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TOPICAL ISSUES OF IMPROVING FINANCIAL CULTURE IN HUNGARY

Levente Kovács– Ernő Nagy[1]

ABSTRACT

The topicality of this study is supported by changes in the environment because of the new type of Corona virus pandemic and this years's programme of the Pan-European Money Week. The programme series Money Week has become public in Hungary since PÉNZ7 was launched in 2015 as it has reached most schools and students. The exceptional success of the banking sector over the past seven years as a result of the collaboration of government agencies and NGOs has proved that a successful development and education of financial culture is possible on a community basis at European level. The new environment necessitates an upgrade of financial education, new focus points must be identified including learning about the technological background of finance as key in supporting the effectiveness of the financial digitisation process.

JEL codes: A20, D10, G53

Keywords: financial culture, financial education, financial literacy, household savings, Hungary

1 INTRODUCTION

Studying financial culture has grown into an essential area of economics over the past years (OECD, 2020; *Kovács–Terták*, 2019). This has been partially the result of realising a disruptive controversy, namely the belief that actors in financial market models are in possession of all information, they act perfectly consciously, and their behaviour leads up to approximately perfect market operations. However, empirical studies of financial culture have pointed out that no perfectly informed consumer exists. On the contrary, improving financial culture contributes to consumers' and families' having a better, faster, and more complete

1 *Levente Kovács*, Secretary General of the Hungarian Banking Association, Professor of the University of Miskolc. E-mail: kovacs.levente@bankszovetseg.hu.
Ernő Nagy, Director Corporate Governance of the Fundamenta-Lakáskassza Zrt, PhD Student of the University of Miskolc. E-mail: nagy.erno@fundamenta.hu.

recognition of their financial situation and material options, including potential future expenses. It supports more efficient market operations because of more conscious behaviour by its players. Both the standard of financial culture and the presence and quality of financial education have a joint impact on individuals' better decisions leading to higher living standards and more efficient running of community economy. Standard and Poor's analised the financial culture for the whole world, based on 150 factors (Kovács–*Pásztor*, 2022). The Hungarian government adopted a comprehensive national strategy in 2017 aimed at developing the financial awareness of the population in an altered financial and regulatory environment following the 2007/2009 financial and real economy crisis but before the 2020/2021 new type Corona virus pandemic (Hungarian Government 2017). The strategy covered seven years from 2017 to 2023, it was based on previous achievements and programmes, and identified the following strategic goals:

1. Create, strengthen, and standardise the framework of true financial education as part of public education.
2. Strengthen the bases of conscious financial awareness and households' stress resilience.
3. Generate financial awareness for making prudent financial decisions, set up and spread knowledge of institutions/infrastructure supporting financially aware consumer behaviour.
4. Strengthen the idea of self-care among the population.
5. Increase the rate of access to finance products, basic financial services and financial inclusion.
6. Promote the use of modern payment methods of cash replacement.
7. Support prudent borrowing.

As seen in the strategic goals, strengthening the part played by public education is key. The government strategy was designed based on the earlier International Network on Financial Education (INFE) of the OECD considering the best international practices as well as Hungarian needs (Hungarian Government 2017:5). The analysis of measurable consequences of the changes caused by the new type of Corona virus pandemic, which have turned our everyday life upside down, provides good opportunity to recall the developments of the past years and to identify our current tasks accordingly. In Hungary the number of the participants of financial literacy courses increased between 2016 and 2020 from 461,681 to 1,310,352 (*Németh*, 2022). According to the findings of the latest survey by OECD/INFE, it is unfortunately still true that 'the standard of financial culture is low in the countries studied' (OECD, 2020:7). In the presentation of the general results of the OECD study, our country was ranked fourteen out of twenty-six countries surveyed (OECD, 2020:16). We selected Austria in our comparison of countries due to its proximity and our common historical experience and the Czech Republic because of its close level of development and similar history/culture after the fall of Communism. The following table contains key indicators *(Table 1):*

Table 1
Scores given to financial literacy (normalised to 100)

Country	Scores given to financial literacy	Financial knowledge	Financial behaviour	Financial attitude
Austria	68.5	76.0	66.3	61.9
Czech Republic	62.0	64.9	59.1	62.9
Hungary	58.8	65.5	49.9	65.1
OECD average	62.0	65.8	59.2	61.6

Source: Own design based on Table 2 of OECD 2020 (OECD 2020:17).

