PROPTECH:

A DISRUPTIVE FORCE IN REAL ESTATE?

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The current state of the real estate industry

With nearly $9 trillion in global assets, commercial real estate is larger than any other class of financial services assets.[14] Add to that global residential real estate assets, which are many times greater in value than commercial real estate, and you are talking about an enormous asset class that historically has created much wealth and attracted considerable entrepreneurial activity. Ownership of real estate is broad-based – owners include individuals, governments, institutions, funds, corporations, and publicly traded entities such as Real Estate Investment Trusts.

However, real estate lags behind most asset classes in digitization and the adoption of technology. There are numerous intermediaries in the industry, and real estate transactions tend to be intensely negotiated and are not standardized. Data about real estate transactions, financing and operations tends to be incomplete and lacking transparency. Real estate as an industry is therefore less efficient and transparent than almost any comparable industry and would appear ripe for disruption. The global COVID-19 pandemic is already accelerating this disruption, given some of the challenges of executing real estate transactions and operating properties remotely, as well as the impact the pandemic will have on how real estate is used in the future.

A dynamic and diverse number of start-ups and growth companies, collectively known as PropTech, have emerged in the past few years and are attempting to transform and disrupt all aspects of real estate through digitization. Will they be successful? Increasingly, venture capitalists, private equity investors and existing participants in the real estate industry are becoming convinced that at least some of them will, and they are investing significant amounts of capital in PropTech.

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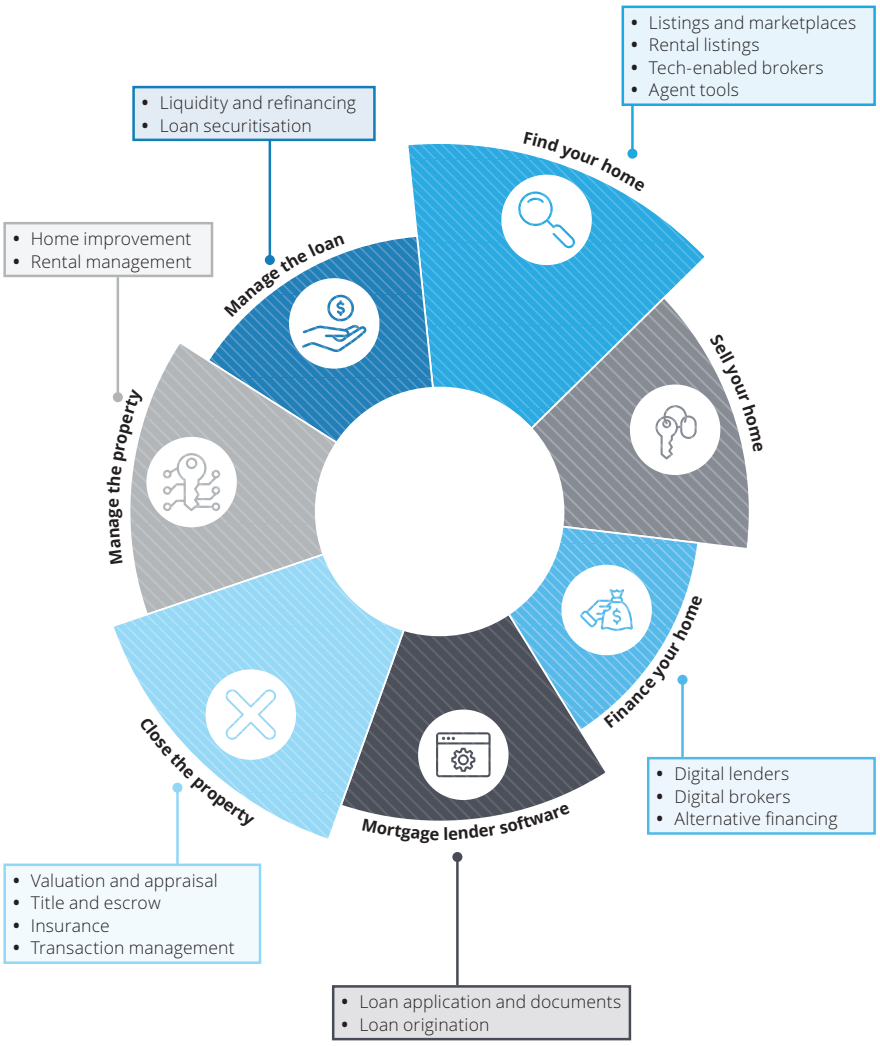
In 2018 Nima Wedlake and Brad Crist of Thomvest Ventures mapped out PropTech ecosystems in both the residential and commercial real estate areas,[15] capturing the broad range and ever-growing numbers of PropTech players, and the pervasive role they could play in future real estate markets. Figure 6 and 7 detail the residential and commercial PropTech landscape-based on Wedlake's and Crist's work:

