NINE FOUR VENTURES

PropTech Trends 2019

Introduction:
What do we mean by ‘PropTech’?

Since everyone seems to define PropTech differently, the trends mentioned here run the risk of appearing incomplete, out of left field, or outside of scope. Based on the plethora of ‘PropTech’ definitions I’ve seen through the years, I believe Nine Four defines it a bit more broadly than most: ***We believe PropTech refers to technology companies that impact the people, processes, and ecosystems that interact with the built world****.* Our definition spans real estate asset classes as well as the lifecycle of those assets (from development and construction through operation, management, renovation and/or repurpose).

We define it this way because we look at things through the lens of an owner. Ultimately, everything flows down from the owners and shareholders - the decisions they make trickle down into every facet of how the built world is constructed, used, operated, and repositioned or repurposed. Owners of real estate are massive consumers across a variety of industries. So many, in fact, that it is nearly impossible to stay on top of the technology shifts, pivots, and opportunities across all of them. As the pace of technology increases, this is only getting harder. Without considering investments in the industries that collide with and depend on the built world, we believe owners are missing massive drivers of profitability.

Something else to note is that the PropTech space has the luxury of having slower “trend turnover”. This isn’t high fashion with trends that change week by week or day by day – the real estate industry moves slowly so some of trends have been emerging for, and likely stay top of mind, for several years. Real estate related problems usually take a long time to develop and solve. Such is life in an ecosystem made up of more complex B2B2C or B2B2B companies, long sales cycles, and a dependence on the physical world.

Lastly, the companies here are typically in the earlier-stages and trying something different than incumbents and the status quo, which is a feature that I feel like is missing from most trend reports that will focus on the later stage, well developed applications and opportunities. Those applications and opportunities may be far gone from an investment standpoint for many, so we skew towards the earlier stages (seed through Series B) because that’s where Nine Four is the most active and it’s where we focus our energy. We’ll also touch on some of the strategic themes that appear to be influencing the venture capital landscape and PropTech community.

Trend: Operators of real estate are looking different, acting different, and thinking different

2019 continued to see operators blending asset types: short term rental companies that look and feel like hospitality companies are leasing multifamily units to operate, coliving companies are managing single family homes and optimizing around empty bedrooms and common areas, startups are leasing retail space to fill with specifically tailored brands and products with data that owners could only dream of leveraging…venture-backed companies in this space aren't staying in one lane.

There are headwinds in the next-gen operator space, though. As these companies have grown there's been increased regulatory scrutiny, underwriting limitations, and we're now seeing an ever-so-slight indication of lender acceptance.

Using multifamily landlords as an example, these folks face challenges underwriting the creditworthiness of a tenant because the tenant is no longer an individual, it's a business. On top of that, these businesses haven't been around long, so there's no track record to point to. The best that operators can do is create a strong balance sheet to leverage. Short term rental operators (STRs) are also looking to lease or operate big chunks of a building. That flies in the face of a traditionally protected asset class that has tenants with uncorrelated revenue streams and risk profiles. Lenders are also faced with the same risk and concentration challenges. It's harder to underwrite a building with an underlying risk profile that more resembles hospitality than perhaps traditional multifamily, especially as the proportion of hospitality-to-multifamily units likely won't remain static. This creates a messy landscape and one that many landlords and lenders shy away from, although both groups appear to be seeing more fringe acceptance.

The result of these uncertainties is that startups in the space are constrained on their growth, since units can take a long time to get to a lease, while prime units may be owned by folks who aren't interested in the space yet. Most STRs are then forced to assume a business model initially focused on master-leasing (akin to what happened in the early days of hospitality), but we're also seeing that model start to shift to them seeing more capital-light, hotel-like operating agreements.

On the retail side, next-gen operators are going a step further and thinking about the use of space at a diversified brand and product level versus a single-brand-single-site level. Operators such as LEAP are leveraging data to be smarter than their landlords – and brands – about demographics, foot traffic, purchase patterns, and can pinpoint the best locations across a city by brand and soon product. This looks like a LEAP store that carries inventory from different brands in a single location/space. As products sell or don't sell, they can be shifted to other stores and leverage a network of locations to optimize around and achieve profitability thresholds and standards. This model can provide a win-win-win: landlords get products and hip brands in their space, brands that come from the 'digital native' space can transition to brick-and-mortar much more efficiently, and LEAP (and others) can build a network of space to cater to broader demographics and brands. Retailers have been slow to adopt technology, and the startups in this space are really hybrid real estate operators and data analytics firms – a capability that many feel has been missing from the retail landscape.

Trend: The resurgence of the OpCo/PropCo

The OpCo/PropCo structure itself has been around a long time, but it doesn't feel like venture investors have seen it nearly as often as we do today. In a typical OpCo/PropCo structure, a company is divided into two parts: a 'PropCo' that owns real estate assets, that are then operated by an underlying operating business, the 'OpCo'. Historically the OpCo pays market rent to the PropCo and operates those assets under the OpCo business model. An example can be found in most hotel operators – most hotel brands do not own the majority of the real estate that they operate. Rather, they sign leases or management contracts with property owners to oversee most, if not all, of the property's operations. OpCo/PropCo's can be structured around almost any real estate asset class (single family home, multifamily, retail, or office, etc.).

