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PTEC – Global X PropTech ETF

GLOBAL X ETFs RESEARCH

Introducing PTEC: The Case for Property Technology

On April 13th, 2023, we listed the Global X PropTech ETF (PTEC) on the NASDAQ. PTEC is designed to provide exposure to property technology (PropTech) companies that are positioned to benefit from technology that optimizes the way people buy, sell, rent, design, construct, manage, and research and market residential and commercial properties.

It's true what they say that there's no place like home, but technology makes home an evolving concept for buyers, renters, and the agents who facilitate their transactions. Right from the discovery of the home through financing, deal close, move-in, and maintenance and service, the entire process is ripe for technological disruption through software, the Internet of Things (IoT), and FinTech.

In our view, shifting consumer buying and rental behaviors as well as the rise of short-term vacation rentals create exciting opportunities for the PropTech theme. All told, global real estate comprises over $325 trillion in assets, and we believe the addressable opportunity for disruptive technology within this industry is massive.[1] The Global X PropTech ETF seeks to capture this opportunity.

Key Takeaways

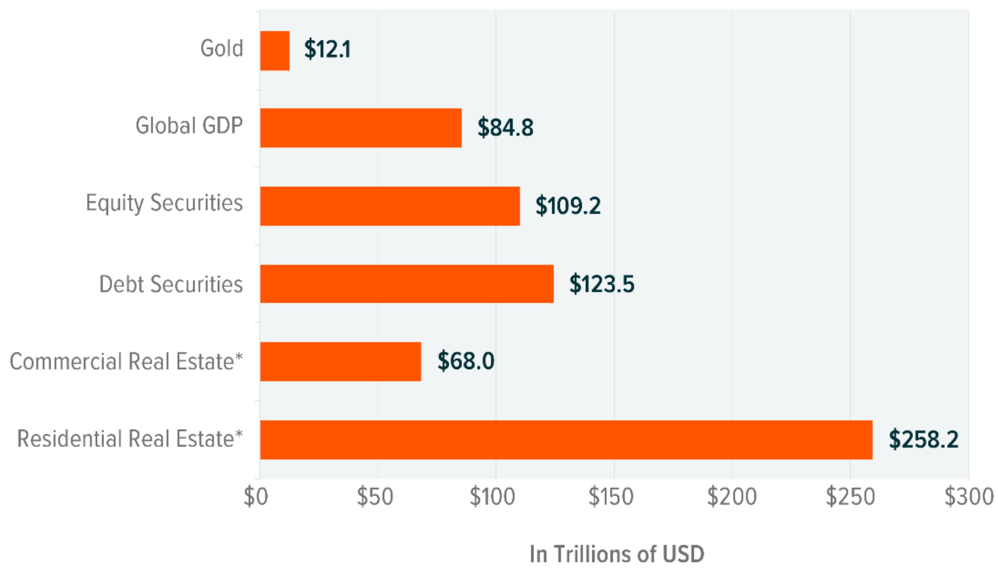
- The real estate industry is a massive financial asset class and, in our view, its digitalization presents an attractive growth opportunity for investors.[2]
- Technological adoption combined with emerging demographic trends creates exciting opportunities to disrupt the real estate sector.
- We believe the Global X PropTech ETF provides investors a differentiated opportunity to capture this early-stage disruption across real estate.

The Global Real Estate Industry Addresses Trillions in Economic Value

The real estate sector is more valuable than all worldwide stocks and securitized debt combined and represents the largest store of wealth at nearly three times the total global GDP.[3] Residential property accounts for 80% of all global real estate value and commercial 20%.[4]

GLOBAL REAL ESTATE ASSETS RELATIVE TO OTHER ASSET CLASSES AND GLOBAL GDP, IN TRILLION USD

Sources: Tostevin, P. (2021, September). The total value of global real estate. Savills Research, *Represents real estate assets, commercial includes agricultural.

