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STATISTICAL SOURCES FOR ASSESSING FINANCIAL LITERACY

by Sara Lamboglia* and Fabio Travaglino*

Abstract

In the past decade, institutions, researchers and professionals all around the world have designed surveys with the aim of defining a metric for measuring financial literacy. However, the topic is still under discussion due to the complexity of the definition of financial literacy. In this paper, we review the main international and Italian surveys capturing financial literacy across different target groups: young people, adults and entrepreneurs. We analyse in detail the way financial literacy is defined and measured. We also report all the information gathered in each survey with a special focus on digital skill indicators, which are increasingly important in a rapidly changing financial landscape driven by digital technology.

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1 Introduction[1]

A widely accepted definition of financial literacy is "a combination of financial awareness, knowledge, skills, attitudes and behaviours necessary to make sound financial decisions and ultimately achieve individual financial well-being"[2] . Therefore, being financial literate requires the use of accumulated knowledge as well as cognitive and practical skills and other capabilities, such as attitudes, motivation and values.

How to address the complexity of financial literacy measurements? In the past decade institutions, researchers, and practitioners all around the world have designed different surveys with the aim to define a metric for this.

Following the OECD-INFE definition, financial literacy is the combination of knowledge, behaviour and attitudes needed to make sound financial decisions. The OECD has therefore defined questionnaires for measuring financial literacy in relation to these dimensions. For youth the OECD had introduced financial literacy as an optional domain in the Programme for International Student Assessment (PISA).

For adults and SMEs, the OECD has released toolkits for measuring financial literacy (OECD (2018) and OECD (2020b)). The knowledge domain is built around the famous "Big Three" and "Big Five questions" developed by Lusardi and Mitchell[3]. These questions test the ability of individuals to: (i) undertake basic mental arithmetic to calculate simple and compound interest rates on saving; (ii) understand the relationship between interest rates and bond prices; (iii) understand the relationship between risk and return; (iv) understand the basic relationship between length of mortgage and monthly payments; (v) acknowledge the benefit of diversification. Understanding inflation and its implications for purchasing power is also considered.

The behaviour domain aims at measuring the ability of managing household financial resources in a prudent manner, by saving and making long-term plans, by making considered purchases and keeping track of cash flow. The attitude component evaluates personal characteristics towards money and planning for the future. However, some criticisms were raised against the methodology adopted by the OECD/INFE regarding the evaluation of behaviour and attitudes. For example, giving higher scores to active saving behaviours and attitudes towards saving without any reference to age or professional status may not be coherent with the life-cycle theory.

The financial knowledge component is the most comparable indicator across countries with different GDP levels, financial market development and regulations, as opposed to behaviour and attitudes that may depend more on country-specific economic, financial and cultural environments.

In practice, the complexity of financial literacy and the lack of a fully accepted defining framework has led to the spread of many simplified approaches to its measurement, including a growing use of self-reported measures of financial literacy.

In even simpler approaches, financial literacy has been proxied by numeracy measures; since numeracy is assessed in many surveys, this expands the available data to investigate financial literacy and its implication.

[1]Authors are grateful to Massimiliano Stacchini, Daniela Marconi, Angela Romagnoli, Riccardo De Bonis and Alessandra Staderini for helpful comments.

[2]OECD 2020, Recommendation of the Council on Financial Literacy https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0461

[3]https://gflec.org/education/questions-that-indicate-financial-literacy/

The financial landscape is changing fast driven by digital technology, such a process has been accelerated by the Covid-19 pandemic. Digital financial services are expanding the opportunities for individuals and firms to access to finance. But, in the context of the growing technological complexity and increasing risks of frauds and scams, a better and safe access to finance requires complementing financial literacy with digital skills. For this reason, surveys on financial literacy now tend to gather also information on respondents' digital skills, including those related to digital finance such as using the web or mobile apps for keeping in check personal finances or for making payments, purchasing complex financial products, trading on-line and searching for information.

This note reviews the main international and Italian surveys available to capture financial literacy among different targets: young people, adults and entrepreneurs. We start by looking at the Programme for International Students Assessment (PISA). We then move to adults illustrating the OECD/INFE International Survey of Adult Financial Literacy, the Standard & Poors Global Financial Literacy survey and the IVASS survey on insurance knowledge and behaviour. With regard to households, we comment on the Survey of Health Ageing and Retirement in Europe (SHARE), the Survey of Household Income and Wealth (SHIW-IBF), the survey on "Covid-19-Emergency: Italian households between fragility and financial resilience" and the CONSOB report on financial investment of Italian households. Finally, we outline the new Survey Instrument to measure the Financial Literacy of small businesses (MSMEs), promoted by the OECD/INFE and the G20 Partnership for Financial Inclusion (GPFI) under the G20 Italian Presidency in 2021. The survey, run for the first time by the Bank of Italy, is a first attempt to gather information on the level of financial literacy and digital skills of the owners of small businesses. In the appendix we present a comparative table (Table 1) that summarises the main characteristics of each survey and links to the data.

