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DIGITIZATION ON THE FINANCIAL MARKETS

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ABSTRACT
The financial markets are characterized by several influencing factors like, the increasing regulation; the low interest rate policy; digitization and the market entry of new providers. In the present article, the third influencing factor is especially relevant and in particular the competitive aspects of digitization in the financial markets. In the following, the competitive effects of digitization on the sale of services via electronic channels will first be examined. The further developments in competition that have been observed are then presented. The article closes with recommendations for action in this field. The main objective of the article is to comprehensively analyse digitization and its effects with regard to challenges in connection with financial markets.

KEY WORKDS
Digitization, digital economy, financial markets, competitive effects, regulation

JEL codes: G1, K2

INTRODUCTION

Financial services can be assigned to four purposes: (a) investment or savings goals, (b) financing (granting of credit), (c) insurance against risks and (d) the exchange of money. In the present context, only two of these special features will be emphasized. Financial services are often bundled products. This can be illustrated using the example of a bank account. The account relationship includes a loan relationship between bank and customer, account management and cash custody, the execution of transfers and direct debit payments, deposits and withdrawals, possibly the processing of card payments. In addition to these services, banks, insurance companies and other financial service providers also offer related advice. In addition, financial service providers link individual financial transactions as intermediaries. For example, banks use the funds they receive from customers (deposit business) and investors (capital market investments) as investors in their own interest or for their customers, as part of derivative transactions (e.g. for risk hedging) or for payment transactions. Financial intermediation requires the trust of customers. For example, the depositors of the banks not only accept account management services from their bank, but they are capital providers whose funds the bank uses in other transactions. If the trust between the bank and depositors is disturbed, it can lead to a situation where the capital will escape in the context of so-called bank runs. The business model of other financial service providers also depends largely on the fact that the funds provided are secure from the customer's point of view. For this reason, in the relationship between capital providers (depositors, investors) and financial service providers, it is important that the latter build up a market reputation.

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EFFECTS OF DIGITIZATION ON THE FINANCIAL MARKETS

The market conditions for the distribution of financial products and services processed via electronic channels have been subject to fundamental changes. Digitization accelerates this change process. This has been done in particular for standardizable financial services in private customer business. In other areas (especially in the case of advice-intensive private customer products and services for business customers), the effects of digitization have so far been less clear. However, digitization does not have any direct effects on services that are provided on-site via non-electronic channels (e.g. cash withdrawals and currency transactions at banks).

Standardizable financial services for private customers

Standardization has increased in the sale of financial services for private customers for a long time. This development started even before digitization. It manifests itself in a large number of areas (bank loans, investments) and concerns both the products sold to customers (front office) and related processing services (back office). Standardization allow financial service providers to offer customers a full range of products that are provided by cooperation partners (e.g. investment products such as funds or home loan). Back-office services for the documentation and technical execution of financial transactions are also often procured externally by third parties. Digitization has expanded the possibilities in the area of financial services, again with regard to directly customer-related services as well as in the back office. Digitization improves the options for an optimized product combination. As a result, however, as will be discussed in more detail below, it has led to a separation of financial products and related advice. The background to the development mentioned is that the Internet generally increases market transparency for the benefit of market participants and lowers the search and closing costs associated with transactions. This is relevant for financial services because there is traditionally an information gap between provider and customer with regard to many financial products. Financial products are often difficult to assess for customers due to their bundling of partial services and their dependence on market developments [3]. The appearance of digital providers is fundamentally calling into question the customer relationships of conventional financial service providers. It is therefore no longer sufficient to make offers to the customer within the framework of what the providers can achieve in their existing organization and to apply their existing thought patterns to new customer requirements. After all, digitization also places high demands on staff. The employees must not only keep an eye on the day-to-day business with existing products but must also be open to rapid changes and ready to independently develop new, customer-oriented solutions if necessary [7]. In many cases, conventional banks and insurance companies also have to cooperate with providers of digital services or use external consultants if they adapt their business to the requirements of the digital economy.

Can the financial services be standardized or not at all?

The developments described above do not apply to all financial services within the private customer business, and outside of the private customer business only partially or not at all. Larger financial investments, some credit transactions and transactions with risk pooling (insurance transactions) are under certain circumstances too complex. In the private customer segment, banking services for wealthy private customers, large loans from poorly paid debtors and debt rescheduling, as well as long-term insurance, are so far only partially suitable for alternative offers. However, this does not rule out the fact that information and brokerage services are provided digitally, especially in the sale of insurance products. In addition, so-called peer-to-peer offers for loans and insurance are establishing themselves as a variant of the sharing economy. In addition, there are now alternative pension providers and other alternative providers for small-volume insurance (e.g. for electronic devices). Financial services for companies (B2B business) are an important business area that has so far been affected to a relatively minor extent by digitization. This business is much larger than the consumer services business (B2C business). Companies control their sales chain using their own integrated procurement processes, which financial services must be tailored to [11]. On average, the transactions have a larger volume and are heavily dependent on the relationship between the transaction partners within the distribution chain and, for example, with a bank as the lender. In the case of individual transactions, the prices are influenced by taxes, discounts, raw material costs, delivery and storage costs and can also change afterwards, for example due to renegotiations. The financial flows are therefore more difficult to overlook. For this reason, there is also less space for standardized and modular financial services. As a result, the cooperation between business customers and their financial service providers is often still close and trust based.

