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FINANCIAL LITERACY AS A PATH TO SUSTAINABILITY

Michaela Krechovská

INTRODUCTION

Changes have been taking place in society including transformations of people's thinking and behaviour. New trends and concepts are being developed. One of the important concepts dealing with social development in recent years is the idea of sustainable development. The main idea of sustainable development is the need to set development goals that meet *"the needs of the present without compromising the ability of future generations to meet their own needs"* (World Commission on Environment and Development, 1987). Ensuring sustainable development in society requires individuals to behave in a sustainable manner. This, of course, also applies to the area of financial management and the handling of funds. New opinions are arising that call for a change in attitudes and appropriate social accountability and responsibility.

With regard to the sustainable behaviour of individuals, financial literacy has become increasingly significant in light of the deregulation of financial markets and easier access to credit. In the context of competition, financial institutions still offer favourable conditions, credit and other various financial products and services. We are confronted by easier access to personal loans, credit cards and other payment options. These facts have led to an increase in spending and consumption and a rapid rise in personal and household debt levels (Marcolin and Abraham, 2006; Beal and Delpachitra, 2003).

As Bryant (2013) states, economic growth and sustainability is rooted in financial literacy of individuals. *"Financial literacy is absolutely essential to living a successful and independent life, promoting economic growth, and sustaining it"*. Rahmandoust et al. (2011) highlight the importance of financial literacy in entrepreneurs' success and then in sustainable development of society.

Various institutions have begun to deal with this issue and have attempted to tailor educational programs so that individuals receive the appropriate economic and financial knowledge and skills. At the same time, it is believed that an economically educated public may result in better market outcomes. Many studies deal with this relationship and examine whether economical or financial education actually improves economic or financial literacy or personal outcomes, see e.g. Chytilová (2013), Carpena et al. (2011) or Hastings et al. (2013). It is therefore not unusual that measuring financial literacy in recent years has become more and more frequent. However, there still certainly are problematic areas in the standardization of the measurement of financial literacy. Huston (2010) analysed 71 financial literacy studies and identified three main barriers:

1. There is a lack of a definition of what financial literacy means,
2. Measures of financial literacy are not comprehensive, and
3. Most studies do not include a guide for interpreting this measurement.

This paper seeks to respond to some of these barriers. The aim of this paper is to highlight the significance of financial literacy for sustainable development of society. It deals with the definition of financial literacy and the measurement of financial literacy.

1. THEORETICAL BACKGROUND

1.1 Concept of financial literacy

Financial literacy has become a significant research topic in connection with the need to increase financial knowledge and the skills of individuals, and development in this area can be expected in the future.

The first use of the term "financial literacy" is often associated with the Jump$tart Survey of Financial Literacy Among High School Students provided by Jump$tart Coalition for Personal Financial Literacy in 1997, when the Coalition first began measuring financial literacy. In this study, financial literacy was defined as "*the ability to use knowledge and skills to manage one's financial resources effectively for lifetime financial security*" (Mandell, 1997). A few years earlier, Noctor et al. (1992) introduced financial literacy as *"the ability to make informed judgments and to take effective decisions regarding the use and management of money"*. Similarly, the European Commission defines financial literacy as *"capability of consumers and small business owners to understand retail financial products with a view to making informed financial decisions"* (European Commission, 2007). In the Czech Republic, financial literacy is defined by the Ministry of Finance of the Czech Republic (2010) as "*a set of knowledge, skills, and attitudes of a citizen necessary for ensuring his/her own financial well-being and the financial well-being of his/her family within the present society, and for his/her active involvement in the market of financial products and services. A financially literate citizen is familiar with the issues of money and prices, and is able to manage his/her personal and/or family budget responsibly, including the management of financial assets and liabilities in consideration of changing life situations*." An integral part of financial literacy is also taxation and other macroeconomic aspects (such as orientation in basic relationships between different sectors of the economy, understanding basic macroeconomic indicators such as GDP, inflation, interest rates, etc.). This is mainly due to the fact that it significantly contributes to the financial resources of individuals, households and businesses and thus has a significant impact on cash flows in private as well as corporate finance.

