ECRI NEWS
Understanding Credit Markets for Europe

MULTIPLE POLICY ISSUES RESULTING FROM DIGITALISATION

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Many indicators point to an acceleration in the digital transformation of retail banking and insurance. By using enabling digital technologies, new products and processes are being created by "traditional" providers, whereas new companies (often defined as FinTech or InsurTech companies) are emerging on the market by developing and distributing products, either for banks and insurance companies, of for consumers. Also, companies that have been traditionally active in other sectors such as information and communication technology are examining the possibility of disrupting the retail banking/insurance market through the use of their technological expertise notably in data analytics, (open) APIs and digital interactions with consumers (especially the so-called GAFA).

It is still not completely clear what retail banking will look like in one or two decades, but one thing is almost certain: it will be quite different from today. The pace of changes has prompted key stakeholders to adjust their agenda in order to get the most from this transition period and/or to address specific risks. On the regulatory side, there is currently a very broad range of issues to be addressed for the digitalisation of retail financial services: personal data protection, norms for algorithms, contribution to the reinforcement of the single market, security issues, interoperability, advertisement and information disclosure in a digital era, financial and digital education, digital transformation as a driver for growth, digitalisation and job destruction, etc.

Against that background, ECRI is getting increasingly active to contribute to the design and implementation of an adequate regulatory framework, by organising events and Task Forces, as well as publishing articles on its website and drafting reports for key stakeholders, including the European Commission. The role of ECRI is all the more important since the core digital transformation is currently taking place in the activities serving households, in particular retail payments. In the context of the implementation of the PSD2 and the development of the related technical standards and guidance for strong and effective authentication, CEPS-ECRI in partnership with VISA have organised a series of conferences on authentication, security and convenience in payments (in February and September), bringing together senior practitioners, distinguished academic and high level officials.

In parallel, ECRI is organising a Task Force on "The Future of Retail Financial Services: What policy mix for a balanced digital transformation?". The main objective of this working group is to discuss the most adequate policy framework for the digital transformation with industry experts, regulators and academics, to culminate in a report with policy recommendations and an action plan that will be addressed to the European regulators. As a result of the kick-off meeting, the Task Force is placing the focus on the level playing field between mainstream and alternative providers, big (alternative) data and increasingly sophisticated algorithms: opportunities and risks; advertisement and information disclosure in a digital era and best regulatory approach to enhance interoperability within and across countries. The next meeting that will cover the two first topics will take place on 08 November.

As regards reports, in the context of the green paper of the European Commission on retail financial services, CEPS-ECRI directed the study for the European Commission, DG FISMA, on "digitalisation, retail financial services and single market", with two organisations specialised in the analysis of financial innovations: the University College Cork and the Luxembourg Institute of Science and Technology. Specific interviews and focus groups were conducted with market players in order to better appreciate the potential technological developments in the coming years and their possible impact on the single market for retail financial services. The present Newsletter provides the executive summary of this study that should contribute to the enactment of specific rules at European level to boost the single market of retail banking and non-life insurance via digitalisation.

Finally, on the non-digital agenda, ECRI continues producing statistics and publishing papers on key topics such as over-indebtedness, its drivers, its definitions and the available tools to curb it. Also, for the fourteen consecutive year, ECRI published in August its highly authoritative, comprehensive and widely cited set of statistics on consumer credit in Europe and beyond. After integrating for the first time two emerging economies last year (India and Russia), ECRI continued to include non-European economies with interesting dynamics this year by adding Saudi Arabia and Mexico. ■

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THE FUTURE OF PAYMENTS: WHERE WILL INNOVATION COME FROM?

By Paul Thomalla
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The future of payments depends on many factors, as both regulation and digitalisation have enabled multiple new players to enter the market.

While the revised Directive on Payment Services (PSD2) will permit Payment initiation service providers (PISP) and Account information service providers (AISP) to enter the payments market, digitalisation allows the introduction of standardised open application programming interfaces (APIs), which undoubtedly poses a challenge to banks' legacy systems. Furthermore, the internet of things (IoT) – or machine-to-machine communication – represents an opportunity for industry to find out more about what customers need and about their behaviour and environmental factors, thereby allowing industry to shape payment products and services accordingly. As for blockchain technology,[1] current market developments suggest that the best opportunities for the deployment of blockchain technology in financial services are in currency exchange, programmable money, digital assets and in peer-to-peer data storage, with full potential to be realised in three to five years.

