BEST'S REVIEW

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BLOCKCHAIN
REVOLUTION

Use of blockchain technology is expected to grow as it helps to improve claims management, product development and boost customer satisfaction.

by Huhnsik Chung and Nicholas Secara

Blockchain is about to transform the financial services industry. The entire value chain—from risk underwriting to policy development and issuance to claims management and adjudication and ultimately to financial settlement—will be more efficient and transparent through the use of the publicly distributed ledger.

Insurers can use the shared, public ledger to detect fraudulent and erroneous claims, streamline their claims reporting and management processes, improve the engagement and satisfaction of their insureds and develop new products and payment mechanisms. While blockchain is a nascent technology, its use should grow exponentially as the benefits it offers to the financial services industry become tangible.

Detect Fraud and Errors

Transparency is a key characteristic of blockchain that will enable insurers to more efficiently detect fraudulent and erroneous claims. Because all transactions executed via the blockchain are recorded on a public, decentralized ledger, the data for each individual insured is available in a single, accessible location. Insurers can access this digital warehouse to verify the authenticity of each claim, to detect fraudulent losses or falsified identification information, as well as counterfeit

Key Points

The Blockchain Advantage: Insurers can use the shared, public ledger to detect fraudulent claims, streamline their claims reporting, improve the engagement and satisfaction of their insureds and develop new products and payment mechanisms.

Fraud Control: By limiting their frequency and severity, blockchain stands to significantly reduce the financial impact of fraudulent and erroneous claims.

Data and Products: As big data explodes, blockchain's ability to collect and transmit information creates a significant opportunity that insurers can exploit to develop new products and payment mechanisms.

products. Duplicate or otherwise erroneous claims will also be discernible in a much faster and more efficient manner in comparison to historical claims management procedures.

By limiting their frequency and severity, blockchain stands to significantly reduce the financial impact of fraudulent and erroneous claims. In *Blockchain in Insurance: Opportunity or Threat?,* McKinsey and Company reports that 5% to 10% of all claims are fraudulent. In the United States, the FBI has reported that fraudulent claims cost U.S. nonhealth insurers more than $40 billion annually. The early adoption of blockchain by a critical mass of insurance industry participants could drastically reduce this figure. In this regard, blockchain could serve as the rising technological tide that lifts all boats in the insurance industry.

Blockchain also can serve as a validation mechanism in developing markets especially where claims adjusters cannot easily perform claims adjudication. Insurers' inability to validate losses of tangible assets in these often volatile locales frequently deters or outright prevents insurers from accepting risks in these markets. Blockchain can potentially make these risks more palatable, as the technology provides a means for publicly recording the status of specific assets. That could lead to increased insurance penetration and adoption rates in developing markets, according to a July 2017 *Harvard Business Review* article "Blockchain Could Make the Insurance Industry Much More Transparent" by Dante Disparte, founder and CEO of Risk Cooperative, a risk advisory and insurance brokerage firm.

Streamline Claims Reporting

By incorporating blockchain into services that deal with policyholders, insurers will improve their claims reporting and management processes. In today's dynamic environment characterized by the exponential growth of mobile technology and the explosion of big data, blockchain can be a means of efficiently organizing and sharing information between industry participants. An insured can use an application on a mobile device to submit claim information immediately upon the occurrence of a loss, for instance, which in turn may reduce loss adjuster costs and potentially increase the accuracy of claim information.

Moreover, claims reporting might become entirely automatic as smart devices permeate the consumer goods market, creating a complex matrix of interconnections via the internet of things. These smart devices will be able to transmit claim information to insurers via the blockchain immediately upon an occurrence. Full automation notwithstanding, in the immediate future insurers will have access to a massive inflow of data that can be collected, categorized and quantified using the blockchain.

This data will be increasingly valuable as insurers use it to develop more accurate actuarial models with predictive analytics, evaluate new claims and transmit claim data in real time, and quickly identify new products to market.

