 countries	**37**	**22**
Netherlands	26	13
Norway	15	9

'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight. G20 countries that are excluded from this table do not have comparable data.

Table 16. Average financial knowledge score by financial goal

Missing data excluded

Country	Does not have a financial goal	Has a financial goal
Argentina	3.9	4.2
China	4.4	4.9
Germany	4.5	5.1
Indonesia	2.3	4.0
Korea	4.7	5.2
Mexico	4.1	4.1
Netherlands	4.9	5.2
Norway	5.3	5.3
Russian Federation	4.1	4.2
Turkey	4.4	4.8
United Kingdom	4.0	4.5

Table 17. Choosing financial products score

Percentages (weighted data): all respondents, sorted by 'used independent information or advice'

Country	Percentage with a score of 1 or 2 on derived variable	
	[Score of 2] Used independent information or advice	[Score of 1] Some attempt to make informed decision or sought some advice
Argentina	2	28
Brazil	9	54
Canada	17	59
China	11	69
France	6	78
Germany	23	30
India	26	34
Indonesia	5	83
Italy	6	23
Japan	5	65
Korea	23	63
Mexico	31	8
Russian Federation	17	46
Saudi Arabia	30	53
Turkey	6	53
United Kingdom	19	32
Average, G20 countries	**15**	**49**
Netherlands	16	15
Norway	12	48

'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight. G20 countries that are excluded from this table do not have comparable data.

Table 18. Minimum target score (6 or more) on financial behaviour by gender

Percentages (weighted data): all respondents

Country	Percentage scoring 6 or more	Female scoring 6 or more	Male scoring 6 or more
Argentina	25	24	26
Brazil	36	33	40
Canada	68	68	67
China	70	69	70
France	85	85	85
Germany	59	56	62
India	56	53	59
Indonesia	58	57	59
Italy	27	26	28
Korea	58	60	57
Mexico	42	37	48
Russian Federation	44	45	44
Saudi Arabia	64	61	66
Turkey	38	34	42
United Kingdom	54	53	55
Average, G20 countries	**52**	**51**	**54**
Netherlands	45	44	46
Norway	58	59	57

'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight. G20 countries that are excluded from this table do not have comparable data.

Table 19. Respondents with positive attitude to the longer-term

Percentages (weighted data): all respondents

Country	Percentage putting themselves at 4 or 5 on the scale		
	Does not tend to live for today	Does not find it more satisfying to spend	Does not agree that money is there to be spent
Argentina	44	42	23
Australia	58		
Brazil	42	55	27
Canada	64	47	38
China	53	48	21
France	68	48	23
Germany	55	45	22
India	28	27	22
Indonesia	40	70	75
Italy	37	40	21
Japan	55	36	
Korea	51	44	26
Mexico	36	48	32
Russian Federation	45	29	22
Saudi Arabia	18	14	15
South Africa	54	44	35
Turkey	54	45	19
United Kingdom	53	44	34
Average, G20 countries	**48**	**43**	**29**
Netherlands	55	46	19
Norway	78	53	28

'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight. G20 countries that are excluded from this table do not have comparable data.

Table 20. Minimum target score (more than 3) on financial attitudes

Percentages (weighted data): all respondents

Country	Average attitude score of more than 3 (Considered to be more financially literate)		
	All	**Female**	**Male**
Argentina	43	50	36
Brazil	50	52	49
Canada	64	68	60
China	48	49	48
France	52	56	48
Germany	54	58	49
India	28	30	26
Indonesia	75	74	76
Italy	45	45	45
Japan	55	59	51
Korea	53	56	50
Mexico	44	44	45
Russian Federation	40	42	38
Saudi Arabia	5	4	5
South Africa	48	49	48
Turkey	48	50	47
United Kingdom	57	58	56
Average, G20 countries	**48**	**50**	**46**
Netherlands	57	64	49
Norway	73	81	65

'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight. The score for Japan is based on the average of 2 questions*: I tend to live for today and let tomorrow take care of itself* and *I find it more satisfying to spend money than to save it for the long term.* G20 countries that are excluded from this table do not have comparable data.

