



**2016/2007(INI)**

23.2.2016

# **DRAFT REPORT**

on virtual currencies  
(2016/2007(INI))

Committee on Economic and Monetary Affairs

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- distributed ledger technology of July 2015<sup>1</sup> ,
- having regard to its EPRS briefing on Bitcoin market, economics and regulation<sup>2</sup> ,
  - having regard to the Europol report ‘Changes in modus operandi of Islamic State terrorist attacks’ of 18 January 2016<sup>3</sup> ,
  - having regard to the FATF’s report on Virtual Currencies of June 2014<sup>4</sup> ,
  - having regard to the OECD study on ‘The Bitcoin Question - currency versus trust-less transfer technology’<sup>5</sup> ,
  - having regard to the IMF Staff Discussion Note on Virtual Currencies and Beyond of January 2016<sup>6</sup> ,
  - having regard to the UK Government Office for Science, Chief Scientific Adviser’s Report on ‘Distributed Ledger Technology: beyond block chain’, of 2016<sup>7</sup> ,
  - having regard to the hearing of the Committee on Economic and Monetary Affairs on virtual currencies of 25 January 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 (A8-0000/2016),
- A. whereas virtual currencies (VCs) are privately governed digital representations of value denominated in their own unit of account and referred to as private digital cash, most notably based on distributed ledger technology (DLT), the technological basis for more than 600 VC schemes<sup>8</sup>, the most prominent of which to date is bitcoin, with a market share of almost 90 % and a market value of the outstanding bitcoins of around EUR 5 billion<sup>9</sup>;
- B. whereas DLT describes shared decentralised databases with varying levels of trust and resilience, with the potential to process large numbers of transactions rapidly, and with transformational capacity not only in the area of VCs but also in fintech more broadly

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<sup>1</sup> [https://www.esma.europa.eu/sites/default/files/library/2015/11/2015-532\\_call\\_for\\_evidence\\_on\\_virtual\\_currency\\_investment.pdf](https://www.esma.europa.eu/sites/default/files/library/2015/11/2015-532_call_for_evidence_on_virtual_currency_investment.pdf)

<sup>2</sup> [http://www.europarl.europa.eu/RegData/bibliotheque/briefing/2014/140793/LDM\\_BRI\(2014\)140793\\_REV1\\_EN.pdf](http://www.europarl.europa.eu/RegData/bibliotheque/briefing/2014/140793/LDM_BRI(2014)140793_REV1_EN.pdf)

<sup>3</sup> [https://www.europol.europa.eu/sites/default/files/publications/changes\\_in\\_modus\\_operandi\\_of\\_is\\_in\\_terrorist\\_attacks.pdf](https://www.europol.europa.eu/sites/default/files/publications/changes_in_modus_operandi_of_is_in_terrorist_attacks.pdf)

<sup>4</sup> <http://www.fatf-gafi.org/media/fatf/documents/reports/virtual-currency-key-definitions-and-potential-aml-cft-risks.pdf>

<sup>5</sup> <http://www.oecd.org/daf/fin/financial-markets/The-Bitcoin-Question-2014.pdf>

<sup>6</sup> <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf>

<sup>7</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/492972/gs-16-1-distributed-ledger-technology.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledger-technology.pdf)

<sup>8</sup> <http://www.bis.org/cpmi/publ/d137.pdf>

<sup>9</sup> <http://coinmarketcap.com/>

speaking, where clearing and settlement might be one obvious application, and, beyond finance, especially with regard to proof of identity and property;

- C. whereas investments in DLT are an integral part of the ongoing fintech innovation cycle and have totalled more than EUR 1 billion to date, both from venture capital funding and corporate investment<sup>1</sup> ;

***Opportunities and risks of VCs and DLT in the rapidly evolving technological landscape of payments***

1. Stresses that VCs and DLT have the potential to contribute positively to consumer welfare and economic development by means of:
  - a) dramatically lowering transaction costs for payments and transfer of funds, quite possibly well below 1%, compared to 2% - 4% for traditional online payment systems<sup>2</sup> , and to more than 7 % on average for the cross-border transfer of remittances<sup>3</sup> , hence potentially reducing global total costs for remittances by up to EUR 20 billion;
  - b) more generally reducing the cost of access to finance even without a traditional bank account, thereby potentially contributing to financial inclusion and the derailed G20 and G8 ‘5x5 objective’<sup>4</sup>;
  - c) enhancing the speed and resilience of payment systems thanks to the inherently decentralised architecture of DLT, which might continue to operate reliably even if parts of its network were to malfunction or to be hacked;
  - d) enabling systems that combine ease of use, low transaction costs and a high degree of privacy, but without full anonymity so that transactions can be traced back in case of malfeasance;
  - e) using such systems to develop online micropayment systems that could conceivably replace some of the present data-hungry online business models which significantly challenge individual privacy;
  - f) potentially allowing different types of traditional and innovative payment mechanisms, from credit cards to mobile solutions, to merge into one secure and user-friendly application;
2. Notes that VCs and DLT schemes entail risks which need to be addressed appropriately, including in present circumstances:
  - a) the potential for money laundering, terrorist financing<sup>5</sup> and tax fraud based on the