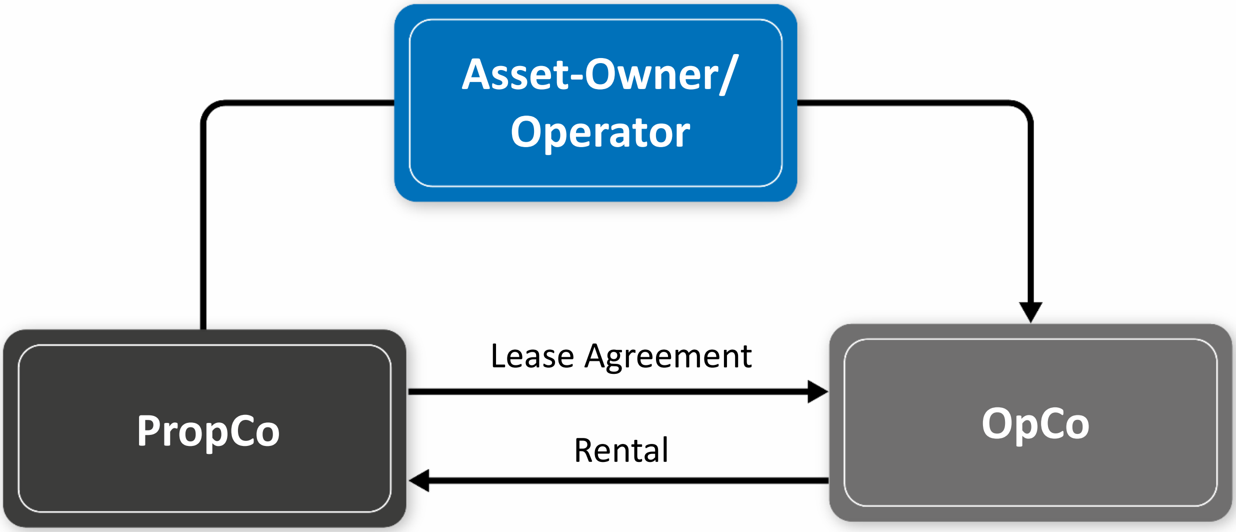
The infusion of more venture capital into the PropTech space has resulted in the aforementioned next-gen real estate operators that inevitably run into growth challenges. It's tough for them to find landlords that will let them operate space at scale. Once a startup believes they have the operations and unit economics needed to scale, they need to find real estate to operate and it can be frustrating for them to not grow. Enter the OpCo/PropCo.

As an example, let's take a startup operating in the short-term rental space and call them NewOpCo. NewOpCO needs units to operate and ultimately rent to their customers. The more units NewOpCo operates, the greater their potential to make money. There are a few options they can select from to do this, all of which are capital intensive in the early days. Perhaps NewOpCo wants to acquire a building to gain inventory. This requires a lot of cash, a strong balance sheet, and a lender to be convinced that they'll be able to pay whatever their loan is. An untested business model, no track record, and large transaction size doesn't exactly bode well for a startup to get something like that done, or at a minimum done at acceptable financing terms.

Conversely, if NewOpCo decides to master-lease units, it's less capital intensive but inevitably the business model, track record, and balance sheet are all called into question by a landlord in the same way a lender would on the sale-side. At best, NewOpCo could hope to lease a few units, develop relationships with owners, and scale from within…but that can take an enormous amount of time. In addition, traditional landlords don't usually rent to startups, or understand the nuances in doing so. Lease terms would therefore reflect the level of risk a landlord is taking and can severely cut into the margins of the operating business.

Enter the PropCo, which is a separately funded investment vehicle that owns the underlying assets that NewOpCo could then operate.

OpCo | PropCo Structure



A PropCo under the same ownership umbrella as the OpCo could potentially enable:

- **Fast growth**: It could purchase real estate assets that the OpCo could operate quickly. When you're the owner, you can make decisions much faster. It's far easier to convince yourself to lease you 1,000 units than 100 different owners of 10 units, for example.

- **Greater scale**: Depending on the size of the PropCo, it could allow them to scale very quickly. More capital = more inventory = more potential to scale. In a similar manner as above, it's easier to sign leases with yourself for 1,000 units than negotiating with 100 different firms.

- **Better financing**: PropCo could also access lower cost real estate capital markets, as the assets are completely separate from the OpCo and benefit from the assets it owns as collateral.

- **Higher margins**: Cheaper financing enables higher operating margins for the OpCo and potentially more advantageous 'rent'

- **Control through a downturn**: Owning assets allows an OpCo to manage assets through a downturn on their own accord. In a master lease structure, for example, OpCo's are at the mercy of a landlord and may not be able to renew leases.

- **Easier evaluation**: Investors could also cleanly evaluate and value the OpCo and PropCo separately, as there is a clear delineation between fundamentally different businesses.

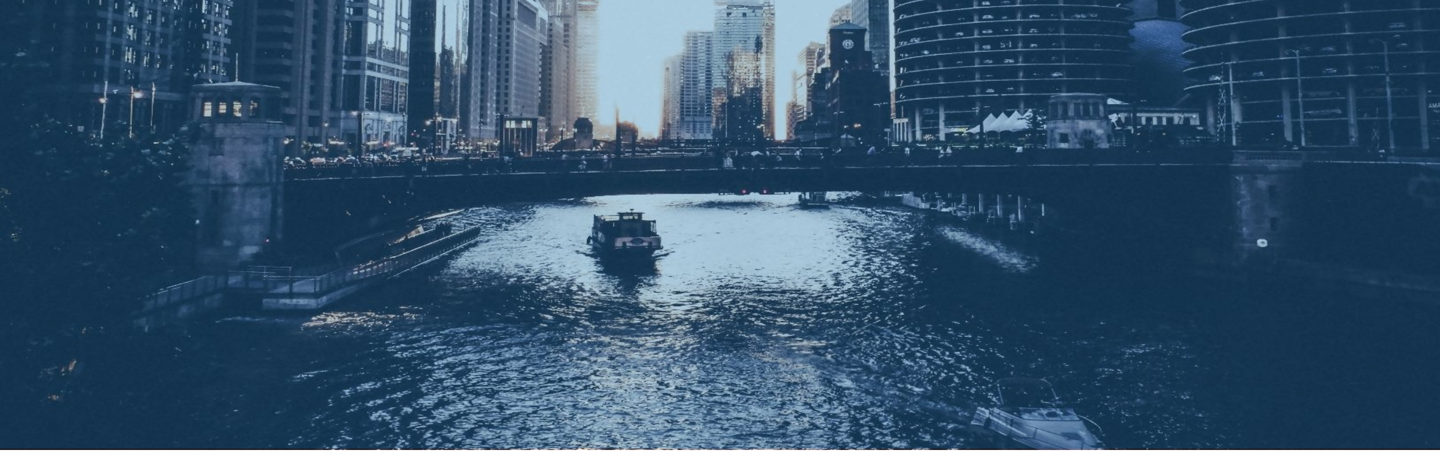
However…it's a bit more complex than that