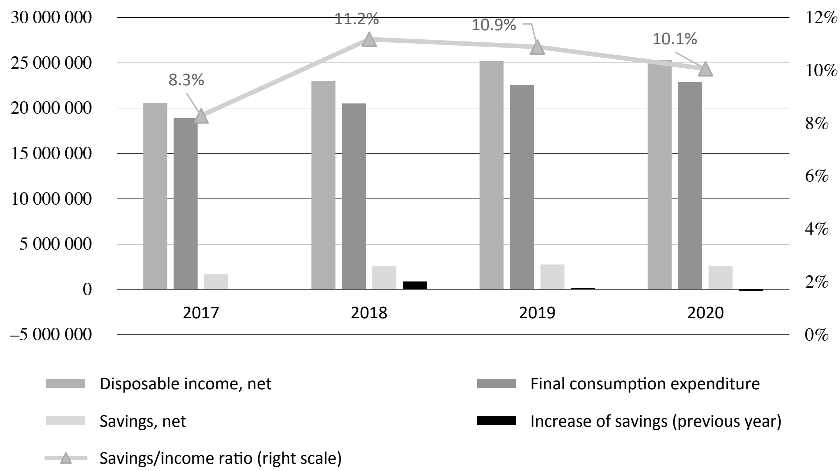
In OECD methodology the three components of financial culture are financial knowledge, behaviour and attitude. As you can see, although our score in the category of financial knowledge was much lower than that of, for instance, Austria, we were still close to the OECD average. Hungary's results are similarly good for attitudes, while actual financial behaviour is quite low in contrast. In the category of financial behaviour our score (49.9) was much lower than the OECD average (59.2), or of the Czech Republic (59.1) and Austria (66.3). We are lagging behind the OECD average by almost 10-percentage point. Italy was the only other country with a score worse than that (46.3), while neighbouring Romania reached 55.7. We are going to focus on four areas deemed significant from the complex impact mechanism of financial culture using them to analyse the part played by and importance of financial education.

2 HIGH STANDARDS OF FINANCIAL CULTURE HAVE A POSITIVE IMPACT ON FINANCIAL STABILITY

We are convinced that the development of financial culture is not only in the interest of those involved (government, banks, consumers) but the resilience of the national economy can also significantly improve if its actors understand how money works in everyday life (*Csaba*, 2019; Kovács–*Sütő*, 2020). The development of long-term resilience both at the level of the family and the national economy must be in the focus of developing households' skills in sustainable economics.

The economic boom of the past years has left its mark on households' financial assets as published by the Central Statistical Office (KSH) (2021b). It is clear that households' net financial assets significantly increased by 42.8 percent from 2016 to 2020, which is a favourable phenomenon. On the other hand, the stock of cash increased at an even higher rate, which is an unfavourable process. All that, of course, can be useful to avoid short term household shocks. However, the increase of cash balances is unambiguously harmful both because of the relevant cost increase at society level and from the perspective of achieving long term household and national economy goals (*Figure 1*):

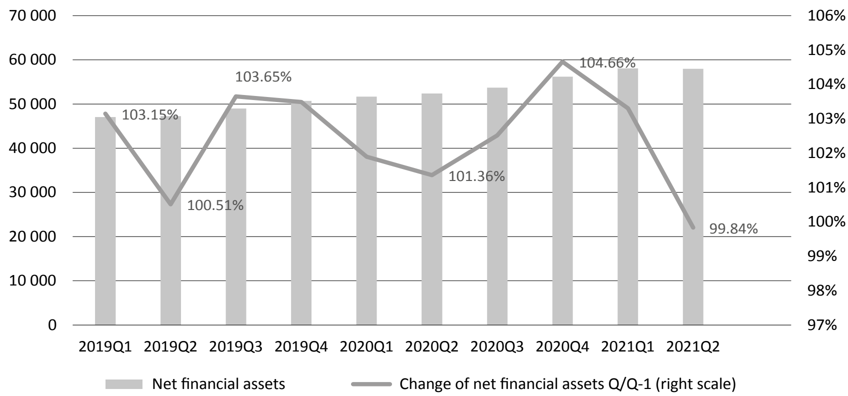
Figure 1
Income and capital accounts of the household sector (current value, HUF million)



