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Abstract: If the idea of familiarizing individuals with savings is an old one, it is especially since the early 2000s that the economist's modern concept of financial literacy has been the object of particular attention. The literature, essentially empirical, has developed considerably since then. It is during this period that the Organisation for Economic Co-operation and Development (OECD) launched its Financial Literacy Programme.

The objective of this chapter was to describe financial literacy and financial education programs in Western Europe: France, Germany, Italy, Spain, Switzerland, and the Netherlands. A first observation concerns financial literacy: to varying degrees, the residents of these countries are far from financially literate. A second observation concerns the heterogeneity of financial literacy. In all countries, financial literacy depends on age, education, and gender (higher among men, older people, and graduates). Some determinants appear to be more specific to the culture of each country (for example, political opinion in France, political past history in Germany (West vs. East), or language area in Switzerland). Finally, it appears that financial education programs have been in Western Europe since the mid-2000s, probably offered more systematically in centralized countries.

Résumé : Si l'idée de familiariser les individus avec les outils de l'épargne n'est pas nouvelle, c'est surtout depuis le début des années 2000 que le concept moderne de littéracie financière s'est développé chez les économistes. La littérature dans ce domaine, essentiellement empirique, s'est depuis lors considérablement enrichie. C'est aussi à cette période que *l'Organisation de coopération et de développement économiques* (OCDE) a d'ailleurs lancé son programme d'éducation financière pour développer la culture financière des ménages.

L'objectif de cet article est de décrire les programmes de culture financière et d'éducation financière en Europe occidentale : France, Allemagne, Italie, Espagne, Suisse et Pays-Bas. Un premier constat concerne la littéracie financière : à des degrés divers, les résidents de ces pays sont loin d'avoir une forte littéracie. Un deuxième constat concerne l'hétérogénéité de la littéracie financière. Dans tous les pays, la culture financière dépend de l'âge, de l'éducation et du sexe : elle est plus élevée chez les hommes, les personnes âgées et les diplômés. Certains déterminants semblent être plus spécifiques à la culture de chaque pays : l'opinion politique en France, le passé politique en Allemagne (Ouest *vs* .Est), la zone linguistique en Suisse... Enfin, il apparaît que les programmes d'éducation financière existent en Europe occidentale depuis le milieu des années 2000, probablement proposés de manière plus systématique dans les pays centralisés.

Mots clef : Littératie financière, éducation financière, finance des ménages, choix de portefeuille
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Introduction

Although the economist's modern concept of financial literacy seems to be relatively recent, the idea of familiarizing individuals with savings, especially at a young age, is old (Garon, 2011). But it was probably not until the early 2000s, in an "individual promotion" policy-friendly climate, that what we mean by "financial literacy" today really emerged, namely with the launch of the Organisation for Economic Co-operation and Development (OECD) Financial Literacy Programme. The OECD (2005, p. 14) defines financial education as "the process by which financial consumers/investors improve their understanding of financial products, concepts and risks and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being." This stated need to develop savers' economic knowledge is part of the broader purpose of the individual "activation" policies conducted since the 1980s, mainly at the instigation of the OECD, designed to make each of us behave as our own Chief Financial Officer ("You are your own CFO," Lusardi, 2013).

More fundamentally, economic knowledge was raised as a possible remedy for financial crises. In his reading of the "Great Recession" of 2008, Shiller explained certain savers' economic incompetence, especially the "poor," as being due to their lack of economic knowledge (2008, p. 95): "Low-income individuals who took out risky subprime mortgages, with interest rates that would soon be adjusted upward, were often unaware of the known risks inherent in such mortgages." Savers, then, are seen as having "behaved badly" during the crisis, whether out of irrationality or incompetence, and here too a solution to prevent future crises would be to improve their economic and financial literacy so they do not make the same mistakes again. The message put across by A. Lusardi, the great academic "ambassador" for financial literacy, is particularly explicit on this point: "Financial literacy is an essential piece of knowledge that every student should have… Just as reading and writing became skills that enabled people to succeed in modern economies, today it is impossible to succeed without being able to ‘read and write’ financially” (Lusardi, 2010, p.1).

Financial education also can be seen as a means to better understand public policy measures. Fornero (2015), professor at the University of Turin and also Monti government Minister for Labour and Social Policies behind the pension reforms in Italy, has shown that financial literacy improves the understanding (and hence acceptance) of public policies, and helps counter a certain “populism.”

Some even take the observation further considering that, structurally, economies have everything to gain from investing in economic knowledge. Lusardi et al. (2017) puts it that financial literacy explains 30% to 40% of wealth inequality. In an inverse line of reasoning, Phelps (2017) calculated that the French people’s financial illiteracy costs the country one point of Gross Domestic Product (GDP) growth per year (around €24 billion – USD 29 billion). These economists hence see economic and financial knowledge as eminently virtuous: the construction of a “financial democracy” will prevent a new crisis (Shiller, 2008), reduce inequality and increase well-being (Lusardi, 2009), and generate growth (Phelps, 2017).

Milton Friedman (1953, p. 22) suggested in the 1950s that just as billiard players do not need to be experts in physics to play well, individuals do not need to be financial experts as they can learn optimal behaviour through trial and error. Financial literacy is now a topic in itself and is the subject of a vast body of academic literature (Lusardi & Mitchell, 2014).

To measure financial literacy, Lusardi and Mitchell (2014) introduced in the 2004 American Health and Retirement Study three basic questions: 1) calculate compound interest, 2) find the gross or real rate of return after inflation, and 3) assess the risky nature of assets. The Big Three rapidly have become the standard format for international comparisons: the European ranking for the Big Three depends on surveys and population considered but in general Germany, Switzerland, and the Netherlands are systematically among the first.

