

# Mergers and acquisitions: Impact on the real estate technology revolution

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### ABSTRACT

*As venture capital fundraising has become increasingly competitive due to the acceleration of the*

*number of PropTech assets in the market, small and mid-sized technology company start-ups are combining to build more valuable and attractive real estate technology platforms. Similar consolidation transactions are occurring between real estate and technology companies in the PropTech industry. This paper examines the trends, challenges and benefits to the wave of consolidation in the PropTech industry today and forecasts the continued pace of mergers and acquisitions (M&A).*

**Keywords:** PropTech, M&A, mergers, consolidation, convergence, adoption, technological innovation, digitisation of real estate

### INTRODUCTION

PropTech — the convergence of real estate and technology — has transitioned from a disruptive model challenging technological deficiencies in the well-established real estate industry to a complementary marketplace of tech start-ups and forward-looking real estate players receptive to innovations that are quickly transforming how real estate is owned and operated. Driven by a few key dynamics, the PropTech industry is undergoing a wave of consolidation that will usher in the next stage of growth for the industry.

Over the last several years, funding into the PropTech industry has been on a steady

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rise. From 2015 through 2019 to date, global venture capital investment in the real estate technology sector, including by real estate funds and traditional venture capital investors, has plotted an upward trajectory: US\$1.8bn in 2015, US\$4.2bn in 2016, US\$12.6bn in 2017, US\$11.2bn in 2018 and US\$21.1bn to date in 2019.<sup>1</sup> The resulting number of PropTech offerings spawned by this capital infusion has set the stage for consolidation within the industry.

In addition, while real estate has historically been a delayed participant in technological innovation, a new generation of real estate entrepreneurs is bringing a better understanding of the opportunity for growth in net operating income to be gained from the adoption of technology. The digitalisation of real estate and the increase in funding specifically devoted to PropTech assets from angel investors, venture capital and well-capitalised and well-established real estate investors is driving, and will continue to drive, an active PropTech M&A pipeline.

### **COMPETITION FOR FUNDING AND ACHIEVING SCALE THROUGH TECH/TECH M&A**

As fundraising has become increasingly competitive due to the acceleration of the number of PropTech assets in the market, small and mid-sized start-ups are combining to build more valuable and attractive real estate technology platforms. These technology-to-technology company consolidations better position the combined platforms for new investment, combine funding from existing investments and increase the potential for utilisation within real estate firms because of enhanced scale in product offerings.

Adoption of tech within real estate, however, still faces adversity for several reasons: 1) a desire for access to more cohesive tech solutions with capacity to address various gaps in services; 2) concerns that there is a lack of internal expertise within real estate

firms to effectively evaluate the numerous single-offering tech solutions available in the market; and 3) the view among many real estate operators that tech developers lack sufficient knowledge of real estate to develop applications that will be effective in integration across a real estate business model and that tech start-ups have simply crowded the space due to the uptick in funding.

As a result, while many real estate companies recognise the potential of technological innovation, actual adoption of solutions must overcome these identified hurdles around the ease, efficiency and potential success of adoption. The consolidation of smaller tech companies has yielded solutions with enhanced scale, which in turn, has made real estate companies more willing to take the risk of incorporating new technologies into their business model.

The VTS merger with Hightower, a US\$300m combination of two cloud-based leasing and portfolio management data platforms, exemplifies the benefits that can be realised in PropTech M&A, including increased market share and efficiencies from cost savings. On a stand-alone basis, the two companies would have continued to compete for the same customer base while offering less functionality across their respective data offerings. The merger created a combined company with a more valuable product. The synergies resulting from the deal included customer base growth of more than 28,000 real estate users and portfolio growth of more than 7bn sq.ft, increases of 87 per cent and 112 per cent, respectively, to the pre-merger stand-alone company comparable metrics. Also combining each company's investor base, including Blackstone, OpenView, Bessemer Venture Partners and Thrive Capital, resulted in more access to capital.

Table 1 reflects transaction profiles of additional tech/tech combinations in the PropTech industry from 2015 to today, demonstrating the surge of recent transactions in the space, across a number of PropTech segments.

