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# **DRAFT REPORT**

on FinTech: the influence of technology on the future of the financial sector  
(2016/2243(INI))

Committee on Economic and Monetary Affairs

Rapporteur: Cora van Nieuwenhuizen

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## MOTION FOR A EUROPEAN PARLIAMENT RESOLUTION

### on FinTech: the influence of technology on the future of the financial sector (2016/2243(INI))

*The European Parliament,*

- having regard to its resolution of 26 May 2016 on virtual currencies<sup>1</sup>,
- having regard to its resolution of 15 September 2016 on access to finance for SMEs and increasing the diversity of SME funding in a Capital Markets Union<sup>2</sup>,
- having regard to its resolution of 22 November 2016 on the Green Paper on Retail Financial Services<sup>3</sup>,
- having regard to the Commission's report of 14 September 2016 entitled 'Capital Markets Union – Accelerating Reform' (COM(2016)0601),
- having regard to the Commission staff working document of 3 May 2016 on crowdfunding in the EU Capital Markets Union (SWD(2016)0154),
- having regard to the European Supervisory Authorities' report of 16 December 2016 on automation in financial advice,
- having regard to the European Supervisory Authorities' discussion paper of 19 December 2016 on the use of Big Data by financial institutions (JC 2016 86),
- having regard to the European Banking Authority opinion of 26 February 2015 on lending-based crowdfunding (EBA/Op/2015/03),
- having regard to the European Banking Authority's discussion paper of 4 May 2016 on innovative uses of consumer data by financial institutions (EBA/DP/2016/01),
- having regard to the European Securities Markets Authority opinion of 18 December 2014 on investment-based crowdfunding (ESMA/2014/1378),
- having regard to the European Securities Markets Authority's discussion paper of 2 June 2016 on the distributed ledger technology applied to securities markets (ESMA/2016/773),
- having regard to the European Supervisory Authorities' joint committee report of 7 September 2016 on risks and vulnerabilities in the EU financial system,
- having regard to the European Banking Authority's Risk Dashboard based on data as of Q3 2016,
- having regard to the European Insurance and Occupational Pension Authority's

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<sup>1</sup> Texts adopted, P8\_TA(2016)0228.

<sup>2</sup> Texts adopted, P8\_TA(2016)0358.

<sup>3</sup> Texts adopted, P8\_TA(2016)0434.

(EIOPA) Risk Dashboard of March 2016,

- having regard to the EIOPA’s Fifth Consumer Trends Report of 16 December 2016 (EIOPA-BoS-16-239),
  - having regard to the European Securities Markets Authority’s Risk Dashboard of Q4 2016,
  - having regard to Rule 52 of its Rules of Procedure,
  - having regard to the report of the Committee on Economic and Monetary Affairs and the opinion of the Committee on the Internal Market and Consumer Protection (A8-0000/2017),
- A. whereas FinTech should be understood as finance enabled by or provided via new technologies, affecting the whole financial sector, from banking to insurance, pension funds, investment advice and market infrastructures;
  - B. whereas any actor can be a FinTech, regardless of the kind of legal entity it is; whereas the value chain in financial services increasingly includes alternative actors such as start-ups or tech-giants;
  - C. whereas a broad range of FinTech developments are underpinned by new technologies, such as distributed ledger technology (DLT) applications, innovative payments, robo-advice, Big Data, the use of cloud computing, crowdfunding and many more;
  - D. whereas FinTech developments should contribute to the competitiveness of the European financial system and economy, without hampering financial stability and while maintaining the highest possible level of consumer protection;
  - E. whereas FinTech can lead to considerable benefits, such as faster, cheaper, more transparent and better financial services for consumers and businesses, and open up many new business opportunities for European entrepreneurs;
  - F. whereas FinTech solutions can increase access to capital, in particular for SMEs, through cross-border financial services, alternative lending and investment channels such as crowdfunding and peer-to-peer lending;
  - G. whereas FinTech can serve as an effective tool for financial inclusion, opening up tailor-made financial services to those who could not access them before;
  - H. whereas RegTech can lead to considerable benefits for financial institutions and supervisors by allowing new technologies to be used to address regulatory and compliance requirements more effectively, transparently and efficiently and in real-time;
  - I. whereas InsurTech refers to insurance enabled by or provided via new technologies, for example through automated advice, risk assessment and Big Data, but also through insuring against new risks such as cyber-attacks;
  - J. whereas increased access to finance for service providers is urgently needed to boost

financial innovation in Europe, in particular for start-ups to become scale-ups;