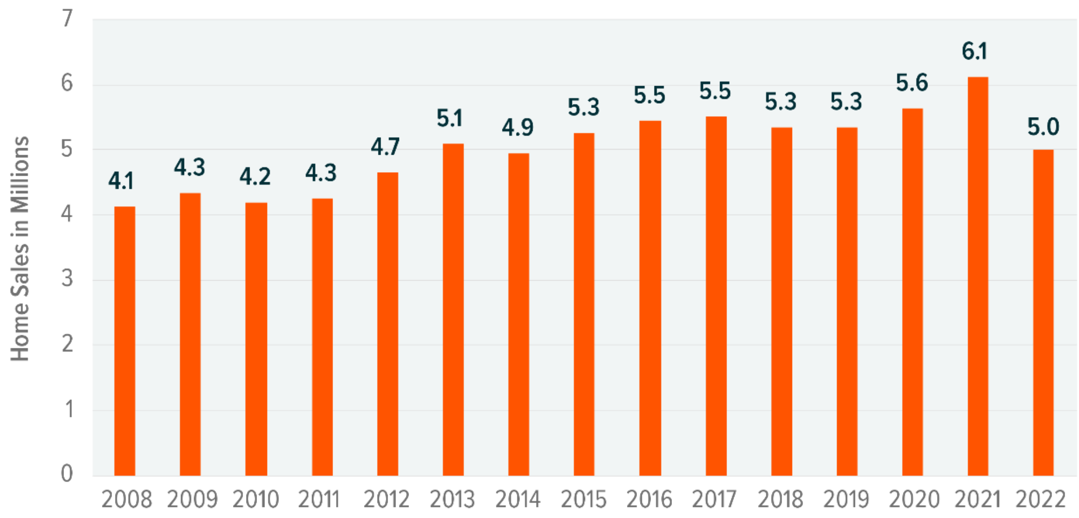


In the U.S. alone, the total value of real estate equates to $59 trillion, with the residential market comprising about $43.4 trillion of the total and commercial real estate about $16 trillion.[5,6] The significance of U.S. real estate cannot be understated. The average American spends 30% of their income on rent every year, and the average American household spends $22,624 on housing annually.[7,8,9] Trillions worth of real estate exchanges hands every year. In 2021, 6.12 million homes were bought and sold in the United States.[10] At an average home price of $457,375, that amounts to a transaction volume of roughly $2.8 trillion.[11]

On the commercial side, U.S. transaction volume held up well in 2022 following a record-setting 2021 and despite the economic slowdown. After hitting a record high of $809 billion in 2021, commercial transaction volume levels came in just shy of $730 billion in 2022.[12,13] The National Council of Real Estate Investment Fiduciaries Property Index is forecast to return to 8% in 2023 and 7% in 2024, signaling that investment in commercial real estate remains robust.[14]

The sheer scale of the asset class underlines the potential opportunity for technology-driven systems to deliver efficiency as people purchase, operate, and manage real estate assets worldwide.

JUST OVER 5 MILLION HOMES WERE SOLD IN THE UNITED STATES FOR 2022
Source: Statista Intelligence, US Economic Outlook, FRED Economic Data as of March 21, 2023.



Technology Can Usher in a New Disruptive Era in Real Estate

Technology is discovering countless frontiers to disrupt and streamline the business of real estate. For example, the digitization of real estate access solutions and asset monitoring systems and the use of research and analytics are creating new opportunities to transform the industry. In addition, FinTech solutions are disrupting housing-related payment processes, including rent payments, insurance purchases, lending against equity, and more. In 2022, nearly $20 billion went to funding private technology-based ventures in the real estate space, an increase from $12.6 billion just five years ago.[15]