**Table 1: Transaction profiles of additional tech/tech combinations in the PropTech industry from 2015 to date**

<i>Acquiror</i>	<i>Target</i>	<i>Valuation</i>	<i>Segment</i>
<b>2019</b>			
Amazon	Eero	US\$97m	Home WiFi
Procore	Construction BI	Undisclosed	Business intelligence solutions for construction firms
Procore	Honest Buildings	Undisclosed	Project management/procurement platform
DoorDash	Scotty Labs	Undisclosed	Autonomous vehicles
GuestReady	BnbLord	Undisclosed	Airbnb management service
Hello Alfred	Bixby	Undisclosed	Property management software
Building Engines	RDM	Undisclosed	Building measurement and space visualisation software
AppFolio	Dynasty Marketplace	US\$60.2m	AI solutions for the real estate market
Vacasa	Wyndham Vacation Rentals	US\$162m	Vacation rental marketplace
Mynd Property Management	HomeUnion	Undisclosed	Online real estate investment services
DoorDash	Caviar	US\$410m	Online food delivery
LightBox	Real Capital Markets	Undisclosed	Global marketplace for commercial real estate
RealPage	CRE Global Enterprises	US\$50m	Data services and data analytic solutions for real estate owners with over US\$50bn in assets
MRI Software	Leverton	Undisclosed	AI-powered data extraction solution for RE and corporate documents
MRI Software	ProLease	Undisclosed	Lease administration, lease accounting, lease analytics and workplace management applications
MRI Software	Rockend	Undisclosed	Residential property and strata management solutions for the AUS and NZ PropTech sector
Amazon	Realogy	Undisclosed	Real estate brokerage
VTS	Property Capsule	US\$20m	Real estate technology platform with an enterprise SaaS marketing suite and a marketplace offering
Uber	Cornership	Undisclosed	Grocery delivery start-up
Juwai.com	IQI Global	Undisclosed	Global real estate & investment advisory firm operating and advising in Dubai, Malaysia, Australia, Canada, Philippines and Vietnam
RealPage	Hipercept	Undisclosed	Advisory services, data management, partner management, application management and data analytics for the commercial real estate industry
Covius	Chronos	Undisclosed	The credit, flood, income and tax verification services, government services, REO management and disposition, online foreclosure auction and homeowners association tracking units of Chronos Solutions
MRI Software	Engage	Undisclosed	ERP software and SaaS for the multifamily and commercial real estate sectors, providing features for accounting, budgeting and forecasting, job costing, lease management, reporting and Web design
Lenda	Reali	Undisclosed	Online mortgage lender leveraging advanced analytics to offer no origination fees, fast approvals and competitive rates
Acquicore	Entic	Undisclosed	Operational cost analytics platform for commercial real estate facilities
Abode	US Realty.com	Undisclosed	Online real estate brokerage offering low-cost home sales
MRI Software	CTM Software	Undisclosed	Residential real estate workflow and transaction management software

<i>Acquiror</i>	<i>Target</i>	<i>Valuation</i>	<i>Segment</i>
Appfolio	LISA	Undisclosed	AI tool that automates leasing communication for property managers
Porch	HireAHelper	Undisclosed	California-based moving services marketplace
LightBox	Digital Map Products	Undisclosed	Location intelligence platform
CREtech	RE:Tech	Undisclosed	Real estate technology data and information platform
Showingtime	Centralised Showing Service	Undisclosed	Provider of a showing schedule platform for the residential real estate industry
Expedia	Canada Stays	Undisclosed	Largest vacation rental marketplace in the Canadian marketplace
HomeLight	Eave	Undisclosed	Tech-enabled direct mortgage lender targeting the luxury buyer segment
CoreLogic	National Tax Search	Undisclosed	Provider of property tax management services to lenders, real estate investment trusts and property management companies
States Title	Captive Title North America	Undisclosed	Real estate settlement service provider
Airbnb	Urbandoor	Undisclosed	Short-term rental industry
Airbnb	HotelTonight	US\$400m	Online travel app
Airbnb	Gaest	Undisclosed	Short-term rental industry
Zumper	NowRenting	Undisclosed	Provider of an end-to-end marketplace designed to make renting apartments easy
Ojo Labs	RealSavvy	Undisclosed	Provider of a search platform for real estate properties designed to collaborate and make the process of finding and purchasing homes more efficient and personalised
Night Swapping	Home Exchange	Undisclosed	Online platform for home exchanges, connecting like-minded travellers and enabling them to swap vacation homes
Lone Wolf	zipLogix	Undisclosed	Transaction management for real estate
ICE	Simplifile	US\$335m	Operator of a network connecting agents and jurisdictions that underpin residential mortgage records, streamlining the local recording of residential mortgage transactions
ICONICS	Mitsubishi Electric	Undisclosed	Electronic equipment
Clearlake Capital Group	Dude Solutions	Undisclosed	Cloud-based operations management software that automates enterprise asset management workflows such as work order, inventory, energy, capital planning and facility scheduling
Thoma Bravo	Ellie Mae	Undisclosed	Loan origination SaaS for the financial sector
Lovell Minnick Partners	Attom Data Solutions	Undisclosed	National real estate data and analytics
Lovell Minnick Partners	Inside Real Estate	Undisclosed	Provider of an end-to-end SaaS platform for the residential real estate industry
Vector Capital	Moxi Works	Undisclosed	Developer of a software platform for real estate brokers
<b>2018</b>			
Knotel	42 Floors	US\$10.35m	Commercial real estate search engine
News Corp	OpCity	US\$210m	Online real estate referrals
Realpage	ClickPay	US\$219m	Online payment collection for CRE
Siemens	Comfy	Undisclosed	Workplace experience app
Autodesk	PlanGrid	US\$875m	Construction software
RealPage	Rentlytics	US\$57m	Real-time property management
RealPage	LeaseLabs	US\$117m	GoDirect marketing and creative solutions for multifamily communities

