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WHAT IS BLOCKCHAIN?

According to JP Morgan, consensus is forming that blockchain is the real deal, it's an ingenious invention.

By allowing digital information to be distributed but not copied, blockchain technology created the backbone of a new type of internet. It was originally devised for digital currency, like Bitcoin, but the tech community is now finding other potential uses for the technology.

First of all, how can blockchain be relevant for taxation?
Blockchain will significantly affect transactions. The technology will provide long-term solutions reducing the administrative burden on tax systems. In general, the technology does the following as well:

- Simplify processes
- Decrease administration and external costs
- Increase speed
- Improve security
- Untampered audit trail
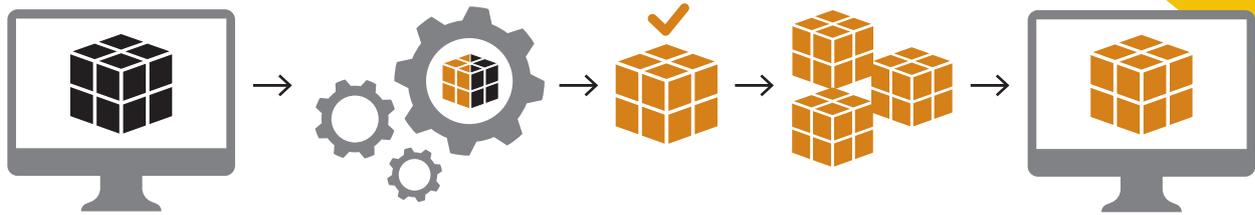- Data quality
- Transparency / more trust

Okay. So, what is it, and how does it work?
Blockchain is a distributed database, a shared ledger, that records and validates all transactions chronologically.

A computer or server connected to the blockchain network becomes a participant that performs the task of validating and relaying transactions by getting a copy of the blockchain protocol, which is downloaded automatically upon joining the blockchain network.

What the internet did for communications, blockchain will do for trusted transactions.

Ginni Rometty, CEO of IBM

A "block" can be called a "line item" in the shared record book. It can be illustrated as follows:

Data goes into a network > network checks data > the data is verified > then added to ledger that continues all process data > process complete.

A blockchain is made up of a set of data blocks, each of them containing a set of transactions. These blocks are electronically chained together and locked with cryptography, and a record of each transaction is established. A blockchain can be public or private. A private blockchain or, a so-called, permission-based blockchain, requires a digital invitation to join a pre-defined network.

Secondly, data on the blockchain is "hashed". In simple words, a hash is a very short code of random letters and numbers e.g. "a0680c04c4eb53884be77b4e10677f2b", which represents the digital fingerprint of the relevant transaction. The hash becomes electronically inseparable from the relevant transaction. If the block is changed, for example if someone tried to change any data in a "block", the hashed value would be different and everyone could detect that something had changed.

Today's internet has security problems that are familiar to everyone. We all rely on the "username/password" system to protect our identity and assets online. Blockchain security methods use encryption technology using hashes as digital fingerprints for each transaction written to the blockchain.

A simple example of how the blockchain will decrease administrative costs and prevent security (hacking) risk for transfer pricing documentation: The future of file storage. Rather than store your files on Dropbox or Onedrive cloud servers, what if your files could be split up into tiny chunks and stored on thousands or millions of people's computers around the world? The record of what parts of files you own and where they are cannot be changed - only you have the key to view the pieces as a whole, and no organisation owns your data. This would mean from a security perspective that there is not one "single server" where some hacker can get access to, to read your confidential transfer pricing documentation or legal agreements.

The blockchain network lives in a state of consensus, one that automatically checks in with itself every ten minutes. A kind of self-auditing ecosystem of a digital value, the network reconciles every transaction that happens in ten-minute intervals.

Blockchain implications on transfer pricing
You do not need to understand how blockchain works to use it, but blockchain will have a huge implication on how transfer pricing is recorded – helping to fight transfer pricing fraud. Some of the possibilities for transfer pricing reporting are as follows:

- Real-time registration of intercompany transactions on both parties – both buyer and seller have a copy of the pricing related data leaving no space for differences.
- No duplication of entries – Since the registration of a purchase of Item A for 10 Euros is processed in real-time for both buyer and seller, there is not any possibility for duplication of entries.
- Single use – when the system records the purchase of one unit of Item A by 100 Euros and the company wants to sell it, Blockchain ensures that the exact ownership of item A is transferred.
- Digital signature – All transactions must be digitally signed or approved meaning it is possible to prove that a product has been sold as someone from Company A has approved the transaction utilizing their credentials. Digital credentials are much safer than a paper signature or even email approvals.
- Real-time – Blockchain transactions can be confirmed in real-time making the actual transaction much quicker in comparison with today's processes concerning stocks, property, assets, etc.

Please feel welcome to give us a call to discuss any of the above matters.

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