From the above definitions, it is possible to deduce the nature of financial literacy, which is a kind of understanding of the financial world, which leads households and firms to correct judgment, effective decision-making, and relevant behaviour in the area of finance.

Economic literacy is a broader term that, in addition to financial literacy, includes e.g. the ability to secure income, considering the consequences of personal decisions on current and future income, orientation on the job market, the ability to make decisions on expenditures, etc. (Ministry of Finance of the Czech Republic, 2010).

Financial literacy requires a summary of the necessary competencies. Figure 1 reflects the range of different knowledge; skills and information that everyone needs to live in a modern economy.

Fig. 1: Financial Literacy Triangle

Source: Investment Solutions Northland (2015)

1.2 Components of financial literacy

It is important to focus on the components of financial literacy and determine which are the least and most critical to financial success and sustainability (Marcolin and Abraham, 2006). Financial literacy in the context of managing personal or business finances involves three basic components (Ministry of Finance of the Czech Republic, 2010):

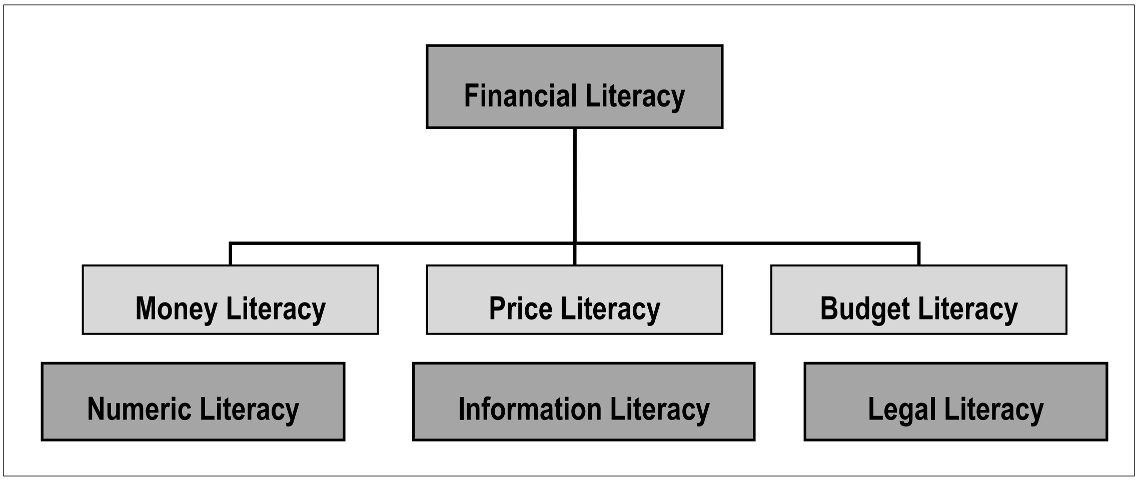
- **Money literacy** – the competence necessary to manage cash and non-cash money and accompanying transactions; the competence to handle management tools designed around these transactions (e.g. current account, payment instruments, etc.).
- **Price literacy** – the competence necessary for understanding prices and the methods by which they are determined; the competence in understanding inflation and the factors that influence them. This includes understanding the time value of money; the difference between nominal and real interest rates; and understanding the prices of financial instruments and services in the form of fees and interest rates.
- **Budget literacy** – the competences required to manage one's own budget as the ability to set financial goals and decide on the allocation of financial resources; the ability to manage a budget, work with revenues and expenditures; the ability to handle different accidental situations from a financial point of view, etc. In addition to the general competencies listed above, budget literacy also includes two specialized components that require orientation on the market of financial products and services: the ability to compare individual financial products and services, and to choose the most appropriate product or service according to a particular situation. This includes: management of financial assets (e.g. deposit, investment and insurance) and management of financial liabilities (e.g. loans or leasing).

