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COMMISSION DES FINANCES

# REGULATION & INNOVATION:

# PUBLIC AUTHORITIES AND THE DEVELOPMENT OF VIRTUAL CURRENCIES

*This is an English summary of the report by Philippe MARINI, president of the committee on finance of the French Senate, and François MARC,* **rapporteur général***, on the development of digitial currencies, published on 4th August 2014.*

The full version of the report is available here:
*http://www.senat.fr/notice-rapport/2013/r13-767-notice.html*

# CONCLUSIONS AND RECOMMENDATIONS OF THE COMMITTEE ON FINANCE

Meeting on 23rd July 2014, under the chairmanship of Mr. Philippe Marini, president, the committee on finance heard a communication by Mr. Philippe Marini and Mr. François Marc, *rapporteur général*, on the questions raised by the development of the *bitcoin* and other virtual currencies.

The committee on finance noted that:

**1° The development of virtual currencies, among which is the *bitcoin***, is a long-term trend, raising important legal and economic matters, that **can no longer be disregarded by public authorities**.

**2° Despite a number of clearly identified risks** resulting from its volatility, its anonymity and its lack of legal guarantee, **the *bitcoin* offers multiple opportunities for the future**, both as a payment system and, above all, as a decentralized validation protocol.

**3° Public authorities should work on a well-balanced regulatory framework**, in order to prevent abuses while preserving the capacity of innovation. To that effect, **the use of existing legal categories** seems like the most relevant solution for now, for the definition of both virtual currencies and associated services.

**4° The international comparisons realized by the French Treasury** for the committee on finance show that **France's choices are halfway between the strictest regulations** – adopted by countries such as China, Japan or Russia – **and the lightest regulations** – adopted by countries such as the United States, Canada or Israel.

**5° The clarification of the regulatory framework** applicable to virtual currencies is to be carried out **at the European level, and if possible at the international level**, considering the transnational nature of virtual currencies.

# ENGLISH VERSION OF THE COMMUNICATION BY PHILIPPE MARINI AND FRANÇOIS MARC

***This is an English translation of the speech given on 23rd July 2014 by Mr. Philippe Marini, president of the committee on finance of the French Senate, and Mr. François Marc,* rapporteur général *of the committee on finance of the French Senate.***

**Mr. Philippe Marini, president of the committee on finance**. – Dear colleagues, I will first make general observations about the development of virtual currencies, and I will then let the *rapporteur général* tell us about the conclusions we can draw from the elements provided by the administration. A few months ago, we asked for a number of comparisons with other countries, since virtual currencies undeniably require an international approach.

On 15th January 2014, the committee on finance of the Senate held a joint public hearing on the development of virtual currencies, and among them the well-know *bitcoin*. The Treasury, the Customs, the *Banque de France* and the anti-money laundering service *Tracfin* were given the chance to expose their positions, as well as an entrepreneur and a scholar working on the subject. As agreed upon, we then sent a questionnaire to the administration and to the economic services of our embassies.

Many things have changed in the last six months: virtual currencies have continued to thrive, carrying along a number of nice innovations and lame ducks; the *bitcoin* hit the headlines on a regular basis; and public authorities have pursued their thinking in order to set up some kind of regulation. On 11th July 2014, the minister of finance and public accounts, Michel Sapin, eventually made a series of announcements based on all this work.

The interest of the committee on finance for virtual currencies should not surprise anyone: this is part of our ongoing interest for the deep transformations caused by the irruption of digital technologies in economic and financial life. As a matter of fact, the digital revolution leaves pretty much nothing unchanged. There are, in the first place, important consequences for our taxation systems: the concentration of value on intangible assets, easily located in fiscal heavens, has led to an erosion of taxation bases – happily major countries are now aware of this problem. Beyond taxation, the digital revolution has turned upside down a number of economic sectors: the monopoly of taxi drivers is disputed by mobile applications like *Uber*, while hotels are now challenged by online booking websites and alternative accommodation offers such has *Airbnb*.

