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The retail investor: financial user in the new Crowdfunding Regulation

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To my parents Alberta and Giandi,
to my sister Costanza,
to my uncles Alessandra and Fabrizio,
to my beloved grandmothers Dorina and Elda,
and to all my brothers.

*A special thanks to Professor Andrea Minto
who accompanied me at the end of
my academic career.*

SUMMARY

ABSTRACT

This thesis analyzes the evolution of the investor protection in the light of the new crowdfunding regulation, in order to understand the reasons that led the legislator to intervene on the market again.

The thesis will conclude with the analysis of the financial education, and its contribution in improving the protection of the investor himself.

INTRODUCTION

The last few decades have been characterized by a strong technological progress. The application of new technological solutions to the economy and finance environment has led to the birth of "Fintech". The term Fintech generally indicates financial innovation as consequence of technological innovation, which can be translated into new business models, processes or products, and even new market operators.

The nature of the relationship between technological innovation and financial intermediation is the subject of in-depth study from different perspectives, considering the impact that technological transformation is producing on the financial system all over the world.

The changes taking place in the financial services markets, driven by technology, have a far deeper and broader political-strategic scope than a mere redesign of specialized economic structures as we know today.

These new solutions, in fact, are allowing more and more users to access the services made available by the companies belonging to this sector, certainly impacting the stability and integrity of the economic and financial system.

The authorities in charge, both at national and European level, have for several years now begun a process of interventions aimed at guaranteeing the stability of the system and consumer protection, reforming the regulation of financial services and revising the European financial supervision system.

The new European regulation on Crowdfunding Service Providers (ECSP) is part of this regulatory phase. In light of the growth that this technology is experiencing, the European regulator has deemed it appropriate to intervene in order to provide crowdfunding with its own specific regulation, exempting it from the more general MiFID II Directive.

Particular attention is being paid to the topic of investor protection. Considering the recent crises, European institutions have identified the confidence and protection of the investor, especially the retail one, as an important point for keeping European financial markets active and well-functioning. As many unsophisticated investors are entering these markets, their protection has assumed considerable importance.

We will therefore examine the evolution of investor protection in the various directives issued at European level, and the reasons that led to a tightening of the measures, culminating in the ECSP Regulation.

In the first chapter of this paper we will present the crowdfunding phenomenon. Starting from the events that originated it, we will proceed with the analysis of the main configurations with which this solution presents itself to the market, and the reasons why, first at the national level, and subsequently at the international level, the protection investor, which led to this latest wave of regulation.

In the second chapter, however, the legislation on investor protection will be reconstructed. Starting from the first Investment Services Directive, we will see how the investor has been increasingly subject to regulation in MiFID first, and especially in MiFID II later.
In the second part of the second chapter, the new regulation of crowdfunding service providers will be presented, and in particular the articles containing the provisions suitable for investor protection.

Finally, in the third and final chapter, we will present the role of literacy and financial education. After having defined the previous concepts, we will examine

how the level of literacy is measured in the various states, also trying to understand which variables can affect these results.
We will then proceed with the definition of behavioral finance, the related concept of risk, and the analysis of the effects that financial education programs could have.

The results of this analysis will be presented in the conclusions, with some personal reflections on what emerged.

CHAPTER 1: CROWDFUDING PLATFORMS AND LEGAL ISSUES

1.1 - Introduction to the origins of Crowdfunding

In the last decades there has been a growing involvement of the *crowd* in the participation of social, economic and civil life. The internet is used to celebrate elections, to vote for an artist in a TV talent show, to sign a petition and for many other forms of active participation. Thanks to internet and to social networks, there has been a real change in people's habits due to the connection with the network. This is a transformation with significant consequences on political dynamics and economic life.

Yochai Benkler[1] highlighted that while twenty years ago the essential tools for effective information production and consequent communication were in the hands of a certain number of subjects, today that number is exponentially larger. People of the net have become both an objective and a source of information. In the economic world, access to such large section of the population, which can be easily segmented, has allowed the development of projects capable of enhancing popular participation. The crowd wants to participate in the realization of social trends and influence models that until a few years ago were under the control of a few.

[1] "*The Wealth of Networks: How Social Production Transforms Markets and Freedom*", Y. Benkler, Yale University Press, 2006.

1.2 - Crowdsourcing

Crowdsourcing is the generation of ideas coming from people interested in offering their personal contribution on different projects (e.g. the definition of a logo, the development of a design idea, the creation of an intellectual work). Jeff Howe provided the first definition of this phenomenon in article "*The rise of crowdsourcing*"[2]. His work highlights an important passage: people connected through the internet, aggregate themselves into networks that channel interests, passions, culture, allowing the mass to recognize each other, interact and dialogue without getting lost[3]. The personal contribution of each participant is canalized to improve the project and consequently in favor of those who propose it. Unlike the *open source*, where resources belong to the community[4], in crowdsourcing the project and its improvement always belong to the company that solicited and acquired them.

Crowdsourcing is therefore based on a very strong openness to the public offered by the network and on a spontaneous desire to contribute with one's skills to the development of the project. However, it does not have the intrinsic "democratic nature" of open source, since the contribution are exclusively used in the interest of who proposed the initiative.

Moreover, internet eliminates the barriers and costs of communication and allows anyone to contribute with their creativity to the development of a project. The reduction of costs, in a period of worldwide crisis, is a factor that has significantly contributed to the explosion of the phenomenon.

Kleeman[5] defined crowdsourcing as the phenomenon in which a company outsources specific tasks for the production or sale of its products to the public

[2] "*The rise of Crowdsourcing*", J. Howe, Wired Magazine, 2006.

[3] "*Equity crowdfunding, Investire e finanziare l'impresa tramite internet*", p. 3, A.M. Lerro, 2013

[4] E.g. Linux, Firefox, Wikipedia.

[5] "*The Commercial Utilization of Consumer Work through Crowdsourcing. Science, Technology & Innovation Studies*", p.5, F.V. Kleeman, G. Gunter, 2008.

(crowd) through an open invitation on internet, inducing people to make spontaneous contribution to the production process of the company.
It is basically the creation of a free task force that Kleeman defines as "*working consumer*" and which has great value because: participate for free in the production process and create value; its capacity can be considered an exploitable asset and is integrated into the corporate structure and can be monitored, as a real workforce.
There is no limitation in terms of characteristics and qualifications of the crowd: they may be volunteers who engage in their free time, as well as professionals and experts in the issues in question or commercial enterprises.
Crowdfunding has more in common with crowdsourcing than it may seem at first glance. The method of carrying out projects that unites them radically changes the organization of an existing sector, breaks down hierarchies, connecting people directly.

1.3 - Micro-finance and microcredit

Micro-finance has always been considered as a marginal phenomenon, even if in recent years micro-finance practices constitute one of the most effective tools becoming increasingly popular, certainly in the fight against poverty, but also in the regeneration of the social capital of a territory.
The term micro-finance refers to financial products and services offered by specialized banking institutions to customers who, due to their economic and social condition, have difficulty in accessing the traditional financial sector. Micro-finance helps people living in poverty to increase their income, create sustainable businesses and improve living conditions.
The main service offered by these institutions (called "Banks for the poor" or "Ethical banks") is micro-credit, which consists in the granting of modest loans

to small entrepreneurs who need funds to start a new business or improve one that has already started.

Historically, the origins of microcredit as a financial instrument can be traced back to the nineteenth century, with the first experiences of the village banks founded by Raiffeisen in Germany, the Lending Charities in England, the Loan Funds in Ireland, the mutualistic experiences in Portugal and Belgium and the cooperative mutualistic model of rural banks in Italy and Spain.

However, microcredit established itself internationally in the mid-1970s thanks to the initiative born in Bangladesh by Muhammad Yunus[6], called the "banker of the poor", who founded Grameen Bank in 1977.

It is considered the first modern microcredit institution: to promote growth and economic development of poor countries it is sufficient to provide small loans at subsidized rates and without expenses, with repayment in very small installments on dates close together so as to be able to monitor the progress of the project and thus reduce the probability of insolvency. These loans are mostly granted without guarantees and proper contracts, but with a more than surprising outcome as more than 95% of them are repaid[7].

[6] Muhammad Yunus (born 28 June 1940) is a Bangladeshi social entrepreneur, banker, economist, and civil society leader who was awarded the Nobel Peace Prize for founding the Grameen Bank and pioneering the concepts of microcredit and microfinance.

[7] "*Microfinanza dare credito alle relazioni*", p.50, A. Andreaoni, V. Pelligra, 2009.

1.4 - Crowdfunding and its main collection models

The evolution of crowdsourcing in monetary terms is crowdfunding. Crowdfunding is, indeed, the process through which small amounts of capitals are collected from a wide range of individuals to finance new or existing businesses or projects.

There are online platforms that promote collections of money to finance social projects or linked to the creation of intellectual works (feature films, songs, etc.) or still aimed at the launch of entrepreneurial activities. They basically operate as "showcase" in which financiers can examine the project's features, such as the conditions for its success, the minimum amount, if applicable, and the time within which to collect it, are displayed at the same time.

The platforms mainly use two methods: the first one is the Threshold-Pledge System (or "all or nothing") where the project is financed only if the set amount is reached, while otherwise the funds return to the availability of the lenders. The diffusion of this system is quite high, only 28% of the platforms do not foresee any obligation to achieve stated objectives; while 18% of them leave the proposer free to choose the model he prefers.

The second method, on the other hand, consists of a "take it all" where a limit to the collection is not set and the project is financed regardless of whether a minimum threshold is reached[8].

There is a further model in which the lenders are remunerated with a percentage of the sales price of the product. The lender will therefore be remunerated only if the product is sold on the market and according to the type of support given to the fundraising[9].

Different classifications of the online platforms can be proposed, but for our analysis' purposes it seems more appropriate to focus on the classification

[8] "*Crowdfunding and the federal Securities laws*", p.31, S. Bradford, 2013.

[9] Model used by *Starteed* (see: http://www.starteed.com).

deriving from the type of return attributed to the individual financiers of each project.

1.4.1 - Donation-based

Donation based crowdfunding is the model that does not presuppose any kind of advantage for the investor, neither in goods nor in services, but only a moral recognition. This type is used for charity campaigns and for the financing of projects defined as "social crowdfunding" or "civil crowdfunding"[10].

The projects can vary in the most diverse fields, from art to humanitarian projects, up to the financing of civics, functional to a better use of public goods, such as parks or protected areas.

The first to use this model were the artists thanks to ArtistShare, the first recorded crowdfunding website which allowed fans to make contributions to support their artist's musical endeavors[11].

In a similar way, charities also began to see the potential of the web and the crowd, so in 2000 JustGiving was born and in 11 years raised more than 700 million pounds for about 12,000 charities.

The strong point of innovation of these platforms relates to the personal sphere as the donor can directly choose the social cause to be supported and immediately make the donation online.

This type of crowdfunding does not require specific regulation or the particular attention of the Supervisory Authorities which, as we will see, became necessary for other models that instead present problems on which the regulator had to pay more attention to protect the subjects involved.

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[10] "*Il crowdfunding in Italia*", p.8, U. Piattelli, 2013; "*Crowdfunding and the federal Securities laws*", p.31, S. Bradford, 2013; "*Equity crowdfunding, investire e finanziare l'impresa tramite internet*", A.M. Lerro, 2013.

[11] "*The Evolution of Crowdfunding*", Jumpstart, Théo Münch, 2019.

1.4.2 - Reward-based

In this crowdfunding model the supporters of the initiative receive a reward in exchange for the donation, which can vary from the pre-sale of the object financed, the discount on the same, until a simple "thank you" on the website[12]. This model is today the best known and most widespread, mainly used by designers who want to collect donations for a specific project, giving in exchange small, proportionate rewards.

Reward-based platforms generally divide projects into categories which can vary from art to technology. In most cases reward-based platform let you choose between different levels of rewards depending on the amount of the donation made.

Lately, the pre-sale phenomenon has been established in these types of platforms: in this way it is possible to start the online campaign before beginning the real production of the product, asking supporters to finance the project, and providing them in exchange the product at a lower price compared to the market one. Thanks to this method, the search for funds on the market is replaced and a good index of what the actual demand for the product may be, is obtained[13].

This is the case of one of the most popular crowdfunding campaigns, Peeble Technology, a start-up based in Palo Alto which in the spring of 2012 exceeded the threshold of 10 million dollars, breaking all fundraising records with this type of approach[14].

The inventors of Peeble Watch wanted to create a watch that managed all the information on their smartphone without taking this out of their pocket. After the first prototypes it was clear that the idea was working and of high potential, but they needed funds to get the project started. Surely by resorting to a venture capitalist or a business angel they would have found funds, but they wanted to

[12] S. Bradford, op.cit. p.4; A.M. Lerro, op.cit. p.4; U. Piattelli, op.cit. p.4.
[13] "*The future of crowdfunding*", D. Castrataro, T. Wright, 2013.
[14] "*Start-Ups Look to the Crowd*", J. Wortham, 2012.

crowdfund the project through *Kickstarter*[15] due to the ease of access, compared to *seed financing* solutions[16].

In this case, the convenience for the Pebble Watch funder was to buy the watch for USD 99.00, much lower than the market price set at USD 150.00[17].

However, it should be emphasized that the projects' owners, do not necessarily carry out the same successfully. In this sense, the platform does not carry out any control, but advises individual donors to use the common sense when supporting a project and warns that those who propose a project could be condemned to pay damages if they do not complete the project in the manner and within the terms indicated.

However, by analyzing the practical applications in terms of the reward granted to the investors, a further classification can be made[18].

The modal donation: the most well-known type of reward-based crowdfunding is the one that provides lenders with a small prize, a gadget, or a mere recognition, such as a public mention. Basically, the collection of funds takes place by way of donation, since the "*price*" has no counter-performance value (in the common law system "consideration"), and often has no economic value.

The pre-order: from a legal point of view, the pre-order is nothing more than a sale or a promise to sell a future asset, depending on how the relationship is configured.

