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Position Paper
of the European Tax Adviser Federation

ETAF

on the
Blockchain technology

I. Introduction

A blockchain is a continuously growing list of records, which are linked and secured using cryptography. It is a ledger with no central administrator or centralised data storage that lets information be viewed (but not copied or altered) by all the participants to the network. It is based on a distributed database with no central version: it lives across a network of computers and for this reason it is secure, since hackers cannot access all the participants to such network to change the information encrypted in the blockchain.

The elements forming the basis of the blockchain are called blocks. Each block contains a timestamp and transaction data involving money, contracts and other information. The transactions are sent to every part of the network to get a validation. The validation process is carried out by the so-called “miners” through the creation of an encrypted code by solving a complex mathematical problem that requires a sufficient computing power to be worked out. Anybody who has a computer can become a miner and this mining process is often stimulated with a fee for the transaction validated (or with new currency in case the transaction relates to cryptocurrencies). Once the transaction is validated, the block is time-stamped and linked to the previous block. When the block is added to the chain of blocks, the transaction is completed and a record of the transaction remains as a part of the blockchain.

One of the most important features of the blockchain is that this distributed ledger is updated in real-time and it is permanent: no one can delete the information once it is added as a block to the blockchain, because this would require to get access to the data of all the participants to the network. That means that the blockchain makes the transactions completely traceable.

II. Expected impacts

Although the public mainly associates the blockchain with cryptocurrencies (and in particular with Bitcoin), the potential impacts of this technology are more widespread among various industries (e.g. supply chain management, insurance, patents protection). Every application of the blockchain in these industries implies a potential tax consequence to be examined in depth, because it can have an impact on the tax collecting process and on the taxation of the profits accrued by these blockchain-based activities. Moreover, some of the impacts of the blockchain technology are cross-industries.

Business compliance and professional services

From the professional perspective of tax advisers, the first and more widely discussed aspect of the blockchain is connected with the transparency and security granted by this technology. Transparency and security will possibly lead to a pervasive use of this technology for auditing transactions and reducing the possibility of mistakes: the blockchain could be used for processing payroll tax, employment tax and any other transaction-based taxes. Every transaction can be automatically recorded using the blockchain instead of having it manually reported, thus ensuring a higher level of compliance and lowering the risk of errors. On an international tax level, transfer pricing can be impacted, since the blockchain technology would facilitate the evaluation of the arm's length price of a transaction, thus ensuring that related-party transactions are priced on the basis of comparable market prices.

Subsequently, the possible use of this technology by tax administrations to reduce the compliance burden for businesses and tax authorities should be seriously considered and evaluated, without forgetting the risks connected with the public availability of such an amount of sensitive financial information. It is worth underlining that, even if encrypted, these data would be shared among a networking database and thus potentially accessible to all the users of such network. Finally, as a consequence of this possible evolution, some manual tasks involved in auditing may become automatic, provoking a reduction of the amount of work performed by the auditors, although it is unlikely that such work will be completely replaced.

Tax treatment of the earnings from blockchain-based activities

Another issue that has not yet been satisfactorily defined concerns the taxation of individuals and companies operating in the field of blockchain. As mentioned above, the blockchain technology is based on a network of users who allows the existence of the distributed ledger and on the so-called "miners" that verify and encrypt the transactions to be included in the blocks before linking them to the blockchain. As a remuneration for their verification process, miners receive a fee or, when speaking of cryptocurrencies like Bitcoin, a Bitcoin. For the time being, though the remuneration is traceable (as is the whole process regarding the blockchain technology), it is not yet clear how it should be taxed. Some believe that mining profits should be treated as tax-free income from capital, others rather as a separate commercial activity.

This uncertainty could be also extended to the companies operating blockchain-based activities. These companies use the blockchain technology to operate mainly in the financial, compliance, logistic and insurance industries. The problem associated with the activity of these companies is connected with an issue already targeted by the EU Commission: the place where the taxable value of these companies is created. The difficulty here relates with the definition of the work undertaken by the miners and with their “residence”, but also with the function undertaken, risk borne and assets used by the companies themselves in carrying out their specific activities, which differ based on the relevant industry of the company.

The tax treatment of cryptocurrencies

Another topic to be widely examined from a tax perspective is connected with the tax treatment of the cryptocurrencies. Blockchain-based currencies (e.g. Bitcoin, Ethereum, Ripple, etc) are subject to many different transactions which have not yet been completely identified by the tax authorities of the EU Member States: trading cryptocurrencies, exchanging them, receiving payments in cryptocurrencies and converting them into traditional currencies are some examples. The taxation of these transactions is still a matter of theoretical discussion and, though some EU Member States are currently planning to define a new legal framework to fight tax evasion connected with cryptocurrencies (e.g. France), at the moment none of them has an up to date regulatory framework to tackle this issue. It is not even clear if these virtual currencies should be treated either as a currency (because they do not fully satisfy the classical definition of a currency) or as a property and, in the latter case, if they are subject to income tax, capital gains tax and VAT.

III. Concerns

From ETAF’s point of view, there are three main areas of concerns for tax advisers regarding the blockchain technology.

The first one, and possibly the most controversial, is connected with the security of financial information in the tax collecting process. ETAF strongly recommends the EU institutions not to sacrifice the secrecy of sensible financial information for the sake of the support that the blockchain technology could bring in streamlining the work of both businesses and tax administrations. It is worth noting that

the confidentiality of financial information is a fundamental principle for tax administrations and that the breaches of this confidentiality may potentially give rise to litigation by taxpayers for the breach of such obligation.

A further level of discussion concerning the blockchain relates with the taxation of profits earned by individuals and companies for their blockchain-based activities. ETAF suggests that the EU institutions should provide a fair definition of the so-called “miners” in terms of value created and profits earned, in order to clarify the tax treatment of these subjects. This would also be a first step to define the value created by companies operating blockchain-based activities and it would be connected with the wider efforts of the EU Commission to define an approach to tackle the taxation of the digital economy.

Finally, ETAF addresses the EU institutions about possible tax avoidance/evasion connected with the loopholes in the regulatory framework in place for cryptocurrencies. ETAF is in favour of a commitment of the EU institutions to further analyse the phenomenon in order to promote internationally coordinated measures that should prevent possible fragmented actions by EU member states.

IV. Conclusions

Based on points that have been discussed above, ETAF:

- Welcomes the potential in terms of security, traceability and reliability embedded within the blockchain technology;
- Recommends the EU institutions to balance the possible use of the blockchain technology with the maintenance of the fundamental principle of confidentiality of financial information;
- Suggests that the EU institutions should fairly define the tax implications of the activities carried out by “miners” and by companies providing blockchain-based services;
- Encourages the EU institutions to promote internationally coordinated measures to plug the loopholes in the regulatory framework currently in place in relation to cryptocurrencies.