Table 21. Average scores

All respondents

Country	Average financial knowledge score (max 7)	Average financial behaviour score (max 9)	Average financial attitude score (max 5)	Average financial literacy score (max 21)
Argentina	4.1	4.4	2.9	11.4
Brazil	4.3	4.6	3.1	12.1
Canada	4.9	6.2	3.5	14.6
China	4.7	6.2	3.1	14.1
France	4.9	6.7	3.2	14.9
Germany	4.8	5.8	3.2	13.8
India	3.7	5.6	2.6	11.9
Indonesia	3.9	5.7	3.7	13.4
Italy	3.5	4.4	3.1	11.0
Japan			3.4	
Korea	4.9	5.8	3.2	13.9
Mexico	4.1	5.0	3.0	12.1
Russian Federation	4.1	5.1	2.9	12.2
Saudi Arabia	3.9	5.6	0.1	9.6
South Africa	3.7		3.1	
Turkey	4.6	4.8	3.1	12.5
United Kingdom	4.2	5.6	3.3	13.1
Average, G20 countries	**4.3**	**5.4**	**3.0**	**12.7**
Netherlands	4.9	5.2	3.3	13.4
Norway	5.2	5.8	3.6	14.6

'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight. G20 countries that are excluded from this table do not have comparable data.

Table 22. Financial product holding

Percentages (weighted data): all respondents

Country	Holds a payment product	Holds saving or retirement product	Holds insurance	Holds credit product
Argentina	44	30		41
Australia	98	90	88	86
Brazil	8	21	3	48
Canada	93	90	77	85
China	68	78	44	52
France	100	90	73	51
Germany	90	80	71	58
India	33	77	41	23
Indonesia	2	92	15	11
Korea	94	74	81	77
Russian Federation	77	20	17	32
Saudi Arabia	96	38	54	40
South Africa	47	64	59	36
Turkey	43	8	19	32
United Kingdom	76	76	44	61
United States	91	82	87	87
Average, G20 countries	**66**	**63**	**52**	**51**
Netherlands	78	77	44	58
Norway	83	85	65	81

'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight. There is an independent source of data on financial inclusion for Mexico, the Encuesta Nacional de Inclusión Financiera (ENIF). Other G20 countries that are excluded from this chart do not have comparable data.

Table 23. Indicators of financial inclusion

Percentages (weighted data): all respondents

Country	Aware of at least 5 products	Recently chose a financial product	Turned to family and friends
Argentina	59	48	14
Australia		22	6
Brazil	83	67	8
Canada	96	89	13
China	83	98	19
France	98	69	11
Germany	94	59	9
India	64	64	54
Indonesia	37	94	25
Italy		33	9
Korea	95	71	18
Russian Federation	96	89	22
Saudi Arabia	93	100	25
South Africa	92	64	30
Turkey	95	52	29
United Kingdom	85	52	10
Average, G20 countries	**83**	**67**	**19**
Netherlands	64	34	6
Norway	91	94	6

'Average, G20 countries' reports the mean of the country percentages for all G20 countries with comparable data (excluding the Netherlands and Norway). Each country is therefore given equal weight. There is an independent source of data on financial inclusion for Mexico, the Encuesta Nacional de Inclusión Financiera (ENIF). Other G20 countries that are excluded from this chart do not have comparable data.

Table 24. Financial literacy levels and financial product holding

Percentage (weighted data): all respondents

Country	No payment product	Payment product	No savings product	Savings product
Argentina	10.8	12.1	10.9	12.4
Russian Federation	11.3	12.4	11.9	13.1
Brazil	12.0	12.8	11.8	13.2
India	11.3	13.1	10.1	12.4
United Kingdom	11.7	13.5	11.0	13.7
Turkey	11.6	13.6	12.3	14.4
Korea	11.4	14.0	12.2	14.5
Indonesia	13.3	14.0	9.3	13.7
Netherlands	11.2	14.1	10.8	14.2
Germany	10.8	14.2	11.3	14.5
China	13.0	14.6	12.8	14.4
Canada	12.8	14.7	12.2	14.8
France			13.2	15.0
Norway	13.2	14.9	12.4	15.0

There is an independent source of data on financial inclusion for Mexico, the Encuesta Nacional de Inclusión Financiera (ENIF). Other G20 countries that are excluded from this chart do not have comparable data. All respondents in France hold a payment product.