2 The Programme for International Student Assessment

The Programme for International Student Assessment (PISA) is a triennial survey conducted by the Organisation for Economic Co-operation and Development (OECD). It measures the ability of 15 years old students to apply competences in Mathematics, Reading and Science to problems faced in everyday life. Financial literacy was introduced as an optional domain in 2012. Ever since, it was run every three years. The last wave was released in 2018 and was completed by around 117,000 students resident in 13 OECD countries and economies and 7 partners (see Figure 1); the next one will be released in 2022, one year later due to the Covid-19 pandemic, which forced several school closures during 2020/21 across countries. PISA includes information from questionnaires submitted to students, their parents, the principals and the teachers of the attended schools. The matching of these data offers a rich picture to investigate links existing between students' skills and cognitive abilities and their family and school background. The main results of the survey are released through the OECD report (see for example the 2018 edition OECD (2020c)) while the full set of micro data are available online in the OECD dedicated website[4].

The primary use of the PISA test on Maths, Reading and Science is to compare education systems and their evolution over time (OECD (2019)), however the availability of

[4] `https://www.oecd.org/pisa/data/`

cross-country comparable data on students' cognitive abilities has captured the attention of scholars.

Financial literacy. The content of the financial literacy test is related to four areas: money and transactions, planning and managing finances, risk and reward and the financial landscape. The contexts under investigation are: home, family, education and work. The aim of the test is to assess the level of financial knowledge of the students and the way they apply these competences in making effective decisions. The questions of the survey are not released by OECD and only some examples taken from field trials are available. The reason for this is that part of the questions are repeated in different waves in order to compare the progress over time. Having the tests available would allow students to get prepared on those exercises and hence the results would not be the outcome of their educational system rather of their preparation for this particular test.
Starting from the score obtained in the test, each student is assigned to a proficiency level which identifies the task the student is able to achieve. The levels are five and level 2 is considered to be the minimum proficiency level, by which students can apply their knowledge of common financial products and commonly used financial terms to situations that are immediately relevant to them, and can recognise the value of a simple budget. The highest level refers to students who can apply their competences to a wide set of sophisticated financial problems also in context which are not common to them. Knowledge and abilities are differently graduated across the intermediate categories.

Digitalisation. Indicators of digitalisation can be deduced from the PISA ICT familiarity questionnaire. Here the students are asked about the digital tools available at school and at home. The questionnaire investigates the type of use during classes, the time spent using internet and digital technologies, inside and outside school, and the age at which they first used internet.

Financial experience. Students tested in financial literacy are required to answer an additional questionnaire about experience with money matters. In particular, they are asked whether they possess an account at a bank (or other institution) or a payment card, whether they keep track of their balance and what are their main sources of money. Moreover, data are available on students' confidence with money transfers, bank statements, sale contracts and digital financial transactions.

Use of data. Here we present few papers using PISA test on financial literacy to investigate the characteristics of financial literacy among young people. Bottazzi and Lusardi (2020) analysed the gender gap in financial literacy among Italian students using the wave of 2012. They find that historical backgrounds of the regions where students live contributes to shape gender differences. Cordero et al. (2020) and Salas-Velasco et al. (2020), still through PISA 2012 data, investigate the effects of financial education[5] in schools. Lamboglia and Stacchini (2022) use both 2012 and 2018 waves to study the transfer of competences from mathematics to finance and its link with the way math is taught at school. Further, Bianco et al. (2021) show a positive correlation between students' digital skills and financial literacy scores in the PISA 2018 wave.

[5]See De Bonis et al. (2022) for an introduction to financial education.