For starters, the PropCo needs capital. The most likely candidates to fund PropCo's may be traditional owners and managers of real estate who largely understand how to value real estate based on fundamental metrics, underlying credit ratings of tenants, and operating history. However, they may not be able to assess the underlying risk of an OpCo operating a new real estate product, a new business model, or one with any sort of technology/software foundation. As a result, investors may demand higher rates of return that chew into OpCo margins. They may stay away entirely. Lenders are also wary for the same reason, and insulate themselves with higher rates, smaller scale, and/or they'll stay away entirely. Conversely, a PropCo may target other types of investors with a higher appetite for risk, however, it can go the other way with them: they may understand the OpCo, but lack the sophistication of understanding real estate operations and/or what returns to expect.

The prevalence of startups pursuing OpCo/PropCo's points to the operational intensiveness of those businesses and the continued blurring of what a "PropTech" company really is. In today's day and age, every company is at a minimum "tech-enabled". The startups that approach PropTech VCs largely argue that they're technology companies despite the reliance of their businesses on physical assets, labor, and operational intensiveness. Companies such as WeWork add fuel to the fire in that they're largely venture backed and most press claims them to be a technology company, but many argue that they're far closer to a traditional real estate operator. As it was recently put to me, if Laramar bought a software company, it wouldn't make Laramar a tech company.

Something else that I believe this points to is a tremendous risk, and opportunity, for traditional real estate owners and operators willing to build a next-gen operating model that incumbents would have a hard time competing with and adapting to. As a colleague of mine frequently reminds me: it's very hard for a crusty, old real estate brand to hire engineers, and nearly impossible for them to hire the best ones. As 2019 draws to a close, it'll be interesting to see how these operators and PropCos fare in 2020, especially if a downturn appears on radar.

: LARAMAR

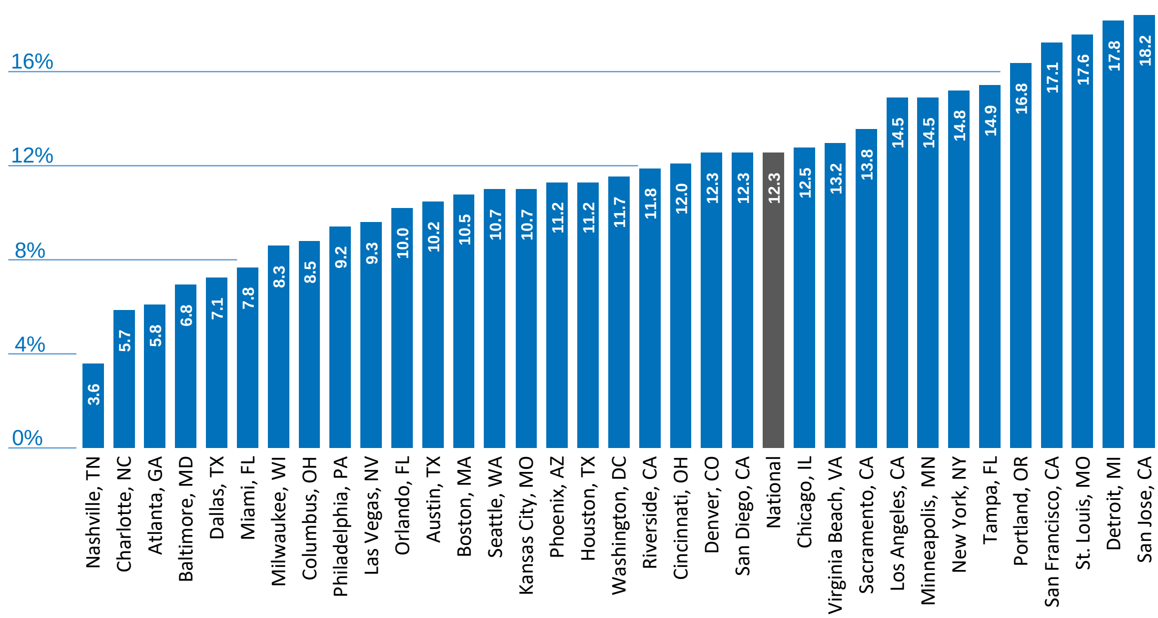


Trend: Home affordability is getting worse, and companies targeting it are on the rise

As the years wear on, home affordability in many markets continues to be out of hand. A massive 'urbanization' trend continues to place price pressure on limited supply, and the gap between home prices and median incomes is wide. According to ApartmentList, in some metros nearly 1 in 5 millennials expect to rent forever. In Toronto, it takes 21 years on average for a millennial to save for a down payment. Student debt continues to be crushing.

In Some Metros, Nearly 1 in 5 Millennial Renters Expect to Rent Forever

The Percentage In 2019 Who Plan To "Always Rent"

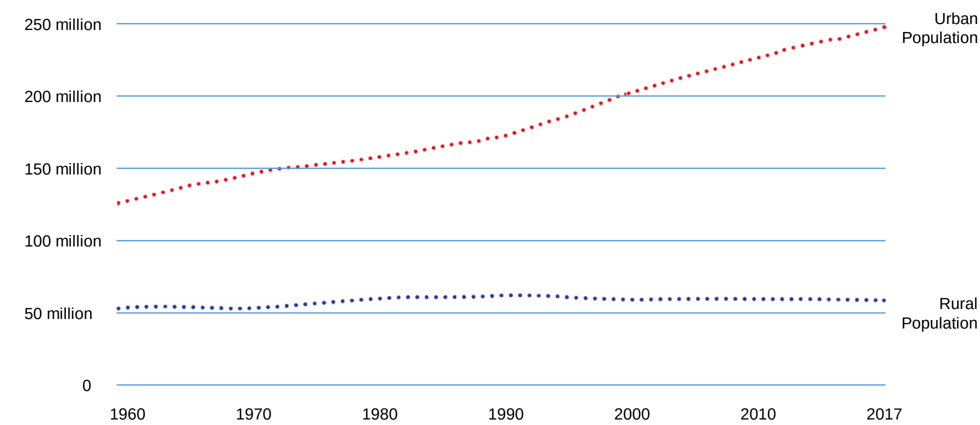


Source: Apartment List Renter Survey

There are a few potential levers to pull here, but they largely point to increasing supply of affordable housing. One could argue that a reduction in demand could achieve the same relief from price pressure, and in fact some people are moving farther out of the metro cores to the suburbs, where more reasonable prices may exist, but the data still supports larger and longer urbanization impacts.

