

# **Assessing financial literacy in 12 countries an OECD Pilot Exercise**

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## **Abstract**

The OECD International Network on Financial Education has developed a questionnaire to undertake an international comparison of levels of financial literacy. This questionnaire takes into account knowledge, behaviours and attitudes related to personal finances, and seeks to identify similarities and differences in levels of financial literacy around the world. It is currently being piloted in 12 countries, with the expectation that the final survey instrument will become an essential tool for policy makers, academics and financial education programme designers seeking to identify robust questions to assess financial literacy.

## **Keywords**

**Financial literacy, measurement, questionnaire, financial education, international comparison, knowledge, retirement plan, financial behaviour, OECD**

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## Introduction

Governments around the world have expressed concerns about the low level of financial literacy amongst their citizens. The potential magnitude of the consequences of a lack of financial literacy has been further demonstrated by the financial crisis. Such lack of financial literacy has been widely acknowledged as an aggravating factor of the crisis. At the same time, the global nature of financial literacy and the possibility of developing international approaches has been highlighted. In this context, the OECD has created an International Network on Financial Education (INFE) to facilitate the sharing of experience and expertise among worldwide public experts and to promote the development of both analytical work and policy recommendations.

The work of the OECD/INFE focuses on financial literacy and education policy areas considered as particularly topical, such as the evaluation of financial education programmes, financial education in schools and national strategies for financial education. Among these, the measurement of the level of financial literacy at both a national level and international level rapidly emerged as critical in order to better inform policymakers' interventions.

Measuring the level of knowledge and understanding of the population and assessing their behaviours with regard to their finances is fundamental in order to identify potential needs and gaps in relation to specific aspects of financial literacy, as well as identifying groups at risk. Once a first benchmark is set, the measurement exercise can be repeated in order to evaluate the impact of large scale interventions aimed at addressing these issues.

The comparison of such a measure across countries will provide some important additional information about which national financial education and/or consumer protection practices work best thereby further guiding policymakers' decision-making process.

The lack of such an international measure and data, along with the request of many countries for good practices on a robust measure of financial literacy at national level, prompted the OECD and its INFE to launch projects aimed at filling these gaps. Consequently, two projects were initiated in recent years in this area:

- the development and implementation of an international method and survey of the financial literacy of adults through the INFE; and
- the international measurement of the financial literacy of 15 year old students through the introduction of an international option in the 2012 OECD Programme for International Students Assessment (PISA).

This paper focuses on the first of these projects.

The OECD/INFE has 73 low, middle and high income member countries. There are 12 countries from the OECD/INFE that are currently piloting the financial literacy questions. Of these, 11 are following the personal interview approach recommended by the INFE (Armenia, Czech Republic, Estonia, Germany, Hungary, Ireland, Malaysia, Peru, Poland, UK, and South Africa), whilst 1 (Norway) is testing an alternative method, using an online self-completion survey.

The countries covered by this pilot exercise offer a balanced mix of stages of development, financial inclusion<sup>1</sup> and varying financial and economic systems as well as a very good geographical representation with countries from Latin America, Africa, West and East Europe and Asia. Some of the pilot countries (including Ireland and the UK) have measured levels of financial literacy across their population before, whilst others will use the pilot study to create a baseline measure.

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<sup>1</sup> According to the 2009 CGAP report on Financial Access, for example, whilst Armenia has just 572 deposit accounts per 1000 adults, Malaysia has 2227 and Estonia has 2752.

Similarly, some have developed national strategies to tackle levels of financial literacy within the country, whilst others intend to use the pilot process in order to inform the development of such a strategy.

Most of the participating countries are combining the pilot questionnaire with other questions. For instance, the Czech Republic has incorporated the pilot within its national baseline survey on financial literacy; designed to inform the launch of its national strategy on financial education. Malaysia is including it as part of a follow-up study with a special focus on low income groups and households' indebtedness. The Malaysian financial system includes a substantial share of Islamic financial institutions and should therefore provide an interesting point of comparison with other countries.

The fact that the pilot sample is broad and diversified, and will also include some more focused information depending on country's specificities, will allow for the development of a thorough global analysis of financial literacy in its broadest sense with some focused projects on particular aspects of interest, such as retirement planning or credit use.

## **I –Method and framework for the OECD/INFE international survey**

The development process for the OECD financial literacy survey began with a comprehensive stock take of existing national financial literacy surveys in order to identify common definitions and content and to highlight good practices in terms of question wording, data collection and analysis. The stock take gathered information on 26 existing financial literacy surveys covering different aspects of financial knowledge and behaviours in 18 countries<sup>2</sup>.

### ***Terminology***

In order for a survey to be considered in scope for the stock take exercise, it was felt that its purpose should be to collect data on personal finance issues rather than, for example, levels of understanding of economics or general consumer issues. The terminology used by individual countries to describe such surveys varies greatly, and includes financial literacy, financial capability, financial insight, financial culture, economic literacy and so on. Although financial capability seems to be more generally used in Anglo-Saxon countries to refer to broad ranging surveys covering behavioural aspects as well as financial knowledge; financial literacy is also used for similar types of content in some countries (Huston, 2010). Other terminologies (such as financial insight or culture) are also used in broad ranging surveys.

The surveys covered in the stock take variously focus on knowledge, skills, attitudes and behaviours, either individually or in combination. Whilst there is some tendency for countries to describe studies that focus entirely on financial knowledge as measures of financial literacy, there appears to be no consistent approach to matching terminology to questionnaire content or stated objectives.

