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Financial education in Japan

Jan K. SOLARZ[1]
University of Social Sciences

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Abstract. Traditional financial education causes friction between its segmentation and integration. The new paradigm of financial education offers a complex synthesis of finances: going far beyond the tradition of financial planning. This study is a presentation of the financial education programme implemented in Japan in 2016. The analysis of the Japanese case confirms that financial habits contribute to the ageing of the population and generate deflationary expectations. The analysis of Japanese educational programmes confirms the theses on the population ageing and deflation. An early stage of life correlates with a segmentation of financial knowledge, while the mature and end-of-life stage correlates with financial risk management of everyday life. The performed analysis shows that in the foreseeable future, financial education will be dominated by the elements of a professional management of financial risk in everyday life, while segmentation of financial knowledge, typical of the early stages of life, will diminish. Financial education will overcome the conflict between segmentation and integration of financial competences by placing them in the human's life cycle perspective.

Keywords: life cycle, financial education, financial intermediation.
JEL Codes: A19.

1. Introduction

Financial education is part of the universal theory of management, and of its good planning practices. The proponents of the top-down financial education believe that it works for everyone and in every situation. The author of this paper, by discussing financial education in Japan, proves that this assumption is wrong. The situation of countries featuring a demographic dividend differs from the countries that do not have it. Certain financial habits lead to deflationary expectations, other to inflationary expectations. In Poland, deflationary and inflationary expectations are concurrent; therefore, our strategy of financial education must be different than those adopted in other countries. This study aims at posing cognitive and practical questions about financial education in Poland while referring to the example of Japan.

[1] Contact with author: Jan K. Solarz, Grochowska 92/15, 04-301 Warsaw, Poland; e-mail: jan.k.solarz@gmail.com.

2. Evolution of the Japanese programme of financial education

The choice of the Japanese programme of financial education as a starting point for the presentation of financial education concepts in Poland stems from the specific role that the country plays in the development of financial systems [Solarz 2017a, p. 245] and from legitimate concerns about the loss of our demographic dividend [Ahmed et al. 2016]. Andrzej Sławiński made a highly illustrative comparison to the canary in a methane mine. It is a sort of an early signal warning everybody about the approaching danger. In the case of financial education, it is a warning against disregarding habits that lead to the formation of persistent deflationary expectations and against the ramifications of sudden deterioration of the demographic structure of a society. We often encounter here a false belief that these two phenomena will be of no concern to us. Table 1 presents the comparison of selected elements of the demographic situation in the two countries

Table 1. Change in the demographic situation in Poland and Japan, 1985-2015

Country	**Group income IMF**	**Demographic dividend**	**Change in population share in working age in 2015-2030 (%)**	**Total fertility rate 1985**	**Total fertility rate 2015**
Japan	high	gone	-5.68	1.66	1.46
Poland	high	declining	-8.38	2.16	1.33

Source: [Ahmed et al. 2016, p. 38].

With this kind of comparisons, one has to remember that the total emigration of Japanese people from the times of the Restoration of the Imperial Power amounted to the same number as the economic emigration of Poles following the EU accession; this means that our demographic structure is getting worse much faster than in Japan.

In Japan, the body responsible for the development of the national programme of education is the financial information office that handles cases of consumers' protection rights. In the most recent survey of households conducted on a sample of 25,000 people, it was confirmed that Japanese people are attached to the "*continental*", i.e. "*bank-oriented*" financial system. The obtained results are presented in Table 2.

When it comes to assessing the investment behaviours declared by the surveyed, one has to remember that 82.7% of the respondents had never invested in foreign currencies, 74.2% had never bought any share units in investment funds, while 68.4% had never bought any stocks. With such general risk aversion among the Japanese, it is not surprising that women are much more prone to avoid it.

Table 2. Demographic description of people vs. their investment behaviours in Japan (%), 2016

Features		Investors		
		Active	Passive	Avoiding investment risk
Total		11.4	28.2	60.4
Sex	male	14.2	31.4	54.5
	female	8.7	25.0	66.2
Age	youth (18-29)	4.9	10.9	84.2
	mature (30-59)	10.8	25.8	63.5
	senior (60-79)	15.7	40.8	43.5

Source: [Committee for the Promotion of Financial Education 2016, p. 31].
Notes: N=25,000; active investors – respondents who declare investing in stocks, investment funds, currencies (n=2,852); passive investors – respondents who declare investing in one or two financial instruments (n=7,042); investment risk avoiders – respondents who do not invest in any of these financial products (n=15,106).