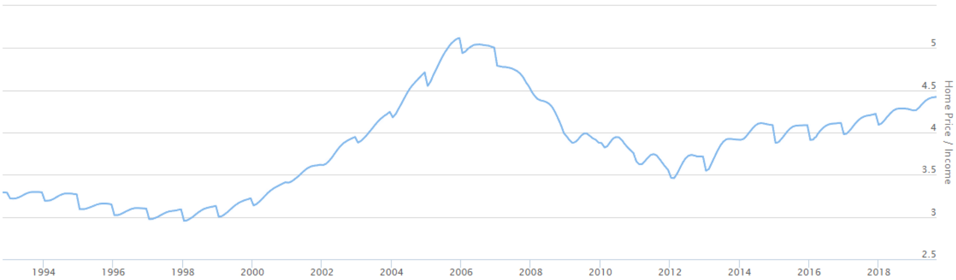
Urban and Rural Population, United States

The total number of people living in urban or rural areas. Urban populations are defined based on the definition of urban areas by national statistical offices.



Source: World Bank, based on UN estimates

Shiller Case Homes Price Index / US Median Annual Income



We'll defer on the reduction in demand point, at least for the time being, and focus on the creation and optimization of supply.

Optimizing for supply: Coliving

Coliving has been around for just about forever so I'm reminded of the all-so-dangerous-words for an investor: "it's different this time". That said, coliving is certainly gaining traction, and it isn't just for millennials.

Coliving companies are approaching the optimization of space and solving for supply a few different ways:

1. **By creating purpose-built coliving facilities**. This more closely resembles traditional student housing. It's tough to say how fast this can make an impact unless there are conversions to put more beds in existing buildings, which would allow more people to live in a similar footprint. Ground-up development to create new coliving is an option as well, but that's a very capital-intensive and time-consuming process. Example: StarCity

2. **By unlocking unused supply**: Nine Four portfolio company Bungalow, for example, is leveraging single-family homes and filling unoccupied bedrooms. This is taking existing supply/inventory and maximizing its usefulness.

3. **By understanding how coliving residents can live with each other**. **I**f a company can aggregate residents into clusters and groups of residents that can live with each other, it'd be valuable for coliving facilities by consolidating demand. Branded coliving companies can also provide more value in other ways – flexible move in/out and lease duration, furnished common areas, seamless billing and maintenance, for example – but they still need a function that can match residents of all kinds in the best ways. If a company owned the highest part of the funnel and attracted coliving residents, they would be well positioned to become a coliving company themselves.

I believe it's worth noting that demand for coliving also isn't just for millennials. The 'greying of America' is very real: Half of all Americans are now over the age of 38. Aside from solving an affordability problem, coliving (also in the form of active adult communities or similar) can also meet the social needs of older generations and ensure that they aren't left behind.

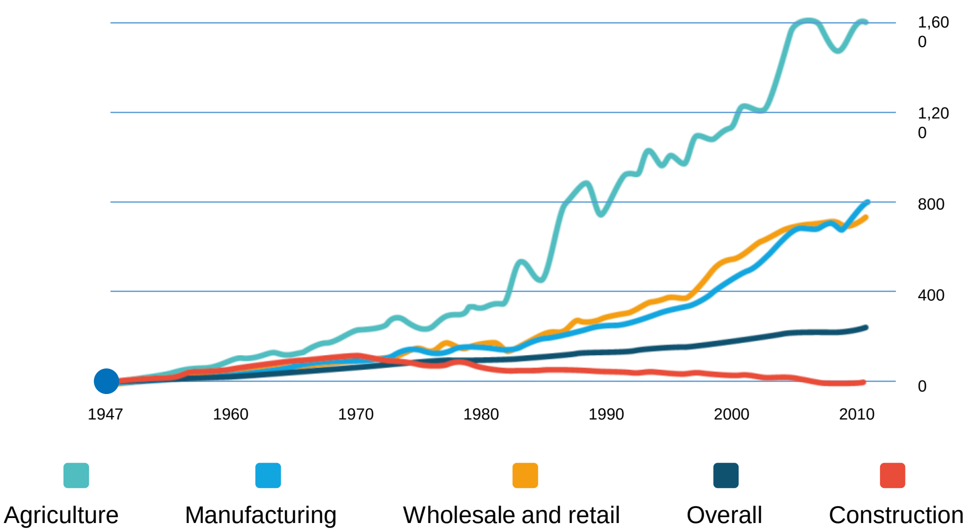
Other ways to optimize supply:

- **By leading a charge for re-thought regulations**: [As Paul articulated earlier this year](), many single-family homes reside in regulated “residential zones”, making it illegal to build or operate any assets other than traditional single-family residences. More specifically, 75% of all residential land in the United States is zoned only for single family use. As a result, city planning departments pose a potential threat to repurposing existing idle supply because cities want landlords to obey the existing tax code (often not conducive to new models) and pay their fair share. Neighbors of transformed single family properties are skeptical as well, typically concerned with increased noise, foot traffic, etc. which could potentially have negative impacts on surrounding property valuations.

