Financial Literacy – Conceptual Definition and Proposed Approach for a Measurement Instrument

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Abstract: The financial education of a country (in terms of knowledge, abilities and behaviors) can be crucial for a healthy economic life, at individual, macro or multi-nation level. It can contribute to a decrease of financial exclusion risks, to an increase of informed decisions and even to an increased liquidity on the financial markets. The concept designed to encompass different facets of this financial education is labeled “financial literacy”. A large number of concepts are used within the umbrella of financial literacy, and quite different measurement instruments exist, more or less sound. This conceptual and operational heterogeneity makes things complicated and does not allow comparisons and concrete actions. In order to improve people’s financial literacy we first need to define the concept and then find the best ways to measure one’s degree of financial literacy. Through our study we synthesized the definitions and instruments previously used and we suggest a comprehensive approach for obtaining a measurement instrument for this latent variable – financial literacy. We propose using separate scales for measuring the main dimensions of financial literacy – financial knowledge, financial abilities (capability to use financial information in order to take decisions), financial communication, financial behavior and financial confidence. As methodology we used a documentary study and a didactic experiment on Master degree students in finance.

Keywords: financial knowledge; financial capability; measurement instrument.

JEL Classification: A20, G00

1. INTRODUCTION

Even before the financial crisis, specialists realized the importance of a country’s financial education. After the crisis, the need to increase people’s financial knowledge and capabilities became obvious for a healthy economic life, at individual and macro level, as well. A study on financial education conducted by OECD in 2005 showed that not only is there a lack of financial issues knowledge, but people have the tendency to pretend they know a lot, even when they don’t actually understand basic notions about the financial system (OECD, 2005). Not knowing and pretending you know becomes, thus, really worrying.

Financial education can be profitable for society as a whole, as well as for the nations’ competitiveness, diminishing financial exclusion risks, increasing knowledgeable behaviors and contributing to an increased liquidity for the financial markets. In a 2008 resolution, the European Parliament asked for an improvement of consumers’ education and sensitivity towards finance and especially credit issues. Different Western countries realized, more or less, how important is to develop a policy of financial education. Anglo-Saxon countries seem to be better prepared, although European Union tries to impose a certain dynamic for the Continental Europe, as well. A new concept developed, that of financial literacy, in the same way we talk about literacy in general, or about computer literacy, information literacy, etc.

In 2003 OECD established the bases for a Financial Education Project, aiming to analyze the situation concerning people’s financial knowledge and abilities (first stage), as well as to establish specific programs in order to improve financial education in member countries, as a second stage (OECD,

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2003). According to the study's first stage results, the conclusion was that people lack financial education and, at the same time, they are not aware of this – which is a dangerous situation.

The most important processes for which better financial abilities are necessary were also synthesized in a report of the Canadian Policy Research Networks (Orton, 2007): demographic indicators continuously change, and a more and more important support for retired people is needed; financial markets are highly and continuously changing; consumers are more and more involved in financial activities on the financial markets – as individual investors, buyers of stocks and bonds, etc.; the consequences of inadequate financial decisions become more serious; people's financial knowledge and abilities are rather poor; social cohesion is suffering, due to the inadequate financial education of the population. The situation is difficult, and in order to improve people's financial literacy we need a clear conceptual and operational definition of the concept.

2. FINANCIAL LITERACY – CONCEPT, DEFINITIONS, DIMENSIONS

Defining a concept is almost always difficult, because of the content itself and the diversity of opinions. It is even more difficult when we do not operate with the same words and meanings - and this is the case for the syntagm "financial literacy", which incorporates knowledge, education, ability, competence and responsibility at the same time. The focus is either on knowledge, or on the ability of using the knowledge and even people's self-confidence towards their own financial actions. Quite often concepts are mixed or confused – speaking about economic education or competence, which is larger than the financial ones, or about mathematical or numerical abilities – also larger, but in another sense. Different languages deal with different expressions, but even within the same language – English – in which the concept was generated, we find apparently interchangeable words, with quite different meanings and definitions: financial capability, financial literacy, financial knowledge, financial education, financial competence, economic capability, economic literacy. For USA and Australia the dominant expression is « financial literacy », for Great Britain and Canada we find mainly the expression « financial capability » (Orton, 2007; Remund, 2010). OECD uses « financial literacy », without clearly defining the concept (OECD, 2005). All these make comparisons different, especially when studies have been conducted in different countries and different languages.

