



# BLOCKCHAIN AND FUNDS



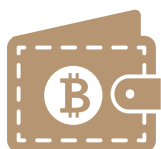
## Blockchain and Funds

### Introduction

In the early age of stock exchanges, trading was a straightforward process without any intermediaries involved. However, over the time, the financial services industry has continuously evolved towards a more complex model where an increasing number of parties are now involved in each transaction.<sup>1</sup>

This increased complexity had a huge impact in terms of cost and efficiency to process transactions. In fact, the current fund industry model includes various intermediaries in the process and this creates a level of complexity. To give a general example, the current process for an investor to buy units in a fund is the following:<sup>2</sup>

- An investor liaises with the fund's distributor;
- The distributor opens an account in the name of the investor and sends a transaction request to the transfer agent;
- The transfer agent performs AML/KYC verifications on the investor and confirms the trade;
- Based on the NAV computed by the fund accountant, the transfer agent sends the request for payment to the distributor. The transfer agent records the transaction and investor account balances;
- The distributor processes the transaction, makes the settlement and reconciles potential discrepancies with the transfer agent's books.



### The application of blockchain technology

Blockchain technology offers a lot of opportunities for the funds industry. In fact, this innovative technology has the potential to heavily simplify the current fund industry model described above. First of all, blockchain technology would allow the investor and the fund management company to use cryptocurrency as a mode of payment using a digital wallet; a specific account used to hold digital assets and currency. Accordingly, there would be no need for cash transactions and settlement in the process. In addition, Blockchain technology also allows to process smart contracts. These contracts are in fact computer programs which are stored in and run by the network of computers behind the blockchain. These programs are able to verify a set of pre-programmed conditions and to automatically execute instructions if these conditions are met. A very interesting application of smart contracts is to enable the automation of AML/KYC verifications, transactions processing, as well as asset servicing such as payment of dividends.<sup>3</sup>



As we have mentioned, the current model of the fund industry is one that causes important delays in the transaction processing. Indeed, the current benchmark is that transactions settle only three business days after the cut-off time of the fund, at which the NAV is computed. One day after the cut-off, the transfer agent confirms the trade and send the request for payment to the distributor. Then, two additional business days are required for the cash and transaction settlement. With the application of blockchain technology, through the use of smart contracts, it would become possible to process and settle this transaction in an automated and almost instantaneous way.<sup>4</sup>



Consequently, that would, in return, reduce the transaction processing and settlement time from three business days to a few minutes or even less. Thus, blockchain technology combined with smart contracts has the potential to create a new peer-to-peer model between investors and the fund management company directly and, in this way, reducing the role of intermediaries such as transfer agents or distributors. Furthermore, the use of a distributed digital register would ensure that both assets and cash are present prior to trading and consequently eliminate the liquidity and credit risks of the transaction. Therefore, investors would not need to pledge important collaterals anymore to cover counterparty settlement risks.

<sup>1</sup> <https://www.initio.eu/blog/2017/2/21/blockchain-a-storm-in-the-fund-industry>

<sup>2</sup> [https://blgsqr.files.wordpress.com/2017/02/nelson\\_dossogne\\_blockchain-a-storm-in-the-fund-industry.pdf](https://blgsqr.files.wordpress.com/2017/02/nelson_dossogne_blockchain-a-storm-in-the-fund-industry.pdf)

<sup>3</sup> <https://dupress.deloitte.com/dup-us-en/focus/signals-for-strategists/using-blockchain-for-smart-contracts.html>

<sup>4</sup> [https://www2.deloitte.com/content/dam/Deloitte/lu/Documents/technology/lu\\_impact-blockchain-fund-distribution.pdf](https://www2.deloitte.com/content/dam/Deloitte/lu/Documents/technology/lu_impact-blockchain-fund-distribution.pdf)