With the development of virtual currencies, something even more important is at stake: the monopoly of emission held by central banks, traditionally considered as a major attribute of sovereignty. The *bitcoin* is the most famous and most successful example of virtual currencies; it is a free, anonymous and decentralized payment system, which allows the exchange of goods and services without using traditional currencies. Strictly speaking, though, the *bitcoin* is not a legal tender for payments, and is not issued in exchange for lawful money. It has no legal status. It is only a support for transactions. So far, the *bitcoin* is, above all, a digital version of barter – sometimes, an archaism can become an innovation, with a little help from technology.

It is not possible, though, to disregard this new trend on the grounds that it might just be another short-lived buzz. More and more e-commerce businesses accept *bitcoins* for payments, including the payment system *PayPal* itself. Such a success builds on real advantages. First of all, extremely low transaction fees – at least allegedly. A recent study from Goldman Sachs found an average of 1% for transaction fees, compared to 2.5% for credit card payments. However, it must be said that an "honest" estimation should include the cost of computer equipment and power supply, as well as the cost of risk associated with the volatility of the *bitcoin* and its insurance. More importantly, the *bitcoin* system is based on an innovative "money creation" mechanism: the users of the system are "rewarded" in *bitcoins* for their participation to the decentralized transaction validating process.

We are well aware that this system carries important risks. These risks have been known from the start, but appeared very clearly in the last few months, and led public authorities to issue a number of public warnings. Firstly, the *bitcoin* suffers from its very important volatility: one *bitcoin* was worth less than one dollar until 2011, and then surged to 1,200 dollars by fall 2013, before moving back to 650 dollars today. As a matter of fact, the *bitcoin* protocol is inherently speculative, because the rhythm of creation of new *bitcoins* is decreasing, until a "cap" of 21 million units is reached in 2140 – in comparison, 12 million units exist today. The system is "locked" for its lifetime. This "organized scarcity" is also the condition of its success, because it guarantees *bitcoin* holders against a devaluation of their assets: artificial "*bitcoin* pumping" is simply not possible.

Another weakness of the system is the absence of a legal guarantee for exchange in "real" currencies. The system entirely relies on the trust people place into it… and a sudden loss of confidence could easily bring it to an end.

Moreover, if *bitcoin transactions* are very secure, the same does not apply to *bitcoin storage*. Most users chose to open virtual "wallets" at online exchange platforms, but the bankruptcy of *Mt. Gox* on 18th February 2014 shows that hacking is more than just a possibility. Of course, people can still chose to store their *bitcoins* at home, on a personal hard drive. That's what James Howell did, after buying 7,500 *bitcoins* for just a few pounds sterling in 2009 : this young man would certainly be a multi-millionaire today if he had not unintentionally dumped his hard drive in the meantime…

Most importantly, the fact that *bitcoin* transactions are anonymous makes the system a big opportunity for cybercrime and money laundering. On the 15th January public hearing, we were told that the Customs had arrested a drug trafficker who asked for payments in *bitcoins*. Of course, the website *The Silk Road*, the biggest online shopping center for drug dealers and weapon seekers, was shut down by the FBI at the end of 2013. But closing the website does not eliminate the risk: on 28th January 2014, the vice-president of the *Bitcoin Foundation* was arrested in New York and charged on money laundering.

However, those risks should not be overestimated – even if regulators such as the *Banque de France* and *Tracfin* are just doing their job when calling for increased vigilance. For now, the volatility of the *bitcoin* and its lack of legal status should limit its development to a small group of initiated persons: whether you are an individual, a business, or even a criminal network, would you accept to make your payments with something that can shrink to half of its value in a few minutes? Besides, the *bitcoin* does not represent any threat to the global financial stability, given its negligible money stock, just worth a few billions of dollars, as opposed to several billions of billions of dollars for main international currencies. In short, today, the *bitcoin* seems to be more like a niche speculative asset than a credible alternative to money. And as for the few *Monoprix* retail shops that accept *bitcoins* as a means of payment, this is probably not much more than an advertising campaign…

The most important point is that focusing *exclusively* on the risks leads to ignoring the multiple opportunities opened by the development of virtual currencies. The fact that an innovation questions our traditional conceptions should not lead us to reject it automatically. Besides, this rejection would likely remain very theoretical, since it is not possible to prevent individuals to use online exchange platforms…

As an alternative to legal currencies, the *bitcoin* is just beginning to unveil its potential. Those with a far-reaching imagination are already thinking about credit offers or *crowdfunding* systems based on virtual currencies. I personally hold strong reserves about these ideas, but they undeniably deserve to be analyzed – and further developments could make them more interesting.