The following competences go "hand in hand" with financial literacy:

- **Information literacy** – the ability to find, use and evaluate only required and relevant information,
- **Numeric literacy** – the ability to use mathematical tools to solve numerical tasks in financial decision making,
- **Legal literacy** – orientation in the legal system, conclusion of various contracts, overview of rights and duties, possibilities of assisting.

The individual components of financial literacy are shown in the following figure:

Fig. 2: Components of Financial Literacy



Source: own processing according to (Ministry of Finance of the Czech Republic, 2010)

Škvára (2011) introduced seven competencies that can be regarded as an extension and completion of the financial literacy scheme. In addition to the three mentioned above (numeric literacy, information literacy and legal literacy), he adds the following areas: competence in the field of consumer protection, competence in the basic rules of investing, and competence in issues of the European Union and management of various life situations.

2. IMPORTANCE OF FINANCIAL LITERACY FOR SUSTAINABLE DEVELOPMENT OF SOCIETY

Financial literacy plays an important role in helping ensure the financial health and stability of individuals, families, enterprises and national economies. Particular emphasis is placed on the financial literacy of individuals. As Dodaro (2011) confirms, economic changes in recent years have highlighted the need to empower consumers to make informed financial decisions and to benefit from a better understanding of financial matters. *“The recent financial crisis revealed that many borrowers likely did not fully understand the risks associated with alternative mortgage products, resulting in substantial increases in defaults and foreclosures that continue to expose borrowers to financial risk and be a drag on the economy today“* (Dodaro, 2011). Due to a lack of financial literacy, individuals are unable to optimize their own welfare (Hastings et al., 2013).

The development and level of people’s financial literacy is closely reflected in the development of the economic indicators that can be monitored in different countries. Indicators such as the level of household debt, payment discipline, the possibility of household bankruptcies, the percentage of insolvencies or the percentage of ordered property repossessions can all be indicators of levels of financial literacy and financial education.

Household debt is a frequently monitored indicator, as there has been an increasing trend in this area in recent years. In addition, there has been a growing number of households that are unable to repay their liabilities. Therefore, particular types of debts are measured within general household debt. Consumer credit recorded a strong increase in recent years due to greater flexibility and lower overall sums of individual credit, especially among low-income population groups. According to Chmelar (2013), between 1995 and 2008, the amount of consumer credit expanded by approximately 150% in Europe, while the US consumer credit market grew by only 60% during the same period, although from a much higher initial level than in Europe.

In Table 1, the development of household debt in the Czech Republic is shown in comparison to the development of household debt in other Visegrad Group countries. We analysed household debt development based on the data published by OECD (2015). Since 2005, total debt of households has increased in all countries surveyed. However, each country has a different dynamic in terms of debt development. While in the Czech and Slovak Republic the ratio of household debt to net disposable income has been constantly growing, households in Hungary reached the highest peak of debt in 2010, and since then the proportion of debt has been decreasing. The situation is similar among Polish households where debt was highest in 2011; since then, however, there has been a slight decrease. Concrete values of household debt are shown in the table below.