ANNEX 2: GUIDE TO CREATING THE FINANCIAL LITERACY SCORES AND FINANCIAL INCLUSION INDICATORS

The purpose of the guide is to provide information on how to create financial literacy scores that are comparable to the ones in this report.

The guide closely follows the approach used for the pilot study (Atkinson and Messy, 2012).[32] Scores are replicated as closely as possible, with the exception of the creation of the Choosing Products score, which has been very slightly refined to better reflect the benefits of using independent information or advice[33].

1. Financial knowledge score

The knowledge score is computed as the number of correct responses to the financial knowledge questions, according to Table 25. It ranges between 0 and 7 (it is also possible to replicate the 8 point score created in 2012 for countries using QK2 by adding the additional response)[34].

32 Available at http://dx.doi.org/10.1787/5k9csfs90fr4-en. There are some minor differences due to slight changes in the core questions between the two waves, as indicated in the question map in the 2015 toolkit. The main difference is that QK2 (Division) is optional in the 2015 questionnaire; this is not anticipated to have a large impact as it was answered correctly by almost all respondents.

33 In most countries the refinement makes a difference of less than half a percentage point, but there are exceptions. Some other minor variations from the previous approach are inevitable due to the slight updates of the core questionnaire since the pilot.

34 Where countries substitute questions, or reword them, we incorporate them by also giving a value of 1 to a correct response and 0 in all other cases to the alternative/reworded questions. In the case of a country with fewer than 7 financial knowledge questions we rescale each score within the two groups of questions identified as 'part A' and 'part B' (for instance, if statement in question QK7 is missing, the two remaining points will be multiplied by a factor of 3/2). Note that this will not make the scores exactly comparable, and we do not recommend that the core questions are changed or omitted.

Table 25. Computing a financial knowledge score

Topic	Question number	Discussion	Value towards final score	
Time-value of money	QK3	This is multiple response and very context specific, and so the 2015 question includes an indicator of the rate of inflation	1 for correct responses [c, unless the country indicates otherwise; or d, if mentioned spontaneously]. 0 in all other cases.	Part A
Interest paid on a loan	QK4	This is open response and a correct answer indicates that the respondent understands the concept of interest on a loan	1 for correct response [0]. 0 in all other cases.	
Interest plus principal	QK5	This is open response and a correct answer is an indicator of applied numeracy	1 for correct response [102]. 0 in all other cases.	
Compound interest	QK6	QK6 is a multiple-response question; there are four options given. In order to take into account some of the potential for guessing the answer to this question, the score is based on a derived variable that filters out those respondents that could not calculate simple interest at QK5.	1 for a correct response to QK6 if and only if the response to "Calculation of interest plus principal" (QK5) was also correct. 0 in all other cases.	
Risk and return	QK7_1	This is a true/false question	1 for a correct response [1/True]. 0 in all other cases.	Part B
Definition of inflation	QK7_2	This is a true/false question	1 for a correct response [1/True]. 0 in all other cases.	
Diversification	QK7_3	This is a true/false question	1 for a correct response [1/True]. 0 in all other cases.	
Division	QK2	In 2015 this has become an optional question, as it is relatively easy and is not a good discriminator of financial literacy in the majority of countries. It is therefore not included in the 2015 financial knowledge score. If this question is included it can be used to create an 8 point score as used in 2012. However it will not be used in the main reporting in 2015.	1 for correct response [200]. 0 in all other cases.	Optional

Note: Question numbers refer to the 2015 Toolkit

2. Financial behaviour score

The behaviour score is computed as a count of the number of "financially savvy" behaviours according to Table 26. It ranges between 0 and 9 as in 2012. As people do not necessarily indicate all of these financial behaviours in a given period it may not be realistic to expect everyone to achieve a minimum target score.