- **By reducing the cost of construction**, whereby creating more affordable supply. Modular construction and prefab saw a boon in 2019 - and I expect this will continue – however, material improvements in cost reductions have been challenging for more widespread market adoption. Supply costs remain relatively constant, and any savings in labor of prefab and modular is at risk of being offset by transportation and final assembly costs. Underpinning any potential improvement in the construction industry is the realization that since the 1960s, most major industries in the US have all become more productive with the exception of one: construction.

Unlearning by doing

United States, gross value-added*
Per hour worked, 1947=100



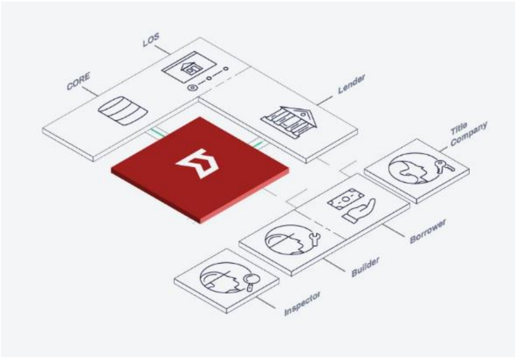
Source: McKinsey Global *At constant prices;
Healthcare not displayed.

Trend: Following the money

Speaking of construction, in spite of the operational challenges of reducing costs and creating affordable supply, this year we did see opportunities to improve the efficiency of the construction industry…but on the finance side.

When you "follow the money" during a construction project, you can relatively easily identify bottlenecks in the flow of capital that can ultimately impact the delivery of a project in a timely manner. A bottleneck that became clear relates to the construction draw process (a construction loan is used to finance the building of an asset or until longer-term financing can be put in place). Construction loans are drawn down based on a schedule that depends on milestones, progress, or phases of the project. Different lenders handle construction loans differently, and have varying process requirements for the draw. Some require detailed photo documentation, others onsite inspections. What became clear is that the draw process is varied and that it is commonly cited as a pain point across stakeholders. Digging a bit deeper, we found there are also challenges when it comes to contractors being paid on time, work being documented, and a transparent process for things like managing liens. To compound the issue, massive amounts of the process is managed by pen-and-paper. This paints a very slow, murky, complex picture of construction finance.

A Nine Four portfolio company, **Built Technologies**, is beginning to tackle the complexities of construction finance by building a comprehensive, fully digital construction finance platform to reduce risk, provide visibility across a construction loan portfolio, and power faster draws. Built is an example of a traditionally offline, slow-moving industry segueing into the digital age.



Source: Built Technologies

Trend: The evolution of the residential market: iBuyers, Compass, alternative financings, and the agents of the future

2019 continued to see talk and emphasis on the iBuyer space, as well as startups that are increasingly competitive for 'sides' in the residential market. OpenDoor and Zillow Instant Offers seemed to dominate the talks on the iBuyer front, but they definitely aren't alone (iBuyers purchase homes in a completely digitally-driven transaction. Home sellers ultimately trade convenience and a guaranteed sale for high fees and a lower sale price. iBuyers then make their money off of fees and margin on a home sale flip.)

iBuyers have been a topic at pretty much every residential real estate conference I've attended for the last 2-3 years, and quite frankly the topic seems to do a good job of building cohesion across traditional brokers, brands, and agents. It's a bit of an aside, but it feels like there's a lot of "self-preservation talk" in those rooms, and Inman chat boards seem to support that. Anyway, an inevitable softball question for a panelist is "What's the future of the iBuyer market? Will they finally displace the real estate agent?". I'm guilty of writing about this in the past, but perhaps for posterity's sake, I'll rehash a bit here. My point in previous posts was that the impact of firms that digitize and streamline a home sale/purchase transaction will in part depend on how much consumers trust technology. A home purchase doesn't happen very often and is likely the largest transaction a person will make in their lifetimes, so the inherent nature of the business isn't one that's a shoe-in for disintermediation (typically we see that in high frequency, lower cost purchases). If future home buyers and sellers trust a digital interface, the numbers, the experience, and the legality/legitimacy of the transaction, iBuyers and other digital-hybrids are in a good place against non-tech-enabled incumbents.

There are also startups that aren't iBuyers popping up that are pulling sides out of the system and starting to build pressure on agents. For example, Divvy, Landis, and Up&Up are companies in the single-family financing space that purchase or finance a home for a buyer that doesn't have the cash for a typical down payment, then leases it back to them. In this rent-to-own model, guess who doesn't get a commission on the purchase and sale? The traditional buyer agent. Flyhomes and Ribbon allow a home buyer to place an all-cash offer on a house. When they buy the home, where does the pressure build? On the side of the real estate agent.

Divvy Landis up&up flyhomes ribbon

Another common thread is that more startups are building huge venture-backed balance sheets and are increasingly capable of accessing even more capital to challenge traditional players. As [Alex Rampell stated in an a16z presentation](), this is why you're likely to buy your next home from a business and not a person. These startup challengers didn't exist before, because, although pools of capital may have theoretically existed for them to tap into, the technology or investor appetite to deploy that kind of capital wasn't there. Those were the pre-mega-round, pre-Softbank days. New, dynamic data sets and analytical horsepower to act on those data sets (paired with venture capital dollars) are resulting in new products made for the different needs of home buyers and sellers, not just a one-size-fits-all traditional real estate agent experience.

All this to say, this is driving an evolution of the residential real estate market.

With all of this activity taking place, it's interesting to watch how traditional agents and real estate brands/brokers are responding and evolving. Across the board, traditional brands are scrambling to figure out what they can do. For real estate brands to make money, they need to attract and retain agents and brokers who are going to pay them to fly their flag. In exchange, brokers get branding, training, and "tools". Brokers ultimately decide whether they want to fly a Coldwell Banker flag or a KW flag, or someone else's. Brands fight fiercely to win and retain good brokers. Brokers then make money based on the transactions of their agents. How do agents pick a broker and brand? Well, first, they need to be motivated and want to be an agent. In a $100B+ market, this hasn't been hard. The next thing is to decide what broker and/or brand they feel is going to allow them to be the most successful. Brands are increasingly providing a 'technology toolkit' to agents that empower them to be more efficient. A better CRM. A more dynamic marketing engine. In some cases, leads. Keller Williams is still trying to be a technology company. Compass continues to attract massive venture funding on this quest. Redfin takes a different approach and W2s their agents, which they believe allows them to operate in more alignment with home buyers and sellers. These brands are all built around making an agent more efficient, not in changing the system.