### ***Definition of financial literacy***

Building on the widely acknowledged OECD definition of “financial education<sup>3</sup>”, it was agreed that the measurement pilot should incorporate questions capturing behaviour, attitudes and knowledge.

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<sup>3</sup> OECD (2005): “Financial education is the process by which individuals improve their understanding of financial products and concepts; and through information, instruction and/or objective advice develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know

Whilst there is no internationally accepted terminology for a survey that captures this level of detail, the OECD measurement pilot adopts the globally recognised term “financial literacy”.

For the purpose of the survey, financial literacy has been defined as “a combination of awareness, knowledge, skills, attitude and behaviours necessary to make sound financial decisions and ultimately achieve individual financial wellbeing”.

This definition makes clear that financial literacy is more than just knowledge; it also includes attitudes, behaviours and skills. It stresses the importance of decision making –applying knowledge and skills to real life processes – and it indicates that the impact should be improved financial wellbeing.

### ***Topics for inclusion in the survey***

The UK undertook a particularly detailed study to inform their baseline survey of financial capability. This study sought to identify the components of financial literacy, and the relationship between the various components. It identified four separate components and stressed the importance of developing questions that covered each in detail (Kempson et al 2005). The majority of surveys included in the stock take have questions that could be categorised according to the UK financial literacy survey: day-to-day money management, financial planning, choosing financial products and staying informed about financial matters. Financial knowledge and understanding are incorporated in this final category.

In particular, questions relating to choosing financial products are included in most of the financial literacy surveys included in the stock take, and several also capture the types of products held. Inclusion of questions that could be described as financial planning and day to day money management are also common and elements of financial knowledge are also covered by a vast majority of the surveys. It is for this reason that the OECD questionnaire has been developed to cover each aspect of financial literacy.

### ***Measurement of financial literacy***

Based on the stock take, the working definition and a peer review exercise, a series of 19 core questions have been identified for this first and unique cross country pilot exercise on the measurement of financial literacy. The core questions cover a mix of knowledge, attitude and financial behaviour. In addition to the core questions, the questionnaire also encompasses a series of socio-demographic questions including information on gender, age, family status, geographical location, work and income.

Wherever possible questions have been selected following three criteria: questions that have been tested and proved high quality and unbiased; questions that have already been used in national surveys; and questions that are correlated with the concept being measured. In some cases, edits were made to existing questions in order to meet the requirement that the questions are applicable and appropriate for respondents across a wide range of countries and economic situations.

On the recommendation of various experts, financial knowledge questions represent a substantial component of the questionnaire. These include questions relating to simple interest rate and compounded interest rate calculation; investment risk and diversification; inflation and understanding of simple financial products. Where relevant, in order to strike a suitable balance between questions that are too complex and those that are too easy, fairly simple questions require an open-ended answer while more complex questions have been coupled with multiple choice response options. The pilot

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*where to go for help, and to take other effective actions to improve their financial well-being and protection.”*

exercise is expected to help fine tune this approach. Respondents are also instructed to say if they do not know the answer, in order to minimise (in)correct guesses and this information is stored. Furthermore, codes have been added to identify people who give alternative responses that may indicate a higher level of understanding – such as recognising that inflation does not impact on all goods equally.

The knowledge questions were specifically chosen to be as close as possible to those questions used widely in studies linking financial literacy to specific financial outcomes (see for example Hilgert and Hogarth (2003), Lusardi and Mitchell (2008) and van Rooij et al (2007)). In some cases they were amended on the recommendation of experts or to meet the requirements of an international survey (see Fowler (1995) for a detailed discussion of best practice in designing survey questions).

The questions addressing interest rate, inflation and risk diversification are therefore very similar, if not the same as the 3 questions used in the project for this special issue of the Journal of Pension Economics and Finance (JPEF). The full set of questions used in that other project are also incorporated in our recommended list of supplementary questions. This should allow for an even wider international comparison on financial knowledge since countries participating in the OECD pilot exercise are different from the ones involved in the issue of the JPEF. In addition, the comparison between the knowledge and behavioural questions in the OECD pilot should provide some relevant and quite unique insights on the relationships between individual financial knowledge and behaviour at an international level.

The OECD questions that most closely resemble the questions used in other papers in this special edition of the JPEF are:

#### **Understanding interest rates**

**Suppose you put \$100 into a savings account and the guaranteed interest rate is 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?**

*Followed by:*

**and how much would be in the account at the end of five years?**

- a) More than \$110
- b) Exactly \$110
- c) Less than \$110
- d) Or is it impossible to tell from the information given

#### **Understanding inflation**

*(this question is a follow up to a basic mathematics question)*

**Imagine that the brothers have to wait for one year to get their share of the \$1,000. In one year's time will they be able to buy:**

- a. More with their share of the money than they could today;
- b. The same amount;
- c. Or, less than they could buy today.

### **Understanding risk and diversification**

a) **It is usually possible to reduce the risk of investing in the stock market by buying a wide range of stocks and shares.** (True/False Don't know refused)

These questions are asked in the same order as the questions used elsewhere. Instructions are provided to the users of the questionnaire or their data collection agencies to change the currency if necessary, before asking the questions.

The two linked questions designed to explore the extent to which the respondent understands the impact of interest rates indicate how the design of the questionnaire seeks to minimize the burden on those respondents with low levels of financial literacy whilst also reducing the possibility of anyone guessing several answers correctly. The first, easier part of the question requires a free response, whilst the second part provides the respondent with options that are read-out by the interviewer.

