Commercial Real Estate
Technology Review 2016 Q2

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Commercial Real Estate (CRE) Technology Review 2016 Q2

This review of disruptive technologies in CRE tech is brought to you by OurCrowd, the global crowd investing platform for accredited investors.

Industry Trends | Funding Levels | Top Exits | Emerging Categories
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Introduction

Real estate is a huge market – the largest asset class in the U.S., worth about $40 trillion. It breaks down into two parts: $23 trillion for residential housing, and $15 trillion for commercial real estate (CRE) accounts.

While most people may not instinctively see any relationship between real estate and startups, the connection is there. The market is still running largely on broker calls and site visits and it is more than ripe for technological transformation.

A growing number of cutting-edge startups are transforming how business is done in the real estate industry.These companies are developing innovative solutions that are increasing transparency, creating more equal opportunities, leveraging Big Data and complex algorithms to accurately determine risk and automating manual tasks, and are potentially making an incredibly profitable market even more profitable.

Industry Trends

Some of the industry's most significant trends and key indicators of growth in the past year include:[1]

[1] Further information about industry trends are available in this webinar given by CB Insights in May 2016.

- **Deal Activity:** Record levels for real estate tech deals in the first quarter of 2016
- **Investment:** Over $6B has been invested since 2011; record levels this past year, including $1.8B in investments in the first half of 2016
- **Timing of Deals:** 71% at the Seed and Series A stages
- **Acquisitions:** Continued acquisition push by **Zillow**, which acquired **Naked Apartments** in February 2016, in the company's 11th disclosed acquisition
- **Epicenter:** NY-based location for 4 out of 9 top investors in the CRE space
- **Asia:** Uptake in investment, with a record $848M in investment in Asia-based real estate tech startups in 2015, compared to $580M in 2014
- **New Business Models:** Co-living space, launched by 24 companies (including WeWork's WeLive brand)

Funding Levels

Reflecting the increased activity and growth in the industry, real estate technology investments are soaring. This CB Insights article of July 2016 states that, in the first half of 2016, real estate tech startups (residential and commercial) raised 85% more in funding than the same period in 2015, across more than 100 deals. (Compare the more than $1.8B in the first half of 2016 to a total of $1.7B invested throughout the year in 2015.)

Four particularly significant deals in Q2'16 contributed to the bulk of real estate funding. In the residential space, these included:

- **Homelink**'s $926M Series B
- **Buildium**'s $65M growth equity round

In the commercial space, these included:

- **SMS Assist**'s $150M Series D
- **enVerid**'s $23M Series C

Top Exits and Acquistions

The growth of activity in the CRE space in the last five years has led to a remarkable number of IPOs, some of which include:

- Property management solution **[AppFolio]**, which raised $30M in funding and went public in June 2015
- Real estate crowdfunding platform (headquartered in Singapore) **CoAssets**, which raised $736,000 in funding and went public in July 2015
- Residential real estate search engine **Trulia**, which raised $232.8M in funding and went public in September, 2012 – and was then acquired by real estate marketplace **Zillow** in July 2014

In addition to Trulia, other major acquisitions in this space in the last year include:

- Zillow, which raised $87M in funding before going public in July 2011, has completed no less than 10 acquisitions to date
- Shangahi-based real estate listing platform Anjuke, which raised $72M in total equity funding, was acquired by the Chinese 58.com in March 2015
- Indian real estate platform Common Floor was acquired by Quikr in January 2016 – one of Quikr's 8 acquisitions thus far

Emerging Categories

The rise of the CRE tech startup industry was thrust into the limelight in May 2016, when leasing and asset management software startup **VTS** raised the largest financing round for a CRE tech startup, with a $55M Series C led by Insight Venture Partners.