There is, however, a very real possibility that over time the value of transactions will fall below the cost of processing them, and to be successful in payments processing in such an environment requires scale – which banks can bring, for example. In the new payments world, banks may not get paid for making payments, but they may be paid for enabling the commercial operation of the IoT.

How can banks deal with this changing landscape? According to a recent ACI study,[2] banks need to understand the costs of, and revenues generated from, each payment product they offer so that they can establish the impact of payments on their business. Furthermore, they need to outsource some functions, negotiating a 'pay-as-you-go' pricing model.

As for non-bank organisations, they have delivered a number of successful payment products, such as online wallet solutions. The success of these wallets has been limited thus far as consumer adoption and merchant acceptance – dependent upon contactless POS terminal penetration levels – have not yet achieved ubiquity.

At the same time, consumer behaviour patterns are changing: an Instantly Brand Monitor and Statista poll found that Wells Fargo and JP Morgan Chase were viewed less positively by US-based consumers as providers of financial services products than Apple, Google and PayPal.[3] And large tech firms could use this perception to their advantage by extending the range of financial services products they offer. As a positive for banks, however, tech firms have a lot of technologies and business lines on which to focus. Banks will therefore have to ensure that they retain a stronger focus on payments than their tech competitors. Furthermore, as recently outlined by the UK Payments Strategy Forum (PSF),[4] users would like to include more data within an electronic payment, rather than it being sent separately and matched to the payment by the payee before the payer has a complete picture of what the payment relates to. The PSF proposes as a solution the universal adoption of internationally recognised messaging standards (ISO20022) and the development of common governance for the APIs, allowing the payments architecture to hold together and send more data with payments.

Ultimately, it appears that innovation will come from whoever is able to meet the needs of the current and future generation of payment service users. ■

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1 "Unlocking the real benefits of blockchain through its 'sweet spot'", Finextra, August 2016
2 An ACI and Edgar Dunn White Paper, "The future of banking in a digitalized world – Why banks must understand the true cost of digitalization", August 2016
3 Ibid
4 Payments Strategy Forum "Being responsive to user needs - a draft strategy for consultation, July 2016"

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PARTNERSHIPS BETWEEN ESTABLISHED PLAYERS AND FINTECHS IN RETAIL FINANCIAL SERVICES

By Michael Pearson,
Founder and CEO of Clarus Investments

Retail financial services is going through a period of transformation which is driven by the rapid adoption of new digital technologies and the emergence of new competitors. Many of these new competitors are described as "FinTechs". We are also witnessing a lot of different types of partnerships and relationships between FinTechs and established players so the competitive environment is becoming more complex.

The threat of industry disruption from the new competitors is perceived to be relatively high by bankers. My research for Efma and Infosys-Finacle shows that 43% in Europe perceive the threat of disruption from start-up challenger banks to be high, and 30% perceive the threat from other types of start-up to be high.[1] However, there has been a growing realisation from the established players that they also need to work with start-ups. I found that 51% of banks had a very positive attitude to working with start-ups as partners, and 47% had a very positive attitude to working with start-ups as suppliers.

There are two related reasons for the development of these relationships – the need to improve innovation performance, and the need to access disruptive technologies:
* 77% of banks say that working with innovative start-ups can have a very positive impact on the innovativeness of the solutions they develop, and 56% say that it will help them get innovative solutions to market faster.

* 74% of banks say that working with innovative start-ups can have a high impact on their access to disruptive technologies, whereas only 17% said the same for working with traditional technology suppliers.

The relationships with the FinTechs are taking several different forms, for example supply, distribution and investment:
* Supply: For example, a company called Ripple has developed a blockchain-based international payments system and is partnering with Santander in the UK to trial a new service.

* Distribution: For example, RBS in the UK is referring SME customers who are refused loans to a P2P lending start-up called Funding Circle.

* Investment: A number of banks and insurers have set up corporate venture funds to invest in FinTechs, in order to learn lessons for their core business as well as make a return on their investment.

Some acquisitions of FinTechs are also now taking place, notably by BBVA and BPCE. BBVA has acquired digital banking services Simple (US) and Holvi (Finland), and has made a significant investment in Atom Bank (UK). BPCE has acquired Fidor Bank which operates in Germany and the UK.