The behavioural and attitudinal questions particularly focus on day-to-day money management - and within this group financial control and making ends meet; choosing and holding financial products; and financial planning. In addition to a measure on the financial behaviours of individuals, the question on financial products will provide an indication of financial inclusion in the surveyed countries – both by indicating product holding and through a measure of basic awareness of the products available. The questions use a five point scale, and have only the end points defined, in keeping with recommended practice when questions will be translated (Fowler 1995). The use of a common scale makes it easier to combine responses from multiple questions, whilst the inclusion of a mid point (3 on the scale), allows respondents with a neutral view to indicate this positions (in contrast with a 4 point scale which forces respondents to take either a negative or positive stance).

Owing to the great differences between countries in relation to the financing of pensions and health care, it has been difficult to directly address these particular planning issues through the global exercise, though they can still be dealt with at a national level. For similar reasons, questions related to the ability of individuals to stay informed on financial issues, or more detailed questions on specific financial products (such as credit and life insurance) have not been incorporated as part of the core questionnaire. However, even within the core questionnaire there is certain flexibility to ask about particular financial products, which may include credit products or insurance, and there is also flexibility to enquire about the information used when choosing products.

### ***Survey design and methodology***

The adopted survey design combines identified best practices to ensure a robust international measure while allowing for some flexibility necessary to accommodate varying national circumstances.

In practice this means that a common survey design and analytical framework has been developed and should be implemented by countries participating in the international exercise. Yet volunteering countries are responsible, with the support of the OECD secretariat, for translating the questionnaire into national languages (if necessary), identifying a sampling frame, undertaking the survey, the nomination of a reputable national statistics centre or data collection agency and the preparation of data for analysis.

The core questions can be used as a standalone survey or judiciously integrated in a wider national survey. In this respect, in order to address the need for more targeted national issues, the OECD and its INFE has also developed a set of additional questions (see next section) which can be added to the core questions.

In order to ensure the comparability of data and feasibility of the exercise, the survey design displays the following summarised characteristics:

- The survey is for individuals aged 18 and over;
- The interviews are personal and undertaken by phone or ideally face-to-face;
- The minimum achieved sample per country is 1000 with possible use of quotas and/or booster sample for particular targeted groups;
- The translation of questions should preferably be tested; and,
- The time schedule for the fieldwork of the pilot exercise is between September 2010 and beginning of 2011

The decision to interview individuals, regardless of whether they are the main decision maker or identify themselves as the head of household reflects the generally held belief that financial literacy is a skill that each and every person requires in order to function in today's financially orientated world. The minimum age of 18 was agreed to reflect the typical legal age of adulthood and the consequential ability to enter into contractual agreements including credit agreements in many countries.

Personal interviews are preferred for an international study for several reasons. First, it is typically found that response rates are higher with personal interviews than self-completion ones. Second, the length of the questionnaire can be increased as the cognitive burden on the respondent is lower. Third, there is no requirement for the respondent to be literate with a personal interview as the interviewer reads the questions out loud. Other benefits to personal interviews include the possibility for the interviewer to record and clarify any apparent inconsistencies in responses across the questionnaire, such as the respondent saying they do not have a transaction account but that they pay their bills by direct debit. However, these benefits should be balanced against the potential benefits of self-completion surveys – including the considerable cost reduction from self-completion, the increased likelihood of being able to target a random sample of the population, the improved sense of confidentiality, the flexibility of being able to complete the survey at a time that suits the respondent and the possibility of the respondent taking more time over each question to fully understand the requirements or task being set. It is these benefits of self-completion surveys that have led to the decision in Norway to test the questions using an online approach. This approach is well established in Norway, and the use of technology coupled with high levels of literacy can help overcome some of the usual disadvantages from self-completion questionnaires – for example, prompts can be given if responses appear inconsistent, and respondents can be incentivised to continue with a longer survey through regular earnings from participation in such measures. However, in order to check whether there are significant differences in the way in which respondents reply to questions on line the Norwegian study will also add several questions to a telephone survey to check comparability.

The minimum sample size has been chosen to provide sufficient responses in order to create meaningful results, without incurring undue costs for participating countries. In some cases, the effective sample size may be smaller, depending on the sampling method used (see Dorofeev and Grant (2006) for indepth discussion of the analysis of real-life sample surveys). The decision about the final approach to sampling has been left to each participating country in order to provide sufficient flexibility within country; but instructions have been given to provide weights in order to make the data representative in terms of number of individuals (this may be necessary if only one person per household is picked, regardless of the size of the household), gender and age. Countries have also been asked to consider whether it is necessary to weight the data to regionally representative, and whether they should oversample particular groups in order to undertake additional analysis at the national level.

The framework for the analysis of the first data is currently being prepared. This will involve wide consultation with experts in countries participating in the pilot exercise as well as external (including World Bank) experts with specific knowledge on measurement issues. Various methods are expected

to be used to analyse the data including the development of scores and segmentation approach in order to allow for an in-depth exploration.

### *Difficulties in undertaking an international comparison*

Huston (2010) identified three obstacles to creating a standard financial literacy measure. The first is the lack of a common construct; the second is the lack of a comprehensive set of questions to measure all components of financial literacy and the third is the lack of guidance in interpreting the measure created.

