

following payment transfers, and that the process of developing the multinational policy, which can take months, was cut down to a few days.

Of particular interest for international trade is the potential impact that the technology can have for the marine insurance sector. With 90 per cent of international trade taking place by sea, marine insurance plays a critical role in international trade. To manage the diversity of the risks to which their freight is exposed – from cargo damages to delays due to congested ports – shippers buy insurance from multiple brokers and underwriters. This US\$ 30 billion industry still relies heavily on paper and little has been done until now to optimize costs and processes. A recent proof-of-concept for marine insurance developed by Maersk, Microsoft, Ernst & Young and several insurance companies could reshuffle the deck. The Insurwave blockchain platform they designed, which is built on Microsoft's Azure cloud-based technology, allows all parties – including shipping companies, brokers, insurers and other suppliers – to access the same ledger, which is updated in real time and can be used for marine insurance contracts (Kelly, 2017). The platform aims to accelerate billing and payment processes and to provide greater transparency, in particular on claim history, to better inform pricing decisions, while ensuring greater security of data and transactions. The consortium started testing the system in April 2017 and built about a dozen use cases. The new maritime insurance system began commercial operation in January 2018. The system will first be used for a limited number of ships and journeys before being deployed more widely, possibly even to other categories of insurance, such as car insurance (Ralph, 2017).

As with financial services, the use of Blockchain could profoundly transform the insurance industry, including in its multinational dimension. Applications are now moving from proofs of concept into implementation. The coming years will tell whether Blockchain is a real game-changer.

### (c) Retail distribution/e-commerce<sup>49</sup>

Retail distribution has undergone a radical transformation in the course of the last 10 to 20 years. The rise of the internet has profoundly changed consumers' behaviours, with a growing number of them shopping online. Market research company eMarketer estimates that retail e-commerce sales rose over 23 per cent in 2017 to reach almost US\$ 2.3 trillion. Around 10 per cent of retail sales occur online, a number which is expected to surpass 16 per cent by 2021 with total e-commerce sales almost hitting US\$ 4.5 trillion (eMarketer, 2017). The digitalization of retail distribution has also given rise to new business models and the emergence of powerful e-commerce platforms like Amazon and Alibaba.