Technological Innovation and Competition in the Financial Sector in Portugal

Issues Paper

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With competition, everybody wins.

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AUTORIDADE DA CONCORRÊNCIA
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EXECUTIVE SUMMARY

The use of technologies in the financial sector (FinTech and InsurTech) provides significant opportunities to intensify the competitive dynamics in the market and thus increase efficiency and consumer welfare. The new business models made possible by these technologies provide consumers and firms with greater choice and improved access to services through quick, convenient and competitive alternatives. These new firms may play an important role in the provision of financial services by introducing competition in a market with high concentration levels and low contestability.

However, Portugal has been slower than other countries in adjusting to market developments. New FinTech and InsurTech firms face barriers to entry and expansion that limit their ability to provide appealing services to consumers.

In its mission of promoting competition, the Portuguese Competition Authority (Autoridade da Concorrência – AdC) analysed the market entry conditions faced by FinTech and InsurTech firms, with a focus on payment services and crowdfunding. The AdC also looked at robo-advisor services and the new technologies applied to the insurance sector, which are at an early stage of development in Portugal.

In this regard, the AdC held meetings with several financial sector stakeholders[1] and gathered other competition authorities' experiences.

With respect to payment services, the AdC identified barriers to innovation and entry arising from the regulatory framework applicable to the provision of financial services based on new technologies. Additionally, some aspects of consumer behaviour are likely to act as a barrier to market entry by limiting the ability of new market players to expand their activity.

The AdC also highlighted the risk of market foreclosure by incumbent banks, which may hinder FinTech firms' access to key inputs, namely the data and infrastructure needed to provide payment services. As some of these services are also provided by incumbent banks, there is no incentive for them to grant access to these inputs.

The recommendations put forward by the AdC in this issues paper aims at reducing barriers to the entry and expansion of FinTech firms, focusing on the risk of foreclosure of new entrants by incumbents and how the intervention of the legislator and the sectoral regulator may mitigate this risk.

The AdC highlights the importance of promoting competition in the retail payment services market. The AdC also states the relevance of a swift response to the challenges posed by technological innovation, as the delay in adopting an efficient, proportional and adequate legal and regulatory framework may undermine innovation and competition, and curtail market dynamics.

[1] Specifically, the AdC had meetings with the following stakeholders: Banco de Portugal (Portuguese Central Bank) and CMVM (Portuguese Securities Market Commission); AFIP (Portuguese FinTech and InsurTech NGO) and APB (Portuguese Banking Association); BiG Start Ventures, Comparajá.pt, Easypay, Ebury, euPago, i2S, Lusopay, PPL Crowdfunding, Raize, Seedrs and SIBS (interbank services provider). Additionally, the AdC contacted other competition agencies. The AdC also received input from ASF (Insurance and Pension Funds Supervisory Authority), the Portuguese Central Bank and the Securities Market Commission in the scope of the contribution of the AdC on competition in the financial sector for the OECD that was presented at a conference in December 2017.

It is key that Portugal proceeds with the legal transposition of the 2015 EU Directive on payment services (PSD2),[2] embedded with principles of openness, innovation and competition, to alter the current status quo, that prevents the full benefits of technological innovation from being realised. The transposition deadline expired on 13 January 2018. However, Portugal failed to achieve a timely transposition of the Directive,[3] which is critical for opening the market to new developments.

One of the key points of the PSD2 is that new market players should be granted access to account data. The PSD2, along with the General Data Protection Regulation, determine the end of banks' exclusive access to account data, and strengthen the security of the services provided, as well as client information. The ownership of this information is of the consumer and the account data is "portable". Thus, if the client grants access to this information by other third party service providers, for example an app to display aggregate information on the clients' payment accounts, the bank may not refuse the service provider access to that data.

The AdC also considers that there are risks of delay and difficulties in implementing the Directive. In fact, the implementation process depends on banks adopting open regulatory technical standards (RTS)[4] that ensure the interoperability of the apps of the new service providers and those of incumbent banks. Accordingly, banks may delay or even undermine the access of service providers to client account data.

Given the risk of foreclosure, the AdC recommends that, in implementing the Directive and its delegated acts, the legislator and the sectoral regulator should always safeguard the access of new FinTech service providers to the inputs they require to undertake their activity. The AdC would like to express its availability to provide a competition perspective on the matter, particularly regarding the conditions of entry by new market players.

The AdC further highlights that, vis-à-vis other countries where FinTech firms have also been found to face barriers to entry, in Portugal, new entrants face increased difficulties due to the specificities of the Portuguese payment system. In this regard, the SIBS group is an important player in the retail payment system in Portugal, as it manages the nationwide ATM network (Multibanco) and the settlement and clearing platform – SICOI.[5] It should also be noted that the five leading banks in Portugal hold 85% of SIBS share capital. This context is likely to strengthen the risk of foreclosure of new FinTech players that provide services that compete against those offered by banks, as well as by their subsidiary SIBS.

The intervention of sectoral regulators should not obstruct, but rather promote innovation, while protecting the system, consumers and investors, taking into account in particular the risks associated with financial activities. The AdC underlines the relevance of establishing licensing requirements and other regulatory provisions that observe the principles of efficient regulation, i.e., they should be proportional to avoid placing unnecessary burdens on FinTech players given the risks associated with the activity they undertake. The AdC further recommends that particular attention should be given to the **relevance of the timeliness of the**

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[2] Directive 2015/2366/EU of the European Parliament and of the Council, of 25 November, on payment services in the internal market, OJ L 337, 23.12.2015.

[3] When this Issues Paper was published, Law 57/2018, of 21 August, had entered into force. This Law gave the Government a 180-day legislative authorization to transpose PSD2 into the national legal framework. This legislative authorization allows the government to regulate access to the activity of payment institutions and the provision of payment services, as well as access to the activity of electronic money institutions and the provision of electronic money issuing services. This regulation is implemented through the approval of a new Regime of Payment Services and Electronic Money, foreseen in a Decree-Law approved by the Council of Ministers on September 27, 2018, yet to be published in *Diário da República* (the national official gazette).

[4] Commission Delegated Regulation 2018/389/EU, of 27 November, supplementing Directive 2015/2366/EU of the European Parliament and of the Council, with regard to regulatory technical standards for strong customer authentication and common and secure open standards of communication.

[5] Interbank clearing system.

licensing process, in the context of market developments so as to avoid undue delays which may hinder the incentives for new players to enter the Portuguese market.

Regarding the barriers emerging from consumer behaviour, the AdC considers that the State, as a consumer of goods and services, may play a key role in shaping demand while procuring financial services, for example payment services. The AdC emphasises the importance of designing public tender procedures with technologically neutral specifications, thereby promoting participation by new FinTech firms.

Crowdfunding emerged as an alternative and potentially less costly source for SMEs and consumers to obtain credit and raise capital, thereby widening the funding for projects and activities in the Portuguese economy. However, crowdfunding is still not as commonly used in Portugal as in other European countries.

In this context, it is important to safeguard the proportionality of the regulatory framework of crowdfunding to promote its use in Portugal. The AdC underlines the relevance that the sectoral regulator provides legal certainty to FinTech firms by providing information on the proposal for a EU Regulation on crowdfunding and lending services providers, as well as on how this legislation will interplay with the national legal framework.

It is key that the **requirements of the legal framework for crowdfunding and peer-to-peer lending in Portugal are both suitable and proportionate.** Furthermore, it would be beneficial for competition if the sectoral regulator considers **envisaging the possibility of granting rights for service providers[6] licensed in other EU Member States to provide services of crowdfunding and peer-to-peer lending platforms in Portugal**, as this could spur entry in the Portuguese market.

The growing digitalisation of the financial sector has led to the rise of automated or semi-automated financial dealing and advice provided by FinTech firms, commonly referred to as robo-advisor. This type of services based on data and algorithms offers customised financial advice, at potentially more competitive costs.

In the insurance sector, InsurTech firms have introduced customised services with new risk assessment solutions based on data and algorithms. InsurTech firms bring efficiency and convenient services at competitive prices, while also offering alternative solutions for consumer demand that, however, is not met by current supply conditions.

At this stage, the AdC has not conducted an in-depth analysis into the robo-advisor or InsurTech. However, the AdC advocates with this regard for the same principles that apply to payment services and crowdfunding. In particular, **it is key to ensure an efficient, proportional and non-discriminatory regulatory framework that promotes competition and protects the interests of consumers**, together with effective monitoring of potential incumbent strategies aimed at undermining entry of new market players.

Given the potential benefits of FinTech and InsurTech firms for competition and efficiency in the financial sector, **the AdC recommends that sectoral regulators seek to mitigate the existing barriers to entry and expansion by promoting innovation and the opportunities brought by FinTech and InsurTech firms with the introduction of regulatory sandboxes and innovation hubs.** These regulatory initiatives allow to evaluate the projects in a controlled setting and have been adopted in several countries, such as the UK and the Netherlands.

[6] These rights can, for example, be granted under MiFID (such as the Financial Conduct Authority in the UK) at least for the activities covered within the scope of this legislation.

1. BACKGROUND

1.1. New technologies in the financial sector

The emergence of new technologies in the financial sector has led to new and better services for consumers and firms. Recently, technological developments applied to the financial sector based on artificial intelligence, big data, and blockchain technology, among others, have changed the traditional model of financial service provision to consumers.

New technologies applied to the financial sector – FinTech and InsurTech – promote innovation and competition by increasing efficiency and consumer welfare through reduced costs and greater product choice. FinTech and InsurTech providers offer internet-based services and app-based products that appeal to consumers for their consumer-friendliness, automation and convenience. The service disintermediation and greater organisational flexibility of FinTech operators allows them to save on operational costs and, consequently, to offer alternatives at more competitive prices than those offered by traditional financial services.

FinTech and InsurTech are an opportunity for consumers and firms with difficult access to traditional banking, investment and insurance services to gain access to a new range of financial products. New technologies also enhance the transparency of financial service provision and promote financial literacy through digital tools. This effect is maximized if there are simultaneous improvements in the digital literacy of consumers.

Technological innovation may play a key role in enhancing competition in the traditional financial sector, which is characterized by high levels of market concentration and high barriers to entry. The intrinsic features of the sector, such as high fixed costs, economies of scope and network effects, curtail market dynamics and provide incumbency advantages to traditional operators. Additionally, consumers' sensitivity to price changes in the financial sector tends to be low due to search and switching costs.

The introduction of new technologies in the financial sector are not exclusive to new entrants. Indeed, FinTech developments may be introduced either by new entrants or incumbent operators. Furthermore, while new FinTech services may compete against the services offered by incumbent operators, some can also complement traditional financial services.

The new FinTech and InsurTech entrants thus represent an opportunity for making the banking, investment and insurance service markets more contestable and open to competition and innovation. Incumbent operators may strategically respond to these market developments with innovative products and lower prices. However, incumbents may also seek to eliminate competition through the acquisition of these new competitors or by foreclosing them from the market.

1.2. Regulatory impact on technological innovation

Regulatory requirements are likely to constitute a barrier to entry and expansion of FinTech and InsurTech operators.

The Portuguese financial sector is characterised by a complex regulatory framework that seeks to address the specificities of the sector. Information asymmetries, systemic and prudential risks, policies to prevent money laundering and the financing of terrorism, and the need to safeguard the interests of consumers, are some of the aspects shaping the regulatory framework.

Regulation should promote innovation rather than obstruct it, while protecting consumers and the system, namely by taking into account the risks associated with financial activities.

It is essential that the regulatory intervention observes the principles of efficient regulation, i.e., necessity, proportionality and non-discrimination. In this context, financial sector regulation should be technology-neutral so that the sector can adjust to technological developments. It should also be proportional to the risks of each service provider's activity.

In that respect, the regulatory requirements applicable to low-risk activities should be proportional to those risks. They may be less restrictive than those that regulate higher risk activities, in particular those associated with deposit-accepting institutions. This regulatory approach allows new entrants in the financial sector to provide their services without having to face disproportionate barriers to entry and expansion.

The financial sector's regulatory framework has been subject to profound changes recently. **The 2015 EU Directive on payment services (Second Payment Services Directive - PSD2)**[7] **is particularly relevant in a scenario of technological innovation and the opportunities created by FinTech in payment services.** The goal of PSD2 is to open the payment service markets to innovation and digital market players. This is especially relevant in a context where these operators experience difficulties in bringing competition and consumer choice-enhancing innovation to the market. Besides creating entry conditions, PSD2 also aims at providing more security, legal certainty and consumer protection.

The European Commission highlights that the new service providers may offer wider consumer choice in internet-based payment services, often at lower prices, and that the absence of regulation might hamper their potential. The goal of the Directive is to address these developments and to create conditions to seize these market opportunities, while ensuring that adequate rules apply to every payment service provider.

Portugal has been slower than other countries in adjusting to market developments. The transposition of PSD2, whose deadline was 13 January 2018, remains incomplete.[8]

This delay may have conditioned market developments by discouraging new entrants and raising unnecessary obstacles to innovation, thus hindering competition and consumer welfare. The transposition and effective implementation of the Directive would allow important benefits to materialize, as new entrants might enter the market and incumbent banks and payment institutions might expand the range of payment services they offer.

With respect to crowdfunding, new technologies create alternative ways of channelling funds from investors to investment projects, improving SME and consumer access to funding at a potentially lower cost.

However, compared to other European countries, developments in this sector are limited in Portugal, partly due to regulatory barriers. The national regulatory framework for crowdfunding has undergone a set of recent and deep changes due to the approval of the sanctions regime and the implementation of the Portuguese Securities Market Commission's (CMVM) regulation on crowdfunding and peer-to-peer lending. However, it should be noted that this regulation (published in May 2016) was not in force until the sanctions framework was approved in February 2018. This situation is likely to have conditioned the development of crowdfunding services in Portugal.

According to the Portuguese regulatory framework, crowdfunding service providers from other EU Member States have to request authorisation from the Portuguese regulator. The weight of this requirement and the lacking regulatory harmonisation at EU level is likely to impose higher regulatory and operational costs on crowdfunding service providers, and to limit their entry and expansion in the market.

[7] Directive 2015/2366/EU, of 25 November.
[8] On the publication date of this Issues Paper.

1.3. Promoting innovation and competition in the financial sector

The competitive pressure brought by new entrants and start-ups into the financial sector is essential, not only because it increases the number of market players in a sector characterized by high concentration and low contestability, but also because competition can boost the introduction of new technologies. In fact, competitive pressure is crucial to create the incentives for market players to innovate and strategically react to the development of new products.

Much like other industries, the financial sector benefits greatly from competition. However, there is often a perception of a trade-off between competition and stability in the financial sector. The empirical and theoretical economic literature has produced mixed findings in this respect. Some authors point to a positive relationship between competition and financial stability, while others find the opposite relationship (AdC, 2017).[9]

While the evidence is mixed, it does not provide support to arguments that market power or high profitability levels contribute to a more resilient and solid financial sector. In fact, many studies highlight the benefits of competition in terms of more efficient and competitive banks, especially if adequate *ex-ante* regulation is in place (Schaeck *et al*. 2009,[10] De Nicolò *et al*. 2004,[11] Amidu and Wolfe 2012,[12] and Schaeck and Cihák 2014).[13]

It follows that limited competition levels cannot be regarded as means to ensure financial stability. Competition may in fact play an important role in mitigating the too-big-to-fail problem.[14] In fact, the stability of the financial sector depends mostly on the regulatory framework (see the report from the UK's Independent Commission on Banking - the "Vickers Report")[15].

In its mission to promote a culture of competition, the AdC considers that it is important to promote competition and innovation in the financial service sector. Therefore, the AdC highlights the importance of eliminating regulatory barriers to innovation and entry by new operators in the financial sector, therefore contributing to the modernization and efficiency of the sector as a whole. In this respect, it is important to note that there may exist externalities between different financial services. For instance, promoting competition in payment services may render crowdfunding platforms that rely on payment service providers to process their financial flows more competitive.

Furthermore, it is important to prevent incumbent operators from raising strategic barriers to the entry of new players in an attempt to protect their market position. In this context, the AdC considered it relevant to analyse market entry conditions, bearing in mind how the technological and regulatory context may affect the development of the sector.

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[9] Contribution of the AdC to the OECD, DAF/COMP/WP2/WD(2017)13, available at: https://one.oecd.org/document/DAF/COMP/WP2/WD(2017)13/en/pdf.

[10] Schaeck, K., Cihak, M. and Wolfe, S. (2009), "Are Competitive Banking Systems More Stable?" *Journal of Money, Credit and Banking*, 41: 711–734.

[11] De Nicolò, G., Bartholomew, P., Zaman, J. and Zephirin, M. (2004), "Bank Consolidation, Internationalization and Conglomeration: Trends and Implications for Financial Risk," *Financial Markets, Institutions and Instruments*, 13(4): 173-217.

[12] Amidu and Wolfe (2012), "Does Bank Competition and Diversification Lead to Greater Stability? Evidence from Emerging Markets", *Review of Development Finance*, 3(3): 152-166.

[13] Schaeck, K. and Cihák, M. (2014), "Competition, Efficiency, and Stability in Banking" *Financial Management*, 43(1): 215-241.

[14] Too big to fail means that a market player (generally the banks) will be protected from failure due to their impact on financial stability.

[15] Independent Commission on Banking: Final Report – Recommendations (2011). Available at http://www.ecgi.org/documents/icb_final_report_12sep2011.pdf.

Despite the wide range of services provided by FinTech and InsurTech firms, the present paper mainly focuses on retail payment services and crowdfunding. Robo-advisor and InsurTech services are also briefly addressed. The latter have, however, still limited development in Portugal.

The AdC analysed market developments and gathered input from several financial sector stakeholders[16] with the aim of producing a document that would raise awareness regarding the main competition issues that are relevant in the current context of the financial sector, in Portugal.

The present Issues Paper puts forward a set of messages, principles and recommendations that should be taken into account in the current market context, with the aim of eliminating entry and expansion barriers, and thus promoting innovation, competition and efficiency in the financial sector, with benefits to consumer welfare and the economy as a whole.

[16] See footnote 1.

2. RETAIL PAYMENT SERVICES

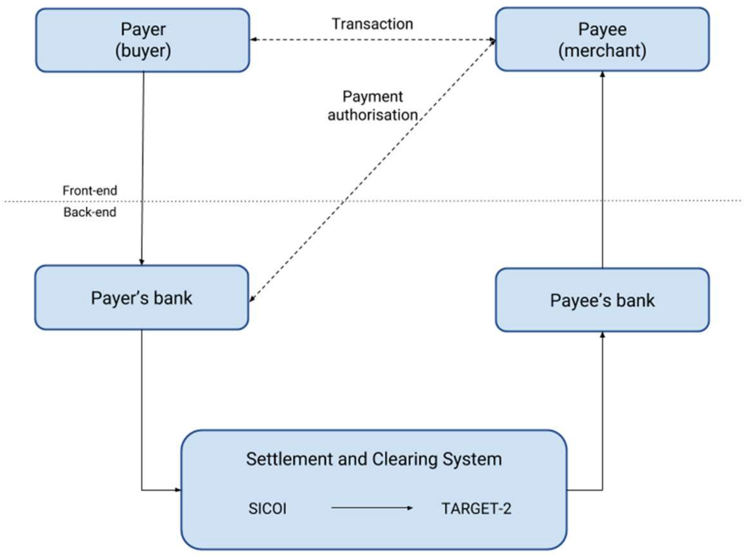
2.1. Retail payment services in Portugal

The retail payment system corresponds to the low-value payments made by economic agents on a daily basis. This system allows for a quick, secure and effective way of trading goods and services by consumers and firms, such as the acquisition of goods and services, payment of bills, salary processing, and payments to the State, among others.

