facilitate e-commerce customs clearance. The Republic of Korea's customs authority signed a memorandum of understanding with e-commerce companies to test the technology to accelerate customs clearance of e-commerce goods from these companies, share information in real time, generate automated import customs clearance report to authorities, and prevent fraud and smuggling (CCN, 2018).

Temporary admission of goods

Goods imported for a specific purpose and for a limited period of time, such as paintings for an exhibition, are relieved from payment of import duties and other taxes, on the condition that they are re-exported within the specified period without having undergone any change (except normal depreciation).[22] Using Blockchain to track their movements and share information could allow to move away from today's paper intensive process and improve the efficiency of the temporary admission procedure.

A proof-of-concept conducted by the EU Commission's DG TAXUD[23] in cooperation with the International Chamber of Commerce demonstrated that Blockchain could be used to ensure the integrity of temporary admissions carnets (so-called ATA Carnets)[24] and transactions. A pilot will now be launched to test the application (Saadaoui, 2018).

Revenue collection and accuracy of trade data

Smart contracts could be encoded based on applicable legal and regulatory requirements to allow the automatic payment of customs duties according to an "if… then…" formula", e.g. "if" the goods arrive at the customs terminal on the importing side, "then" payment of duties is automatically processed. A digital mechanism for monitoring external events, also known as an oracle*, could be used to trigger smart contract executions when pre-defined conditions are met, thereby replacing self-reporting. For example, an oracle could be programmed to monitor a truck equipped with sensors and trigger payment of duties when the truck crosses the border.

Blockchain applications could also permit intermediaries to collect duties and taxes on behalf of governments and to transfer them automatically to respective authorities using smart contracts – which could prove useful in the case of low-value shipments related, for example, to e-commerce.

Finally, the use of Blockchain to register tariffs imposed on imports could help improve the accuracy of trade data and statistics.

Post-clearance audit [25]

As in the case of risk management, smart contracts could be used to screen documents on the basis of pre-defined criteria to optimize post-clearance audit. In