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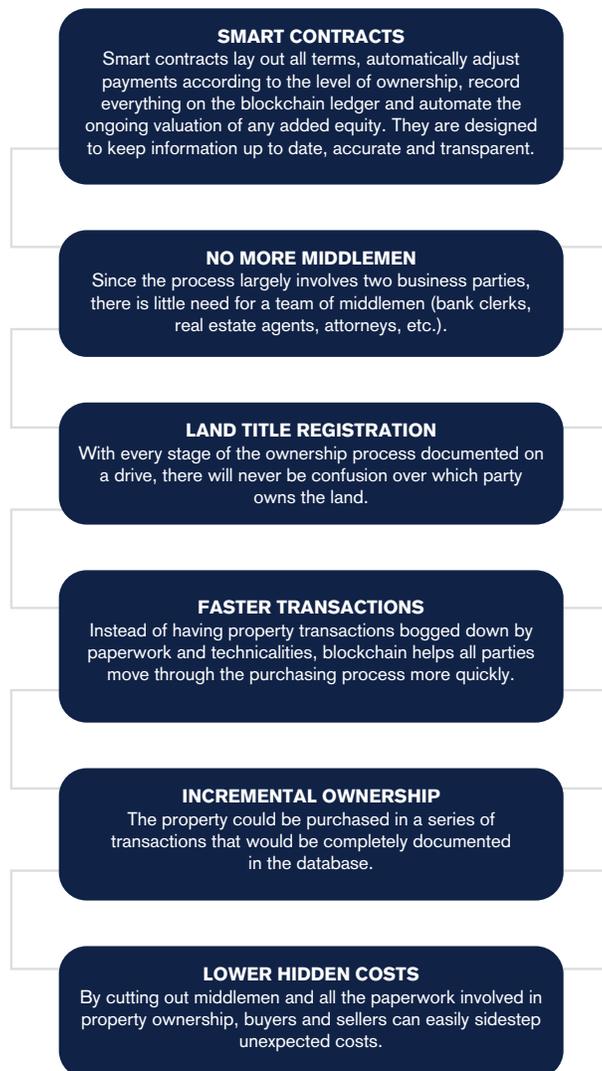


*Insight beyond the rating.*

## How Blockchain Technology is Rebuilding the Commercial Real Estate Industry

Blockchain technology has been in the news lately because of renewed interest in the application of cryptocurrencies, such as Bitcoin. Blockchain is a complex technology that comprises a series of recorded information (which includes, but is not limited to, business transactions) called “blocks.” These blocks are timestamped and linked to form a sequence, creating a chain of blocks containing transaction information and, ultimately, a network between two or more business parties that is both verifiable and unchangeable. Blockchain is a frequently updated, fluid database of financial transactions in which data is not bound to any single drive. This concept gives investors a more intuitive way of issuing and managing assets. Now that many industries are beginning to understand the technology’s complexity, people are brainstorming new ways of using it so that they fall on the right side of this business disruption.

Commercial real estate operates on assets and transactions, positioning it to benefit from blockchain technology. Ideally, this cryptographically secure system would document real estate transactions in a transparent and unbiased way through a disinterested third-party platform. So far, industry watchers describe the potential benefits as follows:



Sources: [Investopedia](#), [VentureBeat](#) and [Forbes](#).

The above chart lists only some of the perks of blockchain; the technology also provides increased liquidity in the market and allows for fractional ownership. Since traditional real estate transactions take time to conclude because of the amount of paperwork, reviews by different agents and lawyers, etc., it also takes some time before sellers see funds from their properties. However, if the seller uses a public blockchain platform, the property owner is also speedily connected to potential buyers, which helps kick-start the process much more quickly. It also solves certain issues for buyers, including that of wholly owning a property. Blockchain allows for fragmental property ownership through token-trading platforms like LAToken that provide fractional asset ownership, including real estate.

This is not all just “tech talk,” however. [New Scientist](#) reported that in October 2017, the world’s first property was sold through the Ethereum blockchain platform launched by [ConsenSys](#). A USD 60,000 apartment in Kiev, Ukraine, was sold to TechCrunch founder J. Michael Arrington through a real estate startup company called [Propy](#). Through Propy’s cryptographically secure online ledger, Arrington purchased the property while living in the United States. The goal that Propy and other blockchain pioneers are hoping to achieve is to have more jurisdictions worldwide recognize online smart contracts and ledgers as legally binding. After seeing success stories like the Kiev case, other companies are beginning to test out their own blockchain platforms, like Deloitte, PwC, KPMG and Ernst & Young. They tend to operate their blockchain systems in two distinct ways: (1) through a private blockchain (where transactions largely occur between two parties) and/or (2) through a public blockchain (a network that allows for more open collaboration where almost anyone can participate).

One way that startup companies are using public blockchain solutions is by implementing an Ethereum-based global network that lists properties from all over the world. A potential buyer could explore properties, secure the land title from the owner, appoint real estate agents and exchange payment. Once the payment is received, the title registrar receives a notification to indicate that the title was transferred digitally. Propy is one such startup, displaying properties and brokers from around the world, facilitating cross-border payments and showing entire transfers through a blockchain ledger that expedites the land-issuance process.

Private permission-based blockchain services, on the other hand, allow both parties in a transaction to digitally sign the smart contract online, which outlines the rental value, payment frequency and details of the tenant and property. The smart contract is automatically customized to include the preconceived terms established by both parties and periodically initiates lease payments from the tenant to the landlord and contractors. Once the lease is terminated, the contract triggers the security deposit payment to the tenant after damage adjustments. Companies like Telia, Lantmäteriet, ChromaWay, Midasium and Kairosfuture are operating private blockchains — many of which can be made to resemble a public blockchain like Bitcoin or Ethereum. The benefits cited in Deloitte’s report [Blockchain in Commercial Real Estate: The Future is Here!](#) include quicker transactions, better data security and fewer manual errors and duplications of the verification process. The benefits of blockchain technology in the real estate industry are clear, but there are some setbacks to consider before it can be adopted as the new norm.

Being a new technology, blockchain is not yet a perfect solution. Industry watchers note the following problems:



Source: *Forbes*.

Blockchain is a decentralized technology, which essentially means that it can be accessed from more than one location and does not rely on a single terminal. It is often likened to a Google document where multiple authors can edit the same document in real time and the changes are tracked on multiple computers, providing that the author has the proper permissions and access. This makes the transaction process safer and much less hackable, as every node in the network has a copy of the transaction and any detected attempt at hacking would halt the process, preventing information from getting out to uninvolved parties. However, this feature could also make the platform less attractive to traditional financial institutions that rely on having total control of their side of a transaction.

Rich Carlson, Senior Vice President of North American CMBS at DBRS, sees the potential for blockchain to change the commercial real estate industry but believes that its use in structured finance is a long ways off: “While I do not see a 100% blockchain commercial real estate lender emerging in the near future, the technology can be useful in certain processes as another tool available to lenders.” Like many others, he cautiously views blockchain’s potential — at least until the finer details are adjusted. “However,” Carlson adds, “the fact that there was a well-attended blockchain panel at a recent CRE Finance Council investor conference shows that it is at least on the radar of many market participants.” As more jurisdictions recognize the legitimacy of the smart contract and as more success stories emerge, blockchain could become a commercial real estate game changer that lowers some of the barriers to investing in real estate.

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