CRE tech startups, which develop software tools used by the various participants in the industry, cover the following range of categories (for more information, see also CB Insight's market map):

- **Listing & Search Services**, helping users search for CRE, such as **42Floors**
- **Marketplaces**, matching CRE buyers with sellers, including **VivaReal**
- **Virtual Viewing**, using tech such as 3D video to view properties remotely, like **Matterport**
- **Tech-enabled Brokerage**, for in-house brokers with their own listing services, like **TheSquareFoot**
- **Leasing-Management Software**, streamlining processes like leasing, such as **VTS** (raised $85M to date)
- **Data, Valuation, and Analytics**, providing analytics, like **Reonomy**

- **O-2-O (Online to Offline) Services**, where users complete transactions online (primarily in Asia), like **Haozu**
- **Property/Building Management**, with tools for property managers, landlords, and tenants, like **ClickNotices**
- **Investment**, with crowdfunding for investors to participate in debt and equity financing, like **Cadre**
- **Property Information**, providing data-driven insights about properties, like **Real Matters**
- **Energy Efficiency,** like **enVerid** that provides technology to reduce HVAC energy consumption

Market Size

The changes brought about by the recent flurry of activity in the real estate tech sector are having a particularly significant impact because of the size of the market, which is considered the largest asset class in the U.S., worth about $40 trillion. To illustrate the dimensions of the market, here are some additional statistics about real estate in the U.S. alone:

- 3 million active real estate agents
- About 500,000 construction professionals
- 1.25 million members in the National Association of Realtors
- Over **120 million actively managed commercial properties**
- Over **85 billion square feet of commercial space**

According to this article on TechCrunch, $1.6 trillion in new real estate debt is issued each year, with $1.1 trillion of that amount in the residential sector and $500 billion coming from commercial markets. That number is growing and **annual CRE lending is projected to reach $1 trillion by 2030**.

Commercial vs. Residential

> **"I believe the next phase of growth — and most exciting opportunities — will be fueled by products and services that serve the commercial side of the real estate market." –Josh Guttman, Partner at SBNY and TechCrunch blogger, February 2015**

While activity is growing in all sectors of the real estate market, CRE offers a particularly noteworthy opportunity for tech innovation because the higher transaction values and stronger competition for commercial properties mean there is more at stake. As a result, there is a greater incentive to obtain a competitive advantage.

Furthermore, each transaction involves numerous individuals who are all part of the CRE ecosystem, including property brokers, mortgage brokers, lenders, developers, appraisers, and builders, and each of these individuals is interested in finding ways of increasing profits.

One interesting startup in this space is **CrediFi**, which is designed to bring greater transparency and reliable data to the market, providing a better understanding of property values and tenants – and allowing lenders to gain a better understanding of their loan portfolios.

CrediFi applies scalable Big Data and data mining techniques, creating a real-time credit quality and risk monitoring tool by using a range of sources such as information available online, public records, and institutional reports, as well as data contributed by its user base. By applying its own, proprietary algorithms, CrediFi monitors owner-level credit worthiness and risk factors such as capital expenditure requirements and tenant composition, to assign assets a unique CrediFi credit score. With its scalable solution, CrediFi is designed to help de-risk, grow, and change the real estate financing market.

Another interesting startup helping commercial property owners is enVerid. enVerid Systems offers a proven, game-changing technology that significantly lowers HVAC energy consumption, delivering up to 40% cost savings and even higher reduction in peak HVAC capacity. enVerid's HVAC Load Reduction (HLR™) modules are "intelligent scrubbers" that remove CO2 and VOCs from indoor air, typically reducing 75% of outside air required to maintain indoor air quality. With payback periods often two years or less and endorsed by the Department of Energy, enVerid is gaining traction with major universities, government institutions, and corporations and has already lined up an OEM agreement with one of the largest HVAC suppliers in the world, Johnson Controls. Furthermore, HLR projects have earned up to 9 LEED credits, helping commercial real estate owners meet their sustainability goals.

Change Drivers

> **According to a recent CBRE report, "There are a number of megatrends in force today that provide reliable insight for sharp commercial real estate investing."**

But why now? What's leading to the current levels of excitement about this space? Market disruptors in technology such as cloud computing, social media, mobile, analytics, and the Internet of Things are rapidly transforming the commercial real estate sector. According to Deloitte's Commercial Real Estate Industry Outlook, the following megatrends are expected to lead to disruptive change in the CRE industry:

The Sharing Economy

Airbnb and Uber may have become household terms, but they are far from being the only successful players in the sharing economy, also known as collaborative consumption – terms that refer to technology companies that enable individuals to rent out their under-used assets or skills.