Source: Own design based on Table 21.1.1.32 by the Central Statistical Office (KSH)

The above figure demonstrates how the new type of Corona virus pandemic had statistically measurable impact on household savings (KSH, 2021b). The trends indicate that the growth of household savings, which was fast from 2017 to 2018, halted already in 2019. It could have been caused by a higher consumption level induced by ongoing economic growth. The total income of households did not decline by the effect of the first and second waves of the pandemic (partly due to income support measures introduced). Although households' savings slightly declined in 2020, their ratio to income was still happily high and still exceeded 2017 figures. So, households must have responded to restrictions with savings, which is a clear sign of prudence and pursuit of security.

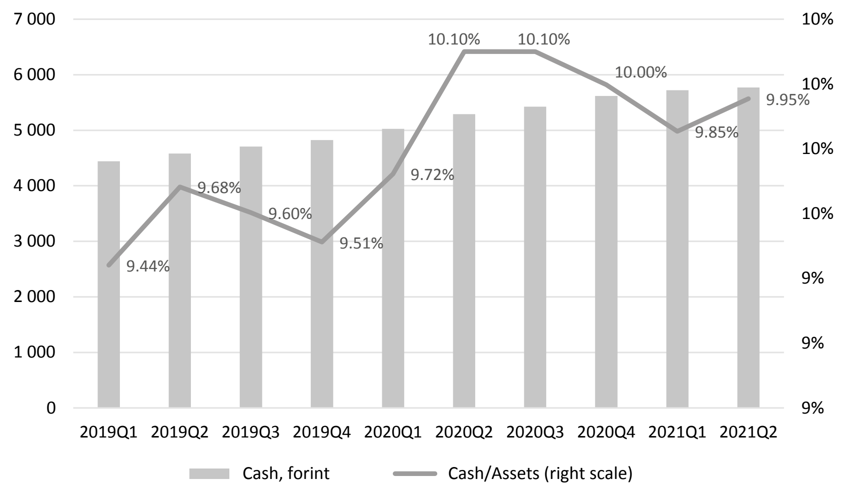
Figure 2
Households' net financial assets (HUF billion)



Source: Own design based on figures by the National Bank of Hungary (MNB) (MNB, 2021b)

A detailed analysis of households' quarterly financial balances provides an in-depth view. You can see the financial assets of households continued to increase during the different waves of the new type of Corona virus pandemic. The only exception was Q2 of 2021, when a moderate decline can be seen compared to the previous quarter, while it still surpassed Q4 2020.

Figure 3
Cash balances of households, and its ratio of net financial assets (HUF billion)



Source: Own design based on figures by the National Bank of Hungary (MNB) (MNB, 2021b)

Nevertheless, while net financial assets increased and stabilised, the ratio of cash balance to household assets significantly increased during the first wave of the pandemic. First, the indicator started to decline then it increased again. One of the reasons for the behaviour of households' savings may be that the role of cash as security reserve strengthened, and the ratio of cash also increased because of the black economy. However, keeping cash contradicts to the increase of electronic payments (merchant terminals) and the effect of e-commerce, which was spreading fast. You can say in general that the prudent behaviour of households triggered by the pandemic took an unfavourable turn in the direction of increasing cash stocks.

The evolution of incomes, savings, investments, and the decisive features of the currently dominant economic cycle must be monitored from the perspective of the stability of the national economy. It is obvious their changes are partly the result of external causes (such as the decline caused by the pandemic) on the one hand, and on the other hand can be the outcome of internal economic policy decisions (for instance, the uncontrolled introduction of Swiss Franc- or Euro-based lending earlier). Planned adaptation to macroeconomic changes is required by financial customers, while adaptation requires the presence of retail products of different nature, maturity, and yield.