In Portugal, the retail payment system processed 2,541 million operations in 2017, totalling 417 billion euros, which corresponds to more than twice the national GDP. It is in this context that the potential benefits of increased competition and innovation levels that FinTech firms represent will be realized.

In simple terms, a payment operation involves a transfer of funds from the bank account of a payer to the bank account of a payee. The payee receives the payment authorisation after the system confirms the availability of funds in the payer's account. Banks are interconnected through a settlement and clearing system.[17] Figure 1 illustrates the retail payment system in Portugal.

Figure 1 - Retail payment services in Portugal



Source: AdC.

The processing of these transactions requires a technical infrastructure and a set of rules that allow consumers, firms and the State to trade with each other. In Portugal, SICOI (the interbank clearing system) is the retail payment system managed by Banco de Portugal. Payment orders are processed and settled by TARGET2-PT, the Portuguese component of the Eurosystem's real-time gross settlement system.[18]

Banco de Portugal is responsible for authorising SICOI participants, such as banks, savings banks, Central Agricultural Credit Bank and mutual agricultural credit banks and other credit

[17] This system calculates each bank's net position in a given period, so that it can subsequently credit or debit the payment accounts at each bank.
[18] This is the system where large-value euro-denominated payment orders are processed and settled against central bank money.

institutions authorised to carry out their activities in Portugal under the freedom to provide services. Banco de Portugal may also authorise other participants.[19]

In general, there is a period of time between the moment the payment is initiated by the payer and the moment funds are received by the payee in his payment account, which can last from a few hours until more than one day.

SICOI is made up of six subsystems, one for each payment instrument: cheques, bills of exchange, direct debits, credit transfers, payment cards, and, more recently, instant transfers. The six payment instruments can be classified according to their function:

- **Cheques and bills of exchange**[20] are the two exclusively paper-based payment instruments. By issuing a cheque or a similar document,[21] the payer places a given amount of funds at the disposal of the payee at the payer's bank.
- **Direct debits** are payment instruments whereby the payer authorises the payee to debit the payer's payment account, enabling recurring payments to be made from the payer to the payee. These transactions are often related to periodical payments, e.g. within electricity and water supply contracts, telephone subscriptions or loan instalments.
- **Credit transfers** are a payment instrument through which a payer initiates a transfer of funds to be credited at the payee's payment account.
- **Payment cards** are payment instruments that allow a payer to acquire goods and services or make payments through a communication network from the account to which the card is associated.
- **Instant transfers** are a payment instrument that works similarly to credit transfers, with the difference that funds are made available to the beneficiary in real time (a few seconds). The SICOI subsystem for instant transfers was established by the recent SICOI Rulebook (Instruction 8/2018), which entered into force on 5 June 2018.

There has been a growing trend towards the use of remote, automated and card-based payment instruments in retail payments. In 2017, cheques accounted for less than 15% of all processed transactions, while in 2001 they accounted for more than 70%.

Payment card transactions conducted through the Multibanco network account for 86% (Figure 2) of all processed transactions, and for 28% of the processed payment value in 2017. In 2016, there were 20.5 million payment cards in Portugal, meaning that each citizen had on average two payment cards, a figure which is above the EU and euro area average. According to European Central Bank data[22], Portuguese consumers made 27 transfers on average, in 2016, i.e., less than the 60 transfers made on average by each citizen in the EU. On payments by card, Portugal has an average of 145 transactions *per capita*, which is above the 117 transactions for the EU. In total, Portuguese consumers made an average of 209 payments in 2016, which compares with 239 in the EU.

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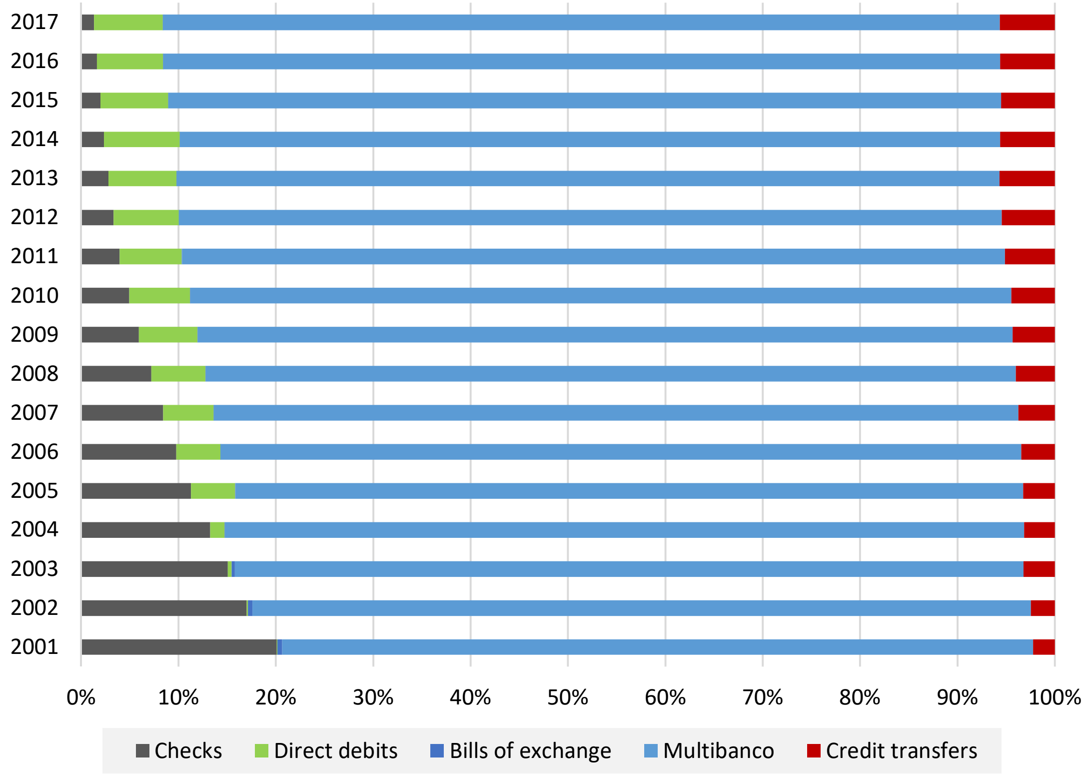
[19] Participation in SICOI might be direct or indirect. Direct participation entails opening a settlement account in TARGET2 and an account in AGIL - *Aplicativo de Gestão Integrada de Liquidações do Banco de Portugal*, as well as the establishment of a reserve at Banco de Portugal (article 5 of SICOI's Rulebook – Instruction nr. 8/2018 of Banco de Portugal). Indirect participation implies that the indirect participant is represented by a direct participant that settles on TARGET2-PT in its own account (article 6 of SICOI's Rulebook).

[20] Bills of exchange include euro-denominated commercial bills, promissory notes and receipts payable by any participant in this subsystem.

[21] Postal money orders, Social Security payment orders, among others.

[22] Available at: http://sdw.ecb.europa.eu/reports.do?node=100000760

Figure 2 - Transaction volume by payment instrument



Source: Data from Banco de Portugal - analysis by the AdC.

Instant transfers have been recently introduced at the European level. Following an initiative of the Euro Retail Payments Board[23], the European Payments Council[24] developed a scheme[25] for instant euro payments at the EU level, SCT Inst[26], which became operational in November 2017.

So far, 26% of the European payment services providers adopted this system; 11 Portuguese payment service providers joined between June and August 2018. The new instant transfer system of SICOI is compatible with the SCT Inst scheme and is processed by SIBS FPS, the entity designated by Banco de Portugal. This system became available in September 2018.[27]

With regard to payment cards, one should point out the introduction of the contactless technology, which allows the user to pay by getting his card close to a point of sale terminal (POS). **However, purchases made in Portugal using this technology accounted for only 0.3% of**

[23] A European entity chaired by the European Central Bank responsible for dealing with strategic issues in the retail payments sector.
[24] Non-profit international organization that develops payment integration at the European level and manages the four SEPA (Single European Payments Area) schemes.
[25] Set of rules for processing card payment transactions.
[26] This scheme processes cross-border transfers in real time (up to 10 seconds) with a limit of 15 thousand euros, 24 hours a day, 365 days a year.
[27] The MB Way app, developed by SIBS, already provided “instant” national transfers of low amounts (peer-to-peer transfers). However MB Way transfers were not yet categorised and processed according to the European standards set for instant transfers (SCT Inst). The smartphone app MB Way is only available to cardholders of a Multibanco scheme card associated with a Portuguese mobile phone number. Its use is limited in terms of the number and amount of transactions (transfers may not exceed 750 Euro per transaction, with a cap of 2.500 Euro received/sent per month, and a maximum of 20 transfers per month).

all purchases made in 2016, which represents the third lowest value in the euro area.[28] In 2017, according to Banco de Portugal, the corresponding figure was 1.6%, which represents 0.6% of the value of all purchases at a payment terminal. According to Banco de Portugal,[29] more than 60% of payment terminals in Portugal are equipped with this technology.

Box 1. Consumer behaviour

In terms of their payment habits, Portuguese consumers:

- Are sixth among all euro area countries in terms of daily payment transactions at sales points, 81% of which are cash-based, according to 2016 data.[30]
- The average cash transaction value is the lowest in the euro area.[31]
- Have been switching from expensive and inefficient payment instruments, such as cheques and bills of exchange, to cheaper and more efficient instruments such as credit transfers, direct debits and card-based payments.
- Make on average fewer transfers than other consumers within the euro area.[32]
- According to 2016 data,[33] hold on average two payment cards, which places them slightly above the euro area average.
- Are among the least frequent users of payment cards equipped with contactless technology.[34]
- Are among the ones who make the least use of online or mobile shopping.[35]

It is important that new, innovative and less costly means of payment are developed in order to boost payment system efficiency and increase competition and consumer welfare. The social costs borne by Portuguese consumers in the use of payment instruments amounted to 1.61% of GDP in 2013.[36]

The payment services processor

The SIBS Group (SIBS, SGPS, SA)[37] **performs duties in the settlement and clearing SICOI platform within the scope of a contract celebrated with Banco de Portugal.**[38] For example, SIBS is the designated entity for processing SICOI operations, and further connects SICOI participants to the EBA Clearing, a pan-European automated clearing house for euro retail payments within the SEPA area. **The majority of the banks that are active in Portugal hold a stake in SIBS,**[39] with the five leading banks (BCP, CGD, Santander Totta, BPI and Novo Banco) holding approximately 85% of SIBS share capital.

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[28] Esselink, H., and Hernández, L. (2017). "*The use of cash by households in the euro area*." ECB Occasional Paper No. 201.
[29] Based on the response submitted in the public consultation.
[30] *Idem* footnote 28.
[31] *Idem.*
[32] *Idem* footnote **Erro! Marcador não definido.**.
[33] Banco de Portugal, BPStat: Statistics of the payment system: Number of payment cards issued in Portugal.
[34] Banco de Portugal – Report on Payment Systems (2017).
[35] *Idem* footnote 28.
[36] Banco de Portugal, "Custos Sociais dos Sistemas de Pagamento em Portugal", 2016 (study on the social costs of payment systems).
[37] In particular, SIBS FPS.
[38] In accordance with what is established by article 22 of the SICOI Rulebook (Instruction 8/2018, of 22 March, which entered into force on 5 June 2018, revoking and permanently substituting the previous version, contained in Instruction 3/2009).
[39] Among others: Caixa Geral de Depósitos; Millennium BCP; Santander Totta; BPI; Novo Banco; Bilbao Vizcaya Argentaria (Portugal); Montepio Geral (savings bank); Banco Português de Investimento; Caixa Central de Crédito Agrícola Mútuo (Central Agricultural Credit Bank); Banco BIC Português.

The Portuguese card payment industry functions as a closed ecosystem, centred on SIBS and the Multibanco payment scheme. Through SIBS FPS, the SIBS Group operates the Multibanco network, which is the only Portuguese debit-based payment scheme. The Multibanco network relies on a network of ATMs and POS terminals (either physical or virtual). ATMs offer services such as cash withdrawals, balance and transaction inquiries, bill and service payment (through a proprietary payment reference system), payments to the state, direct debits and interbank credit transfers.

2.2. New entrants in the payment system

New FinTech entrants are a source of competitive pressure in a market dominated by traditional credit institutions. Therefore, it is important to analyse the barriers to entry and expansion they may face in the context described above.

FinTech has brought important innovations into the payment services sector. Among these, we can think of real-time payments, e-wallets, and mobile payment apps, which allow the user to make low-value payments in a quicker and more convenient manner, or those payment services tailored to e-commerce.

FinTech players may carry out different activities within the payment chain, even though they may only operate in specific segments of the payment system. The Bank for International Settlements (BIS)[40] classifies "non-bank" operators into four categories based on the stage of the payment chain where they operate, the type of service they provide and their relationship with banks: i) front-end operators, who provide services directly to end-consumers and firms; ii) back-end operators, who generally provide services to the banks; iii) retail payment infrastructure operators, and iv) end-to-end operators, which combine front-end services with clearing and settlement services.

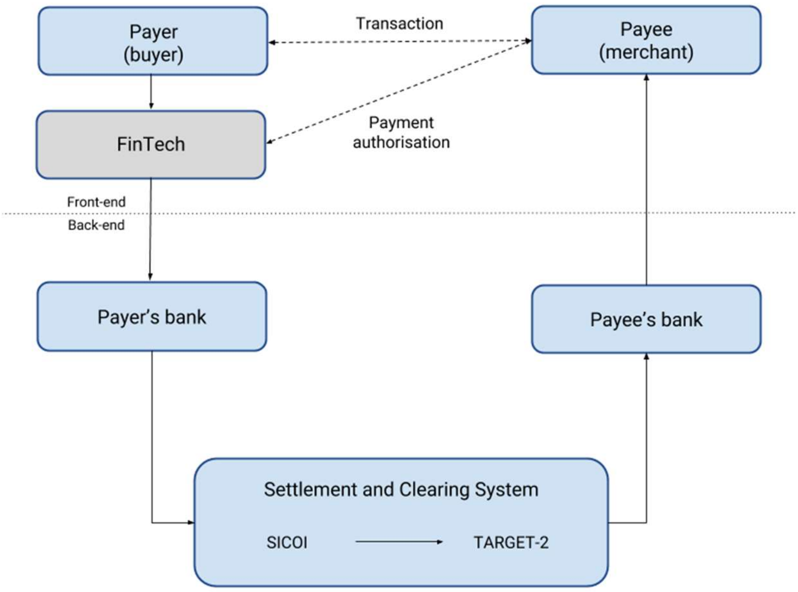
Front-end FinTech operators provide a platform for the payer or the payee to communicate with their banks, which implies continued access to the banking infrastructure (see Figure 3). Among the services provided by front-end FinTech operators are payment initiation services, such as online shopping apps, and account information services, that is, an app that summarises the client's account data and gives him an overview of his financial situation.

Back-end FinTech operators usually work together with banks in payment transaction processing, fraud prevention, payment security, regulation compliance (RegTech), among others.

End-to-end FinTech operators (such as PayPal or e-wallets) hold accounts for both the payer and the payee, and as such do not need banks to execute payment orders. However, end-to-end operators need banks to access to the banking infrastructure and to receive and transfer funds to and from the clients. These operators are a platform that links the two parties involved in a payment transaction.

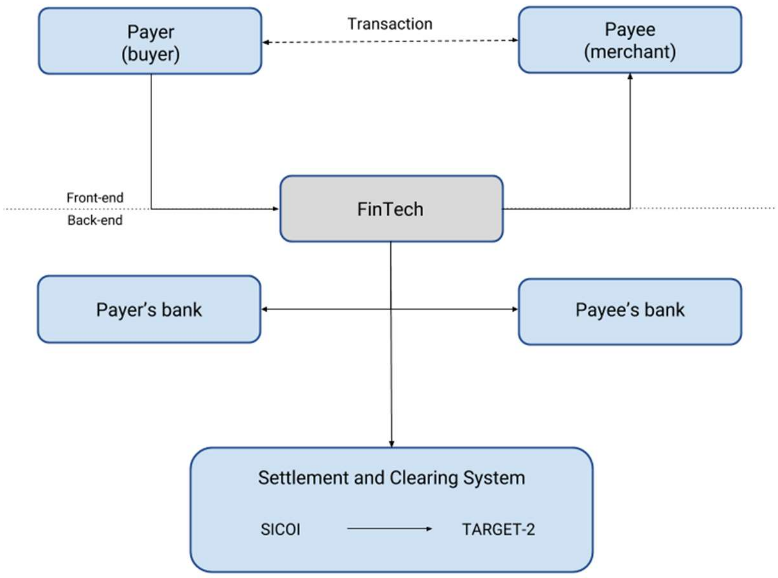
[40] Bank for International Settlements, Committee on Payments and Market Infrastructures, "*Non-banks in retail payments",* September 2014.

Figure 3 - FinTech at the front-end side of the retail payment system



Source: AdC

Figure 4 - FinTech at the end-to-end side of the retail payment system



Source: AdC.

2.3. Regulatory Framework

The authorization and activity of payment service providers are subject to European[41] and Portuguese legislation.[42]

[41] Directive 2007/64/EC of the European Parliament and of the Council (First Payment Services Directive), and Directive 2009/110/EC of the European Parliament and of the Council (E-money Directive). Regulation 2015/751 of the European Parliament and of the Council on interchange fees for card-based payment transactions is also relevant.
[42] Decree-Law 298/1992 (approves the Legal Framework of Credit Institutions and Financial Companies), Decree-Law 317/2009 of 30 October (approves the Legal Framework of Payment Services and E-money) transposing Directive 2007/64/EC and Decree-Law 242/2012 of 7 November (regulates the activity of electronic money institutions) transposing Directive 2009/110/EC.

At the moment, payment service providers have to apply for a payment institution license or e-money institution license with Banco de Portugal. The license allows the providers to operate in Portugal and all other EU Member States under the so-called "passporting rights".

Upon transposition, PSD2 will provide a specific regulatory framework for a number of services provided by FinTech operators and put an end a prolonged absence of regulation, particularly for those FinTech players operating at the front-end of payment services.

2.3.1. Second Payment Services Directive

Objectives

The PSD2 Directive creates entry conditions for new market players, namely those providing services based on digital technologies. This Directive addresses the absence of regulation for certain services provided by FinTech operators, and provides more legal certainty on payment safety and procedures in case of fraud or undue payments. The goal of the Directive is an integrated payment service market where consumers, retailers and firms benefit from greater innovation, choice and transparency. **PSD2 provides for safe and easy-to-use digital payment services at more competitive prices. However, the transposition of PSD2 in Portugal was not timely, as it remains incomplete**.

Payment institutions and the new service providers under the PSD2

PSD2 updates EU rules on payment services in light of new technological challenges, namely the emergence of electronic, digital or mobile low-value payments. The Directive also creates a framework for new types of payment services that were not covered by the First Directive on Payment Services (PSD1).

Box 2. First Directive on Payment Services

In 2007, the First Directive on Payment Services (PSD1)[43] created a new category of payment service providers other than banks - **Payment Institutions.**[44]

Payment institutions were, under this Directive, able to provide their services throughout the European Union using a single license. The Directive specifically addresses service providers who handle end-client funds.

Following the entry into force of PSD1, technological developments and a change in consumer habits led to the emergence of new payment services not covered by PSD1, and thus supplied by unregulated entities. These entities offered services such as account information and payment initiation services.

As these new services did not involve the transfer of end-client funds, they did not fall under the scope of PSD1 and, as such, it became necessary to review the Directive.

In July 2013, a proposal to revise PSD1 was submitted, which included provisions on interchange fees for card-based payment transactions.