Profit sharing or royalty-based crowdfunding: the third and most complex type of reward-based crowdfunding is the so-called profit sharing: the investor is offered a premium of a financial nature, corresponding to a share of the revenues or profits of the financed activity, payable under certain conditions and for a certain period. This formula, sometimes also called "royalty-based"

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[15] Kickstarter is an American public benefit corporation based in Brooklyn, New York, that maintains a global crowdfunding platform based on "*all or nothing*" model.

[16] Seed money, sometimes known as seed funding or seed capital, is a form of securities offering in which an investor invests capital in a startup company in exchange for an equity stake or convertible note stake in the company.

[17] "*Success of Crowdfunding Puts Pressure on Entrepreneurs*", J. Wortham, 2012.

[18] "*Equity crowdfunding, investire e finanziare l'impresa tramite internet*", A.M. Lerro, 2013.

crowdfunding, can also be used for specific business or individual product lines of a company: this allows you to limit both the financing and any economic relationship with investors to the specific product without involving the other business of the proposer.
In this model it is evident that the associates participate in the losses to the extent of the contribution made, which can therefore be entirely lost. The associate can establish the extent of profit sharing and its duration, setting it in a limited period. Furthermore, the associate can establish in advance which rights are due to the associates in participation: these are generally mere rights of accounting control or examination of reports, even if there is no lack of experience of significant involvement of the associative base in the direction of the entrepreneurial activity. with the crowdsourcing formula[19]. Royalty-based crowdfunding is the solution for companies that do not have the subjective requirements to access equity crowdfunding or that want to open the shareholder structure to unrelated third parties, while being willing to recognize them a share in the profits and, possibly, a role advisory.

1.4.3 - Lending based

Born because of the global economic crisis and the so-called credit crunch, social lending is a system of credit disbursement between individuals carried out through a web platform[20].
The modality of support to the project does not take place in terms of shareholding, but simply through loans.
In 2007 ZOPA was introduced in the market as an online social lending whereby borrower-lender interactions take place within an open and transparent environment using discussion boards and blogs. ZOPA offers services as an

[19] "*Equity crowdfunding, investire e finanziare l'impresa tramite internet*", A.M. Lerro, 2013.
[20] "*The new federal crowdfunding*", S. Bradford.

intermediary but different from the intermediating role played by traditional banks. The peer-to-peer relation settled down between the parties has originated the lending-based crowdfunding. This is one of the models that has attracted most interest so much that in 2014 it grew globally by 223% totaling almost 11 billion dollars[21].

With the social loan, the lender receives an interest rate on average more favorable than that proposed by financial intermediaries for traditional investments, and the borrower pays an average rate lower than the rates of normal consumer credit[22]. This is because the intermediation costs of social lending are reduced due to the intermediation activity through the net, which has very low operating costs.

The loan is disbursed after an analysis of the documentation provided by the applicant in support of what is declared online. A plurality of lenders contributes to credit coverage, each with a principal amount and a certain fixed rate, calculated as a weighted average of the rates requested by the individual lenders. The loan applicant repays the loan with a minimum monthly installment, or with a longer time extension (quarterly, etc.). The social lending intermediary must redistribute the installment to the lenders according to the principal amount and the interest due, or to activate credit recovery programs for all the lenders involved in the case of failure.

From the analysis of lending-based crowdfunding, three models can be identified[23]:

- **Micro-loans model**: it is a model totally based on the crowdfunding platform. The lender invests in a corporate vehicle whose performance determines the success or failure of the transaction. The vehicle disburses

[21] "*Industry report*", Massolution, 2015.

[22] To each applicant for a peer-to-peer loan is assigned a rating, that is, a judgment on the level of reliability by questioning the private risk centers, in a very similar way to what banks and financial companies do. The lower the rating level, the higher the interest rates for lenders.

[23] "*The future of crowdfunding*", T. Wright, D. Castrataro.

the credit to the various borrowers, absorbing the risks of default and managing the related recovery actions.

- **Loans between individuals (Peer-to-peer / Social lending)**: peer-to-peer lending consists in a financial transaction that takes place between two parties: a group of people lending small amounts of money to another person or to an organization.
- **Peer-to-Business**: this model allows small savers to lend money to small and medium-sized enterprises or start-ups. The advantage for the lender is given by the interest rate which in most cases is higher than the market's one. The platform publishes the profiles of the subjects requesting a loan and the users available to grant a loan. In Italy, for example, the two most famous models are Smartika, owned by Smartika S.p.A, a regulated payment institution, and Prestiamoci, owned by Agata S.p.A., a registered financial intermediary. It should be noted that Smartika is the new name of Zopa Italia, which operated between January 2008 and June 2009, based on the Zopa UK model, which operated in Italy as a registered intermediary, until the Bank of Italy suspended its loans provider activity because of problems in holding the lenders funds[24]. After two years, in 2010, with the transposition of the European Payment Services Directive (PSD), Smartika request and obtained the authorization as a payment institution, allowing it to restart to operate with a new name and without any connection with Zopa UK[25].

  Prestiamoci instead, was born in October 2009 and is based on a network of people who lend money, bringing the bank back to its original role of deposit. The flow of money between lenders and recipients and vice versa always passes through a bank. Transactions are managed through a web application that is fully integrated with the site, which is inexpensive and very secure. If the credit application is accepted, the site operators will

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[24] "*Social lending, ecco perché Bankitalia ha espulso Zopa*", M. Ferrando, www.ilsole24ore.com.

[25] "*Dopo lo stop di Bankitalia a Zopa il prestito social riparte con Smartika*", R. Amato, 2012.

assign the applicant a risk class that depends on his ability to repay the loan, his level of debt and credit history. If the applicant's business is more than profitable, he has no other loans at the request's time and has always been a good payer, he will be placed in the lower risk class and therefore will pay lower interest than who, while being able to repay the loan, he already has other financing in place and a less stable working situation.
On the other side, the platform is remunerated for the analysis, selection, and distribution of loans. Its remuneration consists in a percentage, in line with the private banker fees, which therefore makes this investment instrument economically competitive with traditional forms of asset allocation. The main difference, in addition to the fully online procedure, is that these loans are granted also to who, in relation to the credit crunch[26], would not be creditworthy according to traditional financial institutions. This last reason has made this financing method so famous. Lenders were initially keen to lend money to people who presented a good project, but who were not supported by banks or other credit institutions.

1.4.4 - Equity based

Equity-based crowdfunding consists in the formation of capital through the purchase of shares or stakes in a company by the crowd. This model includes those who want to support the projects of various entrepreneurs, paying money to buy a stake in the company's share capital[27].
In particular, the diffusion of this type has been slowed down by the constraints imposed by the regulations on public offers of financial products and investment

[26] "*Parte la piattaforma di Crowdfunding*", F. Marelli, 2013.
[27] "*Il crowdfunding in Italia*", p.8, U. Piattelli, 2013; "*Crowdfunding and the federal Securities laws*", p.31, S. Bradford, 2013; "*Equity crowdfunding, investire e finanziare l'impresa tramite internet*", A.M. Lerro, 2013.

services and activities, to mitigate the risk for investors and to prevent fraud[28]. Given the potential of the phenomenon, some national legislations have focused their attention on the possibility of regulating this crowdfunding model.
The procedures to be followed are complicated and prohibitive for a small business, as it is necessary to follow all the rules regarding the public offering of financial products. To avoid this, the platforms have circumvented the problem by adopting the cooperative model and the club-model[29]. In the cooperative model (also the so-called holding model or vehicle model) a "fictitious" cooperative is created which acts as an investment collection mechanism: individual taxpayers are gathered in a legal entity that will invest in the project.
The club-model consists in the recruitment of potential investors by the cooperative to form a closed investment club. In this way the offer is not made to the "public" but only to the members of the club[30].

[28] "*The future of crowdfunding*", T. Wright, D. Castrataro.
[29] "*The future of crowdfunding*", T. Wright, D. Castrataro.
[30] http://www.crowdcube.com/pg/how-investing-works-70.

1.5 - Crowdfunding in the legislative context

Following the global financial crisis, many governments have adopted over the last few years, measures aimed at facilitating the growth of start-up companies to stimulate economic growth through the birth of new entrepreneurial realities. Italy has placed itself at the forefront by adopting first a legislation and later a regulation only for equity-based crowdfunding. In America, after the enactment of the JOBs Act, an implementation by the Security Exchange Commission (SEC) is still awaited.

While some Member States apply the current financial services framework to crowdfunding service providers, others allow them to stay outside the regulatory regime and operate under exemptions based on specific business models. Meanwhile, an increasing number of Member States are implementing tailor-made national frameworks designed specifically for crowdfunding activities. The differences between the regulatory rules and the divergent regulatory scope adopted by the Member States represent an obstacle to the crowdfunding activities expansion across the EU as they would require the adaptation of business models to suit each jurisdiction, that would often entail different national authorizations or registrations and compliance with divergent national laws in various areas including marketing and consumer protection.

More importantly, such divergent interpretations and treatments of crowdfunding services create a framework of significant legal uncertainty for retail investors, who are not encouraged to invest in crowdfunding services due to weak or uncertain protection.

In the European Union, crowdfunding has expanded and is rapidly developing and establishing itself as a fundraising and financing system, although the lack of harmonization of the legislation was a significant obstacle to the development of this model. In particular, the absence of common rules and regulations resulted a restriction to the possibility of spreading the phenomenon. Many

investors or SMEs could be excluded from the possible use of crowdfunding just because of their geographical location.
The supervisory authorities of the various countries[31] have never been proactive in defining common positions, even if ESMA[32] has created a working group where they can confront each other on crowdfunding regulation, to push its development.
Moreover, considering that the services provided by these platforms can be traced back to a typical investment activity, since each funder allocates his or her funds to obtain a future return, they are inevitably subjected to the problems that afflict the financial markets and their main players in general. For instance, the financial crisis has brought out a series of problems in the functioning, regulation, and supervision of financial markets, so much so that financial stability has re-proposed itself as a fundamental objective of economic policy, with inevitable consequences regarding the regulation and management of the financial system. Skepticism has also grown towards the role of finance in the economic system, in relation to its "distance" from the real economy[33].
Therefore, there is a need to overcome the problems generated by the crisis and regain investor confidence, since the development of finance, that allows a greater risk diversification and makes financial services accessible to more countries, businesses, and people, can be an important tool for economic development.
It is important to point out though, that there is the risk that finance becomes an end in itself, causing greater damages the closer the system is interconnected and the more significant the potential negative externalities are. The correct conduct of credit and financial activities certainly requires competence and good faith on the part of intermediaries, but also requires adequate regulatory and supervisory regimes. The negative perception of banks and finance must not

[31] The main Authorities operating in Europe are: The Financial Conduct Authority (FCA) in the United Kingdom, The Autorité des marchés financiers (AMF) in France, BAFIN in Germany and CONSOB in Italy.
[32] European Supervisory and Market Authority,
[33] "Economia e finanza dopo la crisi", p.3, Banca d'Italia, Marzo 2013.

lead to an overreaction and lack of judgment. As Amartya Sen recalls, finance "plays an important role in the prosperity and well-being of nations"[34].

The impact that poor regulation of the sector can therefore have on the stability of the European financial market and on investor confidence, has pushed the European institutions to review the approach used in regulations, from a soft approach based on the principle of *mutual recognition* between the parts, to a day-to-day more precise and restrictive one in which the obligations and duties of the parts are clearly specified.

The focal point of this new phase of regulation remains the investor protection, which has proved to be crucial in maintaining that level of confidence within the financial system, with important consequences on its stability and growth.

The point of arrival are the last two regulations issued by ESMA regarding the new frontiers that have emerged in the European financial system, and who take it upon themselves to contribute to the capital markets union plan[35]: the crowdfunding platforms and the crypto assets market regulations.

By introducing uniform operating conditions for businesses within the EU, the proposal allows for overcoming the differences between national legal frameworks that have led to market fragmentation at EU level, significantly reducing complexity and the financial and administrative burdens for all stakeholders, such as crowdfunding platforms, project owners and investors.

This analysis will therefore examine how investor protection has been further intensified within the regulation relating to European Crowdfunding Service Providers. However, to understand how and why this last regulatory step has been reached, it is important to reconstruct the evolution of the path that led to this last phase, starting from the Investment Service Directive, passing through MiFID and MiFID II directives, and concluding with the ECSP Regulation.

[34] A. Sen, op. cit., p. 86.

[35] The capital markets union (CMU) is a plan to create a single market for capital. The aim is to get money, investments and savings flowing across the EU so that it can benefit consumers, investors and companies, regardless of where they are located.

CHAPTER 2 - EUROPEAN INVESTOR PROTECTION

2.1 - Investment Service Directive (ISD)

The genesis of the European investor protection regulation is the Investment Service Directive, that can be considered as the forefather of MiFID and MiFID II Regulations. In 1966, a group of experts coordinated by Claudio Segré[36], argued that the best way to harmonize the fragmented European Economic Community was to implement a series of well-defined rules[37]. They firstly introduced the concept of savings and saver's protection, which the European Commission identified as essential elements for the European integration and economic growth[38]. Indeed, the concept of investor protection as the base for the future economic development has dominated the regulatory scene, also in the later steps towards the latest ECSP and MiCAR Regulations.