3 The OECD/INFE International Survey of Adult Financial Literacy

The International survey of adult financial literacy (OECD/INFE Adults) is a project launched by the OECD International Network on Financial Education (OECD/INFE) in 2016 in response to a call from G20 Leaders who recognised that measures of financial literacy are essential to define strategies of financial education. The survey relates to adults aged from 18 to 79 and has been conducted in 2016 and 2020. Around 56,000 individuals from 30 countries (of which 17 OECD) were interviewed in 2016 and 126,000 from 26 countries (12 OECD) in 2020 (Figure 2). The 2016 survey was later conducted by 9 other G20 countries, including Italy, in 2017. Country-level (aggregated) data are published by the OECD, together with the main results of the survey (OECD (2020a)), while individual level information is disseminated on a voluntary basis, so far only Italy made its data publicly available.[6]

Financial literacy. The concept used by OECD/INFE encompasses three components: knowledge, attitude and behaviour. These aspects are assessed as relevant to make sound financial decisions and improve financial and general well-being. A synthetic indicator of financial literacy, which ranges from 1 to 21, is obtained as an aggregation of the scores: 7 points refer to knowledge, 9 to behaviour and 5 to attitude. The knowledge part is based on the same concepts of the "Big Three" and "Big Five": the indicator considers basic questions on simple and compound interest, inflation, risk diversification, loan pricing, as well as trade-offs posed by risk-return and consequences of inaction. Financial behaviour is measured through questions about saving, financial planning and purchases. Examples of these are keeping track of financial matters and punctuality in paying bills. Moreover, the behaviour score is increased 2 points (while each of the other questions is worth 1 point) if the respondent has subscribed different kind of financial products after consulting specialized sources of information. Financial attitude measures the extent to which individuals tend to (dis)agree with some statements associated with short-termism, such as "I tend to live for today" or "Money is there to be spent". The questionnaire also includes a self-assessed indicator of financial knowledge[7].

Digitalisation. Some of the questions used to depict financial behaviour can shed a light on digital skills of respondents. They refer to the ability to make payments through mobile tools, the use of IT programs (e.g. home banking) to control income and expenditures and the subscription of crypto-currencies.

Financial sophistication, resilience and well-being. Data include information on awareness and possession of financial and credit instruments, including retirements and insurance products, as well as of payment instruments. One can also consider indicators of financial resilience and well-being, for instance by exploiting questions on availability and extent of financial cushions, and ability to cope with financial shortfalls and frauds.

Use of data. Information from OECD/INFE Adults highlight how financial literacy is generally low around the world, and distributed unevenly across the economies. Cupák

[6]In Italy the survey is named "Indagine sull'alfabetizzazione e sulle competenze finanziarie degli adulti"(IACOFI) and is run by the Bank of Italy. The microdata are available on `https://www.bancaditalia.it/statistiche/tematiche/indagini-famiglie-imprese/alfabetizzazione/index.html`.

[7]Self-assessment does not contribute directly to the financial literacy score but can be useful to estimate Dunning-Kruger effect, which is, "in psychology, a cognitive bias whereby people with limited knowledge or competence in a given intellectual or social domain greatly overestimate their own knowledge or competence in that domain relative to objective criteria or to the performance of their peers or of people in general" (Encyclopedia Britannica).

et al. (2018) show that gender gaps can be more pronounced in developed countries while Cupák et al. (2021) disentangle individual and country level characteristics to show that social security contribution rates can be a relevant determinant of financial literacy. As for Italy, D'Alessio et al. (2021) exploit individual data to highlight group-level heterogeneities. For instance, they show that financial literacy is positively associated with labor market participation and is higher for self-employed, including for women.

4 Standard & Poor's Ratings Services Global Financial Literacy Survey

The Global Findex database is a comprehensive database on how individual save, borrow, make payment and manage risk. In 2014 the Global Findex database has been enlarged to include the Standard & Poor's Ratings Services Global Financial Literacy Survey. This measures financial literacy by using five questions related to concepts which are fundamental in financial decision making: interest rates, interest compounding, inflation and risk diversification. This is the world's largest global measurement of financial literacy as it is based, as the Global Findex database, on interviews to more than 150,000 adults in over 140 countries. Macrodata are available online[8]. The results, commented in Klapper et al. (2015), showed that only one in three adults was able to understand basic financial concepts in 2014.

5 IVASS Survey: Insurance Knowledge and behaviours

In 2019 the Italian Institute for the Supervision of Insurance (IVASS) commissioned a research project for the creation and administration of an insurance literacy test to a representative sample of the Italian adult population. The project is part of the National strategy for financial, insurance and social security education. The survey on the insurance knowledge and behaviour of Italians has been conducted in 2021 involving a sample of 2053 individuals representative of the whole Italian adult population. It is the first example in the international panorama of a system to measure the level of insurance knowledge among adults as well as to predict insurance behaviour. Microdata are available on the IVASS website[9].