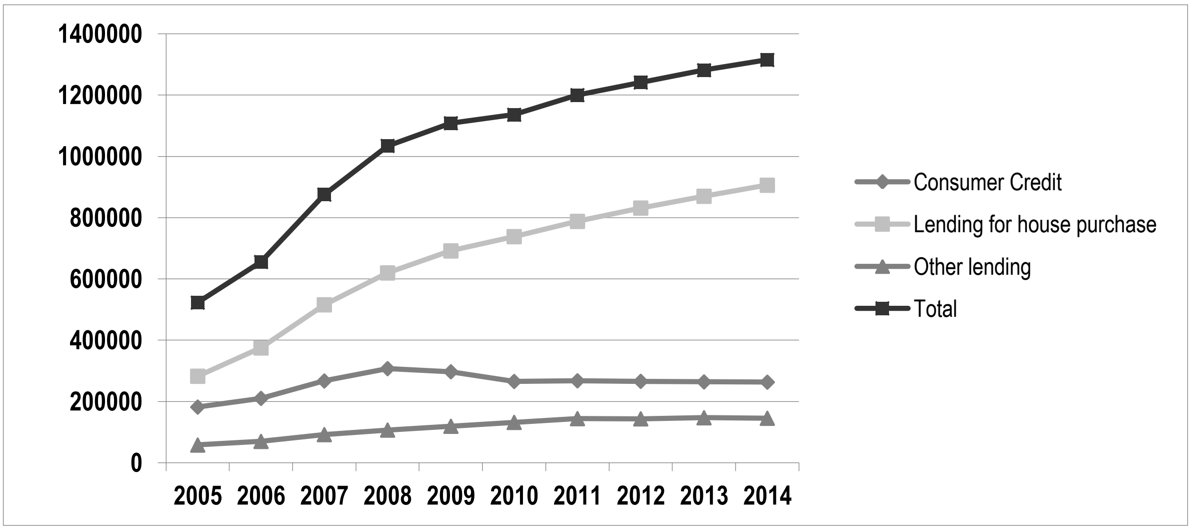
Tab. 1: Household Debt, Total, % of Net Disposable Income

Country/Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
Czech Republic	39.41	43.64	52.94	58.80	60.35	61.89	64.36	65.79	67.56
Hungary	46.50	52.97	61.01	74.69	75.23	79.09	72.52	61.62	56.23
Poland	23.83	29.72	37.82	50.14	51.71	56.03	59.71	57.45	58.24
Slovak Republic	29.99	32.90	38.86	41.53	41.24	44.19	49.22	54.89	57.58

Source: OECD, 2015

When we look at household debt in the Czech Republic in more detail, we can identify individual types of debt and their participation in the growth of household debt (see Figure 3). Based on data carefully collected by the Czech National Bank (2015), the total household debt in the Czech Republic amounted to 1,314,973 million CZK in 2014. Lending for house purchases represents the largest share of total household debt (906,111.6 mil CZK). Consumer credit occupies second place in household debts, while the largest increase in consumer credit took place during the financial crisis in 2008 and 2009.

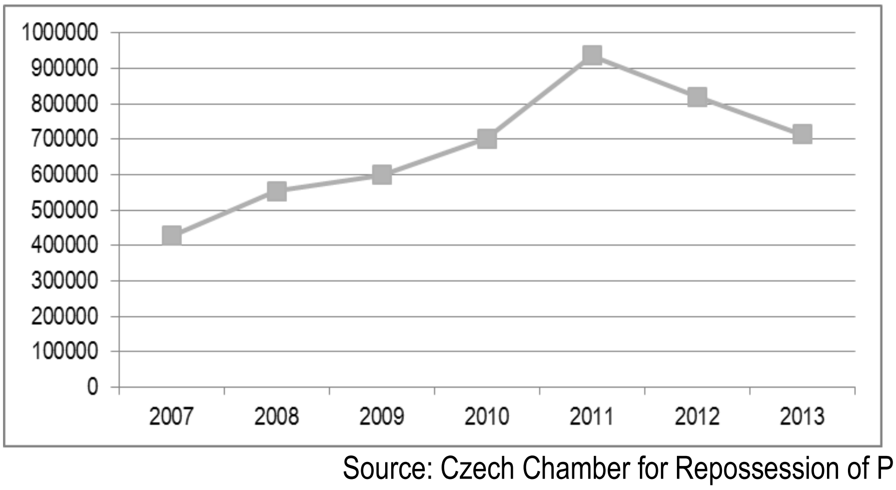
Fig. 3: Household Debt in the Czech Republic in years 2005 - 2014 (CZK mil)