On the contrary to what has just been said, the first regulatory phase, known as Investment Services Directive (ISD), was characterized by a completely unrelated approach than the one adopted in the Segré Report: the directive is indeed based on the concept of the mutual recognition[39]. The Commission decided to achieve the market integration removing physical, technical and fiscal barriers between Member States. Once a firm was authorized to operate in a Member State by the national competent authority, it could provide its services

[36] "*A Capital Markets Union for Europe, from Claudio Segré to Jean-Claude Juncker*", Emmanuel Mourlon-Druol, 2014.
[37] Moloney (2010), p. 6. See also the White Paper on Completing the Internal Market COM(85) 310, section 61 in which it reflects on the preceding 25 years. Micklitz has described the 1985 White Paper as providing "the necessary legitimacy for the European legislator to use and to instrumentalise law as a means to open up and to shape markets" and "where the birth of the EU as a market state can be located", see Micklitz (2012), p. 11
[38] "*Explanatory Memorandum accompanying the Code of Conduct, paragraphs 1 and 2*", 77/534/EEC Commission Recommendation.
[39] COM(85) 310, section 8.

in other Member States, without being re-authorized by foreign competent authority. Adopting this minimum approach, EU commission pushed national regulators to intervene in relation to the investor protection, inevitably creating unequal treatment between European jurisdictions[40].

The European Commission still adopted this approach also in the second ISD proposal, not including an appropriate investor protection regulation.

The Economic and Social Committee then decided to intervene in favor of an integration of conduct of business measures[41]. Finally, in the last version of ISD, Art. 11 contained the following principles on which the national regime should be based, since the possibility of further regulation was indeed left to the national regulators:

- Loyalty principle: firms were required to act honestly and fairly, in the best interests of their clients.
- Know-your-client principle: firms were required to collect information regarding clients' financial situations, investment experience and objective.
- Informed consent principle: firms were obliged to provide their clients all the relevant information[42].

The application of these principle, which gave investors a first minimum level of protection, left anyway to Member States a further space for regulating, not necessary in a convergence direction. [43]

The haste with which this residual part of the Directive was introduced, was among the main reasons that lead the ISD to be widely criticized.

[40] Preamble ISD; COM(85) 310, section 102.

[41] Opinion on the proposal for a Council Directive on investment services field, OJEU 89 C 298/03, 1 and 2

[42] Cherednychenko, p.246, 2011.

[43] Cruickshank, p. 132, 1998.

2.2 - MiFID

In 1998 the European Council request the Commission to produce a framework to improve the single market in financial services[44], through removing the latest barriers allowing a better provision of cross-border services, with the final aim of generating growth, job-creation, and improving competitiveness.

In 1999 finally the Commission assisted by a ECOFIN's group of representatives[45], completed its work: the Financial Services Action Plan (FSAP). Within this plan, investor protection played an important role, since its improvement was recognized as essential to improve the creation of a single European market through a better provision of cross-border retail financial services[46].

Given the failure of the previous approach, the Commission suggest to adopt a different approach than the "minimum harmonization and mutual recognition" used for the ISD[47]. To accomplish this task, has been created a proper committee under the chairmanship of Alexandre Lamfalussy. In particular, the workgroup proposed an approach based on a framework of basic principles that will be then translated into detailed standards by delegated rulemaking. The committee indeed proposed a structured distribution of powers, responsibilities, and duties across four level[48]:

1. *Framework legislation*: in this first level, the essential principles that reflect the main decisions taken by the European Parliament and Council are established. The main objective of the separation between the framework's definition and the following implementation of the

[44] Cardiff European Council, 15 and 16 June 1998, Presidency Conclusions, SN 150/1/98 REV. 1, 9

[45] The Economic and Financial Affairs Council (ECOFIN) is one of the oldest configurations of the Council of the European Union[1] and is composed of the economics and finance ministers of the 27 European Union member states.

[46] COM(1998) 625, 1.

[47] COM(1999) 232 (FSAP), 11.

[48] Initial Lamfalussy Report, 24 et seq.

subsequent measures, is intended to develop a flexible regulatory regime that can adapt itself to a fast-changing environment[49].

2. *Implementing measures*: the Commission, supported by the European Securities Committee, is authorized to implement a series of measures strictly based on the principles expressed in the previous level (e.g. The 2006 MiFID Implementing Directive and the 2006 MiFID Implementing Regulation)[50].

   In this context a new committee has been created, the European Securities Regulators Committee (later renamed CESR, Committee of European Securities Regulators), which represents all the national supervisory authorities of the Member States. It also has to provide technical advice to the Commission.

3. CESR: at the third stage, the Committee of European Securities Regulators is in charge of stimulating the adoption of what established in the first two Lamfalussy's levels, especially for what concerning the investor protection regulation.

   Its efforts are directed towards three objectives: a coordinated implementation of EU law, which consists in the translation of the measure taken in the two previous levels into national law; supervisory convergence, to be achieved through co-operation and coordination between national supervisory authorities; regulatory convergence, that explain how the first two Lamfalussy's level should be interpreted[51]. To carry out its tasks, the Committee uses recommendations, guidelines, standards, and peer reviews. It is at this level that a great work has been done with regards to investor protection, introducing various elements within the MiFID, such as report-keeping obligations for financial institutions, passport device, transaction reporting, etc.

[49] Final Lamfalussy Report, 20.
[50] Final Lamfalussy Report, 23 and 24.
[51] CESR Consultation Paper, The Role of CESR at "Level 3" under the Lamfalussy Process (CESR/04-104b), 3, 7 and 8.

4. Enforcement of the duties of Member States: at the last stage, a strengthening enforcement of EU regulation adopted at the first two Lamfalussy levels should be implemented. Even if the final version of the Lamfalussy's report talks about *shared responsibility*, currently the enforcement powers remain with the Commission, which eventually is authorized to resort to an enforcement procedure[52].

In 2004, after five years of consultation and development, the Commission finally published the final version of the Market in Financial Instruments Directive (MiFID). Following the provisions sets by the four levels Lamfalussy's approach, the Directive is indeed full of detailed day-to-day standards, which focused on three main objectives: improve market stability, create efficient and orderly markets, and strengthening investor protection. The latest point has been considered crucial, since due to the flexibility granted by ISD, Member States implemented different approaches with respect to investor protection and conduct of business rules. The main objective of the new proposal therefore became the harmonization of the legislation aimed at increasing investor participation in the financial markets. The fragmentation created by the ISD was in fact one of the major aspects that lead the directive to be considered as a failure[53].

MiFID is based on the general duty of loyalty, which requires investment firms to operate professionally, fairly, and honestly, according to their clients' interests[54]. In practical terms, these principles are also translated in the provision and disclosure of clear and not misleading marketing information, costs and risks information, and rules regarding conflict of interests, best execution, and suitability[55]. With the MiFID Implementing Directive, investment firms were

[52] Art. 258 TFEU.
[53] COM(2000) 729, 10.
[54] Art. 19(1) MiFID.
[55] Art. 18 MiFID et seq.

obliged to adopt those duties when supplying their core services: on the most important features of the directive, was indeed, the provision of tailored advice according to investor's characteristics.

Since that moment, the client classification was introduced, distinguishing between the professional investor and the retail investor.

The *professionall investor* is an individual who uses his capital to purchase one or more financial assets with the final objective of making a profit following a future sale. In general, professional investors can be considered as experts within the financial services, or at least owners of a sound knowledge that allows to protect themselves.

On the other side, the *retail investor* is individual does not always correspond to a financial expert. Many of the intermediaries' clients are individuals who decide to invest their capital within the markets despite lacking the necessary skills and knowledge. These subjects, are hence subjected to a stronger degree of protection, due to the lack of knowledge or experience in financial markets.

Ones categorized as professional or retail investors, the latter must be informed of the category in which has been included, to be aware of the regulatory framework to which it will be subject[56].

The MiFID approach just presented, marked a definitive change of setting. There has been a shift from regulation with particular attention to the market and based on the mutual recognition of the parts, to one that is more focused on the investor profile, and especially its protection.

[56] Art. 28 MiFID Implementing Directive; art. 45 MiFID II Delegated Commission Regulation (2017/565).

2.3 - MiFID II

José Manuel Barroso, President of the European Commission, in October 2008 established a group of work in charge of advising European Institution about the future developments of European financial market supervision and regulation[57]. The 2008 crisis in fact, brought a new wave of uncertainty and instability in the financial markets, so much that the Commission decided to intervene by tightening up the regulatory measures by reconsidering the approach used up to that moment.

In February 2009, the High-Level Group of Experts, chaired by Jacques de Larosière, presented its Report on Financial Supervision highlighting the main points through which rebuild the lost confidence: a regulatory reform, a supervisory reform and effective crisis management procedures[58].

The Group highlighted the following issues regarding to the regulatory reform, which were not properly disclosed in the ISD and MiFID:

- A review of the Basel II framework. The Group pointed out that there was an overestimation of the ability of the banks in dealing with many risks arose in a crisis context, and on the use of specific risk models, not often properly understood by the management[59].
- A better regulation for Credit Rating Agencies, since the functioning and so the stability of financial markets should not depend on the hands of a few. The Group identified the CESR as the best candidate to supervise those agencies[60].
- A change from the market-to-market principle used in determining the asset's fair value, towards a principle that would not mislead investors.

[57] "*High Level Expert Group on EU financial supervision to hold first meeting on 12 November*", 11 November 2008.
[58] The De Larosière Group Report, p.4.
[59] The De Larosière Group Report, p.16 et seq.
[60] The De Larosière Group Report, p.19 et seq.

The former principle was considered difficult to apply in some circumstances[61].

- The need to regulate all those firms or entities that have an impact to the systemic risk of the market[62].
- More attention to the corporate governance, which has been considered one of the major factors that contributed to the crisis[63].

For what concerning the European financial market regulation, the Lamfalussy approach still left to Member States a considerable margin of freedom, moving away from the harmonization objective. To remedy to this issue, the Group sets that the Eu legislator and the committees part of the third Lamfalussy level, should define powers, stricter rules, and sanctions for the financial sector[64].
At this time it also recognized the greater value of regulations compared to directives.
The key recommendations in the Report concern supervisory repair, since supervision was considered the best solution to safeguard financial stability, to create and maintain confidence towards financial markets, and to adequately protect investors[65].
The first proposal of the Group was to create a European Systemic Risk Council, which will include the Committees of European Supervisors, and assigning the responsibility for macro-prudential supervision and safeguarding financial stability. Later the Committees of European Supervisors would have been transformed into the European Supervisory Authority (ESA), entrusted of tasks relating cross-border and macro-prudential issues, EU-wide institutions, and international cases[66]. ESA was also responsible for pushing national supervisory authorities to move towards convergence direction through imposing binding

[61] The De Larosière Group Report, p.20 et seq
[62] The De Larosière Group Report, p.23 et seq.
[63] The De Larosière Group Report, p.23 and p.29 et seq.
[64] The De Larosière Group Report, p.29 and p.50.
[65] The De Larosière Group Report, p.38 and p.39.
[66] The De Larosière Group Report, p.47 and p.52 et seq.

rules and fines on national supervisory authorities or through the resort to infringement procedure by the Commission[67].

The second proposal was instead to create the European System of Financial Supervision (ESFS), in charge of dealing with issues arising from micro-supervision. The body will independently operate from the national supervisory authorities that will oversee the daily supervisory tasks.

2.3.1 - From Lamfalussy to De Larosière

In 2009, the Commission spoke in favor of the recommendations presented in the De Larosière report, underlying the importance to rebuild investor confidence by strengthening investor protection[68]. A new phase of harmonization was deemed necessary, and therefore a new regulatory regime including sanctions and core rules[69].

The ESA has been identified as the most suitable institution to carry out these tasks. To achieve the final objective, ESA was indeed enhanced the power of establishing binding standards in particular areas, which would be later endorsed by the Commission to acquire binding effect. The greater confidence on the measures settled by ESA, has allowed to build a unique European rulebook[70].

The proposal presented by the commission in September 2009 provides the establishment of the European Systemic Risk Board (ESRB) in December 2010, responsible for macro-prudential supervision[71], and the establishment of European Banking Authority (EBA), European Insurance and Occupational

[67] The De Larosière Group Report, p.54.
[68] COM(2009) 114, Volume 1, 7 and COM(2009) 114, Volume 2, 4.
[69] COM(2009) 114, Volume 1, 5.
[70] COM(2009) 252, 9.
[71] Proposal for a Regulation of the European Parliament and of the Council on Community macro prudential oversight of the financial system and establishing a European Systemic Risk Board, COM (2009) 499.

Pension Authority (EIOPA) and European Securities and Market Authority (ESMA), instead of the Committees of European Supervisors[72].

The main purpose of these changes is to consolidate the institutional system initially proposed by Lamfalussy. The new bodies established in fact, carry out the tasks previously performed by the European Supervisory Committees, improving them in their emerged weaknesses. Through ESAs in fact, an attempt was made to compensate the independence that characterized the Committees, and which therefore limited their ability to make binding decisions.

What has been said can be demonstrated by the fact that ESAs follow the sectoral approach of the committees, the latter being divided between the insurance, banking, and securities sectors, trying to improve it through a multisectoral approach between ESAs[73]. Furthermore, ESMA will also continue to carry out the same tasks regarding financial stability and investor protection performed by its predecessor, following the same path of continuity undertaken by the ESAs[74]. Moreover, ESMA has its own budget, thus allowing it to acquire greater autonomy and operate independently in the best interest of the European Union[75].

Even if the measures implemented by ESMA are not binding, the new recommendations and guidelines are strengthened than the previous one, due to the introduction of the comply-or-explain mechanism and a more detailed procedural framework[76]. National Supervisory Authorities will therefore have to comply as closely as possible with this soft law and communicate to ESMA its

[72] Regulation (EU) No 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority); Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority); Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority).
[73] Joint Committee of European Supervisory Authorities, art. 54 ESMA-Regulation et seq.
[74] ESMA Regulation, Art. 14 and 66.
[75] ESMA Regulation, Art. 1 (5) and 52.
[76] ESMA Regulation, Art. 16 and 44 (1).

intended adoption of the new framework. In this way not only the National Supervisory Authorities should comply with this measure, but also all interested firms will have to align themselves with this new regime.
In May 2018, ESMA finally published its strengthened guidelines concerning MiFID II suitability requirements, conduct of business rules, management body and data reporting, and complex debt instruments and structured deposits.
All of this helped to define how National Supervisory Authorities should interpret European investor protection.

