

**Public and Private Law  
and the Challenges of New  
Technologies and Digital  
Markets. Volume II. Legal  
Aspects of FinTech**

# Introduction

The advent of a new technique or a new technology, think to the automobile or the television, apart from changing the social environment and disrupting quite a few existing markets, creates the twin, to a certain degree intertwined, problems to define the rules of the game and to converge towards operating standards which allow the participants to interact. As an example of the universal technical standard, think, for a paleo FinTech case, to the worldwide standard adopted for the Automated Teller Machine.

In cases like the television or the videotape war the law was hardly interested in defining the legal standard, i.e. in declaring the winner in the technological race to set the industrial standard. In fact, until the digital era, which unified the field, various systems (NTCS, PAL and SECAM) lived in different areas of the world, which were separated eco-systems, while the fight between Betamax and VHS became a world war, but even then no legislator or regulator said a word.

We are increasingly dependent on the Internet, as evidenced by the ever-growing number of devices and everyday objects expanding their functionality through the Internet. The data collected can make our lives easier, but also serve as a rich source of knowledge about our behaviours, practices and lifestyles, as a reason for surveillance or even crime and other prohibited market practices.

The modern financial market, like other markets in the economy, is also subject to dynamic changes caused by new technologies, as the financial services and products are, by their very nature, particularly receptive to technological innovation. The problem of the need to ensure effective protection for consumers using innovative financial services continues to arise. Regulatory and supervisory activities of the competent public authorities are not always able to keep pace with technological change and thus to ensure an appropriate level of security for the financial market and its participants.

The publication addresses the issue of using new technologies in the financial market in legal, economic and practical terms, from the perspective of market participants and the legislative challenges faced by the regulator and supervisor. The analysis covers the selected and most relevant problems related to the presence of new technologies in the financial market, as well as threats and abuses resulting from their implementation (e.g. in relation to consumer credits, mobile payments, online channel investment). Key regulations aimed at ensuring the safety of consumer interests in selected areas of the financial services market have been reviewed.

Given the characteristics of the global Internet network, its cross-border and global reach, as well as the dynamic development of new technologies in the area of financial services provision, it is important to underline the potential ease of online activity for entities that do not always have the required authorisations from the competent supervisory authorities and are not always subject to supervision. Many of them are established in

countries that do not require a licence, where they are not supervised. Some of them are involved in illegal activities without any permits or registrations. This seriously hinders not only their supervision, but also fundamentally undermines safe, stable functioning of the financial market and legitimate financial service providers.

Therefore, new technologies are changing the market for financial services and are creating new challenges for the legislator and the market players in various areas referred to in individual chapters of this monograph.

In this dawning new era, the effects of the technology are so pervasive that the entire brave new world must, and shall, be regulated, in different aspects, and this is the common ground of the various contributions discussed in the Bergamo Congress and collected under the title *Legal Aspects of New Technologies in the Financial Services Markets*.

The reasons behind the necessity to share common standards and uniform rules are manifold. The most intuitive is that a reduced number of standards is user friendly, both for the providers and for the customers, which are not required to learn new behaviours of “the systems” on matters – the internal work of the FinTech – they are not interested in. Parallel to this reason is the cost reduction for supervisors, which can more easily control their area if every provider works more or less using the same technological operating rules. As to the rules of law, it is intuitive that common rules facilitate cross border activities (think of the Uniform Laws of the early Thirties on checks and bill of exchange), allows the comparison of contractual clauses and pricing offers. As to the regulators, a uniform set of rules facilitates a common supervisory approach and avoids forum shopping for providers in a market which has no borders, where there is no need of proximity between customer and provider.

The volume deals with the problems and opportunities created by the new technologies when applied to the financial market in the first section, then with understanding how the new technologies affect in particular the credit services and the lending market, finishing in the third section to discuss the interaction of the new technologies with the other financial product services, namely the insurance industry, and the critical sectors of the payment systems and the virtual currencies.

A fast description of the contributions to this volume clarifies the organic and comprehensive work done, to obtain a complete picture of the facts, the regulatory state of the art and the foreseeable future.

The monograph presents an analysis of selected issues related to new technologies in the financial market. Each study refers not only to current, often controversial problems, but also has a unique practical significance. The authors indicate needs, but also barriers related to the introduction and application of new technologies in the financial market, also in the context of regulatory challenges in the European Union and its member states.

The publication is a joint work of scholars representing various scientific centres in Europe. The monograph *Public and Private Law and the Challenges of New Technologies and Digital Markets. Legal Aspects of New Technologies in the Financial Services Markets (Vol. II)* consists of 14 chapters divided into two thematic parts which present a selection of the most interesting and current issues corresponding to their respective titles, namely: “New Technologies in the Financial Market – General Problems,” “New Technologies on the Financial Services Market – Particular Problems.”

The starting point is the chapter written by Edyta Rutkowska-Tomaszewska, which refers to and introduces the range of problems addressed later on in the book and discussed in detail by the authors of individual chapters. The first step towards the regulation is the recognition of the underlying conceptual problems, whose map is sketched by Edyta Rutkowska-Tomaszewska (*FinTech – Conceptual and Regulatory Problems. Some Introductory Remarks*), which we have to face and deal with due to the rise, at full throttle, of the FinTech.

Agnieszka Wachnicka (*Consumer Finance in the Digital Environment*) points out that while the digital economy results in significant transformations in the way societies live, changing the way they interact with each other, for instance changing consumers' preferences and habits regarding the way they seek information about products, communicate about them and make purchase decisions, technological progress has a significant impact on the services offered in the financial market. The technology enables new entities to enter into the financial market providing financial services and offering technologically innovative solutions, being subject to a low regulatory pressure and creating the need to find new ways to protect the customers in a space, the cyberspace, without borders.