Consistency and the need for a common construct has been the biggest challenge when developing the OECD INFE survey in preparation for an international comparison. Our project addresses the problem of consistency in various ways. Its main achievement is undoubtedly in the creation of an agreed set of core questions. However, it is essential that these questions are translated into working languages in such a way that neither the meaning nor level of difficulty of the question is affected in order to ensure consistency across countries. As the questions were agreed by representatives from the various countries taking part in the pilot, any problematic phrases have been removed in the design phase, but it is always possible that new countries coming to use the questions will identify different issues.

Consistency does not necessarily mean that questions should be identical across countries. There are times when it is appropriate to capture the same construct but using contextually different questions. This is particularly apparent when talking about financial products, where it is necessary to discuss products as they are commonly referred to in the country or region of the interview. The OECD questionnaire therefore includes considerable flexibility to make changes to questions where context is paramount.

Lack of consistency can also occur because of decisions made in relation to sampling and fieldwork, as well as in the handling of the resulting data. A standard set of instructions for briefing fieldwork agencies and a recommended coding guide has therefore been provided to all piloting countries in order to increase consistency in approaches. They have also been given guidance on talking to potential fieldwork agencies about ensuring good response rates (aiming for 60%), and testing translated questions before commencing fieldwork.

The two final obstacles discussed by Huston fall into two categories. The first, of having sufficient questions in the questionnaire in order to create a comprehensive measure is not a problem the OECD core questionnaire which covers 19 key components (Huston suggests that the minimum number of items would be 12). The second, that of providing guidance on interpretation is something that will be addressed during the analysis and reporting phase.

Organisations face other challenges in undertaking international comparisons. A comparison can be unduly affected by timing issues – a survey that looks at weekly expenditure, for example, that included countries with different national holidays may find surprising results. If an economy faces a sudden shock during the fieldwork period or fieldwork takes place when the higher income residents are on vacation the findings may not be representative of the usual situation in the country, and may therefore make comparisons unwarranted.

When identifying a set of questions that a large number of countries are happy to use, it is inevitable that some countries would have liked to incorporate questions that are simply not appropriate in other situations. In such circumstances a comparison may only be possible amongst a subset of countries, and such questions must be incorporated in an optional element, rather than a core element of the survey.

There is also an issue in the way that questions work across cultures and economies. Even when the question is adequately translated for meaning, there may be unintended, structural differences in responses. For example, some questions may appear to be more appealing to one gender or another, some may seem overly intrusive in certain economies, and others may be socially sensitive. Our expert panel has done everything possible to reduce the likelihood of this happening, but the data from the pilot exercise will provide us with further guidance as to whether any of the questions pose such a problem.

The OECD INFE has also developed a set of supplementary questions that can be used by those countries that would like to collect additional information on a particular aspect, or aspects of financial literacy. The supplementary set is particularly aimed at dealing with specific national issues, such as planning for retirement, health care planning, specific products and financial advice. Unlike the set of core questions being piloted, the supplementary set is not designed as a questionnaire, but rather a catalogue of questions that can be drawn on as necessary.

There are 62 supplementary questions in total (some of which include several sub-sections, such as a list of attitude statements). Many of them were considered for the core questionnaire, but were rejected because they were not universally applicable, although they are often applicable to a large number of countries. Some of them were identified in the original stock take exercise, whilst others have been included in direct response to requests from countries.

The question set covers questions on a range of common financial services and products including overdrafts, credit cards, savings and investments, insurance, loans and mortgages as well as retirement plans and accessing credit reports. It will also allow deeper analysis of some specific financial behaviours, attitudes and knowledge, and the comparison of self reported knowledge and behaviour.

There are also a number of additional socio-demographic questions. These include housing tenancy, main source of income, and taking responsibility for bill payments. These can serve two purposes: they can reduce the data collection burden by helping the interview to identify those respondents that could answer questions on specific topics, such as mortgages, and they can enable countries to identify particular groups that may need to be targeted most urgently with financial education.

Use of the supplementary questions is being widely encouraged amongst INFE members, as their ability to facilitate international comparisons depends on how frequently the same questions are used. It is hoped that most countries making use of the OECD/INFE core questionnaire in future waves will draw on the supplementary questions in order to facilitate such a comparison. In addition every effort will be made to incorporate analysis of commonly used supplementary questions in final outputs.

### ***Expected use of results***

The pilot data will be analysed in several ways. Many of the questions provide very interesting information about the behaviour, attitudes and knowledge of individuals and groups of people within a country. Responses to these questions will therefore be used to describe and compare particular aspects of financial literacy both across groups within countries and across countries.

There are also several possibilities for combining the responses to various questions in order to create financial literacy scores or indicators. For example, respondents can be given a mark depending on how many of the knowledge questions they have answered correctly. They could also be scored depending on their general attitudes and behaviours in terms of financial planning or money management.

Regression analysis can then tell us whether there are socio-demographic factors that might predict certain scores. This will be of use to policy makers looking for ways of identifying groups of people

most in need of financial education, or most at risk from a lack of consumer protection policies, for example. It will also be very useful to INFE members and researchers interested in the apparently lower levels of financial literacy amongst women identified elsewhere (Lusardi and Mitchell 2008).

The scores can also be used to help us to explore the small number of outcome variables in the data. It will be possible to undertake logit analysis to see whether higher levels of financial knowledge are associated with certain outcomes such as holding savings, having a private pension (where asked) or being unable to make ends meet.

Apart from this global analysis, the data are expected to be used for the development of various special projects at the OECD including one on gender and financial education. The latter will also possibly involve the development of dedicated country or community case studies exploring a wider array of data and thereby a potential wider range of explanatory variables.