Managing auto and life insurance claims is an area where blockchain will be particularly helpful. An obvious benefit to insurers is that blockchain can be used to collect data immediately after a collision from sensors embedded within the insured vehicle or on other devices in the vicinity. Of equal or even greater benefit to insurers is the data that can be collected and analyzed prior to the issuance of an auto policy. Blockchain can transmit information about driver tendencies, traffic patterns, and acceleration and braking trends, all of which insurers can use to more accurately underwrite and price their policies, according to an EY report, *Blockchain in Insurance: Applications and Pursuing a Path to Adoption*.

Life insurance, likewise, will benefit from the use of blockchain technology. In the United States, $7.4 billion in life insurance benefits are unclaimed annually. A decentralized ledger that includes verified, contact information for each beneficiary should increase the likelihood that insurers will be able to locate and compensate the appropriate individuals, while maintaining their confidentiality via encryption.

Improve Engagement

Insured engagement and satisfaction will increase through the use of blockchain. Once an insured's personal information has been recorded and verified, the data can be used repeatedly for renewals or entering into new policies. Insurers and insureds alike will benefit from the reduction of redundancies that are inherent in the renewal and application processes. Blockchain also should alleviate the insured's fear of losing control of personal information as the data is encrypted. Not all personal data necessarily needs to be stored on the blockchain. An insured can send a limited amount of encrypted personal data to a physician or other health care professional for a tailored purpose, for instance, such as verification. The transmission of data directly to the health care provider also removes the insurer from the

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transmission chain, obviating the need for a third-party intermediary.

Blockchain also will increase the speed and transparency associated with the claims settlement process. An insurer can design an insurance policy on the blockchain using a smart contract that is intended to pay a specific sum to the insured upon a triggering event. McKinsey and Company has reported on startups that have designed smart contracts to automatically issue payments to policyholders for the difference in their airline ticket prices if the insureds' flights are canceled or delayed. The trigger for payment is simply that a pre-determined, verified source confirm the flight changes. The ease of receiving payment is of particular interest to millennial insureds, who expect an automated, interconnected, internet-of-things world.

Develop New Products

As big data explodes, blockchain's ability to collect and transmit information creates a significant opportunity that insurers can exploit to develop new products and payment mechanisms. Insurers will have real-time access to voluminous information meticulously detailing the precise risk factors that their insureds confront in specific jurisdictions.

Insurers will be able to use this information to develop bespoke coverages for special risks based on their respective risk appetite and cost-benefit analysis, potentially issuing coverage to an array of insureds ranging from large industrials to purchasers of microinsurance in developing countries. In addition, by using blockchain insurers

and insureds can frictionlessly transmit premium and benefit payments via any of the hotly debated cryptocurrencies, such as bitcoin or ethereum.

Last June AIG and IBM, for instance, said they had developed an insurance policy using blockchain to manage a complex international insurance program for Standard Chartered Bank PLC. The companies said this smart contract was the first of its kind, using blockchain's digital ledger technology to facilitate the transmission of information for a main policy written in the United Kingdom, and three local policies written in the United States, Singapore and Kenya.

This blockchain-based, smart contract enabled the insured, its individual business units and its insurer to simultaneously transmit all data and documents for the underlying policies, as well as receive notice of any payments. Blockchain will play an important role in scenarios, where large multinational companies headquartered in one jurisdiction have affiliates in various other jurisdictions, each of which imposes different regulations, documentation requirements and payment terms. More broadly, blockchain will be particularly useful for political risk insurance. With political risk insurance, insurers typically confront a series of complex, ill-defined risks that often are located in volatile, inaccessible regions of the world. These risks demand a significant degree of trust between the insurer and insured, and can be difficult and slow to issue, thereby, delaying any potential investment or cross-border capital flow. Here, blockchain can provide speed and security for these risks, thus, lowering or eliminating barriers of entry to previously inaccessible markets. **BR**