Piotr Gałązka (*FinTech Regulatory Policy in the Legislative Agenda of the European Commission – European Approach Versus New Challenges and Opportunities*). This paper describes the regulatory approach of the European Commission towards new phenomena on the financial services market linked with the FinTech revolution we have been facing in the last years. After a thorough analysis of the recent initiatives by the European Commission regarding FinTechs, we can agree on the warning not to over-regulate FinTechs and to allow them to operate on the market, down on a narrow path as the proposed regulations should consider all the risks, such as threats to the systemic stability, cybersecurity, data protection, and equal prudential obligations for all the market players.

Lesław Góral (*Institutional legal Solutions in the Field of Education on the Financial Market in Poland*) deal with the traditional problem of financial education. Consumer law emphasises the information obligations towards consumers, but in a daily changing environment this type of protection becomes ineffective in practice. Therefore, we consider that only the provision of continuous financial education for consumers of financial services can make it possible, in practice, to respect the rights referred to in the regulations.

Agnieszka Krawczyk-Jeziarska (*Development of New Technologies and Their Impact on the Financial Sector in the Context of Cyber Threats*). The financial sector is in the vanguard of the changes and from the very beginning has seen the benefits of shifting the burden of operating activities from physical branches to various forms of electronic banking. At the same time the criminals moved away from the world of real and physical attacks on banks and have shifted to the virtual world. Their attacks are largely directed towards the weakest link, which is a human being, using primitive sociological techniques. That is why education and raising awareness of e-banking clients plays a crucial role.

Eugenia Macchiavello (*Marketplace Lending and Investing in Europe and the EC Proposal for a Regulation on European Crowdfunding Service Providers for Businesses*). Crowdfunding is a fast-growing phenomenon, offering opportunities and risks, which has been regulated but, alas, regulatory responses in Member States of the European Union have been extremely varied, impairing cross-border activity and the formation of an effective

Single Market, although there is a European Crowdfunding Service Providers (ECSP). Regulation in the process of being adopted.

Francesca Mattasoglio (*Innovation Technology and Creditworthiness Assessment*). The creditworthiness assessment is the starting point of any activity involving the concept of credit and even though that assessment has, for years, no longer been conducted exclusively by human beings but is the result of an automated process, it has recently changed thanks to the use of tools such as Big Data, machine learning and predictive models, which process and analyse a potentially unlimited amount of data on each applicant, including those originated from online activity and social media.

Michał Rafał Walczak (*Online Consumer Credit and Consumer Protection Through Information*). Consumer credit agreements concluded via the Internet are used to support the thesis. Due to the asymmetry between consumers and financial institutions, protection through information is the basic method used in the European Union to remove information asymmetry. Unfortunately sometimes the information results in an overload and in particular the conclusion of a consumer credit agreement via the Internet is regulated by many legal acts, the scope of which often overlaps to some extent, leading to conflict of laws. The paradox is that excess information undermines the scope of providing information.

Szymon Kisiel (*The Market for Electronic Payments in Poland in the Light of the Latest Regulations*). The article starting from the analysis of the changes introduced by Payment Services Directive II (PSD II) in the Polish banking sector, discovers some gaps and errors made by banks while applying the provisions of the new directive and, finally and crucially tries to answer the question about the security status of banking sector customers. Are they safe from now on or not?

Bartosz Wyżykowski (*New Technologies and the Problem of Liability for Unauthorised Payment Transactions in the Light of the Current Case Law of Common Courts*) shed new light on the PSD II. The Directive hardened the obligation to use strong customer authentication and posed new questions arising from the ever increasing number of un-authorised payment transactions, which is a consequence of the associated development of computer crime in this field, to show how the liability is assessed and allocated for un-authorised payment transactions in Polish common courts and in the Polish Supreme Court awards.

Gian Luca Greco (*Virtual Currencies and Regulatory Issues*). The virtualization of payment means is the starting point of the revolution created by the virtual currencies, which have legal impacts on issues such as the fulfilment of pecuniary and create the uncertainty of the possible application of the payment systems rules, as well as on savings collection and investment services. The regulatory framework in Italy so far is on the way of regulating in a uniform way similar activities, regardless of the different entities performing them.

Aldona Piotrowska (*Technological Innovations on the Insurance Market and Customer Protection Instruments*). The use of technological innovations in the insurance market decreases the asymmetry information between the client and the provider, lowers the cost and increases the quality of financial advice, but as usual in the FinTech creates new needs of

protection against new risks. The EU law introduced a new model of public law protection, enabling the supervisory authority to create new legal and enforceable instruments.

Mariusz Fras and Monika Szaraniec (*Digital Consultancy, Artificial Intelligence and Smart Contracts in Insurance Distribution. Selected Legal Problems*). The insurance word entered the FinTech era with the InsurTech, which offer consultancy, allow the companies to pursue new and different business models and provide better consumer care and assistance. However also in this field there are few rules and they lack any uniformity throughout the European Union and a number of issues and cases will be examined to indicate the challenges.

A brief presentation of the chapters making up this monograph allows us to state that, as a whole, they provide a comprehensive overview of the problems related to the dynamic process of development of new technologies in the financial services market.

The authors of this monograph hope that it shall prove useful not only in the didactic process, but also that it will be of interest for the widely understood practice of law making and law enforcement in the financial market.

The authors' wish would be that the monograph, as a scientific study, become an inspiration for further reflection and exploration, and for taking increasingly efficient measures aimed at ensuring real and effective protection and security for participants in the modern financial services market in the European Union and in each Member State.

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