<i>Acquiror</i>	<i>Target</i>	<i>Valuation</i>	<i>Segment</i>
Zillow	Mortgage Lenders of America	Undisclosed	Online real estate lending platform
Lending Tree	ValuePenguin	US\$105m	Online analysis website for consumers seeking advice on financial topics such as insurance, investing and credit cards
CoreLogic	HomeVisit	Undisclosed	Marketing services for real estate in Virginia
HomeToGo	Tripping	Undisclosed	Online hotel booking platform intended to serve the travellers, experts and locals around the world
Archibus	Serraview	Undisclosed	Software designed to offer workplace space management and optimisation
Expedia Group	Apartment Jet	Undisclosed	Property management platform designed to offer information on short-term rentals
LendingTree	QuoteWizard	US\$370m	Online automotive, home, renter's and health insurance quote comparison service for consumers as well as lead generation services for insurance agents and other businesses
Vacasa	Oasis	Undisclosed	High-end serviced home rentals platform for rental properties in sixteen countries around the world
Moody's	REIS	US\$278m	Provider of US commercial real estate CRE data
Zillow	Mortgage Lenders of America	Undisclosed	Operates an online direct mortgage lending company
CoreLogic	A La Mode	Undisclosed	Develops desktop, mobile and web tools for real estate and mortgage industries
MRI Software	Happy Software	Undisclosed	Housing software and services intended to help housing authorities effectively manage processes
Autodesk	Building Connected	US\$275m	Property owner/contractor platform to procure bids and qualify vendors
Uber	Jump	US\$200m	Bike sharing start-up
OJO Labs	WolfNet Technologies	Undisclosed	Real estate data platform
Amazon	Ring	US\$1bn	Smart doorbell and camera system
GuestReady	We Stay in Paris	Undisclosed	French version of Airbnb
Evolve Vacation	Everbooked	Undisclosed	Pricing platform for short-term rentals
WCI Data Solutions	HingePoint	Undisclosed	Cloud and mobile applications for construction and commercial real estate companies
Urban.co.uk	Emoov	£100m	Online real estate brokerage service
Amenify	Mobile Butler	Undisclosed	Software that builds custom applications for resident engagement in multifamily
RESAAS Services	Real-Block Inc.	Undisclosed	Real estate blockchain application
Building Connected	TradeTapp	Undisclosed	Subcontractor risk analysis platform
Roomi	Symbi	US\$11m	Online room rental platform
Procore	BIManywhere	Undisclosed	BIM collaboration platform for construction and facilities management
Xome	Assurant	US\$35m	Focuses on reducing expense and exposure of clients' portfolios from origination to disposition, enabling clients to manage risk across the mortgage lifecycle
Trimble	e-Builder	US\$500m	Cloud-based construction programme management software to meet the needs of repeat builders in the construction industry
Landis	GoldenKey	Undisclosed	Real estate marketplace for selling direct to investors