At the end of their schooling in public education every student should have acquired knowledge of finance products and their key features. Being aware of the wisdom of "seven fat years and seven lean years" is important even for youth with little experience. It is obvious that, as a rule, economic cycles have an impact on people's possibilities. Because of this, it is necessary that young adults should be aware of the characteristic features of long-term individual, or family enterprise, or income cycles. Households/families rather than individuals run business operations. However, the development cycles of families are general in nature. After completing their education, young people leave their parents, become independent, choose partners, have children, bring up their children, then the children leave the nest, and they reach old age – in a cycle going on forever.

This so termed 'life-cycle approach' and the accompanying planning must be part of the education of youth. On the one hand, people's income first starts to increase in their life, then it stagnates and declines in the end (Kovács–Nagy, 2020). On the other hand, it is well known that housing is a primary issue, so obtaining some form of housing is a challenging task to be solved, while bringing up children is a major 'investment' next to property in the life of every family. Its management requires a high degree of awareness and foresight. Even school-age youth can recognise the necessity of saving up for retirement. The example of economies that are more developed than ours proves that a traditional state pension system is less and less able to maintain well-being for the elderly, so people should have foresight, for which you need better financial knowledge.

In this respect, the ability to foresee and manage economic cycles is paramount. The fluctuations of economic activities are a natural feature of modern economies, but the importance of awareness of them is not obvious. This can be a point where knowledge can turn into behaviour. A teenager's ability to plan their life means the appropriate planning and thinking over their income and expenditure expected in the next 30 to 50 years. Living from month to month is, unfortunately, typical. Many people spend everything right after receiving their salaries/benefits, which does not contribute to a prudent handling of money by preparing a budget.

The long-term effect of interests is an interesting area to consider for long term prudent behaviour. You may have some knowledge of how interests operate, as it is basic maths, but you should be aware that the exponential effect of compound interest is extremely sensitive to changes in maturity and interest rates in the dimension of 15 to 30 to 40 years. There are good examples for that, since the so-called consumer-friendly loans launched on the initiative of MNB call attention to the importance of fixed interest rates, while the loan moratorium prolonged for the third time illustrates the impact of the prolonging effect of unpaid interests on maturity. Savings for housing or retirement purposes, or other self-care products should be started 1-2 years earlier, as the impact of prolonged maturity can be perceived in the amount saved.

The improvement of financial culture is in the joint interest of all. Households of high financial culture are more likely to avoid detrimental financial decisions. If the financial culture of a society is higher, available domestic savings are higher too. Thus, the higher financial culture of the population contributes to the stability of the financial system as well. The development of financial culture is a basic interest of financial mediators, as it contributes to consciously increasing the savings of the retail sector, to prudent borrowing leading to the improved creditworthiness of individual consumers and, in general, to lower the risk environment for the whole banking system (*Mihályi*, 1997; *Halmai*, 2010; *Poletaeva* et al., 2019). The development of financial culture is also in the interest of the state. If financial culture is high, society's or certain social strata's need for redistribution and stabilisation by the state will not increase much even in critical times/situations, which has a beneficial effect on all economic actors, on recovery and on the competitiveness of the country.

3 PROMOTING HOUSEHOLDS' SOUND MONETARY MANAGEMENT IS A TOPICAL ISSUE

Eliminating financial illiteracy is a huge task. Teaching basic finances can contribute to more sound monetary management by young people. Increasing financial knowledge reshapes individuals' and households' economic management.

With respect to resilience, one should note that there is a close link between poverty and financial illiteracy. Reducing the financial skills gap is key if you want to reduce the backlog of backward social groups, which can mitigate the wealth gap. On the other hand, it can also increase access to developed financial markets.

Monitoring your own finances received a much lower score in this country (46.6) than the OECD average (64.5), while the scores of the Czech Republic (64.1) and Austria (83.2!) were much higher than ours (OECD, 2020:37). This indicates we deal with our finances less than what would be necessary. The situation may improve thanks to applications (apps for short) that are already available from most banks allowing us to monitor and understand our daily spendings. Clearly, this is not the lack of objective knowledge, information to be obtained at high cost, but a behavioural deficiency. One should underline in the OECD survey that cushion if income is lost is much lower than in the neighbouring countries (OECD, 2020:43).

