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## Industry collaboration is necessary for the successful application of blockchain in securities markets

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*New academic research from the SWIFT Institute reviews the impact and potential for blockchain in securities settlement*

**Brussels, 9 May 2016** – New [research](#) published by the [SWIFT Institute](#) investigates the practical application of blockchain (or mutual distributed ledger) technologies in securities markets.

The paper, entitled '[The Impact and Potential of Blockchain on the Securities Transaction Lifecycle](#)', is based on interviews and focus group meetings with individuals from 75 organisations working in technology and post-trade processing. The paper, prepared by Alistair Milne, from Loughborough University's School of Business and Economics, and Michael Mainelli from Z/Yen Group, finds that while blockchain offers the potential to transform the industry, fully achieving these benefits will require board level buy-in to a substantial commitment of time and resource, and active regulatory support for reform of business processes, with relatively little short term payoff.

Mutual distributed ledgers allow the sharing of agreed and validated data with cryptographic control over access and updating rights. Their application could substantially reduce the \$40bn per year or more of costs in global post-trade processing of securities trades and achieve substantial reductions of costs and risk in other financial services activities. But there is a danger of building unrealistic expectations of the extent to which the technology on its own will address the underlying need for co-ordinated change of business processes both within and between firms. The principal finding of this research is that the full application of blockchain will require substantial re-engineering of business processes across multiple securities market firms.

Mainelli explains, "Strong claims are now being made in financial services and financial services media about the potential of mutual distributed ledgers to reduce costs and risks enormously, some suggesting that this technology will completely transform financial market operations. Deep understanding of the technology, however, lags well behind the hype amongst practitioners, policy makers and industry commentators alike. Blockchain technology seems to promise major benefits for the industry, but few can say exactly how or why."

As a part of the [research](#), the academics investigated three hypotheses:

- 1) the appropriate access levels needed in a mutual distributed ledger used for global securities markets;
- 2) whether change should be piecemeal or carried out at an industry level; and
- 3) whether the benefits of this technology requires major changes to existing business processes.

In practice some benefits of mutual distributed ledgers can be achieved using relatively simpler approaches e.g. reducing the substantial costs of reconciliation between the two sides to a trade by recording data at the time of trade execution in a shared *bilateral* ledger. Other goals associated with blockchain – the contraction of the settlement cycle to near-real time or the employment of so called 'smart contracts' to remove manual processing – do not require mutual distributed ledger technology at all.

Milne adds; "The challenge of using mutual distributed ledgers in securities markets is not just in demonstrating technological feasibility, but in achieving the necessary industry coordination to

reengineer business processes across securities firms. Moving to a blockchain model provides an opportunity for the industry to harmonise business processes, and it may also address the much long-neglected inefficiencies in post-trade processing. However, to realise the full benefits of blockchain will require buy-in from the buy-side, sell-side and regulators.”

Please [click here](#) to download a full copy of the research paper.

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Launched in April 2012, the SWIFT Institute fosters independent research to extend the understanding of current practices and future needs across the financial industry. Managed by SWIFT, and working in close collaboration with academics from top international universities, the SWIFT Institute brings the financial industry and academia together to explore ideas and share knowledge on topics of global importance.

The research covers various aspects of transaction banking, including the following areas: Payments, Clearing / Settlement, Cash Management, Trade Finance, Trust and Securities.

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Our messaging platform, products and services connect more than 11,000 banking and securities organisations, market infrastructures and corporate customers in more than 200 countries and territories, enabling them to communicate securely and exchange standardised financial messages in a reliable way. As their trusted provider, we facilitate global and local financial flows, support trade and commerce all around the world; we relentlessly pursue operational excellence and continually seek ways to lower costs, reduce risks and eliminate operational inefficiencies.

Headquartered in Belgium, SWIFT’s international governance and oversight reinforces the neutral, global character of its cooperative structure. SWIFT’s global office network ensures an active presence in all the major financial centres.

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