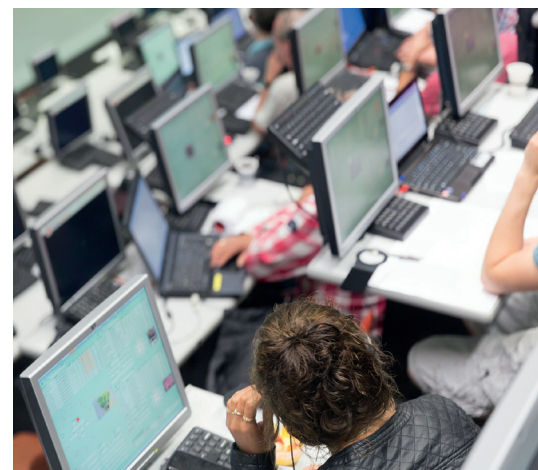
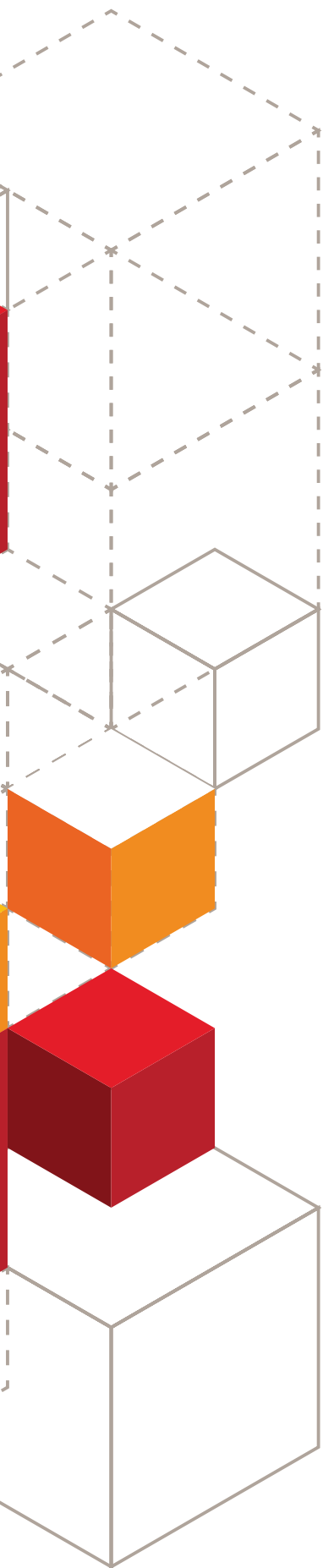


Blockchain: The \$5 billion opportunity for reinsurers

Reinsurers are in line to build some of the biggest blockchain applications outside the payments sector, which will enhance risk understanding and open up a \$5-10 billion cost saving opportunity through faster, more efficient and more accurate placement, claims settlement and compliance checks such as sanctions.







Blockchain was made for reinsurance

Behind all the hype surrounding blockchain is a straightforward opportunity to cut costs and improve client satisfaction within reinsurance

Blockchain ledgers are tamper-proof 'blocks' of records that can be shared among multiple users.

The most high profile application of blockchain has been the cryptocurrency, Bitcoin. Even bigger possibilities could come from the transformation of business transactions and information exchange on one side and removal of costly layers of overhead dedicated to verification on the other. The potential benefits include one mutually trusted version of the truth, with no more costly or error-prone manual rekeying of data.

New research commissioned by PwC highlights the extent to which blockchain could reduce the processing time and cost of placement, claims settlement and key processes such as compliance checks, e.g. sanctions (other compliance checks noted for wholesale insurance include AML/KYC¹). The research also showed that blockchain solutions can provide a better view of identity and risk. And given the amount of data flowing between client, broker, reinsurer and outsource service providers, all of which requires multiple data entry and reconciliation, the transformational potential within reinsurance is even greater.

Smart contracts

Blockchain technology can be deployed across the reinsurance and retrocessional value chain. A risk can be ceded/retroceded using a blockchain application specifically designed to process treaties, notify all parties and then process premium and commission payments. The technology could also be applied to speed up claims processing and verification.

¹ 'Chain reaction: How blockchain technology might transform wholesale insurance', 1 August 2016. The Long Finance report is based on interviews with brokers, insurers, reinsurers, regulators and trade bodies from across the global wholesale insurance market (<https://www.pwc.com/chainreaction>)

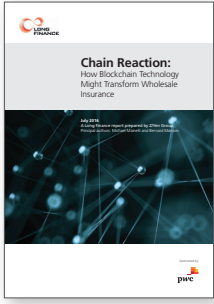
Reinsurance expense ratios are typically 5%-10% of premiums. Our analysis of the potential for both more efficient data processing and reductions in claims leakage and fraud indicates that blockchain solutions could remove 15% to 25% of expenses, so delivering an industry-wide saving of \$5-10 billion. And faster placement and settlement opens the way for a significant boost in client satisfaction and retention.