A good example of the new way of working with start-ups comes from ING in the Netherlands. According to Ralph Hamers, CEO of ING Group: "We actively monitor advances in the FinTech space and are able to respond quickly to opportunities that have the potential to improve the customer experience. We are currently partnered with around 45 FinTechs dedicated to creating innovative solutions for banking needs, such as money management, payments, lending and mobile on-boarding.[2]"

Of course working with FinTechs as partners is not without its challenges. For the established players my research shows that the main concerns are regulatory issues and cultural fit. For FinTechs there is the difficulty of working with larger, bureaucratic organisations. One investor I spoke to explained that the two parties often do not "speak the same language" and that the slow decision making of the larger entity can cause significant problems for the start-up which needs to operate with agility and speed, particularly when funding is limited. ■

1 Where high is a score of 6 or 7 on a scale of 1 to 7
2 ING Group Press Release, May 2016

ECRI PUBLICATIONS

Two Dimensions of Combating Over-Indebtedness: Consumer protection and financial stability

Sylvain Bouyon and Roberto Musmeci, 28 October 2016

https://www.ceps.eu/publications/two-dimensions-combating-over-indebtedness-consumer-protection-and-financial-stability

The Business Models and Economics of Peer-to-Peer Lending

Alistair Milene and Paul Parboteeah, 24 May 2016

https://www.ceps.eu/publications/business-models-and-economics-peer-peer-lending

Relaunching the European Retail Finance Market: Comments on the Commission's Green Paper

Sylvain Bouyon and Karel Lannoo, 15 December 2015

https://www.ceps.eu/publications/relaunching-european-retail-finance-market-comments-commissions-green-paper

Household Final Consumption in the EU: The key driver for a sustainable recovery?

Sylvain Bouyon, 4 December 2015

https://www.ceps.eu/publications/household-final-consumption-eu-key-driver-sustainable-recovery

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EXECUTIVE SUMMARY OF THE STUDY ON "THE ROLE OF DIGITALISATION AND INNOVATION IN CREATING A TRUE SINGLE MARKET FOR RETAIL FINANCIAL SERVICES AND INSURANCE"

Study commissioned by European Commission, DG FISMA,
Published on 29 August 2016,
Call: FISMA/2015/075D
The complete study can be found at:
http://ec.europa.eu/finance/finservices-retail/docs/policy/160701-study-digitalisation_en.pdf

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As in many sectors of the economy, digital technologies are transforming retail financial services and non-life insurance. This digital transformation will probably continue to shape these two sectors in the coming years, and has already resulted in new products and processes that are developed and implemented by 'traditional' providers, such as banks and insurance companies. In recent years, however, new companies (defined as FinTech or InsurTech companies) have emerged on the market by developing and distributing products, either for banks and insurance companies, or for consumers. Companies that have been traditionally active in other sectors such as asset management, information and communication technology are also examining the possibility of offering retail financial services and non-life insurance.

Some of the new entrants might contribute to market integration with different expansion strategies. While the traditional providers have to deal with legacy issues such as local office networks and contracts with agents, the new entrants do not necessarily need a local presence to distribute their products. Hence, with a large part of the entire product/service being delivered virtually, the location of the provider becomes less relevant. It should thus become easier to offer services directly across borders.

The direct cross-border sales have been negligible to date, with the exception of some niche segments. For example, on average, only 0.8% of household loans granted in the euro area are extended on a cross-border basis. The only exceptions that have been identified in the study are Luxembourg for loans and accounts, owing to the significant number of cross-border commuters, and the UK for housing loans, mirroring the high volume of UK real estate purchased by overseas buyers.

This study focuses on the crossroads between digitalisation and direct cross-border activity. More specifically, the study assesses whether and to what extent digitalisation can contribute to the creation of a true single market for retail financial services and non-life insurance.

Methodologies

Barriers to the integration of retail financial services markets can be broken down into two broad categories. First, the so-called natural barriers, which are mainly demand-driven, such as geographical distance and language. Second, the so-called structural barriers, which are mainly related to the high costs incurred in cross-border expansion, owing to differences in regulation, taxation, institutional framework, infrastructure/technologies, etc. Certain types of digitalisation and the related innovation in processes and products have the potential to overcome some of these barriers. Such innovations can come about either by improving existing processes and products, or from new approaches.

A wide range of research tools were used in this study, including academic research, interviews and focus groups. In total, 93 interviews were conducted to identify the channels through which digitalisation could reinforce the single market for retail banking and non-life insurance. Interviews were conducted with representatives from banks, insurers, brokers, agents, other financial institutions, large technology companies, FinTechs, supervisors and regulators. In addition, 53 consultants, regulators, practitioners, academics and consumer representatives actively participated in four focus groups in Brussels and London. The focus groups have been used, primarily, to develop a pan-European view on the different future developments in digitalisation and innovation in retail banking and non-life insurance. The analyses contained in the study are based on the market developments observed until April 2016.