PSD2 does not significantly change the requirements for granting and maintaining authorisation as payment institutions relative to PSD1, notwithstanding some additional requirements that arise from the need of stronger fraud prevention and consumer protection in a scenario of increasing payment digitalization. The legislator highlights that payment institutions represent lower risks, which are easier to monitor by the regulator. The

[43] See Directive 2007/64/EC of the European Parliament and of the Council, of 13 November, on payment services in the internal market.

[44] It should be noted that, under the E-money Directive (EMD), institutions other than banks, namely electronic money institutions, are authorised to issue means of payment including electronic money stored in an electronic device or stored remotely at a server.

authorisation requirements thus reflect the increased specialisation and the lower spectrum of activities covered by payment institutions compared to credit institutions.

As already established by PSD1, Member States may allow their competent authorities to waive the application of all or part of the authorisation requirements with regard to payment institutions who seek to provide payment services only in national territory.[45] The national authority is responsible for deciding which requirements can be waived, as well as the monthly average payment transaction volume until which the waiver applies (which is in any case capped at 3 million euros).[46]

Portugal did not exercise its option to apply the lighter authorisation regime for payment institutions when transposing PSD1.[47] This lighter authorisation process is appropriate given the lower risks and supervision effort posed by institutions with a lower volume of payments that carry out their activity within a single jurisdiction. This exemption regime allows each Member State to establish conditions that are more proportional and adequate to their national context, and is likely to reduce entry barriers and access to payment infrastructures for new providers. By applying this simplified regime, national authorities may use their payment institution licensing experience under PSD1, which included a similar simplified authorisation regime.

The crucial aspect of the Directive is to provide a framework for two new types of front-end service providers: ***payment initiation service providers*** and ***account information service providers*** (Figure 5 and Figure 6). These new service providers are referred to as third party providers.

Figure 5 - Payment initiation service

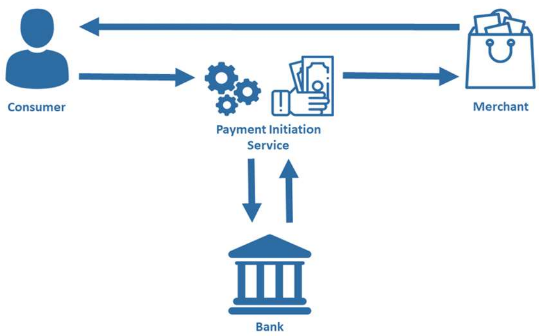
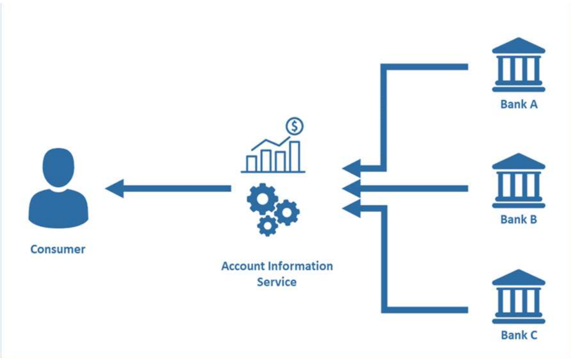


Figure 6 - Account information service



Source: AdC.

PSD2 regulates to a great extent the communication and the sharing of client account data between third party providers and the account servicing payment service providers, which in most cases are credit institutions (banks).

Payment initiation service providers (PISP):

- **Are granted online access to the payment account of the payer** (for example, a client's bank account) who gave his consent and user credentials in order to initiate a transfer of funds to the payment account of the payee (for example, a retailer's bank account).

[45] See Article 26 of the PSD1.
[46] See Article 32 of the PSD2.
[47] See Decree-Law 317/2009 of 30 October (as amended) which approves the Legal Framework of Payment Services and E-money.

- **Represent an alternative to card-based payments** and provide a similar service by ensuring that a payment has been initiated.
- **Do not need to celebrate a contract with the account servicing payment provider** who issues user credentials (for example, a credit institution), who must allow payment initiation service providers to initiate payments on behalf of the payer.
- **Do not hold user's funds** at any stage of the payment process.

Account information service providers (AISP):

- **Are granted online access to the payment account of the payer** (for example, a client's bank account) who provided his consent and user credentials.
- **Provide aggregated information on the client's accounts** and gives the client an overview of his financial situation.
- **Provide a merely informative** service and, as such, do not hold user's funds.

Main changes introduced by PSD2 with an impact on competition

In addition to establishing a regime for these new service providers, the provisions of PSD2 with an impact on competition are the following:

- **Payment institutions and credit institutions must have non-discriminatory treatment** in their access to the technical infrastructures of payment systems.[48]
- Participants in a given payment system must **grant every payment service provider an objective, proportional and non-discriminatory access to their services.**[49]
- **Payment service providers must follow common and open standards of communication that ensure the interoperability** of different technological communication solutions and allow the use of different types of devices.
- The payees cannot surcharge their clients for the use of payment instruments for which the interchange fees are regulated by EU legislation,[50] **namely debit or credit card payments, credit transfers and direct debits. The payees may, however, offer a discount in order to steer the payer towards a given payment instrument.**
- **As regards card payments or card-based payment instruments, payment service providers who do not manage the payer's payment account may obtain confirmation of availability of funds on the customer's account from the account servicing payment service provider without incurring additional costs.** This provision is based on the fact that service providers will be using already existing communication channels, infrastructures and technical procedures.

These regulatory changes create a new competition paradigm in payment services, in which third party providers are allowed to access client payment accounts, managed by banks or payment institutions, to initiate payments on their behalf. This entry of new service providers is likely to enhance innovation and competition in the payment services market.

[48] See recital 15 and Article 35 of the PSD2.
[49] See Article 36 of the PSD2.
[50] Regulation 260/2012/EU of the European Parliament and of the Council, of 14 March, establishing technical and business requirements for credit transfers and direct debits in euro. Regulation 2015/751/EU of the European Parliament and of the Council on interchange fees for card-based payment transactions. Decree-Law 3/2010, of 5 January, already prohibited surcharging in payment transactions carried out by POS terminals.

According to PSD2, payment service providers who do not directly manage the client's payment account will be allowed to issue payment cards, as is the case with payment institutions who issue credit cards associated with payment accounts held with a credit institution.[51]

Data access and ownership as in PSD2

The General Data Protection Regulation (GDPR)[52] establishes rules on client data protection as to the processing and the free movement of personal data, namely the right to data portability. This right, granted by Article 20 of the Regulation, allows the data subject to give consent to the transmission of data between entities that process that data through automated means. Credit institutions and payment institutions are among the entities responsible for processing data and, as such, both GDPR and PSD2 shall apply in tandem. The crucial point in this respect is the consent that a payment account holder must give so that, for example, a FinTech payment service provider may have access to client account data from a credit institution.

European and national regulators should ensure that incumbent payment institutions do not use the rights granted to the data subject under GDPR to distort the principles established by PSD2 on access to payment accounts. More specifically, the regulator should resolve potential conflicts arising from the provisions of both legal documents by seeking solutions that make it easier for the payment account holder to give consent to the transmission of his account data, so as not to forestall innovation and competition.[53]

Implementation of PSD2

The implementation of PSD2 will be made according to the regulatory technical standards[54] (RTS) developed by the European Banking Authority (EBA), which have been approved by the European Commission. According to the RTS, credit institutions must grant third party providers access to their clients' account information (upon the client's consent) via dedicated interfaces, *i.e.*, **Application Programming Interfaces (API)** based on open standards.

An API is a set of protocols and tools that underlie application software programming. An API defines how software components communicate with one another. An open API enables external app-developers to establish communication between their own apps and the apps and information systems of the entity providing the open API.

In the case of payment services, a credit institution that uses an open API will be providing a digital platform that allows third party providers access to the account data and services it provides to its clients, provided the client has given his consent. For example, when a client places a payment order through a mobile app developed by a FinTech service provider, the client's bank will be obliged to grant the FinTech provider access to its client account data for the payment to be made.

According to the RTS, every account servicing payment service provider, such as credit institutions, must provide at least one API for communication with third party providers. The relevant documentation and technical specifications must be made available to every

[51] European Commission (2018), E*uropean Commission Fact Sheet*, *Payment Services Directive: frequently asked questions*, 12 January 2018.
[52] Regulation EU No 2016/679 of the European Parliament and of the Council.
[53] In this respect, it is worth highlighting the Opinion of the EBA on the Implementation of the RTS on SCA and CSC, from 13 July 2018, which clarifies questions related to strong customer authentication, data sharing among payment service providers and obtaining customer consent.
[54] Regulatory technical standards for strong customer authentication and common and secure open standards of communication: OJ L 69, 13.3.2018, p. 23–43. Available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32018R0389

authorised third party provider free of charge. The API must provide third party providers and the account holder with the same level of availability, performance and technical support.

Among other aspects intended to ensure the interoperability of the systems, the RTS also establish that account servicing payment service providers, such as credit institutions, must inform third party providers on any change to the technical specifications of the API at least 3 months in advance.

The payment institution that provides the open API must also offer third party providers a testing environment for new technical solutions to ensure a reliable implementation. The RTS also establish a fall-back mechanism to prevent third party providers from being unable to provide their services due to the unavailability or inadequate performance of the account servicing payment service provider's API.

In case the API is unavailable, third part providers must be granted access (in a secure mode) to the interfaces used by account holders (screen scraping). So as to not impose a burden on credit institutions with the development of a dedicated API and a fall-back mechanism, the RTS and the EBA provide that national competent authorities may waive the development of the fall-back mechanism should the API meet a set of specific requirements that ensure its flawless performance.

The RTS establish that third party providers may only have access to account information held by the account servicing payment provider that is necessary and essential for the provision of their service, which must always be subject to the consent of the account holder.

The RTS do not specify the exact information that will be shared with third party providers, but stipulate that:[55]

- *Account information service providers* (AISP) must be provided with the same information on account data and transactions that would be made available to the payment service user when directly requesting access to account information.

  This information must be provided should it be actively requested by the account holder or up to 4 times a day when not directly requested by the account holder (that is, when the AISP makes the request on its own), except when established otherwise between the AISP and the account servicing payment provider.

- *Payment Initiation Service Providers* (PSIP) must be provided with the same information on payment initiation and execution as the one that would be made available if the payment was directly initiated by the account holder.

- Account servicing payment service providers must promptly confirm to payment service providers in general that the amount necessary for the execution of a payment transaction is available by a "Yes/No" message.

The RTS shall apply 18 months after the PSD2's transposition deadline. However, it should be noted that the Council and the European Parliament agreed to defer the deadline by a further two months, that is, until September 2019.[56]

[55] See Article 31 of the RTS.
[56] See Press Release 17-4961 of the European Commission of 27 November 2017.

2.4. Barriers to entry and expansion of FinTech operators in payment service markets

The barriers to entry and expansion faced by FinTech operators in Portugal may arise from regulatory requirements (licensing of the activity), the strategic behaviour of incumbents (access to essential inputs), or from consumer behaviour.[57]

2.4.1. Strategic barriers to the entry of FinTech operators – Risk of Foreclosure

In the current context, there is a risk of foreclosure of FinTech entrants by incumbent operators. In fact, FinTech entrants may only provide their services if banks grant them access to the existing inputs, such as account information or banking infrastructures (clearing and settlement system), whose access is subject to regulatory requirements.

Front-end and end-to-end FinTech operators may face greater entry and expansion barriers, as they need to access client account information and, in the case of end-to-end operators, to the clearing and settlement system. Several stakeholders expressed their concerns as to the risk of input foreclosure in meetings held with the AdC, particularly regarding access to account information. Some stakeholders mentioned that the banks see client account data as their "exclusive property". It should also be noted that risks of input foreclosure have also been identified by other competition agencies (see Box 3).

Box 3. Risks of market foreclosure to FinTech operators identified by the European Commission and other competition agencies

On 3 October 2017, the **European Commission** conducted inspections[58] in some Member States due to concerns that banks and banking associations were breaking European competition law by preventing third party providers from having access to account data to which account holders had given their consent.

In March 2018, the ***Conselho de Administração de Defesa Económica* (CADE, from Brazil)** opened an inquiry into an alleged refusal or limitation of access to account information by five banks to a FinTech firm through excessive prices.[59]

In December 2017, the ***Autoriteit Consument en Markt* (ACM, from the Netherlands)** published a study on the risk of market foreclosure by banks to FinTech firms.[60] With regard to front-end FinTech operators, the ACM concluded that banks have market power and the incentive to foreclose access to client account data. As regards end-to-end FinTech operators, the ACM did not identify any risks of foreclosure by banks of the indirect access of FinTech operators to the clearing and settlement system given that i) it is highly unlikely that banks have upstream market power over payment accounts, and ii) PSD2 establishes that indirect access must be granted in a non-discriminatory, objective and proportional manner. With respect to the direct access of end-to-end FinTech operators to the clearing and settlement system, the ACM believes regulatory changes are in order to establish a banking license *light* that allows them direct access to the infrastructure under certain conditions.

In December 2017, the **Canadian Competition Bureau** published a study[61] that identifies issues arising from FinTech payment service providers' access to banking services, namely because FinTech operators are at the same time clients and competitors of banks. Following a public consultation, stakeholders mentioned the difficulty they experience in gaining access to the basic

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[57] Structural barriers to entry and expansion do also exist in the financial sector, due to the inherent features of the markets, but those are not specific to FinTech players. As such, this section only addresses barriers imposed on FinTech operators.
[58] European Commission, MEMO/17/3761, available at http://europa.eu/rapid/press-release_MEMO-17-3761_en.htm.
[59] According to PARR - https://app.parr-global.com/intelligence/view/prime-2608780.
[60] Authoriteit Consument en Markt (2017), "*Fintechs in the payment system – The risk of foreclosure*".
[61] Competition Bureau Canada (2017), *"Technology-led Innovation in the Canadian Financial Services Sector – A Market Study".*

banking services they need to operate, namely service delays and disruptions/termination. The Canadian Competition Bureau concluded that incumbents may indeed foreclose access to new FinTech players.

In a study into retail banking published in 2016,[62] **the Competition and Markets Authority (CMA, from the UK)** put forward a package of remedies to promote competition in the sector, which includes the "Open Banking" initiative, consisting of measures aiming to ensure transparency in banking services, the assessment of service quality, and open bank APIs so as to ensure that FinTech players have access to the necessary inputs.

In 2016, the **German competition authority (*Bundeskartellamt*)** deemed some online banking rules to be anticompetitive for limiting the access of non-bank financial institutions to the payment system.[63]

The **Icelandic competition authority (*Samkeppni*)**[64] reached an agreement with two of the country's leading banks on measures to enhance competition in the retail banking market. Among these measures, the two banks must provide information with regard to any charges, fees and terms through an open API, so that FinTech operators may compare the service conditions offered to clients.

In October 2017, the **C*omisión Federal de Competencia Económica* (COFECE, in Mexico)** provided an opinion on draft legislation to regulate FinTech service providers.[65] The COFECE recommended: i) a reduction in the authorisation/licensing time limits; ii) the introduction of regulatory sandboxes; iii) an open and non-discriminatory access to account information by third party providers; iv) technological neutrality; and v) regulation that is proportional to the risks of the activity.

These foreclosure concerns underlie PSD2's stipulations. As mentioned above, the Directive seeks to mitigate market foreclosure risks through dispositions that impose open access to inputs that are necessary to new service providers' activity, namely client account data, as long as clients allow it.

The risk of foreclosure stems from the fact that the inputs new providers need are in the possession of operators (banks) that compete with them in some services. For example, for payment initiation service provision, the FinTech operator will execute part of a service previously entirely provided by the bank. As such, the arrival of new service providers may jeopardise the relation between the client and his bank, as the FinTech operator will gain front-end interaction with the client. Therefore, and taking into account the cross-selling strategy undertaken by banks, the loss of front-end contact with the client may have consequences on other bank products or services.

Additionally, even when the FinTech operator's services complement the services offered by the bank, like data aggregation services, the FinTech operator may provide the client with a better understanding of his financial service portfolio's competitiveness compared to other options available in the market, or develop a savings allocation service based on the client's consumption habits, thereby increasing the likelihood of product switching. This new context may have externalities on other bank products or services (for example, loans or insurance), and lead banks to foreclose access to information.

The risk of foreclosure to front-end operators lies essentially with the access to account data, for this kind of operator does not settle payments.

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[62] CMA (2016), *Retail banking market investigation: Final report.*

[63] See Press Release "*Bundeskartellamt - Financial Services*", 12 April 2017.

[64] See Press Release "*Measures to spur competition in the retail banking market – Based on a settlement with Arion Bank*", 22 June 2017.

[65] COFECE (2017). The Decree-Law entered into force on 9 March 2018.

In the case of end-to-end services, other than the access to account information, new service providers may also experience difficulties in accessing banking infrastructures, such as the clearing and settlement system. Access to this infrastructure may be established directly, with the FinTech operator doing the clearing and settlement itself, or indirectly, with the FinTech operator accessing the system through a direct participant in the clearing and settlement system, such as a bank.

It should be noted that indirect access could pose a foreclosure risk since the FinTech provider must establish a relationship with the bank as if it was a client in order to gain access to the clearing and settlement system. Nonetheless, it should be highlighted that the ability of a bank operating in the upstream market to apply an input foreclosure strategy would always depend on his upstream market power, *i.e.*, at the payment account level. Moreover, it is important to note that Article 35 of PSD2 safeguards this indirect access in an objective, proportionate and non-discriminatory manner.

As regards the direct access to the clearing and settlement system, there exist other barriers, namely regulatory ones. According to Banco de Portugal,[66] payment institutions are not eligible for direct SICOI participation because they are unable to fulfill a regulatory requirement, namely the ability to open a settlement account in TARGET2-PT,[67] the Portuguese component of TARGET2.

Direct access by FinTech payment service providers to the clearing and settlement system would make them less dependent on banks, thus promoting competition. It should be noted that some euro area countries have been promoting technical solutions that provide the various payment service providers with possibilities to access the payment system's technical infrastructure without intermediation by a bank.[68] In this sense, it is important to keep on considering alternatives that extend direct participation to a broader range of financial institutions, as long as they fulfil the regulatory requirements that guarantee system security, but without unnecessarily hindering competition.

In what concerns indirect access, Banco de Portugal considers payment and electronic money institutions to be eligible for indirect participation in SICOI, having already admitted both types of institutions as indirect participants. Indirect access to payment systems is governed by Article 35 of PSD2. This article provides that, if a direct participant in a payment system infrastructure, such as SICOI, provides indirect access to a payment service provider, it should give the same opportunity to other payment service providers, upon request. It is further established that this opportunity should be granted in an objective, proportionate and non-discriminatory manner.

Some stakeholders identified barriers to entry and expansion in the payment services market associated with the relationship between the banks and SIBS. SIBS manages and processes the operations of the national ATM network and has also been developing new technology-based services, thus being a direct competitor to new FinTech entrants. In this regard, it is important to bear in mind that the five leading banks in Portugal hold about 85% of SIBS's share capital. This context is likely to strengthen the risk of foreclosure of new FinTech players that provide services that compete against those offered by banks, as well as by SIBS, which they own.

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[66] Comments submitted by Banco de Portugal in the public consultation.

[67] Under the provisions of Orientation ECB/2012/27, of 5 December, implemented in Portugal through Banco de Portugal's Instruçtion 54/2012.

[68] As an example, the CENTROlink payment system, developed by the Bank of Lithuania, aims at providing technical access to SEPA payments on an equal footing for all payment service providers authorized in the European economic area - banks, credit unions, electronic money institutions and payment institutions.

To the extent that the SIBS group manages the clearing and settlement SICOI platform under a contract celebrated with Banco de Portugal, the potential competitive impact of this context cannot be ruled out, namely given the incentives of SIBS as a payment services provider itself.

