

BLOCKCHAIN AND SMART CONTRACTS IN INSURANCE

The adoption of complex technologies by the insurance sector is accelerating, but it is still early days for the usage of distributed ledger technology ("DLT") and smart contracts and the technology is still evolving. The European Insurance and Occupational Pensions Authority ("EIOPA") published a discussion paper on blockchain and smart contracts in insurance at the end of April 2021. The EIOPA paper seeks to identify the key risks and benefits for consumers, (re)insurers and regulators relating to the use of these complex technologies and makes the case for a general European approach to blockchain "to promote coherence with overall consumer protection, financial stability and prudential regulation objectives".

We are, however, starting to see greater use of this technology, and, as a result, regulators are increasingly considering its implications. The EIOPA paper anticipates the broader adoption of DLT by the insurance sector and makes it clear that DLT and, by extension, smart contracts, have significant potential to drive change in products and services and prudential and conduct regulation.

The EIOPA paper helpfully draws attention to the prospect of the insurance sector using virtual currencies and other crypto assets in different contexts, such as for investments and capital raisings, as well as for the payment of premiums and claims. However, there are questions concerning trust in crypto assets and they attract high-profile attention when issues occur. Despite booming demand for insurance protection for existing users of crypto assets, the insurance market is wary and currently offers limited insurance capacity in this space. The widespread adoption of crypto assets by insurers themselves in any part of the insurance value chain is therefore likely to be slow.

Use cases

Examples of use cases and benefits of blockchain and smart contracts highlighted in the EIOPA paper include:

1. streamlining information exchange and payments between insurers and reinsurers;
2. automating a large part of the claims-handling process; and
3. facilitating the client onboarding process.

In the information exchange and payments scenario, insurers can input data into smart contracts on a shared blockchain database. This allows reinsurers, retrocessionaires and regulators to access this information quickly, in real time

and extract data from the blockchain for various use cases, such as audits and compliance checks, among other things, on a need-to-know basis.

A blockchain can automate underwriting and claims handling with predefined rules or claim events triggered upon receiving matching information from reliable data sources. Upon the occurrence of a predefined and objective event (e.g. relating to temperature, wind speed, earthquakes or time of flight delays), agreed payments can instantly be made to the insured. Benefits of using a blockchain include reduced settlement times, lower costs and having a transparent payout mechanism, thereby reducing disagreements between the parties.

The use of blockchain enables insurers/intermediaries to onboard a customer only once. If the customer wishes to engage a new insurer/intermediary, such entity can request access to the customer's information available "on-chain" to confirm due diligence. Access is restricted to the information specific to that client. A shared database in the form of a blockchain would speed up the onboarding process and reduce the cost of KYC/AML compliance for insurers and intermediaries.

Risks to customers and insurance undertakings

The EIOPA paper identifies a number of risks that are associated with DLT and smart contracts that are relevant to consumers and insurance undertakings. Some issues are common to all sectors, such as vendor concentration risk, GDPR compliance and fraud and money laundering risk. The EIOPA paper also briefly touches on the intrinsic challenges of the carbon footprint left by mining transactions and issues of interoperability between different blockchains. It also identifies some well-known insurance-sector issues, such as poor data management and legacy IT systems, which create issues for technology integration. Some of the issues overlap.

KEY ISSUES HIGHLIGHTED IN EIOPA PAPER	
For Consumers	<ul style="list-style-type: none"> • Poor customer information - adherence to regulation on provisions of suitability, product advice and disclosure may be difficult; • Ability to tailor products if smart contracts are used (ability to "manage contingencies"); • Ability to complain, given automatic execution and enforcement of contract (a risk of programming mistakes is also relevant); • Risk of exclusion of customers not wanting to use such technology, lack of understanding on how such technology works and risks associated with using it (crypto assets); • Data privacy and GDPR compatibility (right to be forgotten and use of sensitive data, in particular); • Cyber security risks with new technologies, including fraud and money laundering risk increasing; and

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	<ul style="list-style-type: none"> • Exclusion from services and products due to new market structures (decreased use of intermediaries).
For Insurers	<ul style="list-style-type: none"> • Compliance with regulation - automating and streamlining processes can make it difficult to comply with suitability and disclosure obligations; • Increased risk of fraud, money laundering and other cyber security issues; • Dependency on third-party oracles (reliability and accountability for errors); • Legal uncertainty around the treatment of smart contracts in some jurisdictions, making cross-border business more complex; • Governance and oversight challenges - particularly due to lack of knowledge and experience with technology; • Operational resilience (legacy systems issues, interoperability); and • Crypto asset risks (market risks, credit and counterparty risks, and operational risks).

Next steps

Many insurance sector participants are already working with DLT and smart contracts; whereas others may be at an earlier stage of analysis of the use cases and technology. The EIOPA paper clearly demonstrates that there is an expectation that the insurance sector will embrace DLT and smart contracts in the near future, but there are a significant number of legal and regulatory issues that need to be considered. Other insurance regulators are also considering these issues, so we may start to see some convergence of views.

We broadly welcome EIOPA's intervention in this area; in our view, a co-ordinated approach across all national EU regulators would be helpful and any barriers in EU insurance legislation should be identified and, as appropriate, mitigated.

Please contact Ashley Prebble, Emma Eaton, or your usual Clifford Chance contact if you have any questions or would like to discuss further.

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