# ECRICAL Understanding Credit Markets for Europe

#### A BUSY YEAR AHEAD FOR FINANCIAL SERVICES

By Sylvain Bouyon Research Fellow at CEPS-ECRI



**S**o far, 2017 has been a busy year for ECRI. The ECRI Task Force on FinTech and retail banking was completed by mid-February. Its main findings are being presented in different key organisations (European institutions and think-tanks). On 31 January, a successful conference was organised with regulators and lobbyists to discuss the most adequate policies to stimulate innovation in products, models and processes. Given

the growing interest in the European sphere for all matters related to FinTech and policymaking, ECRI is assessing the possibility to organise other events in the coming months on topics of relevance for policymakers, academics, consumer associations and the industry alike: big data, financial inclusion, payment systems and blockchain. Finally, ECRI continues placing some emphasis on research projects and publications that can contribute to the debate on the most adequate policy mix to monitor an ever-changing financial market. Fit for purpose, the present Newsletter includes the executive summary of the Task Force report, as well as several articles drafted by key experts on some of the main transformations currently observed in financial services.

Adequate financial education remains one of the key conditions for the development of a balanced market for retail financial services. As emphasised by Frank Conway, the current shift of financial responsibility from both employers and states to individuals implies that the young generation needs to develop a broader and deeper understanding of finance. In that context, Mr Conway presents the structure of a programme developed in Ireland that aims at providing financial education to children and teenagers.

In a growing collaborative economy, online platforms are increasingly popular, especially for raising loans and

equity. In "Collaborative economy lessons: from consumers to partners", Fergal Carton provides some key common characteristics of these networks and is assessing their possible impact on banks. Among the main findings, the author highlights that the sustainability of membership platforms depends on their ability to operate the shift of perspective from customers as "consumers" to customers as "partners" and on the reputation of the members themselves.

Blockchain could be another potential game changer in the financial industry. In "Towards an autonomous decentralised world", Daniel Cano highlights that the mass adoption of a global cryptocurrency can be envisaged only in a very long term, given the persistence of fragmented national laws. Two approaches are opposed regarding this possible adoption. On one hand, startups, banks, corporates and governments design private blockchains only to reduce their operational costs. On the other hand, anarchists, libertarians and some NGOs favour an egalitarian society and analyse blockchain as an opportunity to decentralise everything from money (banks' activities, notaries, land registration, etc).

Finally, given the ever-changing nature of the current financial ecosystem, supervisors will need to revisit their approach. As emphasised by Franck Guiader in "We need to rely on a secure EU environment to foster innovation and agility", local sandboxes might not be the response to this fast digitalisation and internationalisation of financial services. Instead, the AMF favours a "soundbox" approach which supports a regulation based on rules that are adapted to the scale and complexity of the activities undertaken. Last but not least, the author highlights the need to develop innovation policies and frameworks at EU level in order to position Europe in a context of increasing global regulatory competition.

#### IN THIS NEWSLETTER

A busy year ahead for financial services by Sylvain Bouyon, p. 1

Financial Education by Frank Conway, p. 2

Collaborative-Economy Lessons: from consumers to partners by Fergal Carton, pp. 2-3

Towards an Autonomous Decentralised World by Daniel Cano, p. 3

We Need to Rely on a Secure EU Environment to Foster Innovation and Agility by Franck Guiader, p. 4

Executive Summary

The Future of Retail Financial Services: What policy mix for a balanced digital transformation? by Sylvain Bouyon, pp. 5-7

ECRI Publications, p. 3 ECRI Membership Information, p. 4 ECRI Statistical Package 2016, p. 6



#### FINANCIAL EDUCATION

#### **By Frank Conway**

#### The founder of MoneyWhizz.org, a financial literacy initiative based in Dublin, Ireland



A combination of medical science and lifestyle changes has resulted in more people living longer. At the same time, more employers have stopped offering defined benefit pensions and replaced them with defined contribution schemes. States have also changed retirement rules resulting in future retirees having to work longer before qualifying for a state

pension. This major shift of financial responsibility from both the employer and the state to the individual means that today's generation must develop a much broader and deeper understanding of money if they wish to establish the four pillars of financial well-being; a 'rainy day' fund, buy a home, protect their family and plan for retirement.