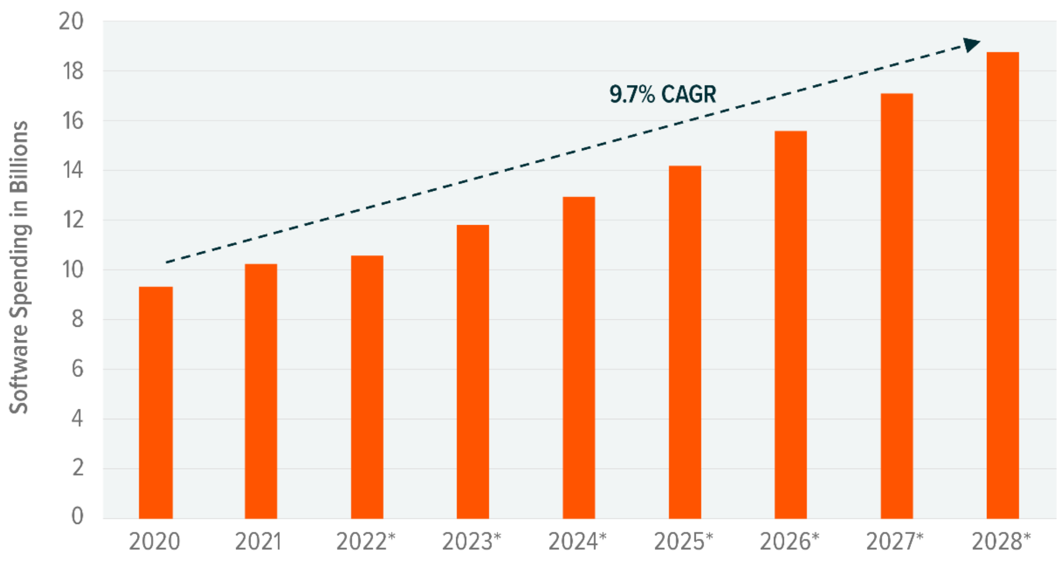
With technology capable of increasing efficiencies and lowering operating costs, professional real estate management companies are also increasing their digital spend on technology at a record pace. U.S. real estate software spending topped $9.34 billion in 2020 and is expected to grow at a 9.7% compound annual growth rate (CAGR) through 2028.[16]

A Deloitte survey of CFOs from major real estate brokerages indicated that spending is set to remain strong in 2023. Forty-eight percent of North American respondents said that they plan to increase tech spend in 2023 vs. 2022, with another 27% planning to keep spending in line with the previous year.[17]

The breakdown of real estate technology spending can vary by market and company; however, typically, it can be segmented by solution and property type. Among solution types, property management software, financial services tools, marketing technology tools, and IoT systems for property monitoring and management comprise the largest share of real estate technology spending currently.[18]

GLOBAL REAL ESTATE SOFTWARE SPENDING EXPECTED TO GROW AT A 9.7% CAGR THROUGH 2030

Sources: Grand View Research. (n.d.). Real estate software market size, share & trends analysis report by type (CRM software, enterprise resource planning software), by deployment, by end use, by application, by region, and segment forecasts, 2021 – 2028, with Global X Estimates as of February 2023.



* indicates forecast.

Demographic Trends Create Opportunities for PropTech

We expect shifting demographics to tighten technology's grip on real estate and property management in five main areas over the long term. First, home discovery is now largely a digital process worldwide, primarily led by a buyer mix that increasingly tilts towards nesting millennials. Nearly 95% of U.S. homebuyers in 2021 used the internet to find their homes.[19] Buyers that discovered a property through digital channels are 2.4x more likely to buy the property than in-person discovery.[20]