Table 26. Computing a financial behaviour score

Behaviour	Question number	Discussion	Value towards final score
Responsible and has a household budget	QF1 and QF2	The score is based on a derived variable, created from the responses to two questions.	1 point if personally or jointly responsible for money management [QF1=1 or 2] AND household has a budget [QF2=1]. 0 in all other cases.
Active saving	QF3	This question identifies a range of different ways in which the respondent may save. A refusal is scored as 0.	1 point for any type of active saving (answers a, c, d, e, f, g), and relevant options added at the national level. 0 in all other cases. Letting money build up in a bank account is not considered to be *active saving* (answer b) and gives 0 points towards the score.
Considered purchase	QF10_1[35]	This is a scaled response ("Before I buy something I carefully consider whether I can afford it")	1 point for respondents who put themselves at 1 or 2 on the scale [agree]. 0 in all other cases.
Timely bill payment	QF10_4	This is a scaled response ("I pay my bills on time").	1 point for respondents who put themselves at 1 or 2 on the scale [agree]. 0 in all other cases.
Keeping watch of financial affairs	QF10_6	This is a scaled response ("I keep a close personal watch on my financial affairs").	1 point for respondents who put themselves at 1 or 2 on the scale [agree]. 0 in all other cases.
Long term financial goal setting	QF10_7	This is a scaled response ("I set long term financial goals and strive to achieve them").	1 point for respondents who put themselves at 1 or 2 on the scale [agree]. 0 in all other cases.

[35] It is possible to inadvertently introduce a response bias if several questions can be deemed 'correct' simply by agreeing or disagreeing. However, these behaviour statements were included in a batch of questions that also included statements on attitudes and well-being, some of which were phrased so that disagreeing was the financially literate response, in order to minimise such bias. In addition, respondents were not aware that the questions were being used to assess their financial literacy.

Behaviour	Question number	Discussion	Value towards final score
Choosing products	Qprod2 and Qprod3	This score uses a derived variable drawing information from 2 questions. It is only possible for a respondent to score points on this measure if they have chosen a product: those with 0 score on this measure have either refused to answer, not chosen a product, or not made any attempt to make an informed decision. The list of products is tailored to national markets. The score seeks to make a general comparison of behaviour when choosing a financial product.	The variable "choosing products" is constructed by creating two intermediate variables, and then creating a derived variable. Country specific responses can also be coded. The two intermediate variables are the following: 1) **Qprod_D1**: "Tried to compare across providers" taking value of: ▪ 1 if variable Qprod2 is equal to 1 or 4 (I considered several or I looked around but there were no others), and ▪ 0 otherwise. Note that 0 includes no recent product choice/not applicable. 2) **Qprod_D2**: "Sought information or advice" taking values ▪ 1 if yes at Qprod3 b, c, d, i, j, k, l, m or r (information picked up in branch/ product specific information found on the internet/Information from sales staff of the firm providing the products / Advice of friends/relatives (not working in the financial services industry) / Advice of friends/relatives (who work in the financial services industry) / Employer's advice / Newspaper articles / Television or radio programmes / Other source [if relevant]) ▪ 2 if yes at Qprod3 e, f, g or h (Best-buy tables in financial pages of newspapers/magazines / Best-buy information found on the internet / Specialist magazines / Recommendation from independent financial adviser or broker) ▪ 0 otherwise. Note that 0 includes no recent product choice. The final variable – Qb7_new "Tried to shop around or use independent info or advice" has been slightly refined from earlier versions. It takes the following values: ▪ 2 if CProd_D2 =2. The value of 2 indicates "Used independent info or advice" ▪ 1 if CProd_D1 =1 ***or*** CProd_D2 =1. The value of 1 indicates "Some attempt to make informed decision" ▪ 0 Otherwise. The value 0 indicates "'Not shopped around and no attempt to make informed decisions (including no recent product choice)". The change has been made to better reflect the benefit of using independent information and advice.