Insurance literacy. Five synthetic indices are defined on a scale of 0 to 100: one about insurance knowledge and four about insurance behaviour concerning confidence, risk aversion, insurance logic and effectiveness of insurance communication. Finally, a general insurance literacy index is computed as the arithmetical average of the five indices. More specifically, the knowledge index is based on the knowledge of basic terms, such as premium, deductible and maximum amount of cover, and of insurance products, including accident policy, term life insurance policy and supplementary pension policy. There is also a section designed to self-assess the skills possessed which allows to capture cases of overconfidence. The confidence index is based on the importance given to trust in choosing an insurance contact person or when subscribing a policy, as well as the simplicity of the procedure for obtaining the benefit from the insurer and the overall serenity in facing life's unexpected events after taking out an insurance product. Risk aversion is expressed as the preference to cover risk via insurance policy and an overall high perception of risks. The Insurance logic index concerns the correct understanding of the cost of a policy, taking into account factors like previous illnesses or the presence of a deductible. The effectiveness of insurance

[8] https://gflec.org/initiatives/sp-global-finlit-survey/

[9] https://www.ivass.it/consumatori/conoscenza-assicurativa/microdati-2021/index.html

communication index is defined through questions concerning the perceived adequacy of the insurance culture in Italy, how much information set of insurance products are understandable and whether one is informed of the exclusions and limitations of cover before subscribing the policy.

Insurance sophistication. The questionnaire collects information about different kind of insurance policies subscribed by the interviewed or another member of their families, such as motor liability, household liability, natural disaster, health or death policies. Furthermore, a question about means used to choose/purchase an insurance policy can detect the use of aggregator or comparator sites and online insurance companies.

6 The Survey of Health, Ageing and Retirement in Europe

The Survey of Health, Ageing and Retirement in Europe (SHARE) is designed to collect comparable information on health and socio-economic conditions of the European people aged 50 or older. The project is coordinated by the Munich Center for the Economics of Aging (MEA) and supported by the European Commission. The data, which are comparable with the U.S. Health and Retirement Study (HRS) and the English Longitudinal Study of Ageing (ELSA), are collected every two years since 2004 and include eight waves. These are available online after registration[10]. The survey is submitted to 140,000 individuals from 28 European countries and Israel. The number of countries participating to the survey increased over time (see Figure 3). SHARE reports information on several aspects of the population under investigation: income, consumption, employments, pensions, social protection, cognitive abilities, health and daily activities. To optimise future epidemic control measures, the European Commission has also launched the project SHARE-COVID19 [11] that analyses unintended consequences of lockdown and the measures adopted to contain the contagion. Unintended consequences relate to health and health behaviors, social relationships, income and wealth inequality. The data collected so far are available since June 2021.

Financial literacy. The survey does not include a section dedicated explicitly to financial literacy but in the literature (see for example Jappelli and Padula (2015), Romiti and Rossi (2012)) financial literacy has been proxied by a numeracy indicator. This is based on four questions where individuals are asked to calculate percentages, fractions and compounding interest rates, hence to show their familiarity with aspects strictly connected to finance. The questions are sorted according to difficulty and asked sequentially. This indicator varies from 1 to 5. SHARE also includes questions that can be used to investigate financial behaviors or attitudes. They include time that is usually dedicated to take decisions about savings, questions on loan repayment delays and financial transfers, inside and outside the family.

Digitalisation. In the recent years, attention dedicated to the use of technology has grown. SHARE has a specific section on the use of computer. For instance, it asks whether current (or pre-retirement) job requires using a computer or whether Internet is used for searching for information, sending and receiving e-mail, making purchases, or for travel reservations.

Financial sophistication. Several questions are available to observe the diversification of household's financial assets or portfolio. Individuals are asked whether they own

[10] `http://www.share-project.org/data-access.html`

[11] Ref: `http://www.share-project.org/share-covid19.html`

deposits, bonds, stocks and mutual funds. A group of questions investigate availability and composition of pension funds (for instance in terms of stocks or bonds) and life insurance policies.

Use of data. The SHARE archive is a rich source of information that has been used to study effects of health, social, economic and environmental policies on the European and Israeli citizens aged 50 or older. Even though financial literacy can be only proxied via numeracy, this dataset has been exploited to investigate determinants of financial literacy and its relation with portfolio choices and wealth. Example of these are Jappelli and Padula (2015) and Romiti and Rossi (2012). The first paper uses the data to verify the predictions of a model determining jointly financial literacy and wealth, and their correlation over the life-cycle. Romiti and Rossi (2012) characterise through SHARE individuals' sub-optimal choices, in terms of portfolio composition and their association with financial literacy.