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<sup>1</sup> See, among others: <http://www.coindesk.com/state-of-bitcoin-blockchain-2016/>

<sup>2</sup> <https://www.eba.europa.eu/documents/10180/657547/EBA-Op-2014-08+Opinion+on+Virtual+Currencies.pdf>

<sup>3</sup> [https://remittanceprices.worldbank.org/sites/default/files/rpw\\_report\\_december\\_2015.pdf](https://remittanceprices.worldbank.org/sites/default/files/rpw_report_december_2015.pdf)

<sup>4</sup> <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTFINANCIALSECTOR/0,,contentMDK:22383199~pagePK:210058~piPK:210062~theSitePK:282885,00.html>

<sup>5</sup> While there is potential for use of VC for terrorist financing, Europol has recently (18 January 2016) pointed out that ‘despite third party reporting suggesting the use of anonymous currencies like Bitcoin by terrorists to finance their activities, this has not been confirmed by law enforcement’.

‘pseudonymity’ and ‘mixing services’ that some such services offer, bearing in mind that the traceability of cash transactions tends to be much lower still;

- b) the absence of flexible and reliable governance structures, especially in some DLT applications such as bitcoin that create uncertainty and consumer protection problems, especially in case of challenges unforeseen by the original software designers;
  - c) the sometimes limited capacity of regulators in the area of new technology, which may make it difficult to define appropriate safeguards in a timely manner, ensuring the proper and reliable functioning of DLT applications when or even before they grow so large as to become systemically relevant;
  - d) the legal uncertainty surrounding new applications of DLT, which may in some instances be the subject of (sometimes ill-suited) existing legislation while in other instances appropriate regulation may still be lacking;
3. Suggests that addressing these risks will require enhancing regulatory capacity so that a timely and proportionate response will reliably be forthcoming if and when the use of some DLT applications were to grow rapidly to become systemically relevant;

#### ***Employing DLT beyond payments***

- 4. Notes that DLT’s potential to accelerate, decentralise, automate and standardise data-driven processes has the potential fundamentally to alter the way in which assets are transferred and records are kept, with implications for both the private and the public sector, the latter being concerned in three dimensions: as a service provider, as a supervisor and as a legislator;
- 5. Points out that clearing, settlement and other post trade management processes currently cost the global financial industry well in excess of EUR 50 billion per year<sup>1</sup>, and that this is an area where the use of DLT might turn out to be transformational in terms of efficiency, speed, and resilience, but would also raise new regulatory challenges;
- 6. Recognises the potential of DLT well beyond the financial sector, including the potential of smart contracts;
- 7. Encourages government agencies to test DLT systems in order to improve the provision of services to citizens, while cautioning on the outsourcing of public services to proprietary private DLT schemes;
- 8. Recommends that government agencies explore the use of real-time DLT based supervision and reporting tools as part of a RegTech agenda in the financial sector and beyond, including in order to reduce the sizeable VAT gap in the Union<sup>2</sup>;

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<sup>1</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/492972/gs-16-1-distributed-ledger-technology.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledger-technology.pdf)

<sup>2</sup> [http://europa.eu/rapid/press-release\\_IP-15-5592\\_en.htm](http://europa.eu/rapid/press-release_IP-15-5592_en.htm)