In a general way, financial literacy depends on age, education, and gender. But it is hard to explain these geographic differences without a detailed analysis of the countries' heterogeneity in terms of economic history, welfare and pension system, financial market development, education, demographic structure, and so on. Nevertheless, a few elements could provide some reasons for these differences in financial literacy across countries. For example, there is less knowledge about inflation in countries that have seen more periods of deflation than inflation. The investment risk questions can be understood better in countries with highly-developed financial markets and banking systems. Ideological references ("market" supporters or detractors) also may be at work behind these differences.[i] But other factors specific to each country (cultural or linguistic differences for example) are important and undoubtedly hold a great deal of relevance for policy makers: Germanic/Northern vs. Latin/Southwestern Europe, economically liberal-minded vs. statist-minded countries, federalist vs. centralized states, differences by importance of vocational education, etc.

This chapter sheds some light on these issues in some Western European countries, particularly on the development strategy initiated. We describe financial education policies successively in (alphabetical order) France, Germany, Italy, Spain, Switzerland, and the Netherlands. We end the chapter by raising the question of the effectiveness of these policies.

France: Problem of Portfolio Allocation Rather than Ability to Save

French households (about 29 million) have an abundance of savings, amounting to nearly 16% of gross disposable income. In Europe, only the Germans do better. However, the French saving reportedly is misdirected, as it is concentrated in real estate assets. However, French households' financial savings, at nearly 6% of gross disposable income, also remain above the euro area average (5%).

In 2017-2018, according to data from the "Histoire de Vie et Patrimoine" surveys (National Institute of Statistics and Economic Studies [INSEE], 2018), the average amount of gross household wealth in France will reach €274,000 (around USD 331,500), while the average amount of net assets (obtained by subtracting debt from gross assets) will be €238,000 (USD 288,000). The median of gross wealth is €162,709 (around USD 197,000), very slightly higher than in the euro zone. A preponderant part of gross wealth is made up of real assets since the value of real estate, durable goods, and professional assets represents approximately 80% of the total value of gross household assets. The average (respectively median) financial wealth is about €56,200 (respectively, €11,100).[ii] A breakdown by type of product shows that in 2017-2018, checking and savings accounts and life insurance are, in value terms, the main financial asset items of all French households. The share of deposit accounts in the financial assets of all households is 36% and that of life insurance and retirement savings accounts is 40%. Risky financial products -- directly held equities and mutual funds -- are in the minority: 11.8% and 1.1%, respectively. Overall, the share of securities (listed shares, bonds, mutual funds) accounts for around 14% of financial assets. If we define as risky assets both unit-linked life insurance policies and shares held directly or indirectly via mutual funds, these amounts represent about 30% of financial assets compared with 70% for less risky assets.

Since World War II, the welfare state has played a central role in France's retirement pension system. But structural population aging combined with sluggish economic growth lately have put a strain on the French "pay-as-you-go" pension system. By 2050, the number of retired households is expected to increase by 60% while the working population will increase by no more than 10%. Moreover, in 2019 the retirement deficit reached €4.2 billion (USD 5 billion) though major reforms were carried out in the last decade.

As we have seen, French households have generally high savings rates despite the importance of public pensions. Major concerns are thus mainly about households' portfolio choices and wealth accumulation rather than their ability to save. Financial education seems then an important element to explain the propensity to plan and take risks in the financial portfolio (Arrondel, 2018)

Are the French "Useless at Finance"?

The French public's economic knowledge has been the focus of particular attention and regular polls for some 20 years (Banque de France, 2019). The recurrent observation made by these studies is that, although a small majority (50% to 60%) of French people say they are "interested" in the economy, their economic knowledge is generally regarded as highly inadequate. This state of affairs was summed up by a headline in *Le Figaro* (2018): "The French people are interested in the economy… but don't know much about it." They have a very rough idea of GDP and public debt, a poor approximation of the national minimum wage, a false impression of inequalities, and so on. Many experts argue that these gaps in their knowledge are one reason the French are reluctant to consider what are seen as necessary reforms for the country: "How can the French support reforms they do not understand?" (de Saint-Pierre, 2018). In terms of public policy, therefore, it is regarded as urgent and vital to improve their economic and financial knowledge.

Research results about financial knowledge in France are in line with those obtained for other developed countries (Arrondel, 2018). Many respondents have difficulty dealing with fundamental financial concepts such as risk diversification, inflation, or interest compounding. Approximately 48% of the people interviewed answered the interest rate question correctly and 61% understood the impact of inflation on their purchasing power; a total of 67% of respondents ranked the investment risks correctly. Less than a third of respondents were able to correctly answer the three questions used to assess financial literacy. Some subpopulations are more vulnerable than others: women, young adults, and the elderly as well as less-educated people. An original analysis of the heterogeneity of financial knowledge across the political and ideological spectrum in France shows that centrist voters (characterized in France by a "liberal" view of the economy) perform better than others on financial literacy measures (Arrondel et al., 2013).

Strategies to Financially Educate the French

Savings education strategies in elementary schools appeared many years ago in France. Savings banks (*Caisses d'Épargne et de Prévoyance*) were handing out "savings picture books" to our little ones to develop "school savings" in the 1960s.

As in other European countries, financial information and education today have become an essential element in justifying advice to investors: a directive has been drafted by the European Union concerning the financial instrument markets (MiFID: Markets in Financial Instruments Directive), specifying the nature of the financial advice that should be given to customers. In this context, in early 2013, two authorities, one responsible for financial markets (AMF: Autorité des Marchés Financiers) and the other for prudential control (ACPR: Autorité de Contrôle Prudentiel et de Résolution) each drafted a note intended to define the framework and rules concerning "the gathering of information relating to knowledge of the customer."[iii]

As in other countries, with the launch of the OECD Financial Literacy Programme, it was not until the 2000s that generalized programs to improve the financial education of the French appeared. This movement took shape in France with the creation of the Public Financial Literacy Institute[iv] (IEFP) in 2006, *the Cité de l'Économie et de la Monnaie* (Economics Museum: https://www.citeco.fr/) in 2011, and, more recently, in early 2017, the Banque de France *Mes questions d'argent (My money matters).*[v]

Germany: The Necessity of Financial Literacy for Retirement Decision-Making

With around 83 million inhabitants, the Federal Republic of Germany (Bundesrepublik Deutschland) with its 16 federal states (Bundesländer) is the most populous member state of the European Union and the world's fifth-largest economy by Purchasing Power Parity (PPP) (World Bank, 2020).