DEVELOPMENT OF COMPETITION

It seems as if the fact that the conventional financial services have reacted on market developments [6] with delays, it has made it possible for new providers to enter the market with alternative offers. This market development will be demonstrated using the example of banking services provided to private customers. These phases of development can be distinguished.

In a first phase, banks without their own branch network have entered the market as alternative providers, with whom customers can conduct their banking transactions online or by telephone and who have an advisory infrastructure specially designed for these sales channels (direct banks). The difference between direct banking and conventional branch banking is essentially that customers take care of the processing of financial transactions themselves to a greater extent and, in return, do not have to go to a branch. This “self-sufficiency” saves costs on the part of the bank, but in this respect shifts some of the effort to the customer. The differences between direct banks and branch banks have also been reduced by the fact that most branch banks have also started to offer their customers online banking functions. In this case, the advice continues to be provided by the branch advisor, but the customer can process transactions independently via online access to his account. In competition with the conventional branch banks, the direct banks have leant organization and the advantages of their systems, which are designed for digital process optimization. Competitive conflicts [5] can, however, arise from the fact that direct banks, e.g. in the processing of payment services, fall back on the infrastructure of the branch banks. The setting of high ATM fees for third-party withdrawals and the blocking of ATMs for credit cards issued by direct banks are examples of this.

In a second phase, companies have developed that offer digital services related to financial transactions and are therefore referred to as financial technology companies (FinTech’s). These FinTech’s are each characterized by innovative business models using modern (digital) technologies [1], they provide standardizable financial services (usually focused on a certain area and not dependent on a banking license) and that these services are heavily geared towards the needs of the end customer. Unlike banks, FinTech’s often only provide individual services. A key difference to conventional banks is that FinTech’s develop their business model based on a desired customer experience and implement it technically. The product is therefore not first developed as part of the existing structure and then presented to the customer and marketed in a separate step. FinTech's act as competitors of banks, as independent internet ecosystems (e.g. crowd lending platforms) or as new competitors for individual services (e.g. account management services), but often also work within the framework of cooperation's, as a product or process partner, together with banks. In competition with conventional banks, FinTech's are advancing into areas in which the range of digital banking services specially tailored to customer preferences has so far been limited. Front-end providers are displacing conventional banks from digital contact with customers by occupying the customer interface for mobile and online banking applications. The aim in each case is to grow quickly by offering individual services that are attractive to the customer and thus to realize economies of scale.

Several FinTech's are organized as platforms. Platform services act as intermediaries between different user groups on the Internet and enable users to come into direct contact with one another via the platform. Examples in the FinTech sector are portals for crowd financing and services that enable transaction partners to make payment. Payment services represent an important business area in the context of the provision of financial services. The relevant markets traditionally include the operation of card payment systems and other payment systems (e.g. electronic direct debit). The competition in the area of payment systems takes place on several market levels and depends on the sales channels used. In the case of payment systems other than card systems, the downstream market level can be designed differently. Some payment systems allow online payments (e.g. credit card systems), others are used exclusively for online payment processing (e.g. PayPal). The market entry of FinTech's generally benefits customers, as it makes innovative services available. From the customer's point of view, FinTech's simplify the implementation of individual financial services by tailoring such services to customer preferences. Apart from that, it should be positively emphasized that the offers from FinTech's also give access to financial services to those customer groups who, in view of the high risks and low income, could not be reached by the standardized offerings of conventional banks. An example of this is services that - from a banking perspective - give debtors who are not creditworthy access to swarm capital (crowd lending).