## Interesting blockchain projects

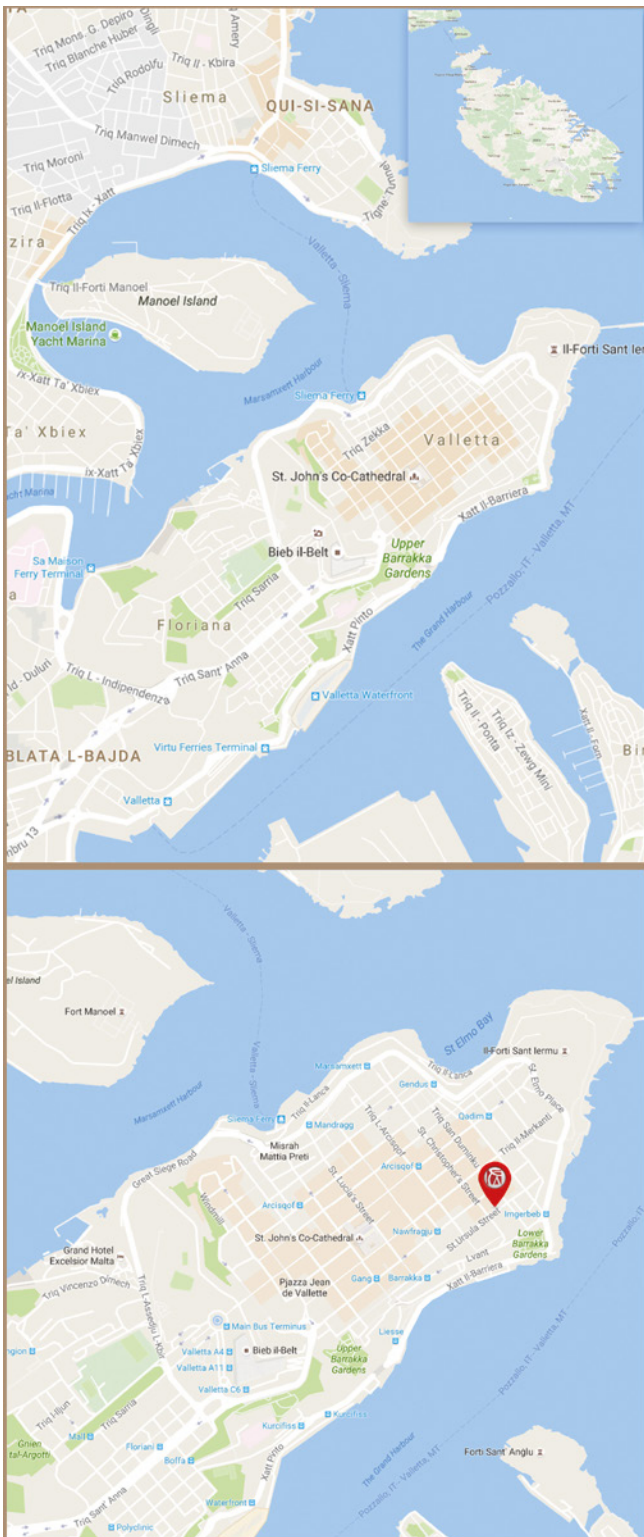
Some interesting news was recently released by SEB (one of the largest asset managers in the Nordics) where it has announced a project with Nasdaq to test a new fund trading platform based on blockchain technology.<sup>5</sup> The idea is that the various market actors such as fund companies, distributors and others, will be able to share a distributed database on which all transactions and changes are immediately registered and known by all participants. The aim of the platform is to increase efficiency in the processing of purchases and sales of fund units – an area which today is largely characterised by manual routines, long lead times and orders (in some instances still via fax). By moving processes online, the fund industry would need to employ fewer people, helping to cut costs. Those cost savings could then be passed on to investors.

Through a cooperation agreement, SEB and Nasdaq have committed themselves to continue developing new technology with the end goal of creating a working prototype. Furthermore, the two companies have opened a channel for collaboration with additional interested parties on building a uniformed market infrastructure for Sweden's fund market.

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<sup>5</sup> <https://sebgroup.com/press/news/seb-and-nasdaq-to-use-blockchain-in-mutual-funds>





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