ESMA is also allowed to outline technical standards concerning investor protection, with the final objective of establishing a single rulebook for the European financial markets[77]. To be effective and so acquire the same force of a regulation, thus becoming part of Eu financial market regulation, these standards need to be endorsed by the Commission.
Furthermore, ESMA can enforce compliance procedures towards financial markets participants, due to its direct supervisory powers[78]. It is also authorized to solicit National Supervisory Authorities to make decisions with respect to certain entities. If the competent authorities do not respect ESMA's wills, the latter can directly interface with the company in question if one of the following cases occurs:

- Cross-border disagreement between national supervisory authorities.
- Emergency situation.
- Cases of non-compliance with European law[79].

Finally, ESMA may temporarily prohibit or restrict the company in question from selling specific products on the market to ensure market stability or protect the investor[80].

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[77] The De Larosière Group Report, 39, 53 and 54.
[78] ESMA Regulation, rec. 27 et seq.
[79] EMSA Regulation, Art. 17-19.
[80] ESMA Regulation, Art. 1 (2) and 9 (5); MiFIR Art. 40.

2.3.2 – Investor Protection in MiFID II

In May 2014, the Council published the MiFID II directive accompanied by the Markets in Financial Instruments Regulation (MiFIR). These new provisions, which come into force from January 2018, can be considered the next major step concerning investor protection to remedy the weaknesses that emerged during the 2008 crisis, and can be considered fundamental for this analysis, since crowdfunding platforms carry out transactions involving financial instruments and therefore offer investment services in a professional manner to the public, they are subject to the provisions contained in the MiFID II and MiFIR Directive.

The main objectives that the directive intends to pursue are the stability of the financial markets and the investors protection. According to the Commission, improving investor protection is in fact one of the most fundamental aspects of the review of the MiFID[81] to restore investor confidence lost during the crisis.

MiFID II and MiFIR show an intensification of the investor protection, strengthening the conduct of business rules and introducing a product governance and intervention regime. The intervention regime allows national supervisory authorities as well as ESMA to intervene in the sale and marketing of products considered dangerous for the best interest of investors[82].

On the other side, the product governance regime requires firms to implement internal procedures to ensure the safety of the products they market. These measures sign an evolution towards a more interventionist and restrictive approach, which is a consequence of the cognitive limitations of consumers when making investment decisions[83].

[81] MiFID II Proposal, 2 and 174–175.
[82] Art. 9 and 16 (3) MiFID II; Art. 69 (2) MiFID II and Art. 40 MiFIR.
[83] Moloney (2018), pp. 265 et seq.

It also emphasized the need for single European rulebook, through which limit to Member States the possibility of implementing further measures and therefore fragment the community legislative landscape[84]. Indeed, the Commission requested to ESMA to elaborate day-to-day practical standards at the second level of the regulatory structure[85]. ESMA has therefore promptly published a report which discusses the major issues concerning conduct of business rules, conflicts of interests, product governance and the remuneration of firms for the provision of investment services[86].

In fact, the directive requires companies to follow the principles of honesty, fairness and professionalism, in pursuing exclusively the interest of the investor. All information and advice that are provided to investors must represent the reality of the facts, without deceiving the investor or providing him with a misleading communication[87]. Instead, substantive enhancements refer to the inclusion of new cases in which it is necessary the provision of certain information regarding investment advice[88]. In the case of *independent investment advice*, MiFID II provides for a not uncontested ban on the commissions' payment, and presents the criteria that advice must meet, such as an assessment of a wide and varied range of financial products available on the market[89]. In addition, firms advising retail clients are required to provide them a suitability report before proceeding with the transaction of the investment. The report must include a summary of the advice provided, highlighting how the need, preference and characteristics of the client are suitable with the investment recommendations[90]. Firms indeed must understand the investment products they advise and sell, to prevent the marketing of products too complex not only for those who are acquiring them, but also for those who are selling

[84] MiFID II, rec. 58; MiFIR, rec. 2 and 3.
[85] The power to adopt delegated acts is laid down in MiFID II and MiFIR, see MiFID II, rec. 155, April 2018.
[86] Final Report on ESMA's Technical Advice to the Commission on MiFID II and MiFIR ESMA/ 2014/1569.
[87] Art. 24, MiFID II.
[88]Art. 24 (4) MiFID II.
[89]Art. 24 (7) (a) MiFID II.
[90]Art. 54 (12) MiFID II Delegated Commission Regulation (2017/565).

them. Firms are imposed to demonstrate[91] and ensure the suitability in terms of knowledge and competences of those persons advising on behalf of the company[92].

Since Member States are the entities authorizing investment firms to carry out their business, they are also in charge of ensuring that the packages offered to the customer are adequate for their needs. States require firms to take measures to maximize the benefit that each client receives from the service offered, although whenever the client gives specific instructions to the consultant, the company is required to follow those instructions.

On the other hand, companies must have a registration including the documents in which the rights and obligations of both parties underwriting the purchase or sale contract of financial instruments are presented[93]. In the case that these provisions should not be respected by companies, the Commission reserves the right to adopt delegated acts to ensure the adoption of the above-mentioned principles.

Particular attention is paid to the fact that companies should not receive remuneration or benefits in general in order to channel orders to a particular product. Such cases must not in fact violate the rules on conflicts of interest. On the contrary, companies are required to prepare an order execution strategy that allows the client to obtain the best result. Each strategy must present the various venues at which it could execute clients' orders in their best interest, and the reasons why those venues guarantee the best result[94].

It is also possible to use agents connected to the company in order to increase the number of customers. these agents have the right to provide advice and place the tools and services offered by the company itself, which retains full responsibility for any action or omission carried out by the agents. These

[91] Member States, which are the ones that can request investment firms demonstrate the knowledge and competence of the persons providing the aforementioned services on its behalf, are required to publish the criteria they use for this assessment.
[92] Art. 25 (1) MiFID II.
[93] Art. 25, MiFID II.
[94] Art. 27, MiFID II.

professionals are obviously subject to precautionary measures in order to ensure that the impact of their work is not negative but continues to add value to the customer.

2.4 - The Capital Markets Union and the Single Market for Retail Financial Services

Even if these last measures can be seen as the end of the post-crisis reforms, the financial market regulation at the European level is still in place. The Commission indeed, under the chairmanship of Jean-Claude Juncker, sided in favor of the establishment of a Capital Markets Union, which contribute to the realization of the Juncker Investment Plan[95] structured in three main parts: mobilizing extra investments, ensuring that extra investments meet the need of the real economy and improving the investment environment.
Instead, CMU aims at realizing four overarching objectives:

1. Unlocking more investment from the EU and the rest of the world for all companies, in particular SMEs, and for infrastructural projects.
2. Better connecting financing to investment projects across the EU.
3. Making the financial system more stable.
4. Deepening financial integration and increasing competition[96].

Improving the relation between investors or savers and those businesses looking for funds is considered the best solution to stimulate economic growth within

[95]Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee, the Committee of the Regions, and the European Investment Bank on An Investment Plan for Europe COM(2014) 903.
[96]Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions on Action Plan on Building a
Capital markets Union COM(2015) 468.

the European Union. Since, in fact, SMEs still rely on the traditional banking systems, experiencing difficulties in procuring financial resources, it becomes of fundamental importance to provide suitable alternative instruments[97].
Within the European panorama, the figure of the retail investor is becoming increasingly important. Indeed, one of the main objectives pursued by the CMU is to provide further investment solutions to this emerging figure, ensuring a safe environment in which to invest. The Commission intends to increase saver confidence on the market, by adding an assessment of the framework for retail investors and of the transparency, quality, and availability of investment advice as opposed to on-line provision of advice.
This project would bring significant benefits to the retail investor, who could benefit from innovation, better quality, and lower prices[98]. In addition to international investors, this would also bring benefits to national investors.
in light of all this, the commission continues however to underline the importance of promoting and improving the supervision of the market by ESAs, in order to maintain an economically stable situation within the union, and which increases consumer trust and empowers consumers in purchasing retail financial services[99].
The further step of the CMU-project and the retail financial services-agenda is the publication of the Prospectus Regulation in 2017. The Commission insisted on the identification and elimination of domestic regulatory constraints concerning the cross-border provision of retail financial services.

2.5 – European Crowdfunding Service Providers Regulation

[97]Commission Green Paper on Building a Capital Markets Union COM (2015) 63.
[98] COM(2017) 139, 3.
[99] COM(2017) 139, 4.

On July 9, 2015, the European Parliament issues a resolution stating that "*the Capital Markets Union should create an appropriate regulatory environment that improves cross-border access to information on companies seeking credit, equity and quasi-equity structures, in order to promote the growth of non-bank financing models, including collective financing (crowdfunding) and peer-to-peer lending*"[100].

This initiative is part of the CMU plan as it aims to expand access to finance for innovative companies, start-ups, and other unlisted companies. Indeed, the over-reliance on unsecured short-term bank loans is often costly, and the financial crisis of 2008 strongly affected the volumes of bank loans to start-ups and SMEs that still struggle to reach pre-crisis levels, so much that lack of funds is one of the main causes of the failure of start-ups[101].

As a new form of financial service made possible by technology, crowdfunding can help better match investors and business projects looking for funds. It can become an important source of non-bank financing and thus help to move towards the overall objectives of the Capital Markets Union which aim to foster more sustainable financial integration and private investment for the benefit of job creation of work and economic growth.

After years of consultations, the commission published in March 2018 a proposal regarding a regulation of the European Parliament and Council on European providers of crowdfunding services for businesses, which will then be turned into regulation only a couple of years later.

On 7 October 2020, the new crowdfunding regulation amending the 2017/1129 European regulation and the 2019/1937 directive is published in the official gazette of the European Union and has come into effect on November 10, 2021.

The ECSP Regulation is structured in 9 chapters, 51 articles and two annexes, following this order:

[100] (2015/2634 (RSP)), p. 47.

[101] 2018/0048 (COD), p. 1.

1. **General provision** (Art. 1-Art. 2): the first chapter includes the general provisions of the regulation, making explicit the cases subject to and excluded from this measure. the various definitions that apply for the purposes of the regulation are also presented, useful for a correct understanding of the same.
2. **Provision of crowdfunding services and organizational and operational requirements for crowdfunding service providers**: the second chapter establishes who can establish crowdfunding services and the ways in which these suppliers are required to operate. the principles of effective and prudent management are also defined, as well as the verification obligations and precautionary requirements to be respected, and the ways in which to manage conflicts of interest, complaints and payment services.
3. **Authorization and supervision of crowdfunding service providers: t**he third chapter presents the authorization and revocation process of crowdfunding service providers, the scope of application of the authorization and the register of providers of these services.

   In this chapter it is introduced for the first time the "European passport" for crowdfunding services, by means of which crowdfunding service providers licensed in one member state may also provide their services in other EU member states without further permission, merely based on a notification procedure[102].
4. **Investor protection:** defines all the measures that crowdfunding service providers are required to implement to protect the investor and thus increase their confidence in these financial solutions. The chapter discloses the information that must be provided to customers, such as the default rates relating to projects, the test of the investor's knowledge, and the card containing the key information on the investment.

[102] Art. 18 2020/1503 Regulation.

5. **Marketing communications:** the fifth chapter contains the requirements relating to marketing communications and defines the publication of the national provisions relating to these requirements.
6. **Competent authorities and ESMA:** the provisions relating to the competent authorities, their powers, and how they should cooperate with each other are presented. the modalities of dialogue between the competent authorities and ESMA are also discussed, as well as provisions regarding data protection and precautionary measures.
7. **Administrative sanctions and other administrative measures:** the seventh chapter presents the administrative sanctions and other applicable measures, as well as establishing the exercise of supervisory and sanctioning powers. The methods of publication of the decisions are also presented, and the reporting of sanctions and administrative measures to ESMA.
8. **Delegated acts:** the eighth chapter, containing only article 44, regulates the exercise of the delegation, which remains exclusively with the Commission, according to the conditions established in that article.
9. **Final provision:** the last chapter contains the provisions regarding the report on the application of this regulation drafted by the Commission, and the amendments to EU regulation 2017/1129 and EU directive 2019/1937.

The more interesting aspects concerning this analysis are instead contained in the fourth chapter entitled "*investor protection*". Article 19 establishes the information that suppliers must provide to their customers. In fact, investors must be aware of the costs, commissions and financial risks associated with crowdfunding or investment services. Platform owners must also present the criteria by which the various projects are selected, to provide a fair, clear, and not misleading representation of the services provided[103]. Crowdfunding

[103] Art. 19 (1), 2020/1503 Regulation.

services are indeed not covered by the deposit guarantee scheme and transferable securities, while admitted instruments for crowdfunding purposes acquired through the platform are not covered by the investor compensation scheme.

All information that the crowdfunding service provider is required to present to investors must be easily accessible and identifiable on the site, and if deemed appropriate, should be communicated directly to customers before accessing the proposed services[104].

It is also foreseen the promulgation of technical standards by EBA and ESMA that shall be submitted by 10 May 2022, aimed at establishing: the elements that are to be included in the description of the method referred to the application of credit scores to crowdfunding projects or suggest the pricing of crowdfunding offers on their crowdfunding platform; the information and factors that crowdfunding service providers are to consider when carrying out a credit risk assessment[105] and conducting a valuation of a loan[106]; the factors that a crowdfunding service provider is to take into account when ensuring that the

[104] Art. 1 (4) (5), 2020/1503 Regulation.

[105] When determining the price of a crowdfunding offer, the provider shall: a) undertake a reasonable assessment of the credit risk of the crowdfunding project or project owner before the crowdfunding offer is made, including by considering the risk that the project owner will not make, in the case of a loan, bond or other form of securitised debt, one or more repayments by the due date; b) base the credit risk assessment referred to in point a) on sufficient information, including the following: (i) audited accounts covering the two latest financial years, if available; (ii) information of which it is aware at the time the credit risk assessment is carried out; (iii) information which has been obtained, where appropriate, from the project owner; (iv) information which enables the crowdfunding service provider to carry out a reasonable credit risk assessment.

