

# BUILDING BLOCKS FOR THE FUTURE

Blockchain technology can reduce the time taken for a typical real estate transaction while retaining the required level of trust among all parties involved

BY MICHAEL BOWENS

**T**HESE days, it is increasingly hard to ignore the new technology on the block. Chatter around bitcoin as its boom – and fears of a potential bust – are tracked closely, and its price movements hog global headlines regularly. Amid all the buzz around bitcoin, what really captivates many tech experts and businesses is blockchain: the digital technology underlying the cryptocurrency.

Barely a decade old, blockchain has become part of the basic vocabulary of many industries. The technology is typically associated with finance, but it has been promised to transform everything from farming to online dating.

Think of blockchain as a giant decentralised ledger system – or simply put, a secure database of all transactions – across a peer-to-peer network. It enables the transfer of data and value without the need for a central authority to approve transactions and verify identities, or for intermediaries to manage aspects of the transaction process.

Each “block” in blockchain represents a transaction – anything from a purchase to the updating of an online record – that, rather than being stored centrally, is distributed across a network of computers known as nodes. This means that no single party has control over the data, and that any changes are visible across the entire network immediately.

Transactions will get validated by the decentralised network of computers. Once approved, new transactions are combined to create a block and added to the existing blockchain – creating unique digital track records that are shared, highly transparent, permanent and very difficult to hack.

Blockchain technology offers a new form of distribution and record tracking that could potentially transform the way that people own assets or buy things. It paves the way for major disruption in multiple industries, including financial services, health care, music and publication, as well as commercial real estate.

## BLOCKCHAIN IN REAL ESTATE

Blockchain primarily aims to address the issues of inefficiency and transparency in the commercial real estate sector. Property transactions typically involve numerous third parties including but not limited to brokers, lawyers, banks, land registries and utility operators. Very often, each phase of the transaction cycle involves cumbersome, time-consuming steps which can only be completed in sequence.

Blockchain technology – via trusted, distributed ledgers and smart contracts – can greatly reduce the time taken for a typical real

estate transaction while retaining the required level of trust among all parties involved.

In addition, the technology could play a role in boosting the security and transparency of real estate markets, particularly those where data quality or availability is at times lacking – as is the case throughout much of emerging Asia.

Smart contracts open the possibility for transactions to be triggered by an enshrined set of pre-conditions without the need for human involvement. For example, a deposit could be transferred automatically from an occupier to an owner when both parties have digitally “signed” an agreement. Any such transaction would also be logged and added immediately to the “blocks” of information on the given property asset. This could substantially speed up some of the processes in a typical real estate deal.

Perhaps even more importantly, some processes could be eliminated altogether. Instant, distributed verification of a property’s ownership would ease the need for drawn-out title searches, for example. In many transactions, deposits or payments are placed in escrow until processes such as due diligence are completed. These payments could instead be included in a smart contract and prompted automatically by the deal reaching a defined stage, replacing the escrow function (and escrow agent).

Land registries in their current form are often out of date, incomplete and/or prone to manipulation. Moving land registries on to the blockchain promises to create automatically updated, tamper-proof records, ultimately enhancing the clarity and security of land and property ownership.

Sweden’s government has emerged as one of the first to test blockchain to record property deals at the national level. The concept



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has also taken hold in Asia. Japan is reportedly set to unify the country’s disparate real estate databases on blockchain to enhance the visibility of ownership and transactions, and encourage sales and redevelopment. This comes after a survey found that 6.6 per cent of landowner records in big cities, and over a quarter in small and mid-sized cities and remote areas, have not been updated for 50 years or more.

Fractional ownership of commercial real estate could be adopted more widely with the help of blockchain-based platforms.

In India, the Bangalore-based startup PropertyShare has placed more than 75,000 sq ft of commercial real estate available up for fractional ownership, effectively opening the market to retail investors. If adopted more widely, this model has the potential to significantly change the dynamics of markets that have until now been the near-exclusive domains of major landlords, like those in Hong Kong and Singapore.

The flexible workspace sector is

already seeing rapid growth throughout Asia as more occupiers look to provide staff mobility and reduce fixed real estate costs. Blockchain could accelerate this trend as faster, more automated smart contracts would prove particularly useful for properties with a high number of tenants on relatively standardised, short duration leases, and hence greater turnover. One Dutch startup, Primalbase, is using blockchain to allow clients to use, sell or rent flexible workspaces via digital tokens, and has plans to expand to Singapore in late 2018.

Demand for commercial real estate could also be affected. Already, many voices in the finance sector are predicting a significant reduction in human resources needs as a result of technologies such as blockchain and artificial intelligence. The trend could be especially apparent in markets such as China, which has already overtaken many developed countries in terms of financial services technology adoption.

A definitive industry shift towards smaller, remotely connected or flexibly deployed teams could encourage migration to non-Central Business District locations and the adoption of flexible workspace models, with clear consequences for markets where financial firms have a heavy presence, such as Hong Kong, Singapore, Shanghai and Beijing.

For all its potential, the actual adoption of blockchain technology in commercial real estate in Asia remains limited to a handful of test cases. Wider-scale implementations may be years away; and like most new technologies, blockchain will confront several challenges – including regulation and infrastructure limitations – in its journey to *de facto* industry standard. ■

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