

## Blockchain and Smart Contracts in Tax

by Antonio Lanotte and Trang Fernandez-Leenknecht



Antonio Lanotte



Trang Fernandez-Leenknecht

Antonio Lanotte (@alanotte23 on Twitter; antonio.lanotte@i-con.it) is a chartered tax adviser at I.CON Integrated Consultancy in Rome and a member/delegate of the CFE Tax Technology Committee. Trang Fernandez-Leenknecht (tfl@holistik-wp.ch) is the founding partner at Holistik SA in Geneva.

In this article, Lanotte and Fernandez-Leenknecht consider how blockchain technology can benefit taxpayers and tax administrations, focusing on applying blockchain technology along with smart contracts in the transfer pricing arena and the use of the technology to facilitate information exchange.

Blockchain is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network. An asset can be tangible (such as a house, car, cash, or land) or intangible (including intellectual property, patents, copyrights, and branding). Virtually anything of value can be tracked and traded on a blockchain network, reducing risk and cutting costs for all involved.

Businesses run on information. The faster it's received and the more accurate it is, the better. Blockchain is an ideal information tool because it

provides immediate, shared, and completely transparent information stored on an immutable ledger that only permissioned network members can access. A blockchain network can track orders, payments, accounts, production processes, and much more. And because members share a single view of the truth, they can see all details of a transaction end to end, giving them increased confidence and opening up new efficiencies and opportunities.

Blockchain's advantages include:

- security;
- the presence of a decentralized network in which smart contracts can operate to streamline and optimize processes;
- traceability, meaning users can follow the path of each product from manufacturing to its destination market;
- cost effectiveness;
- improved speed and efficiency; and
- transparency of transactions.

Taken together, these advantages can help achieve interoperability between participants and allow multiple users to access the same data simultaneously.

A permissionless<sup>1</sup> blockchain can offer enhanced monitoring of transaction flows, which is particularly important for revenue, customs, and other regulatory agencies. The basic initial layer of the technology has to be permissionless in order to grant access to all the stakeholders.<sup>2</sup> The blockchain could, at some level, be permissioned, giving access to some stakeholders and protecting

<sup>1</sup> In a permissionless blockchain, anyone can join, read, write, or audit the transactions without the need to ask for anyone's permission. Permissioned blockchains, on the other hand, are completely opposite of permissionless blockchain; they offer private networks.

<sup>2</sup> On a first instance, the permissionless blockchain will credit access to all stakeholders in order to cross-check data and proof of their authenticity. It is also a way to allow for dialogue between tax authorities and taxpayers.