Compass stood out to me as a first-mover in the space by providing their agents almost an iBuyer-like capability to offer clients. Through the Compass Concierge program, Compass agents can finance home renovations. Agents remain the center of the transaction, armed with data on what improvements a home seller should undergo, for example, and the capital and access to contractors to make it happen. Those improvements are covered by Compass, not an iBuyer, and the agent and home seller benefit from a higher sale price and higher commission. Those dollars would've gone to an iBuyer.

Other companies such as Side are building a comprehensive technology platform to compete with traditional brokers. Side allows agents to be their own bosses and build their own brands on top of the Side platform. Side is a software company that can monetize by being a traditional SaaS provider, or potentially as a broker where they take a commission from the agents that use their platform. This is also a different way of thinking about the business.

I believe it's worth noting that the traditional real estate incumbents' largest evolutions appear to largely have been operational in nature by flipping to more of a "real estate team" model, which is now much more commonplace. Per REAL Trends, there are 8 defined roles on a real estate team that allows the overall team to earn more business together than any member could individually (a classic whole-is-greater-than-the-sum-of-its-parts). Agents are getting smarter and realizing operational efficiencies however they can, and more than 25% of REALTORs are now part of a team. Again, these changes are just designed to improve efficiency, not change the system.

I expect 2020 to pick up where 2019 left off here and continue to place pressure on agent sides by leveraging technology to reduce redundant inputs, create more streamlined interfaces, and fall more in line with the perceived value that they are providing to support the home buyer and seller experience. I'm interested to track some of these companies and see the broad strokes of how technology pushes the single-family market in different directions.

: side

Trend: WeWork

It’s impossible to talk about 2019 without talking about WeWork. I wish I could…but I can’t. You can read about the downfall of WeWork (and some of the…”unique” things that were happening there) here, here, here, here or maybe here, here or here. I often joke that some people get their reality TV fix by watching the Bachelor/Bachelorette…I get mine from reading about WeWork.

Anyway, it feels like WeWork has made ripples in the investor market by calling into question anything and everything related to coworking, and perhaps master-lease operators. While I recognize the similarities in business model, I do think that there are so many unique aspects to what happened at WeWork – I hope they were unique when it comes to governance, for example – that it’s hard to draw apples-to-apples comparisons to other models of startups operating real estate.

It's also hard to talk about WeWork without bringing up Softbank…you can read more about that here, here, here, or here.

Trend: Office buildings: A focus on the basics

…which leads to a more positive feature that 2019 seemed to focus on in the office world: an emphasis on the basics of building operations. While the ‘amenitization’ of multifamily did carry over to the office world a bit, we saw a lot of office owners and managers starting to dip their toes into the startup world by focusing on the things that are the easiest to underwrite and sync to the bottom line. In the case of office, that appeared to be in operating a building in the most efficient manner to reduce energy costs and water use, optimize maintenance to make the small repairs that avoid large repairs, and allow for more efficient and secure building access.

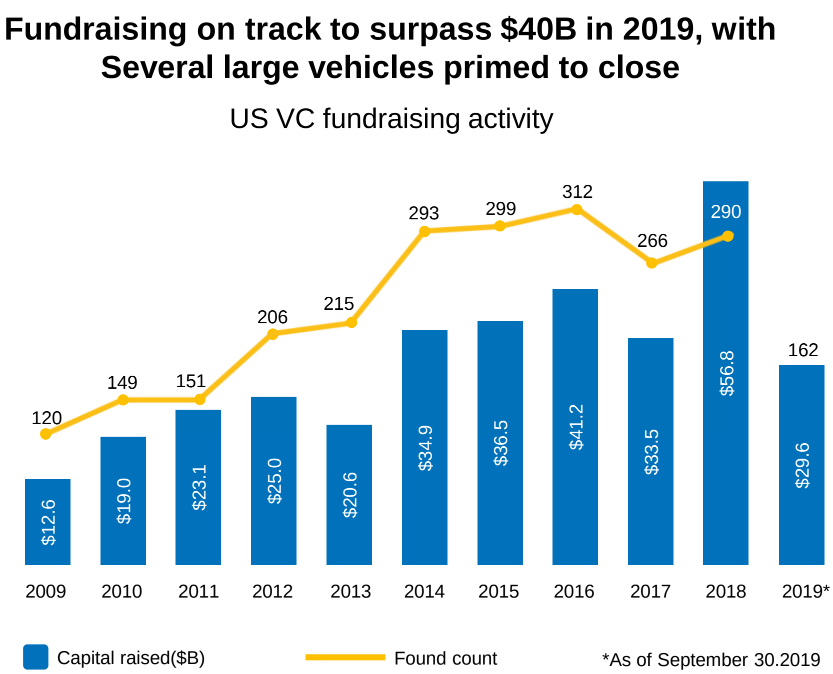
Building optimization comes in an array of forms – from fully digital to hardware-heavy, and solutions that promise to make a building fully autonomous with those that enable a building engineer to make better decisions in their jobs. In a world where some of the largest expenses for an owner are energy and water use, I expect to see more activity in this space as this is lower-tech, lower-hanging fruit opportunities for all owners and managers. Insurance costs are also meaningful and can benefit from underwriting things like leak detection and water flow monitoring. Laramar recently installed Enertiv, for example, to monitor equipment and kick off data to make more informed operational decisions.