The study focused on a subgroup of 11 EU member states that have a large retail banking/insurance sector with advanced digitalisation/innovation and/or large cross-border activities: Belgium, Estonia, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Poland and the United Kingdom.

Structure

The retail financial and non-life insurance markets have been subdivided into six segments for this analysis: i) payments; ii) current and savings accounts; iii) consumer and housing loans; iv) car insurance; v) property insurance; and, vi) health insurance. The segments are discussed in order of likelihood and potential to create a broad and deep cross-border market. Hence, for payments and to a lesser extent current and savings accounts, the prospects for a cross-border market are brightest, partly owing to the rapid adoption of new technologies. Although a broad cross-border market is less likely for consumer and housing loans, car insurance and property insurance, expansion for certain groups of consumers seems to be feasible in these markets as well. The lowest probability for substantial cross-border sales seems to be in health insurance, which is organised very differently across member states.

For each segment, an overview is provided of the current level of cross-border activity as well as of offers, providers and consumers involved. Furthermore, the study identifies the areas where digitalisation and innovation could help to open up the Single Market for retail financial services and non-life insurance. Finally, the potential development of cross-border activity in the context of growing digitalisation is assessed according to three scenarios.

Key findings: types of providers and consumers engaged in cross-border sales

Overall, the share of cross-border sales at country level has been quite low to date for both retail financial services and non-life insurance products. There has, nevertheless, been a high diversity of providers in cross-border sales. Current cross-border activity in payments has been characterised by platforms that provide payment products linked to online current accounts. These accounts can be electronic wallets that are funded by bank accounts from different countries. Some specific FinTech companies have distributed savings accounts of smaller banks across borders, whereas others (notably some peer-to-peer platforms) have provided cross-border unsecured consumer loans. So far, the segment of cross-border housing loans has been covered almost exclusively by specialised banks and departments of large banks.

A few niche consumers have engaged in purchasing cross-border products. Younger and high-income consumers are perceived to be strong adopters of new cross-border payment instruments. For current/savings accounts and housing/consumer loans, expatriates and cross-border commuters are the primary target. In addition, some consumers with thin credit profiles (e.g. recent migrants, the young, etc), who are underserved in their home country, are looking for (cross-border) alternatives in
terms of unsecured consumer loans. Others want to benefit from higher interest on foreign savings accounts (e.g. some consumers in Austria, Germany and the Netherlands).

Demand for cross-border non-life insurance policies is also higher for cross-border commuters and expatriates. Furthermore, holiday home-owners with properties located in another country are more likely to ask or search for cross-border property insurance, whereas frequent travellers and consumers who go abroad for healthcare reasons might be interested in purchasing cross-border private health insurance coverage.

Key findings: contribution of digitalisation to overcome barriers to cross-border sales

The low switching levels for most banking and non-life insurance products remain one of the major barriers to entering retail financial markets in general and cross-border markets in particular. Nevertheless, consumers are increasingly aware of new products and services, thanks to the internet and mobile channels. Boosted by social media platforms, comparison websites, targeted online campaign and switching tools, the notion of online 'shopping around' has embedded itself into consumer culture and could result in further cross-border demand, should some other conditions be fulfilled.

Consumers' lack of trust in cross-border products is another key barrier to the development of a single market. Digitalisation can contribute to enhancing the trust of consumers through global convergence in security tools, and in the design of websites and applications. Trust can also be strengthened by the increasing use of social media to share experiences about products, as well as by the ever-greater number of online tools at the disposal of consumers to foster their financial education and ability to handle vast amounts of digital information (particularly needed on a cross-border basis).

Some of the so-called Know Your Customer (KYC) requirements make it difficult for providers to offer cross-border financial services. The Anti-money laundering (AML) legislation requires the identification of consumers that use financial services. The implementation of these requirements varies between countries. Until recently, it was not possible to conduct the required authentication at distance in all countries, thereby adding further burden to cross-border activities. However, encouraged by the eIDAS, new technologies to identify customers through digital means (such as online video solutions) are rapidly emerging.