With regard to household finances and wealth, recent findings from the "Panel on Household Finances (PHF)" conducted by the German central bank (Deutsche Bundesbank, 2019) showed a low median net wealth (approximately €70,800 in 2017) compared with other European countries. Furthermore, median net wealth is more than three times lower than average net wealth of €232,800, indicating that net wealth is distributed unevenly in Germany. Reasons for the comparably low wealth and the uneven wealth distribution include the low number of property owners. Most households rent rather than owning private homes (only 44% of households own their main residence). In addition, there are the well-documented differences between eastern and western Germany with regard to income and other economic indicators (Deutsche Bundesbank, 2019).

Another classic measure of inequality, the Gini coefficient for disposable income, rose over the last two decades and has been around 0.29 in Germany since 2005, which is just below the OECD average of 0.32. The main reason for this relatively low income inequality by international comparison is the comparatively high degree of redistribution, especially via the tax and transfer system (OECD, 2019; Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung (Expert Council for Assessing Macroeconomic Development), 2019).

General challenges in consumer economics in Germany include, on the one hand, the growing number of over-indebted private households (3.46 million in 2019) and, on the other hand, the rise in both the volume and value of inheritance that is expected to be bequeathed in the coming years (Creditreform Wirtschaftsforschung, 2019).

Pension Reforms

The need for financial literacy and financial education is of no greater importance than in the arena of retirement decision-making. The pension reform of 2001 caused a shift from the monolithic pension system based on the statutory public pension scheme, with a constant pension level safeguarding the standards of living in old age, toward a multi-pillar system. The stabilization of contribution rates in the public pension scheme is reached by gradually reducing the pension level, which is offset by supplementary occupational and private pensions. In order to provide additional incentives to save privately for old age, policy makers introduced subsidized private pension schemes, the so-called Riester pensions. In contrast to many other countries, these pensions are voluntary. The multi-pillar approach consisting of public, occupational, and private pensions shifted responsibility for old-age income toward individuals. In turn, the growing need to make sound financial decisions put the adjustment of services concerning information and consultation on the agenda of policy makers and public authorities. In order to provide greater transparency, the German pension authority rolled out annual statements between 2002 and 2004 that provided detailed information about the individual date of statutory retirement, pension rights accrued, and payments to be expected upon retirement. Information about the first pillar is deemed to be crucial as a basis for the decision about joining an additional occupational or private pension (Haupt, 2014).

The main criticism of the private Riester pensions was that they were considered expensive and insufficiently widespread. The criticism that the products further lack transparency and are hard to understand was met only in 2017 with the introduction of standardized product information sheets to help consumers more easily compare and understand differences between product groups (Haupt, 2018).

In addition to these information improvements for consumers on statutory public and private Riester pensions, for the last two decades there have been demands for the provision of multi-pillar pension information, addressing all three pillars of old-age pensions in one place. Although there is broad consensus about the need for this, the objectives and contents continue to be discussed among the stakeholders in the various pillars (Haupt, 2018).

In 2019, a research report was published by the Federal Ministry of Labour and Social Affairs (Bundesministerium für Arbeit und Soziales [BMAS]) presenting a conceptual framework for the step-by-step introduction of a retirement information platform with the main goal being to provide complete, understandable, reliable, and comparable information in a single place (BMAS, 2019). In August 2020, the government passed a bill on the “digital pension overview” by virtue of which citizens will be able to access information about their statutory, occupational, and private old-age provision on an Internet-based platform which will be generally available by 2023 (BMAS, 2020). However, from a consumer perspective it can be deemed rather unsatisfactory that there is no plan to support the pension overview with any financial literacy or financial education programs. One of the reasons could be the lack of a national strategy for financial literacy and financial education.

Lack of Strategies for Financial Literacy and Financial Education

While many members of the OECD are already working on or have actually implemented national strategies for financial literacy and financial education, the situation is much more challenging in Germany. The main reason for the lack of such a strategy is the German peculiarity of cultural federalism, whereby each federal state is responsible for schools, universities, and other educational institutions within their respective state territory. Due to the resulting diverse approaches and educational agendas of the 16 federal states and a federal government with very limited jurisdiction in educational politics, the implementation of a national strategy cannot be expected for Germany in the near future. Furthermore, such implementation is made even more difficult due to the lack of school subjects with economic and financial curricula in some school types and some federal states, a shortage of adequate teaching materials and schoolbooks, and significant shortcomings regarding teacher training (Frühauf & Retzmann, 2016).

Above-Average Financial Literacy

As Germany did not participate in the OECD Programme for International Study Assessment (PISA) financial literacy assessments of students in 2012, 2015, or 2018, internationally comparable empirical evidence about the financial literacy of students is not available. However, data about the financial literacy competencies of adults is available through the OECD/INFE surveys conducted in 2010, 2016, and 2019, among other sources. The latest results show that the German financial literacy score[vi] of 13.9 is slightly above the OECD average of 13.0 (out of a possible 21). Along with Austria, adults in Germany are, for example, confident in their own financial knowledge and also score high on financial knowledge (achieving 76.0% and 73.7% of the maximum, respectively). Looking into possible vulnerable groups, the latest survey confirms a known gender gap for Germany with men having statistically higher financial knowledge scores, than women and shows significant room for improvement (OECD, 2020a).