7 The Survey on Household Income and Wealth

Since the 1960s the Bank of Italy has been collecting data on incomes and savings of Italian households through the Survey on Household Income and Wealth (SHIW). The survey has been carried out since 1977 (every two years from 1977 to 1995 and from 1998 to 2016, 2019 interviews were interrupted due to COVID-19 and started again in March 2021) and refers to around 8,000 households (the interview is administered to one adult declaring to be the households' reference person). Over the years, the survey has grown in scope and now includes data on real and financial wealth and other aspects of financial behaviour, including the use of payment instruments. Since 2010, the survey has provided data for the Eurosystem's Household Finance and Consumption Survey, coordinated by the European Central Bank. The data are available for researchers at the Bank of Italy website[12].

Financial literacy. Questions for measuring financial literacy are available in several waves: 2006 (6 questions), 2008 (9), 2010 (3), 2016 (3), 2020 (3). They elaborate on the core concepts of interest, inflation, and risk diversification even if the way they are specified slightly differs across the waves. To make comparisons, meaningful indicators of financial literacy can be calculated through standardization (see for example D'Alessio et al. (2021)). Note that these questions are not present in the Eurosystem's Household Finance and Consumption Survey.

Digitalisation. Different questions explore the use of technology among Italian households. One asks whether anyone in the family uses internet through smartphones or tablets; others investigate the use of the web for buying goods or making reservations. Moreover some questions refer to digitalisation in association with financial matters and document the relevance of remote online communications with financial intermediaries as well as of online trading. Finally, the 2020 wave asks whether family members were able to obtain a loan by resorting to financial offers available on the web.

Financial sophistication. The questionnaire offers the opportunity to investigate how Italian households build and manage their financial wealth. It has a large section dedicated to payment instruments and to the way families invest their savings. A section also refers to the possession of insurance products and retirement funds.

Use of data. SHIW has been widely used to investigate household finance. As far as financial literacy is concerned, one of the first papers is Fornero and Monticone (2011); here the authors show a significant impact of financial literacy on the probability of pension funds

[12] `https://www.bancaditalia.it/statistiche/tematiche/indagini-famiglie-imprese/bilanci-famiglie/distribuzione-microdati/index.html`

participation. Oggero et al. (2019) use SHIW data to analyze whether the probability of being an entrepreneur relates to financial and digital skills. Recently, Michelangeli and Viviano (2021) characterise the relation between the adoption of internet banking, participation to financial markets and financial awareness.

8 Covid-19-Emergency: Italian households between fragility and financial resilience

In May 2020 the Committee for the planning and coordination of financial education in Italy promoted the survey "Emergenza Covid-19: gli italiani tra fragilità e resilienza finanziaria" (Covid-19-Emergency: Italian households between fragility and financial resilience). The goal was to measure financial knowledge, behaviour and attitude as a response to the Covid-19 crisis in Italy. The survey refers to a sample of around 5000 individuals aged 18 or older declaring to be the household's reference person. The data have been released in July 2020 and commented in Lusardi et al. (2020). A second wave of the survey was conducted during the course of 2021[13]. A third wave was conducted in 2022[14].

Financial literacy. The questionnaire focuses on financial knowledge with questions based on the Big Five concerning simple and compound interest, risk diversification, inflation, risk-return relationship and understanding of mortgages. There are also some questions about knowledge of insurance concepts such as deductible or longevity risk. For most of these financial concepts there is also a self-assessment question; this allows to capture overconfidence problems. Self-evaluated claims about risk aversion, financial anxiety or confidence with financial planning are also collected to assess individual traits.

Digitalisation. Some questions depict aspects of digital skills. Respondents are asked to specify the purpose for which internet is used (entertainment, education, search of information, assistance to parents) and to indicate whether expenses for technologies changed after the Covid-19 outbreak. Abilities in the use of technology are also explored in relation to finance (e.g. use of home banking, purchase of financial and insurance products, payment of bills, search of information). Further, the questionnaire considers some risks associated to the use of technology. Individuals are asked to mention episodes of frauds and phishing that have caused losses in terms of money or data and to specify whether they pay attention to protect their web connections. Finally, individuals also evaluate risks of exclusion and impulsive choices in association with digital finance.