Office owners are also focusing on the ‘tenant experience’ and providing more of a digital interface with a building. This also comes in many shapes and forms, from sleek access, identification, and security systems (OpenPath and Proxy, for example) through building apps for tenants that allow them to book services, leverage concierge-like amenities, or connect with nearby businesses. While physical features of a building largely influence the quality of the asset, owners and managers want to pair that physical world with a digital life that can meet or exceed the quality of the building.

: enertiv openpath proxy

Trend: Investor emphasis on profitability

There's a lot of dry powder in the venture world that's led to a frothy valuation environment and of late, a "growth at all costs" mindset.



PitchBook-NVCA Venture Monitor

There's also an increasing skepticism in this growth model that many venture backed companies have been leaning on, fueled by less-than-stellar IPOs and WeWork. As it pertains to PropTech, we're already seeing investors in the space place more emphasis on how and when companies are going to get to profitability. In PropTech there are a lot of models that are more capital intensive, have long sales cycles, or are hardware-enabled SaaS companies – these companies typically don't exhibit the steep growth trajectories and/or massive first mover advantages that you see in other segments of the market, and should be treated accordingly. Every company we see is trying to get a "tech valuation" despite what their products, business model, or margin profiles indicate. "Tech valuation" has become synonymous with higher multiples and valuations, and of late it looks like investors are giving these types of investments – at a minimum – more of a pause. I expect that to continue into 2020, but time will tell. There's still a lot of dry powder on the sidelines that can cause a separation between valuation and business fundamentals.

Trend: Addressing the opaque world of construction images and data

We touched on some of the challenges on the construction side of building more affordable housing, but another area in the construction space that does appear to be bearing fruit in the near term is that of construction images and data. Companies such as OnSiteIQ, Avvir, and OpenSpace are trying to capture construction images and data throughout the lifecycle of a build. By capturing job progress and worker movement, these companies are creating a system of record throughout construction and can improve safety on a job site. This data and imagery can be used in a variety of ways: to improve the construction draw process, to support insurance claims and liens, to improve maintenance visibility, improve underwriting, identify errors before they become larger rework cost centers, and/or identifying hazards and safety measures before they cause harm (for starters). Data and images were previously challenging to create, but as machine vision technology has been developing over the last several years, it is now at a level of precision where it can be useful – and cost effective – at a job level. This is a level of transparency that the industry hasn't had yet, but one that we believe will come as an expectation very soon.

: OnSiteIQ AVVIR OPENSPACE

Trend: The continued "unbundling" or "splintering" of real estate

Part of the reason we define PropTech in the way we do is that we understand that an owner of real estate is required to be a massive consumer of a wide variety of products and services that span industries. As each of those industries advances from a technology standpoint, they become harder to stay on top of as the rate of change in products and services increases. As those industries splinter from a more consolidated, integrated process and product offering (through the lens of an owner), new products and services are creating new markets that previously did not exist. For example, the next generation of operators we mentioned earlier are coming up. Hardware and software that enable streamlined access, self-touring, and package handling are developing into their own markets. Mobility options are creating transportation oases vs deserts in cities. Parking technology has evolved into its own category. "Rent-tech" is now a thing. We saw this trend continue to gain steam through 2019 and we expect to also see this carry forward into 2020 and beyond.

Trend: Corporates continuing to get in the game

2019 saw continued corporate interest in the PropTech space. Corporates have a 'menu' of investment options and activities to consider along the PropTech ownership and stage spectrums.

Higher ownership implies a dedicated corporate venture fund, or perhaps investing in a PropTech-focused fund. Other corporates elect to create an 'innovation' group to monitor products and services in the space that could be interesting for the parent company to be a customer of, or potential investor in. Other corporates are interested in learning about the newest, earliest stages of companies where accelerators and incubators appear to be the best option. It's at this stage that corporates can exert some influence in providing the feedback that ultimately shapes products, services, and pricing. Other options include running a sponsored accelerator such as TechStars that sources companies that could be strategic to the sponsor.

The last option is really anything informal or one-off. Perhaps an executive or an officer is personally invested in a venture fund that could be strategic, or has access to startup pipelines and deal flow. Regardless of the activity here, we continued to see corporates on cap tables that came in all shapes and forms. As we monitor the progression of the PropTech space overall, and understanding that real estate is the largest asset class in the world, the number of corporates that are getting involved in PropTech is still very small relative to the number of them out there. We expect that number to increase in future years and believe it will take a long time to get to maturity.

@: techstars

Trend: Going "vertical"

"Vertically integrated" companies generally refer to companies that control a proprietary software or technology backbone as well as the capabilities that surround that platform to deliver a finished good or service. Vertical-specific software refers to software tailored for specific use in a specific industry, or for a specific role in the workforce.
Both of these 'vertical' trends appeared to pick up steam in 2019. **Bowery Valuation**, a Nine Four portfolio company, built a proprietary software backbone that allows them to deliver higher quality, next-generation commercial appraisals. The company originally focused on building software to power the industry but quickly realized that a larger opportunity existed in keeping that software in-house, growing a digitally-native team, and becoming a commercial appraisal firm themselves. We see other companies in less tech-enabled industries attempting to execute the same thing, from Block Renovation (bathroom renovations) to Homebound (general contractor), plenty of companies received venture funding in 2019 to capitalize on the potential in this theme.

Verticalized business management software is also becoming more sophisticated. For example, today many technicians waste precious time attracting and servicing new customers. Many purchase expensive and unqualified leads from Angie's List or Thumbtack to estimate and bid on projects, only to lose them. Even when technicians win new projects, large portions of their workflow is still in pen, paper or Excel, which makes it difficult to scale operations enabling them to do what they do best: completing work in the field.

As a result, in 2019 we noticed material growth in startups building business management software to increase throughput for technicians operating in specific industry verticals including electrical and HVAC (Housecall Pro, BuildOps), flooring (FloorForce), and pest control (Main Street), among others. These startups are providing comprehensive platforms that digitize marketing (email, SEO, snail-mail marketing), operations (dispatch, routing, CRM) and accounting (estimating, invoices, purchase orders) workflows and structuring data to become back office systems of record.