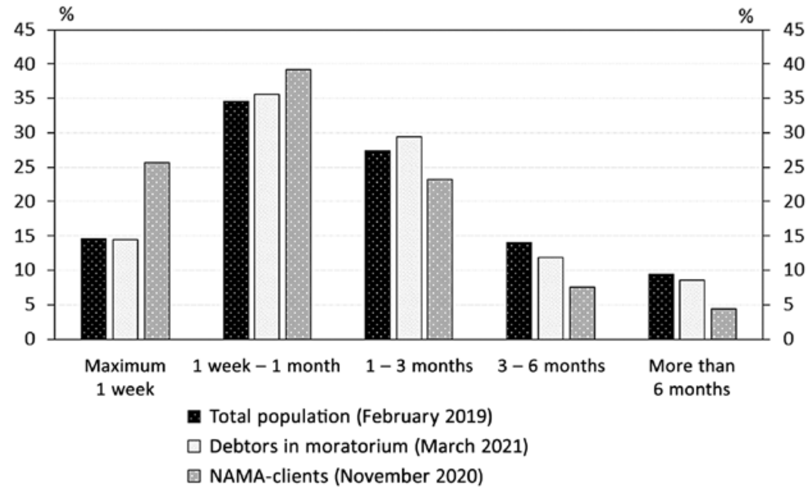
Table 2
Measure of cushion if income is lost (%)

Country	About one week	About one month	About three months	Six months or longer	Do not know
Austria	12.2	22.9	21.4	33.8	9.7
Czech Republic	16.0	22.2	23.0	26.8	12.0
Hungary	34.8	27.8	15.5	11.5	10.4
OECD average	20.0	24.6	18.0	23.2	14.2

Source: Own design based on OECD figures (OECD, 2020:43)

If you add up the scores reaching at least three months, you will see that only about a quarter (27 percent) of the respondents have sufficient financial security for three months, while about half of the households could survive without relying on external sources for up to three months at most. This reflects too high volatility at the level of households, which is not only the result of (the lack of) financial knowledge but also of attitude and behaviour. The MNB report, unfortunately, presents a similar picture: 60% of the total population could maintain its current standard of living from their savings for more than a week but less than three months if their income was lost (MNB, 2021a:F. 43).

Figure 4
Household savings



Note: If all earners in the household lost their jobs, how long would they be able to maintain their current standard of living? Source: EU SILC, MNB National Asset Management Agency Survey 2020 November, MNB Moratorium Survey 2021 March.
Source: MNB (2021a).

Based on the review of further indicators, the ratio of people with long term financial goals is quite low in this country (35.2%), while the OECD and Austrian averages are much higher at 44.9% and 53.1%, respectively. On the other hand, the scores in the Czech Republic are even lower than ours (32.8%). (OECD, 2020:46-47). The importance of life cycle-based planning has already been mentioned. The evaluation of Hungary by the OECD suggests important tasks for Hungarian decision makers. The ratio of people actively saving is also low in our country (51.3%), while the OECD average is 68.9%. Austria (87.8%) and the Czech Republic (88.8%) indicate quite different standards and categories. The above figures are certainly related to the division of incomes within the economically active population. In total, savings by the Hungarian population have significantly increased as seen in *Figure 2*, which indicates wealth has been accumulated in the higher income categories, i.e., wealth and income concentration has further increased. It should be noted the respondents of the Czech Republic do save even without having long term goals. That is the reason why financial security is achieved for much longer as seen in *Table 3* (in the Czech Republic and Austria about half of the population marked 3-6 months of financial protection even their income was lost).

Using a statistical analysis of the types of financial characters over a 3-thousand-strong sample in Hungary, Németh and co-workers have proved, 'The dimension "order creates value" and the dimension "planners" clearly involve positive characteristics. Based on them, people will probably develop positive or good financial character. Planning, a long-term attitude, the evaluation of money through the work done to achieve it are all positive features from the perspective of financial characters.' (Németh et al., 2016:169–170):

A clearly positive feature of money is you can use it easily to accumulate savings. However, you can find the mentality of 'a bird in hand is worth two in the bush' in this country, which indicates the presence of quite high discount rates in people's attitudes. In other words, many spend all they have (or even more) immediately and fail to consider future expenses. Promoting awareness of future needs could help avoid short term financial troubles. It is obvious that unplanned short-term expenses are typically settled from the most expensive foreign sources, which may lead to fast indebtedness, which is difficult to control.