### *Smart regulation towards fostering innovation and safeguarding integrity*

9. Calls for a proportionate regulatory approach so as not to stifle innovation at an early stage, while taking seriously the regulatory challenges that the widespread use of VCs and DLT might pose;
10. Points out that key EU legislation, such as EMIR, CSDR, SFD, MiFID/MiFIR, UCITs and AIFMD, is likely to apply in line with the activities carried out, irrespective of the underlying technology;
11. Welcomes the Commission's suggestions for including VC exchange platforms in the AMLD; recommends further extending the scope to custodian wallet providers if and when the use of the VC(s) in question were to become so prevalent that users would no longer routinely need to exchange their VCs into legal tender;
12. Recommends a review of the EU legislation on payments, including PSD and EMD, in light of the new possibilities afforded by new technological developments including VCs and DLT, with a view to further enhancing competition and lowering transaction costs, including by means of enhanced interoperability and possibly also via the promotion of a universal and non-proprietary electronic wallet;
13. Calls for the creation of a horizontal Task Force DLT (TF DLT) under the leadership of the Commission, in order to provide the necessary technical and regulatory expertise to support the relevant public actors, at both EU and Member State level, in their efforts to ensure a timely and well-informed response to the new opportunities and challenges arising with the introduction of DLT applications; observes that the potential of DLT use and the present investment dynamics justify TF DLT being equipped with a proper budget and being staffed with regulators and external technical experts dedicated cross-sectorally to the monitoring of DLT-based applications, identifying standards for best practice, and, where appropriate, recommending regulatory measures and addressing potentially arising consumer protection issues and systemic challenges;
14. Asks the Commission, on the basis of the findings of TF DLT, to explore the need for a legislative proposal requiring VCs and other DLT scheme actors which do not yet have to comply with suitable standards based on existing regulation to demonstrate whether their scheme:
  1. if it is used on a large scale, is designed so as to avoid harming consumers and users;
  2. if it is systemic, is safe, is sound and has a dependable governance structure;
15. Instructs its President to forward this resolution to the Council and the Commission.

## EXPLANATORY STATEMENT

Seven years after the launch of Bitcoin, the first and most prominent virtual currency (VC), it has become clear that the underlying innovation, distributed ledger technology (DLT) is set to have a significant impact on the financial sector and beyond. This technology, in principle, enables a decentralised, rapid, resilient and rather secure means of recording any sort of transaction together with the history of previous transactions in a ‘distributed ledger’. Investment in DLT is soaring and certain applications could rapidly become systemic. While there are still some questions regarding the scope of this ongoing technological transformation, the considerable opportunities and non-negligible risks involved make this first report by the European Parliament on VC and DLT a timely undertaking.

### **Rapidly evolving technological landscape**

The main opportunities of VCs and DLT in the field of payments relate to reductions in transaction costs and the ease of use while providing for resilience and varying levels of privacy. In this context, it is worth noting that transaction costs for payments remain surprisingly high. On average, more than 7 percent of cross-border remittances are eaten up by transfer costs which both the G20 and the G8 have committed significantly to reduce. But more competitive transaction costs can and might also be achieved within the single market. In the medium term, competition could be further strengthened via the introduction of a non-proprietary and interoperable single wallet.

However, much of the DLT potential is likely to unfold beyond the payment sector. Post-trade management is mentioned in the report as one manifest use case for DLT in the private sector. More broadly, applications are likely to emerge especially in areas where reliability, proof of identity and ownership and standardization are important: smart contracts, intellectual property transfers, supply chain management and a number of government services. For example, as part of a RegTech agenda, the potential to reduce the VAT gap of presently 168 billion euro using DLT should be explored<sup>1</sup>.

As with the opportunities, the risks related to VCs and DLT will only emerge more clearly as their use becomes more widespread. But some significant risks have already become apparent, e.g. the abuse of certain applications for criminal conduct, including money laundering and terrorist financing<sup>2</sup>. Also, as DLT is likely to be used in a number of systemic areas the proper functioning and the resilience of such systems needs to be assured based on sound governance and supervisory structures. Furthermore, consumer protection issues are likely to feature prominently in a number of applications.

### **Smart regulation for DLT**

The key to smart regulation in such an environment of dynamic innovation is for the regulator to develop sufficient capacity, including technical expertise. Pre-emptive and heavy-handed regulation that would stifle growth should and can be avoided. But such a smart regulatory

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<sup>1</sup> Commission, Press Statement, [http://europa.eu/rapid/press-release\\_MEMO-15-5593\\_en.htm](http://europa.eu/rapid/press-release_MEMO-15-5593_en.htm)

<sup>2</sup> See the recent ‘Action Plan for strengthening the fight against terrorist financing’, <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1455113825366&uri=CELEX:52016DC0050>



regime based on analytical excellence and proportionality must not be confused with light-touch regulation: rapid and forceful regulatory measures need to be part of the toolkit in order to address risks before they become systemic if and when appropriate. In order to assure the regulatory capacities needed for this approach, the rapporteur calls for the creation of a horizontal Task Force DLT to be set up under the leadership of the Commission.