In a third phase, representatives of a new generation of FinTech's have entered the market that bundle various individual services on a (technical) platform and allow the customer to access these services via a uniform portal or mobile application. The portal includes a basic set of own services (account management). In addition, the portal operator can make its own advisory service or have the advisory services provided directly by its partners. The systems described are also referred to as digital (financial) marketplaces. Their structure not only allows banking services and innovative FinTech services (e.g. peer-to-peer services) to be integrated. Rather, they can also be set up so that the portal operator provides the customer with the best offer from a pool of providers in the event of an individual request. Finally, it is fundamentally possible to grant customers access to the services via the platform (e.g. to manage a mobile phone account). From the customer's point of view, marketplace systems make it possible - in contrast to the offerings of banks and FinTech's for individual services - to the customer to take advantage of financial services tailored to individual preferences from a single source. At the same time, the flood of information that the customer has been exposed can be reduced, since individual services relevant to him can be automatically integrated by the operator of the marketplace system [4]. Marketplace systems can also be set up in such a way that they not only enable the customer to overview and compare the services of individual providers (information and comparison platform), but also provide customers about financial products for different providers are also put out to tender (auction platform). This enables competition for financial services on a case-by-case basis, which provides customers with additional added value compared to previous offers. The focus on such added value in turn means that financial service providers that operate marketplace systems or cooperate with them have to consistently gear their offerings to specific customer groups. This suggests diversification according to customer groups.

IN WHICH DIRECTION IS THE MARKET HEADING?

An open question is whether innovations in the course of digitization will develop a "disruptive potential" and whether a fundamental reorganization of the financial system can be expected in the foreseeable future. It has been speculated on various occasions that large technology companies or Internet service providers (e.g. Apple, Facebook, Google, etc.) could revolutionize the market as a whole [10]. A fundamental reorganization of the financial system would not only be of competitive importance but could also involve financial stability risks. Even if further fundamental upheavals in the financial system are in any case not foreseeable at the moment, it is likely that competition will intensify in the coming years due to digitization. Standardization and modularization of banking services will continue, and the providers will continue to expand their business in order to align with customer preferences. Increasing competition is likely to accelerate the consolidation in various areas of the financial system. In the digital world, financial services cannot be restricted to any particular business area, which is why all providers of such services compete with each other. Companies such as Apple, Facebook, Google, etc. are already exerting considerable pressure to innovate on existing market participants. Standardization should remain a permanent gateway for FinTech’s and other companies to gain access to the market for their own digital financial services offerings. For conventional financial service providers, for regulatory reasons and also from the customer's point of view, their reliability and the protection of entrusted funds are paramount. In contrast, new market participants in the digital world are often unregulated and rely on winning customers for new types of solutions, although with this approach they accept failure or even total loss of the funds they have invested. The focus on customer preferences lead to the importance of customer data being evaluated more precisely than before. The analysis of extensive (customer) databases enables the development of offers suitable for the masses, nevertheless largely customer-oriented services. The data in question is less and less available to individual financial service providers because, given the modularization and the addition of digital service providers, access to such data is also opening up for third parties. On the other hand, the price of standardized and modularized services for providers loses its significance as a competitive differentiating factor. In this regard, reviews in social media could also become increasingly relevant. Ultimately, financial service providers are increasingly being replaced by other companies within the framework of data-based forms of remuneration or are being displaced without any replacement. Data-based remuneration can take place within the framework of the existing financial system, e.g. when service providers use consumer data to offer online advertising opportunities and thereby generate revenue from third parties. However, purely data-based forms of remuneration that are independent of the existing financial system (e.g. when using crypto currencies) are also possible. In any case, regardless of the developments mentioned above, the dependence of the business of financial service providers on technological progress and the business models of digital service providers is likely to continue to increase. From a competition policy point of view, in addition to an understanding of the market development, the question of the extent to which legal and official regulation should be adapted in order to create uniform competitive conditions (level playing field) is of particular interest [2]. In particular, the often-criticized existence of an inadequate culture of innovation is therefore more relevant to industrial policy and less relevant to competition policy.

COMPETITION-COMPLIANT REGULATION

From a competition policy point of view, in addition to an understanding of the market development, the question of the extent to which legal regulation should be adapted in order to create uniform competitive conditions (level playing field) is of particular interest. When applying a competition policy standard, care must be taken to ensure that interventions in the market should only take place to improve the competitive framework and not, for example, to protect against such changes individual market participants who fail to adapt to market changes in good time. In particular, the frequently criticized existence of an inadequate culture of innovation is therefore more relevant for industrial policy and less for competition policy [14]. Against this background, the following questions arise: Given the current market conditions, is the regulatory framework for financial services adequate to achieve the regulatory goals without distorting competition?; To what extent and in what way is the regulation to be redesigned in order to avoid an obstacle to market participants in newly emerging product markets (in particular for FinTech services)? and Does the regulatory framework have to be adapted in order to avoid a regulation-related fragmentation of newly emerging markets?
The regulation of financial services is designed to preserve financial market stability and to protect market participants against losses caused by the realization of certain risks. Financial supervisory law serves these goals, and general consumer protection law also serves the latter goal. In addition, there are, in particular, data protection and technical data security regulations and state regulations of trade and savings bank law. From our point of view goals should be pursued in a competitive manner as possible. It must be taken into account that EU primary law [4] protects the goal of a uniform internal market characterized by undistorted competition in addition to the regulatory goals. In the case of new services coming onto the market, this requires an examination of whether there is a conflict of interests between the protection of competition and the protection of other legal interests and how such a conflict of interests can be resolved. The rule here is that the competent authorities must take into account a legislative preliminary assessment, but the authorities must also make their own weighing decisions, in particular within the discretion granted to them. In the present context, conflicts of objectives for the protection of competition may arise, particularly with regard to the regulatory protection objective of financial market stability. The other supervisory protection goals (e.g. investor and creditor protection, financial market integrity, etc.) protect less far-reaching legal interests. In these cases, a conflict of objectives can be ruled out because the protection of competition can, at least in individual cases, also include protection of the legal interests concerned (e.g. protection of investors/consumers). If there is a conflict of interests, however, it should be noted that the protection of undistorted competition, because it is explicitly anchored in EU primary law, is particularly important in the context of the protection of the European internal market [13]. Therefore, the protection of competition can be given greater weight when weighing against the legal interests of financial market supervision. This is important, especially as far as the regulation of new types of financial service providers is concerned.