In view of the identified risks of market foreclosure, the AdC will closely follow market developments from the perspective of competition rules enforcement (Box 4).

Box 4. Market foreclosure under the Portuguese Competition Act

The AdC is responsible for the enforcement of competition rules according to the Portuguese Competition Act (Law 19/2012 of 8 May). Market foreclosure is liable to be considered an anticompetitive practice, as it may constitute an abuse of a dominant position.

A company that abuses its dominant position to exclude competitors from the market, for example, by foreclosing their access to the inputs necessary for their activity, infringes the Competition Act.

Concerted practices whereby two or more incumbents agree to coordinate their behaviour in the market to foreclose potential competitors and, therefore, protect their market position, are also an infringement of the Competition Act.

Decisions by business associations that facilitate or promote the coordination of their members' market behaviour with a view to, for example, foreclose disruptive entrants are an infringement of the Competition Act, as they hamper free competition and the independence of economic agents.

The sanctions applicable to the above-mentioned infringements to the Competition Act include fines of up to 10% of the company's turnover or, should it be a business association, of the aggregate turnover of the association's members. The fines may also be of up to 10% of the annual income of the administrators and directors.

2.4.2. Regulatory barriers to the entry of FinTech Operators

In terms of regulation, the lag in the adoption of a regulatory framework for certain FinTech payment services in Portugal raised barriers to entry. This delay in transposing PSD2 into the national legal framework may have discouraged market entry due to legal uncertainty, as mentioned by several of the stakeholders to the AdC. There are several countries, such as France,[69] Germany,[70] and the UK,[71] among others, that made a timely transposition of PSD2.[72]

It is worth stressing that the legal and regulatory framework should be able to give a prompt response to the challenges posed by technological developments. Indeed, it is important that the current legislation and regulation is timely adjusted to these new business realities and does not pose unnecessary and disproportionate burdens on competition, while safeguarding the security of the system and the interests of consumers.

The delay in the transposition process may have compromised the entry of new market players and hindered the evolution of the payment service ecosystem, as well as technological development. This was highlighted by stakeholders as particularly restrictive for FinTech firms in Portugal.

Other barriers such as excessive regulatory requirements and bureaucracy were also identified in the meetings held with the stakeholders. Stakeholders referred, for example, the excessive duration and paperwork to obtain a payment institution license. A number of

[69] On 10 August 2017.
[70] On 21 July 2017.
[71] On 11 January 2018.
[72] According to the EUR-Lex website (https://eur-lex.europa.eu/legal-content/PT/NIM/?uri=CELEX:32015L2366), 24 out of 28 Member States have communicated to the European Commission the national transposition measures they have adopted.

stakeholders also referred that some of the licensing requirements are disproportionate. The stakeholders further referred disproportionate costs arising from changes on reporting format and requirements imposed by the regulator.

Some stakeholders mentioned that legal uncertainty discourages investment in Portugal in this sector, rendering investing in countries with pro-innovation regulatory frameworks more attractive (for example, simpler, more proportionate and expeditious licensing regimes).

As PSD2 renders the sharing of client account information with third party providers mandatory, provided the account holder has given consent, the entry barriers faced by payment service providers may be mitigated with the transposition of PSD2 to the Portuguese legal framework. The perpetuation of regulatory conditions that prevent or delay market entry may give incumbents, i.e., credit institutions (banks), a first-mover advantage by allowing them to absorb innovation shielded from competition through regulatory entry barriers.

With respect to payment account access, PSD2's Article 66 stipulates that account servicing payment service providers (banks, for example) should not discriminate between payment orders transmitted by a payment initiation service provider and payment orders transmitted directly by the payer. PSD2 further specifies that there must not be any discrimination in terms of timing, priority or charges. It is important to highlight the relevance of ensuring that there is no margin for banks to foreclose competitors from the market through access conditions like, for example, delaying or complicating the procedure or charging fees to third party providers. Furthermore, charging access fees to third party providers could jeopardise the goal and spirit of PSD2.

Even though the transposition of PSD2 would represent a big step towards opening the payment services markets, as the above analysis shows, it would not eliminate all the entry barriers that FinTech players could face in the Portuguese market.

Although PSD2 is a full harmonisation Directive, Member States have some normative degrees of freedom in its transposition and implementation (Box 5). The effectiveness of the Directive's provisions will depend on the effectiveness of their implementation, even though some market features may somehow weaken the competitive pressure brought by FinTech players into the market.

Box 5. Member States legislative options with a potential impact on competition

PSD2 is a full harmonization directive, but it grants Member States legislative leeway in certain aspects, from which we single out:[73]

Calculation of own funds: PSD2 recommends these shall be *"calculated in accordance with one of the following three methods, as determined by the competent authorities in accordance with national legislation"* (see Article 9). During the meetings held with the AdC, some stakeholders mentioned this margin of discretion in determining payment institutions' own fund calculation requirements. **It is important to ensure that the methods for calculating payment institutions' own funds are applied proportionally** to all market players, while safeguarding the specificities of their activities and avoiding discrimination among payment institutions that provide the same service and thus entail the same level of risk.

Central contact point: PSD2 allows Member States to require payment institutions *"operating on their territory through agents under the right of establishment, the head office of which is situated in another Member State, to appoint a central contact point in their territory to ensure adequate communication and information reporting"* (see Number 4 of Article 29). This requirement may pose additional administrative burdens on payment institutions based in another Member State who wish to enter the Portuguese market. According to Draft Law 123/XIII, the Portuguese

[73] See https://www.bportugal.pt/sites/default/files/anexo_cp_1-2017_quadro_de_opcoes.pdf.

legislator exercised this option, and therefore the RTS for central contact points, specifically drawn up by EBA and submitted to the European Commission, will be applicable.[74] These RTS detail the criteria to be applied in determining the circumstances in which the appointment of a central contact point is appropriate, following a proportionality principle.

Payment service providers must comply with specific requirements to implement PSD2's stipulations. The RTS, as established by the EBA and approved by the European Commission, are essential to the implementation of the Directive, as they **define the technical conditions under which third party providers can access the account data held by the banks, and establish payment and electronic transaction security requirements through strong authentication systems.**[75]

In light of the relevance that the APIs used by banks in their communication with third party providers ensure open standards, they should not impose unnecessary burdens or leave room for credit institutions to strategically put their competitors at a disadvantage. To this end, it is essential to ensure interoperability between the software and apps of third party providers and payment service providers issuing card-based payment instruments and the interfaces of the account servicing payment service providers.

There is a risk that the RTS dispositions needed for PSD2 to materialize might suffer a delay in terms of implementation and operationalization. RTS adoption depends on credit institutions. Since these requirements aim at ensuring access (with the consent of the client) to inputs that were previously exclusive to banks, thereby promoting competition from third party providers, banks will not have an incentive to provide such access and could delay the process.

Additionally, until the transposition is concluded and the RTS enter into force (in September 2019), third party providers should be able to provide their services. As established by Article 115 of PSD2, credit institutions should not abuse their non-compliance with regulatory technical standards to block or obstruct the use of payment initiation and account information services.

Given the above-mentioned risks, it is key to monitor any issues that may arise during the implementation process, so as to prevent banks from foreclosing, in part or in whole, FinTech access to the inputs they need to provide their services in the spirit of PSD2. In this respect, Box 6 contains a description of the Open Banking initiative implementation in the UK, which sought to pave the way for PSD2's adoption.

The AdC would like to express its availability to contribute to the process, in cooperation with the legislator and sectoral regulator, in order to account for competition policy issues, particularly the prevention of market foreclosure risks.

Box 6. Implementation of the Open Banking initiative in the UK

The "Open Banking" initiative consists of a policy with more transparency in banking services, service quality assessment, and a pioneering measure: the opening up of bank's APIs to allow FinTech players to gain access to the inputs they need to develop new banking solutions.

The CMA imposed a package of remedies that requires the creation of an Implementation Entity by the main credit institutions, which will be responsible for settling, implementing and maintaining common and open banking standards.

For this purpose, the CMA appointed an Implementation Trustee to act as Chair and be in charge of determining whether the goals established for the Implementation Entity, formed by

[74] Available at: https://www.eba.europa.eu/regulation-and-policy/payment-services-and-electronic-money/rts-on-central-contact-points-under-psd2.

[75] In this regard, see Chapter V of the RTS entitled "Common and secure open standards of communication".

representatives of FinTechs, banks, payment service providers and consumers, is achieving its established goals.

The package of remedies requires the banks to:

- Undertake their best efforts to achieve the goals of the initiative within the deadlines agreed upon with the CMA.
- Accept the decisions of the Implementation Trustee whenever no consensus is reached.
- Provide open data, specified reference and product information through an open API until 31 March 2017, and ensure its maintenance from that date onwards.
- Establish open APIs with full read and write functionality, and create current account databases (from individual consumers and firms) by PSD2's transposition deadline, that is, January 13 2018.

Following PSD2 entering into force on January 13 2018, open APIs are now functioning in the UK.

2.4.3. Barriers arising from consumer behaviour

Some aspects of consumer behaviour are likely to be a barrier to entry by limiting the ability of new market players to expand their activity. It should also be noted that some of these demand behaviour aspects may be induced or promoted by incumbents' strategies (for instance, bundling and cross-selling). Moreover, in two-sided markets consumer resistance in adhering to new services also affects the attractiveness of such services to retailers.

Low consumer mobility in retail banking and low financial literacy are typical entry barriers in the financial sector. In the case of FinTech services, in addition to financial literacy aspects, consumers may not be forthcoming towards new products and services due to digital literacy issues.

In this respect, it should be noted that the e-commerce user rate in Portugal is one of the lowest in the euro area. Electronic commerce is a particularly favourable context to the development of new payment services, namely those provided by FinTech companies. However, online and mobile shopping are still incipient in Portugal compared to other euro area countries. According to 2017 Banco de Portugal data, online shopping accounted for about 3.9% of card-based payments volume and 5.9% of the card-based payments value. In 2017, 34% of individuals aged 16 to 74 used the Internet to buy goods and services compared to the 57% in the euro area. Only part of this gap can be explained by a difference in consumers' digital skills, as 50% of the same sample had at least basic digital skills, vis-à-vis 58% at the euro area level.[76]

The propensity of consumers to adopt new payment service consumption patterns, namely by using technology-based services, may be influenced by other factors related to behavioural aspects or information asymmetries. These factors include product/service knowledge, adjustment costs, trust in products/services, perception of security and data sharing reluctance. Some stakeholders mentioned that the lack of consumer trust in, e.g., mobile payments is also an entry and expansion barrier.

One of the goals of PSD2 is to enhance consumer trust in new payment services by providing strict and reinforced security requirements. The RTS that complement PSD2 stipulate stronger security requirements for online payment services and increased consumer protection in electronic payments and transactions through strong customer authentication.[77]

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[76] Eurostat data: *Individuals using the internet for ordering goods or services* and *Individuals who have basic or above basic overall digital skills by sex*, available at, respectively: http://ec.europa.eu/eurostat/web/products-datasets/product?code=tin00096 http://ec.europa.eu/eurostat/web/products-datasets/product?code=tepsr_sp410

[77] See Chapter II of the RTS "Security measures for the application of strong consumer authentication".

In addition to strengthened payment service security, GDPR, which entered into force in May 2018, introduced high levels of personal data protection. It is therefore important to promote transparency and consumer information on the security standards associated with the available services, so as to ensure consumers make an informed decision.

It is also important to stress that FinTech access to client data under PSD2 and the RTS is only possible with the payment service user's explicit consent (see Article 64 of PSD2). Additionally, FinTech payment service providers shall not request access, use or store any data other than that necessary to perform the service explicitly requested by the payment service user (see Article 66 and 67).

The State, as a consumer of goods and services, may play a key role in shaping demand while procuring financial services, like payment services. In this respect, some stakeholders stated that the public tender requirements of certain services may limit or undermine the participation of new FinTech operators, for instance by not being technology-neutral. By way of example, some tender procedures indicate "Multibanco" payment references, rather than simply payment reference system, which would be more technologically neutral.

2.5. AdC recommendations for retail payment services

The AdC considers it is important to promote competition in the retail payment services market in Portugal for the benefit of efficiency and consumer welfare. Therefore, the AdC puts forward a set of recommendations aimed at reducing barriers to the entry and expansion of FinTech operators.

Adequate, efficient and timely regulatory response

The AdC draws attention to the importance of a timely regulatory response to market developments. The delay in transposing and implementing European legislation may have an impact on how competition and innovation play out in the market.

It should be noted that the effective implementation of some specific points of PSD2 depends on the adoption of subsequent regulation. For example, the simplified authorization requirements for payment institutions will be determined by Ordinance ("Portaria").

Regulatory requirements should follow the principles of efficient regulation, *i.e.* necessity, proportionality and non-discrimination. Regulation should be technology-neutral and adjusted to the risks inherent to each operator's activity.

With regard to the aspects where Member States have some margin of discretion, such as in the calculation of payment institutions' own funds, the option chosen should be the one that is more favourable to competition and market access. It should be ensured that the methods for calculating payment institutions' own funds are proportional, safeguarding the specificities of the activities of each market player and avoiding discriminating between payment institutions who provide the same service, with the same risk level.

The AdC recommends that the possibility of developing technical alternatives that enable direct access to the clearing and settlement system through adequate, proportional and non-discriminatory requirements should be considered and assessed. This would eliminate the dependence of FinTech service providers *vis-à-vis* banks. The requirements to access the SICOI platform should be proportional and adjusted to the risks of the activities/services provided by the operators.

Provided that system risks are duly accounted for and safeguarded, the AdC recommends promoting the participation of payment institutions in the systems and agreements that have been recently developed for the clearing and settlement of instant payments, eliminating their dependence on banks.

Implementation of market foreclosure risk-prevention regulation

Given the risks of market foreclosure identified by the AdC, it is essential that the legislator and sectoral regulator seek to mitigate/eliminate the risk of market foreclosure strategies while implementing PSD2. Notably, the secondary legislation related to PSD2's implementation should seek to reduce discretionary margins on access requirements.

Among other aspects that may be relevant in the implementation process, secondary legislation should seek to ensure:

- that credit institutions (banks) have no margin to create unnecessary barriers to client account data access through technological factors that could somehow jeopardise system interoperability;
- quality of access to the information sought by third party providers (for instance, time length between client consent and access authorisation to the third party provider);
- that the interface used to obtain user consent does not create unnecessary difficulties (for instance, by increasing the number of steps required to grant access);
- that banks provide the necessary and sufficient information to third party providers (for instance, in terms of the type and granularity of information);
- that access to information by third party providers should not be in any way subject to charges, as that would undermine the very own objectives of PSD2.

Transitional regime until the RTS enter into force

Until the transposition is concluded and the RTS enter into force, third party providers should be able to provide their services. As such, it must be ensured that account servicing credit institutions do not abuse their non-compliance with regulatory technical standards to block or obstruct the use of payment initiation and account information services, as provided for by Article 115 of PSD2.

The transition regime should also accommodate the situation of payment institutions authorised under PSD1 in a timely manner.

PSD2 stipulates that payment institutions that have started their activity under PSD1 are allowed to continue operating without having to seek authorisation under PSD2. However, payment institutions had to submit all relevant information to the competent authorities by 13 July 2018 in order for them to determine whether those payment institutions comply with the requirements laid down in PSD2 and the measures to be taken if this is not the case. Member States could grant payment institutions automatic authorisation if the competent authorities already had elements showing that the institutions complied with the requirements.

Banco de Portugal (competent regulator) has stated, in the public consultation, that the revalidation process of the authorization of these institutions was initiated in May 2018. In order not to place payment institutions operating in Portugal at a disadvantage due to a shorter deadline than envisaged by the European legislator, the AdC recommends this process to be streamlined and at the same time adjusted so as to allow payment institutions to meet the necessary requirements.[78]

The State as a promoter of technology-neutral payment services

The State, as a consumer of goods and services, should establish public tender procedures based on technology-neutral specifications.

[78] Pursuant to Number 4 of Article 155 of the revised Legal Framework of Payment Services and E-money. (Adjustment of payment and e-money institutions to authorizations requirements), Annex to Draft Law 123/XIII.

Cooperation of the AdC in preventing the market foreclosure risk

The AdC is fully available to cooperate with the legislator and sectoral regulator in the implementation process of PSD2 such that competition issues are accounted for, particularly with regard to preventing the risk of foreclosure.

Box 7. AdC recommendations for retail payment services

FinTech operators in Portugal face a number of barriers to entry and expansion in the payment service sector. These barriers can be regulatory, strategic or be associated with consumer behaviour.

In order to promote innovation and competition in retail payment services, the AdC makes the following recommendations:

Recommendation 1: Given that the delay in adapting the regulatory framework may have an impact on competition and market innovation, the AdC recommends that the **Government** takes a timely regulatory response to market developments. This includes the subsequent regulation that is necessary for the effective implementation of PSD2's transposition measures.

Recommendation 2: With regard to the aspects where Member States have some margin of discretion in implementing PSD2, the AdC recommends that the **Government** chooses the option which is more favourable to competition and market access, and ensures that future regulation on this matter follows the principles of necessity, proportionality (with respect to the activity's risks) and non-discrimination (between institutions that provide the same service).

Recommendation 3: Given that direct access to the clearing and settlement system would make FinTech operators less dependent on banks and increase competition, the AdC recommends that **Banco de Portugal** considers the following measures:

i. Develop technical alternatives that enable all payment service providers to access SICOI under equal conditions, eliminating the dependence that these service providers may have vis-à-vis banks.

ii. Promote the access of payment institutions to the recently developed SICOI instant transfer subsystem, eliminating the dependence that these service providers may have vis-à-vis banks.

Recommendation 4: Given the risk of market foreclosure posed by incumbent operators, the AdC recommends that the **Government and Banco de Portugal** seek to reduce the degrees of freedom granted in obligations to provide access while establishing the secondary legislation necessary for implementing PSD2, namely by ensuring:

i. That credit institutions (banks) have no margin to create unnecessary barriers to client account data access through technological factors that could somehow jeopardise system interoperability;

ii. Quality of access to the information sought by third party providers (for instance, length of time between client consent and access authorisation to the third party provider);

iii. That the interface used to obtain user consent does not pose difficulties (for instance, by increasing the number of steps required to grant access);

iv. That banks provide the necessary and sufficient information to third party providers (for instance, in terms of the type and granularity of information);

v. That access to information by third party providers is not in any way subject to charges, as that would undermine the very own objectives of PSD2.

Recommendation 5: Until the transposition is concluded and the RTS enter into force, third party providers should be able to provide their services, as foreseen by Article 115 of PSD2. Given the market foreclosure risks, the AdC recommends that **Banco de Portugal** monitors compliance with this provision by ensuring that account servicing credit institutions do not block or obstruct the use of payment initiation and account information services.

Recommendation 6: The transition regime should accommodate the situation of payment institutions authorised under PSD1 in a timely manner. Therefore, the AdC recommends that **Banco de Portugal** acts swiftly within the timeframe provided in the transposition, so as not to place payment institutions operating in Portugal at a disadvantage.

Recommendation 7: Given that the State, as a consumer of goods and services, may play a key role in shaping demand while procuring financial services, such as payment services, the AdC recommends that public procurement procedures held by **Public Entities** are designed under technology-neutral specifications (by indicating, for example, “payment references” instead of “Multibanco references”).

3. CROWDFUNDING

3.1. Background and types of crowdfunding

Firm and consumer access to funding is a key factor to the development of economic activity. Firms obtain funding to meet their cash-flow management needs or to invest in the expansion of their production capacity through credit or debt financing. Consumers seek credit to acquire durable consumer goods or to develop their own personal or business projects.