Another important empirical basis for measuring financial literacy in Germany is the SAVE study of 2009. Bucher-Koenen et al. (2017) used data from American, Dutch, and German surveys to evaluate financial literacy based on responses to a set of three questions (the so-called Big Three). Apart from confirming the gender gap in all three countries, they further show that even many years after German reunification there is still evidence for a significant financial literacy gap between East (former German Democratic Republic) and West Germany. Interestingly, there is a strong gender difference among respondents in West Germany but no significant gender difference among respondents living in the East. Haupt and Yollu-Tok (2017) arrived at similar results as previous studies about financial literacy, using the Consumer Finance Research Center (CFRC) dataset of 2017. However, in more recent data the gender gap seems to be even bigger: Men were able to improve their financial knowledge and women are less likely to answer the three questions correctly.

Italy: The Necessity to Improve Low Financial Literacy

Italy is a country with 60.2 million citizens (ISTAT, 2020), and a GDP of USD 2.07 trillion in 2019 (International Monetary Fund [IMF], 2020). That makes the Italian economy the eighth largest national economy in the world.[vii] The average household disposable income per capita in 2019 was USD 26,588 a year, lower than the OECD average of USD 33,604 a year (OECD, 2020c). The average household net wealth is estimated at USD 279,889, lower than the OECD average of USD 408,376 (OECD, 2020c). About one-half (53.8%) of this wealth is represented by houses: around 75% of Italian households own their homes (ISTAT, 2019). Household debts (OECD, 2020d) are, on average, 87% of disposable income, lower than in other European countries (Germany 95%, Spain 107%, France 121%, UK 141%, the Netherlands 238%). In 2018, financial assets represented 44.9% of Italian net wealth, showing an attitude to invest in financial markets that is lower than in other countries.

The average age of the Italian population is 45.8 years, compared with 43.1 in the European Union (Eurostat, 2019). The number of individuals at least 65 years old is 13.9 million (ISTAT 2020), equal to 23% of the population. The life expectancy at birth is 83.4 years (United Nations [UN], 2020) and is one of the highest in the world.[viii]

Studies about payment methods in Europe (Rocco, 2019) report that 39% of Italians prefer to use cash (European Union average 32%) and 88.9% of Italians have at least one payment card (European Union average 93%).

About retirement needs, since 1995 the Italian pension system left a single pillar and defined benefit scheme based on public pensions to shift to a defined contribution scheme with three pillars, including pension funds and individual retirement accounts (IRAs). At the beginning of 2020, the total number of pension fund participants was 5.3 million, and IRAs were 3.8 million on a total of 23.2 million active workers (Società per lo sviluppo del mercato dei fondi pensione -- Company for the development of the pension funds market) [MEFOP], 2020).

Thus, the big picture is a country with an aging population, a high homeownership rate, low indebtedness, a clear preference to use cash, a lack of (private) retirement savings, and a preference to invest in real estate rather than in financial markets.

Low Financial Competence

All of the characteristics of the Italian financial system help to understand the results of financial literacy studies about Italy. The main and most recent reference point is the OECD/INFE 2020 International Survey of Adult Financial Literacy (OECD, 2020a). This study assessed financial literacy referring to financial knowledge, behaviors, and attitudes.

Financial knowledge was measured by seven items about (1) the time value of money, (2) understanding interest paid on a loan, (3) the simple interest calculation, (4) compound interest, (5) understanding risk and return, (6) understanding inflation, and (7) understanding risk diversification. The sum of the correct answers to these questions is the financial knowledge score. Within the possible range (0 to 7), the average score of the Italian respondents was 3.9: pretty low if compared with the average of the survey (4.4) and other European countries (Germany 5.2, France 4.8, Portugal 4.0).

The financial behavior score used nine items to assess (1) saving and long-term planning, (2) making considered purchases, and (3) keeping track of cash flow. In a 0 to 9 range, Italians scored on average 4.2. Even this score is low when compared to the average of the sample (5.3) and to other European countries (e.g., Austria 6.0, Portugal 5.9, Germany 5.7).

Financial attitude concerns the spending vs. saving preferences of individuals, and the short- vs. long-term view of life. The 0 to 5 score, created by the sum of answers to five items, rewards individuals with a long-term view with more points. The average score in Italy was 3.0, which also was the average of the sample, and close to other European countries' scores (e.g., Portugal 3.2, Austria 3.1, Germany 3.1).

The sum of the three scores (knowledge, behaviors, and attitude) provides a financial literacy score. In a range of 0 to 21, Italy scored 11.1 (53% on a standardized 0 to 100 scale). This is a low score, both in absolute and in relative terms. The financial literacy scores of other European countries were much higher: 68.5 (Austria), 66.1 (Germany), and 62.3 (Portugal).

A survey promoted by the Consumer Finance Research Center in 2014 investigated in more detail the financial knowledge of Italians using a set of 50 items (Nicolini, 2019, Chapter 7). For each of the 10 areas of knowledge in the survey (which included inflation, mortgages, bonds, stocks, bank accounts, payments, retirement, and insurance) was measured by a set of five items. The total score -- given by the percentage of correct answers to all 50 items -- was 47%, lower than the OECD financial knowledge score (3.9 on 7 equals 55.7%) and the financial literacy score (11.1 on 21 equals 52.9%). However, the results from different areas of knowledge highlighted some differences. The percentage of correct answers about retirement planning was 34%, and it was 26% for bond investments. In the meantime, knowledge about payment tools (62%) and bank accounts (74%) was much better than the average.

The National Strategy for Financial Literacy

In 2017 the Italian Government launched a national strategy of financial literacy and financial education and created a committee (the so-called "Comitato EduFin"[ix]) for its implementation. The committee is made up of members from different government departments and supervisory authorities.[x] The committee promotes financial education in schools, creates financial education curricula freely available online, and supports several third-party initiatives. The main annual event is the Financial Literacy Month (in October) when activities and initiatives are organized to stimulate interest and awareness of financial literacy.