The regulatory protection of the market's ability to innovate raises the following questions (in particular with regard to digitally provided financial services). On the one hand, the question arises of how to deal with market changes caused by digitization in regulatory terms [9]. On the other hand, it must be considered whether regulation itself can and should make a positive contribution to market development (enabling regulation). With regard to the first question we can point out that in the markets affected by digitization, both the legislature and the respective competent authorities should, if possible, continuously check whether the regulation needs to be adapted to changed market conditions. In the present context, this relates less to the question of whether regulation to protect financial market stability is necessary at all, but rather how this regulation is appropriately designed. FinTech's complain that the expense triggered by the regulation puts them at a disadvantage compared to existing financial service providers because they cannot offer certain services. In view of this fact, it is being discussed whether regulatory approval or reporting requirements for small providers of digital financial services entering the market should be suspended at least temporarily (regulatory sandbox). There are special features with platform-based financial services. This is the case because platform operators themselves do not provide any intermediation service, but only give market participants the opportunity to exchange information directly [12]. Therefore, capital requirements with regard to such service providers may be necessary insofar as they accept customer funds for onward transfer, but not with regard to an additional credit relationship with the investors. With regard to the second question of regulation that promotes market development, those regulations should be considered which, in view of the increasing standardization and modularization of financial transactions, promote the development of marketable standards and mutually compatible solutions. A positive example is the Payment Services Directive, according to which banks must grant third parties' access to interfaces that enable revenue and account displays and the triggering of payment orders.

CONCLUSIONS

The development of new digital financial services is likely to be relevant to the EU internal market [8] in many cases, since such services can be offered across Europe and in many cases can be adapted to different local markets or to customer preferences in these markets. The national regulations only deal specifically with cross-border financial services in a few cases, at least at retail customer level. In the case of digitally provided and new services, the lack of other regulations on cross-border services can, however, make it more difficult to offer cross-border services. Indeed, so far consumers have made very little use of financial services from other Member States. A question that is particularly relevant from an industrial policy perspective, but less from a competition policy perspective, is to what extent the regulatory environment should be designed to be attractive for the choice of location for new types of services. From a competition policy point of view, however, it can be problematic if market participants switch to other legal systems in order to gain a competitive advantage in the provision of services on the home market due to the lesser regulation (regulatory arbitrage). The location of the service provider is selected in the "cheapest/best" available legal system. If such practices are also observed in innovative financial services, this would be a further argument in favor of regulating these services at EU level.
According to what has been said above, digitization leads to fundamental changes, at least in some areas of the financial services industry: standardization and modularization are increasing, while consumer services are becoming more customer-specific, especially in private customer business. The legislature and the responsible authorities should accompany

this development in order to protect market participants with outdated business models [15]. A regulatory overburden of companies entering the market in the digital economy should be avoided. A sensible legislative approach in terms of competition policy can be to temporarily suspend or reduce licensing or reporting obligations in order to prevent the risk of market entries being prevented by the effort associated with these obligations. Another approach can be to examine, in the case of investor protection measures, whether regulations that increase transparency can be sufficient as opposed to further regulatory market intervention. With a view to innovation-friendly regulation, attention should be paid to promoting the development of standards and mutually compatible solutions. In addition, regulatory measures should always be reviewed to determine how they can affect the development of cross-border offers of digital financial services. In the case of national regulatory initiatives relating to digitally provided financial services, the risk must be kept in mind that market participants may switch to other legal systems in order to gain a competitive advantage due to the lower level of regulation there (regulatory arbitrage). Therefore, regulatory measures should always be checked to see whether they can be uniformly enforced against all market participants. The supervisory authorities should continue to pursue and continuously develop their previous approach of making regulatory interventions in market processes in the digital provision of financial services dependent on the specific business model. A close exchange between the responsible bodies should help to adapt their respective expertise to any new market developments.

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