#### Defining financial literacy

Broadly, financial literacy is defined as the ability to understand how money works in the world, including earning an income, saving and spending, protecting against risk, credit and debt, investing and making financial decisions. Equally important is educating young adults on the importance of establishing a personal credit score. This can have significant life implications in housing, access to credit, employment and even car insurance premiums.

#### Starting early

A 2013 study commissioned by the UK Money Advice Service identified children as young as age seven form life-long money habits. Separately, a 2016 study from MoneyWhizz revealed how adults struggle with important financial concepts, including inflation and compound interest. MoneyWhizz has developed detailed financial literacy frameworks segmented for ages 5-6, 7-11, 12-14

and 15-18. The youth framework sets out both the learning objectives and the activities that adults should undertake to promote financial education.

The framework forms the basis for a new financial education programme from the Bank of Ireland developed for kids aged 7-11. The programme uses a mix of stories, promotes critical thinking and includes quizzes and word focus. Critically, teacher/parent worksheets underpin adult/student interaction. During an initial outreach to primary schools in late January and early February of this year, the response from schools across Ireland has been overwhelmingly positive. Aseparate programme for secondary schools employs different delivery methods. Class visits and online content has been requested by about one-in-five schools in the country.

Finally, when it comes to adults, there is a large appetite for knowledge, including face-to-face talks. One constant is attendees seeking answers to important money questions. Recently, a tech-savvy individual using an online 'robo-adviser' sought clarification on the long-term impact of fees (TER/OCF) on investment performance. Despite a wealth of online sources, none answered this important question clearly. When it comes to financial well-being, everyone must be informed, patient and humble. In other words, we need to learn about money, to plan and grow our personal wealth over time and where we may not understand specific financial issues, we MUST ask questions.

Ultimately, financial literacy empowers people to make informed financial decisions and to value the benefits of financial planning, freeing them to ask important money questions and take greater control over their financial well-being. This is why early intervention is so important.

#### **COLLABORATIVE-ECONOMY LESSONS: FROM CONSUMERS TO PARTNERS**

#### By Fergal Carton

#### Lecturer and Researcher (UCC) and Director of Technology Leadership programme (IMI) - University College Cork



The circular economy has some interesting parallels with the growing collaborative economy. From a focus on sustainability with respect to the consumption of resources, sharing-economy principles imply sustainable membership policies.

In collaborative-economy models, value is embedded in the network. It is shared via platforms that are easy to use, convenient and fast. Such networks create

revenue flows, as is the case for many platform businesses such as Spotify, Uber or AirBnB. But value can also be distributed in non-monetary forms, such as credits or points, redeemable throughout the network, as is the case for home-sharing platforms like GuesttoGuest.

There is an inherent latency in traditional business models, where value is created for customers at scale. To achieve

that scale, capital investment is required, which necessitates longer planning and approval cycles. The scale issue in collaborative models moves from value creation to membership size. Such platforms must therefore have sustainable membership buy-in strategies, as distinct from sustainable material supply chains.

Maintenance of this member network depends on frequent and ongoing interaction. In return, responsiveness is measured and shared automatically, and member reputation is enhanced through regular engagement.

Collaborative businesses use digital platforms (apps) to connect members. For example, in the case of P2P platforms for raising loans and equity, creditworthy borrowers are connected to investors. The platform serves as a market-place, but one that is always on, personal and owned by the members (the modern-day equivalent of co-operative models).

Platforms such as Bondora, Iwoca and EstateGuru are evidence of the power of the crowd in consumer finance. One of the main advantages for investors is the direct connection to borrowers, crucially a relationship curated by the platform. Because this connectivity is essentially automated (the platform and app provide the meeting place), processing costs are lower than traditional banking models, resulting in higher interest rates.

A key to the success of such membership platforms is the reputation of the members themselves. Members rate each other's services and products, creating a democratic appraisal system. The most successful crowdfunding applications have been found to be those submitted by members who had

previously contributed to funding requests from other members. The lesson from the success of these collaborative-economy models for consumer finance is crucial for incumbent institutions (pillar banks) and entrepreneurs alike. Digital platforms serve to engage members in a many-to-many network of distributed value. Of course the interaction is rapid, convenient and mobile; this is expected by today's customer. More importantly, however, is the fact that value is not created by a business for a consumer, but instead value is cultivated in the network, with the platform playing the governance role. As digital technology continues to disintermediate different industry models, a key factor determining its success will be the shift of perspective from customers as consumers to customers as partners in sustainable networks.

