PropTech (Part Two): Real Estate FinTech, Tokenisation and Use of Blockchain in the Real Estate Sector

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In our April edition, we explored how 'PropTech' – the marriage of property and technology – is being used with disruptive effect at every stage of a real estate asset's life cycle. The first article focused on smart buildings, co-working spaces, effects on the retail sector and the potential effects on real estate of autonomous vehicles.

In the second of our two-part article on PropTech, we take a look at how the growing business of FinTech is being used in the real estate sector and also bring you an update on the tokenisation of real estate assets and the use of blockchain in real estate transactions.

Real Estate FinTech

The term 'PropTech' itself has emerged out of 'FinTech', the term used to describe how new technology is used to improve and automate the delivery and use of financial services. At its most basic, FinTech includes money transfer apps such as Venmo, PayPal and Square's new Cash App, crowdfunding applications such as GoFundMe, peer-to-peer lending such as Funding Circle and more recently, the announcement of Apple Card. FinTech has disrupted just about every facet in the provision of financial services and is showing no signs of slowing down.

Peer-to-peer lending platforms ('P2P') and crowdfunding have grown in recent years, allowing investors and borrowers to bypass traditional sources of funding. P2P technology does not forego the due diligence involved in a property transaction. Rather, it streamlines the lending process by capturing automated data from different sources in order to underwrite loans faster and provide access to wider sources of capital. In the realm of property lending, P2P predominantly provides short-term bridging, buy-to-let mortgages, development finance and commercial investment loans. However, loan portfolios for P2P lending in the real estate market are still very small compared to the conventional sources of funding.

The concern with the P2P market is that it is far less regulated than the traditional banking sector. In a first, the Dubai Financial Services Authority ('DFSA'), the regulator of financial services and securities in the Dubai International Financial Centre ('DIFC'), launched its regulatory framework for loan and investment-based crowdfunding platforms in August 2017 in order to licence and protect the rights and obligations of all parties involved in crowdfunding activities.

For example, Dubai-based real estate crowdfunding platform, Smart Crowd, has utilised this framework to allow investors to 'co-own' a property with other investors through shares in a corporate vehicle that owns the relevant asset. This form of co-ownership lowers the barrier for entry to property investment by allowing investors to own a fraction of a property. Such platforms are still in their early days in the UAE, currently only investing in residential properties but if successful, could lead to investment in larger assets such as commercial or industrial buildings and hotels.
Underpinning the potential success of P2P and real estate crowdfunding are the more basic

building blocks of FinTech such as data analytics (increasing personalisation in investment decision-making), personal finance tools (providing greater insight into an investor's financial position) and investment property calculation tools (increasing accuracy for forecasting performance).

Tokenisation of Real Estate Assets

The idea of tokenisation is the process of converting rights to a real-world asset into a digital token on a blockchain which can then be held privately or be traded like crypto-currency on a digital exchange. Real estate assets are, by their very nature, illiquid, non-fungible assets. Sale and purchase transactions take time to complete and there are a number of set processes that need to be carried out in order to complete the transaction by various third parties and intermediaries with associated transaction costs. Asset backed tokenisation has the potential to reduce these liquidity obstacles.

Fractional and proportional ownership is one of the more interesting potential applications for real estate. Tokenisation has the potential to provide a financing alternative through buildings being assigned their own tokens, which constitute fractions of the whole or part of the asset's ownership or debt. It is also likely that we will see an increase in real estate investment funds issuing tokens instead of shares.

Such tokenisation of real assets differs from the offering of so called 'utility' tokens, which usually have a payment function and represent future access to a company's goods and services (which may not yet, or ever, be developed). It was the rampant speculation seen in 2017 in Initial Coin Offerings ('ICOs') of 'utility' tokens and so called 'alt coins' which had no obvious use that, arguably, led to the subsequent bear market in crypto assets and in relation to which the need for consumer protection and regulation became apparent.

In the UAE, there are separate legal and regulatory frameworks in play. The financial free zones of the DIFC in Dubai and ADGM in Abu Dhabi each have their own laws and regulators, whilst the remainder of the UAE, outside of the geographical areas of such financial free zones, falls within the remit of the UAE Securities and Commodities Authority ('SCA'). The position is further complicated by the fact that crypto-currency and tokens issued on the blockchain represent a new form of asset class – which simultaneously may exhibit certain characteristics of currency, securities or commodities but which does not fit comfortably into an established category. Different regulators may therefore take a different view as to how such crypto-assets should be categorised and regulated.