Beyond that, it is important to understand that the *bitcoin*, more than a "*currency*", is actually a *technology*, an open-source, decentralized and very secure validation protocol. So, if it is possible to validate transactions, why not use this protocol to validate other things, such as passwords, identity documents, degrees and certificates, and even electronic votes? In the near future, it could become impossible to lie on your graduation – and that would be a great improvement. As for electronic votes, this may be an opportunity to improve the voting system for the French citizens living abroad, which as been under criticism for its lack of security… The decentralized validation protocol is an improvement of cryptography: no central entity acting as a "third party" will ever be in possession of the whole information, and yet this information is perfectly accurate and verified.

Although the *bitcoin* has acquired an important position, there are other virtual currencies – there were others yesterday, such as *Liberty Reserve* or *e-Gold*, and there will be others tomorrow. It is therefore extremely important for public authorities and regulators to understand the full extent of their development, to be proactive, and to step in whenever it appears necessary. The *rapporteur général* will now tell us more about innovation/regulation dialectics, and how to give *bitcoin* stakeholders the security they need.

**Mr. François Marc, *rapporteur général*.** – Dear colleagues, I remember the time when I was a young university researcher working on payment systems. At that time, the development of credit cards was causing a widespread suspicion among specialists, who saw it as an extremely risky system that was not deemed to have any great future. Even though *bitcoin* might not exactly be the same subject, it's interesting to note that we always face, at first, a global environment of fear and suspicion towards this kind of innovations. While we do not understand every single aspect of this subject yet, the need for regulation is already here.

It is uneasy to give a legal answer to a phenomenon that challenges both our geographical borders and intellectual categories. Nevertheless, regulation is absolutely necessary, in order to secure users and investors, and to prevent abuses which would otherwise undermine the credibility of the whole system.

The president talked about the closing of websites such as *The Silk Road* and the bankruptcy of platforms such as *Mt. Gox*. I would add to the list an event that took place in France: two weeks ago, the *Gendarmes* of the region of Midi-Pyrénées arrested three individuals who operated an illegal *bitcoin* exchange platform, and seized 388 *bitcoins*, worth more or less 200 000 euros.

Luckily, as the public hearing held on 15th January 2014 demonstrated, some private *bitcoin*-related businesses are calling for a regulatory framework. Unsurprisingly, they ask for maximum flexibility, whereas public authorities push for more control. Here's what is at stake: regulating effectively without killing innovation.

I am pleased to say that France reacted promptly to set up a regulatory framework. Ten days ago, Michel Sapin, the minister of finance and public accounts, announced several measures based on the work conducted at the initiative of our committee:

1. A clarification of the tax regime of virtual currencies. The gains from buying and selling *bitcoins* will be taxed under the progressive rate of the income tax (*impôt sur le revenu*) as commercial profits (*bénéfices industriels et commerciaux – BIC*) if the activity is ordinary, or as non-commercial profits (*bénéfices non commerciaux – BNC*) if the activity is occasional. As a consequence, losses will be deductible under certain conditions. Virtual currencies will also be considered as part of an individual's assets, and subsequently liable for wealth tax (*impôt de solidarité sur la fortune*) and transfer duties (*droits de mutation à titre gratuit*). As for VAT, France will support at the European level a tax exemption, in order to avoid reiterating the unfortunate experience of the massive VAT fraud over CO2 quotas.

2. A limitation of anonymity. Exchange platforms should be required to identify individuals when proceeding to an account opening, a cash withdrawal or deposit, and a transaction. A discussion has been launched on this topic, which is particularly complex since it has to see with the very principles of the system.

3. A cap on payments in virtual currencies, as it already exists for cash payments. In both cases, the reason is to compensate for the anonymity of transactions.

In addition, the prudential supervising authority (*Autorité de contrôle prudentiel et de resolution – ACPR*) estimated that companies operating as exchange platforms of virtual currencies vs. legal currencies would be considered – and regulated – as "provider of payment services" (*prestataire de service de payment – PSP*). For example, the exchange platform *Bitcoin-central* operated by *Paymium* holds an agreement from the ACPR, as its founder explained on the public hearing in January. *Providers of payment services* must respect a number of prudential ratios and anti-money laundering regulations.