<i>Acquiror</i>	<i>Target</i>	<i>Valuation</i>	<i>Segment</i>
Accruent	Kykloud	Undisclosed	Mobile physical asset management and surveying SaaS for the education, retail, healthcare, government, infrastructure, leisure and commercial property sectors globally
Porch	Serviz	Undisclosed	Online platform designed to offer on-demand home repair services
REA Group	Hometrack (Australia)	US\$130m	Property data analytics to the financial sector
Trimble	Viewpoint Construction Software	US\$1.2bn	Cloud, SaaS and on-premise commercial construction software solutions
Accruent	Connectiv	Undisclosed	Cloud-based medical device and facilities management SaaS for the healthcare industry
WMIH Corp	Nationstar Mortgage	Undisclosed	Servicing, origination and transaction-based services primarily for single-family residences in the United States
Purple Bricks	duProprio	£29.3m	Provides commission free real estate services
SilverLake	ZPG	US\$3bn	Searchable real estate classified ads website of properties for sale or rent for consumers in the UK
Insight Venture Partners	Property Brands	Undisclosed	Develops software for property management
<b>2017</b>			
Oracle	Aconex	US\$1.2bn	Cloud-based software that manages team collaboration on construction projects
RealPage	PEX Software	US\$6.2m	Residential property management and leasing software to private rental and student rental housing in UK, Germany, Spain and Australia
RealPage	On-Site	US\$250m	Property management software
CoreLogic	Clareity Security Solutions	Undisclosed	Real estate tech and consulting firm
RealPage	Axiometrics	US\$75m	Multifamily market data provider
ShowingTime	Showing Suite	Undisclosed	Real estate showing platform
RealPage	Lease Rent Options (LRO)	US\$300m	Revenue management company
MRI Software	eCondo Systems	Undisclosed	Cloud-based software system for clients in the condominium development and sales sector with a comprehensive web-based application
MRI Software	HAB	Undisclosed	Housing management software for public housing authorities and private affordable housing developments
MRI Software	Qube	Undisclosed	Develops and supplies real estate management software designed to provide full access to vital information in real estate
Zillow	New Home Feed	Undisclosed	Real estate listing management technology for developers and builders
Ellie Mae	Velocify	US\$128m	Cloud-based intelligent sales software that enables mortgage companies to close more loans by helping loan officers respond quickly to prospective borrowers
RealPage	American Utility Management (AUM)	Undisclosed	Utility management and energy services
CoreLogic	Mercury Network	Undisclosed	Appraisal management platform that uses desktop and cloud-based valuation supply chain technology that connects all of the parties involved in the appraisal process
MRI Software	MDA Property Systems	Undisclosed	Property management, accounting and facilities management software
EasyKnock	ClearDigs	Undisclosed	Tenant communications, marketing and data management tool

<i>Acquiror</i>	<i>Target</i>	<i>Valuation</i>	<i>Segment</i>
buyMyplace	MyPlace Conveyancing	Undisclosed	Online fixed fee conveyancing services to property buyer and sellers
Altus Group	EstateMaster	Undisclosed	Property software for developers
Zoopla Property Group	Hometrack.co.uk	£120m	Automated valuation system
Priceline Group	Momondo Group	US\$550m	European travel platform
Intel	Mobileye	US\$15.3bn	Computer vision for autonomous vehicle technology
Airbnb	Accomable	Undisclosed	Online rental platform designed to help people with disabilities find reasonable and accessible accommodations when travelling
Lone Wolf	Instanet Solutions	Undisclosed	Cloud-based transaction management systems designed to create, store, sign and manage all listing, sales and lease files online
GuestToGuest	HomeExchange	Undisclosed	Home exchange network
Housing.com	PropTiger	US\$70–75m all-stock deal	Online real estate advisor
Fidelity	Skyslope	Undisclosed	SaaS-based real estate transaction management software created to help real estate agents manage their transactions online
Thomas H. Lee Partners	Ten-X	Undisclosed	Online real estate marketplace allows people to buy and sell commercial and residential real estate properties online using desktop and mobile technology
Fidelity	RealGeeks	Undisclosed	Develops customer relationship management software and a marketing platform for real estate professionals
<b>2016</b>			
VTS	Hightower	US\$300m	Asset management and leasing platform
Oracle	Textura	US\$663m	Construction contracts and payment management cloud services
Roper Technologies	ConstructConnect	US\$632m	Construction management software
Zumper	PadMapper	US\$10m	Online residential rental platform
Ritchie Brothers	Iron Planet	US\$785.5m	Online equipment marketplace
Naborly	LRANK.COM	Undisclosed	Location intelligence platform
PropTiger	PropRates	Undisclosed	Mumbai-based data collection company
BroEx	REXPROM	Undisclosed	Offers solutions such as inventory distribution, broker to broker listings and CRM for property consultants, agents, brokers and developers.
Cendyn	Guesfolio	Undisclosed	CRM platform focused on boutique hotels
<b>2015</b>			
Expedia	HomeAway	US\$3.9bn	Vacation rental marketplace
Zillow	Dotloop	US\$108m	Real estate transaction system
Zillow	Trulia	US\$3.5bn	Home and neighbourhood site for buyers and renters
AltiSource Portfolio Solutions	RentRange	Undisclosed	Information platform for the single family rental sector
AltiSource Portfolio Solutions	Investability	Undisclosed	Online real estate acquisition platform