One of the additional benefits of using questions that have been tested in countries around the world is that it will be possible to compare findings across time. The UK and Ireland for example have asked similar questions several years ago, and it will be possible to track changes in the way these questions were answered.

### ***Conclusions and next steps***

It is illuminating to read a recent paper by Jappelli (2010) that states:

In principle, to enable cross country comparison, a single questionnaire should be administered to a random sample of the population in each country...(like the PISA test of educational achievement amongst 15-year olds).

It is clear from this statement, that the OECD decision to measure financial literacy amongst adults and children is considered to be highly ambitious, but clearly falls within what is considered to be best practice in the field of international comparisons.

The first preliminary results of this global pilot exercise are expected to be available and presented at the OECD/FCAC International conference on financial literacy in Canada on 26/27 May 2011. The first global comparative study will be elaborated in preparation for the second conference of the year, in October 2011.

This study and data will provide a first set of international indicators on the level of financial knowledge, behaviours and attitude of individuals in different settings.

The pilot exercise will also inform the finalisation of the core questions which are expected to become an international standard for the sake of international comparison on financial literacy. Countries which have not participated in the pilot exercise will be encouraged to use the core questions as a standalone product or as part of their endeavours to set national benchmarks on financial literacy. This will permit us to increase the set of internationally comparable data and thereby improve research capacity on financial education allowing for the development of more robust and impactful international policy guidance.

The repeat of a simultaneous international data collection process may also be considered in the next couple of years.

## SELECTED REFERENCES

- Atkinson, A. McKay, S., Collard S. and Kempson H.E. (2007) Levels of financial capability in the UK  
*Public Money & Management*
- Bernheim, D., Garrett, D., & Maki, D. (2001). Education and saving: The long-term effects of high school financial curriculum mandates. *Journal of Public Economics*, 85, 435-565.
- Dorofeev, S., & Grant, P. (2006) Statistics for Real Life Sample Surveys. University Press, Cambridge ISBN-13 978-0-521-67465-2
- CGAP (2009) *Financial Access 2009 Measuring Access to Financial Services around the World*. Consultative Group to Assist the Poor/World Bank Washington DC.
- Fowler, F. J. (1995) Improving Survey Questions: Design and Evaluation. Applied social research methods series Sage Publications, USA ISBN 978-0-8039-4582-1
- Gerardi, K., Goette, L., & Meier, S. (2010). Financial Literacy and Subprime Mortgage Delinquency: Evidence from a Survey Matched to Administrative Data. *Federal Reserve Bank of Atlanta, 2010-10*.
- Grisay, A., & Monseur, C. (2007). Measuring the equivalence of item difficulty in the various versions of an international test. *Studies in Educational Evaluation* 33, 69-86.
- Habschick, M., Seidl, B., & Evers, J. (2007). *Survey of Financial Literacy Schemes in the EU27*. Hamburg.
- Hastings, J., & Tejada-Ashton, L. (2008). Financial Literacy, Information, and Demand Elasticity: Survey and Experimental Evidence from Mexico. *NBER Working Paper, 14538*.
- Hilgert, M. A., Hogarth, J. M., & S.G., B. (2003). Household Financial Management: The Connection Between Knowledge and Behavior. *Federal Reserve Bulletin*, 89(7), 309-322.
- Huston, S. J. (2010) Measuring Financial Literacy *Journal of Consumer Affairs Special Issue: Financial Literacy* Volume 44, Issue 2, pages 296-316
- Jappelli, T. (2010) Economic Literacy: An International Comparison *The Economic Journal* 120
- Kempson, E., Collard, S., & Moore, N. (2005). *Measuring financial capability: an exploratory study*. London: Financial Services Authority.
- Lusardi, A., & Mitchell, O. (2008). Planning and Financial Literacy: How Do Women Fare? *American Economic Review*, 98(2), 413-417.
- Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. *The Journal of Consumer Affairs*, 44(2), 358-380.
- Moore, D. (2003). *Survey of Financial Literacy in Washington State: Knowledge, Behavior, Attitudes, and Experiences*: Social and Economic Sciences Research Center, Washington State University.

Schuchardt, J., Hanna, S. D., Hira, T. K., Lyons, A. C., Palmer, L., & Xiao, J. J. (2009). Financial Literacy and Education Research Priorities. *Journal of Financial Counseling and Planning*, 20(1).

Stango, V., & Zinman, J. (2009). Exponential Growth Bias and Household Finance. *Journal of Finance*, 64, 2807-2849.

van Rooij, M. A., Lusardi, A., & Alessie, R. (2007). Financial Literacy and Stock Market Participation. MRRC Working Paper 2007-162.

### ***OECD Principles and Good Practices***

Recommendation on Principles and Good Practices for Financial Awareness and Education, 2005

Recommendation on Good Practices for Financial Education relating to Private Pensions, 2008

Recommendation on Good Practices for Enhanced Risk Awareness and Education on Insurance Issues, 2008

Recommendation on Good Practices on Financial Education and Awareness relating to Credit, 2009

### ***OECD relevant published and unpublished work***

Improving Financial Literacy: Analysis of Issues and Policies, 2005.

Improving Financial Education and Awareness on Insurance and Private Pensions  
2008

Proceedings of the OECD-US Treasury High-Level International Conference on Financial Education in Washington DC, 2008

Financial Literacy and Consumer Protection: Overlooked Aspects of the Crisis, 2009

Measuring Levels of Financial Literacy at an International Level, by Elaine Kempson, 2009  
unpublished

Measuring levels of Financial Literacy at an International Level: Commissioning a survey, by Elaine Kempson, 2009 unpublished.

