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Interventions of the Real Estate Market – ROI, Market Trends, Policies and Sustainable Economic Development

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ABSTRACT

This publication explores the distinctive characteristics and investment strategies associated with commercial and residential real estate, highlighting their respective advantages, challenges, and implications for investors. This publication will also highlight various sectors within the real estate market, by analyzing compounding variables such as the Returns on Investments, vacancy rates, cap rates, appropriate economic policies that serve as the fundamental foundation, alongside policies that have been imposed on both commercial and real estate properties that work in favor of the investor. This publication has derived findings on how return, risk, and liquidity are three central variables, for investors to deem the right decision for investing in certain properties as well as how different economic periods influence respective vacancy, cap rate, and the supply and demand for certain properties, as well as potential limitations that each study and research finding entails.

Introduction

Amidst the paradigm of the revolution within the real estate market, it is evident that after the 2008 financial crisis, the housing prices have increased in many areas, as evident in the housing boom in the late 2010s and early 2010s, where there was a lower interest rate imposed, and increased demand for single-family homes. Additionally, in recent years, the rise of property technology has revolutionized the ways in which AI, big data and blockchain are being implemented into both real estate properties and investors, to gain traction and also leverage profitability. This research publication will delve into various sectors – from the implications of ROI on sellers' behaviors and decisions, the current market trends that have boomed the real estate market for both commercial and real estate properties, as well as how behavioral economic policies shape consumers' decisions to rent or purchase real estate property. This research publication will also highlight various rates ranging from the rental, cap and vacancy rates and their correlation with rental sales, as well as the possible ethical limitations and considerations for researchers to take note of, when unveiling findings entailing the real estate market.

Introduction of ROI (Return of Investments) on Sellers in the Real Estate Marketing

Figure 1. Investment triangle

From the Investment Triangle above, it is evident that the general real estate investors make decisions based on three primary aspects: Return on investment (ROI), assumed risk, and liquidity. The relationship among these variables can be summarized as follows: "the general investor expects a higher return on higher risk" (Krulický et al., 2019). Liquidity exhibits the ability to convert an investment into cash within a reasonable timeframe. However, liquidity in real estate investment raises concerns since there are so many parts into getting a property sold such as the listing in general and paying your listing agent. Once a buyer is interested in the listed property then the new buyer has to set up a mortgage with their bank if they are not paying cash, and then there is the closing which can take up to a month and all of this costs money. While the three aspects on the chart are not exhaustive, they serve as a common thought process for understanding investment decisions through an investor's mind.

Exhibit 1 (continued)
Returns on Real Estate Investment

Article	Assets Examined	Data	Time Period	Summary of Results
Webb, Chau and Li (1997)	Commercial real estate returns in Hong Kong	Hong Kong Government	1978–1995	Separating real estate returns by three fundamental factors (initial current yield, growth in net operating income and pricing movements) provides more information. The study reports calculations for various return and yield rates.
Clayton (1998)	Clayton (1998)	Royal Lepage Survey	1982–1994	Housing markets are inefficient. Past housing price movements and the ratio of current rents to house prices are indicative of future price movements. A drastic increase in house prices partially results from irrational expectations and indicates a future correction.
Conover, Friday and Howton (1998)	Foreign real estate investments	S&P Global Vantage	1985–1996	Large foreign firms with a high equity value have higher returns and lower risk than small firms. The risk and return differences between large and small firms are significant.
Eppli, Shilling and Vandell (1998)	Metropolitan retail appraisal-based property returns	NCREIF Index	1978–1994	Less than 3% of the variance in unsmoothed metropolitan real estate returns can be explained by macroeconomic variations; lagging the values improves explained variations to 28%; some metropolitan areas are more predictable than others.
Ford, Fung and Gerlowski (1998)	Foreign investment in Apartment, office, retail and industrial properties	International Trade Adm. U.S. Dept. of Commerce	1980–1991	Foreign real estate investors behave as traditional profit maximizers and risk minimizers. Foreign real estate investors choosing among apartment, office, retail and industrial properties are most sensitive to changes in capitalization rates, market activity and current rent levels.
Gatzlaff and Geltner (1998)	Commercial property repeat-sales transactions	Florida Dept. of Revenue property tax records	1975–1997	Study develops the first repeat-sales transaction-based index of commercial property in the U.S. Repeat-sales analysis helps filter out transaction noise and produces useful return indexes. There appears to be relatively little difference between appraisal-based and transaction-based indexes with regard to overall performance and annual volatility.
Graff (1998)	Quarterly appraisal-based returns	Simulated data	N/A	Seasonality generates a material sample bias that can be either upward or downward, depending on the quarter during which the appraisal occurs. Seasonality tends to exaggerate the return's contribution of MPT to real estate portfolio diversification.
Grissom and DeLisle (1998)	Various real estate return series	NREI, NCREIF, Ibbotson, Am. Council of Life Insurers, and other sources	1951–1997	To allow more accurate performance comparisons, this study provides an expanded return model to fit data in currently available return series and surveys.