The need for face-to-face advice and assistance persists for many consumers, especially when it pertains to more complex products such as housing loans and health insurance. This need concerns all the phases of product distribution, i.e. orientation, selection, documentation, handling claims, etc. Until recently, local agent-based models were the most adequate response to this need. Nevertheless, increasingly sophisticated distribution channels relying on digital techniques like video-calls, robo-advice that apply machine-learning techniques to support decisions, etc. are gradually replacing personal advisers. These technologies can assist consumers any time, regardless of their location (provided that differences in language are not an insurmountable obstacle).

Another significant barrier to the emergence of a single market is the time needed to acquire (non-resident) consumers. Digitalisation is increasing the speed of acquisition for most products thanks to faster broadband connectivity, instant settlements instruments for an EU audience, faster scoring and pricing techniques, etc. Nevertheless, for some markets such as housing loans, the time needed to finalise a contract will continue to be longer owing to the need to interact with a higher number of external stakeholders (notaries, land administration, etc).

There is still a high proportion of cash used in many EU countries, especially among unbanked or underbanked consumers. Digital solutions are already available to process cross-border transfers of cash, by enhancing some of the attributes associated with cash (anonymity, flexibility, no interchange fees).

Little financial data is available for significant parts of the population: young households, new migrants, etc. In that context, scoring remains difficult (especially on a cross-border basis), resulting in poor access of these households to credit markets. One digital possibility that has been developed by a growing number of FinTech companies is the incorporation of algorithms that can process unstructured data, such as the one produced by social media to assess the creditworthiness of these households. Given that social media data is available and standardised at a global level, several FinTech companies already score and provide loans to non-residents based on these techniques.

Processes to exchange domestic data on claims history (generally collected by a consortium of domestic providers) and structured data collected notably by credit bureaus remain limited across countries. Some recent digital developments imply that providers can use alternative data to conduct cross-border business. For example, data collected from the 'Internet of Things' (IoTs), via the connected devices (vehicle telematics, smart home solutions, etc), or smart phone applications could help insurers better understand the behaviour of connected non-residents, resulting in more accurate cross-border pricing.

Fragmentation across countries persists in recovery and claims processes. In addition, physical presence is often requested or needed during these processes, i.e. check for fraud, presence at the court, etc. Against that background, engaging in cross-border sales appears to be both complicated and risky. However, the increasing availability of data and sophistication of the means to analyse this data also allows loan providers to identify potential missed payments earlier, which may help, in combination with behavioural strategies, to find solutions before entering costly and complex (cross-border) litigation. Turning to non-life insurance, specific data collected through the (IoTs) should contribute to lower the risk of fraud and improve policyholders' behaviour, thereby potentially reducing the number of (cross-border) claims.

Key findings: remaining barriers

The lack of interoperability between providers, consumers and other stakeholders, both within and across countries, still impedes the emergence of a single market. For instance, the complete digitalisation of housing loans (especially the pre-sale and sale phases) and health insurance (especially the sales and post-sale phases) also depends on the degree of digitalisation achieved by actors as diverse as brokers, notaries, land administration, agents, doctors, tax authorities, etc.

Moreover, the processes for exchanging domestic structured data across countries, such as data on credit history for loans or data on claims history for car insurance, continue to be limited. Acquisition of non-resident consumers that have financial history but might not be interested in alternative scoring, based for example on social media data, therefore remains difficult. In addition, consumers still have little access to the foreign data that is needed to compare foreign with domestic products.

Last but not least, insufficient harmonisation in some rules such as data protection, electronic signature, etc. discourages providers from engaging in cross-border sales. The poor consistency over time and across member states in taxation rules also hinders the cross-border sales of housing loans, savings accounts and even property and car insurance.

Key findings: scenarios

The potential development of cross-border activity is assessed along the lines of three complementary scenarios. The first 'business as usual' scenario assumes that the current trend will continue; the second 'expansion in specific pockets' identifies some key areas in which cross-border activities could be boosted; and the third scenario, labelled 'integrated EU market', explores what would be needed for a truly single market. Scenarios 1 and 2 are generally considered to be complementary, with some aspects of Scenario 2 likely to develop more quickly than others. Scenario 3 is also one that will evolve in parallel, but at a slower pace, given the related technological, economic and regulatory challenges to be faced. For each scenario, the opportunities and threats, as well as the policy measures and other conditions that are necessary to reach more integrated markets, are identified.

