The Electronic Payment Paradigm – between trust and criminality

Vlad Dan Roman, LL.M., M.A.
Motivation

- Google Trends: ‘Finland is the country with the most number of searches for the word bitcoin in 2013.’

- March 2014: The first European virtual currency ATM was placed in the Helsinki Train Station.

- Santa Claus is purchasing more and more gifts by using virtual currency.

- Presentation on how the usage of virtual currencies challenges the actual European legal order.
Method, materials and delimitation

- **Research**: is primarily based on **empirical evidence** (doctrine, press releases), **mostly qualitative** (considers the substance of the information) and also **analytical** (interprets legislation and case-law).

- **Structure**: case study on modern (decentralized) virtual currencies (e.g. Bitcoin – biggest market player);
  - Introduction about VCs;
  - Regulatory issues;
  - Aftermath of the actual situation;
  - Recent developments;
  - Conclusion.

- **Delimitation**: will not consider the old generation of VCs (before 2008) as they are regulated and seen as **money transmitters** due to their issuance by a central administrator on receipt of money.
Currencies and ‘currencies’

- Traditional currencies (**conventional money**): 168 internationally recognized currencies (€ £ $ ¥ etc.) used as mediums of exchange;
  - are being **issued and regulated** by national banks, governments and supranational entities (e.g. ECB);
  - can take the form of **E-money: electronic storage** for coins and banknotes (e.g. depositing €50 on a debit card).

- Invented currencies (**virtual money**): 40+ private companies (Bitcoin, Litecoin etc.) that started systems for the creation of digital coins as an **alternative to the actual payment system**;
  - **not publicly administrated** as the classical **financial policies are replaced by a mathematical formula** that is used to guarantee the system’s functionality;
  - even though VCs are being **generated in digital format they are not the same with E-money** as their are created without being backed by conventional money;

\[ E\text{-money} \neq \text{Virtual money} \]
How does it work?

- **Software-based** online payment system that has its own currency;
- NO central depository and NO single administrator;
- transactions and the issuance of coins are carried out **collectively by the network**;
- the network software is **designed for the creation of a specific number of coins** (which users get on the basis of solving some system number crunching tasks – procedure called ‘mining’);
- the coins can afterwards be **sold or exchanged** for real money or used to buy goods and services (offer and demand);
- some people (1) use it as a way to **transfer money**, (2) others are interested in **speculating exchange rates**;
Mr. Popular

• some **important currency exchanges list** virtual coins alongside other currencies (BTC/EUR 357, LTC/BTC 0.00958);

• several companies offer **debit cards** for virtual currency (Visa, MasterCard);

• **Lamborghini** is the first car company to **accept virtual coins**;

• a part of **Berlin** advertises itself as a **VC friendly shopping** area;

• Alderney Island (British Crown) is the first **jurisdiction** that intends to create physical ‘virtual coins’.
(No) Regulation

• Biggest VC companies **started in 2009, got big after 2011.**

  - **Preamble** (interpretative value, non binding): ‘The definition of e-money should cover [...] **not only** all the electronic money **products available today** [...] **but also those products which could be developed in the future.**’ – EC aiming at a broad, more general – *lato sensu* definition.
  - **Article 2** (binding, hard law provision): ‘electronic money means (1) **electronically**, including magnetically, **stored monetary value** [...] which is (2) **issued on receipt of funds** for the purpose of making payment transactions [...] and (3) which is **accepted by a person other than** the electronic money **issuer.**’ – narrow, exhaustive.
    - !!! Bitcoins & modern VCs evade the scope as they **are generated automatically within the network and not issued on receipt of funds.**

• **Oct 2012 European Central Bank** Report: ‘virtual currency is a type of **unregulated, digital money**, which is **issued and usually controlled by its developers**, and **used and accepted** among the members of a **specific virtual community.**’
May, might, can, could...

- **Official positions of EU MSs:**
  - May 2014: A district court from the Netherlands ruled that ‘bitcoin is a medium of exchange that cannot be defined as legal tender, common money, or electronic money.’
  - Jan 2014: Bank of Finland states that ‘Bitcoin is not a currency or a payment instrument, but is more comparable to a commodity.’
  - Jan 2014: Swedish Tax Agency officials say that Sweden is ‘likely to view virtual currencies as an asset, like art or antiques, and not currency.’
  - Oct 2013: Irish Revenue Commissioners: ‘bitcoin has elements both of a commodity and a currency.’
  - Aug 2013: German Finance Ministry says that ‘virtual currency is not e-money or foreign currency but is still a financial instrument.’

- **Official positions outside the EU:**
  - Jul 2013: USA Texas judgment: Bitcoin is 'a currency or form of money as it can be exchanged for conventional currencies and used to purchase goods and services.'
  - Mar 2014: US Internal Revenue Service: 'will be treated as property and it will be subject to the rules applying to stocks and barter transactions.'

- Consensus that it is not real money.
- Lack of coherence when it comes to the actual nature.
Where do we stand?