The rapid growth of the sharing economy will have significant ramifications for CRE, with one result being a higher demand for dynamically configurable spaces. Another shift is that everything to do with leasing is likely to change. Subleasing will grow until it is bigger than leasing, and there will be new approaches to leasing and changes in leasing administration.

Leading the sharing economy in the real estate space is, of course, **WeWork**, the $16 billion startup with a platform enabling freelancers, startups, and entrepreneurs to rent co-working spaces. With over 40,000 coworking members at WeWork offices in 23 cities around the world, WeWork offers a community-like environment that encourages collaboration. This year, WeWork, which raised $430M in a series F round in March 2016, launched its first residential offering, WeLive. WeLive provides short or long term “coliving” options – spaces where, along with living accommodations, residents access community events like fitness classes and potluck dinners, as well as services like cleaning and laundry and a digital social network.

wework
welive

Disintermediation

> **“We needed a platform to connect investors with institutional quality real estate outside the prevailing fund model. I could more efficiently connect investors to quality investments.” – Ryan Williams, Co-Founder and CEO of online investment portal Cadre, says in this article in the New York Post.**

A wide range of industries have cut out the middleman, including computer hardware and software, book and music stores, travel agencies, and stock brokers. Using the Internet, companies and manufacturers interface directly with consumers, and the high market transparency enables buyers to pay less as they bypass wholesalers and retailers. This trend will transform CRE, eliminating the need for a human broker.

Technology advancements in cloud computing, mobile, and social media mean that data is more available and transparent, and this availability of cost-effective and real-time property information will enable the performance of many leasing activities online, so that it will be possible to make better decisions, at lower cost.

On an international scale, there is a link between transparency and the attractiveness of a country’s property market to foreign investment, as suggested in this article in The Investor. This link is visible in Asia Pacific, which made significant changes in real estate transparency. A game-changing technology on this front is the blockchain – effectively, the machine behind the cyber currency bitcoin – which is a disruptive platform that allows a continuously updated database to be distributed across a network of computers, removing any need for intermediaries.

> **"In terms of the real estate industry, the [blockchain] technology has the potential to allow countries around the world to develop a comprehensive real-time database of the use and ownership of buildings." – Anthony Couse, CEO, Asia Pacific, JLL, *The Investor***

The War for Talent

As baby boomers retire, there will be an increasingly competitive landscape for recruiting and retaining talented employees. Employers who want to attract and retain key people will compete to provide better working conditions.

This is particularly significant because the positions previously held by baby boomers are likely to be filled by millennials, who tend to have new and different work preferences, and these preferences are having an impact on space design and locations, transforming CRE with a growing demand for urban environments and mixed-use spaces that include office, residence, and recreation options. Individual lifestyle patterns will play an increasing role in CRE decisions, and CRE owners who create positive tenant experiences will have a competitive edge. For example, offices may increasingly turn into physical meeting points rather than daily workplaces, because many millennials prefer working from home.

> **According to Deloitte's Commercial Real Estate Industry Outlook, "Millennials, who will comprise 75 percent of the workforce by 2030, prefer an open and flexible work culture that allows them to work anywhere, anytime."**

Talent availability will also have a growing impact on investment in CRE. According to this blog on Bisnow, businesses are going wherever the talent is. The giant companies are only interested in going to the largest tech markets in the U.S., places like San Francisco, Detroit, and Baltimore, and this is changing where people invest.

The Last Mile

E-commerce sales have become ubiquitous and have spurred a driving need to offer expanded delivery capabilities, increasing convenience without passing along any visible price increases to the customer. This shift has created greater fulfillment and distribution challenges. Even high-profile stores are struggling to maintain efficient solutions for the final leg of delivery services in a cost-effective and profitable manner.

Retailers are taking steps to determine what supply chain strategies will make the most sense in the race for an effective last-mile experience, sometimes by incorporating stores into distribution nodes or fulfillment points within a retail distribution network. These changes will significantly impact retail and industrial properties. Although physical stores will remain, their form and function will evolve, with neighborhood warehouses and distribution centers replacing neighborhood retail.