Scenario 1: Business as usual
There is a high probability that the share of cross-border activities will remain broadly similar. Lasting fragmentation in rules across the EU-28 will continue to deter both consumers and providers from entering the cross-border market. In addition, if hybrid distribution models, including both online channels and face-to-face interactions, persist for a significant share of products, the barrier of geographical distance will not be completely removed. The poor access of providers to non-residents' data, combined with the difficulty of consumers to obtain reliable data to compare products on a cross-border basis, will reinforce the status quo.

Scenario 2: Development of cross-border sales in specific pockets
The number of niche consumers who ask for cross-border products could increase significantly in 5-10 years, if specific conditions are fulfilled. First of all, the global convergence in security tools and the design of applications/websites should enhance the confidence of consumers in engaging in cross-border sales, especially those who are inclined to switch.

The digital transformation of the supply chain within Scenario 2 should bring several opportunities for cross-border sales (provided that the language barrier can be overcome). Partly thanks to their acquisition of some FinTech and InsurTech companies, most 'traditional providers' will hasten the complete digitalisation of their distribution channels. Virtual offerings will integrate products from different segments, with interoperability becoming a competitive advantage. If, for example, traditional and FinTech providers tend to focus further on the cross-border sales of online current accounts, they could easily conduct credit scoring for their non-resident clients, by using the transaction and balance information from their foreign accounts. Potential new entrants could also contribute to further cross-border activity. For instance, based on their global approach, digital expertise and large amounts of personal data, multinational information technology companies will have the potential to develop global solutions in retail finance and non-life insurance for their existing clients, irrespective of their location.

In order to facilitate the emergence of niches for cross-border sales, regulators should continue to reinforce the harmonisation of rules across the EU-28 as much as possible. In parallel, policy-makers should maintain sufficient room for the development of innovative processes and products. Regulators could also take several specific measures to promote the cross-border sales of simple products such as current and savings accounts by, for example, insisting on the inclusion of foreign accounts in the results of comparison tools.

Scenario 3: EU integrated market
Overall, the emergence of a true single market seems within the realm of possibility for payments, current accounts, savings accounts and unsecured consumer loans in 10-15 years. The probability of a single market will, however, be lower for housing loans, car insurance, property insurance and health insurance. The preconditions for Scenario 2 to materialise as well as a significant number of other conditions will need to be achieved for Scenario 3 to unfold.

The increasing use of passports by intermediaries and the multiplication of digital identity initiatives, such as the e-identity tools in Estonia, would make the physical location of many brokers, agents, lenders and insurers of little importance, thereby multiplying the possibilities of cross-border offers. For housing loans and health insurance, the significant digitalisation of the processes of external actors such as notaries, land administration and doctors, in combination with high interoperability between consumers, providers and these external actors will make the complete digitalisation of the distribution of these products feasible.

By reaching full maturity, nascent technologies will greatly contribute to the complete digitalisation of distribution channels of all retail financial services and non-life insurances: video-calls, robo-advisers, digital authentication, blockchain, telemedicine, etc. For instance, contracts for all the products covered by the study could be designed as 'smart contracts', which can be verified programmatically via the blockchain (provided that the related capacity issues can be solved), resulting in faster, safer and more transparent processes, regardless of where consumers, providers and other stakeholders are located. Some initiatives already exist such as in Estonia, where in 2015 the government introduced a public service whereby notaries contract their services on the blockchain for e-residents.

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Last but not least, true pan-European product comparison platforms (that could be notably developed by global information technology companies), in combination with the increasing digital and financial literacy of consumers, will significantly boost consumers' search for cross-border products. In parallel, providers will need true pan-European databases for credit, property insurance, car insurance and health insurance (unlikely for this latter owing to the sensitive character of health data). Additionally, the development of European bodies (private or public) that provide exploitable alternative data could greatly contribute to cross-border supply: data produced by IoTs, social media data that can help insurers and banks, etc. Based on this data standardised at European level, the increasing sophistication of algorithms will allow providers to perform adequate marketing campaigns, scoring, pricing, fraud detection, early warning schemes, etc., for products sold to non-residents.

Overall, due to the high number of elements and conditions related to scenarios 2 and 3, regulators will need to adopt a holistic approach to facilitate the emergence of a true single market for retail financial services and non-life insurance services, by ensuring consistency across the different digital layers (data protection, security, authentication, interoperability, etc.). Nevertheless, numerous policies that could facilitate the emergence of this single market are not contained in the digital agenda and should also be taken into consideration, notably the need to supervise banks exclusively at a centralised European level. In parallel, regulators should continue to reinforce the harmonisation in rules over the EU-28 in various areas of non-financial legislation, including insolvency and liability laws. ■