[106] When determining the price of a crowdfunding offer, the provider shall conduct a valuation of each loan in at least the following circumstances: (i) at the moment when the loan is originated; (ii) where the crowdfunding service provider considers that the project owner is unlikely to fulfil its obligations to repay the loan in full, without the crowdfunding service provider enforcing any relevant security interest or taking other steps with analogous effect; (iii) following a default; (iv) where the crowdfunding service provider is facilitating an exit for a lender before the maturity date of the loan.

price of a loan it facilitates is fair and appropriate[107]; the minimum contents and governance of the policies and procedures required under this Article and of the risk-management framework established in this Regulation.

To further protect the investor, CSP[108] must present the default risks of projects of at least the last three years. In addition, at least 4 months before the end of each financial year, a statement must be published which indicates the current and expected default rates, the assumptions made to determine these rates, and the current yield obtained in the case of a target rate in relation to individual portfolio management of loans, the actual return achieved[109]. Again, it is task of the EBA and ESMA to develop the regulatory technical standards to specify the methodology for calculating the default rates. These standards are presented Annex VII "Draft RTS pursuant to Article 20 (3) of the ECSP Regulation".

Following the same approach adopted in the MiFID II Directive, the investor assessment process assumes great importance. Indeed, CSP shall offer to each prospective non-sophisticated investor projects that match with his own profile[110], according to an assessment which must take place every two years, and which must include the past acquisitions of admitted instruments for crowdfunding purposes or loans, the past investments in transferable securities, the investor's understanding of the risks involved in acquiring admitted instruments for crowdfunding purposes, investing in transferable securities, or in granting loans, the investor's professional experience in relation to crowdfunding investments, and finally a simulation of the ability to bear loss to be review every year (calculated as the 10% of their net worth, based on regular

[107] Crowdfunding Services Providers shall ensure that the price is fair and appropriate, including in situations where a crowdfunding service provider that determines the price of loans is facilitating an exit for a lender before the maturity date of a loan.
[108] Crowdfunding Services Providers.
[109] Art. 20, 2020/1503 Regulation.
[110] Art. 21, 2020/1503 Regulation.

and total income, total assets, and financial commitments). All these information are provided directly by the non-sophisticated investors.

The task of defining how the investor assessment should be carried out rests with ESMA in close cooperation with the EBA, which shall send to the Commission the regulatory standards produced by 10 November 2021.

If the assessment gives a negative result, in the sense that the products provided in the crowdfunding platform are not suitable for the investor's profile, or some information is missing, the service providers are required to inform the investor of this situation through a *risk warning*, that clearly disclose the risk of losing the entirety of the money invested. Once received, every prospective non-sophisticated investors shall expressly acknowledge that they have accept and understood the warning issued by the crowdfunding service provider, even if the regulation stresses out how prospective non-sophisticated investors and non-sophisticated investors shall not be prevented from investing in crowdfunding projects[111]. From a purely practical point of view, whenever an investor agrees to invest in a project through the crowdfunding platform for an amount exceeding 1000 euros or 5% of its net worth, the crowdfunding service provider must ensure that the customer has received the risk warning, gives explicit consent to the provider, and that he understands the investment and the relative degree of risk[112].

A further tool in favor of the investor is the introduction of a pre-contractual reflection period. the regulator allows prospective non-sophisticated investors to withdraw their investment proposal without having to provide any explanation and without incurring any penalty. The use of this option remains valid up to a maximum of four days from the moment in which the initial investment offer was made. The crowdfunding service provider is in fact required to inform the investor that the reflection period begins from the moment the investment offer

[111] Art. 21 (6), 2020/1503 Regulation.
[112] Art. 21 (8), 2020/1503 Regulation.

is made, that this period has a maximum duration of four days, and the modalities by which to revoke the investment offer[113].

Article 23 of the regulation, on the other hand, regulates all the information that must be included in the "key investment information sheet"[114], that is a fair clear and not-misleading document drawn up by the project owner for each crowdfunding offer and that the crowdfunding service provider is required to provide to the non-sophisticated investor[115]:

- Information about the project's owner(s) and crowdfunding project (e.g. Identity, legal form, ownership, principal activities of the project owner; products or services offered by the project owner, etc.)[116].
- Main features of the crowdfunding process and, as applicable, conditions for the capital raising or funds borrowing (e.g. Minimum target capital to be raised or target funds to be borrowed, deadline for reaching the target, etc.).
- Risk factors: main risks associated with funding the crowdfunding project, with the sector, the project, the project owner and the transferable securities, admitted instruments for crowdfunding purposes or loans, geographic risks.
- Information related to the offer of transferable securities and admitted instruments for crowdfunding purposes (e.g. Total amount and type of transferable securities and admitted instruments for crowdfunding purposes, subscription price, etc.).
- Information on Special Purposes Vehicle (SPV) (e.g. whether there is a SPV between project's owner and the investor).

[113] Art. 22, 2020/1503 Regulation.
[114] The key investment information sheet shall be drafted in at least one of the official languages of the Member State whose competent authorities granted the authorisation in accordance with Article 12 2020/1503 or in another language accepted by those authorities.
[115] Art. 23 (1), 2020/1503 Regulation.
[116] Annex I, 2020/1503 Regulation.

- Investor rights (e.g. Key rights attached to the transferable securities or admitted instruments for crowdfunding purposes, opportunities for the investor to exit the investment, etc.).
- Disclosure related to loans (e.g. Nature, duration and terms of the loan, the applicable interest rates or, where applicable, other compensation to the investor, etc.).
- Fees, information and legal redress (e.g. Fees charged to, and the costs incurred by, the investor in relation to the investment; where and how additional information about the crowdfunding project, the project owner and the SPV can be obtained free of charge, etc.)
- Information on individual portfolio management of loans to be provided by crowdfunding service providers (e.g. Identity, legal form, ownership of the crowdfunding service provider; the minimum and maximum interest rate of loans; the minimum and maximum maturity date of loans that may be available to investors' individual portfolio, etc.).
- The following disclaimer: "*This crowdfunding offer has been neither verified nor approved by competent authorities or the European Securities and Markets Authority (ESMA). The appropriateness of your experience and knowledge have not necessarily been assessed before you were granted access to this investment. By making this investment, you assume full risk of taking this investment, including the risk of partial or entire loss of the money invested*"[117].
- The following risk warning: "*Investment in this crowdfunding project entails risks, including the risk of partial or entire loss of the money invested. Your investment is not covered by the deposit guarantee schemes established in accordance with Directive 2014/49/EU of the European Parliament and of the Council. Nor is your investment covered by the investor compensation schemes established in accordance with Directive 97/9/EC of the European Parliament and of the Council. You may*

[117] Art. 23 (6), 2020/1503 Regulation.

not receive any return on your investment. This is not a savings product and we advise you not to invest more than 10 % of your net worth in crowdfunding projects. You may not be able to sell the investment instruments when you wish. If you are able to sell them, you may nonetheless incur losses"[118].

ESMA is in charge of developing the technical standards useful for defining the information and explaining the methodologies presented in the previous points, to be submitted to the Commission by the 10 May 2022[119].

When providing portfolio management of loans, crowdfunding services providers are equally required to provide prospective investors a key investment information sheet (KIIS)[120] containing the fees, information and legal redress (e.g. fees, administrative costs related to the services, where obtain free information about the project and its owner, etc.); information on individual portfolio management of loans to be provided by crowdfunding service providers (e.g. identity, legal form, ownership of the crowdfunding service provider; minimum and maximum interest rate of loans that may be available to investors' individual portfolios; procedures, internal methodologies and criteria for selection of the crowdfunding projects to the individual portfolio of loans for the investor; etc.); information about the natural or legal persons responsible for the information given in the key investment information sheet; the following responsibility statement: "*The crowdfunding service provider declares that, to the best of its knowledge, no information has been omitted or is materially misleading or inaccurate. The crowdfunding service provider is responsible for the preparation of this key investment information sheet*".

In both cases, any change of the previous information must be promptly notified to the investors. If instead, a crowdfunding service provider identifies an

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[118] Art. 23 (6), 2020/1503 Regulation.
[119] Art. 23 (16) 2020/1503 Regulation.
[120] Art. 24 (1), 2020/1503 Regulation.

omission, mistake or inaccuracy in the key investment information sheet that could impact the expected return of the investment, that crowdfunding service provider shall signal such an omission, mistake or inaccuracy promptly to the project owner, who shall promptly complete or correct that information. If the completion or correction is not made promptly, the crowdfunding service provider shall suspend the crowdfunding offer until the key investment information sheet has been completed or corrected, but for no more than 30. If, after 30 days, the key investment information sheet has not been completed or corrected, the crowdfunding offer shall be cancelled[121]. Finally, each key investment information sheet must clearly identify the legal responsible for the crowdfunding platform, which can coincide with the owner or a management figure.

Finally, the regulation establishes that to best guarantee investor protection, each crowdfunding platform must keep track of the transactions of each investor for at least five years and guarantee immediate access to its own history for each client of the platform[122].

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[121] Art. 23 (12), 2020/1503 Regulation.
[122] Art. 26, 2020/1503 Regulation.

2.6 - Investor protection in the Italian law

The analysis carried out so far highlights how the last frontier of measures aimed at regulating the financial markets and in particular crowdfunding, has confirmed the intention of the regulator to leave to intermediaries the full responsibility for the investor protection.

The disclosure obligations, the suitability rule and the best execution obligation imposed on the intermediary require the communication of all information that can be known on the basis of the necessary professional diligence and the indication, in a timely manner, of all the reasons for making a transaction inadequate with respect to the investor's risk profile, including those relating to the issuer's “default” risk with consequent failure to repay the invested capital. In fact, this information constitutes real factors for deciding, in an effective way, whether to invest or not. The intermediary or the service provider company is in default and punishable whenever these disclosure obligations are not integrated, any evaluation of the adequacy of the investment remaining irrelevant. In order to impose the sanction relating to non-compliance, it is necessary to ascertain the causal link of the damage suffered by the investor.

Going into the practical detail of our analysis, within the Italian context, for example, the application of the civil code acquires great importance, since the decision of the judgments of the Supreme Court of Cassation with United Sections n.26724 and n.26725 of December 19, 2007 (so-called “twin sentences”) established that the system of the civil code applies to contracts concluded in the financial market[123].

[123] “Twin sentences”.

The law has ruled extensively on the issue of the liability of the financial intermediary, as to the criterion of good faith there are additional and more meaningful obligations in the absence of which one incurs a contractual liability. The Italian Civil Code "*requires the investor, who complains of the violation of the disclosure obligations imposed on the intermediary, to attach the non-fulfillment of these obligations, by the identification of the information that the intermediary would have failed to supply, as well as to provide proof of the damage and the causal link between default and damage. The link that exists if, if adequately informed, the investor would have desisted from investment which later proved to be detrimental. Instead, it is incumbent on the intermediary to prove that such information was provided, or that it fell outside the scope of that due*"[124].

The information provided to the customer therefore becomes essential both in the phase of signing the contract and later with periodicity during the execution of the contractual relationship. Periodic communications represent the support of qualified assistance provided by the intermediary in the choice of individual investment transactions by virtue of market fluctuations that could lead to a decrease in the initial capital.
The information "must be concrete and specific, as properly tailored to the individual investment product. The same must be given in any case, independently of the particular characteristics of the investor's experience and the weight of the investment with respect to the total assets invested"[125].

This conclusion is reached in accordance with the now consolidated case law of the United Sections according to which: "The obligation of the intermediary to keep himself informed about the customer's situation, as functional to the duty of diligently and professionally looking after his interests, remains current during the entire executive phase of the relationship and is renewed whenever the

[124] Ex. Art. 1218 c.c.
[125] Cass., 16 febbraio 2018, n. 3914.

nature or extent of the individual transaction requires it, for the obvious consideration that the customer's situation is not static but likely to evolve over time"[126]. Also, "the continuous information obligation is based not only on the primary and regulatory standards of the sector, but also on Articles 1175 and 1375 of the Civil Code, which require compliance with the general rules of fairness and good faith in the execution of the contract"[127]. It follows that the principle of good faith is constituted as the "ordering criterion" of the market aimed at not giving entry to "opportunistic conduct" of any kind.

Nonetheless, the twin judgments established that the violation by the financial intermediary of the obligations of information and correct execution of the operations placed against him, may give rise to pre-contractual or contractual liability depending on the circumstances and does not result in nullity of the contract, with the consequence that the saver, who has not in fact benefited from the service guaranteed by the law through the intermediary, can obtain compensation for the damage and not directly the refund of the sums invested[128].

Another issue to investigate could consist in the continuing centrality assumed by the information economy in the context of market regulation. The consumer code, the Mifid II and the ECSP regulation confirm a "saving" idea of information, which would be able to transform a *quisque de populo* into a sophisticated *homo oeconomicus* capable of making conscious and absolutely rational decisions.
A first step forward can be seen from the fact that we moved from a simple prospectus containing general information regarding the investment, to a key investment information sheet specifically regulated by the regulation subject of this analysis.

[126] Cass. SS.UU. n. 26725/2007.
[127] Cass. 8 giugno 2018 n. 15936.
[128] "Il contratto di intermediazione mobiliare tra teoria economica e categorie civilistiche (prime riflessioni)", Gioacchino La Rocca.

Moreover, a draft of the technical standards, published in February 2021, confirms what was previously said: the second chapter of the “Annex VIII Draft RTS pursuant to Article 21 (8) of the ECSPR” reaffirms the arrangements necessary to carry out the assessment referred to in Article 21 (1) of Regulation (EU) 2020/1503. It is again stressed out that crowdfunding service providers must evaluate the level of knowledge and experience of their customers in terms of investments and related risks, before being able to guarantee them access to the services offered.