Spain: Low Financial Literacy but Various Programs to Improve It

In the case of Spain, quantitative studies of the financial literacy of the adult population (around 40 million people) are practically non-existent. Publication of the *Survey of Financial Competences* (SFC) in June 2019 was the first national database regarding the financial literacy of the adult Spanish population, undertaken by the Central Bank of Spain (BE) and the National Securities Market Commission (CNMV). The availability of this dataset has opened the door to quantitative analyses about financial literacy in Spain.[xi]

Very Low Financial Literacy

In the SFC, two indices measure the financial skills of Spaniards. The first of these (FinLit3) measures competencies regarding the three basic dimensions of financial literacy (*the Big Three*). The second (FinLit10) supplies the number of correct answers to the ten questions about financial literacy included in the SFC (Bover et al., 2019). The FinLit10 index includes two questions about the simple interest rate, plus the *Big Three* questions which were proposed by Lusardi and Mitchell (2006), plus five questions devoted to measuring some sophisticated financial competences (mortgages, relationship between inflation and interest rate, relationship between risk and profitability, investment funds, and interpretation of financial graphs).

Financial literacy in Spain is very low. A mere 5% of the population responded correctly to the 10 questions in the survey. If we concentrate on the FinLit3 index, only 17.6% of Spaniards displayed a mastery of the *Big Three*, while 16% were incapable of answering a single question correctly.

A detailed analysis of the answer patterns shows that the question most often answered correctly was that regarding inflation (58.2% of individuals answered correctly), while the question about compound interest displayed the lowest proportion of correct answers (only 45.7% of respondents gave the right answer). Another noteworthy datum is the scant knowledge of the importance of portfolio diversification in the reduction of investment risk (only 48.5% of respondents supplied the correct answer).

With regard to the distribution of financial literacy by individual characteristics, the data make clear a correlation between financial literacy and gender (males have greater financial literacy than females), birthplace (those born outside Europe present lower financial literacy), age (an inverted U-shape), occupational status (self-employed workers have greater financial literacy than employees), and certain characteristics of the personality of the individuals (those favoring short-term investments and the propensity to accept risk display greater financial literacy). The relationship between the education of individuals and their household incomes was positive.

Different Strategies to Foster Financial Literacy

Several initiatives to promote financial literacy have arisen since 2007. From among all of these, the national strategy implemented by the Central Bank of Spain (BE) and the National Securities Market Commission (CNMV), following the recommendations of the European Commission and the International Network of Financial Education (INFE) of the OECD, stands out. We refer to the Financial Education Plan (PEF), initially established for the period 2008-2012, and subsequently extended for the periods 2013-2017 and 2018-2021.[xii] Other public and private actors also have taken some initiatives to improve financial literacy.

The National Strategy: The PEF

The principal objective of the PEF is to improve the financial education of the population, with the aim of enabling individuals to adequately confront the new financial context. Since its implementation, various initiatives have been undertaken within the framework of the plan, directed at a large number of citizens. Among its fields of activity, the following stand out:

a) The design and launch in 2010 of the website *www.finanzasparatodos.es* intended to become a portal of reference for citizens on the subject of financial education. This website, with a practical and interactive focus, offers education to citizens of all cultural levels. Among other content, it deals with subjects such as “How to get to the end of the month,” “The supply of financial products and services,” “Economics in the stages of life,” and “Advice on investment.” The website offers training related to the banking sector, shares and insurance, and pension funds, as well as practical tools and calculators especially designed to manage household budgets.

b) Signing collaboration agreements with other institutions (public administrations, the financial industry, companies, consumers’ associations, the educational system, and associations representing certain citizens’ collectives). These agreements aim to collaborate with the PEF, with the objective of promoting the financial education of companies, investors, and financial intermediaries in the national territory, through the performance of educational and publicity activities, and the promotion of training material. Also noteworthy is the agreement signed with the ONCE (National Foundation for Cooperation and the Social Inclusion of the Disabled), on the basis of which training courses on personal finances and financial skills for numerous disabled individuals have been undertaken.

c) Financial education for youth is one of the most important and pressing challenges for the PEF. To this end, in September 2009 the BE and the CNMV signed a Collaboration Agreement with the Ministry of Education to implant financial literacy in the education system. This Agreement meant that during the academic year 2010-2011 a Pilot Programme of Financial Education was imparted to the ninth grade. One of the activities consisted of designing materials in a videogame format with financial content. The program subsequently was extended to all of the Autonomous Communities (Spanish regions). The PEF has placed at the disposal of both teachers and students a variety of educational material, including guides for students and teachers and a website.

d) Extension of financial literacy to the collective of senior citizens is another of the priority lines of the PEF. Training actions have been oriented to distribute specific content regarding pension plans, saving for retirement, and insurance. To this end, collaboration agreements have been signed with the MAPFRE Foundation and the AVIVA Institute of Savings and Pensions.

At the margin of earlier actuations, the PEF undertakes numerous training and educational activities. From among these actions should be emphasized the informative tasks undertaken in a multitude of events having a social content, at both the national and international levels, and the compilation of a national survey, the SFC, referred to above.

Elsewhere, and within the PEF, the *Code of Good Practice*[xiii] for initiatives in financial education was elaborated in 2016. This Code, which arose from the recommendations issued by the OECD to impel and develop impartial and quality financial education, establishes the principles applicable to initiatives related to financial education developed in Spain, with the aim of providing a framework of impartiality, quality, and transparency, essential for such initiatives to be undertaken.

Other Initiatives

Together with the national strategy headed by the PEF, in Spain there exist other initiatives to foster financial literacy, including those preceding the national plan itself. The first of these was the *Proyecto Edufinet,* implemented in 2007 by the UNICAJA Bank, with the intention of providing the users of financial services with a clear guide to the most important aspects of the financial system and to the distinct products and services offered by the bank in the fields of savings, investment, and finance. The initiative includes the instigation of an Internet channel (*www.edufinet.com),* the publication of various guides, the organization of workshops and an annual financial Olympics, the creation of a financial simulator, and the development of specific programs for youths, entrepreneurs, and other collectives.