Financing for firms and consumers may be obtained through several sources of funding, such as bank lending, capital markets, venture capital, personal credit, specialised lending or credit obtained through informal networks.

Over the last decade, crowdfunding has become a new source of credit and capital for small and medium enterprises (SMEs) in their initial stages, with funding needs that cannot be met through informal networks or whose size is not sufficiently attractive for venture capital. Crowdfunding may also be appealing to consumers who have a somewhat restricted access to capital and credit, who seek financing at lower costs than the options provided by traditional financing sources, or who seek funding for individual projects that reward investors through non-monetary rewards. Crowdfunding may also be used to raise funds for social causes.

Crowdfunding, which is mainly provided by FinTech firms, covers those activities that allow fund raising from a large number of individuals through online platforms, and channel those funds to business or consumer projects at a potentially lower transactional cost. This service thus increases the number of activities and projects that have access to funding and improves the matching of investment projects and investors.

Crowdfunding may also represent an opportunity for investors. On the one hand, in the case of loans, this service provides new opportunities to obtain a return on savings. On the other hand, it allows small investors to directly acquire a stake in the share capital of SMEs, which is usually only available to SMEs' informal networks only and/or major venture capital investors.

Crowdfunding usually involves three types of agents (see Figure 7):

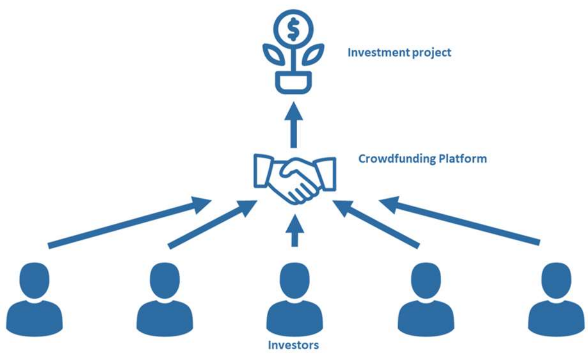
i. The project owner, who proposes a project for funding.

ii. Investors, who fund the project.

iii. An online platform that puts the project owner and investors in contact with one another.

Due to the visibility made possible by online platforms, firms who use crowdfunding also benefit from exposure of their business idea to a large number of prospective investors, validation by investors, and access to a network of fellow entrepreneurs and business partners.

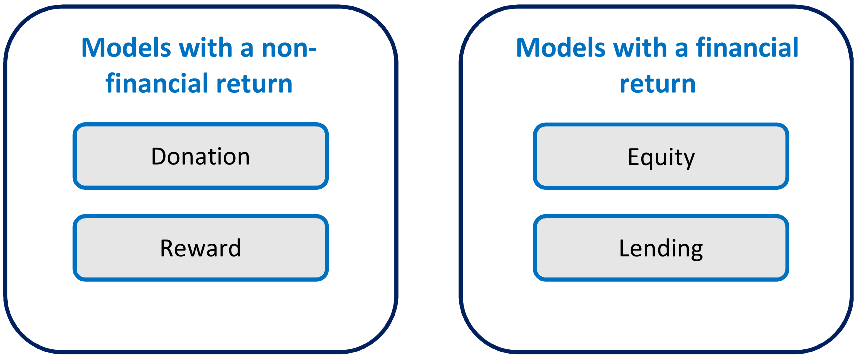
Figure7 - Crowdfunding



Source: AdC.

Crowdfunding covers a wide range of business models, including lending-, investment- or reward-based models. In the European context, there are two main crowdfunding categories: crowdfunding with a financial return (equity and lending) and crowdfunding with a non-financial return (donation and reward), as illustrated by Figure 8 .

Figure 8 - Crowdfunding models in Europe



Source: *Crowdfunding: Regulatory Framework in EU Member States and Perspectives for the EU* – adapted by the AdC.

In the financial return-based models, investors will invest in a certain project in exchange for a financial return, be it through participation in the equity capital of a start-up or SME (equity-based crowdfunding) or by receiving an *ex ante* determined interest payment (business crowdlending). In this model, investors' funds are channelled to SMEs either by lending their own funds (balance sheet lenders) or acting as a mere intermediary (marketplace lenders). The first model implies credit risk for the crowdfunding platform, while the second one implies risks for investors. Crowdfunding platforms may charge a sign-up fee, a success fee or an interest or income fee.

By contrast, crowdfunding models with a non-financial return are characterised by the project's social and emotional aspects. There may be a material reward (reward-based crowdfunding)[79] or no reward at all (donation-based crowdfunding).

Crowdfunding is expanding both in Portugal and in Europe.[80] The UK is the country where it is more deeply implemented, accounting for approximately 3/4 of the European total.[81]

The largest market segment of crowdfunding in Europe is P2P lending to consumers and businesses (51%), followed by equity-based crowdfunding (11%) and reward-based crowdfunding (9%). Most European crowdfunding platforms have international operations, although cross-border transaction flows are still relatively low. There has been a growing trend of institutional investment in crowdfunding projects, with 45% of P2P consumer lending and 29% of P2P business lending being funded by pension funds, mutual funds, asset management firms and banks.[82]

In Portugal, crowdfunding platforms grew 174% in terms of overall business turnover between 2015 and 2016, although the numbers are still low: € 4.42 million in total, which translates into 43 cents per capita, as shown in Figure9. The number of per capita crowdfunding platforms in

[79] In the reward-based crowdfunding model, investors may get a symbolic and material reward or the product developed by the business in return for the funds, as in a pre-sale.

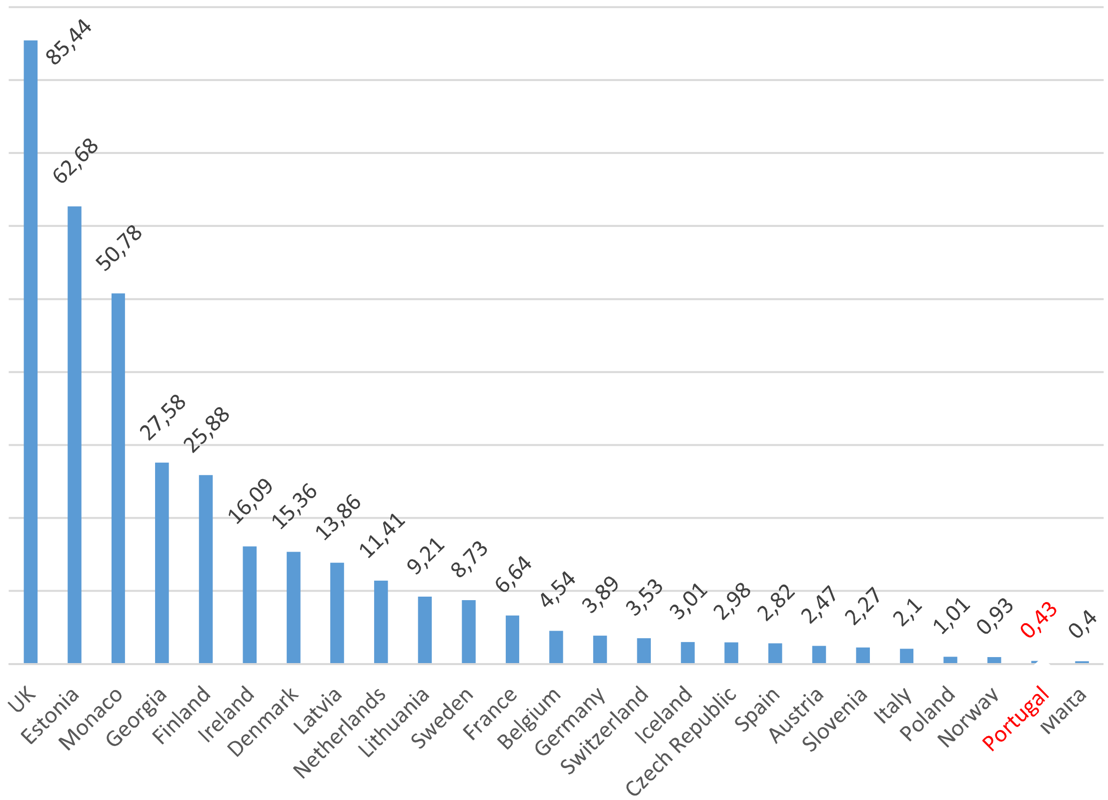
[80] Except for the UK, the total transaction volumes in Europe grew on average 85% annually between 2013 and 2015, and 101% in 2016.

[81] Ziegler, Shneor, Garvey, Wenzlaff, Yerlemou, Hao and Zhang (2018), *Expanding Horizons: The 3rd European Alternative Finance Industry Report*. This report is part of a study conducted in 2016 to gather data from 344 crowdfunding firms across 45 countries in Europe. According to the authors, the study captures 90% of the visible alternative finance market.

[82] *Idem.*

Portugal is 0.5 per million, which is in line with some other European countries (e.g., Spain: 0.7; France: 0.5) but still far from others (e.g., Netherlands: 1.1).

Figure9 - Turnover *per capita* (in euro) by European country, 2016



Source: Ziegler, Shneor, Garvey, Wenzlaff, Yerlemou, Hao and Zhang (2018), *Expanding Horizons: The 3rd European Alternative Finance Industry Report* – data treated by the AdC.

3.1.1. Crowdfunding and SMEs

SMEs play an important role in job creation and economic growth. However, they face difficulties in terms of their access and diversification of funding. Granting funding to SMEs implies assessing their business model's risk and their financial situation based on specific and frequently non-standardised data, which may prove unattractive for credit institutions given the amount of funding.

Moreover, international rules[83] tend to discourage granting credit to lower-sized and increased-risk firms, which may lead banks to reduce their exposure to SME or to charge higher interest rates. In response, many countries have introduced government support measures, such as tax incentives or SME loans through state-owned banks, which has allowed banks to remain the main source of SME funding in most developed economies.

Through business models with lower fixed costs and often innovative credit assessment techniques, FinTech crowdfunding firms have broadened funding possibilities for SMEs and intensified market competition. In fact, equity-based crowdfunding and P2P lending are particularly important for start-ups and scale-ups (firms already past the initial stage that would like to expand their production capacity). Many of these firms have financial needs that can no longer be met by private investment or start-up funding, but they are also not yet suitable for

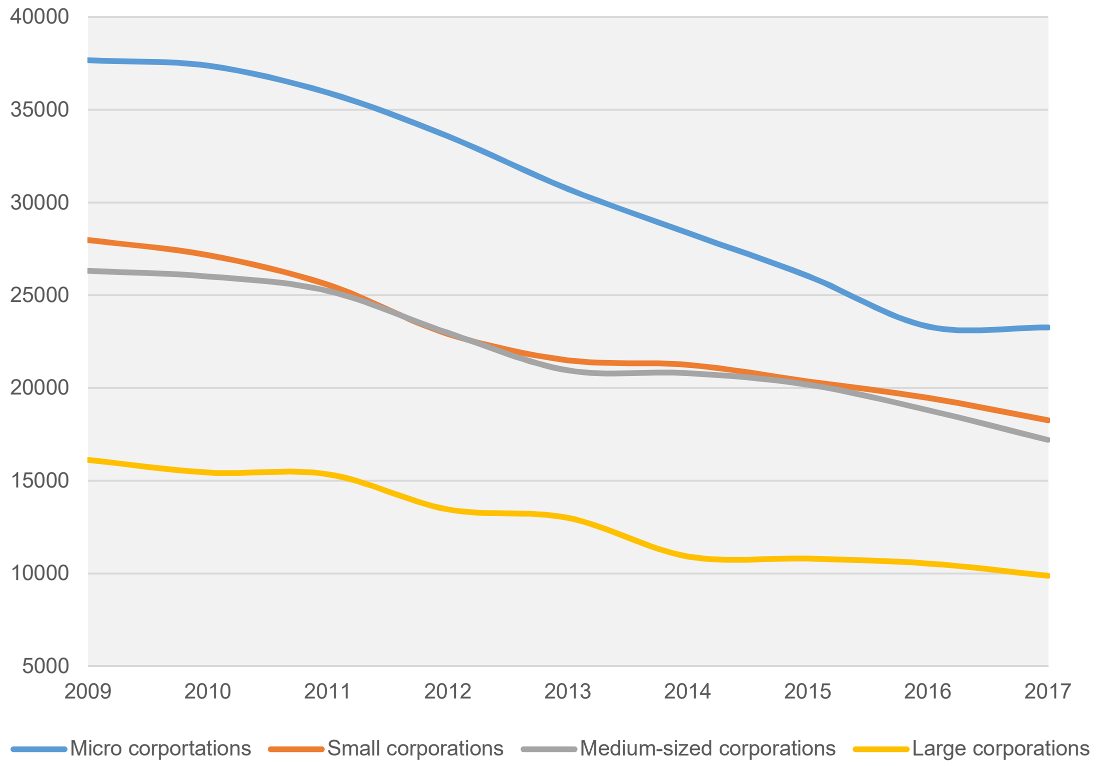
[83] Namely the prudential rules set in Basel III.

venture capital funding. These firms often resort to short-term financing on uncompetitive terms.

In 2016, 14.521 European SMEs raised approximately €1126 million through crowdfunding, which corresponds to an average of €78 thousand per funding.[84] Of the total business funding, 94% derives from debt and equity models, and 6% from reward- or donation-based crowdfunding.[85]

In Portugal, the benefits of crowdfunding might be enhanced in a context where lending for non-financial firms is 40% below the pre-2010 crisis levels and on a downward trend (see Figure10).

Figure10 - Loans granted to non-financial corporations - by size (end of period position in million euro)



Source: Data from Banco de Portugal - analysis by the AdC.

Sources of funding are less diversified today than before the crisis, with microenterprises having more than 90% of their funding providing from only one financial institution. Large enterprises have a 70% level of diversification, approximately.[86]

According to European Commission data,[87] **Portuguese SMEs are the fifth that most frequently report access to financing as their main concern.**[88] Portuguese SMEs are also slightly below the European average in terms of seeking credit (22% against 26% EU average), with 7% of them not seeking credit for fear of loan application rejection (against the 5% EU average).

[84] Ziegler et al (2018).
[85] *Idem.*
[86] Banco de Portugal data, *Average percentage of loans granted by the financial institution with the highest weight in the total loans granted to each non-financial corporation classified as large corporation*.
[87] *Survey on the Access to Finance of Enterprises* (SAFE), 2017.
[88] 10% of Portuguese SMEs against the 7% European average.

3.2. Legal framework for crowdfunding

The legal framework applicable to crowdfunding platforms in Europe varies substantially from country to country. In some countries (such as Germany, Spain, France, Greece, Netherlands, Italy, Lithuania or the UK), crowdfunding platforms are regulated by specific regimes, while other countries have no regime at all.

According to Ziegler et al. (2018),[89] dissatisfaction with the existing crowdfunding regulation at the European level is highest among equity-based crowdfunding platforms (48% consider it to be either excessive, or lacking and needed), followed by P2P business lending (36%) and P2P consumer lending (27%). By contrast, about 70% of reward- and donation-based platforms consider existing regulation as adequate.

In Portugal, crowdfunding services are regulated by Law 3/2018 of 9 February, which stipulates the rules and sanctions applicable to the provision of P2P lending, and equity-, donation- and reward-based crowdfunding. This sanctions regime entered into force on the date it was published and without a transitional regime, thus obliging P2P lending and equity-based crowdfunding firms to register with the Portuguese Securities Market Commission.

This Law also makes the first amendment to Law 102/2015 of 24 August, which established the legal framework on crowdfunding services. It should be noted, however, that the legal framework applicable to P2P lending and equity-based crowdfunding would only become effective after the Portuguese Securities Market Commission issued the corresponding regulation, which in turn was contingent on the approval of the sanctions regime. As the sanctions regime only entered into force upon publication of Law 3/2018 on 9 February, the regulatory framework for these two crowdfunding models only entered into force on this date. Crowdfunding services are also regulated by Law 83/2017 of 18 August on measures against money laundering and terrorism financing.[90]

According to the legal framework, crowdfunding services can follow one of the following models:[91]

- **Donation-based crowdfunding:** the funded entity receives a donation, giving or not a non-material reward in return;
- **Reward-based crowdfunding:** the project is funded in return for a reward, such as the product or service developed by the entity;
- **Equity-based crowdfunding:** investors are given equity shares, dividend distribution or profit sharing rights in return for the funding;
- **Peer-to-peer (P2P) lending, business crowdlending or peer-to-peer business lending:** with interest payments established upfront in return for funding.

In accordance with the above-mentioned regime, it is for:

- The Portuguese Securities Market Commission (CMVM) to regulate equity-based crowdfunding and P2P lending;
- The Authority for Economic and Food Safety (ASAE) to monitor donation- or reward-based crowdfunding services platforms;

[89] *Idem* footnote 81.
[90] This Law transposes Directive 2015/849/EU, of 20 May 2015 and Directive 2016/2258/EU, of 6 December 2016 of the European Parliament and of the Council.
[91] According to Article 3 of Law 102/2015 of 24 August.

- The Directorate-General of Economic Activities (DGAE) to register and launch donation- or reward-based crowdfunding platforms.

Crowdfunding platforms may not: (i) provide advice or recommendations on specific investments; (ii) reward the managers or staff for the number of projects or sales volume of the projects on offer; (iii) manage investment funds or hold securities.[92]

The following restrictions also apply to all crowdfunding models:

- A project may only be presented in a single platform;
- Project owners must inform the platform on the following aspects to be passed on to investors:
    - Description of the activity or product for which the funds are needed and how the funds will be used;
    - Funding amount and deadline;
    - Price of each security to be subscribed or how that price is determined.

3.2.1. Donation-based and reward-based crowdfunding

Setting up a donation or reward-based crowdfunding platform should be done through dematerialised means and in accordance with Ordinance ("Portaria") 344/2015.

The applicable legal framework establishes that every crowdfunding project is subject to a funding limit equal to 10 times the overall funding target.[93]

Platforms are to apply for a license with the Directorate-General of Economic Activities.[94] Fines for non-compliance may be of up to €44 thousand for legal persons and of €3.750 for natural persons.

ASAE is in charge of monitoring anti-money laundering and terrorist financing requirements as laid down in the law. ASAE has published a Draft Regulation of the specific requirements that apply to the entities managing donation- and reward-based crowdfunding platforms. This Draft regulation also applies to non-profit organizations[95].

3.2.2. Equity-based crowdfunding and P2P lending

Equity-based crowdfunding and P2P lending platforms are regulated by the Portuguese Securities Market Commission's Regulation 1/2016 of 5 May.[96]

With respect to access to the activity and registration, one should note the following requirements:

- **Capital requirements:** the platform-managing entity must meet at least one of the following requirements: (i) initial equity capital of at least €50 thousand; (ii) civil liability insurance (or another comparable guarantee) against professional negligence liability with a minimum coverage €1 million per claim, and an overall coverage amounting to

[92] According to Article 5 of Law 102/2015 of 24 August.
[93] According to Article 13 of Law 102/2015 of 24 August.
[94] In line with the framework, donation- and reward-based crowdfunding platforms are to apply for a license with the Directorate-General of Economic Activities instead of the Consumer Directorate General.
[95] This Draft Regulation is part of ASAE's Aviso n.º 8177/2018, published in *Diário da República*, *2.ª série*, of 18 June 2018 (the national official gazette). The Draft Regulation was submitted to public consultation for the period 6 June to 30 July 2018.
[96] The Regulation entered into force on 10 February 2018, one day after being published in *Diário da República* 3/2018 of 9 February (the national official gazette).

€1.5 million per year for all claims; (iii) a combination of (i) and (ii) as long as the resulting protection level is equivalent to that granted by any of the requirements.