#### TOWARDS AN AUTONOMOUS DECENTRALISED WORLD

# By Daniel Cano An enthusiast of bitcoin, Trade Support, BNP Paribas Fortis Corporate & Investment Banking



Blockchain, the distributed ledger technology, is on the rise. So far, venture capitalist firms have invested \$1.55 billion in blockchain startups and everyone is waiting for the next 'killer app'. But nothing will probably beat the first-ever blockchain invention: bitcoin. Why? Because Bitcoin disrupts the way we

exchange value. It doesn't need any bank account, it was built for a non-commercial purpose, it's open-source, there is no central administrator, trust is not established through a financial third party, money is transferred directly between users who validate transactions in a secure and trusted network and it replaces the role of a central bank to issue new digital coins. It's a technological marvel made of cryptography, symmetric-key algorithms, timestamping, Merkle trees, hash functions, distributed networking, proof-of-work systems... All assembled, it's just magical!

But is Bitcoin really the future of money? Many questions arise on its high volatility, on its hidden launches and rewards to its unknown founder, on the limited number of merchants accepting it, on the cautious approach of governments and regulators towards it and on the enormous amount of energy that goes into 'mining' (the global race to find a solution to a block of transactions). The mass adoption of a global cryptocurrency is not imminent. While the internet has no frontier, our real world is made of government regulations and laws where fiat money is king. Moreover cryptocurrencies are entirely digital and because their network is decentralised and belongs to no one, who are we going to blame if something goes wrong? The ball is now in the court of central bankers who are studying cryptocurrencies with great interest.

We might one day see a regulated crypto-euro or crypto-dollar.

When it comes to the blockchain revolution, there is a clash of ideologies. On the one side, startups, banks, corporates and governments are adopting the distributed ledger technology to build private blockchains and smart contracts, purely out of a concern to reduce their operational costs. They dare to innovate but with a planned, proprietary, pragmatic and Cartesian mind: at the end, it's very simple, they must keep/(re)gain control and maintain power. On the other side, anarchists, libertarians and nonprofit organisations see an opportunity in blockchain to decentralise everything from money, to land registration, to organisations, to energy, to voting systems, to notaries, to media, to banks, to governments... They are in favour of an egalitarian and prosperous society. Their goal is to build collaborative protocols enabling the exchange of commerce, information, data, money, knowledge, culture, art... with fair rewards for artists, farmers, creators, workers and contributors, without the need of powerful third parties. They have a very negative view of online platforms (like the ones disrupting taxi or hospitality companies) for the so-called sharing economy who aren't really 'sharing' anything.

Recently, we celebrated 500 years of Thomas More's Utopia. An autonomous decentralised world is coming, of which we know very little! Blockchain seems to be the trust machine that was missing. The revolution has arrived, triggering a deep re-examination of our society's concepts. It will certainly create a sense of insecurity and lead to a loss of certainty and identity, but in the end we all hope that freedom and justice will prevail.

#### **ECRI PUBLICATIONS**

The Future of Retail Financial Services: What policy mix for a balanced digital transformation?

Sylvain Bouyon, 22 February 2017

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

Sylvain Bouyon and Roberto Musmeci, 28 October 2016

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

Alistair Milene and Paul Parboteeah, 24 May 2016

# WE NEED TO RELY ON A SECURE EU ENVIRONMENT TO FOSTER INNOVATION AND AGILITY

#### By Franck Guiader

#### Head of FinTech, Innovation and Competitiveness at Autorité des marchés financiers (AMF)



In the context of the increased digitalisation and internationalisation of financial services, regulators worldwide have started to reflect on the extent to which the development of a new set of players using technology to offer financial services (generally referred to as FinTechs) requires them to revisit their approach to supervision and regulation. Some regulators have chosen to follow a 'sandbox' approach, which consists of

creating a secure environment within which some pre-selected innovative startups can test their products and services while being exempted from certain of the associated regulatory requirements.

Although appealing at first sight, we, at AMF, believe that a local sandbox, applying to one jurisdiction, might not, in the long run, serve as a fully satisfactory response to the trend of digitalisation of financial services.