Behaviour	Question number	Discussion	Value towards final score
Borrowing to make ends meet	QF12	The score is based on a derived variable that seeks to identify respondents who are making ends meet without borrowing. It uses QF12 to identify those who have borrowed to make ends meet.	0 if the respondent used credit to make ends meet, that is if he/she responded Yes at any of the following – or other country specific responses indicating that he/she used credit to make ends meet: QF12_3_e = Borrow from family or friends QF12_3_f = Borrow from employer/salary advance QF12_3_g = Pawn something that you own QF12_3_h = Take a loan from your savings and loans clubs QF12_3_i = Take money out of a flexible mortgage account QF12_3_j = Apply for loan/withdrawal on pension fund QF12_4_k = Use authorised, arranged overdraft or line of credit QF12_4_l = Use credit card for a cash advance or to pay bills/buy food QF12_5_m = Take out a personal loan from a financial service provider (including bank, credit union or microfinance) QF12_5_n = Take out a payday loan QF12_5_o = Take out a loan from an informal provider/moneylender QF12_6_p = Use unauthorised overdraft QF12_6_q = Pay my bills late; miss payments 1 in all other cases, including refusals and respondents who did not have problems in making ends meet.

Note: Question numbers refer to the 2015 toolkit

3. Financial attitudes score

The attitudes score is computed as the sum of the values for the three statements and then divided by three[36]. The attitudes score, therefore, ranges from 1 to 5.

Table 27. Computing a financial attitudes score

Attitude	Question number
I tend to live for today and let tomorrow take care of itself	QF10_2
I find it more satisfying to spend money than to save it for the long term	QF10_3
Money is there to be spent	QF10_8

Note: Question numbers refer to the 2015 toolkit

4. Overall financial literacy score

The overall financial literacy score is obtained as the sum of the three previous scores (financial knowledge (7), financial behaviour (9) and financial attitudes (5) at the level of the respondent. It can take any value between 1 and 21 and can be normalised to 100 for reporting by multiplying by 100/21.

[36] Where two attitude statements have been used, the score is also based on the average.

When comparing 2015 data with data collected with the previous questionnaire, the 2012 financial literacy score will be recomputed without QK2.

4. Financial inclusion indicators

Indicator	Question number	Discussion	Method used
Holds payment product	Qprod1_b	Identifies payment products across country level data. These may include prepaid cards and current/checking accounts.	Binary variable: takes value of 1 if any product is held, otherwise 0
Holds saving or retirement product	Qprod1_b	Identifies savings, investment and retirement products across country level data. These may be pensions, investment accounts, savings accounts, or savings clubs.	Binary variable: takes value of 1 if any product is held, otherwise 0
Holds insurance	Qprod1_b	Identifies insurance products across country level data. These may include car or travel insurance.	Binary variable: takes value of 1 if any product is held, otherwise 0
Holds credit product	Qprod1_b	Identifies credit products across country level data. These may include mortgages, credit cards and microloans.	Binary variable: takes value of 1 if any product is held, otherwise 0
Aware of at least 5 products	Qprod1_a	Counts all positive responses across Qprod1_a	Binary variable: takes value of 1 if at least five positive responses, otherwise 0
Recent financial product choice	Qprod1_c	Identifies individuals that have made at least one product choice	Binary variable: takes value of 1 for any recent choice, otherwise 0
Relying on family and friends	QF3 and QF13	Identifies people who turn to family or friends to save money for them, or to help them to make ends meet	Binary variable: takes value of 1 if saving through family and friends **or** turning to family and friends to make ends meet, otherwise 0