Contrary to stereotypes, the Japanese senior citizens have higher financial competences than the youth; they are more active on the financial market as well. In line with stereotypical expectations, males are more competent in finances than females, while the better educated are more competent in this respect than the worse educated. Table 3 is a presentation of data from measuring financial competences in Japan.

Table 3. Socio-demographic features vs. financial competences in Japan, 2016

Features		Financial competence index
Age	up to 40 years	0.381
	40-64 years	0.498
	over 64 years	0.474
Sex	male	0.532
	female	0.413
Education	fewer than 12 years of learning	0.373
	12-16 years of learning	0.466
	over 16 years of learning	0.661

Source: [Kadoya, Khan 2016b, p. 25].

The results presented above indicate the context in which the programme of financial education in Japan was developed - i.e. the understanding that it was a shared action of all the parties interested.

Table 4. Content of the financial education programme in Japan at various stages of life

Type of education	Stage of life						
	primary school	**high school**	**higher school of vocational education**	**university students**	**adults**	**retirees**	**seniors**
Skills							
household budget management	understanding discrepancies between one's capabilities and aspirations	income and spending	maintenance costs	adjusting income to spending	control of expenditures	balance improvement	financial schemes for seniors
financial planning of life	income from work	self-determination of well-being	choice of profession	financing of key events in life	expenditure in life cycle	knowledge capital of grandchildren	enriching the spiritual life
Knowledge							
basics of finances	avoiding financial difficulties	fulfilling contracts, avoiding scandals	comparison of offers	avoiding fraudulent offers	obtaining information about offer	basics of assets management	financial safety
money	finances of everyday life	financing of a life cycle	contract execution	money price over time	liquidity vs profitability	real vs. nominal interest rates	financial consultancy
Competences							
selection of policies	purpose savings	risk of accident or sickness	compensation for damage	personal responsibility for a choice	insurance in life cycle	health insurance	funeral insurance
choice of deposits and bank loans	avoiding borrowings from friends	function of a credit	students' loans	students' loans	repayment of students' loans	housing needs	financial safety
choice of property management instruments	interest rate and types of bank accounts	risk vs. profit	management of risk	diversification of investments	long-term benefits of investments	investment portfolio	disinvestment
selection of financial advisor	immediate search for advice in difficult times	recognition of financial advisor	methods of overcoming obstacles	consultation on the appetite for risk	responsible management of risk	risk of temptation to abuse	taking adequate decisions

Source: [Committee for the Promotion Financial Education 2015, p. 31].

Practical financial education in Japan has undergone many changes since the time of promoting savings at the Imperial Post Office Bank, which involved certain tax privileges, to reach the stage of responsible handling of financial risk during the full life cycle. From the earliest years (6-7), pocket money as well as purchases of spontaneous gifts for one's own money are advocated. This way, children aged 8-9 get to understand firm budget restrictions. Sometime later (10-11), teenagers develop shopping plans and can tell the difference (12-14) between income and expenditure in the household budget. At the age of 15-17, Japanese children are capable of managing cash.

Studies have confirmed that financial education at school reduces the fear of retirement shock [Kadoya, Khan 2016a]. The financial risk of longevity becomes the main challenge of managing the every-day financial risk in Japan. Traditionally, taking care of and living with one's parents was the obligation of the first-born son and the only heir. Currently, many daughters-in-law refuse to provide this type of care to their parents-in-law. A crisis in the family caused grave financial consequences.

Financial education in Japan is hindered by:

– fixed deflationary expectations;
– low nominal interest rates;
– complexity and dynamics of financial innovation.

With inertia of education systems, these types of activities generate tensions between reformers, who push financial education from the top, and education system workers, who are already having trouble with the current curricula content. A solution to the growing conflict could be increasing the role of adults' education who are consciously prepping themselves to work professionally after they have retired. Table 5 links the number of correct answers to the test checking knowledge about finances with the demand for training.

Table 5. Demand for additional job-related training vs. the level of financial competences in Japan

Demand for job-related training	**Number of correct answers in the financial competences test**			
	0	1	2	3
I need training to continue my employment	33.4	39.3	45.8	49.7
I need training to be promoted at work	33.1	37.2	40.3	46.9
I need training to take up a new job	59.8	61.7	67.2	72.5

Source: [Clark, Matsukura, Ogawa 2013, p. 878].

The data cited from the study on the financial education programme in Japan point to the need to have a critical look at such programme in Poland - here and now.

3. Comparison of financial education in the formal and informal network of financial safety

A guarantee of safe old age in Japan is the birth of the first son. He is the only one to inherit and he is under the obligation to live with his parents and take care of them when needed. This type of institution forms a social network of financial safety. At the same time, since 1960s, work has been in progress in Japan on the system of public financial safety network. These are retirement systems offered by huge corporations that apply policies of lifetime employment and a system of social insurance. Table 6 comprises the two perspectives for the way financial safety is perceived in the full life cycle of a man.