Figure 6: Residential PropTech landscape



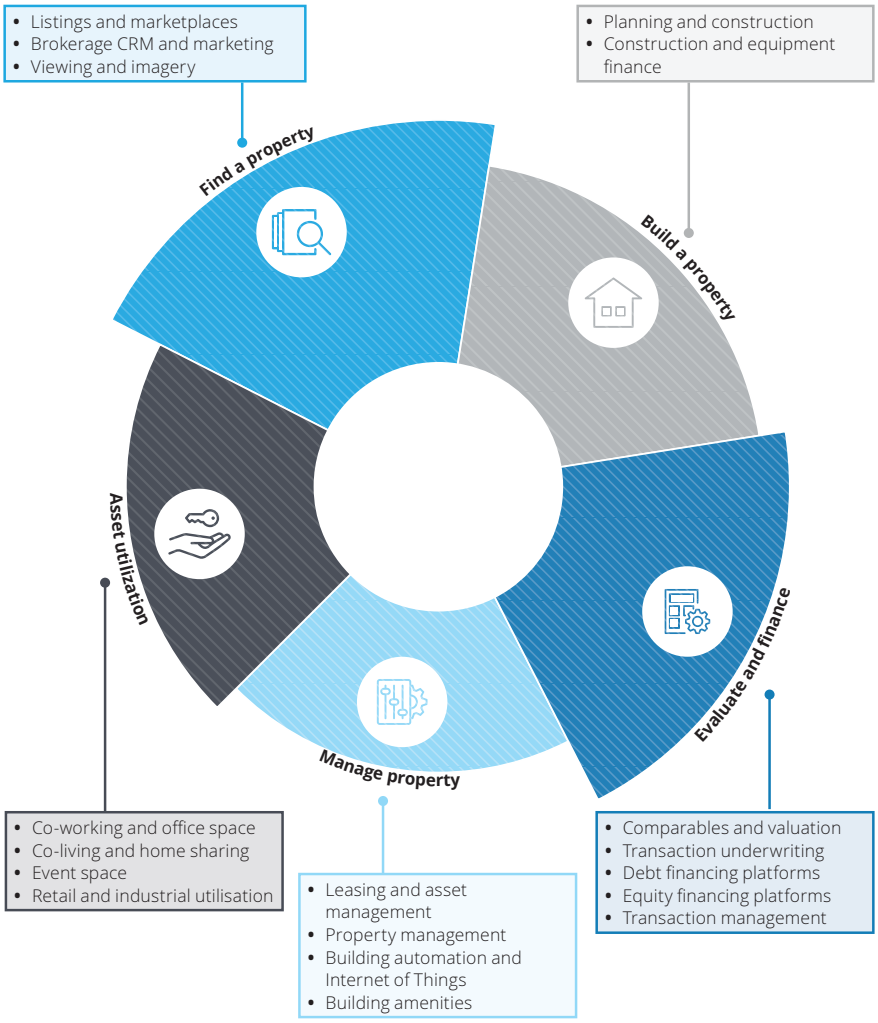
Source: Thomvest Ventures Real Estate Tech Review, Fall 2019[16]

What is PropTech?

PropTech is widely understood to consist of an ecosystem of start-ups and emerging growth companies that offer technology-enabled and/or innovative products, services and business models across various aspects of the commercial and residential real estate markets. It is applied to a wide range of processes and transactions, including how real estate is:

- Identified for investment or leasing
- Planned and designed
- Developed and constructed
- Bought and sold
- Underwritten and financed
- Valued
- Leased
- Managed and operated
- Utilised.

Figure 7: Commercial property PropTech landscape



Source: Thomvest Ventures Real Estate Tech Review, Fall 2019[17]

Many PropTech applications have large addressable markets, in both commercial and residential real estate. A wide variety of market participants – institutional investors, developers, building management companies, transaction and leasing brokers, and companies providing market data, as well as homeowners – are searching for ways to make real estate markets more transparent, less analog and more digital, and to improve the utilisation of real estate.

The real estate industry has been slow to leverage technology: decisions have been made (and often still are made even today) based on instinct and experience, rather than being data-driven. Given the huge size of the industry, it is not surprising that entrepreneurs and venture capitalists see a big opportunity for disruption, and the number of PropTech start-ups and the amount of venture capital funding them have grown substantially in recent years.