The crowdfunding service provider must therefore ensure that the prospective non-sophisticated investor knows the types of services, financial investments and transferable securities admitted instruments for crowdfunding purposes or loans.
The nature, volume and frequency of the non-sophisticated investor's past transactions in transferable securities, admitted instruments for crowdfunding purposes or loan must also be known, as well as the level of education, skills and profession of the non- sophisticated investor.

The investor’s level of knowledge acquires therefore primary importance. Since the investments proposed to the investor are customized according to the investor’s profile, a low level of knowledge and experience regarding investments and crowdfunding should theoretically not lead to great results.
It is necessary to investigate whether and how this assumption is credible. It is necessary to investigate how credible and realistic are formulas such as “financial literacy” in an increasingly complex financial market when applied to retail investors, or anthropological models coined on the figure of the “safe” investor because he is well informed.

These investigations should be conducted considering that the European legislator himself has taken care not only to rigorously regulate the methods and content of the information activity carried out by intermediaries, in fact otherwise often elusive, but with the institution that somehow overcomes the problem "upstream".

For this reason, in the next chapter we will examine the role and benefits that financial education could assume if properly adopted.

CHAPTER 3: ALPHABETIZATION AND FINANCIAL EDUCATION: THE MATTER FOR IMPLEMENTING CROWDFUNDING DEVELOPMENT

Financial literacy and financial education have been among the most discussed topics in the economic debate in the last twenty years. Everything worsened with the outbreak of the 2008 economic crisis. In particular, the question arises whether, if citizens (Americans but not only) had been more aware and informed in financial terms, the crisis would have taken on such dimensions or not.

As some research shows, in fact, individuals with a higher level of financial literacy are better able to make informed and informed decisions regarding the management of their savings. This affects the respective accumulation of capital, the likelihood for these entities to participate in the financial market and the ability to diversify risk. These choices naturally have beneficial effects for the entire economic environment creating a virtuous circle that raises savings, investments and national income.

The technological development that has taken place in recent decades has allowed people to be able to invest their savings in a specific financial instrument even individually through their personal computer. In addition, financial engineering has developed increasingly sophisticated financial products, with different return-risk configurations. Despite all this, there has not been a simultaneous increase in financial capacities by the majority of citizens around the world.

It is known that, in recent decades, the complexity of the financial world has increased and consequently, the difficulty in making informed investment decisions. The recent crisis has shown that if these decisions are not made in an informed way, they can have tragic consequences, not only for individuals but also for society at large.

To assess one's needs as correctly as possible and to know how to manage within this sea of uncertainty that is the financial market, it is nowadays necessary to have a minimum of financial capacity.
But what exactly does financial literacy mean? How is it measured? What are the causes and consequences of financial illiteracy? What steps have been taken in the past and currently underway to increase financial education?
These are just some of the questions we will answer in this chapter.

3.1 – Alphabetization and Financial Education

According to the Organization for Economic Co-operation and Development (OECD), financial literacy is "*a combination of awareness, knowledge, skills, attitudes and behaviors necessary to make financial decisions, and ultimately achieve individual financial well-being*"[129].
The definition takes into consideration three variables: not only the simple knowledge of the terms and functions of finance (such as what inflation is, and what effect it has on purchasing power or wages, ...), but also attitudes and behaviors that fall in particular in behavioral finance studies.
Financial decisions are conditioned by a mix of effects, ranging from knowledge of notions to the non-rational behavior of decision makers faced with financial choices, which are by definition uncertain.
There are also other definitions. The Financial Industry Regulatory Authority argues, for example, that financial literacy is a form of knowledge of the tools, regulations and principles that work in financial markets[130].

[129] "*Measuring financial literacy: Questionnaire and Guidance Notes for Conducting an Internationally Comparable Survey of Financial Literacy*", OECD, 2011.
[130] "Defining and measuring Financial Literacy", Hung A.A., Parker A.M. e Yoong J.K., September 2009.

Anna Maria Lusardi[131] states that financial literacy is "*the knowledge of basic financial concepts, such as the compound interest rate, the difference between nominal and real values, and the basics of diversification of risk*".
Most of the studies share the central idea that individuals can be said to be financially literate if they know how to use financial instruments correctly and if they have the ability to use the knowledge acquired, including through experience, to make a correct decision about to your well-being.
We can thus reach the most accredited definition, which includes all the aspects discussed above and formulated by The Presidents Advisory Council on Financial Literacy, PACFL: financial literacy is "*the basic knowledge of economic and financial concepts , and also the ability to use it effectively for the management of financial resources in order to ensure a future of financial well-being*".
The concept of financial education deserves a separate discussion, often confused or considered synonymous with literacy. Education is a preparatory development for literacy. In fact, only after a basic financial education course, after having informed about something or through experience in the field, the skills acquired can be put into practice.
In all western countries, financial education initiatives are being developed with a target audience consisting mainly of young people and adults. The latter with a more marked interest in issues such as pensions, buying a house, raising children and many others. The topics are very different from each other: from basic concepts on the functioning of the market and financial products, to savings, to future financial planning, up to behavior in the face of financial choices.

The OECD in 2005, through the Recommendation on Principles and Good Practices for Financial Education and Awareness[132], had given a first universal

[131] Economics Professor at Dartmouth College and Associate Researcher at the National Bureau of Economic Research.
[132] "Recommendation on Principles and Good Practices for Financial Education and Awareness", OCSE, 2015.

explanation of financial literacy mixed with the definition of financial education. The definition reads as follows: “the process by which consumers improve their knowledge of financial products and concepts and, through information, instructions and/or objective advice, develop the skills and confidence necessary to become more aware of financial risks and opportunities, about making informed choices, knowing where to go for help, and taking other effective actions to improve their financial well-being”.

The explanation given by the OECD for the first time can only be very generalist. As previously mentioned, in order to make correct financial decisions, in this financial education process, one cannot forget the psychological effects that can arise in the moment of decision (an example is emotion, which can lead to sub-optimal choices). Therefore, an excellent program must make us understand how we reason and explain how to defend ourselves from these psychological deviations.

A second aspect, which has not been explained neither in the definition of financial literacy nor in the definition of financial education, is the concept of financial capability. The theme will be explored later, but it is worth mentioning.

Learning concepts and information that lead to an increase in knowledge in the financial field does not automatically lead to better decisions and to behave more correctly from an economic-financial point of view. Some studies have shown that there is a link between better financial knowledge and behavior, but others prove that there is no such link[133].

3.2 - Prototypes for measuring the level of financial alphabetization

For about ten years, many initiatives concerning financial education have been developing in various countries, not only confirming the importance that this

[133] “The impact of Financial Literacy Education on Subsequent Financial Behavior”, Journal of Financial Counseling and Planning, Vol. 20, 15-24, Mandell L. e Klein L.S., 2009.

topic has in the life of each person, but in general for the economy of all nations. However, before establishing an adequate program, it is necessary to measure the level and the gaps of the population in terms of finance.
The measurement research carried out by both public institutions and individual private researchers concludes that the general level of financial literacy is low even in countries where the financial market is highly developed such as the United States, Germany and the United Kingdom[134].
To analyze this level, we cannot rely only on the knowledge that an individual has on the subject, but also on the behavior that is put in place when, for example, a person manages someone savings or participates in the financial market. A pilot measurement project was developed by the OECD[135], which assessed the level of financial literacy in 14 countries on four different continents through a test. This project can be considered the general model on which to rely for other future investigations.
The structure of the test is very simple and straightforward, and is based on three aspects: financial knowledge, behaviors and attitudes regarding the management of present resources and financial planning of the future. In terms of knowledge, the test consisted of eight questions covering mainly three topics: interest calculations, inflation and its consequences, and risk diversification.
The results were not very satisfying: most people know what inflation is, but don't know its effect on purchasing power. The most alarming figure concerns the diversification of risk: in some countries less than half the population knows what the effect on portfolios is. Furthermore, another important element is that more than 70% of respondents cannot answer at least six of the eight questions.
In another section of the project, a series of questions is used to examine the various behaviors of respondents that lead to an increase or decrease in well-being. The questions are transversal and cover various topics, some examples are: do people make informed decisions on financial instruments by consulting

[134] www.dartmouth.edu.
[135] "*Measuring Financial Literacy*", Working Papers on Finance, Insurance and Private Pensions No. 15, OECD, 2015.

various sources or just some? Do they save for future contingencies and have long-term goals? And again, in recent periods have they always paid installments and bills by the deadline?
The results differ from country to country, but some of them can be generalized. Most individuals do not plan for the future. Today, however, we must increasingly plan and save for any unforeseen events that may happen to us. In fact, in such a turbulent and uncertain world, with frequent pension reviews, financial crises and speculative bubbles, one of the main objectives must be precisely to plan to protect ourselves from sudden events that can destroy our well-being.
As for the search for information to identify the financial instruments suitable for our needs, the conclusions show that few subjects do in-depth research on multiple sources (newspapers, internet, consultants, etc.), many instead carry out some superficial investigations, and others even do not make it of any kind. A large part of the population, especially those with a low level of financial literacy, bases their financial choices on indications from friends and relatives, who in turn do not have sufficient literacy and experience to indicate the best solution[136].
A final factor analyzed to measure financial literacy is the attitude of the interviewees towards saving in general: those who have a positive attitude towards saving are also more inclined to plan and actually save.
We will come back to this topic shortly, when we talk about the relationship between knowledge and behavior.
As the topic of financial literacy has grown in importance, various surveys have taken place all over the world. Worthy of note is certainly the work done by Anna Maria Lusardi, whose activity has focused above all on financial illiteracy and on the various consequences related to retirement planning.
In hes various papers aimed at measuring the level of financial skills of individuals, Lusardi was based on three simple questions, which are considered the minimum knowledge threshold for making more informed decisions. To act

[136]"*Household saving behavior: the role of financial literacy, information and financial education programs*", Nber Working Papers, No. 13824, Lusardi A., 2008.

in the financial world, in fact, one cannot fail to know concepts such as inflation, risk diversification and the calculation of interest[137]. In one of the many surveys made, by asking these questions to a population sample over 50, it is highlighted that only a third is able to answer all three questions.

Illiteracy is widespread, affecting more segments of the population, such as women, Hispanics and African Americans, and those with a low level of education[138]. The results on financial literacy in the countries analyzed, therefore prove to be quite worrying.

The number of states that have implemented financial knowledge measurement programs are considerable (Canada, Australia, Holland and many others), but there is still no recognized international prototype to measure it, as there are still many differences in the methodology used to evaluate skills, but also in analyzing and measuring results.

A step forward was taken in 2012, when the Program for International Student Assessment (PISA 2012) assessed the financial knowledge and skills of 15-year-old students internationally for the first time.

The PISA program is a survey aimed at evaluating the performance of students at the end of compulsory education, not only on the knowledge acquired but also in the application of the same in the extra-curricular world, with the aim to understand if they have the basis for living consciously in modern society. It is an analysis that has always focused on three macro areas: mathematics, reading

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[137] Lusardi A. and Mitchell O.S., 2011 "Financial Literacy around the world: an overview", Journal of Pension Economics and Finance, Vol. 10 (04), pp. 497-508. An example of the questions:
1. Suppose you have $ 100 in a savings account and the interest rate is 2% per annum, after 5 years how much do you think you will have if you let your money grow? A: 102 B: less than 102 C: more than 102 D: I don't know.
2. Imagine that the interest rate on the savings account was 1% per annum and inflation was 2%, after a year how much would you be able to buy with the money in this account? A: more than today B: the same as today C: less than today D: I don't know.
3. Does the purchase of shares of a single company offer a more secure return than an equity mutual fund? A: true B: false C: I don't know.

[138] Lusardi A. 2008, "Financial Litercy:an essential tool for informed consumer choice? NBER Working Paper, No. 14084.

and science. Since 2012, for some countries, the mathematics area has also focused on financial literacy.

Returning to the novelty of PISA 2012, the questions related to financial literacy are focused on four topics: money and transactions, management and future planning, risk and return, and the financial environment. In addition, students must be able to use this knowledge in the real world: they are therefore also assessed on their ability to recognize and examine information, to assess financial issues and to apply the knowledge acquired in a concrete environment.

3.3 – Socio-demographic variables that impact on the financial literacy

Many studies try to identify which are the variables that affect financial literacy the most: we can take as a reference some of the works carried out by Lusardi, Mitchell, Curto, Tufano, Chen and Volpe. The target audience of these writings is made up of the general population or young people, who must be able to manage their finances more and more in advance and plan their future, even regarding distant topics in time, such as retirement.

Lusardi, Mitchell and Tufano[139] make an exhaustive general analysis on the variables that determine inadequate financial literacy. The most influential variables were sex, age, education, ethnicity and wealth/income.

In all the studies done so far, women have a lower percentage of correct answers than men, and moreover, they are less informed and interested in economic/financial issues, thus feeling less secure. This must push public and private authorities to invest more in financial education for women. As for age, people under 30s and over 65s are the least literate. Young people, but especially the elderly, have trouble answering simple questions about interest rates.

[139] Lusardi and Mitchell, “Finalcial Literacy around the world: an overview” (2011); Lusardi and Tufano in “Debt Literacy, Financial Experiences and Overindebtedness” (2008).

Poor education is also a cause of illiteracy and poor choices regarding funding. People with a low level of education are more likely, for example, to take out too expensive mortgages and consequently to have a delay in paying the installments.
Ethnicity is another indication of the level of knowledge: in fact, whites have a higher percentage of correct answers than all other ethnic groups, while African Americans and Hispanics are the most deficient from this point of view. Finally, the availability of wealth and high income are also signs of higher financial knowledge and skills.