Table 6. Public and social network of financial safety

Perspective	Growing up	Adulthood	Retirement	Old age
public network of financial safety	funding gap of growing up	resource pooling	funding gap of retirement	financial risk of longevity
social network of financial safety	knowledge capital pooling	work sharing	intergenerational transfers	peak of 80-year-olds

Source: Author's own study.

A public and social network of financial safety should take into account three funding gaps. The first one is related to the costs of caretaking and supporting children and the youth. In this case, parental efforts are, to a large extent, aided with public funds and tax re-distribution. The second funding gap is the significant drop in the incomes of retired households. This gap is supposed to be reduced by such factors as decreased consumption, use of long-term purpose savings and liquidation of material assets. The third funding gap is the surge in spending on medical procedures aimed to help senior citizens restore their capacity to function on their own, in conjunction with the need to finance 3-5 years longer life than expected. Never in human history have so many people lived into their 80s. Never has life expectancy increased year by year from one decade to the next [Solarz 2017b, pp. 33-48].

Concurrent to the financial flow within one generation, the intergenerational flow has been intensifying. It is directly related to the perception of the obligations that some have towards other generations as well as to the nature of those obligations. The social network of financial safety is distinctively different across individual generations: Y - born between 1977 and 1990, X - born between 1965 and 1976, demographic peak - born between 1946 and 1964 [Wątroba 2017]. Their common objectives include the struggle to:

– save enough to endure the income retirement shock, so that they do not need to ask family members for help;
– live with parents if they require help due to health-related or financial issues;

– provide their ascendants with financial resources to pay for funeral services;
– help their children cover education costs;
– support family members emotionally and through gifts exchange.

There is a major difference between generations with respect to parents' obligation to support children in obtaining their own house. The feeling of intergenerational solidarity has been on the wane from one generation to another, while the feeling of financial insecurity has been growing in the younger generation. In Japan, this entails abandoning the principle of "*lifetime*" employment in large corporations in favour of fixed-time employment.

Effective financial education should commence with research into the social safety network in a given country. What is an obvious obligation in intra- and intergenerational relations? Having determined what part of the financial ecosystem is formed spontaneously and from the bottom up as a result of socialisation leading to the assumption of social roles in the process of social reproduction, it is possible to build links of the public financial safety network. All levels of analyses known to financial sciences and all their trends should be used to build the public financial safety network.

Metha-finances raise the question of the meaning of life and how to measure the quality of life. After the "*cold war*", measuring of the quality of life based on the Gross Domestic Product per capita makes no sense: "*The demand for GDP grew in wartimes since a measure was needed to calculate the totality of military economy activity"* [Coyle 2017].

Richard A. Easterlin believes that in terms of measuring the quality of life each generation tends to make comparisons with the previous one. The cyclical nature of the market economy means that, depending on the phase of the financial or economic cycle during which a given generation is professionally active, these comparisons are beneficial to one or more generations. The key role in such comparisons is played by the quality of education, knowledge capital. For the first time ever in the history of the United States, it is commonly acknowledged that the current generations will lead less affluent life than their parents. When one compares the total work income of those who commenced professional activity in 1967 and in 1983, it can be observed that the average drop in males' income is 10-19%, while the income of women increased by 22-33% against the females who started their work in 1957 [Guvenen 2017].

Due to the life cycle phases, the feeling of happiness is on the rise from the age of 18 until maturity at the age of 50-54; from then on, it decreases steadily. This type of dependence, illustrated with an upturned U, clearly contrasts with the American belief that tomorrow will always be a better, happier day. One of the reasons of this is the pursuit of tangible property to the detriment of ones' family life [Easterlin 2010, p. 249].

Mega-finances are looking for a "*window of opportunity*" for financial intermediation [Castells et al. 2017, p. 57]. Very soon, the financial sector will not develop faster than the world economy. The hypothesis that the global financial system has reached its peak leads to [Caruana 2017]:

– a belief that free flow of capital causes more harm than benefits;
– a belief that one's own savings should be used to satisfy national needs;
– a belief that national regulations and supervision are sufficient, that international cooperation on financial market segmentation can be limited.

Macro-finances are looking for a balance between public and private finances. The bodies of macro-financial stability monitor public and private debts. A particularly important matter is the internal or external financing of the country's total debt. Knowledge of the country's investment position becomes a crucial element of financial education. The relation between crediting and economic development is becoming more complex. In the USA, students' loans are equal to the consumer credits taken out by households (on average US$ 50,000). Households currently possess and are allocating financial means comparable to the corporate sector of the economy.