Source: CapitalIQ, Pitchbook and press releases

## PROPTECH M&A VALIDATION BY BIG TECH

Recent combination transactions by the world's largest technology companies further validate the momentum behind real estate-technology M&A. This year, Amazon.com expanded its home security and in-home technology services through an acquisition of Ring Inc., manufacturer of home security products that incorporate outdoor motion detecting cameras, through Amazon's Alexa Fund, the Company's investment sleeve exclusively formed for investments in Alexa-powered devices. Also in 2019, Amazon acquired Eero, a home WiFi system, which enhances in-home communication between Alexa Internet of Things (IoT) devices. Amazon has also completed deals for home buying and building companies, including its acquisition of Realogy in 2018, a real estate brokerage company and prefabricated homebuilder Plant Prefab Inc., a company that makes custom single- and multi-family homes. Following its acquisition of Realogy, Amazon launched a program called 'TurnKey', which allows homebuyers in 15 US cities to connect with a Realogy real estate agent. In exchange for closing a home acquisition with that agent, the home buyer will receive between US\$1,000 and US\$5,000 in Amazon IoT products and services.

Google, Facebook and Samsung have each also publicly reported interests in acquiring and joint venture partnering with homebuilding, smart home technology and/or real estate brokerage companies, for the opportunity that such platforms present for scaled integration of these companies' respective technologies.

Big tech is and will continue to be in the middle of the technological transformation of the real estate industry. The potential for implementation of their technologies across the full real estate platform is vast in scope, and M&A offers an immediate channel to achieve this result.

## STAGE TWO: REAL ESTATE/ TECHNOLOGY COMPANY COMBINATIONS

The consolidation of small PropTech technology companies, taken together with the fact that certain real estate sectors such as hospitality, retail, office, residential and industrial, are well-positioned for technological transformations aimed at correcting operational inefficiencies and lagging value creation, is expected to result in a second tier of real estate/tech combinations.

For those companies where implementation of uniform technology across the portfolio yields operational and economic advantages, acquisitions of mission-critical tech assets — in lieu of recurring licensing — will provide ownership of and ongoing use of the technology. The associated cost savings in connection with acquisitions may be the more long-term economically efficient model for certain real estate businesses.

In other instances, real estate companies seek targeted technology solutions to drive innovation in a particular aspect of the business. This objective may include the acquisition of technology company talent to build internal infrastructure for tech integration and continued development and support, and for these purposes M&A may be an effective strategy.

The recent CBRE acquisition of Floored illustrates the benefits of real estate/tech M&A. As a real estate management firm, CBRE routinely builds and reconfigures commercial properties to meet the specifications of investors or incoming tenants. Floored is a software-as-a-service (SaaS) company focused on interactive 3D technology which facilitates floor plan editing and simulations of walk-through experience similar to Google Maps. Floored provides CBRE with the ability as it develops and remodels properties to offer clients projected views of the built-out projected property. Other real estate powerhouses such as Equity Office, Hines and Beacon Capital use similar technologies.



In addition, and while not directly a PropTech industry transaction, Prologis' acquisition of DCT Industrial has cross real estate/tech implications as the combination was aimed at capitalising on the high growth in e-commerce. The Prologis-DCT transaction resulted in a combined 71m sq.ft US portfolio of valuable industrial distribution centres servicing the distribution and delivery of products through the growing e-commerce channel. Similarly, Brookfield's acquisition of GGP was driven in part by a desire to capitalise on the opportunity to transform GGP's retail assets in a period during which the retail real estate sector is being reshaped by technology and e-commerce.

Table 2 (see pp. 180–181) reflects transaction profiles of additional real estate M&A transactions with technology industry targets and/or technology-based drivers, from 2015 to today.

## THE VALUATION DIVIDE

While the frequency of real estate-technology driven business combinations is certainly rising, philosophical differences between the industries may continue to present challenges in deal execution. One fundamental difference is how technology and real estate companies are valued. Technology companies, particularly in the early stage, are typically valued with significant emphasis on anticipated future growth and minimal emphasis on historical and current cash flows and profitability. With intrinsic value heavily concentrated in intellectual capital promising future returns, the balance sheet does not often reflect the immediate ability to create cash flows and cash flow growth. In M&A, technology company valuation is often based on stock price performance or comparable company analysis, precedent transaction valuation multiples, and the application through a discounted cash flow analysis of a long-term growth rate forecasting out-year profitability. These out-year forecasts necessarily rely heavily on assumptions by

management as to the future success of the company's product offerings.