Venture capital investment in real estate tech companies globally hit a record high of US$31.5 billion in 2019, an increase of 227% over 2018.[18] Between 2015 and 2019, the nature of venture capital investments evolved from focusing mainly on early stage PropTechs in 2015 to mostly mid-stage and late stage enterprises in 2019.[19] Companies in workplace sharing, residential brokerage, construction technology and real estate finance received some of the largest investments in 2019.

What will be the future of PropTech? First and foremost, we see real estate investors and owners becoming more data-driven in their approach, leveraging internal and external data to make investment and operating decisions, both at a property and portfolio level. Increasingly, they have become better at capturing data, storing it, and leveraging increasingly sophisticated analytic tools for decision making. PropTech supports this evolution in a variety of ways, providing data, developing tools such as sensors and other technology to capture internally-generated data, and establishing analytic capabilities to utilize data to make intelligent decisions.

The impact of PropTech on the real estate market

There are many examples of how this PropTech-enabled, data-driven revolution is having an impact on the real estate industry, including:

- Obtaining and utilizing market data to screen and evaluate development, investment, leasing and home purchase opportunities
- Managing the investment underwriting process, and evaluating post-investment performance to assess the original underwriting
- Disintermediating the property purchase and sale process, including facilitating the execution of real estate transactions remotely
- Supporting the leasing process and lease administration
- Providing additional insights about tenants and how they utilize their space, to enhance tenant relationships and the value equation for tenants – the return to work from the COVID-19 pandemic provides a unique opportunity for landlords to provide tenants with these insights and perspective
- Operating buildings and homes more efficiently and in a more sustainable way, with sophisticated building and home management systems, utilising sensors to capture data and analytic tools to predict occupant needs, whether for health/safety, lighting, security, elevator usage or heating/cooling.

Owners of commercial real estate portfolios are finding that leveraging the capabilities of PropTech can add value to their portfolios and operations, and differentiate market performance, benefitting investors, tenants, employees and the wider community. Homeowners are finding that PropTech can improve their ability to buy, sell, finance and manage their homes, enhancing their comfort and in many cases their affordability.

Many owners of commercial real estate are developing better insights about the experiences with their properties of business tenants and their employees and customers. They can then utilise those insights to improve tenant relations and value for tenants. For example, owners of retail real estate are leveraging PropTech technologies to capture information about traffic and movements of shoppers, to understand better their needs and patterns of behavior. Property owners and managers can then use this information 'scientifically' in leasing space, to enhance the traffic flow of shoppers, generate more sales for tenants, and create a positive shopping experience.

In addition, we see PropTech entities seeking to disrupt how real estate properties are planned, designed and constructed, leveraging new technologies such as artificial and cognitive intelligence, virtual augmented reality, drones, and technology-enabled design and construction. These enhancements are accelerating the construction process, reducing waste, improving quality, safety and procurement, and driving down the overall costs of construction.

PropTech is also playing an increasingly important role in the financing of commercial and residential real estate, using ways to disintermediate the process of obtaining debt and equity financing. Some PropTech companies have launched crowdfunding platforms to connect individuals looking to invest with companies wanting to raise debt or equity capital. Others have developed platforms to accelerate the application and approval process for real estate mortgages or provide tools and data to enhance the transparency and liquidity of the real estate financing markets.

PropTech has also played a visible role in enhancing the utilization of real estate through home sharing and shared office and industrial space. Technology is being leveraged to offer products and services that appeal to individuals and businesses looking either to access more space or to use their existing space better. Data is a key value component of these business models, enabling predictive solutions for fulfilling consumer needs, while also driving better use of space.

Leveraging PropTech capabilities

The rapid increase in the number of PropTechs, the competition between them, and the breadth of their involvement in the real estate sector make it difficult for real estate owners and managers to decide which to utilise and support. Many PropTechs have excellent technology but lack insight into how it can impact a real estate business – much like the proverbial hammer in search of a nail. Players in the commercial real estate industry have an opportunity to evaluate carefully which PropTechs show the most promise; and they may wish to collaborate with others in the industry to help promising PropTechs develop their tools to optimise their effectiveness.

PropTechs will have an increasing impact on the real estate sector in the future, with the potential to disrupt one of the world's oldest and largest industries. We should expect to see many new PropTechs emerge, and eventually there is likely to be some consolidation as PropTechs combine their resources and capabilities to become more influential in the real estate industry. Like any area of start-ups, the PropTech space will have winners and losers, and the active involvement by real estate investors and operators will help determine who the winners will be.