Financial sophistication and source of information. Information on financial products owned before and during the Covid-19 pandemic (such as saving deposits, bonds, stocks, sustainable finance products, mutual funds, life insurance) allows for qualitative analyses of the variation in financial sophistication during a shock. This is complemented by questions on the sources of information mainly exploited to make financial decisions (social media, institutional web sites, financial advisors, etc) and strategies adopted to tackle difficulties (e.g., new debts, renegotiation of existing loans, early redemption of life insurance policies or pension funds).

[13] http://www.quellocheconta.gov.it/it/news-eventi/rassegna/Rassegna-Stampa/news_138.html

[14] Data are not yet available.

9 CONSOB report on financial investment of Italian households

The report on financial investment of Italian households is conducted by CONSOB, the Italian commission for listed companies and stock market (Commissione nazionale per le società e la borsa) every year since 2015[15]. The survey is administered to around 2000/3000 households, depending on the wave, and only the person financially responsible for the family is interviewed.

Financial literacy. The questionnaire is composed of 5 questions on financial knowledge concerning the computation of compound interest, the concepts of risk and return, inflation, morgages and diversification. Two scores are computed: a simple and a weighted sum of the correct answers, where the weight is proportional to the difficulty of the question. There are further sections dedicated to measure perceived financial knowledge, financial self-efficacy (for example the perceived ability to cope with unexpected expenses, manage money and save for retirement), financial satisfaction and financial anxiety. Moreover there are questions concerning attitudes towards risk and loss, trust in financial actors, resilience and financial vulnerability. Finally some questions try to highlight financial biases and misconceptions and to evaluate attitude towards financial education.

Digitalisation. Some questions focus on the use of internet, distinguishing between the use for online banking, shopping and payments, and for searching information and accessing the social media.

Financial sophistication. The survey contains information on financial market participation and financial asset holdings. Moreover the respondents are asked some questions concerning crypto currencies, digital financial services and investments in sustainable finance. In particular the questionnaire considers self-assessed knowledge of these instruments and confidence and interest in them.

10 OECD/INFE Survey Instrument to measure Financial Literacy of MSMEs

As part of the priorities established by the Italian Presidency of the G20 for the Global Partnership for Financial Inclusion (GPFI), the OECD/INFE launched in 2021 a survey aimed at detecting the financial culture of MSMEs. Small business is relevant in the economic system of advanced and emerging countries, in terms of turnover and employment. Fourteen countries have joined the project (eight of these are permanent members of the G20). The list includes China, France, Germany, Italy, Mexico, Russia, Saudi Arabia, Turkey, Chile, Georgia, the Netherlands, Peru, Portugal, Spain. As for Italy, the owners of a sample of about 2000 non financial companies with less than 10 employees have been interviewed in the period March-May 2021[16].

Financial literacy. Financial literacy is measured by adding up the number of correct answers obtained in 17 questions. These refer to three aspects of financial literacy: knowledge of basic concepts (5 questions); behaviour in relation to the management of financial resources (3); attitude to precautionary saving (9). Other questions relate to financial education and protection. For instance, entrepreneurs are asked whether they have received training on how to manage finance.

[15] `https://www.consob.it/web/area-pubblica/report-famiglie`

[16] In Italy the survey is run by the Bank of Italy.

Digitalisation. Several questions are formulated about digital abilities. Entrepreneurs are asked about their confidence with the use of web platforms and social media to show and advertise products and services. Data are available with regard to ability in making online payments, opening bank accounts and signing financial contracts. Moreover there is information about the extent to which MSMEs use online/mobile accounts and the importance of online operations on their current account.

Financial sophistication. The survey collects information on the extent to which small MSMEs know and use formal current accounts, financial products and services (such as overdraft facilities, accounts receivable, leasing, factoring and peer-to-peer lending). Data on knowledge and use of insurance policies against property damages, business interruptions or profit losses are also available.

11 Conclusions

In this note we have reviewed the main international and Italian surveys available to capture financial literacy among different targets, starting from young people and then proceeding to adults and entrepreneurs. Although not all surveys presented here have been designed with the aim of measuring financial literacy as it is defined by OECD/INFE, some of the information collected can still be used to investigate the relationship between proxies of financial competences and financial outcomes of the population.

The same definition and measurement of financial literacy adopted by OECD/INFE is still widely debated. This definition includes the three dimensions of knowledge, behaviour and attitudes but while knowledge is usually more easily measured, behaviour and attitudes are more difficult to capture since they are also related to country-specific characteristics such as culture and the economic situation. Moreover studies show that self-perceived financial knowledge also plays an important role for the economic choices of individuals, hence it becomes necessary to measure it in surveys meant to assess financial literacy of the population.