Internal Shifts

In addition to global, societal changes, there are also specific shifts taking place within the CRE industry that are pushing the growth and development of CRE tech. Brandon Weber, founder of CRE tech startup **Hightower**, lists the following four change agents in this article on Forbes**:**

- **Increased demand for commercial properties**, due to a massive capital influx – buoyed by low interest rates and volatility in the equity markets
- **A fundamental societal shift in expectations around data and analytics**, which means professionals in the industry seek to harness real-time portfolio and market data
- **A growing demand for purpose-built mobile support for CRE**, particularly since many CRE professionals spend most of their time in the field
- **Less patience on the part of industry professionals for clunky software**, with today's users expecting more from technology in all spheres of their personal and professional lives

> **"The commercial real estate industry is a massive one; every single country in the world is working with very outdated, manual processes to manage their portfolios (leasing, tenant management, future exposure, etc.)…. A side effect of that is that we generate a ton of data for our clients to harness and use to improve performance." – VTS Founder and CEO Nick Romito, in this article in TechCrunch**

Industry Activity

All of these changes inside and outside the industry have created a surprisingly wide range of out-of-the-box approaches and platforms. Here are just some of the innovative CRE tech startups that are transforming the industry:

Crowdfunding Firms and Institutional Funding Platforms

- **Fundrise**, which lets project developers access a non-traditional channel of funding in the form of investments from individuals who lay out as little as $1,000 to participate; raised a total of $40.99M in 5 rounds
- **Cadre**, an innovative, technology-driven marketplace, changing how individuals and institutions connect; raised $50M in a Series B in January 2016
- **LendingHome**, a marketplace for home mortgages; raised $70M in a Series C in March 2015 led by Chinese company Renren

Portfolio and Project Management

- **Hightower**, a commercial leasing management platform that enables brokers and owners to better manage their end-to-end leasing workflow; raised $21.66M in total equity funding
- **VTS**, providing a single platform for asset managers and leasing teams to track deals, manage space, and collaborate seamlessly; raised $55M in a Series C in May 2016
- **Honest Buildings**, an integrated, data-driven project management and procurement platform for CRE owners and managers; raised a total of $17.25M in 5 rounds, including $1M in debt financing in August 2016

Data Platforms

- **Reonomy**, combining comprehensive and validated data with powerful analytics so that CRE professionals can make faster, more informed decisions; raised a total of $18.8M in 4 rounds, including $4.5M debt financing in June 2015
- **CompStak**, employing a crowdsourced model to gather CRE information for investors, brokers, asset managers, and appraisers; raised $4.4M in a Series A in November 2014

The Democratization of CRE

Today, the CRE financial market is surprisingly opaque. One reason for this is the role of the brokerage community, which controls the information flow and profits from market opacity.

Within this community, market influence is highly concentrated among the top five brokerage firms, who control 65% of the market. This shows the relationship-driven nature of the real estate industry and underscores its lack of transparency.

Brokers often show opportunities only to their “preferred” buyers or lenders, choosing to exclude other stakeholders and avoiding a more competitive bidding process.

The solutions now being developed and marketed by a growing number of technology startups for the CRE market are contributing to greater democratization and a transparent access to information, leading to more insight-driven investment decisions and increasing stakeholders’ profits.

> **“My biggest learning was that CRE professionals were making really big real estate investments based on probability, not high quality information; in many cases they just didn’t have the data. You look at what happened in 2008 and the bell started to ring for me.” – Charlie Oshman, Co-Founder of CRE tech startup Reonomy, in this article in Forbes**

Conclusions

It is only relatively recently that investors and venture capitalists have started to take advantage of the opportunities that lie within the real estate startup industry. Since 2011, over $6B has been invested in real estate tech market, with about $4.2B being invested in 2015 and 2016 YTD. In the first half of 2016, real estate tech startups raised more than $1.8B across more than 100 deals.

The areas of opportunity in the commercial sector, in particular, are many and varied, and include the development of tools for property management, research and analytics, tech-enabled brokerages, mobile apps, and commercial lending.

With over 85 billion square feet of commercial space in the U.S. CRE market alone, new technology solutions are a natural fit for this sector. This is partly because the market is underdeveloped and inefficient and partly because there is commercial data publicly available to parse – and this can be leveraged fairly easily by developers and entrepreneurs.

Real estate tech has established itself as a formidable category, potentially disrupting this centuries-old industry and injecting it with new excitement and significant opportunities for growth.