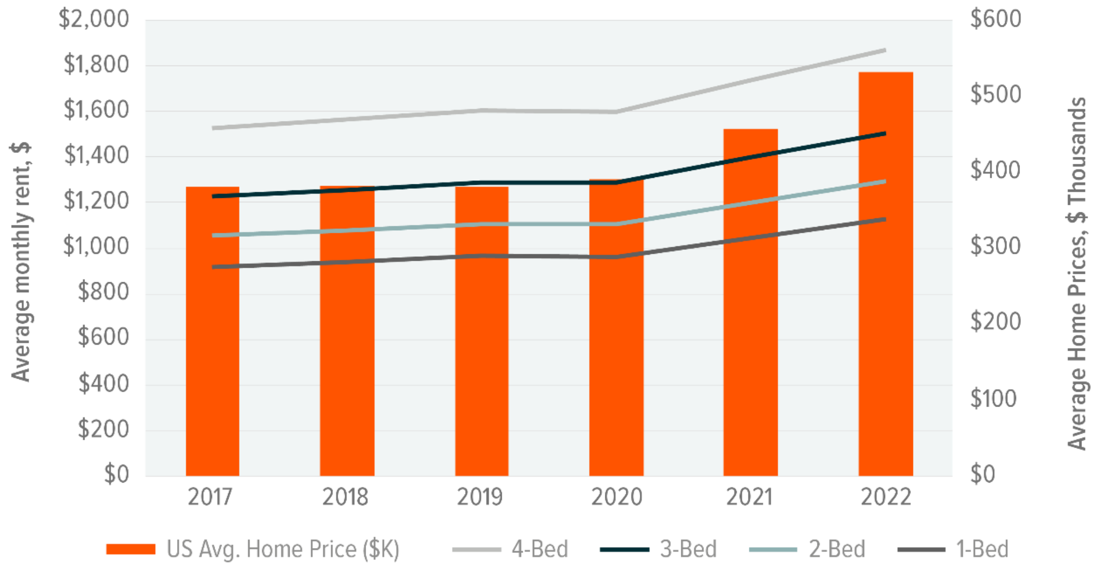
In the U.S., real estate sales and brokerage is a $226 billion market.[21] However, we estimate that less than 10% of this market likely happens completely digitally.[22] Agents and buyers may meet online, but they complete the majority of transactions offline. In our view, platforms that can digitize the process end to end have a tremendous opportunity. Nearly 40% of millennials say they would feel comfortable buying a home entirely online.[23] Many U.S. agents recognize the benefits of incorporating technology into their processes, with some spending close to $1,000 a year on technology tools.[24] eSignature solutions, digital listing, and customer relationship management (CRM) tools take precedence.

Moreover, with the advent of virtual reality technologies and the mass adoption of consumer tech such as the Metaverse, we expect real estate agents to be creative and further leverage frontier technologies to build 3D viewing experiences. We expect digital listings to remain an innovative sub-segment, as mobile-first experiences, more accurate property value estimation, and simplified financing remain hot areas for further disruption. The top three real estate listing services in the U.S., Zillow, Realtor, and Redfin, receive close to 470 million average monthly unique visitors between them.[25]

Second, the rental market presents compelling digital opportunities. Demand for U.S. home rentals is near all-time highs, driven by limited housing availability on the heels of the post-pandemic housing surge and macro uncertainties and rising interest rates. Average U.S. rental yields of 6.12%, as of November 2022, increased 30%+ year-over-year (YoY) in a handful of major U.S. cities.[26] We expect steep entry level home prices will continue to boost the rental market and positively impact the technology spending.

AVERAGE MONTHLY APARTMENT RENTS IN THE US KEPT GOING UP

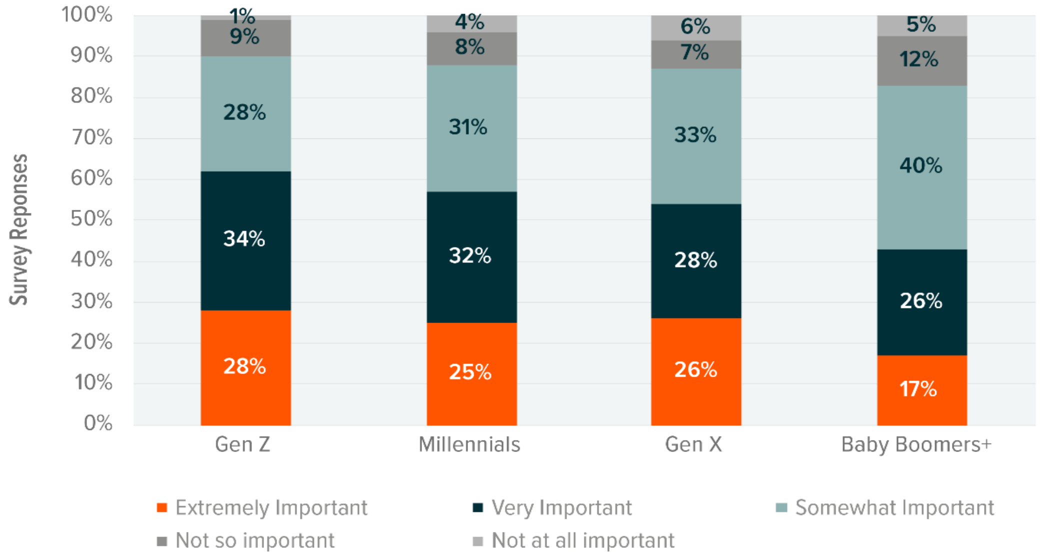
Sources: Statista Research Department. (2022, September 28). Average monthly apartment rent in the United States from January 2017 to February 2022, by apartment size (in U.S. dollars). Statista.