Source: Czech National Bank, 2015

It is a positive factor that, despite the increase in household debt, the number of ordered property repossessions in the Czech Republic has reduced in recent years, as shown in Figure 4. Until 2011, the number of property repossessions had been growing exponentially (936,000 property repossessions were ordered in 2011). In 2012, we can observe a decrease in the number of property repossessions (820,000 repossessions were ordered in 2012 and 714,000 repossessions in 2013). According to analysts, financial literacy education can help prevent these phenomena (Czech Chamber for Repossession of Property, 2014).

Fig. 4: Number of Ordered Property Repossessions in the Czech Republic in years 2007 – 2013



Source: Czech Chamber for Repossession of Property, 2014

Although we have focused only on two monitored indicators, the importance of financial literacy as one of key factors for behaviour of individuals in a sustainable manner is evident in the figure above. We could analyse additional implications using the statistics of bankruptcies and insolvencies both among consumers and businesses, etc. It is clear that financial literacy is not a “fool proof” cure for all these phenomena, and other factors may lead to these conditions as well. However, it is important not to neglect financial literacy, as it is one of the most important characteristics and skills that can determine the behaviour of individuals in the world of finance, their approaches to payment discipline, debt and thinking for the future.

In this regard, it is important to put emphasis on financial education as a tool for heightening and developing financial literacy, and also a tool to prevent the negative effects stemming from low levels of financial literacy (or illiteracy). Financial education refers to the process whereby individuals improve their knowledge and understanding of financial concepts, services, and products (Dodaro, 2011). Financial education should thus promote the active role of consumers and lead to understanding and acceptance of personal responsibility for financial management.

3. FINANCIAL LITERACY MEASUREMENT

Because of the significance of financial literacy and its impact on the overall sustainable development of society and global economic stability, financial literacy has become a priority of international as well as national institutions (most often the OECD and the European Commission at the international level; national banks and the ministries at the national level). These institutions also perform regular measurements of financial literacy in order to determine the current state of financial literacy among various population groups. A questionnaire is the most common method of measuring financial literacy.

In 2008, the OECD established the organization called the International Network on Financial Education – INFE, which is directly focused on support of financial education in OECD member countries. The basic structure of the financial literacy questionnaire was published in 2011 (OECD INFE, 2011) and supplementary good practice questions in 2012 (OECD INFE, 2012). These documents could serve as the basis for creating individual national financial literacy questionnaires for countries around the world. However, financial literacy and its measurement still lack a global approach. Surveys on this issue have been done by various institutions in different countries; the disadvantage, however, is the diversity in the samples of respondents or a different structure of individual issues. Results of such surveys are thus difficult to compare.

Our goal has been to contribute to the collection of national research in the field of financial literacy. Our research was focused on a target group of university students, as these young people should possess all necessary competences for employment; they will soon be establishing their own homes and companies, becoming part of the work force that will take part in the future economic development of individual countries. Therefore, it is necessary to provide proper entrepreneurship education in order for this group to reach its highest levels. As Goetz et al. (2011) points out, it is important to focus on financial education through methods that are appropriate for university students. Similar research among university students in the Czech Republic has been carried out by e.g. Kantnerová et al. (2013), or Krizek and Hradil (2012).

The standardized OECD questionnaire formed the basis of our research. Based on this OECD document, we created a questionnaire containing ten questions aimed at verifying financial literacy in the Czech Republic, Slovak Republic, Poland and Hungary. This was done in order to compare the levels of knowledge of university students in countries of the Visegrad Group. Questions were directed at the following areas: compound interest; inflation; evaluation of data from a graph; terminology and products of the financial market; investment risks; and household reserve fund. Questionnaires were distributed in all four countries and respondent questioning took place simultaneously in all countries from October 2014 to May 2015. In the Czech Republic, a sample of 600 respondents was created. Questionnaire respondents were students of universities of both an economic and non-economic focus.