Adjusting the part played by cash is part of a more conscious monetary management, as cash in the modern economy is not a reasonable means of savings or accumulation, what is more, it is needed less and less in financial transactions. Prudent investments of the cash stock in circulation offer lucrative opportunities for the market and the state. The reliability of electronic forms of payment and the possibilities offered by the Immediate Payment System launched in 2020 (MNB, 2020) must be widely communicated to increase confidence in the use of up-to-date electronic payment forms. The ratio of electronic commerce has grown because of the new type of Corona virus pandemic, which underlines the need to reduce households' cash stocks. In the OECD survey financial well-being is based on the following dimensions: financial control, financial protection if income is lost and the presence of financial objectives. We have a long way to go in those areas yet.

4 FINANCIAL EDUCATION AT SCHOOLS MUST BE IMPROVED

Many children believe money grows on trees, and their parents have an unlimited amount of it. They do not know, so they fail to recognise the limitations of their families' budgets. An astonishing finding of the OECD survey mentioned was that 'the financial knowledge and financial attitude scores of young people (18-29 age group) were significantly and consistently lower compared to other age groups' (OECD, 2020:64). That is the reason why we propose that such skills or a major part of them should be made available to students in public education, or the ability for openness and searching for viable solutions should be created at least. Lacking the relevant knowledge, teachers often neglect the development of financial literacy in education. We believe we should not only focus on knowledge transfer in its narrowest sense, but actual behaviour should be developed, and traditional responses transformed as well. In fact, OECD relied on capturing the following indicators when assessing financial knowledge:

i) time value of money,

ii) interest paid on loans,

iii) simple interest calculation,

iv) calculation of simple and compound interest,

v) connections of risk and return,

vi) definition of inflation, and

vii) diversification of risk (OECD, 2020:20).

Hungarian results were around the OECD average with minor differences (deviation of 1.5 to 3.5 on a 100-grade scale), which can be regarded to be good. However, there was one outstanding difference. The OECD average for understanding the calculation of simple and compound interest was 28.8, while it was 18.3 for Hungary, 21.0 in the Czech Republic and 49.0 (!) in Austria. It is such a disruptive deficiency which indicates the inability to understand long term planning as mentioned above. Long term objectives are in contrast to short term consumption considerations, while it is not realised that long term goals can only be achieved with the appropriate long-term attitude. Unfortunately, we all know of cases when the value of vehicles, electronical devices and welfare spending significantly surpasses the quality of housing of a given person or family.

'Younger people are facing a much more complicated financial situation than their parents had' as *Financial Times* quoted *Annamaria Lusardi*. 'I was struck by how much the young people were interested in crypto. During the pandemic is a time when people will have to put more savings aside, and at the same time we are worried that people will chase higher returns without realising they are taking on a lot of risk.' (*FT*, 2021a) There is much hype about cryptocurrencies, which is in direct contrast to hoarding cash, which is typical, as described above. Financial education should include the analysis of the declining role of cash.

The history, and real form of financial education in the world shows diversion (Terták, 2022). Financial literacy can be taught in several ways. A known way is to incorporate the elements of financial education into the curricula of classical subjects using everyday examples. For instance, the calculation of compound interest in maths can be an occasion to speak about long-term savings and loan products. The axes of exponential curves will immediately come to life and become tangible examples. Teaching about inflation, economic crises involving financial risks can be linked to events in the history of economics. The discussion of bankruptcy and personal insolvency can be the topic of ethics classes. In IT classes you can describe the operation of electronic payments (e.g., POS terminals, cards, mobile applications) including the formidable financial infrastructure supporting them.

In another approach, direct financial, economic education can be a specific subject in the curriculum. If you talk to high school teachers, the question will soon arise whether the reproduction of protozoons, trigonometric functions, the correct spelling of foreign names, mythological stories, poetic metres, or the criteria of opening your bank account will be more important in the life of a high school student today. The question is, of course, not raised to argue against sciences or the humanities, while the students' curiosity and openness towards practical problems and perspectives including finances is obvious. Since teaching everyday finances does not have a tradition in this country, the operation of PÉNZ7 must be maintained as it is based on collaboration and voluntary contributions but looking into the issue of expanding/transforming public education along those lines is also necessary.