ANNEX 3: SURVEY INFORMATION

Table 28. Background information from participating countries

Countries	Commissioning body	Date and type of survey and sample*	Data and questionnaire availability	Data weighting	% inflation assumed in 2015 version, or used in 2013 version of knowledge question
Argentina	Development Bank of Latin America (CAF) and Central Bank	14 March – 19 April 2017; face-to-face interviews with tablets; quotas defined according to sociodemographic variables: sex, age and socioeconomic level.	Translated questionnaire (in Spanish) can be shared publicly; raw data can be made available.	Weighted considering the population distribution by region.	3%
Australia	ASIC	Tracker survey: Wave 4 used, September 2015 to February 2016	Questionnaire and data remain confidential: results available http://www.financiallit eracy.gov.au/researc h-and-evaluation/financial-attitudes-and-behaviour-tracker	Weighted to represent the Australian population age 18+	Not applicable
Brazil	Central Bank	April 2015; face-to-face. Stratified cluster sampling in 3 stages.	Translated questionnaire (in Portuguese) can be shared publicly; raw data can be made available.	Designed to be unweighted	
Canada	Financial Consumer Agency of Canada	May-June 2015; telephone interviews, stratified by region, nested quotas using random digit dialling	Translated questionnaire (in French) can be made available; raw data can be made available upon request	Weighted using region, gender and age	1%

Countries	Commissioning body	Date and type of survey and sample*	Data and questionnaire availability	Data weighting	% inflation assumed in 2015 version, or used in 2013 version of knowledge question
China	People's Bank of China	10th October—30th November 2016. Stratified random sample; face-to-face (90%) and online data collection based on sixth National Census of China	Translated questionnaire (Chinese) remains confidential; raw data remain confidential	Unweighted	No inflation amount specified. Question that mentions inflation states that 'inflation remains the same'
France	Ministry of Finance	6-28 June 2014; telephone interviews. 2 booster samples were collected for age 18-22 and 55-59, but are not used in these analyses.	Translated questionnaire available at http://www.banque-france.fr/ccsf/fr/index.htm; raw data remain confidential.	Weighted by region, size of populated area, age, gender and professional situation	2%
Germany	Deutsche Bundesbank	August – September 2016, telephone interviews using random digit dialling, stratified by region	Translated questionnaire (in German) can be shared publicly; data can be made available	Weighted by region, gender, age and education	2%
India	Reserve Bank of India	Mar-Apr 2017, Face to face, Simple Random Sampling approach was used using quotas for age and gender	Updated questionnaire can be shared publicly ; raw data remains confidential	Designed to be unweighted. Pre-assigned quotas for age & gender were used while collecting data	5%
Indonesia	Indonesia Financial Services Authority (OJK)	June 2016; face to face. Multi-stage stratified random sampling.	Translated questionnaire (in Bahasa Indonesia) not available to public; raw data remains confidential	Unweighted	Question that mentions inflation states that 'inflation remains the same' i.e. +ve
Italy	Bank of Italy	January - February 2017; Mixed mode survey (CAPI and Tablet interviews). Two-stage stratified sample (stratification by geographical area and municipality size).	Translated questionnaire (in Italian) can be shared publicly; raw data available to public during the Fall 2017	Weights are calibrated using external information on gender, age, geographical area, size of the municipality of residence and level of education.	1%

Countries	Commissioning body	Date and type of survey and sample*	Data and questionnaire availability	Data weighting	% inflation assumed in 2015 version, or used in 2013 version of knowledge question
Japan	Central Council for Financial Services Information	February- March 2016; Online.	Available at http://www.shiruporuto.jp/e/survey/	Unweighted	2%
Korea	Financial Supervisory Service/ Bank of Korea	9 September – 30 October 2016; face-to-face; stratified sampling	Translated questionnaire (Korean) available at http://www.fss.or.kr/edu	Weighted for gender and age	3%
Mexico	Banco de México	11 March-14 April, 2017. The sample was drawn by stratified sampling using Probability Proportional to Size (PPS) to select the principal sample units (community) with a random selection of the rest of sample units. Face-to-Face interviews and the information was collected through tablets	Translated questionnaire (in Spanish) can be shared publicly; raw data remain confidential	Weighted. Weights were created as the inverse probability of selecting each individual using primary a correcting factor of the target population in each sub-region, and then a correcting factor of mesoregion, gender and age.	3%
Netherlands	Money Wise	April-May 2015; Online		Weighted using agency criteria, including age and gender	
Norway	AksjeNorge	Nov 2015; TNS web panel online survey	Translated questionnaire (in Norwegian) available ; raw data can be made available	Weighted on age, sex, region and education	3.5%
Russian Federation	Ministry of Finance	July-August 2015; Face-to-face. Representative stratified sampling.	Translated questionnaire (in Russian) can be shared publicly; raw data can be made available.	Designed to be unweighted	
Saudi Arabia	Saudi Arabian Monetary Authority (SAMA)	Face-to-face. Representative sample using seed and referral method.	Translated questionnaire and data remain confidential	Weighted at city level	4%

