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**GUIDE TO CREATING FINANCIAL LITERACY SCORES AND  
FINANCIAL INCLUSION INDICATORS USING DATA FROM THE  
OECD/INFE 2015 FINANCIAL LITERACY SURVEY**

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## GUIDE TO CREATING FINANCIAL LITERACY SCORES AND FINANCIAL INCLUSION INDICATORS

This guide has been developed for the analysis of data from the OECD/INFE 2015 measurement exercise. The purpose of the guide is to provide information on how to create financial literacy scores that are in line with the ones published in the 2016 OECD report “Measuring financial literacy”<sup>1</sup> (to be released on 12 October 2016).

### **1. Financial knowledge score**

The knowledge score is computed as the number of correct responses to the financial knowledge questions, according to Table 1. It ranges between 0 and 7 (it is also possible to replicate the 8 point score created in 2012 for countries using QK2 by adding the additional response).

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

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<sup>1</sup> [http://www.oecd-ilibrary.org/finance-and-investment/measuring-financial-literacy\\_5k9csfs90fr4-en](http://www.oecd-ilibrary.org/finance-and-investment/measuring-financial-literacy_5k9csfs90fr4-en)

There are some minor differences with respect to the 2012 OECD Working Paper “Measuring financial literacy: Results of the OECD/INFE pilot study” due to slight changes in the core questions between the two waves, as indicated in the question map in the 2015 toolkit. The main difference is that QK2 (Division) is optional in the 2015 questionnaire; this is not anticipated to have a large impact as it was answered correctly by almost all respondents.

**Table 1. Computing a financial knowledge score**

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

Note: Question numbers refer to the 2015 Toolkit

## 2. Financial behaviour score

The behaviour score is computed as a count of the number of “financially savvy” behaviours according to Table 2. It ranges between 0 and 9 as in 2012. As people do not necessarily indicate all of these financial behaviours in a given period it may not be realistic to expect everyone to achieve a high score.

**Table 2. Computing a financial behaviour score**

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

Behaviour	Question number	Discussion	Value towards final score
Choosing products	Qprod2 and Qprod3	<p>This score uses a derived variable drawing information from 2 questions. It is only possible for a respondent to score points on this measure if they have chosen a product: those with 0 score on this measure have either refused to answer, not chosen a product, or not made any attempt to make an informed decision. The list of products is tailored to national markets. The score seeks to make a general comparison of behaviour when choosing a financial product.</p>	<p>The variable “choosing products” is constructed by creating two intermediate variables, and then creating a derived variable. Country specific responses can also be coded.</p> <p>The two intermediate variables are the following:</p> <ol style="list-style-type: none"> <li>1) <b>Qprod_D1</b>: “Tried to compare across providers” taking value of: <ul style="list-style-type: none"> <li>▪ 1 if variable Qprod2 is equal to 1 or 4 (I considered several or I looked around but there were no others), and</li> <li>▪ 0 otherwise. Note that 0 includes no recent product choice/not applicable.</li> </ul> </li> <li>2) <b>Qprod_D2</b>: “Sought information or advice” taking values <ul style="list-style-type: none"> <li>▪ 1 if yes at Qprod3 b, c, d, i, j, k, l, m or r (information picked up in branch/ product specific information found on the internet/Information from sales staff of the firm providing the products / Advice of friends/relatives (not working in the financial services industry) / Advice of friends/relatives (who work in the financial services industry) / Employer’s advice / Newspaper articles / Television or radio programmes / Other source [if relevant])</li> <li>▪ 2 if yes at Qprod3 e, f, g or h (Best-buy tables in financial pages of newspapers/magazines / Best-buy information found on the internet / Specialist magazines / Recommendation from independent financial adviser or broker)</li> <li>▪ 0 otherwise. Note that 0 includes no recent product choice.</li> </ul> </li> </ol> <p>The final variable – Qb7_new “Tried to shop around or use independent info or advice” has been slightly refined from earlier versions. It takes the following values:</p> <ul style="list-style-type: none"> <li>▪ 2 if CProd_D2 =2. The value of 2 indicates “Used independent info or advice”</li> <li>▪ 1 if CProd_D1 =1 <b>or</b> CProd_D2 =1. The value of 1 indicates “Some attempt to make informed decision”</li> <li>▪ 0 Otherwise. The value 0 indicates “Not shopped around and no attempt to make informed decisions (including no recent product choice)”.</li> </ul> <p>The change has been made to better reflect the benefit of using independent information and advice.</p>

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

Note: Question numbers refer to the 2015 Toolkit

### 3. Financial attitudes score

It is possible to recreate the attitudes score used in 2012 based on three statements (see Table 3). The attitudes score is computed as the sum of the values for the three statements and then divided by three. The attitudes score, therefore, ranges from 1 to 5.

**Table 3. Computing a financial attitudes score**

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

Note: Question numbers refer to the 2015 Toolkit

### 4. Overall financial literacy score

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

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

## 5. Financial inclusion indicators

**Table 4. Computing financial inclusion indicators**

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