Measuring Levels of Financial Literacy at an International Level by Elaine Kempson, OECD Working Paper 2010.

## Appendix

**The following pages incorporate the full core questionnaire being used in the OECD/INFE pilot exercise (2010/2011). Please note that this questionnaire may be slightly edited as a result of this pilot.**

## Core questions and demographics

I would like to start by asking you a few background questions, so that we can put the main part of the survey into context.

### **ASK ALL**

**QD1) (Marital status) Please could you tell me your marital status?**

- a) Married
- b) Single
- c) Separated/divorced
- d) Living with partner
- e) Widowed
- f) *Don't know*
- g) *Refused*

**QD2\_a) (CHILD\_a) How many children under the age of 18 live with you?**

**Record number ---**

- a) *Don't know*
- b) *Refused*

**QD2\_b) (ADULT\_b) How many people aged 18 and over live with you, [including your partner]? Please do not count yourself.**

**Record number ---**

- a) *Don't know*
- b) *Refused*

Now I am going to move on to ask about money matters. Please can you start by telling me:

### **ASK IF QD2\_a greater than 0 or QD2\_b is greater than 0.**

**QF1) (WHOMM) Who is responsible for *day to day* money management decisions in your household?**

INTERVIEWER: READ OUT a- f:

- a) You
- b) You and your partner [do not read out if no partner at QD1]
- c) You and another family member (or family members)
- d) Your partner [do not read out if no partner at QD1]
- e) Another family member or (or family members)
- f) Someone else
- g) *Nobody*
- h) *Don't know*
- i) *Refused*

**ASK ALL**

**QF2) (BUDGET) Do you have a household budget?**

(IF NECESSARY ADD: a budget is used to decide what share of your income will be used for spending, saving and paying bills)

- a) Yes
- b) No
- c) *Don't know*
- d) *Refused*

**PRODUCT QUESTIONS IN TABLE BELOW:**

Note to Authority/Agency: The list of product types will need to be specific to your country, and should cover savings, investments, credit (unsecured and secured if relevant) and insurance products.

**ROTATE LIST OF PRODUCTS**

	<b>QC1_a) (PRODHOLD) Please can you tell me whether you have heard of any of these types of financial products.</b>	<b><u>ASK ALL respondents filtering products on QC1 a=Yes</u></b>  <b>QC1_b) (PRODHOLD) and now can you tell me whether you currently hold any of these types of products?</b>	<b><u>ASK ALL respondents filtering products on QC1 a=Yes</u></b>  <b>QC1_c) (PRODCH) and In the last two years, which of the following types of financial products have you chosen (whether or not you still hold them)...IF NECESSARY ADD: Please do not include products that are renewed automatically.</b>
1. A pension fund			
2. An investment account, such as a unit trust			
3. A mortgage			
4. A bank loan secured on property			
5. An unsecured bank loan			

6. A credit card			
7. A <current> account			
8. A savings account			
9. A microfinance loan			
10. Insurance			
11. Stocks and shares			
12. Bonds			
(Don't know, refused)			

**ASK ALL THOSE WHO ANSWERED YES AT any QC1 c excluding stocks, shares and bonds, if asked) :**

**QC2) (CHPROD) Which of the following statements best describes how you last chose a [TAKE THE FIRST PRODUCT LISTED FROM QC1\_c]?**

**Note to Authority/ Survey agency: as the list of products will be rotated, the product that is chosen for this question will depend on the order of questions. Do not ask this question about stocks, shares or bonds**

INTERVIEWER: READ OUT a-d

- a) I considered several [products/loans/policies/accounts] from different companies before making my decision
- b) I considered the various [products/loans/policies/accounts] from one company
- c) I didn't consider any other [products/loans/policies/accounts] at all
- d) I looked around but there were no other [products/loans/policies/accounts] to consider
- e) *Don't know*
- f) *Not applicable*
- g) *Refused*

**IF a-c AT QC2 ASK**

**QC3) (INFL) Which *sources of information* do you feel most influenced your decision about which [TAKE THE FIRST PRODUCT LISTED FROM QC1\_c] to take out?**

**Note to authority/agency: Please add in country specific options under each category. Remember that the product under discussion will depend on the order of the products listed in QC1\_c.**

INTERVIEWER: WAIT FOR RESPONSE. READ OUT LIST IF NECESSARY. CODEALL.

**DO NOT READ OUT \_1 Product-specific information**

- a) Unsolicited information sent through the post
- b) Information picked up in a branch
- c) Information found on the internet
- d) Information from sales staff of firm providing the products (including quotes)

**DO NOT READ OUT \_2 Best buy guidance**

- e) Best-buy tables in financial pages of newspapers/magazines
- f) Best-buy information found on the internet
- g) Specialist magazines/publications
- h) Recommendation from independent financial adviser or broker

**DO NOT READ OUT \_3 General advice**

- i) Advice of friends/relatives (not working in the financial services industry)
- j) Advice of friends/relatives (who work in the financial services industry)
- k) Employer's advice

**DO NOT READ OUT \_4 Media coverage**

- l) Newspaper articles
- m) Television or radio programmes

**DO NOT READ OUT \_5 Adverts**

- n) Newspaper adverts
- o) Television adverts
- p) Other advertising

**DO NOT READ OUT \_6 Other**

- q) *Other source*
- r) *Don't know*
- s) *Not applicable*
- t) *Refused*

We are now going to talk about more general money matters. Remember that there are no particular wrong or right answers; everyone has their own way of doing things.