The corporate sector is undergoing a fourth industrial revolution and global migration of added value, which leads directly to the internationalisation of production and outsourcing of services. Outsourcing is a key element of the society and the network economy. The network society and the network economy are the subjects of mezzo-finance research.

Enterprises comprise links of logistic and production networks. The theory of enterprise is the core of micro-finances. The new elements of the theory of enterprise are the comprehensive risk management system and transaction cost control.

Behavioural finances are the new paradigm in the area of micro-finances. Within these cognitive frames, the search is being carried out for the answer to the question of why people do not make financially optimum decisions. Risk aversion in the conditions of information asymmetry leads to cognitive errors having practical implications. Anomalies in the functioning of financial markets are explained with response models to stimuli produced by regulators and supervisors of financial intermediation [Lefere, Chapman 2017].

Nano-finances test the habits related to the management of financial risk involved in everyday living. Access to professional management solutions that help mitigate the financial risk of everyday life is one of the rights of modern human beings. Because of their joint impact, routine and repetitive behaviours create conditions that are conducive to deficiency, or lack, of global financial balance [Solarz 2012].

The national strategy of financial education adopted in 2015 in Poland boils down to only one level of analysis; typically, these will be household finances described from the perspective of its individual members. The fact that an individual belongs to a generation, family or a clan is treated as an insignificant detail. The role of cultural factors affecting the appetite for risk is omitted just as often. The same goes for the impact of childhood habits on the way we function as adults and old people.

4. Summary

The survival of the human kind under the conditions of its dynamic growth and extended longevity requires a new cognitive apparatus and a new division of financial sciences. The basic part of financial habits is related to the social financial safety network, a division of social roles within the process, but also in intra- and intergenerational transfers. Multi-generation finances can demonstrate the entire diversity of human behaviour in managing financial risks in everyday life.

Institutional finances remind us that institutions are important. If paternity is determined based on genetic tests, then 15-20% of results thus obtained will differ from the presumption of paternity in many marriages. Similarly, the institution of maternity determined on the basis of a genetic analysis of an ovary will change radically. Significant part of the resistance to the European Union is due to the fear that well-known and well-tested institutions will be transformed by foreign and unknown cultures.

If today multi-generational families are an exception, it is no wonder that satisfying housing needs is being met through mortgage financing. The focus is on the ownership of residential property rather than on its flexible and efficient use. As a result, households are financed by debt and are not surplus entities in financial intermediation.

Changing institutional governance leads to a fundamental change in the subjective structure of the financial system. The most important link of financial intermediation is mobile banking and the mobile phone itself. Financial trust and relational banking are disappearing right before our eyes, whilst speculation and risk transferred onto the weakest market participants are emerging trends.

Effective financial education begins with a postulate of putting limited trust in the institutions of public trust. Following the example of road traffic, we must develop in business transaction participants a sense of elementary distrust of intentions and skills of other participants. No one is released from the responsibility for managing their financial risk. A financial risk does not directly result from the appetite for such risk; in fact, the culture of spreading risk and transferring it to others means we are exposed to financial risks from birth to death.

Access to professional management of financial risks involved in everyday life should be deemed one of the elements of the inclusive economy. Everyone has the right to choose their own appetite for risk. Some will choose to avoid risk; they will wish to keep what they have been able to accumulate; others will be looking for a risk in the pursuit of extraordinary profit; yet other people will shed their risks onto others: close friends or family or local community. The task of the financial education system is to define an institutional framework for a risk culture that most citizens would accept.

Traditionally, children, adolescents and the elderly were protected against financial risks. Currently, however, artificial intelligence and risk-spreading algorithms create a situation where everybody everywhere is exposed to financial risks. Financial education should allow people to distinguish between the types of financial risks as well as define the criteria for selecting financial instruments and institutions that would help us manage them.

The gradual erosion of social awareness of the scale and probability of financial risks involved in everyday life leads to voluntary exclusion from access to professional risk management. Half of humanity does not have access to professional financial risk management. The fight against exclusion arising from the lack of access to professional management of financial risks assumes the widespread availability of financial education and its social nature.

Financial education is aimed to serve a democratic civil society; it is not meant to create passive customers of financial intermediaries, pawnshops, and loan companies. Financial education requires a holistic approach, free from attributing the responsibility to these, but not those ministries or non-governmental organisations. Financial education is not about promoting extended financial accumulation or policies based on tightening one's belt; it is about fostering people's happiness here and now.

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