Seventy-two percent of renters are now millennials and Gen Z, and these cohorts are forecast to rent for much longer than the previous generations.[27] We believe that this dynamic is likely to compel landlords to invest in technology to service the needs of these renters. When renting a home, nearly 62% of Gen Z look for apartment technology as a critical factor, including having mobile apps for managing maintenance, smart locks, and energy efficient appliances.[28] Even how renters pay their rent can be a factor. In the United States, digital payments for rent swelled to 33% at the end of Q4 2020 from 17% at the end of Q4 2019.[29]

GEN Z RENTERS RATE TECHNOLOGY AS AN IMPORTANT FACTOR IN RENTING MORE SO THAN OTHER AGE GROUPS

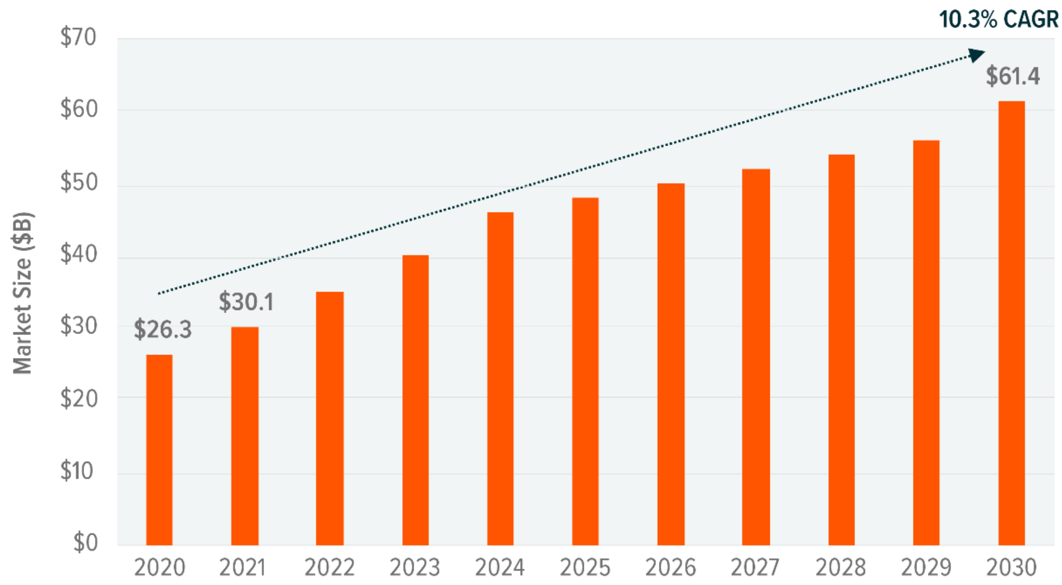
Sources: Bona, S. (2020, October 30). Gen z survey: Young renters are the most techy, research-focused, Instagram-loving generation of renters. Rent Cafe. 2,500 respondents.



Third, the boom in short-term rentals is a major trend shaped by shifting consumer demographics, particularly in the aftermath of the pandemic and the rise of remote working. Global spending on short-term vacation rentals topped $91.2 billion in 2021 and is expected to grow at a 12.4% CAGR through 2030 to top $315 billion.[30] 1.3 million properties were forecast to be listed in the United States as short-term rentals in 2022, up 21% YoY compared to 2021.[31]

U.S. SHORT-TERM VACATION RENTAL MARKET EXPECTED TO TOP $61 BILLION BY 2030

Sources: Grand View Research. (n.d.). Short-term vacation rental market size, share & trends analysis report by booking mode (online, offline), by accommodation type (apartments, home), by region (APAC, North America), and segment forecasts, 2022 – 2030. Accessed on February 16, 2023.