In contrast, real estate is valued more precisely based on the estimated value of hard assets owned. Real estate companies generate and are valued based on actual operating measures like net operating income, funds from operations, net asset value and capitalisation rates. Also, because real estate assets trade regularly, comparable asset pricing provides valuable precedent data for determining the intrinsic value of the assets by comparison to similar real estate dispositions. In M&A, real estate company valuation is based on key valuation metrics of comparable companies (cap rates, FFO, NAV, etc.), premiums in precedent transactions and a discounted cash flow analysis typically based on less speculative estimates than those relating to technology companies. For example, current stabilised revenues and cash flow can be projected forward fairly readily based on long-term leases providing guaranteed revenues.

Valuation is a key driver of M&A — a buyer and a seller may have differing views on valuation, but a deal can only get done when those views intersect at an agreed-upon price. In real estate-technology combinations, finding this intersection may be challenging because of the differing views on valuation from the technology company perspective and the real estate operator perspective. Certain PropTech companies on the technology side are addressing this gap by shifting their focus to generating revenues in early years, which can serve as a 'proof of concept' and assurance of continuing value for buyers from the real estate world. On the real estate side, execution of acquisitions of technology will need to be accompanied by a shift from the traditional valuation viewpoint anchored by hard assets to a viewpoint that disruptive technology may have greater value than current revenues would suggest even though the technology's high growth potential is speculative and subject to potential execution risks. In addition,

**Table 2: Transaction profiles of additional real estate M&A transactions**

<i>Acquiror</i>	<i>Target</i>	<i>Value</i>	<i>Target Segment</i>
<b>2019</b>			
WeWork	SpaceIQ	Undisclosed	Workspace management
WeWork	Euclid	US\$100m	Spatial analytics platform
WeWork	Spacious	Undisclosed	Co-working
CoWrks	The UnCube	Undisclosed	Flexible workspace
JLL	HFF	US\$1.8bn	Capital markets firm
WeWork	Managed by Q	US\$250m	Office management platform
Industrious	TechSpace	Undisclosed	Co-working
Knotel	Deskeo	Undisclosed	Office space rental platform in Paris
Compass	Contactually	Undisclosed	Cloud-based software with a built-in CRM system
WeWork	Waltz	Undisclosed	Intelligent mobile-focused access solutions, focusing on transit fare payment and building access systems to provide secure, fast and efficient transactions
CBRE	Romonet	Undisclosed	Operating cost analytics software for large data centre operators
Clutter	StorageFox	US\$152m	Provider of storage facility services
Opendoor	OS National	Undisclosed	Provider of national residential and commercial title and escrow services
TA Associates/MRI	DLS	Undisclosed	Provider of technology for tracking and engaging potential multifamily property residents and analysing marketing returns
CBRE	Florida Valuation	Undisclosed	Operator of real estate appraisal firm that specialises in right-of-way appraisal and litigation
Oyo	Danamica	US\$10m	Revenue management company
Constellation Real Estate Group	Mortgage Builder	Undisclosed	Loan origination and servicing software systems for the residential real estate lending industry
Constellation Real Estate Group	SmartZip	Undisclosed	Predictive analytics and data-driven marketing automation platform for the residential real estate industry
Constellation Real Estate Group	Offrs	Undisclosed	Provider of a predictive listing and lead generation platform for the residential real estate industry
CoStar	Off-Campus Partners	Undisclosed	Off-campus housing search platform
CoStar	STR	US\$450m	Benchmarking and analytics for hospitality industry
Colony Capital	Digital Bridge	US\$325m	Investor in global opportunities in digital infrastructure
WCAS	GreenStreet Advisors	Undisclosed	Provider of research, data and analytics to the commercial real estate industry in North America and Europe

<i>Acquiror</i>	<i>Target</i>	<i>Value</i>	<i>Target Segment</i>
<b>2018</b>			
JLL Spark	Stessa	Undisclosed	Real estate property management
WeWork	Teem	US\$100m	Office management start-up
JLL	ValuD	Undisclosed	IBM software integration and consulting services
Opendoor	Open Listings	Undisclosed	Online real estate brokerage service
Realtor.com	OpCity	Undisclosed	Real estate referrals
Sumitomo Forestry	Crescent Communities	US\$370m	Real estate developer, investor and operator
Brookfield	GGP	US\$15m	Real estate owner, manager and developer of retail properties
Opendoor	Open Listings	Undisclosed	Online marketplace designed to make buying a home simple and affordable
Compass	Pacific Union International	Undisclosed	Leading luxury real estate brokerage serving California
Compass	Paragon Real Estate Group	Undisclosed	Operates a residential real estate brokerage in the San Francisco Bay area
CBRE	Facility Source	US\$290m	Develops real-time facility support software services intended for facility maintenance management and process optimisation
Prologis	DCT Industrial	US\$8.5m	
Costar	Cozy	US\$68m	Online property rental management platform designed to make the rental process simple, secure and intuitive
Fidelity	Stewart	US\$1.2bn	Title insurance and real estate transaction services
<b>2017</b>			
CBRE	Floored	Undisclosed	3D technology
Industrious	PivotDesk	Undisclosed	Shared workspace management
Berkadia	RedIQ	Undisclosed	Underwriting tool for multifamily real estate
CoStar	ForRent	US\$385m	Multifamily advertising company
2016			
Convene	The Hub	Undisclosed	Flexible event space
AccorHotels	Onefinestay	US\$167m	London-based online rental company
2015			
CoStar	Network Communications	US\$172m	Multifamily advertising and Internet marketing service