Tab. 2: Structure of Respondents

Age		Gender		Education Focus	
23 or less	87.2	Male	29.3	Economic	50.0
Over 23	12.8	Female	70.7	Non-economic	50.0
Total	100.0	Total	100.0	Total	100.0

Source: own, 2015

Table 2 shows the demographic structure of questionnaire respondents in the Czech Republic.

Gathered data was analysed according to the score of correct answers of respondents in the first phase of processing. Initial results of the study proved the following:

- Students of economic fields had better results than students of non-economic fields (students with non-economic specializations showed 10% more incorrect answers than students with economic specializations).
- Students of master study programs reached better results than students of bachelor study programs (however the ratio of correct answers of bachelor study students was only 7% lower).
- Men showed better results than women (women had 8% more incorrect answers than men).
- The respondent profile with the highest financial literacy (i.e. the highest number of correct answers) is male, over the age of 23, with an economic education.

Additional results of research into the financial literacy of university students across V4 countries are now being processed statistically. Each member of the project team will publish their work individually including their own conclusions of results.

CONCLUSION

Quick changes in the economic and market environment; the emergence of new products; and increasing competition across countries are demanding the constantly increasing development of skills among individuals. This concerns the economic and financial literacy of individuals that have become indispensable components of contemporary living and doing business in the modern world. Therefore, the aim of this paper is to highlight the significance of financial literacy and activities leading to support of financial literacy for global economic development and ensuring stability. Indicators such as increasing household debts etc. demonstrate the importance of financial literacy of individuals for sustainable development of society. In this regard, it is important to put emphasis on effective financial education in order to increase financial literacy. It is necessary to increase financial literacy especially among young people who will form economy in the future. In today's turbulent world, however, financial education is becoming a lifelong process.

Our goal has been also to contribute to the national studies of financial literacy. In our study, we have focused on the financial literacy of university students in the Czech Republic, as it is necessary to develop their skills and knowledge in the area of finance and financial management. At the same time, we are aware of the limitations of the study, which is based only on research of one selected target group of respondents and cannot provide conclusions on the financial literacy of all the citizens of a given country.

Although the initial results of the study can be perceived positively, it is necessary to continue to devote attention to including financial education in university teaching while using teaching methods that are appropriate for heightening practical financial literacy among individuals. Thanks to this practical financial literacy, individuals should be able to realize the consequences of the socio-economic development of society, particularly with regard to the prevention of indebtedness and ensuring financial security for the future. Ultimately, the financial literacy of individuals should lead to the sustainable development of society as a whole.

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Author:

Ing. Michaela Krechovská, Ph.D.
University of West Bohemia
Faculty of Economics
Department of Finance and Accounting
E-mail: mhorova@kfu.zcu.cz

FINANCIAL LITERACY AS A PATH TO SUSTAINABILITY

Michaela Krechovská

Abstract:

The paper aims to highlight the important role of financial literacy as one of the factors that ensures sustainable development in society. First, the paper deals with the definition of financial literacy and the importance of financial literacy for society. It analyses various symptoms associated with the level of financial literacy in the form of household debt and the number of ordered property repossessions. Furthermore, the paper focuses on the measurement of financial literacy and, in this context, presents selected results of the survey of financial literacy from a selected group of respondents (university students) in the Czech Republic that were acquired as part of the *"V4 Scientific Centers for the Enhancement of Financial Literacy and Entrepreneurship Education"* project focused on research in the field of entrepreneurship education and financial literacy in Visegrad Group countries. Financial literacy is seen as one of the most important characteristics that can determine the behaviour of individuals in the world of finance, their approaches to payment discipline, debt and thinking for the future. In this regard, it is important to put emphasis on financial education as a tool for heightening and developing practical financial literacy.

Keywords: financial literacy; financial literacy measurement; sustainability; financial education

JEL Classification: A20, D14