As a general policy, surveys measuring financial literacy should increase the size of their sample. This would simplify the investigation of specific sub-populations by allowing for greater flexibility in statistical analyzes. It would also be desirable to enlarge the perimeter of the countries involved. It is a negative fact in this regard that many countries have not renewed their participation in some surveys. This is particularly alarming in the case of PISA since its data are a unique source of information on young population: it is necessary that the financial literacy assessment continues over time by the majority of the countries testing the core PISA subjects.

Finally, there are two factors that are generating major changes in the national and international financial context, namely the digitalisation of financial services and the rapid growth of sustainability-focused products. These aspects require new specific competences which are to be reflected in the definition and measurement of financial literacy. The existing surveys should therefore be updated to take into account this digital and green transition, particularly in relation to financial inclusion.

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Appendix

Table 1: Data available to study financial capability around the world.

Survey	Frequency	Target	Financial Literacy	Availability
PISA	Triennial since 2012	15 years old, OECD & partners	Financial knowledge and ability to apply financial concepts	Microdata available at https://www.oecd.org/pisa/data/
OECD/INFE Adult	2016, 2020	18-79 years old, OECD & partners	Financial knowledge, behaviours and attitudes	Macro-data available at https://www.oecd.org/financial/education/launchoftheoecdinfeglobalfinancialliteracysurveyreport.html , Microdata for Italy available at https://www.bancaditalia.it/statistiche/tematiche/indagini-famiglie-imprese/alfabetizzazione/index.html
S&P Global Finlit Survey	2014	15+ years old, 140 countries	Financial knowledge	Macrodata available at https://globalfindex.worldbank.org/
IVASS survey	2021	Italian adult population	Insurance knowledge and behaviours	https://www.ivass.it/consumatori/conoscenza-assicurativa/microdati-2021/index.html
SHARE	Biennial (panel) since 2004	50+ years old, Europe & Israel	Financial knowledge proxied by numeracy	Microdata available upon registration at http://www.share-project.org/data-access.html
SHIW	Financial literacy only in 2006, 2008, 2010, 2020	Italian households	Financial knowledge	Microdata available online at https://www.bancaditalia.it/statistiche/tematiche/indagini-famiglie-imprese/bilanci-famiglie/distribuzione-microdati/index.html.
COVID-19-Emergency, Italian households	2020, 2021 (panel)	Italian households	Financial knowledge	Microdata available at http://www.quellocheconta.gov.it/it/news-eventi/rassegna/Rassegna-Stampa/news_138.html
CONSOB survey	Annual since 2015	Italian households	Financial knowledge	Report available at https://www.consob.it/documents/46180/46181/rf2020.pdf/ccfe7ad2-810f-4490-bd7e-413daa24c391
OECD/INFE MSMEs	2021	Entrepreneurs, 14 countries	Financial knowledge, behaviour and attitudes	

Figure 1: PISA. List of countries by waves.

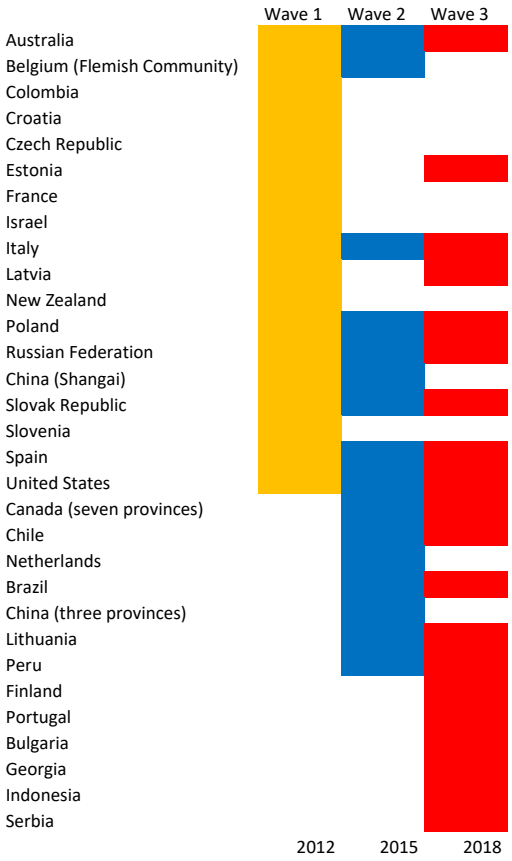


Figure 2: OECD/INFE Adults. List of countries by waves.