Another noteworthy program is the *Programa del Institut d' Estudis Financiers* (Program of the Institute of Financial Studies), developed by the Government of Catalonia and the *Instituto de Estudios Financieros* (Institute of Financial Studies), with the aim of facilitating access to information regarding financial education projects to diverse collectives (children, students, adults, parents, consumers, and low-income groups), through the Internet portal http://edufinanciera.com/category/publicacions/divulgacio/

Together with these, there exist different initiatives promoted by private financial institutions such as the BBVA (Banco Bilbao Vizcaya Argentaria), the Banco Santander, and the Caixa or Women's World Banking. A summary of their characteristics can be seen in the International Gateway for Financial Education (www.financial-education.org) created by the OECD. To these can be added multiple Internet portals with financial education content (Domínguez Martínez, 2017).

Apart from the foregoing can be highlighted the incorporation of financial education into the curriculum of primary and compulsory secondary education since the passage of the National Education Law (LOMCE) in 2013. Prior to this, economic subjects had only formed part, as optional studies, of the two final years of secondary education. The LOMCE included in the primary education study plan some basic concepts relative to the value of money, savings, personal budgets, and responsible and sustainable consumption. Furthermore, secondary students now study Initiation to Entrepreneurial and Business Activity as well as Economics, although both are optional.

Switzerland: Relatively High Financial Literacy with a Decentralized Development Strategy

In a country comparison with 15 other nations, Switzerland (around 8.2 million people), along with Austria and Germany, is one of the leaders in financial literacy (Lusardi, 2019). However, Switzerland is a frontrunner at a low level: Only 50% of respondents in Switzerland were able to correctly answer the famous *Big Three* questions. Another consistent pattern in Switzerland, as in many other countries, is that financial literacy varies widely among different population groups. It is lower among low-income, less-educated households, and households with a migrant background that are non-native speakers, as well as among women. Regarding the over-indebtedness of adolescents and young adults in Switzerland, a study on behalf of the Swiss Federal Statistical Office (SFSO) from 2013 (*Verschuldung und Bezug zum Geld – Debt and relation to money*, 2020) found the country is not above average in relation to other age groups nor in international comparisons.

No National Strategy (So Far)

In many countries, there are national strategies for financial education that bring together and coordinate activities in the field. Compared to this international trend, the development in Switzerland is rather decentralized. Although there are more and more public and private actors who offer educational programs on financial topics for schools or the public at large, Switzerland has neither a national strategy nor an explicitly responsible authority in the field of basic financial education. With the exception of *Il franco in tasca* (*The franc in your pocket*), the program for the prevention of over-indebtedness in the canton of Ticino, there are few broad-based surveys, school experiments, or campaigns. For example, Switzerland does not participate in the voluntary supplementary part of the PISA survey on financial literacy, first conducted in 2012.

Admittedly, a national top-down strategy is unlikely to be the right path for a federalist, multilingual, direct-democratic country like Switzerland, with a great deal of political autonomy at regional and municipal levels. Nevertheless, the question arises as to whether the current approach is adequate to meet the challenges ahead. Certain trends indicate that financial education will become increasingly important in the future, even in Switzerland. While the pension system and social security generally are considered as good, pension funding is under increasing pressure due to demographic developments. The long-term effects of low real interest rates and the resulting incentive to take excessive risks also give cause for concern. Another issue is the impact of new technologies on financial markets, the financial products and services on offer, and consumer behavior. The COVID-19 pandemic also has highlighted that financial literacy can make a huge difference for households in times of financial crisis – particularly for the precariously employed, or those on the verge of living on subsistence wages.

Although there is no national financial education strategy in Switzerland, the relevant school curricula cover basic financial education quite well. Personal finance is hardly ever directly at the core, but it is part of a broadly understood basic economic education. Within the regional curricula at the compulsory school level – the Lehrplan 21 for the German-speaking cantons, the plan d'études romand for the French-speaking cantons, and the piano di studio for the canton of Ticino – the coverage in Lehrplan 21 is broadest as part of the subject area "Economics, Labor, Household."

At the post-compulsory school level, the importance of economic education depends on the type of school. In vocational schools, economics is taught either in the subject Society or in the so-called “General Knowledge” (Allgemeinbildender Unterricht) classes. Depending on the professional profile, economics also plays an important role in the vocational training part, for example in the training of a commercial clerk (Kaufmann/Kauffrau). “Economics and Law” is a compulsory subject in high schools (Gymnasium), where it also can be chosen as a major or supplementary subject. “Economics and Law” is also a compulsory subject at the specialized secondary schools (Fachmittelschulen) as part of the humanities and social sciences.

To date, the Swiss National Bank (SNB) is the only national authority that systematically promotes financial education in Switzerland. It does this within the framework of its education program *Iconomix*. *Iconomix* primarily addresses teachers of Economics or Humanities at the post-compulsory school level. However, teachers in other school levels and other subjects are also free to use it. The educational objective of I*conomix* is to enhance the economic and financial skills of adolescents and young adults. Since the launch of the program in 2007, financial education has been a key focus. Roughly half of the currently-available 100 teaching modules (available in three national languages and English) are related to financial literacy.

In addition to the SNB, there are a number of other public and private providers of financial literacy programs and services. Among them are the local/regional debt and budget consulting centers with their respective umbrella organizations.[xiv] The providers also include municipal debt prevention centers like the debt prevention center of the city of Zurich, as well as non-profit organizations such as Caritas, Pro Juventute, and Verein Jugendlohn, to name a few. Providers of financial literacy programs also include for-profit institutions from the financial sector. The state-owned Postfinance and Cantonal Banks are currently the most active. For example, the Association of Swiss Cantonal Banks has established a joint financial literacy initiative with the two language-specific teacher associations of the German- and French-speaking parts of Switzerland.[xv]

Differentiated Needs

Where is the greatest need for financial education in Switzerland today? Most obvious is the lack of national networking and coordination. It is currently difficult even for experts to maintain an overview of the existing activities and fields of action. Consequently, more and more actors are looking for ways to network and cooperate among themselves. However, this consultation and coordination does not take place systematically, but is left to the initiative of individuals. Not only is there a need for more coordination, but also for more evidence, in particular with regard to the various existing programs and services. What about their implementation quality and long-term impact? Do they reach their target groups? What works well and what works less well? Answering these questions will be particularly important if financial literacy programs are to reach a wider, more diverse audience in the future than is currently the case, where that audience is predominantly school children and young adults.