Regarding the other target audience, examining the literature, there have been many research and studies concerning the financial literacy of young people. An important contribution, also to understand which variables influence their literacy, was given by Lusardi, Mitchell and Curto in "*Financial Literacy among the young: Evidence and implications for Consumer Policy*" (2009), and by Chen and Volpe in "*An analysis of personal financial literacy among college students*" (1998).
The knowledge level in developed countries is dangerously low, both in general skills such as interest and inflation, and in more limited topics such as investments, insurance and loans. An eloquent figure shows that only 27% of the sample can correctly answer questions about interest, inflation and risk diversification.
An analogy is therefore found with studies that analyze financial literacy on the entire population. Again, the most important variables are gender, ethnicity, income and education. Young, white, highly educated, high-income males have higher levels of literacy.
Another not insignificant factor is the influence of the family. Parents who are highly educated and wealthy positively influence their children's financial skills.

3.4 - Behavioral finance: the emotional and psychological effects that affect financial choices

Financial education initiatives, in addition to providing various concepts and notions, must also affect investor behavior. It is therefore necessary to explain what the behaviors, reasonings and errors of individuals are faced with choices with uncertain outcomes, such as those of a financial nature.

From the 1970s onwards, and more in the last 20 years, a new study has evolved, a current alternative to the traditional theory of classical finance: behavioral finance.

Behavioral finance was born from the work done jointly by economists and psychologists, aimed at understanding how people think and what are the deviations that lead them to make non-rational decisions.

Classical finance is considered too distant from the reality of things and from how people think and reason. It seems something out of everyday life, which studies and builds various models of approximation of reality from above, as happens in the natural sciences. However, economics is a social science, and therefore it is necessary to take into consideration how individuals think, what are their emotions, fears and uncertainties, as well as the ways of interacting between people.

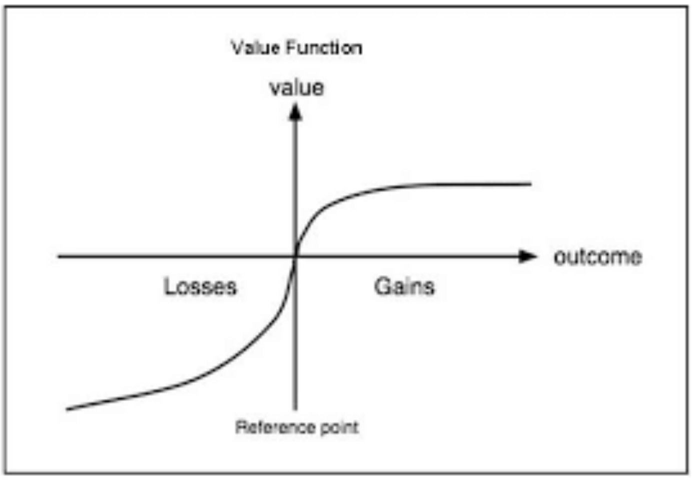
The study of classical finance can therefore be defined as abstract, very different from the real context in which people must make choices. The basic idea assumes that the individual is completely rational, has the necessary information with all possible alternatives and knows how to process and prepare them in the best way, consequently making the best decisions based on their needs. It is difficult for this series of facts to happen in reality: individuals must be able, in fact, to make complicated calculations (which contrasts with the results found in financial literacy surveys), but above all they must have all the possible information about a certain topic. This latter fact is almost impossible to happen, especially in today's context. Thus behavioral finance tries to bring the less

rational action of individuals closer to the rational (theoretical) one of traditional finance.
Through cognitive psychology, behavioral finance tries to understand how individuals reason and what are the specific cognitive and emotional deviations that lead us to be non-rational in our choices. Making hypothetical investor understanding what are the typical deviations he/she encounters when taking a decision, and motivating him to take the appropriate precautions and solutions to ensure that these do not have a great impact, are some of the objectives of behavioral finance which must necessarily be integrated when a financial education initiative is prepared.

3.4.1 – The definition of risk

Research and studies in the field of behavioral finance have led to a definition of risk different from that of classical finance.
The latter explains the risk with the concept of standard deviation of the returns of the security or of the securities portfolio, within a fixed time horizon. However, understanding the performance of a stock or portfolio in the future cannot be interpreted by analyzing the past. There are many economic variables that influence this trend: the main ones are GDP, inflation and interest rates (an increase in GDP has a positive effect on the performance of securities, while the increase of the other two variables has a negative impact). Another variable that has a strong impact on the value of securities is the positive or negative opinions/news that rating agencies spread. The latter, through their judgments on the degree of risk of a particular security, significantly affect the future trend of that security and of the financial markets in general.
Investors are therefore more interested in knowing the future performance of an investment, rather than knowing how it has fluctuated in the past. The estimation of risk, according to classical finance, therefore, is of little interest to those who have to make investment decisions, necessarily oriented towards the future.

For Behavioral Finance, on the other hand, risk can be explained with the value function developed by D. Kahneman and Amos Tversky in 1979[140]:



[FIGURE 1: Kahneman and Tversky's S-Shape Value Function]

This function is the basis of these alternative studies to traditional economics:

- we take a point of reference, which in this case is the meeting of the axes, and we evaluate what effect the losses and gains have on value. People do not evaluate losses or gains based on total wealth, but they pivot on that benchmark that can sometimes be compared to the status quo (current wealth at the time of making the decision), but also to something different, such as an outcome that the investor expected to happen. The effect on value is then measured based on changes in wealth and not on total wealth/well-being. The marginal gain and loss, as can be seen from the graph, have a more relevant effect near the starting point, while as the gain or loss increases, the effect on value decreases.
- the curve is steeper in the hypothesis of losses than gains: this explains that for people, the grief resulting from a loss of any amount is greater

[140]"*Prospect Theory: an analysis of decision under risk*", Econometria, Vol. 47, No. 2, pp. 263-292, Kahneman D. e Tversky A., March 1979.

than the happiness that a gain of the same amount can bring. In fact, winning 100 euros cannot compensate for the loss of the same amount (while Classic Finance maintains that for individuals it is indifferent). Losses, therefore, weigh almost twice as much as gains: it is the "power" of loss aversion.

- another important feature of the function concerns risk aversion and propensity: since for gains the curve is concave while for losses it is convex, the more an investor loses the more he will be willing to risk, vice versa the more an investor earns he will be less inclined to take risks and will be more prudent[141].

This function partly clarifies why people, faced with choices in conditions of risk and uncertainty, are not very rational and differ from what is claimed by traditional finance with its algebraic and mathematical systems.

D. Kahneman and Amos Tversky, among the various results of the numerous experiments conducted on the behavior of individuals, also concluded that the choices of investors are also influenced by the way in which the various problems are proposed and described. Instead, the rational individuals described by Classical Finance, faced with the modification of the description of questions and answers, without changing the essence of the same, should not change their decisions[142].

[141] Risk aversion has been examined by many researchers and scholars in general. The first to do rigorous research on the subject were Daniel Kahneman and Amos Tversky, who through a series of experiments came to formulate the Value Function. (D. Kahneman and Amos Tversky 1979).

[142]"*Choise, Values and Frames*", American Psychological Association, Vol. 39 (4), pp. 341-350, Kahneman D. e Tversky A.,1984.

3.5 – The main distortions in financial decisions

In an environment like the present one with ever-increasing uncertainty, individuals cannot be considered computers capable of processing all the information necessary to make the best decision.

Paolo Legrenzi in the book "Why we badly manage our savings"[143] describes two paradoxes on savings, the first of which reads: "A person saves to reduce the uncertainty of his future. And yet, at the same time, this person is forced to place his savings in forms of investment which, in turn, have an uncertain future".

So investing in the most correct way is not a simple thing: in fact, various psychological variables come into play, which can lead people to define an investment policy that is not economically rational.

These variables are cognitive traps, that is, mental automatisms that lead individuals to make errors of assessment when deciding. Psychological variables can be divided into two groups: heuristics, that are mental methods that try to reduce the information overload (individuals cannot handle a huge amount of information so they try to reduce it and only examine some of it); bias, that are real mistakes that are made when making decisions and which can be very salty. Biases are committed because of the prejudices that individuals have, that is, opinions, ideas and judgments that are present in people's minds and that may not be connected to each other in a rational way.

There have been many psychologists and scholars who have tried to investigate these mental mechanisms. In Italy an important contribution was made by Legrenzi, Franzosini and Sogol (2010)[144].

The main biases identified are the following:

[143] "*Perchè gestiamo male i nostri risparmi*", Il Mulino, Bologna Legrenzi P., 2013.
[144] "*Finanza comportamentale: psicologia delle scelte*", Padova, Franzosini G. e Franzosini S., 2010.

- Enthusiasm and fear. Enthusiasm is the main factor in the birth and growth of speculative bubbles. Individuals are convinced that the value of a stock will grow indefinitely and that it will never have a reversal of return. The birth of speculative bubbles is therefore due to the excessive demand for a particular security, with the aim of reselling it at a price much higher than the one paid. Individuals influence each other on the intrinsic value of the stock, thus increasing its listing value more and more. At a certain point, however, the value of the stock drops drastically, the reasons may be different: for example, the beginning of the sale by certain investors of the stock, or the modification of its earnings projections. The last two bubbles in order of time and importance were that relating to the securities of companies operating in the Internet sector (1997-2000) and that relating to the real estate sector that triggered the 2008 crisis. Furthermore, enthusiasm leads to the underestimation of a complicated and risky financial instrument, with devastating negative effects (an example is the underwriting of subprime mortgages by uninformed investors). Fear, on the other hand, drives uncontrolled divestment or inactivity. The fear of not investing correctly can lead to the search for more information to be surer about the decision to make. By doing so, you can invest/disinvest late: that is, buy when the stock is expensive and sell when it is falling[145].
- Availability/recognition heuristics. Many times when we must make investment decisions and we have to make assessments on the probability that a certain future event will occur (for example an unexpected fall in the stock), we refer to similar events that have happened in the past and that we remember more easily. This ease of remembering depends on the moment in time in which these events occurred or on the source that disseminated the information (newspapers, newsletters, friends, family, etc.). The press, for example,

[145]"*Psicologia e investimenti finanziari. Come la finanza comportamentale aiuta a capire le scelte di investimento*", Legrenzi P., Milano, 2006.

by making individuals aware of the facts and circumstances that occurred, can influence their choices not always in a positive way. Especially the less financially literate people choose titles based on notoriety, with sometimes painful consequences (the Parmalat case is an example).

- Anchor heuristics. To reduce complexity and information overload, and thus make a judgment on future events, individuals start from a subjective point of reference, called an anchor (for example, the initial value of a stock). This forms the basis on which individuals will then go on to make adjustments in reference to subsequent information. These, however, will not integrate it sufficiently and completely to be able to make the right decision possible, as people are too concentrated / fixed on the anchor value[146].
- Regret from omission and from commission. These two regrets give us a way to explain the disposition effect. The first regret occurs when an action has not been carried out that could be done and the results of which would have been positive; the second instead when it was decided to take an action that could have been avoided.

  These two regrets, in addition to the fact that they influence subsequent choices, lead to the disposition effect in financial decisions: investors, in order not to have regrets, sell too soon the stocks whose price is going up and do not immediately sell those they lose. This is because they are forced to sell the winning stocks for fear of suffering a sudden loss, but then having a regret for not having kept the title and gaining further. On the other hand, they don't want to admit that they made a wrong choice in the hope that the title will rise sooner or later. This attitude is also found in the Value Function: when you are earning you become more cautious and tend to sell the stock, while when you are losing you are less risk averse and keep the losing stock.

[146]"Psicologia e investimenti finanziari. Come la finanza comportamentale aiuta a capire le scelte di investimento", Legrenzi P., Milano, 2006.

- Focusing effect. It is one of the mistakes made most when looking for the information needed to make a decision. Focus is the aptitude to concentrate only on a few possibilities of choice, disinterested in all the other alternatives. People therefore seek information on those few choices identified, without worrying about all the others which may be even better. This type of effect leads to ignoring the opportunity cost, that is, the cost of the best neglected alternative, and to a possible regret if the choice was found to be very disappointing.
- Cognitive dissonance. The fear of having a regret both from omission and from commission leads to wanting to avoid cognitive dissonance at all costs. This occurs when an individual develops conflicting ideas and behaviors. Investors, therefore, when they have to make a decision, eliminate all ideas and information that conflict with their initially set thinking, supporting and valuing those in favor instead[147].
- Sunk costs. People in general find it difficult to abandon a wrong choice made in the past, for example an investment that has proved to be disappointing and that should be abandoned as soon as possible as the costs are no longer redeemable. This is because individuals are saddened by admitting that they have made a wrong choice, but also by the fact that they have invested time, money and work in that investment. Future decisions, therefore, are conditioned by these sunken costs that should be left aside[148].
- Attribution error. Investors are strongly focused on their financial advisor and think that he is the best around, until they assign him the successes that are actually completely random and linked to the trend of the financial market. As a result, they do not care about the performance of other consultants and have absolute confidence in their own. However, most people do not know, for example, that it is difficult for your consultant to

[147]"*Finanza comportamentale: psicologia delle scelte*", pp. 63-66, Franzosini G. e Franzosini S., Padova, 2010.
[148]"*I soldi in testa*", Legrenzi P., Roma, 2012.

create a securities portfolio that beats the market average. It would be more convenient to buy an ETF, that is a passive fund whose securities included do nothing but replicate the performance of an index that represents the average of a market[149].

- Mental balances (mental accounting). Mental balances are among the most influential cognitive traps, as they lead people to think partially and "locally". When individuals have to make economic choices, both investment and consumption, they reason by separate compartments: they divide their wealth into different stocks and each of them is destined for different investment or spending objectives, contravening the logic of economic rationality in how much money can be used or destined for any purpose. In investment decisions, families usually have three mental accounts (we are talking about a behavioral portfolio). The first consists of a safety reserve for any unforeseen events (such as health problems, home repairs, ...), where the most used forms of investment are current accounts and insurance policies. In the second account, which forms the majority of the wealth owned by the family, the assets are invested in prudent financial instruments (government bonds, bonds, postal bills, etc.) with the aim of maintaining and protecting the wealth of the family. After investing in the first two accounts and still having resources available, you can move on to the third. Here the ultimate goal is the desire for enrichment, therefore raising the return on investments with a consequent increase in risk, investing in shares, private equity, commodities, etc…[150].The mental balances therefore ensure that two investments, taken in the same time frame, with opposite trends are not compensated as they belong to two separate mental accounts.
- Endowment effect. It comes directly from mental accounting and the fear of loss and regret. It consists in giving more value to what you have, which

[149]"*I soldi in testa*", Legrenzi P., Roma, 2012.