The most used explicit definitions found for the concept of financial literacy include: "ability to read, analyze, manage and communicate about the personal financial conditions that affect material well-being" (Chen & Volpe 1998; Vitt et al., 2000; Cude et al., 2006; Huston, 2010; Cude, 2010); "basic knowledge necessary for people to survive in the modern society" (Kim et al., 2001); "capability to understand key financial concepts necessary to function in the normal American society" (Bowen, 2002); "ability to manage the situation of cash and payments, knowledge about opening a saving account and obtaining a credit, basic understanding of health and life insurance, ability to compare offers and plan for future financial needs" (Emmons, 2005); "ability to use knowledge and manage financial resources for a good financial well-being throughout the whole life" (JumpStart Coalition, 2007, cited by Huston, 2010); "ability to make informed judgments and effectively take decisions concerning money" (ANZ, 2005); "measure of the degree to which a person understands key financial concepts and has the necessary ability and confidence to manage own finances through short term decisions and long term planning, taking into consideration the economic events and changing conditions" (Remund, 2010).

We notice that the concept of financial literacy comprises several aspects: financial knowledge (ANZ, 2005; Hung et al., 2009; FINRA, 2010; Gallery, 2010; Huston, 2010; Remund, 2010; OECD, 2013); financial operations experience (Orton, 2007; FINRA, 2010; OECD, 2013); ability to communicate about different financial concepts (Remund, 2010); ability to use different financial concepts and instruments (Hung et al., 2009; Huston, 2010; Remund, 2010); ability to take adequate financial decisions (Remund, 2010; OECD 2013); attitude towards the use of financial instruments (Orton, 2007); people's confidence in financial operations performed (Huston, 2010; Remund, 2010; OECD, 2013); real financial behavior (Orton, 2007; Huston, 2010); multiple measures (Baron-Donovan et al., 2005). In order to facilitate a future operationalization of the concept, these aspects could be grouped into five dimensions: (1) knowledge about financial concepts and products (variable «financial knowledge»); (2) communication aptitudes concerning financial concepts (variable « financial communication»); (3) ability to use knowledge in order to take the necessary financial decisions (variable « financial ability»); (4) real use of different financial instruments (variable « financial behavior»); (5) people's confidence in their previous financial decisions and actions (variable «financial confidence »). The first two dimensions belong to the category of comprehension or understanding of financial concepts, the next three dimensions to the category of real usage in practice of the previous knowledge. These five dimensions of the financial literacy concept need to be operationalized, in order to be measured; the operationalization process transforms conceptual definitions into operational or measurable ones.

3. OPERATIONALIZATION OF FINANCIAL LITERACY DIMENSIONS

In order to measure financial literacy dimensions we need to establish the most frequent financial fields for which people need a financial education. A literature survey we performed yielded the following basic financial fields: personal finance budgeting, personal savings, credits and money borrowing, personal investing (Remund, 2010); money basics – money value, purchasing power, personal financial accounting, investing - resources transfers through borrowing, saving accounts, stocks and bonds, mutual funds, resources' protection – techniques of financial risk management, different types of insurance (Huston, 2010); estate management -daily financial judgments and decisions, property management, debt management, resources support (Kershaw & Webber, 2008); budgeting, savings, debt management, financial negotiations, banking services (Microfinance Opportunities, 2005). We already noticed that different dimensions are considered in previous studies, and that different financial decisions are classified in different categories or fields – saving accounts being the best example. There are also studies considering particular financial issues – health and life insurance, pension and retirement funds etc., or focused on specific social categories – high school pupils, students, unemployed persons, elder people, poor people, and so on. All these different approaches on different segments of population raise a big difficulty – that of obtaining comparable results at aggregate, national level, or when we look at financial education systems from different countries. The ideal instrument should have core dimensions for core financial issues or fields, so that results could be compared and the adequate educational decisions taken. Even the last toolkit suggested at OECD level, in 2013, suffers from this heterogeneity, admitting it is quite difficult to perform surveys which are comparable.