- K. whereas cyber-attacks are an increasing threat to all digital infrastructure, and therefore also to financial infrastructure; whereas the financial sector faces three times more attacks than any other sector;
- L. whereas to facilitate FinTech it is important to create a coherent and supportive framework that enables online identification and authentication tools;

### ***Defining an EU framework for FinTech***

1. Calls on the Commission to draw up a FinTech Action Plan, which should boost its Capital Markets Union (CMU) and Digital Single Market (DSM) strategies and aim at a competitive financial system, financial stability and consumer and investor protection;
2. Calls on the Commission to deploy a cross-sectoral, holistic approach to its work on FinTech, drawing lessons from what is done in other jurisdictions;
3. Stresses that legislation in the financial domain should be proportionate, frequently revised and in accordance with the ‘Innovation Principle’, so that potential effects on innovation will be part of the impact assessment;
4. Stresses that, with a view to ensuring a level playing field, legislation and supervision in the area of FinTech should be based on the following principles:
  - a. Same services and risk: same rules, regardless of the type of legal entity concerned;
  - b. Technology neutrality in all levels of legislation;
  - c. Risk-based approach, taking into account proportionality and materiality;
5. Recommends that the competent authorities allow controlled experimentation with new technologies both for new entrants and existing market participants; highlights that a pro-active dialogue with market participants can help supervisors and regulators to develop technological expertise;
6. Highlights that some central banks are already experimenting with virtual currencies as well as other new technologies; encourages the relevant authorities in Europe to experiment as well, in order to keep up with market developments; recommends that the European Central Bank conduct experiments with a ‘virtual euro’;
7. Emphasises the importance of supervisors having sufficient technical expertise to adequately scrutinise increasingly complex FinTech services;
8. Stresses that RegTech has the potential to improve and alleviate compliance processes; calls on the relevant authorities to clarify the legal conditions under which the outsourcing of compliance activities to third parties is allowed; recommends starting to experiment where there is no legacy of compliance yet, for example with the Central Securities Depository Regulation;
9. Recalls that innovative financial services should be available throughout the EU; calls

on the Commission and Member States to apply, where applicable, passporting regimes for new financial services offered across the Union;

### ***Data***

10. Stresses the need for consistent, technology-neutral application of existing data legislation, including the General Data Protection Regulation (GDPR), the Revised Payment Service Directive (PSD2), the eIDAS Regulation, the 4th Anti-Money Laundering Directive (AMLD4) and the Network and Information Systems (NIS) Directive; stresses that, in order to scale up innovative finance in Europe, a free flow of data within the Union is needed;
11. Notes that there are no clear, comprehensive European guidelines for outsourcing data to the cloud with regard to the financial sector; stresses the need for the development of such guidelines;
12. Acknowledges the increasing combination of personal data and algorithms in order to provide services such as robo-advice; emphasises the efficiency potential of robo-advice and the positive effects on financial inclusiveness; stresses that errors or biases in algorithms can cause systemic risk and harm consumers; asks the Commission and the European Supervisory Authorities (ESAs) to take these risks into account and assess the liability aspects of data use;

### ***Cyber security and ICT risks***

13. Emphasises the need for end-to-end security across the whole financial services value chain; points to the large and diverse risks posed by cyber-attacks, targeting our financial markets infrastructure, currencies and data; calls on the Commission to make cyber security the number one priority in the FinTech Action Plan;
14. Calls on the ESAs to regularly review operational standards covering ICT risks of financial institutions; calls furthermore, owing to the varying level of protection in the cyber security strategies of Member States, for ESA guidelines on the supervision of these risks;
15. Highlights the need for the exchange of information and best practices between supervisors and market participants and between market participants themselves; calls on the Commission, the Member States, market participants and the EU Agency for Network and Information Security (ENISA) to set standards for major incident reporting and to remove barriers to information sharing; suggests exploring the potential benefits of a single point of contact for market participants in this regard;
16. Is concerned by the increased use of unpermissioned blockchain applications, in particular Bitcoin, for criminal activities, tax evasion, tax avoidance and money laundering; invites the Commission to organise an annual multi-stakeholder conference on this subject;
17. Flags the need for better education and awareness about cyber risks both for citizens and businesses;

### ***Interoperability***

18. Acknowledges the importance of application programming interfaces (APIs) in providing new actors with access to financial infrastructure; recommends the creation of a set of standardised APIs to be used by providers, for example in the area of open banking;
19. Calls on the Commission to coordinate the work of the Member States and market participants to ensure interoperability among the different national e-identification schemes; stresses that the use of these schemes should be open to the private sector;
20. Calls on the ESAs to develop technology-neutral standards and licences for know-your-customer techniques, for example based on biometric criteria;

### ***Consumer and investor protection***

21. Calls on the ESAs to continue their ongoing work on monitoring technological developments and analysing their benefits and potential risks, in particular as regards consumer and investor protection;

### ***Skills***

22. Underlines the need for increased digital skills in society as a whole; calls on the Commission to present best practices in the context of its Digital Skills and Jobs Coalition;

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23. Instructs its President to forward this resolution to the Council and the Commission.