- **Authorisation regime:** these platforms must apply for a license with the Portuguese Securities Market Commission, which will issue an authorisation for the platform to operate within a maximum of 30 working days after receiving the application. The platform must start operating within 12 months of receiving authorisation.

As regards the platforms' internal organisation and code of conduct, one should highlight:

- **Prudent organisational and managerial practices:** the platform must establish rules and procedures on fraud prevention, money laundering and terrorism financing, complaint handling and security systems.
- **Investment limits:** natural persons with an annual income of €70 thousand or below may not invest more than €3 thousand per project and may not exceed €10 thousand in overall crowdfunding investments per year. These limits do not apply to legal persons or investors that fall within the scope of the Portuguese Securities Market Code.
- **Information requirements:** the platform must provide all the necessary information for an investment decision, including information on every project on offer, historic data on funded projects, pricing and information on investor protection procedures.

As for investment offers, the following requirements apply:

- **Information requirements:** the project owner must provide prospective investors with a "key investor information sheet"[97] (KIIS) that is not subject to approval by competent authorities. The prospective investor must be freely provided with the KIIS before any investment decision is made. The document shall inform him on the potential investment risks, indicate that the investment is not covered by a deposit guarantee or an investor compensation schemes, and mention the inexistence of a secondary market for buying or selling loan agreements or transferable securities that may result from the crowdfunded project.
- **Project investment limits:** a single project may not receive funding above €1 million per year, be it in a single or a set of investment offers at EU level. In other words, a project funded by a Portuguese crowdfunding platform may not be presented in other EU platforms once it has reached the €1 million limit. The limit rises to €5 million if the project is to be exclusively funded by legal persons and investors with an annual income of €70 thousand or above.
- **Potential advertisement campaigns** must clearly mention the risk of total loss and the KIIS. It is assumed that there are no advertisement restrictions on specific projects.
- **The investment shall be processed by a payment service provider** (e.g., a payment institution or a credit institution).

Moreover, the platform-managing entity must ensure that the platform owners, administrators or managing bodies, executives and employees take no part in the projects available on the platform they run[98].

Equity-based crowdfunding and P2P lending platforms must apply for a license with the Portuguese Securities Market Commission[99] and fines for non-compliance may be of up to €1

[97] In Portuguese: "informações fundamentais destinadas aos investidores de financiamento colaborativo (IFIFC)".

[98] See Article 11 (2) of Regulation 1/2016 of the Portuguese Securities Market Commission on conflicts of interest.

[99] In a Press Release from May 29 2018, CMVM reported that it had registered the first crowdfunding platform. Information available (in Portuguese) at: http://www.cmvm.pt/pt/Comunicados/Comunicados/Pages/20180529a.aspx?v=

million. A P2P lending and/or equity crowdfunding platform established in another country that wants to operate in Portugal (by investing in firms based in Portugal or through Portuguese investors) must comply with the applicable legislation.

3.2.3. European harmonization project for equity-based crowdfunding and P2P lending

On 8 March 2018, the European Commission published a FinTech Action Plan[100] to further align EU rules with the fast-moving technological innovation in the financial sector. This EU initiative aims at recommending a set of measures to foster the development of innovative business models and the uptake of technological innovation.

The FinTech Action Plan also includes a proposal for a Regulation on European crowdfunding service providers for business, which will be subject to approval by the European Parliament and by the Council.[101] **The proposal aims to ensure an appropriate and proportionate regulatory framework so as to deepen and broaden EU capital markets. The Regulation proposes a comprehensive European passporting regime for market players who decide to operate as European Crowdfunding Service Providers (ECSP).**

The need for a harmonized regime to tackle the legal fragmentation at the European level had already been identified by several stakeholders from the financial sector and the European Commission itself. This fragmentation increases the regulatory and operational costs imposed on FinTech platforms and represents a barrier to the expansion of crowdfunding activities in the EU.

Donation- and reward-based crowdfunding fall out of the scope of the proposed regulation, as its main goal is to facilitate the scaling up of crowdfunding services in their SME-financing activities. For the same reasons, the proposal does not apply to consumer lending (consumer credit or mortgage financing) as it falls within the scope of other existing EU legislation. Among investment- and lending-based crowdfunding, the proposal only applies to investment projects that create transferable securities (equity stakes and loan agreements).

The proposal aims to establish an opt-in regime for platforms wishing to scale their operations at a European level and conduct cross-border business. Crowdfunding service providers will be given the opportunity to choose to provide their services under the applicable national law or the provisions of the Regulation, which applies both to national and EU crowdfunding services. The proposal for an EU crowdfunding framework does not intend to interfere with the national regimes (such as the Portuguese Securities Market Commission's) or existing licenses (licenses granted under MiFID II, PSD2 or AIFMD).

The European Commission estimates that 2020 will be the first full year of implementation of this authorisation and supervision regime. The goal of the proposal is to establish uniform rules on crowdfunding at the EU level, which may reduce the financial and administrative burdens inherent to the activity and create a level playing field between EU service providers. The Commission's approach is innovation-oriented and aims at establishing a regulatory environment prone to the introduction of new financial services, products and solutions.

Below are the main aspects of the proposal on crowdfunding service providers for business:

- **The European Securities and Markets Authority (ESMA)**[102] is in charge of authorisation and shall keep a registry of European Crowdfunding Service Providers (ECSP). The authorisation process must be expeditious: ESMA will assess whether the authorisation

[100] COM(2018) 109 final - *FinTech Action plan: For a more competitive and innovative European financial sector.*

[101] COM(2018) 113 final - *Proposal for a Regulation of the European Parliament and of the Council on European Crowdfunding Service Providers (ECSP) for Business*.

[102] ESMA is a European independent authority charged with protecting investors, and promoting financial stability and market efficiency.

application is complete within 20 working days of receipt, and render a final decision within two months from the receipt of a complete application. The authorisation shall be valid across the EU and Member States shall not require crowdfunding providers to have a physical presence in their territory in order to provide their services. ESMA will be responsible for supervising and imposing the applicable sanctions regime, with fines up to a maximum of 5% of the platform's annual turnover. ESMA may delegate supervisory tasks to the national competent authorities (the Portuguese Securities Market Commission in the Portuguese case).

- **The maximum funding amount of a project is €1 million**, which is the limit set for drawing up a prospectus according to Regulation 2017/1129/EU. **However, there are no limits to individual investment.**
- **Crowdfunding service providers shall not pay or accept any reward for leading** investors to a particular project available on their platforms nor hold stakes on their platform's projects. Crowdfunding service providers shall not take any of their stakeholders (shareholders with 20% or more of share capital or voting rights, managers or employees) as clients.
- **Crowdfunding transactions shall be processed by a payment service provider** authorised under Article 1(1) of PSD2. The platform may itself be a PSD2-authorised institution, it can request the service to be provided by a third party, or it can set up procedures to ensure that project owners accept funding or crowdfunding projects (or any payment) only via a service provider authorised under PSD2.
- Crowdfunding platforms must draw up a **Key Investment Information Sheet (KIIS), which is** not subject to approval by the competent authorities. The KIIS shall warn investors **on the potential investment risks** and the fact that the investment is not covered by a deposit guarantee or investor compensation scheme. Investors shall be subject to an entry knowledge test to assess their ability to bear losses. Investors shall always be warned whenever an investment is not appropriate for them. However, they shall not be prevented from investing in crowdfunding projects.
- **The proposal allows for bulletin boards,** where investors may interact with each other to sell and buy loan agreements and transferable securities originally crowdfunded on their platforms, on a secondary market basis. However, crowdfunding platforms shall inform investors that the bulletin board is not a trading system, and that the buying and selling is at the investors' own responsibility.
- **No marketing communication campaign shall focus on a specific crowdfunding project.** National competent authorities shall keep databases of the laws and regulations applicable to marketing communications of crowdfunding service providers in their territory, so that crowdfunding service providers may comply with national law in this regard.

3.3. Barriers to the entry and expansion of crowdfunding FinTech service providers

New FinTech entrants face entry and expansion barriers in the Portuguese market stemming from regulatory requirements (such as investment limits) or consumer behaviour (such as lack of consumer trust).

3.3.1. Regulatory barriers to the entry of FinTech operators

It is important to note that the laws and regulations applicable to crowdfunding services in Portugal have only recently entered into force, with Law 3/2018 of 9 February that approves the sanctions regime. Although the regulation by the Portuguese Securities Market Commission was already approved, it was not effectively implemented. As stakeholders referred to the AdC, this prolonged legal uncertainty situation may have discouraged new market players from entering the Portuguese market and may have undermined the development of the crowdfunding sector. Given the importance of crowdfunding as an alternative funding source for SMEs and consumers with limited access to capital and credit, the applicable regulatory framework should be proportional and provide legal certainty to all involved parties.

Fragmentation of regulation across Europe

The fragmentation of regulation across Europe and the absence of a true crowdfunding internal market prevent the expansion of investment- and lending-based crowdfunding services. This barrier will tend to be more severe the smaller the market of the Member State where the platform is authorised, or the more specialised the projects offered by the platform are.

The authorisation procedure for crowdfunding service providers to operate in other Member States is heterogeneous and implies that a crowdfunding service provider must adjust its business model and apply for a license in different jurisdictions, as needed.[103] **These licenses may be crowdfunding-specific (as in Portugal) or sector-specific (as MiFID).**

The stakeholders who met with the AdC consider the lack of common crowdfunding legislation at the EU level and the specific regulatory frameworks of some Member States as a barrier to expansion due to higher costs and regulatory uncertainty. On the other hand, given the lesser scope and complexity of crowdfunding services, the requirements imposed by MiFID (which applies to, for example, investment firms) may be disproportionate to the provision of crowdfunding services.

A European crowdfunding framework and the resulting license, which would allow crowdfunding service providers to operate at EU level instead of applying for authorisation with national regulators, would reduce market entry costs as platforms would need to request a single license and report to a single regulator (ESMA). Furthermore, a crowdfunding-specific license is likely to impose lower costs compared to those arising from other regulatory frameworks (for example, MiFID).

However, the existence of two regulatory frameworks in Portugal may introduce legal uncertainty given the differences between the two frameworks' provisions, for example, on investment limits. Even though the two regimes may suit FinTech providers with different purposes and business models, from an investor's point of view this duplicity may represent a legal uncertainty situation that discourages investors from channelling funds to this sector. To illustrate, apart from the different investment limits, the proposed crowdfunding regulation allows providers who hold less than 20% of share capital or voting rights to engage in crowdfunding projects offered by their own platform. Unlike the proposed EU regulation, the Portuguese Securities Market Commission regulation does not allow any form of participation from shareholders.

The regulatory framework currently applicable in Portugal does not grant foreign FinTech companies the right to provide investment- and lending-based crowdfunding services. Accordingly, a service provider wishing to operate in Portugal must apply for a license with the Portuguese Securities Market Commission. As a result, new entrants may not have the incentive to enter the Portuguese market and incumbents will maintain their privileged position. On the other hand, the absence of EU passporting rights may also prevent the expansion of Portuguese platforms to other countries in the internal market. Some stakeholders mentioned that the reduced size of the Portuguese market is not sufficient to attract foreign platforms given the relevance of scale, in particular for the investment- and lending-based models.

[103] European Crowdfunding Network (2017).

Donation-based and reward-based crowdfunding services framework

The donation- and reward-based crowdfunding framework seems to be in general proportional to the risks of the activity. The opinions conveyed by the stakeholders to the AdC were attuned to this view.

Nonetheless, it is important to single out some regulatory aspects, such as the funding limits.[104] In any case, the stakeholders did not consider the funding limits to be restrictive due to the overall size of the national market for this type of funding.

On the other hand, the "full identification" of investors requirement[105] may constitute a barrier to expansion as it implies, in the case of natural persons, collecting name, date of birth, identification document, tax identification number and full residential address. In the case of legal persons, the name, registered office, collective identification number and Economic Activity Classification code has to be collected.

Without prejudice to money laundering or terrorism financing concerns, this requirement is potentially disproportional given the typically low amounts of individual contributions to donation- or reward-based crowdfunding projects. The requirement to collect extensive data from supporters or investors for the purpose of full identification may discourage investment, and constitutes a regulatory barrier to the expansion of this crowdfunding model. Stakeholders also identified this point as a disproportionate regulatory requirement during the meetings held with the AdC. In addition, the option by the national legislator of not exempting smaller donations/contributions seems to deviate from the rationale of the exceptions granted to other obliged entities (Article 23 of Law 83/2017), as well as recommendations of the European Commission.[106]

Investment-based and lending-based crowdfunding services framework

With respect to the investment- and lending-based crowdfunding services, the AdC has identified entry and expansion barriers stemming from the regulatory framework, namely the Portuguese Securities Market Commission's Regulation 1/2016 of 5 May, as well as from the sanctions regime mentioned above.

Crowdfunding stakeholders, in particular crowdfunding platform operators, consider investment limits[107] as a regulatory barrier likely to deter market entry and to limit expansion. Investment limits apply to natural persons with an annual income below €70 thousand, which constitute the majority of the Portuguese population. It should be noted that, in 2016, only 38,202 households (0.75% of the total) had an annual gross income over €100 thousand.[108] It should also be noted that investment limits are based solely on an individual's annual income, which cannot be substituted or complemented by financial assets. This further enhances the barriers to entry and expansion.

[104] That is, a crowdfunding project may not be allocated an amount of funds 10 times above its overall value.

[105] Numbers 2 and 3 of Article 144 of Law 83/2017, of 18 August, stipulate that donation- or reward-based crowdfunding platforms must provide full identification on project owners and investors, and specify the amount of funds allocated per investor and per transaction. This information is to be kept for a period of five years. All collected data must be kept in computerized form for a 5-year period. ASAE's Draft Regulation details which elements are required for complete identification and also prescribes that the mode of payment must be recorded.

[106] COM (2017) 340 - Report from the Commission to the European Parliament and the Council on the assessment of the risks of money laundering and terrorist financing affecting the internal market and relating to cross-border activities. The European Commission recommends that Member States extend the list of obliged entities to crowdfunding platforms. The Commission also issued recommendations for the thresholds below which some service providers may be exempted from customer due diligence in the case of occasional transactions, such as donations or contributions raised through crowdfunding platforms.

[107] That is, €3 thousand per funded project and €10 thousand overall in investments made on crowdfunding platforms.

[108] Data from the Portuguese Tax Authority/Ministry of Finance available on the PORDATA database.

Stakeholders stated that investment limits are likely to have a deterrent effect on investors. Moreover, in order to comply with these limits, natural persons with an annual income below €70 thousand must provide the crowdfunding platform with information on the amount invested in the last year on other crowdfunding projects each time they invest in a project, irrespective of the invested amount.[109]

These investment limits apply not only to crowdfunding platforms based in Portugal but also to those based abroad, which may intensify the deterrence effect on crowdfunding investment in Portugal. Furthermore, other types of investment activities, such as those made through credit institutions or brokers, are not subject to investment limits, thereby creating the idea that crowdfunding poses an increased risk. Additionally, these limits are not present in the above-mentioned proposal for a Regulation on European crowdfunding service providers for business.

Some stakeholders also mentioned that the €1 million limit per project over a period of 12 months may prevent larger firms from participating in crowdfunding platforms. However, this is the limit set by European legislation above which the project owner is required to draw up a prospectus.[110]

Additionally, some stakeholders believe it would be important for lending-based FinTech service providers to have access and report data to the Central Credit Register.[111] Access and reporting to the Central Credit Register is an important tool to assess credit risk in Portugal. The Central Credit Register is a system managed by Banco de Portugal that gathers and makes available consumer indebtedness data reported by the participating credit-granting entities. The Central Credit Register may be accessed by credit institutions or similar entities supervised by Banco de Portugal, among others. However, as mentioned by Banco de Portugal in the public consultation, under the crowdfunding model established in Portugal, platforms connect the credit-granting entity to the borrowing entity, but are not considered to grant credit themselves. According to Banco de Portugal, their activity is therefore different from those entities that grant credit on a professional basis.

The impossibility of crowdfunding platforms to access and report to the Central Credit Register raises a barrier to the expansion of lending-based crowdfunding platforms, as they will have less information at their disposal to assess credit risk and be in disadvantage vis-à-vis credit institutions. Moreover, the impossibility to report data to the Central Credit Register may weaken the incentives of loan recipients for meeting their obligations.

In the public consultation, some stakeholders have pointed out that the equity crowdfunding legal framework does not foresee an exception that could exempt companies raising capital through crowdfunding platforms from being considered "public companies", *i.e.*, publicly-traded companies.[112,113] Classification as a publicly-traded company may constitute a regulatory barrier to entry and expansion insofar as it entails a number of additional requirements and

[109] Despite the fact that this information may be provided in a simple and dematerialised way, much like the digital environment, it is important to note that it will not prevent the automatisation and diversification of investment offers made on crowdfunding platforms with a view to decrease investment risks, such as the "automatic bid" mechanism where the investors predetermine the maximum amount they are willing to invest.

[110] Regulation 2017/1129/EU of the European Parliament and of the Council, of 14 June.

[111] The Central Credit Register is regulated by Decree-Law 204/2008 of 14 October and by Banco de Portugal Instruction no. 21/2008. The Central Credit Register is authorised to process data by the National Data Protection Commission under Authorisation no. 4241/2011 of 27 April, in accordance with Law 67/98 of 26 October.

[112] According to CMVM, even though crowdfunding offers are not subject to the prospectus requirement, they nonetheless constitute an initial public offering under the provisions of article 109 of the Securities Market Code (*Código dos Valores Mobiliários* - CVM). If the requirements of article 13 of the CVM ("public company" criteria) are verified, the beneficiary company may be qualified as such.

[113] In the context of the public consultation.

costs for the beneficiary company, such as mandatory takeover bids and additional information duties.

These requirements are potentially disproportionate, given the smaller size of the companies that typically resort to this type of financing. Ultimately, the classification of beneficiary companies as publicly-traded companies discourages market entry by new operators (platforms), limiting the viability of equity crowdfunding as a source of business funding.

The AdC considers that, if additional costs arise from classifying equity crowdfunding offers as public offerings, the necessity and proportionality of this classification should be evaluated. If the underlying obligations do not verify necessity and proportionality criteria, the AdC recommends considering the creation of an exception for equity crowdfunding offers, exempting them from requirements that may be considered disproportionate to pursue the underlying public policy goals.

3.3.2. Barriers arising from consumer behaviour

One barrier that crowdfunding FinTech companies face is the lack of confidence in this type of activity. In this regard, it is important to ensure that investors and project owners know their rights and duties.

Information disclosure, transparency and trustworthiness requirements provided for both in national legislation and in the proposal for a Regulation on European crowdfunding services may reduce information asymmetries and enhance consumer trust in crowdfunding. The requirement that crowdfunding transactions should be processed by an authorised payment service provider (the platform itself or another institution), also present in both regimes, is meant to enhance security, while reducing operational, money laundering and terrorism financing risks, which may further enhance consumer trust in crowdfunding services.

It should also be noted that, up to the present Issues Paper's publication date, the list of donation- and reward-based crowdfunding platforms was available at the Consumer Portal.[114] Sharing this information is a means to foster transparency and to enhance consumer trust.

Apart from a lack of consumer trust, low financial literacy among Portuguese consumers is likely to pose a barrier to the expansion of crowdfunding services. It is important to note that the National Financial Training Plan, designed to improve financial knowledge in Portugal, fails to mention crowdfunding services.[115]

Furthermore, Portuguese consumers exhibit high risk aversion[116] and the ecosystem is characterized by low levels of venture capital and a low number of business angels.[117]

Some of the mentioned regulatory and non-regulatory barriers were also identified by the Canadian Competition Bureau in a study into the entry and expansion barriers to FinTech activities in Canada (Box 8).