The lack of empirical evidence goes beyond questions of quality and effectiveness of the existing programs. Given the cultural and institutional heterogeneity within Switzerland, it would be important to understand how financial literacy among households is correlated with socioeconomic and cultural background. A study from 2018 conducted by Brown et al. illustrates the hidden potential: The authors compared secondary-school students along the German-French language border within the same institutional setting. They documented that students in the French-speaking area had much lower financial literacy scores than students in the German-speaking area. The authors showed that the cultural divide in financial literacy is related to systematic differences in financial socialization by parents. The study thereby makes an important contribution to a better understanding of the situation in Switzerland; more research like this would be welcome.

Recently there have been efforts to establish a Swiss Money Week (SMW) as part of Global Money Week, an annual awareness campaign under the auspices of OECD/INFE. Behind this effort is an informal network of actors from the fields of education, debt counseling, and debt prevention.[xvi] The shared goal is to promote the financial literacy of the Swiss population. The first event was scheduled for spring 2020, but was cancelled due to the COVID-19 pandemic and rescheduled for 2021. It will be interesting to see whether this will trigger a much-needed boost to the perception of the importance of financial literacy in Switzerland.

The Netherlands: Above-Average Financial Literacy

The Netherlands (around 18 million people) is one of the wealthiest countries within the European Union. It has an extensive social insurance system that includes universal healthcare insurance and a flat rate basic pension which covers everyone who lives or works in the Netherlands. While the Netherlands is experiencing a period of economic growth, at the same time almost 3 million people are financially vulnerable (Money Wise, 2019): 13.2% of Dutch households are at risk of poverty and 13.7% are unable to withstand financial shocks (Statistics Netherlands [CBS], 2019; Wiersma et al., 2020). Additionally, the number of households with problematic debts has increased in recent years (Social and Cultural Planning [SCP] Office, 2016). This trend is especially pervasive among young households. According to the Debt Registration Center (BKR) (2020), one in seven individuals with financial problems in the Netherlands is younger than age 24.

Financial Literacy and Financial Decisions

While financial markets become more complex, individuals are becoming increasingly responsible for their own financial well-being. As an example, in 2015 the Dutch government increased the statutory retirement age to 67 in 2021 and linked this age to life expectancy thereafter. Hence, individuals need to figure out how much to save if they want to retire early. Moreover, following the 2019 Pension Agreement, pension funds no longer are required to hold buffers, making future pensions more volatile. The agreement also allows individuals to make lump sum withdrawals of pension wealth at retirement. Another example is the 2015 Dutch study grant system reform in which the basic study grant was replaced with a loan system giving students the choice to borrow more money from the "Student finance" (DUO). These reforms shifted more responsibility from institutions toward individuals and increased the complexity of the choices which individuals have to make in an environment of increasing uncertainty. Thus, individuals have to be equipped with the necessary skills to make informed decisions.

Relatively Good Financial Literacy

Evidence shows that financial illiteracy is widespread. Lusardi and Mitchell (2014) examined financial literacy in eight countries: the Netherlands, Germany, Italy, Russia, Sweden, New Zealand, Japan, and the United States. To measure financial literacy, they used the *Big Three* questions (see Lusardi & Mitchell, 2011). Dutch data were obtained from the 2010 Dutch Central Bank Household Survey (DHS), and 44.8% of respondents answered all three questions correctly. In the study, only Germany (53.2%) and Switzerland (50.1%) had higher financial literacy scores. The financial literacy module was fielded once more in 2015 in the DHS survey where 47.2 % of the Dutch respondents answered all questions correctly, a slight increase (Struik, 2016).

In 2016, the OECD published a study analyzing financial literacy across 30 countries. The Netherlands had a score of 13.4 (out of 21), above the average score of all participating countries (13.2) but below the average of the OECD countries (13.7) (OECD, 2016). Standard & Poor's Global Financial Literacy Survey also provides data about financial literacy from more than 140 countries. The five questions used to measure financial literacy focus on four fundamental concepts: risk diversification, basic numeracy, inflation, and interest compounding. In the study, the Netherlands was among the countries with the highest financial literacy rates, with 66% of respondents classified as financially literate (answering at least three questions correctly) (Klapper et al., 2015). All of these studies indicate that many people, in developed and developing countries alike, lack the financial knowledge needed to function as effective financial decision-makers. Nonetheless, in comparison to other countries, adults in the Netherlands perform relatively well on financial literacy.

Findings about financial literacy among the youth in the Netherlands are similar. In an initiative to evaluate the financial literacy of the youth (15-year old students) around the world, in 2012 the OECD added a module about financial literacy as part of their PISA project. The Netherlands participated in the second (2015) and third (2018) assessments.[xvii] Both times, Dutch students scored above the OECD average (OECD, 2017, 2020b). Nevertheless, about one in five Dutch students lack the basic skills to make everyday financial decisions and socioeconomically disadvantaged students were more than twice as likely as advantaged students to have lower financial literacy scores (OECD, 2017).