[150] "*Finanza personale: le 10 decisioni chiave per pianificare le finanze di famiglia senza contare sull'aiuto dello Stato*", Liera M., Milano, 2010.

is precisely part of your endowment, compared to the amount you are willing to pay for the exact same object[151]. The asset that you own is evaluated as a failure to sell and consequently a failure to receive money, which is considered of greater value than the costs and sacrifices that would be incurred when one would go to buy the same type of asset.

- Hindsight. This distortion leads people, especially the press and financial analysts, to interpret a past event (for example a decline in the yield of a stock) as something that was easy to predict. The specialized press, at times, comments on the stock market trend of the previous day as if the past events were almost certain and unequivocal, influencing the choices and moods of investors. This bias leads the financial advisor to have difficulty explaining to their clients why they did not intervene in time to avert that foreseeable negative event. It also leads to another cognitive trap which is over-confidence: the world and the facts around us are easily interpretable and definable, leading us to be more confident in our choices. This effect also has a negative side because it pushes individuals to be less cautious, underestimating the risks associated with investing and to rely too much on their ability to predict the future. Many psychologists (Legrenzi P., 2006; Kahneman D. - Riepe MW., 1998) have shown that people, when subjected to various questions, have a very narrow range containing the correct answer: the upper and lower limits are too close between them, confirming over-confidence in decisions.
- Preference for family assets. Several scholars and psychologists[152] have shown that people prefer to invest and diversify their portfolios by buying financial instruments from their national market, closer and more familiar to them. This is mainly for reasons of prudence and uncertainty in other forms of investment, mainly those of an international nature. Many families invest more than half of their portfolios in a single stock, especially the company they work for, contradicting the principle of risk

[151] "*I soldi in testa*", Legrenzi P., Roma, 2012.
[152]"*Familiarity Breeds Investment*", Huberman G., 2001.

diversification. As can be seen, the cognitive and emotional traps are many and must be brought to the attention of individuals to increase their awareness in the moment of choices. Financial education initiatives have, among many other purposes, this too: it will be difficult to definitively correct the behavior of the subjects, but the effect of these psychological traps will certainly be weakened.

3.6 – The effects of financial alphabetization and education

The general picture of global financial literacy is not very satisfactory. As previously analyzed, certain categories of people are more exposed to negative consequences on their well-being, due to some incorrect decisions or behaviors. These are mainly women, young people, the elderly, people with a low level of education and wealth.

The negative effects, which originate from precarious financial literacy, are supported by an extensive literature: studies and research have confirmed the existence of a link between the lack of financial literacy in individuals and certain of their financially incorrect behavior and, therefore, the accumulation of lesser wealth.

Lusardi and Tufano (2008)[153] and Campbel (2006)[154] found that the less financially literate people tend to make more investment mistakes which lead them to have more debts with consequent difficulty in repaying them. More precisely, they found that these subjects pay higher installments and charges on mortgages,

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[153] "*Debt literacy, financial experiences, and overindebtedness*", Nber Working Paper Series, No. 14808 Lusardi A. e Tufano P., 2008.
[154] "*Household finance*", The Journal of Finance, Vol. LXI, No.4, Campbell J.Y., 2006.

have credit cards with higher costs, redefine their mortgages in a more disadvantageous way and conclude less convenient contracts from a remunerative point of view.

Bucks and Pence (2006)[155] noted that individuals with less education and income do not know the terms of their mortgages and are more likely to underwrite them with higher risks, and also underestimate the change in variable interest rates in the short term, leading them to be more exposed on equity.

Continuing to analyze the literature, various studies associate high financial literacy with greater participation in the financial market. Van Rooij, Lusardi and Alessie (2007 and 2011)[156] and Monticone (2010)[157] argue that the more literate subjects hold more risky assets (shares, derivatives, ...) and rely more, as regards the collection of information, on formal sources such as consultants, newspapers and the internet, rather than on family and friends.

Furthermore Guiso and Jappelli (2009)[158] find that the lack of financial literacy is associated with a lower portfolio diversification: people hold few different stocks and ignore the correlation between them.

In the diversification of the portfolio, in addition to the lack of knowledge of what it is, one of the biases seen above acts in a strong way, namely the preference to invest in family assets as they are known more and are thus thought to be safer. Non-diversification can have devastating effects on the assets of individuals as if one security is doing badly, it cannot be compensated for with another that is increasing in value.

A final noteworthy effect is the fact that having a higher financial literacy generally leads to a greater propensity to save, more efficient retirement planning and

[155] "*Do Homeowners know their house values and mortgage terms*?", Federal Reserve Board of Governors, Bucks B. e Pence K., 2006.

[156]"*Financial literacy and stock market participation*", Nber Working Paper No. 13565, Van Rooij M., Lusardi A. e Alessie R.,2007; "*Financial literacy, retirement planning, and household wealth*", DNB Working Paper, No. 313, Van Rooij M., Lusardi A. e Alessie R., 2011.

[157] "*Financial literacy, trust and financial advice*", Monticone C., 2010.

[158]"*Financial literacy and Portfolio diversification*", Centre for Studies in Economics and Finance, Working Paper, No. 212, Guiso L. e Jappelli T., 2009.

consequently a greater accumulation of wealth. Lusardi and Mitchell (2006[159]; 2007a[160]; 2007b[161]) and Van Rooij, Lusardi and Alessie (2011)[162] found, in fact, that those who have more knowledge in the financial field have a greater propensity to plan for the retirement age (even if only to ask information on retirement and participating in seminars on prevention) and savings in general, and finally they are less "*unbanked*"[163], thus accumulating more wealth over time than those who are less financially literate.

Moreover, when we defined financial literacy and financial education, we concluded by stating that both definitions do not consider the concept of financial capability.

Knowledge or learning of financial information and concepts does not automatically translate into the ability to make convenient decisions and behave appropriately based on needs and objectives financial education programs cannot automatically lead to an increase in financial skills in all circumstances. Some studies have shown that there is a link between learning concepts and better behavior, but others deny that fact.

Recent studies have found that a large portion of the population either does not save for retirement or does so only when they are about to finish their career, thus accumulating relatively little wealth. Individuals, in addition to not doing retirement planning, do not have the necessary skills to do so. Thus began, on the initiative of employers, especially in large American companies, various seminars to better prepare employees on pension issues. Do these courses have

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[159]"*Financial literacy and planning: implications for retirement wellbeing*", Lusardi A. e Mitchell O.S., 2006.

[160]"*Financial literacy and retirement preparedness: evidence and implications for financial education*", Business Economics, Vol. 42(1), pp. 35-44, Lusardi A. e Mitchell O.S., 2007.

[161] "*Baby Boomer retirement security: the roles of planning, financial literacy, and housing wealth*", Journal of Monetary Economics 54, pp. 205-224, Lusardi A. e Mitchell O.S., 2007.

[162]"*Financial literacy, retirement planning, and household wealth*", DNB Working Paper, No. 313, Van Rooij M., Lusardi A. e Alessie R., 2011.

[163] Individuals who do not hold current accounts.

positive effects on the behavior of the subjects? Lusardi (2004)[164], Bayer, Bernheim and Scholz (1996)[165], and Bernheim and Garrett (2001)[166] found a significantly positive effect of the seminars on the behavior of subjects, stimulating them to retirement savings (by increasing pension contributions) and to saving in general (therefore not only to the pension one), thus increasing their economic assets. The positive impact on capital is most evident on less rich individuals with less education: a logical fact, since even a small increase in wealth has a more considerable effect on the wealth of the poor than those of the rich.

However, the effect of these seminars is not free from negative opinions: for example, it can be the wealth possessed that pushes people to participate in a seminar and not vice versa (i.e. the course does not lead to an increase in assets).

Since almost all seminars are not compulsory, the wealth possessed, or even other interests and personal characteristics of the subjects can be preparatory to the participation of the same.

Many other financial education initiatives are implemented, for example, by consumer associations, insurance companies, banking groups, and take advantage of today's technology (websites and more) to encourage participation in the institution's programs or simply to provide information. The main problem lies in understanding whether these initiatives will then have a positive impact on people's attitudes. Servon L.J. and Kaestner (2008)[167] examined the effect that a financial technology education program set up by a bank can have on financial

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[164] "*Saving and the effectiveness of financial education*", Pension Research Council Working Paper, Lusardi A., 2006.

[165] "*The effects of financial education in the workplace: evidence from a survey of employers*", Nber Working Paper Series, No. 5655, Bayer P.J., Bernheim B.D. e Scholz J.K., 1996.

[166] "The effects of financial education in the workplace: evidence from a survey of households", Journal of Public Economics 87, pp. 1487-1519, Bernheim B.D. e Garrett D.M., 2001.

[167] "*Consumer financial literacy and the impact of online banking on the financial behavior of lower-income bank customers*", The Journal of Consumer Affairs, Vol. 42, No.2, Servon L.J. e Kaestner R., 2008.

skills and behavior (mainly in the use of online banking to reduce the costs of accessing services and in the ability to plan for the future) of individuals with low income and low financial literacy. The project was aimed at providing free courses on the basic topics of finance and on the opportunities and advantages that the use of computers gives in this area (online banking). In general, the program did not have a relevant and significant impact: the behavior of those who attended the course did not differ significantly from those who did not.

In conclusion, we analyze the effectiveness of programs aimed at students, especially those in high schools. Those who made a significant contribution in this field were Bernheim B.D. - Garrett D.M. - Maki D.M. (1997)[168] and Mandell L. - Klein L.S. (2009)[169], who found contrasting effects in the results of the various initiatives.

The former has highlighted the positive effect that financial education lessons have, during high school years, on the behavior that students will have once they reach adulthood. In fact, they found that those who have attended these classes have a higher saving capacity than those who have not attended the courses. Mandell and Klein instead found a different result in this regard. Taking as a sample 800 students (of whom only half took the course) from three different schools, they sought to detect whether a financial education course has any positive effect on students' knowledge and behavior. The effects (both for knowledge and for behaviors) were not significant, i.e. there was no difference between those who took the course and those who did not.

The conclusion that can be drawn from all financial education initiatives, whatever the target audience, is that they have not led to guaranteed success. They must be designed effectively, taking into consideration all the variables involved including the fundamental management of stakeholders included.

[168]"*Education and saving: the long-term effects of high school financial curriculum mandates*", Nber Working Paper Series, No. 6085, Bernheim B.D., Garrett D.M. e Maki D.M., 1997.

[169]"*The impact of Financial Literacy Education on Subsequent Financial Behavior*", Journal of Financial Counseling and Planning, Vol. 20, pp. 15-24, Mandell L. e Klein L.S., 2009.

However, the most important action to be carried out in planning remains that of establishing a program based on the specific needs and requirements of a given target, and not of providing a very general model that would not really raise its financial literacy.

CONCLUSION

The financial context that surrounds us has undergone a rapid and continuous change in the last 20 years: it is increasingly characterized by strong uncertainty, by fluctuating trends and by very sophisticated and complicated financial instruments.
It is therefore essential for the regulator to keep up with the times and keep up-to-date the set of directive rules designed to keep financial markets stable.

With this analysis we have reconstructed the evolution of investor protection in the various directives and regulations issued by the European regulator.
We have seen how the last step taken by the legislator within a long process aimed at improving investor protection, that is the ECSP Regulation, has its origins in particular in the previous MiFID II Directive, and in any case in line with the MiFID I.

The regulation shows the importance of placing the responsibility for investor protection on the service providers, with a view to improving the functioning of the market.

Companies that offer crowdfunding services are therefore imposed numerous disclosure obligations with the aim of increasing, through greater transparency, the investor's awareness of the choices regarding the use of their capital, but also behavioral obligations, so that they can be faced at best, negative market externalities. The numerous disclosure and behavioral obligations to which ESCPs must comply, ensure greater credibility to the companies in question and make financial investments more attractive to potential customers.
Certainly the entry into force of these obligations is functional to the pursuit of the public interest, but on the other hand it has brought multiple and additional

costs to the service providers. These charges are caused by the need to have systems for managing the enormous amount of data deriving from the "active" and "passive" information obligations towards customers, and the data generated by the provisions introduced, or the need to modify their organizational structure if it does not allow a periodic evaluation of the staff and/or the pursuit of the client's objectives.

Costs and efforts deemed necessary by the legislator and potentially capable of generating a virtuous mechanism within the market. In fact, the ECSP Regulation could be perceived by companies as an opportunity and/or an additional incentive to optimize the use of their resources and improve their services.
To ascertain the possible effectiveness of the regulation it will be necessary to wait for the passage of time. One of its main objectives, namely the protection of the investor, will require subsequent interventions by the legislator linked to the rapid evolution of the market but on the other hand, it is not possible to rely exclusively on regulatory protection in pursuit of this purpose, and therefore to place exclusively with intermediaries or service providers, the responsibilities regarding investor protection.

Personally, in fact, I believe it is necessary to support it with educational programs that make each subject capable of making financial decisions, mastering the basic principles of the functioning of the market. Knowledge is an essential self-protection tool for the investor, without which he will be exposed to potential economic losses that the legislation cannot prevent.
The surveys carried out among the world and European populations have highlighted major shortcomings in terms of financial skills even though citizens face daily economic decisions that are more or less relevant for their financial well-being.
For this reason, it is considered reasonable to deduce that, through an improvement in the level of financial literacy at European and global level, it will be possible to make a further qualitative leap within the functioning of the market

and in the prevention of any financial crises, while intermediaries in the regulatory framework for the protection of the investor is unquestionably an important step for the protection of the retail investor and a tool through which to speed up the training of the same.

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