Countries	Commissioning body	Date and type of survey and sample*	Data and questionnaire availability	Data weighting	% inflation assumed in 2015 version, or used in 2013 version of knowledge question
South Africa	Financial Services Board (FSB), South Africa	Oct-Dec 2015; face-to-face. Three stage stratified sample based on small area layers (SALs); number of dwelling units and a randomly selected individual selected using equal probability.	Translated questionnaire (isiZulu, isiXhosa, tshiVenda, Setswana, Xitsonga and Afrikaans), can be shared publicly; raw data can be made available.	Weighted by gender, age, province, race and geography (urban, rural). Benchmarked to Statistics South Africa's mid-year population estimates.	Question that mentions inflations states that 'inflation remains the same' i.e. +ve
Turkey	Capital Markets Board	May-June 2015; Face-to-Face. Stratified multi-stage random sampling; sampling with probability proportional to size to select district.	Translated questionnaire (in Turkish) not available to public; raw data remains confidential.	Unweighted	8%
United States	FINRA Investor Education Foundation		Data available online Financial Capability in the United States 2016 http://www.usfinancialcapability.org/		
UK	Money Advice Service	June-July 2015; mixed method – telephone (30%) and online (70%). Stratified random sample with quotas on age, gender and devolved nation.	No translation made. Raw data can be made available.	Weighted on age, gender, work status and internet use. Design effect is 1.164. This implies that 95% confidence interval would be 2.282 standard errors from the mean.	3%

Observations outside the target age range 18-79 have not been included in OECD analyses.

G20/OECD INFE REPORT ON ADULT FINANCIAL LITERACY IN G20 COUNTRIES

This report describes the levels of financial literacy of adults in G20 countries and two guest countries (the Netherlands and Norway). It has been prepared in response to a call from G20 Leaders in the 2016 Hangzhou Action Plan, drawing primarily on data collected using the toolkit to measure financial literacy and financial inclusion developed by the OECD/International Network on Financial Education (OECD/INFE).

The high-level analysis shows that there is considerable scope for improvement in levels of financial knowledge, behaviour and attitudes across G20 countries, confirming the importance of developing and sustaining a national strategy on financial education that reaches all groups of the population including young people. This is ever more urgent as the digitalisation of finance brings new opportunities and challenges to consumers, and especially to vulnerable groups.

The OECD/INFE is committed to undertake further analyses of data collected using the OECD/INFE Toolkit and through the PISA financial literacy assessment. It will also support the identification and implementation of effective approaches to financial education, including through the development of a global database of evaluated programmes, specific regional programmes and facilitation of peer review exercises.

For further information, please contact:

Ms. Flore-Anne Messy, Head of the Financial Affairs Division, OECD Directorate for Financial and Enterprise Affairs [Tel: +33 1 45 24 96 56 | Flore-Anne.Messy@oecd.org]

Ms. Adele Atkinson, Senior Policy Analyst, Financial Affairs Division, OECD Directorate for Financial and Enterprise Affairs [Tel: +33 1 45 24 78 64 | Adele.Atkinson@oecd.org]

www.oecd.org/finance/financial-education