- The fact that VCs ‘are currently **not regulated** and are **not closely supervised** by any public authority, [...] **exposes users to credit, liquidity, operational and legal risks.**’ (ECB 2012 Report)

**NOT subject** to a whole set of interlinked EU secondary legislation:

- Directive 2007/64/EC on payment services in the internal market;
- Regulation 1781/2006 on information on the payer accompanying transfers of funds;
- Directives 2005/60/EC and 2006/70/EC (AML Directives);

**VULNERABILITIES AND PROBLEMS:**

- For consumers: (1) can lose value (2) amounts can be stolen from ‘virtual wallets’ (3) EU refund rights are not protected (4) uncertain tax liability.
- For the general public: (5) can be used for criminal activity (e.g. money laundering and terrorist financing).
Value loss

- ‘rather than relying on confidence in a central authority, it depends instead on a distributed system of trust.’
- National Bank of Hungary warned that they are not issued or guaranteed by a central authority and the possibility of loss of value is big due to high volatility.
- examples: 2013: the exchange rate of a VC (i.e. Bitcoin) to U.S. dollars fell 61% in a single day and in 2014, the value dropped by as much as 80% in 24h.
- exchange rate in relation to the major currencies varied 10 times more than the average (e.g. if EUR had ± 2% in the last 12 months, BTC had ± 20%).
- bad press, previous fluctuation history or investors’ market manipulation strategies can all rise high risks of loosing investments in virtual coins.
- possible instrument for fraud (Ponzi scheme) as the attraction for fast gain among users is very high.
Refund

• VC companies are not offering the type of assistance the individuals would expect from a bank or other financial institution.

• most VC companies do not identify their clients (name, address, phone number, country, etc.)

• because of this, payers and payees are anonymous and zero interference with their transactions takes place;

• as a result, undertakings disclaim responsibility for consumer losses if funds are lost by negligent transfer or stolen.

Example: victims of debit card theft can cancel a card or reverse fraudulent transactions; VCs are desirable to criminals because the transactions are irreversible.
Theft

‘Security is difficult and expensive, and VC startups generally don't have the revenue and profits sufficient to attract the capital that would allow top-notch security to be implemented.’ (VCs specialist)

Stolen virtual coins from 2010 to this extent:

€377,855,662 (6.6% supply).

- no/weak passwords (no alternative authentication, such as a hardware token or one-time-password generator as SMS).
- poor data protection by currency exchange database administrators;
- malware programs (steal information or foster double spending operations);
- high risk of reverse transactions until confirmation occurs (10 mns);

!!! need for ‘appropriate and independently audited safety measures alongside with more transparency and accountability’ (Joined Statement of several VCs companies)
Taxes

- depending on the virtual coin’s legal nature (e.g. currency, asset, commodity, stock) owners all over the world will pay either, payroll, property, income, capital gains or profit taxes.

- Verohallinto: Finland - commodity: Buying a €2 ice-cream in 2014 with Bitcoins purchased for €1 in 2013 would generate €1 in capital gains for the ice-cream consumer (pay capital gains tax) and €2 of gross income for the supermarket (pay profit tax).

- digital coins ‘miners’ will have to notify their gains as taxable income with a value equal to the worth on the time it was received from the system (i.e. exchange rate).
Hard core criminality

Financial Strategic Analyst: ‘The biggest barrier in the fight against crime is the data. There are literally trillions of transactions going through the world’s financial systems.’ + ANONIMITY = NO chance for authorities

Facts regarding the usage of virtual currency:

- **12 million transactions** over **6 years** which involved **€5 billion** for drug dealers, child pornographers, identity thieves, hackers and other criminals, all fostered by the rapid and anonymous exchange of virtual coins;
- several individuals dealing with possible **life imprisonment** charges;

Jul. 2014: **Russian Gov.** considers **banning** VCs; moreover ‘**entities that use or exchanges in virtual currencies** will be subject to suspicion of money laundering or other criminal activities.’
Opening Pandora's box

- hinders any control (i.e. to detect, freeze) from public authorities over the users’ accounts and this is a good way for corrupt politicians or outlaws to hide their *ILICIT INCOME* – ‘if Al Capone were alive today he would use these services to hide his money.’ (US IRS official)
- doubled by high volatility can help justify huge incomes and disguise the origins of money obtained through illegal activities - *MONEY LAUNDERING*.
- allows large amounts of money to be moved cross border to undetected areas without hindrance, method which is perfect for *TERRORIST FINANCING*.
- fosters *BLACK MARKET* commerce (e.g. narcotics) by providing a secure way of payment between retailers and costumers from different parts of the world.
The time has come

Financial services commissioner Michel Barnier:

‘It’s imperative to move quickly on this issue [...] The potential for money laundering and terrorist financing is too serious to ignore.’

Might see in the near future:

➢ On behalf of the EU:
  • **Legislative** action: recast previous directives and maybe propose new ones.
  • **Administrative action**: increase the EU Financial Intelligence Units cooperation in this area.

➢ On behalf of the VCs networks:
  • Aggressive **lobbying** in Brussels.
  • **Media campaigns** to reassure the users of the network’s strength.
Possible way to regulate: 25 July 2014 NY State proposal (first to do it).

Definition: ‘Any type of digital unit that is used as a medium of exchange or a form of digitally stored value that is incorporated into payment system technology.’

Obligations:
- Maintain capital amounts set by the law and have audited annual financial statements.
- Maintain and enforce written policies, including anti-fraud, AML, cyber security, privacy and information security.
- Maintain books and records (including all transactions) for ten years.
- For each transaction provide amount date and ‘precise time’, ‘payment instructions’, ‘names, account numbers, and physical addresses of the parties to the transaction.’
- Give authorities ‘immediate access to all records of licensee or affiliates, ‘wherever located.’

How desirable will the system still be? How big will the financial burden be for the VC companies?
Conclusion

- **Dynamic** world based on technological change and laws and regulations must keep pace with it.

- Legal harmonization must take place at the **global level** as virtual currencies are intrinsically linked with e-commerce which is a worldwide phenomenon.

- When regulating this domain of activity, a **proportionality** test between the benefits of innovation and the challenges of its bad faith usage must be used.
Legislation:

- Virtual Currency taxation seen on: http://www.vero.fi/fi-FI/Syventavat_veroohjeet/Henkiloasiakkaan_tuloverotus/Virtuaalivaluuttojen_tuloverotus(28450) on 2014.08.20; [S13]

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Kiitos !