#### Our concerns rest on a two-fold approach.

First it creates a three-tier system between those pertaining to this regulatory system, incumbent players and those innovative players that have not been selected to be part of the sandbox. Additionally, the sandbox turns the regulator into an incubator in charge of selecting projects it wants to support, on the basis of subjective criteria.

Building on the feedback received by AMF from market players, we prefer to see a pragmatic 'soundbox' approach adopted, which supports a regulation based on rules that are adapted to the scale and complexity of the activities undertaken. This approach would promote a level playing field across players in the pursuit of investors' best interests. *Our\** approach does not exclude experimentation at the EU level, but locally, builds on the rationale that sound regulation may help firms win the confidence of investors and lend credibility to international development efforts.

It also stems from the observation that FinTech firms are generally offering traditional financial services online that for the time being fit under the existing European regulatory framework. Nevertheless, this should not preclude *us* from first questioning ourselves whether this EU regulatory framework is sustainable in the long term and whether it is consistent across sectors (banking, insurance, investment services).

In the longer run, we might need to rethink our role as regulators in this increasingly digital environment. In terms of supervision, for instance, as tomorrow's supervision will have to take into account that most businesses will have disappeared or merged or completely changed six months after obtaining their authorisation. Financial services providers from across the globe will market their products in an online marketplace offering some banking, insurance and financial investment services. This new paradigm poses questions as to the proper approach to supervision. To accompany the evolution of financial innovation within the EU, and the financing of the economy, we will need to be agile and adapt to this new reality.

In this regard, we also believe that we should reflect on the role RegTechs could play in the new digital era. In our\* view, RegTechs may bring several benefits, notably inter alia: they may help bridge the gap that may exist between the rationale of the rules and the reality of the processes put in place by players to comply with them.

In other terms, RegTechs could help to strengthen the sound interpretation of EU rules at the national level. Another potential challenge for regulators could stem from the emergence of 'disruptive' projects, i.e. those that do not fit within the existing framework. For those projects, and those projects only, bearing in mind that they represent at this stage a small percentage of FinTech initiatives in general, we believe it makes sense to reflect on the need to develop, at the EU level, a mechanism that would allow those projects to be tested in a secure and harmonised environment.

Of course, we need to leave space for more agility and innovation in particular by facilitating the development of disruptive projects. This requires having an EU ecosystem that is conducive to fundraising aimed at bringing together the startups themselves, the talents (software engineers), the mentorship of business angels and the funding of institutional investors.

Beyond these regulatory and supervisory aspects, the digitalisation trend behind the FinTech phenomenon obliges us to reflect collectively at the EU level on what should be regulators' role towards innovation and how to position Europe in the context of an increased global regulatory competition. A country-by-country approach raises the risk of an increased fragmentation of EU countries.

#### JOIN ECRI MEMBERS

Join the select group of leading retail financial services companies by becoming a member of ECRI.

- Regular publications within the "activity scope" and "policy scope" of ECRI
- Conferences and events
- Task Forces
- For more information, visit our website www.ecri.eu
- Networking and visibility
- Projects with the European regulators
- The production of Statistics

<sup>\*</sup> The author stresses the views of AMF

#### **Executive Summary**

# THE FUTURE OF RETAIL FINANCIAL SERVICES: WHAT POLICY MIX FOR A BALANCED DIGITAL TRANSFORMATION?

#### **By Sylvain Bouyon**

CEPS Research Fellow, Head of the European Credit Research Institute

While policy-makers are gradually creating the necessary conditions to strengthen the digital transformation of retail financial services, numerous policy issues and unanswered questions remain. The purpose of this report is to analyse the issues that were considered by the Task Force to be relevant for retail banking and non-life insurance at the present time and for the next few years to come. In order to develop a market in which retail financial services contribute to the economy in a balanced way, 12 main issues need to be further addressed. These issues are itemised below, followed by a more in-depth discussion of each issue, which is further elaborated in the main report.