Source: CapitalIQ, Pitchbook and press releases

the value in technology as applied to real estate may come from increases in long-term net operating income rather than revenue attributable to sales of the product itself. Technology will often be a means rather than an end to delivering economic value.

WeWork's recent struggles highlight these cultural differences between the technology world and the real estate world. WeWork has acquired 21 real estate technology start-ups since 2015 (seven in 2019 alone), substantially all of which have enhanced the company's core coworking business. How WeWork is classified as a company — real estate or technology — is one of the sources of its unsuccessful initial public offering (IPO). WeWork is a technology driven platform that leases and purchases real estate from traditional landlords and transforms the space into flexible offices for the company's membership community. While it is powered by technology, its business also involves significant people- and real estate-related amenities aimed at driving demand for its space-as-a-service model. The service aspects of the business (hiring people to manage space and providing amenities) and securing the coworking space itself to grow revenues require large amounts of capital (principally provided by SoftBank, WeWork's largest investor). According to WeWork's IPO registration statement, the aggregate liabilities under its leases were US\$47.2bn as of 30th June, 2019, with an average initial lease term of 15 years. The company employs a short-term subleasing model with flexible termination provisions, which therefore leave it exposed to significant losses in a market downturn. WeWork markets itself as a technology driven company with a high potential future growth rate based on a rapid scaling of market share but with a slow path to profitability. Based on valuation views focused on its high growth potential, WeWork had been valued at US\$47bn in its last private financing round. The IPO process, however, exposed its financials to a wider group of investors, including real estate investors, with differing perspectives on valuation.

WeWork's IPO registration statement disclosed that it took the company seven years from formation in 2010 to achieve US\$1.0bn of revenues and the company recorded a US\$900m loss for the six months ended 30th June, 2019. For the year ended 31st December, 2018, WeWork's reported total revenue was approximately US\$1.82bn. Based on a US\$47bn valuation, WeWork's enterprise value/revenue multiple at 31st December, 2018 was 25.8x. As a peer comparison, prospective investors began to compare WeWork to IWG (formerly Regus, LSE:IWG), a public coworking company in the flexible office space, owning significantly more real estate assets, and which has not been traditionally viewed as a pure technology company. IWG's enterprise value/revenue multiple at 30th June, 2019 was 3.6x.

Corporate governance concerns also marred WeWork's successful launch into the US public markets, but the hybrid technology-real estate business model — real estate operator combined with a traditional technology company valuation philosophy — caused investor concern as perspectives on WeWork's valuation shifted to more of a real estate comparable company mindset. Among other issues, WeWork's lack of marketability as a real estate public company resulted in the withdrawal of its IPO on 30th September, 2019. Following the IPO withdrawal, some commentators have valued WeWork below US\$10bn.

Although WeWork may be viewed as an outlier given its rapid growth, most real estate incumbents take cautionary notice of its story. In order for real estate-technology M&A to gain sustainable traction, technology companies will likely need to steer to profitability sooner and demonstrate realisable growth capabilities.