Status and Outlook of Financial Education

Various organizations in the Netherlands are involved in financial education. The National Institute for Family Finance Information (Nibud) was the first organization established with the primary task of promoting sound financial behavior. Nibud is an independent foundation that provides information and advice on financial matters of households. Their mission is to support households in making sound decisions regarding their budgets. Nibud also supports professionals who are engaged in consumers' financial matters, such as banks, financial service providers, and teachers, by increasing their expertise. They provide them with research, advice, reference figures, calculation tools, education, and educational material. As a response to the growing need for financial education, the *Wijzer in geldzaken* or the Money Wise Platform was launched in 2006 by the Ministry of Finance to improve the financial fitness of Dutch citizens. The platform is responsible for developing and implementing the National Strategy for Financial Education. The first national strategy was launched in 2008 and updated in 2014 and 2019. The latest mission outlines Money Wise's focus for the next five years. The primary focus is to prepare households -- especially vulnerable groups -- for unexpected life events such as job loss and illness so they become less financially vulnerable. Additionally, in line with Money Wise's mission to teach financial skills from an early age, they want to *"ensure that financial skills become a structural part of the school curriculum for all educational streams"* (Money Wise, 2019). Financial institutions such as banks, insurance companies, and pension funds also have promoted responsible financial behavior by educating their customers. The ING bank started the Think Forward initiative to understand the mechanisms behind financial choices and use the acquired knowledge to develop tools that aid people to make better financial decisions.[xviii] Several actions have been initiated in the Netherlands to improve financial literacy; however, there is still a long road ahead.

Conclusion

Some of the most illustrious economists have put forward the role of financial literacy as a "cure" for certain economic problems: lack of economic growth (Phelps, 2017), financial crises (Shiller, 2008), and wealth inequalities (Lusardi, 2019). As most European countries' aging economies are driving reforms of pension systems, other economists think more simply that it is necessary to improve the financial literacy of populations so they are better able to prepare themselves to finance their old age, particularly in terms of portfolio choice (investments in long-term assets, risky/non-risky trade-offs, etc.). Some economists suggest that governments should provide financial education for the public to improve national economic knowledge; others propose putting in place education programs from a young age.

The main objective of this chapter was to describe financial literacy and financial education programs in these Western European countries: France, Germany, Italy, Spain, Switzerland, and the Netherlands. A first observation concerns financial literacy: to varying degrees, the residents of these countries are far from financially literate, leaving room for improvement. A second observation concerns the heterogeneity of financial literacy. In all countries, financial literacy depends on age, education, and gender (higher among men, older people, and graduates). Other determinants appear to be more specific to the culture of each country. For example, the French, who are politically at the center of the political spectrum, are better educated financially. This is also the case for citizens of the former West Germany and students from the German-speaking part of Switzerland. Finally, it appears that financial education programs (private or public) have appeared just about everywhere in Europe since the mid-2000s, but probably more systematically in centralized countries (France, Italy, Spain, the Netherlands) than in others (Germany, Switzerland).

A recommendation for future research is to focus on the effectiveness of Western European financial literacy programs. There is a large literature evaluating financial education as a means to improve financial literacy and financial behavior. In recent surveys, Hastings et al. (2013), Fernandes et al. (2014), and Stolper and Walter (2017) suggest that the evidence with respect to the effectiveness of the programs is rather disappointing, and apparently their capability to improve the quality of financial behavior is limited. This is in contrast to Kaiser et al. (2020), who advocated the opposite. Thus, systematically evaluating and improving the effectiveness of financial education programs seems key in order to educate individuals sufficiently.

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Endnotes

[i] This hypothesis of the influence of ideology and economic environment on an individual's "stock" of financial literacy is the focus of a study by Bucher-Koenen and Lamia (2018), who seek to explain the accumulation of financial literacy in Germany by separating former East Germans from former West Germans. The most interesting conclusion is that, even considering individual characteristics, there still remains an (unexplained) difference between the two Germanys wherein the former West Germans are found to be more financially "literate" than the former East Germans.

[ii] The average (respectively median) financial wealth is about USD 68,000 (respectively, USD 13,500).

[iii] Position AMF n°2013-02, recommendation ACP 2013-R-01 of 8 January 2013.

[iv] https://www.lafinancepourtous.com/

[v] https://www.mesquestionsdargent.fr/

[vi] The OECD/INFE financial literacy model is based on the three pillars of knowledge, behavior, and attitudes. With scores of 5.2, 5.7, and 3.1 (on knowledge, behavior, and attitudes, respectively), Germany is slightly above or on the OECD average of 4.6, 5.3, and 3.1. The OECD sample 2020 includes the following current OECD member countries: Austria, Colombia, Czech Republic, Estonia, France, Germany, Hungary, Italy, Korea, Poland, Portugal, and Slovenia (OECD, 2020a).

[vii] The ranking in 2019 was 1) USA, 2) China, 3) Japan, 4) Germany, 5) UK, 6) France, 7) India, 8) Italy, 9) Brazil, 10) Canada.

[viii] In 2019, the ranking was 1) Hong Kong (84.7 years), 2) Japan (84.5 years), 3) Switzerland (83.6 years), 4) Singapore (83.5 years), 5) Spain (83.4 years), 6) Italy (83.4 years).

[ix] For additional information see http://www.quellocheconta.gov.it/it/chi-siamo/comitato/

[x] The list of the committee members includes representatives of the Minister of Economics and Finance, Minister of Education, Bank of Italy (Italian central bank), and Consob (Italian Security and Exchange Commission).

[xi] More information regarding the two questions dealt with in this section can be found in Mancebón et al. (2020), Cordero and Pedraja (2018), and Domínguez Martínez (2017).

[xii] https://www.cnmv.es/portal/Publicaciones/PlanEducCNMV.aspx

[xiii] https://www.cnmv.es/DocPortal/Publicaciones/PlanEducacion/PlanEducacion18_21en.pdf

[xiv] schuldenberatung.ch and budgetberatung.ch, respectively

[xv] financemission.ch

[xvi] finanzkompetenz.ch

[xvii] In the 2018 financial literacy assessment, weaker students in the Netherlands were underrepresented. Therefore, the results may not be comparable to data from other countries and should be interpreted with a grain of salt.

[xviii] https://www.thinkforwardinitiative.com/