# EXPLANATORY STATEMENT

## Introduction

New technologies are rapidly changing the nature of the financial infrastructure around the globe. This presents massive opportunities for Europe. It is now up to policymakers to make the right choices and create a conducive environment so that Europe can benefit to the full extent.

'FinTech' is often used to refer to a specific scene of startups disrupting finance with innovation. This definition will not be used in this draft report, because it would exclude a large amount of relevant actors. Instead FinTech may be understood as finance enabled by new technologies, covering the whole range of financial services, products and infrastructure. It also includes Insurtech, the use of new technologies in insurance, and RegTech, the application of new technologies for regulatory compliance.

The current rise of FinTech comes after the origination of a number of different technological developments within a short timespan, namely Artificial Intelligence, cloud computing and Distributed Ledger Technology (DLT). These provide new opportunities for disruptions like mobile payments, open banking, crowdfunding, virtual currencies and robo-advice.

FinTech can lead to significant benefits, such as cost reductions, efficiency gains and more transparency. It can be an effective tool for financial inclusion, opening up high-level services for those that could not afford them before. Furthermore, FinTech can enable cross-border financial flows and infrastructure through alternative lending and investment channels.

The FinTech revolution that we are currently experiencing is global. Over the past years global FinTech investments have soared. The bulk of these investments was made in the United States, with Silicon Valley as an important contributor. Also Asia and Israel are gearing up in this respect. The US, China and Israel host more than half of the Top-10 largest FinTech companies. If Europe wants to remain competitive, rapid innovation should now be the norm. This is not only important for Europe's financial infrastructure, but also for the real economy, with consumers and businesses benefitting from improved financial services.

Notwithstanding all the benefits, FinTech confronts us with essential questions of a regulatory, societal nature. Consumer protection and the stability of the financial system should be key concerns in this regard. Together with the competitiveness of the European economy they make for three core priorities of this draft report.

This draft report does not intend to give technical solutions. However, it does intend to pose the right questions. That should be a first step in the process of creating a forward-looking European policy in the area of Financial Technologies.

## Defining an EU framework for FinTech

FinTech constitutes a building block of the modern digital society that we need in order to face competition with the rest of the world. Therefore, the European Commission should present a comprehensive Action Plan that boosts FinTech in Europe.

As to current EU-involvement, FinTech falls within the scope of the Capital Markets Union



and Digital Single Market strategies. Existing regulation, such as GDPR, PSD2 or MiFID, already affects FinTech developments. Supervision of financial services, happening on a European scale, is also an area of concern.

It is not the intention of this draft report to propose specific legislative actions to the Commission. We must be cautious with creating new rules because much is still unclear about future developments of financial technologies. A better point of departure is investigating where current legislation causes uncertainties or barriers and identifying where additional action is necessary. Doing this purposefully requires a holistic approach, as technological developments in our digitising society call for breaking silos. The European Commission should set an example in this respect, working across several DG's and policy areas during the formulation of a strategy on FinTech.

FinTech actors are already breaking silos themselves. Often they offer products in a diverse multi-party conjunction. A notable development in this respect is 'open banking', which allows third parties to offer financial services by making connection to a bank's infrastructure via API's. In the context of this diversified value chain, it is important to safeguard fair competition and a level playing field. Here, the principle of 'same services: same rules' is key. Apart from the services provided, the amount of risk posed by FinTech providers to the financial system should be a criterion.

Reducing administrative burden should be a key concern of the European Commission, in line with its better regulation agenda. FinTech has the potential to contribute in this respect by altering financial processes and transactions, for instance through disintermediation or artificial intelligence.

All new EU-legislation should be guided by the 'innovation principle'. This means that the potential effect of legislation on innovation should be investigated during the impact assessment phase of the legislative process. Technology neutrality in every level of legislation should be a core element of this.

Furthermore, our supervisory framework should enhance innovation. A fundamentally changing financial infrastructure implies the need for a changed supervisory methodology, which does not prevent disruption from creating new market opportunities for Europe. It is important that supervisors have sufficient technical expertise to adequately scrutinize innovative FinTech services. With developments in Artificial Intelligence and machine learning, the underlying algorithms have become important factors determining the outcome of financial products.