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[114] Available at http://www.consumidor.gov.pt/financiamento-colaborativo.aspx.

[115] In its response to the public consultation, CMVM mentioned that the contents of some training and awareness sessions of the National Financial Training Plan refer crowdfunding as an alternative financing instrument.

[116] The facts demonstrated by Falk et al. (2017) support this argument, as in a sample of 76 countries, Portuguese consumers represent the highest risk aversion level. Source: Falk, A., Becker, A., Dohmen, T., Enke, B., Huffman, D. B., & Sunde, U. (2017). "Global Evidence on Economic Preferences" *National Bureau of Economic Research*, (No. w23943).

[117] According to the Institute of Support for Small and Medium-sized Enterprises and Innovation (IAPMEI), business angels are "*individual investors, usually businessmen or company directors, who invest their capital, knowledge and experience in projects developed by entrepreneurs starting up their business or at critical stages of the expansion of their activity*". https://www.iapmei.pt/PRODUTOS-E-SERVICOS/Empreendedorismo-Inovacao/Empreendedorismo/Apoios-e-Incentivos/Business-Angels.aspx.

Box 8. Barriers to crowdfunding services identified by the Canadian Competition Bureau

In December 2017, the Canadian Competition Bureau published a FinTech sector study (*Competition Bureau Canada*, 2017) that analyses crowdfunding market entry conditions, among other topics.

The Bureau identified non-regulatory barriers with respect to the **low uptake of crowdfunding services by consumers.** These are due to overall trust in the financial system and lack of trust in crowdfunding platforms. The study concludes that this barrier can be overcome by setting up a dedicated regulatory framework that decreases legal uncertainty.

According to the Bureau's analysis, fragmented regulation is the main regulatory barrier to crowdfunding in Canada. Just as in the EU, crowdfunding regulation also varies substantially across Canadian provinces.

The Bureau also identified **disproportionate requirements for certain types of activity**, such as the mandatory drawing up of detailed informative prospectus for low value credit lines.

3.4. AdC recommendations for crowdfunding

The AdC puts forward a set of recommendations that aim at mitigating the identified entry and expansion barriers.

Promoting legal certainty

Given that crowdfunding emerged as an alternative source for SMEs and consumers with limited access to capital and credit, the applicable regulatory framework should be proportional and provide legal certainty to the involved parties.

Acknowledging the relevance of regulatory harmonisation and legal certainty in promoting competition, the AdC recommends that the Portuguese Securities Market Commission makes information available to consumers on the proposal for a Regulation on European crowdfunding services and how this regime might interact with the national legal framework.[118]

Proportional regulatory requirements

The AdC recommends that the necessity, adequacy and proportionality of investment limits for investment- and lending-based crowdfunding are re-assessed and their elimination considered in light of their potentially deterrent effect on investment, with due regard for the intended public policy objectives they fulfil.

The AdC also recommends a re-assessment of the objectivity and proportionality of full identification requirements on donation- and reward-based crowdfunding projects, given their potentially deterrent effect on project supporters and investors.

Regulation harmonisation across Europe

The AdC deems it relevant **to consider the possibility of granting rights for service providers licensed in other EU Member States to provide investment- and lending-based crowdfunding services in Portugal**, as this could spur entry and expansion in the Portuguese market.

Access to the Central Credit Register from Banco de Portugal

The AdC recommends that consideration is given to allowing lending-based crowdfunding service providers to access and report data to the Central Credit Register. Access and data reporting to the Central Credit Register is an important tool in assessing credit risk in Portugal, which may be accessed by a number of institutions, including credit institutions and similar entities supervised by Banco de Portugal. However, lending-based crowdfunding platforms

[118] The *Área do Investidor* (Investor Area) - FinTech of the CMVM website includes the proposal for a regulation and other documents prepared by the European Commission.

supervised by the Portuguese Securities Market Commission do not have access to this database.

Access to the Central Credit Register would enable FinTech crowdfunding service providers to compete more effectively with incumbents and add an emerging type of lending to the Central Credit Register, thus contributing to mitigate adverse selection risks. In this respect, CMVM stated, in the public consultation, that access to the CRC would be important to eliminate the incentives for firms to behave differently towards banks and crowdfunding platforms regarding contracted loans.

Promoting financial literacy on crowdfunding

So as to mitigate non-regulatory barriers associated with the lack of consumer trust in crowdfunding, the AdC recommends that information on crowdfunding services be provided to consumers on the National Financial Training Plan website.[119] Consumers should also be redirected to the Consumer Portal listing donation- and reward-based crowdfunding platforms, and to the Portuguese Securities Market Commission's website section on investment- and lending-based crowdfunding.

Box 9. AdC recommendations for crowdfunding

FinTech crowdfunding service providers face regulatory and non-regulatory entry and expansion barriers in the Portuguese market. In order to promote innovation and competition in crowdfunding services, the AdC recommends the following:

Recommendation 1: With a view to bringing proportionality and legal certainty into the regulatory framework, the AdC recommends that the **Portuguese Securities Market Commission** makes available to consumers information on the proposal for a Regulation on European Crowdfunding Service Providers, as well as on how this legislation will interplay with the national legal framework.

Recommendation 2: Due to their potentially deterring effect, the AdC recommends that the **Portuguese Securities Market Commission** assesses the necessity, adequacy and proportionality of investment limits for investment- and lending-based crowdfunding, with due regard for the intended public policy objectives, and considers whether to eliminate them.

Recommendation 3: Due to their potentially deterring effect, the AdC recommends that the **Government and the competent authorities** consider and assess the objectiveness and proportionality of full identification requirements for project owners and investors on donation- and reward-based crowdfunding projects.

Recommendation 4: Given that access and data reporting to the Central Credit Register is an important tool to assess credit risk in Portugal, the AdC recommends that **Banco de Portugal** allows new FinTech entrants to access and report data to the Central Credit Register.

Recommendation 5: In order to promote information on crowdfunding, the AdC recommends that the **Government and the competent authorities** provide consumers with information on crowdfunding services in the National Financial Training Plan website. Consumers should also be redirected to the Consumer Portal and to the Portuguese Securities Market Commission's website.

Recommendation 6: In order to spur the entry and expansion of crowdfunding platforms in the Portuguese market, the AdC recommends that the **Portuguese Securities Market Commission** envisages the possibility of granting service provision rights to investment- and lending-based crowdfunding platforms licensed in other EU Member States (namely those holding a MiFID license, at least for those activities falling within the scope of that Directive).

[119] Available at https://www.todoscontam.pt/.

4. OTHER ASPECTS OF TECHNOLOGICAL INNOVATION IN THE FINANCIAL SECTOR

4.1. New technologies in the insurance sector - InsurTech

The entry of new firms providing technologically-advanced services is not restricted to the payment services and crowdfunding markets. It is also happening in the insurance sector through the incorporation of technological innovation in its services/products or business models.

This InsurTech innovation trend goes in the direction of (i) introducing more customised products and (ii) combining the physical and the digital distribution channels. The concepts of big data and the Internet of things (IoT) play an important role in this sector, as they allow gathering and processing large data volumes for pattern identification purposes, which is at the core of the sector's probabilistic data treatment and the ability to predict future events.

As an example of IoT, telematic devices[120] have been applied to cars in order to measure the driver's performance profile and use that data in risk assessment in insurance policies. These devices may further help consumers avoid road accidents by alerting the driver to real-time information on potentially dangerous weather conditions in a specific location. Insurance companies may also use these devices and individual data to prevent fraud.

InsurTech may be applied in several points of the insurance sector value chain, which is likely to increase competition in the different segments of this chain. For example, IoT devices for car insurance relate to risk assessment, while digital brokerage relates to the distribution channel. Table 1 provides a possible categorisation of the different InsurTech technologies.

Table 1 - Classification of InsurTech

Type	Description
Comparators	Provide an online comparison between insurances and insurance service providers
Digital brokers	Insurance brokerage through online websites or mobile apps
Insurance cross sellers	Insurance policies as complementary products
Peer-to-peer insurance	Allows covering the risks of every member of a given group, based on reciprocity and P2P insurance (for example, InsurTech Friendsurance)
On-demand insurance	Make it possible to insure a given device (for example, a digital camera) for a given period of time
Digital insurance	Provide insurance only through digital channels
Big data analytics and insurance software	Provide insurance software solutions
Internet of Things (IoT)	Gather and process data through smart devices
Smart contracts and blockchain	Provide digital solutions for insurance contract transactions

Source: Based on Braun and Schreiber (2017) "*The Current InsurTech Landscape: Business Models and Disruptive Potential*" Institute of Insurance Economics, University of St. Gallen.

The role of InsurTech in information asymmetries

Information asymmetry between the client and the insurance company is a key driver of insurance sector innovation. The lack of information about a future event increases the

[120] In other words, telematics is the remote communication between one or several IT services sets through a communications network.

insurance company's risk and the resulting premium charged to the client. The use and analysis of individual data allows insurance companies a more precise risk assessment, thus mitigating information asymmetry. Among the different types of data that exist, data obtained through telematic devices is the most likely to mitigate information asymmetries (Box 10).

The use of InsurTech and data analysis may result in a better risk assessment and segmentation, also allowing for a more pro-active role in accident reduction. For instance, the prices of traditional car insurance usually change according to particular characteristics of the usual driver (for example, age). By getting access to individual data through telematic devices, insurance companies may be able to adjust the premium according to risk behaviour. As a result, clients posing lower risks will be charged lower prices and those posing higher risks will pay higher prices.

However, it is important to guarantee that customised price strategies are transparent and objective, to ensure a well-informed consumer choice and the protection of their rights.

InsurTech may introduce more competition in the market and contribute toward more competitive prices and wider coverage of consumers and firms who are not served by the current supply. For example, wearable devices designed to monitor chronic diseases (such as diabetes) may be used to improve the degree of insurance coverage of clients suffering from such conditions. However, from a public policy perspective, it is important to account for those situations where the risk of exclusion is heightened by the use of these devices.

Box 10. Big data in the retail insurance sector

In 2016, the Financial Conduct Authority (FCA) issued a Feedback Statement on Big Data in the retail general insurance market,[121] which categorises data as follows:

- **Proprietary data:** insurance companies generally have access to personal client data through insurance contracts. They may also have access to information about potential clients. These data may include information about purchased products and/or services (for example, purchases data may be collected through a loyalty card scheme).
- **Data acquired from third parties:** Insurance companies may use data from third parties, for example to carry out credit verification before proceeding with the sale of the insurance product. Some of these third parties include the MyLicense database in the UK and price comparison services' transaction data.
- **Social media data:** Publicly available data, even though its use is subject to data protection regulation.
- **Connected devices data:** Devices that allow direct collection of client data. Motor telematic devices allow collecting GPS data on the vehicle's movements and to monitor the driver's performance. Home telematic devices allow monitoring a range of utilities. Health monitors allow collecting health information, such as physical exercise and heart rate.

[121] Financial Conduct Authority (2016) *Feedback Statement, Call for Inputs on Big Data in retail general insurance*, FS16/5. Available at https://www.fca.org.uk/publication/feedback/fs16-05.pdf.

4.1.1. Innovation in the insurance sector in Portugal

The insurance sector plays an important role in the Portuguese economy. In 2016, life and non-life insurance premiums[122] accounted for approximately 6% of GDP and the total investment portfolio volume accounted for 27% of GDP.[123]

Since the beginning of the 2008 crisis, the Portuguese insurance sector underwent a significant market structure consolidation. Important events in the banking sector, like the resolution of Banco Espírito Santo, led to a change in the ownership of some insurance companies, strengthening foreign ownership in the sector.[124] In 2017, there were 73 insurance companies operating in Portugal, 30 of which were owned by foreign insurance companies.[125]

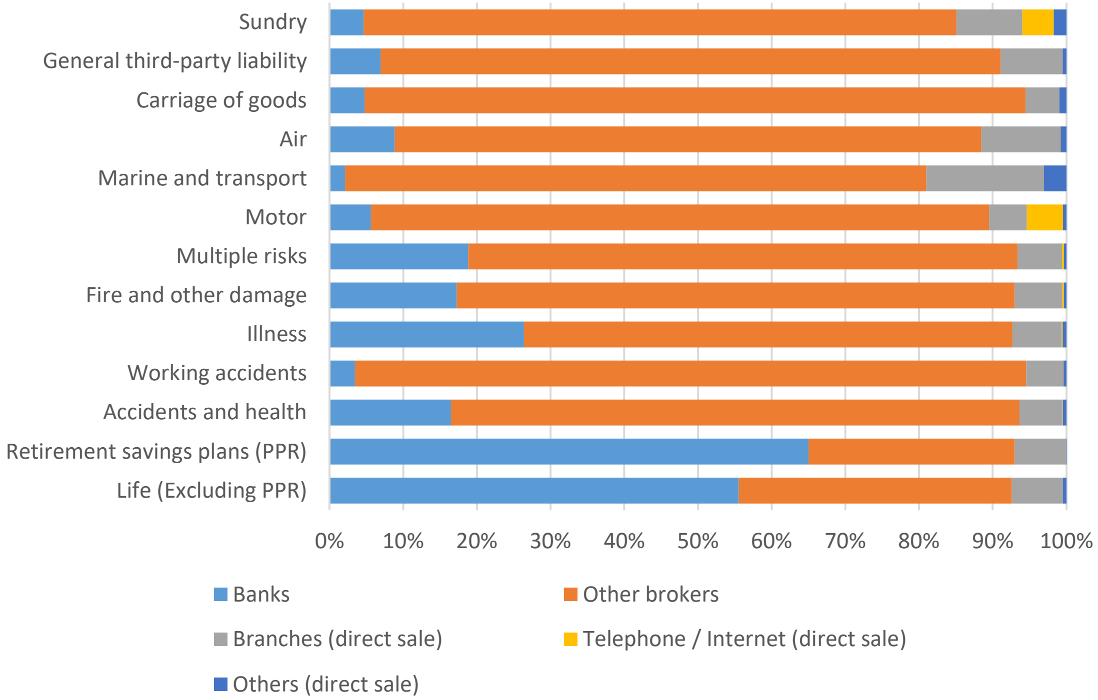
As some stakeholders mentioned to the AdC, **the development of the InsurTech sector in Portugal is still in its early stages.**

On the other hand, from a global perspective, **InsurTech firms have devoted themselves to market segments with an internationalisation potential and solutions that go beyond national borders, i.e., with fewer local specificities.** It can therefore be expected that foreign InsurTech firms will provide their services/products to Portuguese clients/insurance companies.

Insurance intermediaries retain an important role in insurance distribution channels in Portugal, resulting in a low number of direct sales (Figure 11). Insurance agents and brokers are more active in non-life insurance (for example, motor insurance) and banks are strongly active in the sale of life insurance products. In this regard, mention is due to the fact that life insurance is mandatory for obtaining housing loans from banking institutions, even though it is possible to change the insurance policy associated with the loan at any point in time.[126]

[122] Insurance policies and other life insurance operations include life insurance, marriage insurance, birth insurance, insurance policies linked to investment funds and capitalisation operations. Non-life insurance policies and other operations include patrimony insurance and personal insurance (except for life insurance), such as motor civil liability insurance and workplace accident insurance.
[123] Associação Portuguesa de Seguradores (2017), *Seguros em Portugal, Panorama do Mercado Segurador 16/17*.
[124] See Table 3 in Autoridade da Concorrência (2017) C*o-operation between Competition Agencies and Regulators in the Financial Sector - Note by Portugal*, DAF/COMP/WP2/WD(2017)13, available at https://one.oecd.org/document/DAF/COMP/WP2/WD(2017)13/en/pdf.
[125] Insurance statistics by the Insurance and Pension Funds Supervisory Authority, available at http://www.asf.com.pt/NR/exeres/34CBFBFE-40B5-4ECF-AA75-5934E13A57E4.htm.
[126] See Decree-Law 222/2009 of 11 September.

Figure 11 - Direct insurance premiums by distribution channel in 2016



Source: Insurance statistics by the Insurance and Pension Funds Supervisory Authority, available at https://www.asf.com.pt/NR/exeres/34CBFBFE-40B5-4ECF-AA75-5934E13A57E4.htm - Analysis by the AdC.
Note 1: "PPR" - retirement savings plan.

Price and service comparison platforms have proliferated in the insurance sector, both internationally and in Portugal.[127] These platforms enable the client to compare the prices and services offered by insurance companies for a given insurance type, which might lead to more competitive prices and better choices by consumers. However, it is necessary to ensure there exist competition conditions in order to achieve these benefits.[128]

4.1.2. Regulatory impact on technological innovation

There have been important regulatory changes in the insurance sector since the start of the 2008 crisis, particularly those introduced by the transposition of the Solvency II Directive into national legislation in 2016. The Solvency Directive II harmonised regulatory regimes at the European level and introduced a set of structural changes like the calculation of capital requirements, governance systems, supervisory practices, transparency, and information disclosure (Box 11).

[127] For example, the "compareomercado.pt" platform allows the user to compare products (motor and health insurance policies) offered by different insurance companies. The "queseguro.pt" platform compares motor insurance policies and "o-comparador.com" compares home insurance policies. DECO (consumer protection association) also has a simulator for life insurance.
[128] In this regard, let us note that the CMA opened an investigation into a suspected use of certain retail "most favoured nation" clauses by a price comparison website in relation to home insurance products (https://www.gov.uk/cma-cases/price-comparison-website-use-of-most-favoured-nation-clauses).

Box 11. Solvency Directive II

The Solvency II directive entered into force in 2016[129] and introduced a new legal and supervisory framework for insurance and reinsurance firms in the EU, which led to significant changes in the national insurance legal framework.

The Directive can be divided into three pillars:

- **Quantitative requirements:** This regime establishes that the economic evaluation of assets and liabilities should reflect firms' financial position at any point in time. The Solvency Capital Requirement and the Minimum Capital Requirement are established.
- **Qualitative requirements and supervisory review process:** Implementation of robust systems of governance by insurance companies, including risk assessment management and internal control systems aligned with the supervisory powers of competent authorities.
- **Transparency and information disclosure:** Public disclosure and information reporting to the supervisory authorities, which increases market discipline and comparability.

As regards competition and innovation, the changes introduced by the Directive may have created new opportunities for several market players, as they were able to revisit their business models, technologies, distribution channels, risk management strategies, and information reporting, among other aspects. Additionally, growing EU harmonization, not only with the Solvency Directive II but also other international accounting standards,[130] may create new business opportunities by promoting cross-border activities.

Transposing Solvency II has introduced more restrictive minimum capital requirements, thereby increasing entry and expansion barriers in the insurance sector. Nevertheless, the Directive stipulates that the requirements should be proportional to the nature, scale and complexity of an insurance company's activity.

The new **Insurance Distribution Directive (IDD)**[131] **should also be mentioned, as it relates to the need to ensure the same level of consumer protection regardless of the distribution channel.** The Directive widens the concept of insurance distribution and distributors so as to encompass more insurance agents, insurance companies and ancillary insurance intermediaries.[132]

IDD has the potential to introduce competitive pressure in the insurance distribution sector in Portugal by imposing higher consumer information standards, thus promoting well-informed choices. It also promotes transparency in the prices of insurance products sold by insurance

[129] Directive 2009/138/EC of the European Parliament and of the Council, of 25 November, on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II). Until now, the Directive was amended by the following directives: Directive 2011/89/EU of the European Parliament and of the Council, of 16 November 2011, as regards the supplementary supervision of financial entities in a financial conglomerate; Directive 2012/23/EU of the European Parliament and of the Council, of 12 September 2012 (Quick Fix I); Council Directive 2013/23/EU of 13 May 2013 adapting certain directives in the field of financial services; Directive 2013/58/EU of the European Parliament and of the Council, of 11 December 2013 (Quick Fix II); Directive 2014/51/EU of the European Parliament and of the Council, of 16 April 2014 (Omnibus II).