Lusardi (*FT*, 2021a) also launched a school educational project in Italy, where business ideas were discussed, and budgets developed with the students. Older students produced vegetables for the local market to understand how a business enterprise works. Others worked in pairs explaining the characteristic features and operation of finance products to and testing each other. As a result, Lusardi is convinced that teaching financial literacy to young people is of critical importance. 'Not all parents will be talking to their kids about these topics. And many parents are not financially literate themselves' (*FT*, 2021a).

One should note and emphasise that smoothly operating national economies do not only need educated engineers, doctors, teachers, and other traders, but also well-informed consumers of finance products. This is particularly true today when, because of the new type of Corona virus pandemic, the accelerated digitisation of financial institutions and the economy and the penetration of Fintech and Bigtech companies into the finance sector facilitate financial operations (here, we want to emphasise again that this contrasts with the growth of cash stocks). Financially more experienced adults or IT literate youth alike find it difficult to understand what is happening to their money. Complex finance products and modern applications hide actual contents and risks.

Teaching financial literacy is something that will be much more useful to students in real life than writing their homework or memorizing facts and figures they are not interested in. Understanding finances is and will be necessary all through their lives. You should target them with such information at school age because different age groups of the society are much more difficult to reach after they leave school.

So, our argument is that understanding the context/connections of finance products as well as their conscious everyday use rather than their detailed knowledge can help develop young people's prudent financial behaviour. According to the OECD survey, knowledge in this country is relatively strong but behaviour in everyday practice should be improved. All that is of key importance as financial digitisation processes can be hindered or slowed down if users do not understand, at least to a certain extent, the supporting technology and its operation. Possessing minimal, marginal knowledge, they will be sceptical and wary. They will be unwilling to make use of the achievements of digitisation.

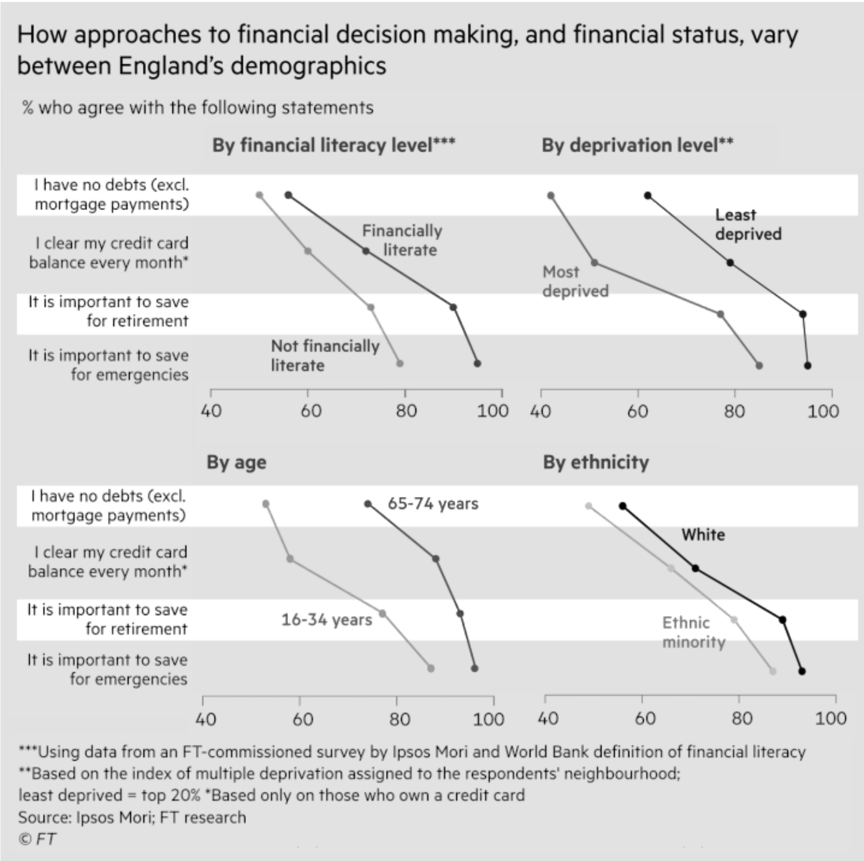
5 SUMMARY AND CONCLUSIONS: FINANCIAL LITERACY IS A PREREQUISITE OF FINANCIAL FREEDOM

You can have "financial freedom" if you are aware of what exactly you want to achieve in your life with respect to finances, you know the means and tools available and you act consciously to reach your goals applying those tools. Financial literacy is not a goal in itself. On the contrary, it is the means to reach your desires. Having basic financial skills makes you assertive when you must solve money-related problems.