Technology itself can also enhance compliance processes by allowing for more transparency, smarter automated systems, decreased administrative burdens and lower costs. RegTech can do so by e.g. implementing automated reporting processes, thereby reducing work for financial institutions. The possibility of connecting the supervisors with the financial institutions in a DLT is already under experimentation by several consortia in a permissioned Blockchain.

A topic that deserves attention concerns room for experimentation with financial innovations before bringing them to the market. In this framework, special experimentation regimes that are already deployed around the world can serve as an example.

Only with a forward-looking mindset, prone to experimentation and innovation, will we enable

European people and businesses to benefit from FinTech developments.

## **Data**

Many FinTech developments are directly based on the innovative use of data. The current EU-legal framework on data is quite complicated, with several pieces of legislation overlapping. To avoid putting European FinTech actors at a competitive disadvantage, it is necessary to ensure a coherent application of the relevant provisions of the different pieces of legislation in place, such as the GDPR, PSD2, AMLD4 and the NIS Directive.

Already today, the personal data of customers across the economy passes by different actors. The financial sector is no exception to this. Think of the Cloud, on which many banks already rely in terms of data management. Clear guidelines on outsourcing to the Cloud, which are currently lacking, need to be agreed upon for that reason. Also, FinTech companies often use customer data to provide tailor-made products or advice to the customer. In these cases, it should be clear who is the owner of the data in the different phases of the process.

Some new technologies pose specific questions about the use of data. DLT is an example of this. It leads to fundamental questions regarding the decentralized storage of data, which is inherent to it.

Liability issues form another area where clarification is necessary. Developments like robo-advice are possible because of the application of algorithms to big data. Errors or bias in these algorithms can cause systemic risk and harm to consumers. It should be clear who is liable in cases like these.

## **Cyber Security**

Every single day, financial institutions in Europe and across the globe are confronted with numerous cyber-attacks. If FinTech presents us with unprecedented new opportunities, cyber criminals present us with the matching unprecedented new threats. We need a firm and risk-focused European action plan with regard to cyber security, because cyber criminals know no borders and pose a growing threat, targeting our financial markets infrastructure, currencies and data. It would be an error to assume that only large organisations are targets. Increasingly, households and SME's are confronted with cyber-attacks. That is why first of all more awareness is necessary, making Europeans conscious of cyber threats and how to prevent them best.

A specific challenge to our financial infrastructure concerns the increasing number of new actors with potentially less stringent cyber security requirements than more established financial players. These may become single nodes of fragility within the financial chain. Especially with the evolving 'API economy' and the current legal framework that obliges financial institutions to share crucial data with third parties, this area should receive additional attention from the Commission.

Member State practices in relation to ICT risk vary significantly. There is need for a comprehensive and coherent regulatory and supervisory framework that sets standards for the exchange of best practices and major incident reporting.

As many financial institutions have significant international exposure the standards to be set

should be in line with international standards.

## **Interoperability**

Digital interoperability is key to overcome a fragmented market situation. This is inherently a European issue that needs to be addressed in order to build a competitive DSM and CMU.

With the objective of creating more innovative services, the interaction of service providers in the ‘API economy’ should be facilitated. API’s have the potential to create innovative ecosystems. One way of stimulating this could be the creation of a set of standardized API’s with open access to service providers, for example in the area of Open Banking.

Special attention should be awarded to the issue of online identification. Online identification processes remain highly fragmented and the security level requested within identification processes differs considerably per member state. In order to facilitate the scale-up of FinTech in the EU, work should be done on the interoperability of national e-Identification schemes.

Cloud interoperability is also instrumental in order to enable switching between cloud providers and to overcome vendor lock-in effects for FinTech service providers.

## **Skills**

Digital skills are becoming a key necessity for everyone. This is also the case in the financial sector: FinTech developments call for increased ICT-skills for those active in the financial infrastructure and for consumers, supervisors and policymakers. Consumers should be aware of the benefits and risks of automated advice and supervisors should be able to understand the algorithms behind the increasingly robotized products they are supervising.

Digitisation already shows widespread effects on the labour market across sectors. The financial sector is no exception. Where advice can be automated, this means that the employee previously tasked with providing the advice needs other work. Automation will be able to create that work, but it will be of a different nature than before. For this reason it is important that society invests thoroughly in new skills, like coding. In the implementation of the New Skills Agenda and its Digital Skills and Jobs Coalition, the European Commission should address the growing mismatch on the labour market.