Marketplaces such as Airbnb and VRBO verifying, aggregating, and listing properties represent mounting competition to the hotel industry. Online travel platforms such as Booking, Expedia, and Priceline, which traditionally aggregated and displayed only hotel listings, now list short-term rentals, helping to promote this market and helping drive mainstream acceptance.

AIRBNB BOOKING VOLUMES CONTINUED TO GROW AS THE SHORT-TERM VACATION RENTAL MARKET REMAINED STRONG

Sources: Airbnb Investor Relations. (n.d.). Over 4 million hosts share their worlds on Airbnb: Quarterly Results: Q4 2022. Published on Feb 14, 2023. Accessed on February 16, 2023.

Fourth, home management systems are rapidly digitizing as well. On the consumer front, smart locks and digitized security systems are gaining ground rapidly. Nearly 81.3 million homes nationwide report having a home security system installed.[32] These systems are maturing into comprehensive control hubs for home automation, including operating entertainment devices, smart appliances, automated cleaning systems, and more. The average number of connected devices per household in the U.S. has swelled to 22 in 2022, up from 11 barely three years ago.[33] On the commercial side, access systems are actively being digitized. Right from visitor management, ID verification, record keeping, and more, digital solutions are adding incredible value and efficiency to the process. Increased use of IoT systems is also helping commercial property managers understand health and daily operations of large buildings.

Fifth, we expect the increased use of devices and the data assets that they generate to drive use of specialized software and tools to increase efficiency, asset monitoring, tracking and more. Insights gained from this data will drive key decisions for real estate investors, commercial property managers, and others, increasing the market for niche research and analytics offerings. Demand for document management tools, signature services, marketing platforms, and other workplace and back-office cloud applications will likely grow in the near future as well.

PTEC: An ETF Targeting Disruptive Property Technology

The Global X PropTech ETF strives to include targeted exposure to the property technology theme by investing in companies that derive at least 50% of their revenues from one or more of these three main areas of the real estate technology value chain. Combined, these sub-segments provide direct exposure to high growth areas within the broader property technology universe.

- **Property Management:** Companies that provide software and/or information technology services to facilitate the management of commercial and residential real estate, including home automation, smart security systems, tenant management, energy management/monitoring, insurance, and construction process management.

- **Marketplace and Platforms:** Companies that operate online marketplaces and platforms that facilitate the purchase, sale, rental, sharing, discovery, and/or financing of real estate.

- **Research and Analytics:** Companies that utilize software, data, artificial intelligence, machine learning, spatial recognition and/or other information technology to provide real estate research and analytics. Also, companies that provide virtual and augmented reality solutions to the real estate sector.

Conclusion: PropTech an Early-Stage Theme with a Vast Addressable Market

Shelter is right alongside food and water as an essential, and the process of finding and maintaining it is becoming much more technology-based. We believe that the ongoing digitization of real estate, whether residential or commercial, over the long or short terms, represents a dynamic growth opportunity. Consumers, particularly the younger demographics, will continue to drive the adoption of digital channels in home discovery, management, and payments, prompting landlords and commercial vendors to invest in technology that supports consumer demands.

Footnotes

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Investing involves risk, including the possible loss of principal. PropTech companies are primarily exposed to the risks specific to the technology and real estate markets. Narrowly focused investments will be more susceptible to factors affecting that sector and subject to more volatility. Technology companies may be subject to rapid changes in technology, intense competition, rapid obsolescence of products and services, loss of intellectual property protections, evolving industry standards and frequent new product productions, and changes in business cycles and government regulation. International investments may involve risk of capital loss from unfavorable fluctuation in currency values, from differences in generally accepted accounting principles or from social, economic or political instability in other nations. PTEC is non-diversified.

Shares of ETFs are bought and sold at market price (not NAV) and are not individually redeemed from the Fund. Brokerage commissions will reduce returns.

Carefully consider the fund's investment objectives, risks, and charges and expenses before investing. This and other information can be found in the fund's full or summary prospectuses, which may be obtained at globalxetfs.com. Please read the prospectus carefully before investing.

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