**ASK ALL (rotate questions)**

**QM1) (MEM\_BEH) I am going to read out some behaviour statements. Please can you tell me whether you do these things or not, using a scale of 1 to 5, where 1 is something you always do and 5 is something you never do:**

INTERVIEWER: READ OUT EACH STATEMENT AND WAIT FOR RESPONSE

- a) Before I buy something I carefully consider whether I can afford it  
*always, 2, 3, 4, never (Don't know, refused)*
- b) I pay my bills on time  
*always, 2, 3, 4, never (Not relevant, don't know, refused)*
- c) I keep a close personal watch on my financial affairs  
*always, 2, 3, 4, never (Don't know, refused)*
- d) I set long term financial goals and strive to achieve them  
*always, 2, 3, 4, never (Don't know, refused)*

**ASK ALL**

**QM2) (MEM\_NO) {xe "OE\_Q18"} Sometimes people find that their income does not quite cover their living costs. In the last 12 months, has this happened to you?**

- a) Yes
- b) No
- c) *Don't know*
- d) *Refused*

**If yes at QM2**

**Note to authority/Agency: Please add in country specific options under each category.**

**QM3)(MEM\_DO) What did you do to make ends meet the last time this happened?**

INTERVIEWER: Probe with: Did you do anything else?

Mark all that are relevant.

**DO NOT READ OUT**

**DO NOT READ OUT \_1 Existing resources**

- a) Draw money out of savings or transfer savings into current account
- b) Cut back on spending, spend less, do without
- c) Sell something that I own

**DO NOT READ OUT \_2 Creating resources**

- d) Work overtime, earn extra money

**DO NOT READ OUT \_3 Access credit by using existing contacts or resources**

- e) Borrow food or money from family or friends
- f) Borrow from employer/salary advance
- g) Pawn something that I own
- h) Take a loan from my savings and loans clubs
- i) Take money out of a flexible mortgage account
- j) Apply for loan/withdrawal on pension fund

**DO NOT READ OUT \_4 Borrow from existing credit line**

- k) Use authorised, arranged overdraft or line of credit
- l) Use credit card for a cash advance or to pay bills/buy food

**DO NOT READ OUT \_5 Access additional credit**

- m) Take out a personal loan from a financial service provider (including bank, credit union or microfinance)
- n) Take out a payday loan
- o) Take out a loan from an informal provider/moneylender

**DO NOT READ OUT \_6 Fall behind/ go beyond arranged amount**

- p) Use unauthorised overdraft
- q) Pay my bills late; miss payments

**DO NOT READ OUT \_7 Other responses**

- r) *Other*
- s) *Don't know*
- t) *Refused*

**ASK ALL**

**QP1) (BSAVE) In the past 12 months have you been saving money in any of the following ways?**

**Note to authority/survey agency: Please do not include pension savings in this question. Please replace <informal savings club> with appropriate term.**

INTERVIEWER: Read categories to respondent. Mark all that apply.

- a) Saving cash at home or in your wallet
- b) Building up a balance of money in your bank account

- c) Paying money into a savings account
- d) Giving money to family to save on your behalf
- e) Saving in <an informal savings club>
- f) Buying financial investment products, other than pension funds [ give examples such as bonds, investment trusts, stocks and shares]
- g) Or in some other way (including remittances, buying livestock or property)  
(No, Don't know, refused)

**ASK ALL**

**QP2) (PROV\_T) If you lost your main source of income, how long could you continue to cover your living expenses for, without borrowing any money or moving house?**

INTERVIEWER: READ OUT a-e

- a) Less than a week
- b) At least a week, but not one month
- c) At least one month, but not three months
- d) At least three months, but not six months
- e) More than six months.
- f) *Don't know*
- g) *Refused*

**ASK ALL (rotate questions)**

**QP3) (PLAN\_ATT) Now, using a scale of 1 to 5, where 1 is completely agree and 5 is completely disagree, I would like to know how much you agree or disagree with each of the following statements:**

INTERVIEWER: READ OUT EACH STATEMENT AND WAIT FOR RESPONSE

- a) I find it more satisfying to spend money than to save it for the long term  
*Completely agree, 2, 3, 4, completely disagree (Don't know, refused)*
- b) I tend to live for today and let tomorrow take care of itself  
*Completely agree, 2, 3, 4, completely disagree (Don't know, refused)*
- c) I am prepared to risk some of my own money when saving or making an investment  
*Completely agree, 2, 3, 4, completely disagree (Don't know, not applicable, refused)*
- e) Money is there to be spent  
*Completely agree, 2, 3, 4, completely disagree (Don't know, refused)*

The next section of the questionnaire is more like a quiz. The questions are not designed to trick you so if you think you have the right answer, you probably do. If you don't know the answer, just say so.