[130] For example, the IFRS 17 on insurance contracts that will apply to all entities who issue insurance contracts, reinsurance contracts and investment contracts with discretionary participation features.

[131] Directive 2016/97/EU of the European Parliament and of the Council, of 20 January, on insurance distribution.

[132] Insurance distribution now includes three categories of distributors: insurance intermediaries; ancillary insurance intermediaries; insurance companies.

distributors, and stipulates that inducements paid or received[133] (generally between an insurance distributor and an insurance company) must not raise conflicts of interest.[134]

With respect to cross-selling,[135] IDD also stipulates that consumers must be allowed to acquire the main good or service without the associated insurance policy. The insurance distributor shall provide the customer with that possibility and an adequate description of the different components of the agreement or package, as well as information on the costs and charges of each component.

At the moment of writing, IDD still has not been transposed into national legislation, which should happen until 1 July 2018.[136] This is a minimum harmonisation Directive. Therefore, Member States may maintain or introduce more stringent provisions, provided that such provisions are consistent with the Directive. As such, should the legislator deem it necessary to set additional measures to protect consumers, consideration should be given to their impact on competition and consumer choice.

Data ownership and impact on new entrants

The development of new insurance technologies and firms may contribute to more competition, with the introduction of new services for consumers and firms in the insurance sector. With that purpose in mind, legislation and regulation should promote innovation and new entrants, while safeguarding consumer rights with respect to personal data handling, in order to prevent the wrongful use of client data, cyber-security risks and unfair discrimination.

The GDPR,[137] which was already mentioned in the context of PSD2's implementation and that will apply from 25 May 2018 across the EU, seeks to introduce new rules on data protection in light of recent technological developments. The Regulation applies to all sectors, namely to the use and aggregation of client data in the insurance sector, with an expected impact on direct marketing and business strategies. The GDPR provides for the following rights with relevance for the insurance sector:

- **Right to data portability** (Article 20 of the GDPR): the data subject has the right to transmit his personal data to a data controller.[138] This right is particularly important for data used to improve risk management and collected through, for example, telematic devices.
- **Right to erasure** (Article 17): the data subject has the right to request the controller to erase his personal data when, for example, this data is no longer necessary for the purposes for which they were collected or processed.

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[133] I.e., fees, commissions or any non-monetary benefit paid or received to or by any party except the customer, therefore including fees paid by insurance companies to insurance agents.

[134] See Article 29 of Directive 2016/97/EU of the European Parliament and of the Council, of 20 January, which stipulates that inducements may only be paid or received where the payment or the benefit "*a) does not have a detrimental impact on the quality of the relevant service to the customer; and b) does not impair compliance with the insurance intermediary's or insurance undertaking's duty to act honestly, fairly and professionally in accordance with the best interests of its customers*".

[135] I.e., when an insurance product is offered together with an ancillary product or service which is not insurance, as part of a package or the same agreement.

[136] According to the Directive, the transposition process was to be concluded by 23 February 2018. However, the European Commission postponed the deadline for transposition to 1 July 2018 and the implementation of the Directive to 1 October 2018.

[137] Regulation 2016/679/EU of the European Parliament and of the Council, of 27 April, on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC.

[138] In accordance with Article 6, data processing shall only be lawful if and to the extent that the data subject has given consent to the processing of his personal data for one or more specific purposes, and if the processing is necessary for the performance of a contract celebrated by the data subject.

The GDPR also accounts for data protection by design and by default (Article 25). Whereby the controller must implement appropriate technical and organisational measures to ensure that, by default, only personal data necessary for each specific purpose are processed. This requirement applies to the amount of personal data collected, the extent of their processing, the period of their storage and their accessibility.

In this regard, notice should be given to the advantages of incumbents in collecting data over time, which is likely to undermine the entry and expansion of InsurTech firms. In other words, an insurance company that accumulates and analyses data on a specific risk category might develop a better understanding of those risks than its competitors and potential entrants. In addition, investing in InsurTech for the purposes of data aggregation involves significant costs, which may be a deterrent factor to market entry and expansion if these firms do not partner up with incumbents.

Data access, particularly data collected through telematic devices, is a relevant issue in the insurance sector and is still being discussed by European stakeholders. It is important to ensure that limitations in accessing these data do not erect entry and expansion barriers on InsurTech firms contrary to innovation and competition in the sector.

4.1.3. Principles for fostering competition and innovation in the insurance sector

InsurTech firms face entry and expansion barriers in the Portuguese insurance sector that are similar to the ones faced by FinTech firms. In this sense, the principles put forward above to promote competition and innovation in the FinTech context apply.

In particular, **it is key to ensure an efficient, proportional and non-discriminatory regulatory framework that promotes competition and protects the interests of consumers**, together with effective monitoring of potential incumbent strategies aimed at undermining entry of new market players.

Indeed, it is important that the current legislation and regulation is timely adjusted to these new business realities and does not pose unnecessary and disproportionate burdens on competition, while duly safeguarding the security of the system and the interests of consumer.

With regard to data access, it is important to ensure that neither does it raise barriers to the entry and expansion of new InsurTech firms and technologies nor does it impede insured clients to switch to another insurance company. It is also important to ensure that the regulatory and legislative framework sets clear provisions on the ownership and use of data by all parties in the sector so as to mitigate potential distortions of competition.

The legislator should assess the competitive impact of regulatory changes that may take place. In this respect, mention should be given to the transposition of the IDD into national legislation, which was due on 1 July 2018. The Directive seeks to introduce greater transparency and improve consumer choice in the business of insurance and reinsurance and has therefore the potential to enhance the competitive dynamics of the sector.

It is further considered that measures should be taken to introduce regulatory sandboxes and/or innovation hubs[139] to promote the development of InsurTech firms and technologies that could foster competition, efficiency and innovation in the national insurance sector.

4.2. New technologies in financial product advice and dealing services - Robo-Advisory

The growing digitalisation of the financial sector has led to the rise of automated or semi-automated financial dealing and advice provided by FinTech firms, commonly referred to as robo-advisor. Robo-advisors' business model consists in the supply of an online platform that

[139] These initiatives will be further discussed in Chapter 5.

offers customised financial dealing and advice based on the investor's profile and goals, which could introduce competitive pressure on the market through costs that are potentially more competitive than those of traditional services. This business model is based on lower fixed costs, stemming from e.g. the absence of a branch network, automated portfolio management and automated account opening procedures.

The typical investment procedure through a robo-advisor service includes a detailed survey designed to assess the investor's knowledge and risk profile and the resulting advice and eventual setting up of an investment portfolio. Robo-advisor services may differ in terms of the automation degree and the complexity of the underlying management, which may range from simple investment proposals that the client may have to complete on his own to the setting-up and active management of investment portfolios based on artificial intelligence algorithms. Robo-advisor services rely on simple and transparent rules, and generally make use of investment portfolios based on exchange traded funds.

The expansion of robo-advisor services may have a positive impact on competition in terms of financial product advice and dealing services. This kind of service aims at a better match between the investment type and the investor's profile by using quantitative models in choosing the best-suited portfolio according to personal characteristics and goals. Robo-advisor services allow for more convenience and a more frequent interaction between the investor and the platform compared to personal counselling services, as the investor has online access to the provided services.

One should also refer the potential that robo-advisor services' transparent fees and simple management principles may have in leading more consumers into choosing these investment and savings solutions, particularly those with higher digital literacy. In addition, the eventually more competitive fees charged by robo-advisors and the continuous availability of the service through online channels may make investing feasible to more consumers.

Robo-advisors may therefore foster the competition dynamics in this market as they put pressure on incumbents through lower fees and **appealing to consumers with lower financial wealth** and who favour online interaction and monitoring of their investments.

Robo-advisors are already widely used in other countries, such as the USA, Canada and the UK, and are expanding in continental Europe as well.

In Portugal, the absence of consumer trust, their willingness to invest, and their aversion to risk and financial literacy, as well as the applicable regulatory framework, **may limit the expansion of such services.**

4.2.1. Regulatory impact on technological innovation

A FinTech firm providing financial product advice and dealing services through a robo-advisor is subject to the Second Markets in Financial Instruments Directive (MiFID2),[140] which was recently transposed into national legislation.[141] The Directive takes into consideration recent developments in automated consulting and financial intermediation.

FinTech firms who seek to provide robo-advisor services in Portugal must obtain a financial intermediary license from the national competent authority, the Portuguese Securities Market Commission, or register as a financial intermediation service provider under the freedom to provide services. They will then be able to exercise their passporting rights granted to financial intermediaries authorised by other Member States under MiFID2.

[140] Directive 2014/65/EU of the European Parliament and of the Council, of 15 May 2014, on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU.
[141] Law 35/2018, of 20 July, which entered into force on 1 August.

One of the main goals of the Directive is to provide for more transparency in terms of fees and other financial intermediation costs, thereby promoting consumer protection. The obligation to disclose information on fees and commissions will make it easier for investors and independent investment advisors to compare investment products. In fact, this new regulatory framework may increase the likelihood of consumers switching providers, which promotes the entry and expansion of robo-advisor FinTech providers.

MiFID mentions the fulfilment of suitability requirements using a robo-advisor service. The European legislator adopted a proportionality principle by allowing suitability requirements to be met through electronic means.[142] These requirements are met through an initial questionnaire and other procedures designed to assess the investor's profile. These procedures may be carried out in person, remotely (by videoconference, for example) and/or through automated means (identity verification). In its role as regulator and supervisor of European financial markets, ESMA published guidelines for robo-advisor service providers[143] that seek to equate advisory services provided by robo-advisors and traditional investment advisors.

It should furthermore be noted that the Commission seeks to ensure that requirements are technology-neutral, and highlights that existing regulatory provisions should apply equally to human and automated decision-making.[144]

4.2.2. Principles for fostering competition and innovation in financial product advice and dealing services

The AdC considers it important to **promote innovation and competition in financial product advice and dealing services in Portugal**, particularly through automated or semi-automated tools such as a robo-advisor, with due regard for the security and integrity of the system and investor protection.

Regulation should be proportional to the business model, the scale and risks of the activity. Regulatory authorities should ensure that the authorisation and supervision procedures implemented are proportional to the risks of the activity concerned and avoid discrimination based on business model.

Regulation should be technology-neutral and allow FinTech firms to decide which kind of technology they will use to meet the regulatory requirements to which they are subject. For example, ESMA's guidelines[145] allow that robo-advisors meet the requirements through remote or electronic means. It is also important to apply technology-neutral standards to, for example, the opening of client accounts[146], the possibility of remote identity verification or the use of digital signatures.

In order to promote consumer information, it is important that the regulator and competent authorities promote transparency and financial literacy by explaining the specific features of robo-advisors, their risks and benefits, and how these services fall under the scope of recent European legislation (the MiFID2 and associated legislation). In this sense, it could be beneficial

[142] Commission Delegated Regulation (EU) 2017/565, of 25 April 2016, supplementing Directive 2014/65/EU (MiFID2), Article 54.

[143] European Securities and Markets Authority, *Consultation Paper – Guidelines on certain aspects of the MiFID II suitability requirements*, 2017.

[144] European Commission (2017), *Summary of Contributions to the "Public Consultation on FinTech: a more competitive and innovative European financial sector"*.

[145] See footnote 143.

[146] Banco de Portugal made a regulatory change in 2017 (Notice 3/2017 and Instruction 9/2017) in order to facilitate the opening of bank deposit accounts, as well as the establishment of other business relationships, through digital channels (assisted video conference).

to include such information in the National Financial Training Plan, which is designed to improve financial knowledge in Portugal.

Lastly, consideration should be given to the introduction of regulatory sandboxes and/or innovation hubs[147] **that facilitate the development of financial advice and dealing services through robo-advisors** that have the potential to foster competition, efficiency and innovation in the national financial sector.

[147] These initiatives will be further discussed in Chapter 5.

5. REGULATORY REGIMES THAT PROMOTE INNOVATION

Due to the complexity of financial market regulation, the authorisation process for FinTech and InsurTech firms **to test a new product or idea in the market may impose a disproportionate burden on them.** The regulatory burden and the complexity of the framework may prevent the emergence and development of innovative firms, thus harming competition and consumer welfare.

In this context, several governments and sectoral regulators have been introducing regulatory initiatives designed to facilitate the FinTech and InsurTech authorisation process in a controlled regulatory framework. These regulatory initiatives are usually developed by the payment services, securities markets and insurance sectoral regulators, either separately or in cooperation. The main goal of these pro-innovation initiatives is to streamline the compliance of FinTech and InsurTech start-ups with authorisation requirements, either by placing them under the close supervision of regulators or by giving them access to a temporary waiver regime.

In this respect, it is relevant to distinguish between innovation hubs, regulatory sandboxes and start-up accelerators, which may be put in place either separately or in parallel.

5.1. Innovation hubs

Innovation hubs are meant to help FinTech and InsurTech start-ups get acquainted with the applicable regulatory framework and the authorisation process. Innovation hubs usually lead to the creation of specific departments or working groups inside the sectoral regulator, who establish communication channels between the regulators and the FinTech and InsurTech start-ups.

Innovation hubs allow FinTech and InsurTech start-ups to request information from the regulator more easily, and to obtain guidance on how to best enter the market and set up their business model in compliance with the existing regulation. Innovation hubs may or may not be associated with regulatory sandboxes.

The United Kingdom was a pioneer in this respect with the creation of the Financial Conduct Authority's (FCA) innovation hub, described in Box 12. In France, the financial market's supervisor, the *Autorité des Marchés Financiers*, created in 2016 a special division responsible for dealing with FinTech, Innovation and Competitiveness, with the purpose of analysing financial innovation and identifying potential regulatory challenges. This division established a contact point for FinTech firms. Innovation hubs may also arise out of partnerships between public and private entities, as is the case of Luxembourg's Fintech Innovation Hub.

5.2. Regulatory sandboxes

A regulatory sandbox is a regime that allows FinTech and InsurTech firms to test innovative products, services and business models in the market whilst safeguarding consumer interests and the integrity of the system.

A sandbox implies eligibility criteria and a set of regulatory or authorisation exemptions that are applied for a limited period of time (similar to a testing phase). The regulator(s) that implement(s) the regulatory sandbox accepts applications by FinTech and InsurTech firms, either start-ups or incumbents.

FinTech and InsurTech have to present a new and innovative product/service that carries benefits in terms of financial efficiency and consumer welfare. The candidates whose testing plans are approved are allowed to place their product/service on the market under close supervision and frequent interaction with the regulator. At the end of the testing phase, candidates and regulators will assess the results. FinTech and InsurTech firms with positive results may apply for a regular license to operate in the market at a large scale, which will place them under the same regulatory regime and market conditions as similar entities.

Hence, through a simpler procedure for obtaining financial markets authorisation, FinTech and InsurTech firms experience some advantages, among which:

- Reduced time and costs for testing new ideas in the market;
- Reduced regulatory uncertainty, which might facilitate, for example, access to funding;
- The assurance that consumer rights will be respected and the risks to the financial system will be mitigated;
- Close and informal communication with the sector regulator.

Many countries, such as the UK (Box 12) or the Netherlands (joint initiative between the central bank and the financial markets' supervisor) **have already implemented regulatory sandboxes.**[148] The UK's initiative allows the testing of a large set of services, including retail payment services, insurance services and financial advice and dealing through robo-advisors. It is also important to highlight a recent InsurTech Sandbox initiative, launched in September 2017 by the Hong Kong insurance supervisory authority.[149]

Box 12. Regulatory sandbox in the UK

The UK was one of the pioneering countries in the creation and implementation of both an innovation hub and a regulatory sandbox.

The FCA set up an Innovation Hub at the end of 2014 that has been providing assistance to innovative FinTech firms who seek authorisation to operate or who need to better understand the legislation governing their activities. FinTech firms are thus allowed to reach the FCA and request specific clarification on the applicable regulatory regime, as well as informal guidance on how the regulatory provisions may have an impact on their product or business model. After getting authorisation, the FCA is available to monitor the firm for one year, after which a final report is drawn up.

The UK's Innovation Hub also includes cooperation with international counterparts (for example, Australia, Canada, Hong Kong, Japan or Singapore) in order to ease up the access of FinTech firms to the UK market and vice versa.

The FCA's regulatory sandbox was launched in 2015 and offers a set of tools, such as restricted authorisation and individual guidance.[150] The impact analysis of this sandbox carried out by the FCA produced the following results:[151]

- Most firms are retail banking start-ups. However, insurance, investment and lending firms also concluded the testing phase.
- About 75% of the candidates completed the testing phase, of which 90% were authorised into the market.
- 40% of the successful firms received funding during or after this phase.

5.3. Start-up accelerators

Start-up accelerators are programmes designed to accelerate the growth of innovative firms through monitoring and mentoring. The programme is run by either public or private entities, and therefore does not necessarily fall under the scope of sectoral regulation.

[148] Other countries who also implemented regulatory sandboxes include: Abu Dhabi (2016), Australia (2016), Canada (2017), Dubai (2017), Hong Kong (2016), Indonesia (2017), Lithuania (in process), Malaysia (2016), Singapore (2016), Switzerland (2017) and Thailand (2016).

[149] Information about this initiative is available at https://www.ia.org.hk/en/aboutus/insurtech_corner.html.

[150] Information available at https://www.fca.org.uk/firms/regulatory-sandbox.

[151] Financial Conduct Authority (2017), *Regulatory sandbox lessons learned report.*

Candidates submit an application and, at the end of the programme, successful candidates have the opportunity to reach investors or have direct access to funding provided by the organising entity (in return for a share of equity in their business).

Some start-up accelerator programmes for payment services FinTech firms have taken place in Portugal, such as SIBS Payforward Accelerator (organised by SIBS) or the Pay Challenge: Rethinking Payment Services (organised by CIONET in cooperation with Portugal FinTech, and with the participation of Banco de Portugal).

5.4. Competitive impact of regulatory initiatives designed to promote innovation

Both Banco de Portugal and CMVM have established contact points for FinTech companies and have been undertaking efforts in what concerns innovation promoting regimes.

In May 2018, Banco de Portugal launched the FinTech+ contact channel on its institutional website.[152] This channel was established to clarify issues related to innovation in financial products and services. It also provides relevant information to the public.

CMVM has made available an area with information dedicated to FinTech on its website.[153] In the opinion submitted to the public consultation, CMVM mentions that it has been following the work of other regulators who have adopted regulatory sandboxes and innovation hubs (e.g., through a visit of their own collaborators to the UK's FCA Innovate). In July 2018, CMVM launched a FinTech survey aimed at technology companies, financial intermediaries and trade associations.

Notwithstanding the usefulness of the already established FinTech-oriented communication channels or the Portugal FinLab initiative, the creation of a regulatory sandbox has the potential to mitigate regulatory barriers to entry in the financial sector in a more systematic way. From a competition perspective, regulatory sandboxes represent the most proactive tool available to sectoral regulators, allowing for more contestable and competitive financial markets.

Given the potential benefits of FinTech and InsurTech firms for competition and efficiency across the financial sector, **the AdC recommends that sector regulators seek to mitigate the existing barriers to entry and expansion by promoting innovation and the opportunities brought about by FinTech and InsurTech firms, in particular with the introduction of regulatory sandboxes.** These regulatory initiatives make it possible to evaluate projects in a controlled environment and have been adopted in several countries, such as the UK or the Netherlands, whereas in Spain there is a draft law that envisages a regulatory sandbox.

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[152] FinTech+: https://www.bportugal.pt/page/fintech.

[153] CMVM: Área do Investidor – Fintech: http://www.cmvm.pt/pt/AreadoInvestidor/fintech/Pages/fintech.aspx

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