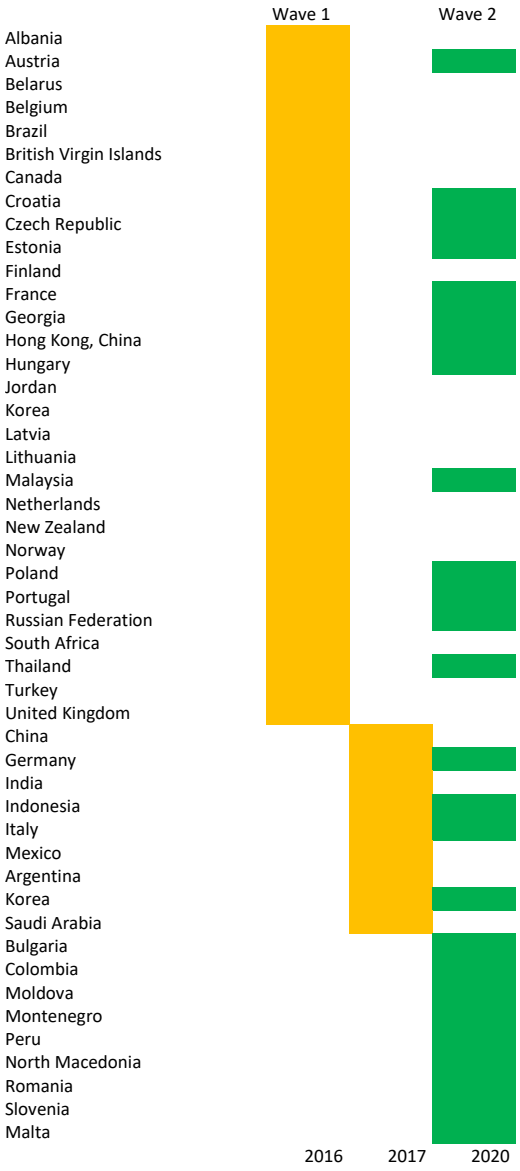
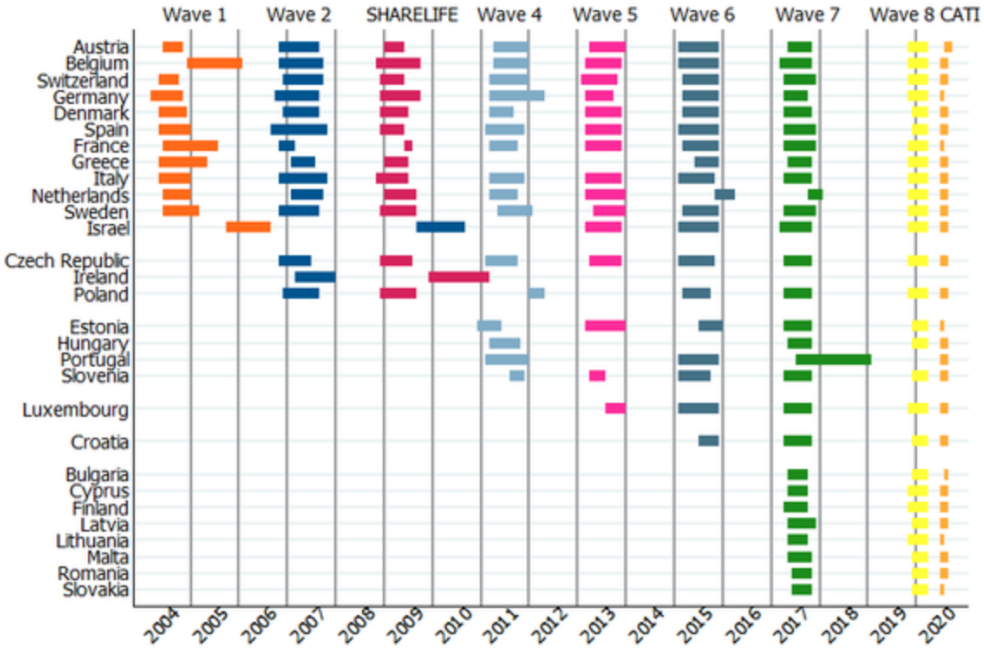


Figure 3: SHARE. List of countries by waves.



Wave 8 also includes data from the special dataset SHARE Corona Survey (in orange). Source: `http://www.share-project.org/data-documentation/waves-overview.html`