How do French positions compare to those adopted by other countries? We have sent a questionnaire to the economical services of our embassies, and another one to the ministry of finance. The answers constitute an original work that will help understand and take upcoming decisions, especially at the European level.

Although all countries are facing the same questions, all do not come up with the same answers – this could be worrying as regards to the transnational nature of virtual currencies. In this international benchmark, France is situated halfway between the most regulatory jurisdictions and the most liberal ones:

1. As for the legal definition of virtual currencies, France has not been more successful than most other countries in establishing an official definition. In some countries like China, Thailand and South Korea, though, virtual currencies are assimilated to "goods", or more precisely "virtual goods" such as "mp3" audio files. The governor of the Chinese central bank made a parallel between *bitcoins* and stamps collections... Perhaps in a less poetical and so far more isolated way, the German supervision authority (*BaFin*) defined virtual currencies as "units of account", part of the boarder category of "financial instruments", like foreign currencies.

2. Many countries have been keener to tax virtual currencies than to define them – yet tax regimes remain very different. Virtual currency gains are liable for income tax in China, just like online gaming gains; they are taxed as real estate gains in Germany and as capital gains in the United States. Germany, the United Kingdom and other jurisdictions also chose to collect VAT on virtual currencies, but they are still looking for an effective way to do it... In Japan, tax payers are kindly invited to declare their transactions in *bitcoins*.

3. As for the regulation of transactions and exchange platforms, most authorities issued official warnings about the risks taken by users of virtual currencies, and the risks of money laundering and terrorism financing. However, not all countries decided to take regulatory actions in consequence – in fact, most of them tend to think, like Japan, that regulation equals legitimation, and therefore promotion. Countries such as Germany, Israel and Canada only warned *bitcoin* users that they were operating "at their own risks", without a public guarantee of any kind. "Hardline jurisdictions" are represented by China and Russia: these countries forbid, with some exceptions, the use of virtual currencies, and link it with a suspicion of money laundering. France could, in comparison, be deemed "carefully liberal": French authorities do not ban the use of virtual currencies but they subject platforms to the strict regulation of "provider of payment services" (PSP).

4. As for innovation, the United States, Canada and Israel are, unsurprisingly, among the most welcoming countries. Start-ups and business angels thrive while public authorities remain in a largely benevolent laissez-faire attitude. In Cyprus, the University of Nicosia accepts *bitcoins* for the payment of tuitions fees – although it seems few students have actually taken the plunge. That said, France has no reason to be ashamed when it comes to innovation: our finance technologies companies can be remarkably creative in the field of virtual currencies, but also in the field of alternative payments and funding (*crowdfunding*, smartphone payment, etc.).

In short, there are three ways to face the development of virtual currencies. The skeptical way, chosen by several legal experts and economists, who rightly underline that *bitcoin* is not a real currency – thereby forgetting the promising "technical" dimension of the system. The anxious way, chosen by most regulators – it is their job to foresee risks and prevent crises. And the optimistic way, chosen by those who believe that *bitcoin* will change transactions the same way e-mail changed traditional mailing, and the same way Internet changed traditional publishing. It is important to reassure the skeptical and the anxious, without discouraging the optimistic.

As a consequence, we make the following proposals. Public authorities should keep working and analyzing in the long term the development of virtual currencies. They should keep informing users and other stakeholders about the risks associated with virtual currencies, but also about the rights and protections they have. They should work on an adapted regulatory framework. All these actions are to be undertaken at the European level in order to be truly effective.

As for the legal definition of virtual currencies, we recommend to keep "testing" the use existing categories rather than creating new ones. Several countries, including France, chose to consider *bitcoins* as "goods": this "default status" allows the application of usual provisions for consumer protection, fraud and commercial disputes. This applies to the "thing" – as for the "service", it is already defined and regulated as a "provider of payment services" (PSP).

As in past revolutions brought along by digital technologies, France and Europe have opportunities to take. If we want to succeed together, we must support innovation and, at the same time, keep an eye on it to avoid taking the wrong way.