- First, the overall regulatory framework for the digital transformation should keep consumer protection and financial stability at the core, but should also remain flexible in order to maintain a 'space of creation' for innovators.
- Second, rules that are harmonised at European level are needed for the design of so-called 'regulatory sandboxes'.
- Third, policy-makers should enact further prudential rules for peer-to-peer (P2P) platforms.
- Fourth, both policy-makers and researchers should assess to what extent the collection and use of alternative data by financial providers can benefit consumers and providers alike.
- Fifth, a satisfactory level of data privacy and quality in the used data needs to be ensured.
- Sixth, potential risks related to inclusion need to be continuously assessed and mitigated by policy-makers.
- Seventh, as regards the supervision of algorithms, policy-makers should focus on 'principle-based' rules rather than 'blacklist' rules, and should use 'second-order' supervision for enforcement.
- Eighth, noticeable updates are needed in European rules for information disclosure duties, notably in the Directive on distance marketing of consumer financial services (2002).
- Ninth, policy-makers should assess the possibility to develop a new policy model of pre-contractual personalised information disclosure.
- Tenth, more consistency is needed between the e-IDAS and pieces of legislation for financial services.
- Eleventh, the barriers to remote identification of non-residents should be thoroughly assessed.
- Twelfth, policy-makers should remove discrimination against reliance on third parties when identifying customers.

# 1. An overall flexible regulatory framework for the digital transformation

Firms need room for innovation and regulators should continue to organise this 'space of creation', while ensuring effective consumer protection and financial stability all along the process. In order to maintain fairness among providers,

this approach should result from some combination of the two versions of level playing field ('similar product, similar regulatory treatment' and 'anyone has an equal chance of succeeding'), depending on the given environment.

#### 2. Harmonised rules for regulatory sandboxes

So-called 'regulatory sandboxes' are attracting growing interest among some European domestic supervisors as a tool to facilitate the development of innovative solutions and monitor the digital transformation of retail financial services. These are 'safe spaces' where businesses can test innovative products, services, business models and delivery mechanisms. The development of European guidelines for national sandboxes could contribute to a convergence in domestic innovation policies across the EU, thereby facilitating the emergence of a single market for retail financial services (when one innovative product or process has been tested and approved by one domestic sandbox, this innovation could be easily assessed in any other EU country using a comparable sandbox framework). Convergence in these practices requires the creation of core European guidelines around six points: i) transparency and clarity in the rights and obligations of all the actors involved, ii) welfare of consumer at the core, iii) access for all types of suppliers, iv) a detailed list of core rules that cannot be relaxed, v) a clear exit strategy and vi) ex post evaluation of each project.

#### 3. Further prudential rules for P2P platforms

The fast emergence of peer-to-peer platforms, whose business models are continuously evolving, are triggering specific risks that should require further attention from regulators. In particular, additional prudential rules that take into consideration the characteristics of these models need to be enacted. To that effect, the Task Force places some emphasis on four regulatory needs: i) risk communication, ii) orderly resolution of platform failures, iii) early warning schemes and iv) control of liquidity risks.

# 4. Assessing the extent to which the collection and use of alternative data by financial providers can benefit consumers and providers alike at the different stages of the product

Benefiting from the fast growth recorded in the volume of alternative data issued by consumers (social media data, data produced by the Internet of Things, etc.), enabling technologies such as machine learning are strengthening at a steady pace, thereby gradually disrupting some aspects of retail banking and non-life insurance (as it is the case for many other sectors of the economy). Policy-makers and researchers should assess the extent to which the collection and use of alternative data by financial providers can benefit consumers and providers alike, and identify the related risks.

Understanding Credit Markets for Europe

More specifically, research should explore how and to what extent personal data that is standardised at the global level (especially social media data) could contribute to reinforcing the single market for retail financial services. As regards advertising, customer service and retention, some focus should be placed on the role of alternative data and machine learning in reducing the amount of 'inopportune' ads and improving interactions with customers. Another core topic concerns credit scoring: to what extent and through which channels can the intensive use of alternative data enhance a balanced inclusion of the 'underbanked' and the uninsured? Finally, research should place more emphasis on how alternative data could reinforce prevention: improved anticipation of the risk of missed payments, improving fraud detection processes and greater understanding of consumer behaviour.