In order to measure the five dimensions of the financial literacy we have to select, for each dimension, the significant financial fields or issues. If we accept the idea of four basic financial fields – personal budgeting, savings, credits and investments, than for each dimension – knowledge, communication, abilities and confidence – we need questions or items for each of the four financial fields. A minimum of 20 questions would be necessary (5 dimensions x 4 financial fields). However, specialists state that the minimum number of items necessary to measure a specific factor has to be between three and five (Huston, 2010). If we consider a minimum of three items for every dimension and the four fields, than the measurement instrument would have at least 60 items, not to mention the identification questions (demographic information). This would be a long and rather difficult to apply instrument, but it would be the only possibility to get reliable and valid results, and thus comparable when the instrument is applied on different target publics from different countries. Until now, questionnaires with a total number of items between 3 and 68 were used, the mode and median being between 10 and 16 (Huston, 2010). This means that most of the results we have, concerning the degree of financial literacy, have a number of questions a lot smaller than the one necessary for a reliable and valid measurement. The ideal instrument should be conceived in cooperation, by specialist in finance, statistics and instrumental research, sociology and psychology, coming from different countries – in order to catch and calibrate the instrument for the differences due to the heterogeneous levels of economic, social and cultural development.

4. INSTRUMENTS DEVELOPED FOR THE ROMANIAN PUBLIC – DIDACTICAL EXPERIMENT

The didactical experiment was developed in order to obtain and test an instrument for measuring financial literacy, from the perspective of future specialists in finance. The specialists' group consisted of 14 graduate students from the Master program Finance and Risk Management, and they built their instruments during the Business Research Methods course. They started with 2 major studies from the literature review, the articles of Remund (2010) and Houston (2010), discussed in class, and they had to perform a complete literature review and then suggest and test a possible measurement instrument.

Several other articles were added, especially for measuring financial literacy for young people or for allowing international comparisons, including the Romanian market (Vitt et al., 2000; Johnson, 2007; Lusardi & Mitchelli, 2007; Samy et al., 2008; Hill & Perdue, 2008; Jappelli, 2010; Stănculescu, 2010; Taylor, 2010). The results were in line with what usually happens – their instruments addressed only 2 or 3 dimensions of the financial literacy concept, in 2 or 3 financial fields, thus repeating the errors identified by previous authors. For testing, the preferred publics were students – undergraduate and graduate – and only two instruments were tested on different publics – high school pupils and adult population, confirming the idea that it is easier to work with young publics, especially students, the most frequently used samples. The conceived questionnaires were rather simple, with 10 to 34 items, the mode being 15, and they measured general, basic financial knowledge, together with rather general numerical abilities and few financial abilities. This simple experiment confirmed the need for clarifying the concept, its dimensions and fields, in order to obtain a valid instrument for measuring financial literacy.

5. CONCLUSIONS

After the literature review and the didactical experiment it was once again clear that we need a commonly accepted conceptual and operational definition of financial literacy, in the same way other measures were developed (Zait, 2011). Otherwise it is not possible to evaluate the real financial literacy level of a population, and it is difficult to conceive the necessary educational programs for increasing the degree of financial literacy.

We suggest a systematization of the concept based on five dimensions or variables: (1) financial knowledge; (2) financial communication ability; (3) ability to use financial knowledge for decision taking; (4) real use of financial instruments (financial behavior) ; (5) financial confidence. For every dimension, the measures need to refer to at least four financial areas or fields: (a) personal budgeting, (b) savings, (c) credits and (d) investments; the health insurance aspects and pension issues should be treated within the investments area. Three to five items could be considered for each dimension, and the total questionnaire would have a minimum of 60 items, together with the classical identification items (age, gender, studies, revenues etc.). Most of the instruments previously used were based on nominal scales, but ordinal and interval scales should also be used, to allow for more complex testing (Likert scales are appropriate).

Even with such an instrument, though, a question still raises. How could we measure the real financial behavior, and not the stated one? Practical testing would be needed, similar to the tests used for verifying ITC abilities, but this would be difficult, time consuming and expensive. Difficult to evaluate is also the real use of financial instruments, because personal financial situations are private. Social desirability scales could be used to correct for distortions in answers due to the social norms pressure. The sooner we get a complete and valid instrument for measuring financial literacy, the sooner we can start educational programs meant to increase the degree of financial literacy, for the individuals well being, and especially for the whole society development.

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