One can easily point out the social groups that are particularly vulnerable regarding financial awareness: the volatility of youth has already been discussed (OECD 2021), but women's vulnerability can also be identified, according to an OECD study (OECD 2020). 'On average across the entire sample, as well as the OECD member countries, men appear to have statistically greater financial knowledge and financial well-being scores. Respondents who used digital devices or services have consistently and significantly higher financial literacy, knowledge, behaviour and well-being scores.' (OECD, 2020: 57–58). Further studies are needed on the difference by gender made in the report, since other studies, interestingly, have found no difference between men and women. A survey by the *Financial Times* and Ipsos Mori (*FT*, 2021b) has led to similar findings: financial awareness, age and deprivation have significantly influenced the answers given to four questions linked to financial behaviour. Lower educated people, disadvantaged women and younger people had lower scores regarding the following statements:

1. 'I have no debts (excl. mortgage payments)
2. I clear my credit card balance every month.
3. It is important to save for retirement.
4. It is important to save for emergencies.'

Figure 5
Difference of financial behaviour in British society



Source: Financial Times (2021b)

Family patterns and watching parents', grandparents', and relatives' behaviour is essential. We believe it can provide young ones with a solid foundation to shape their own awareness. In a large family there are different patterns to observe in the context of learning, the resulting income, how income is spent including consumption and savings for different purposes or accumulating own funds for consumption or for business investment. Another effective way of learning is if young people can recognise and interiorise the patterns of behaviour seen and experienced. Beside parents, schools can play an active part by presenting good and bad examples, and how they can be recognised. The related knowledge can also be transferred in that way.

The role of financial knowledge has already been underlined: not the details but the recognition of key connections is important. Important topics students will have to face in life include profit and risk, security, short and long-term products, the criteria, and consequences of borrowing. It can start with consciously spending or saving your pocket money or income from a summer job, which is then followed by the selection of a bank account, the complicated issue of digital payment forms (with typically long-term effects) right through to the dilemma of drawing your first student loan.

Other topics here include the considerations of setting up an enterprise (business plan, establishing a company, opening a business account, basics of taxation, etc.). Following the selection of your mate you will face the complex issue of obtaining your first flat including learning about the criteria of available government transfers (current forms include baby loans, and family housing allowance, etc.). For financial education the above-mentioned knowledge of mathematics, history or ethics can be useful as well as the experience of being a parent and having a family you gain later in life. You can rely on your experience about the income earned by student jobs while potential economic constraints of future higher education (independence from parents, renting a place, tuition fees, etc.) are acute issues. It should be noted that a minor part of the young generation can be reached in higher education only, so the middle of high school years is the best time when students are open and receptive, but already have sufficient experience to gain such knowledge.

Supporting financial education is also a means of creating equal opportunities. Many children do not inherit wealth or receive parental help in finances. On the other hand, high level financial education can be a lasting gift for all. A state creating equal opportunities will help its young ones to appear on the market as independent, mindful citizens behaving consciously and supporting their life goals, which also adds to the more efficient operation of the national economy. Young people who act consciously in their finances will make fewer mistakes; they will need less state aid. By making sound daily decisions they will trigger competition driving financial service providers to offer better services. It is a win-win situation for all including young people as consumers of financial products, financial service providers and the state.

Financial freedom also involves responsibility for young people. That freedom helps them achieve their dreams while the national economy can also benefit. Both market players and the state are responsible for supporting the generation of financial awareness as a prerequisite of financial freedom. Based on the above, we believe that teaching practical financial knowledge and financial behaviour should become part of high school education as an independent subject next to social and natural sciences.

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