# 5. Maintaining a satisfactory level of data privacy and quality

One of the main risks related to alternative data is that personal data of consumers are used without their clear consent and comprehension. One of the core objectives of the general data protection Regulation (GDPR), which must be implemented by May 2018, is to address this specific issue by allowing the development of standardised privacy statements that effectively and efficiently help consumers better understand the implications of the use of their data (when, how, why and where it can be used). Nevertheless, given the great diversity in the type of personal data used across the industries covered by the GDPR, the Task Force emphasises that a broad consultation should be launched by the Working Party on Article 29 data protection (WP29) and European regulators on specific elements of the GDPR, such as the mechanisms of data portability and the extent to which data breaches should be notified. Events such as the FabLab workshop undoubtedly allow the Article 29 WP to collect exploitable comments on guidelines (e.g. on data portability); nevertheless, they cannot replace proper consultation of EU stakeholders.

Another issue concerns the quality of the data used by the big data processes, even though suppliers have been given consent to use it. The incorporation of low-quality data can bias the results of the analyses, thereby resulting in two market dysfunctions: on one hand, some consumers might be unjustly discriminated against; on the other hand, errors in data can compromise the marketing and business strategies of banks. In that context, it is necessary for suppliers to assess on a systematic basis the quality and robustness of the used data.

# 6. Continuously addressing the risks related to inclusion

The increasing ability of suppliers to understand the risk profile of their consumers could favour consumers with low-risk profiles and high honesty, thereby resulting in a more systematic exclusion of consumers with high-risk profiles. Policy-makers should continuously address this risk by enhancing high ethical standards in the processes used by suppliers, in line with the existing legislation adopted (e.g. mortgage credit Directive). As regards FinTech business models who promote themselves as primarily serving the 'underbanked' and uninsured, policy-makers should ensure that a balanced inclusion is achieved through these models. This implies a systematically fair use of technology

#### **ECRI STATISTICAL PACKAGE 2016**

For the first time, detailed data on several "emerging economies"

# WHAT IS THE ECRI STATISTICAL PACKAGE?

Since 2003, the European Credit Research Institute (ECRI) has published a highly authoritative, widely cited and complete set of statistics on consumer credit in Europe. This valuable research tool allows users to make meaningful comparisons between all 28 EU member states as well as with a number of selected non-EU countries, including the US and Canada.

#### WHAT IS COVERED?

Two Statistical Packages are on offer. The more comprehensive product "Lending to Households (1995-2015)" contains valuable data on consumer credit, housing loans, other loans, total household loans, loans to non-financial corporations as well as total credit to the non-financial business and household sector. The 'standard' "Consumer Credit in Europe (1995-2015)" exclusively covers consumer credit data.

The 2 Packages in Fact & Figures:

- 40 Countries: EU 28, Turkey, Rep. of Macedonia, Iceland, Norway, Switzerland, Liechtenstein, Australia, Canada, Japan, the United States, India and Russia, Mexico and Saudi Arabia.
- 21 years data series: 1995-2015
- National accounts: GDP, final consumption expenditure and gross disposable income of households, inflation and exchange rates.
- 150 (67) tables: present time series data in nominal and real terms, and per capita, as well as breakdowns by lender, type, currency and maturity are also available for selected countries.
- 27 (13) figures: highlight credit trends in a way that allows user to make meaningful comparisons of the retail credit markets across countries.

#### **FACTSCHEETS**

The European Credit Research Institute (ECRI) provides indepth analysis and insight into the structure, evolution and regulation of retail financial services markets in Europe. Through its research activities, publications and conferences, ECRI keeps its members and the wider public up-to-date on a variety of topics, such as retail financial services, credit reporting and consumer protection at the European level.

ECRI is an independent, non-profit research institute whose interdisciplinary team of researchers and academic cooperation partners has developed a specialised body of knowledge on retail financial markets. It was founded in 1999 by a consortium of European banking and financial institutions. ECRI's operations and staff are managed by the Centre for European Policy Studies (CEPS) in Brussels.

For further information, contact Sylvain Bouyon at sylvain. bouyon@ceps.eu or at +32(0)2-229.39.87.87

Understanding Credit Markets for Europe

(for example, to conduct an adequate creditworthiness assessment), a progressive harmonisation of rules for these new companies and the promotion of a satisfactory level of competition in these new markets.

# 7. For the supervision of algorithms, developing 'principle-based' rules and 'second-order' supervision

As for the supervision of algorithms, a detailed blacklist of wrong practices might admittedly produce detailed information on what is feasible and what is not; it is likely, however, that the three core characteristics of big data (high volume, high velocity and high variety) make such an approach too challenging. In that context, policy-makers should enact general and segment-specific principles that can help shape the design of algorithms for big data.