## **M&A MARKET TRENDS**

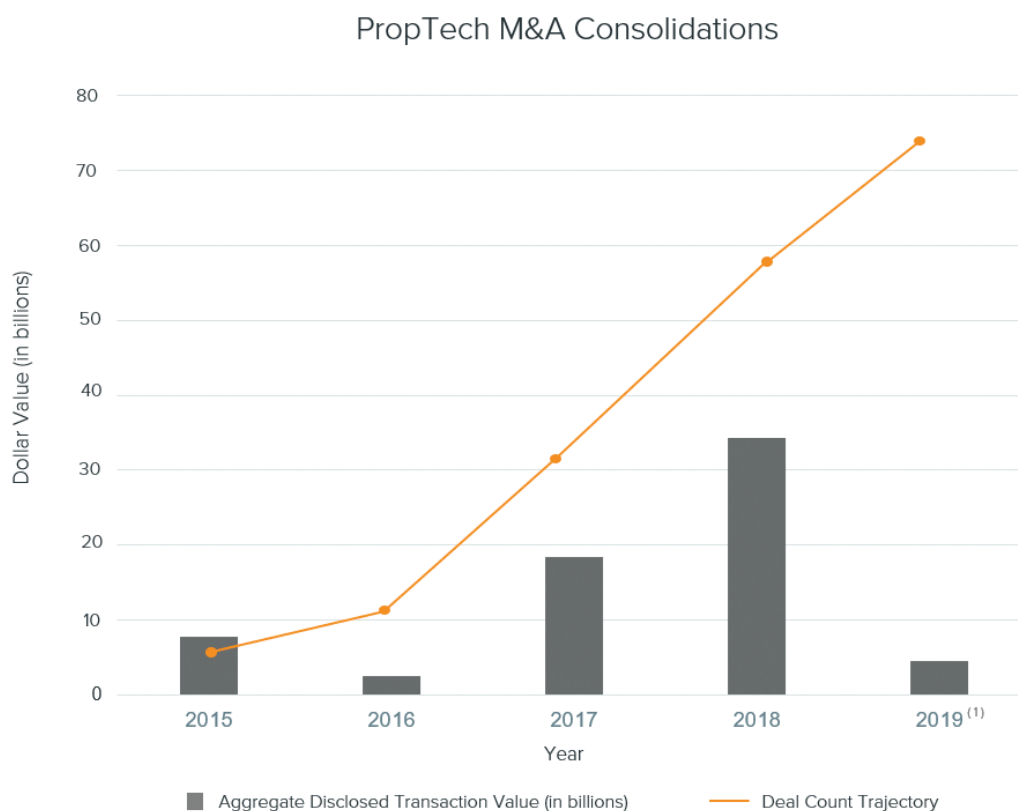
M&A in the US continues to be strong in 2019 in both aggregate deal value and deal count, but this year's results are unlikely to

eclipse the record highs in 2017 and 2018. Due to the geopolitical and uncertain economic climates, some market experts forecast a decrease in transactions; however, consolidation in the PropTech industry shows no signs of slowing. We expect that M&A in the industry will continue to be driven by the convergence of real estate with new technological capabilities, as real estate companies with strong balance sheets will choose to buy technology to help shape future growth based on the absence of internal capability to build such technology independently. In addition, the acquisition of technology may provide a way to counterbalance the negative effects of a possible recession and real estate operators will also have further resources to devote to technological integration during an economic slowdown.

In a real estate environment where it has become more difficult to find value through acquisitions, two-thirds of real estate, hospitality and construction executives expect an increase in real estate-technology cross-sector M&A driven by technology and digitalisation, aimed at helping real estate businesses gain a competitive advantage.<sup>2</sup> Similarly, 60 per cent of real estate, hospitality and construction executives reported that they are now devoting 25 per cent or more of their investment dollars to digital and technology assets and 54 per cent are investing in digital assets via joint ventures and acquisitions.<sup>3</sup>

## CONCLUSIONS

Figure 1 reflects PropTech combinations by deal count and aggregate deal value per



*Figure 1 2019 aggregate transaction dollar value decline year-over-year to 2018 attributable to substantial majority of transactions in 2019 having undisclosed values*

Source: CapitalIQ, Pitchbook and press releases

year, from 2015 to 2019, reflecting the upward overall trending of such transactions. Thus far in 2019, there have been 73 deals announced and annual M&A activity by deal count is already outpacing activity in prior years.

As the real estate industry moves to embrace technological innovation including through M&A, the challenges described above to tech integration within the traditional real estate business model remain. However, consolidation of tech assets has both reduced fragmentation within the industry and reduced the competition that smaller assets face for funding. These trends have resulted in increased scale of early-stage PropTech companies, and in turn, a higher likelihood of gaining attention from

real estate incumbents seeking integrated technology-stacks addressing a variety of technology needs.

Overall, the factors driving the rise in pace of deals and dollar value of PropTech M&A are outweighing the obstacles. We expect deal-making to continue for the remainder of 2019 and beyond, including both tech/tech and real estate/tech consolidation.

#### REFERENCES

- (1) See [www.cretech.com/reports](http://www.cretech.com/reports).
- (2) Ernst & Young, 'Global Capital Confidence Barometer', available at [ey.com/ccb](http://ey.com/ccb) (accessed 27th November, 2019).
- (3) *Ibid.*, note 2.