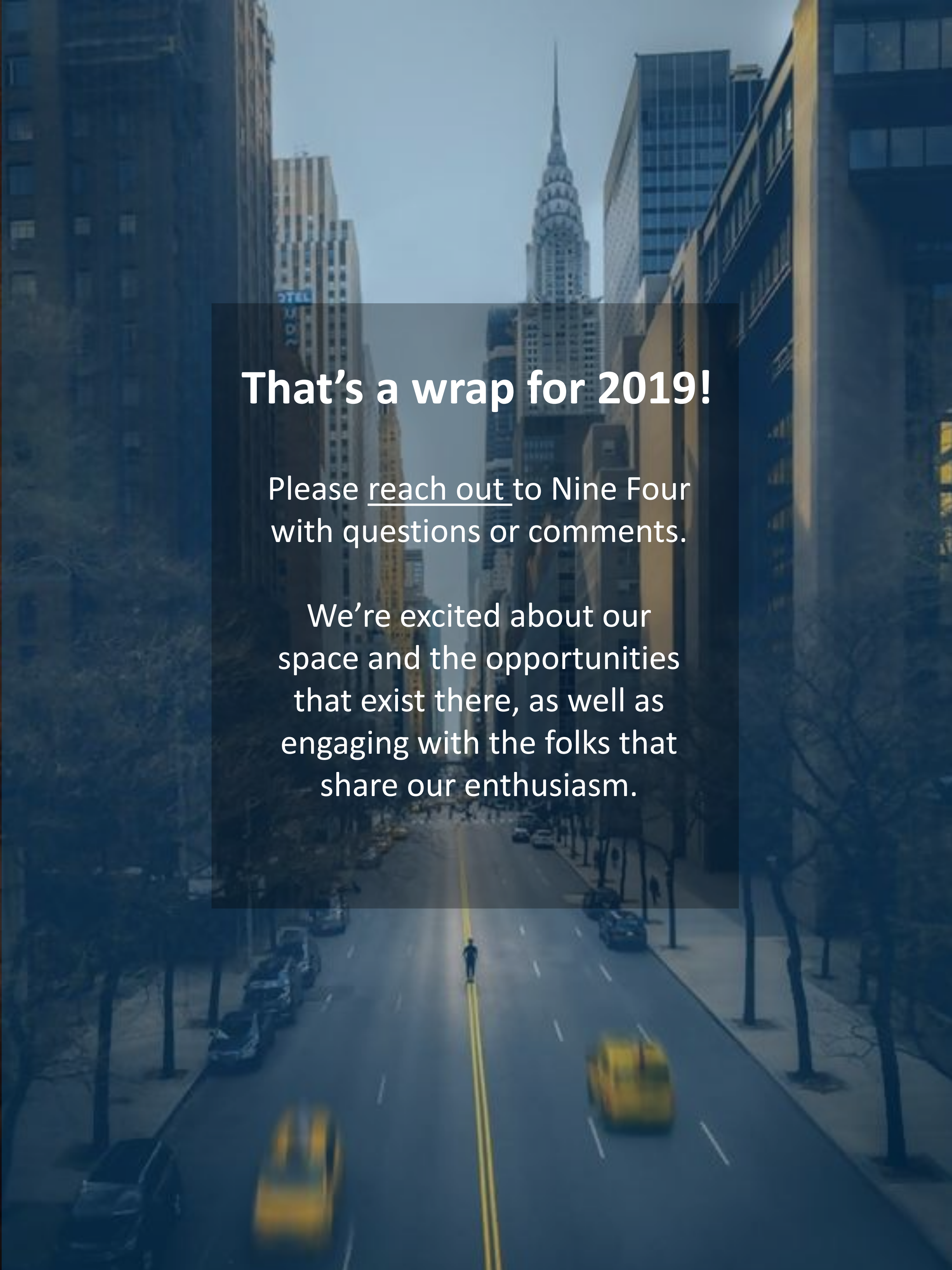
A result is that these companies may actually be positioning themselves in the advantageous position of aggregating supply (i.e. roofers) needed to build a marketplace on top of. Marketplaces are notoriously challenging to start because of an inherent chicken-and-egg problem: without supply or demand, it's difficult to attract the other. So, SaaS helps solve the chicken-and-egg problem by aggregating supply side density of the marketplace and jumpstarting marketplace liquidity.

We also saw interesting applications of vertical integration in other older, slower industries, namely furniture. As Paul notes, until now, large furniture incumbents, such as, Cort, Herman Miller, Knoll, and Steelcase have market capitalizations of >$1B and have dominated the $50 billion furniture industry. Some have been in business since 1865! Those players have traditionally relied heavily on a complicated supply chain involving a network of broker/dealer middlemen (to assist with distribution) adding unneeded complexity, cost and time to the customer experience. As a byproduct, unfortunately, furniture buying has been difficult, expensive, slow, and inflexible.

Pair this with the recent "the rise of the 'DNVB' (digitally native, vertical brand)". These brands start online and own everything from the earliest customer interactions through manufacture and delivery of goods and services, without a middleman. Brands such as Warby Parker (eyeglasses) to Casper (beds) to Harry's (razors) to Allbirds (shoes) built a brand online and went direct to their customers, removed middlemen and excess markup, and ultimately sold high quality goods at lower costs to customers.

The intersection of these characteristics and trends is demonstrated by Nine Four portfolio company **Branch Furniture**. Branch sells exceptional, high quality furniture that is delivered and assembled onsite, for about half the cost of what competitors are selling. You can even turn your used Branch furniture in for credit towards future purposes. From a commercial real estate world, everyone from tenants to brokers to landlords have witnessed the pain in furniture purchase and assembly, and Branch is targeting the problem head-on in a completely vertically-integrated way.

: Branch



That’s a wrap for 2019!

Please reach out to Nine Four with questions or comments.

We’re excited about our space and the opportunities that exist there, as well as engaging with the folks that share our enthusiasm.