As regards enforcement, given the increasing complexity of most algorithms, it is generally too costly in terms of time and resources for the supervisors to understand in detail the related coding and to ask for significant adjustment of the algorithm itself if necessary (the so-called "first-order supervisory framework'). Furthermore, such practices are likely to appear too invasive in many cases given that entire business models could be markedly affected as a result. Against that background, the favoured approach calls for supervisors to take actions that, by default, are in line with a 'second-order' supervisory framework: some of the data inputs or outputs of the algorithms that are unwanted (especially for issues related to discrimination) will have to be removed. The decision to remove data should conform to the GDPR regarding the legitimacy of the purpose for which the data is processed and the adequacy and relevance of the data used for that purpose. Such an approach will obviously imply that a proper input-outcome analysis is conducted before taking action.

For example, in order to limit the impact of certain kinds of behaviour on the pricing of health insurance, supervisors can instruct the insurer not to use the related data. As regards data outputs, supervisors can, for instance, require one provider to limit individual online search results by filtering out certain products that might not be adequate for specific consumers.

In that context, the coding of the algorithm itself does not need to be changed (if it does, this should be minor); rather, the data used and/or the results achieved need to be limited. This enforcement approach can help address the issues related to both the collection of data (in terms of privacy concerns) and the use of this data, without excessive intervention.

# 8. Updates in European rules that focus on information disclosure duties

European rules focusing on pre-contractual information duties in retail financial services need to further address the new challenges resulting from the dramatic changes in consumer behaviour in recent years, especially the hybrid pattern combining online and offline interactions for the same product, and the multiplicity of devices being used. For instance, the Directive on distance marketing of retail financial services (2002) needs to be amended, notably by integrating some elements of the Consumer Rights Directive (2011), such as the rules on the adaptation of information requirements to technical constraints (for example, which rules to follow when there is less capacity to display the

information: mobile telephone screens, SMS, etc.).

# 9. Assessing the possibility to develop a new policy model of personalised information disclosure

The combination of three recent phenomena could result in a progressive transformation in the way pre-contractual information duties are designed: emergence of behavioural insights, fast growth in big data analytics and an overall consensus that standardised information disclosure policy is not sufficiently efficient. Against this background, the possibility to develop a new policy model of 'smart disclosure duties' that is personalised should be assessed thoroughly. Specifically, solutions need to be found for the six following challenges: i) voluntary basis (assent from both consumers and providers), ii) review or continuation of some core concepts of the existing European rules (such as the notions of 'average' and 'vulnerable' consumers), iii) difficulty to enforce the new rules, iv) continued risk of 'over disclosure' (notably regarding the 'privacy statement'), v) complexity of products and vi) risk of data discrimination.

### 10. Reinforcing the consistency between the e-IDAS and other pieces of legislation for financial services

The eIDAS Regulation (N° 910/2014) on electronic identification and trust services for electronic transactions in the internal market could have a stronger positive impact on the digital transformation of retail banking and non-life insurance if specific regulatory obstacles were overcome. In particular, there is a need to reinforce the consistency between the eIDAS Regulation and other pieces of legislation for financial services. For instance, despite the legal possibility to have digital authentication, some national provisions still oblige financial institutions to physically identify the customer in order to meet the legal requirements set out in customer due diligence (CDD) and/or anti-money laundering (AML) legislation.

#### 11. Assessing the challenges to the remote identification of non-residents

Remote identification of the customer's identity for retail financial services is generally possible only for residents in the countries, thereby impeding the emergence of a single market for these services. Policy-makers should identify the various obstacles to remotely identifying non-resident consumers of retail financial services. One of these concerns the external information for anti-fraud purposes and for verifying customer identity that is generally available in the registers only at the national level.

# 12. Removing discrimination against reliance on a third party to identify customers

Whereas the objective of the e-IDAS Regulation is to focus on the identification of customers directly by remote technical means, little is said in this European piece of legislation on the identification through reliance on another party that has already identified the customer. In order to improve the efficiency of the market and enhance the comfort of consumers, the regulation of the identification through a third party should promote risk-based mitigation measures, and should not discriminate against this type of identification by placing it by default in the enhanced due diligence/high-risk AML category.



#### **ECRI Corporate Members**

















**ECRI Associate Members** 