Potential wins

- 1. Processing** – using blockchain to remove multiple rekeying of data and task duplication
- 2. New business** – using blockchain to allow entry into new markets or products. Examples already include pilots in the catastrophe swap market
- 3. 'Full transparency'** – (the potential 'big win') – if all underlying risks are on a blockchain, these could be aggregated onto a reinsurance blockchain so all information, documents and transactions flow into the reinsurance

Proof of concept

We're working on a number of proof of concept applications to demonstrate the potential within insurance and reinsurance and look at how it could be applied in practice. As part of our investment in development, we believe it's important to show that potential blockchain applications not only work, but provide the right solutions to specific business problems.

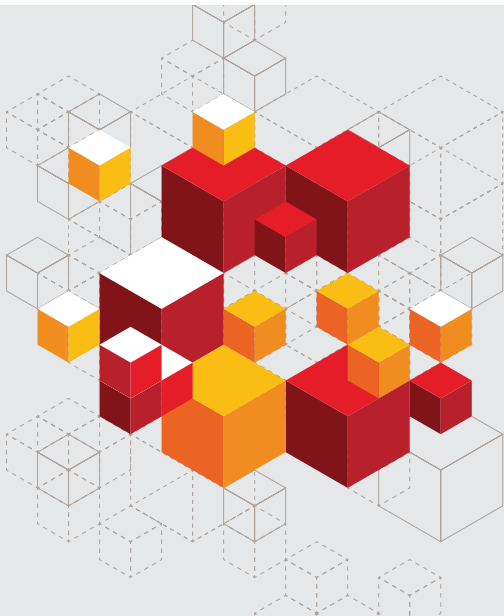


Chain Reaction:

How Blockchain Technology Might Transform Wholesale Insurance

There are opportunities for blockchain in wholesale insurance...

- Reducing costs, errors and time
- Instant access and legal certainty
- Minimise reputational risks
- No single point of failure



...but the industry needs clarity and practical use cases to move forward



56%

of firms said they recognised the importance of blockchain

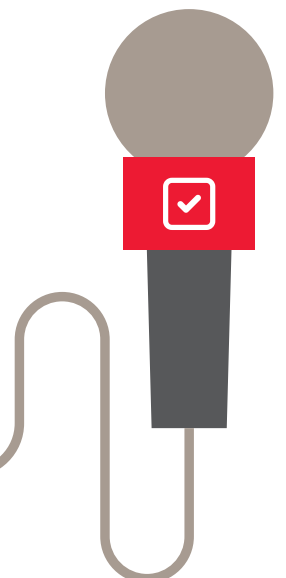


57%

conceded they did not yet know how to respond

Z/Yen interviewed the industry to dig deeper...

- 50+ market participants
- 12 potential use cases
- 1 PwC proof of concept demonstration





...and help identify use cases with the highest benefit and lowest barrier to implementation

- Placement and contract lifecycle
- Claims management
- KYC and AML

Is blockchain the solution for you?

- Are multiple parties sharing data?
- Will multiple parties be updating data?
- Is there is a requirement for verification?
- Are intermediaries adding cost and complexity?
- Are interactions time sensitive?
- Will transactions by different participants depend on each other?

If you can't tick at least four of these conditions, ask "why blockchain"?



How to get started

To seize the opportunities and potential of blockchain in wholesale insurance the industry will need to work together.

This Long Finance research report is based on 50+ interviews with brokers, insurers, reinsurers, regulators and trade bodies from across the global wholesale insurance market. To read about the key findings and how the insurance industry can to work together and implement blockchain solutions go to:

www.pwc.com/chainreaction

Contacts

Stephen O'Hearn

PwC Global Insurance Leader
+41 (0) 44 628 0188
stephen.ohearn@ch.pwc.com
[@stephen_ohearn](#)
[stephenohearn1](#)

Jonathan Howe

PwC UK Insurance Leader
+44 (0) 20 7212 5507
jonathan.p.howe@uk.pwc.com
[@JonathanHowePwC](#)
[jonathanhowepwc](#)

Steve Webb

PwC UK Financial Services
Blockchain Leader
+44 (0) 20 7804 1597
steve.webb@uk.pwc.com
[sawebb](#)

Gavin Phillips

Partner, PwC UK
+44 (0) 7740 894510
gavin.phillips@uk.pwc.com
[gavinphillipspwc](#)

Arthur Wightman

Bermuda Insurance Leader
+1 (441) 505 6644
arthur.wightman@bm.pwc.com
[@ArthurWightman](#)
[Arthurwightman](#)

Michael Cook

Director, PwC UK
+44 (0)207 213 2015
michael.g.cook@uk.pwc.com
[@mcook57109828](#)
[michaelgordoncook](#)

At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 157 countries with more than 208,000 people who are committed to delivering quality in assurance, advisory and tax services. Find out more and tell us what matters to you by visiting us at www.pwc.com.

This publication has been prepared for general guidance on matters of interest only, and does not constitute professional advice. You should not act upon the information contained in this publication without obtaining specific professional advice. No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this publication, and, to the extent permitted by law, PwC does not accept or assume any liability, responsibility or duty of care for any consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this publication or for any decision based on it.

pwc.com/insurance

© 2016 PwC. All rights reserved. PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see www.pwc.com/structure for further details.