The Financial Services Regulatory Authority ('FSRA'), the regulator for ADGM, was the first in 2018, to issue regulations in the UAE relating to crypto-assets, making it an attractive option for crypto-related businesses as it provides greater certainty from a regulatory compliance perspective. The SCA has also indicated that it intends to issue regulations relating to ICOs and the trading of crypto-assets later this year. Such increased regulation and legal certainty will undoubtedly lead to greater activity in the space and we expect the tokenisation of real estate assets to form a significant part of this, particularly with the crypto-market cycle showing some initial signs of returning to a more bullish phase with increased institutional investor involvement and mainstream adoption. The proposed launch of trading platforms and custodial solutions this year by players such as Fidelity Investments and Intercontinental Exchange (parent company of the New York Stock Exchange), with their respective Fidelity Digital Assets Services and Bakkt projects, are likely to provide such greater comfort to institutional investors. Further, bitcoin 'halving' events, which are hard wired into the bitcoin code, occur roughly every four years. Such 'halving' events result in the bitcoin reward for mining new blocks being cut in half, thus limiting further the availability of an already limited and scarce, fixed supply. The next one is due to occur around May 2020. In the past, such ‘halving’ events have had a positive effect on bitcoin price, which usually also results in renewed and increased interest in crypto-currencies and digital assets generally.

Use of Blockchain by Land Registries

The potential for land registries to use blockchain to transform the process for land registration and reduce fraud in property transactions has been explored previously. The UK and Dubai, in particular, have made great progress towards this goal.

In October 2018, the UK’s HM Land Registry announced that it was partnering with the software company, Methods to explore how R3’s blockchain platform, Corda, could be used to develop a faster, cheaper and more reliable land registration process. It has reported that Digital Street, HM Land Registry’s research and development project, has already created a digital register for a small sample size of properties with the ultimate goal of establishing a digital register built upon blockchain technology.

The Dubai Land Department (‘DLD’) is also in the process of creating a blockchain system to record title deeds and real estate contracts. By capturing all this information, over time, an immutable database of current and historic property ownership, dealings and encumbrances will be achieved, bringing greater transparency and trust in property transactions.

‘Smart contracts’, which are discussed below, also have the potential to allow the register to be automatically and accurately updated without the manual process of submitting a transfer of ownership through a paper application form.

Smart Contracts

A smart contract has all the requirements of a traditional contract (i.e. offer, acceptance and consideration). However, it utilises blockchain technology to automatically execute contracts between buyers and sellers. Rules are put in place so that an action is automatically generated upon the occurrence of a specific event. For example, a rule could be enacted so that title of a property is automatically transferred to the buyer when they deposit funds to the appropriate account. It therefore has the potential to enact the transfer of property instantaneously and securely, without the need for middlemen (e.g. escrow agents, brokers) in a transaction.

A move to smart contracts by the DLD may also include lease registrations whereby a tenant will be able to receive their tenancy contract digitally. The blockchain system may incorporate databases containing information such as Emirates ID, the validity of residency visas and allows tenants to make payments electronically. The immutable data stored on the blockchain system may also be shared with different government and private entities such as Dubai Electricity & Water Authority, telecommunications and district cooling providers and various other services, eliminating the current manual set-up procedures for each entity.

The most important issue to be addressed by such platforms is the protection of personal information and important financial data. There will also be the need for the introduction of digital signatures and verification of identity to digitally process and recognise the legitimacy of such transactions.

Additionally, sale and purchase contracts may contain complex condition precedents and uncertainties which cannot be broken down into a definitive set of coded rules. Therefore, it is likely that human lawyers will continue to play an integral role in complex real estate transactions, at least for the foreseeable future.

Other Applications

Whilst it does not eliminate the due diligence to be performed prior to purchasing a property, a digital register (potentially facilitated by smart contracts) may allow buyers to access key data about a property in order for them to conduct their due diligence faster. For example, the DLD is currently developing a smart listing portal which shall provide real-time listing of such information on properties for sale and, which, through the use of smart contracts, will be able to be automatically de-listed from such portal upon the transfer of title.

The DLD is also building a blockchain mortgage platform which would allow banks to mortgage and de-mortgage property online. However, on a wider application, blockchain can be used to securely store information from surveyors, credit agencies and land registries that would allow banks to quickly verify the ownership of the property or confirm the market price of a property, removing the need for paper-based applications and various intermediaries.

The application of blockchain in the real estate market is still at a nascent stage but it has the potential to optimise and streamline all steps of a real estate transaction, while at the same time, increasing transparency and trust in the real estate market.

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