**ASK ALL**

**Note to authority/agency: Change to local currency**

**QK2) (DIV) Imagine that five brothers are given a gift of \$1,000. If the brothers have to share the money equally how much does each one get?**

INTERVIEWER: READ QUESTION AGAIN IF ASKED

**Record response numerically - - -**

- a) *Don't know*
- b) *Refused*
- c) **Irrelevant answer**

**ASK ALL**

**Note to authority/agency: Change to local currency**

**QK3) (TIME) Now imagine that the brothers have to wait for one year to get their share of the \$1,000. In one year's time will they be able to buy:**

INTERVIEWER: READ OUT a-c

- d. More with their share of the money than they could today;
- e. The same amount;
- f. Or, less than they could buy today.
- g. *It depends on inflation*
- h. *It depends on the types of things that they want to buy*
- i. *Don't know*
- j. *Refused*
- k. **Irrelevant answer**

**ASK ALL**

**Note to authority/agency: Change to local currency**

**QK4) (INT) 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?**

INTERVIEWER: READ QUESTION AGAIN IF ASKED

**Record response numerically - - -**

- a) *Don't know*
- b) *Refused*
- c) **Irrelevant answer**

**ASK ALL**

**Note to authority/agency: Change to local currency**

**QK5\_a) (GROWa) Suppose you put \$100 into a 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?**

INTERVIEWER: READ QUESTION AGAIN IF ASKED

**Record response numerically - - -**

- a) *Don't know*
- b) *Refused*
- c) **Irrelevant answer**

**Note to authority/agency: Change to local currency**

**QK5\_b) (GROWb) and how much would be in the account at the end of five years?  
Would it be:**

INTERVIEWER: READ LIST a-d

- e) More than \$110
- f) Exactly \$110
- g) Less than \$110
- h) Or is it impossible to tell from the information given
- i) *Don't know*
- j) *Refused*
- k) *Irrelevant answer*

**ASK ALL**

**QK6) (KNOW) I would like to know whether you think the following statements are true or false:**

INTERVIEWER: READ OUT EACH STATEMENT AND WAIT FOR RESPONSE

- b) An investment with a high return is likely to be high risk  
*True/false (don't know, refused)*

**Note to authority/agency: if the word 'risk' is difficult to translate, we recommend using the following question. It would be advisable to test both versions if possible:**

*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.*

- c) High inflation means that the cost of living is increasing rapidly  
*True/false (don't know, refused)*

- d) It is usually possible to reduce the risk of investing in the stock market by buying a wide range of stocks and shares.

**Note to authority/agency: OR for countries/regions where the stock market will not be widely understood this version may be more appropriate (It would be advisable to test both versions if possible):**

It is less likely that you will lose all of your money if you save it in more than one place.

*True/false (don't know, refused)*

I would now like to ask you a few more questions about yourself and your household. We want to make sure that we have talked to people from all kinds of households, to reflect our national population.

**ASK everyone the questions in this section**

QDi)(**GENDER**) Interviewer to record gender

- a) Male
- b) Female

QDii)(**REGION**) Interviewer to record **or ask** and record region  
Codes will need adding here by each country

QDiii) (**RURAL**) Interviewer to record **or ask** and record rural/urban  
Codes will need adding here by each country

QDiii)(**LANG**) Interviewer to record language interview conducted in  
Codes will need adding here by each country

**QD3) (AGE) Please could you tell me how old you are, currently?**

RECORD AGE ---

- a) *Refused*

IF REFUSED AT QD37 Ask:

**QD3\_a) (AGE\_a) Would you instead tell me which of these age bands you fall into?**

- 1. 18-19
- 2. 20-29
- 3. 30-39
- 4. 40-49
- 5. 50-59
- 6. 60-69
- 7. 70-79
- 8. 80+

**QD4) (ETHNIC) Please can you tell me how you would describe your ethnicity?**

**QD5) (WORKSTAT) And which of these best describes your current work situation?**

INTERVIEWER: READ OUT: stop and mark the first that applies

- a) Self employed for 30 hours or more per week
- b) Self employed for less than 30 hours per week
- c) In paid employment for 30 hours or more per week
- d) In paid employment for less than 30 hours per week
- e) Looking for work
- f) Looking after the home
- g) Unable to work due to sickness or ill-health
- h) Retired
- i) Student
- j) Not working and not looking for work
- k) Apprentice
- l) Other
- m) *Don't know*
- n) *Refused*

**QD6) (HHLDINC)**

**People get income from a wide range of sources. This might include wages and salaries, benefit payments, pensions or maintenance payments. Considering all the sources of income coming into your household each month, which of these categories does your household income usually fall into?**

FIELDWORK COMPANY TO ADD IN CODES: Please make sure that median, and not mean averages are used.

- a) [Low income ( up to 75% of median household income)
- b) [Average income]
- c) [High income (more than 125% of median household income)]
- d) *Don't know*
- e) *Refused*

**QD7) (INCSTAB) Which of the following describe how regular or reliable your household income is?**

[use text in square brackets if anyone else might be bringing in an income: i.e. QD2 a greater than 0 or QD2 b is greater than 0]

INTERVIEWER: READ OUT a-d: mark all that apply:

- a) My [our] income varies from week to week, month to month, or season to season
- b) Sometimes I [we] do not receive my [our] income on time
- c) Sometimes I [we] do not receive any money at all
- d) My [our] income is regular and predictable
- e) *Don't know*
- f) *Refused*

**QD8) (EDU) And finally, What is the highest educational level that you have attained? [NOTE: if the respondent indicates that they are a student at QD5, code highest level s/he expects to complete]:**

**READ OUT: stop and mark the first that applies (REVERSE ORDER IF MORE APPROPRIATE IN YOUR COUNTRY)**

**Note that the interviewers may need some indication as to which professional qualifications are equivalent to these academic levels of education.**

- a) Higher than degree level
- b) University-level education
- c) Technical/vocational education beyond secondary school level
- d) Complete secondary school
- e) Some secondary school
- f) Complete primary school
- g) Some primary school
- h) No formal education
- i) *Refused*