Figure 2. Returns on Real Estatement Investments (Over Different Time Periods and Forms of Properties)

When researchers date back to the housing market from the 1990's, it is predominantly evident through single family home prices in urban areas that price changes and modifications in the housing properties go hand in hand with the populations' income growth and adult populations. (Downs, 2010) However, it is evident to note that some returns on investments are not equally-distributed, as residential homes pose higher risk than commercial real estates, where asset diversification is far less plausible. For instance, when uncovering data from the apartment market for rental properties, it was evident that the transaction costs for real estate often exceed the excess returns, making it harder for rental properties to sustain its growth and development, while maintaining its cash flow and higher expenses. (Downs, 2010) However, at the same time, in commercial real estate properties, it is evident that real estate returns are all segregated and categorized based upon three factors – growth in net operating income, initial current yield, and price movements.

Analysis of Current Market Trends in Both Commercial and Residential Areas

Real estate investment offers diverse paths for wealth increasement, each with its unique advantages and challaned tailored to different investors goals and history. Commercial real estate encompasses properties like office buildings, retail spaces, and warehouses. Investors in commercial properties benefit higher cap rates and significant appreciation over time. (Levitin et al., 2013). However, commercial real estate investment requires a substantial amount of upfront capital and is sensitive to economic cycles, making them suitable for investors comfortable with higher risk and complexity.

In contrast, residential real estate focuses on properties intended for living, including single-family homes, condominiums, duplexes, town-houses, and short term rentals also known as Airbnb's. This sector appeals to investors seeking lower entry costs, simpler management, and safer cash flow especially with the rise in Airbnbs offering higher returns compared to long term single family homes. Challenges when it comes to Airbnb is you have to treat it like a hotel room. Whenever the guest leaves you have to pay for a full cleaning and make sure everything is restocked. For long term single family homes it is up to the tenant to keep on with the condition of the property. As a whole, residential properties offer lower rental yields compared to commercial properties, they can prove steady appreciation and are generally less volatile. Challenges in residential investing include managing tenant turnover and ensuring consistent occupancy rates. (Saiz et al., 2020).

Choosing between commercial and residential real estate investments hinges on factors such as financial goals, risk tolerance, and capital you have to put down upfront. Investors aiming for higher income potential and equipped to handle complex management scenarios may find commercial real estate appealing. Conversely, those prioritizing stability, ease of management, and more predictable income streams often opt for residential properties. A common feature in both commercial and residential real estate is the ability for investors to utilize the 1031 exchange, enabling them to defer capital gains taxes by reinvesting the proceeds from the sale of a property into another like-kind property. (Rupert, 2006) This allows investors to not need to pay taxes on the profits made from the property, thereby providing more capital to reinvest into another similar property, allowing them to expand their portfolio.

Behavioral Economics' Policies on Affecting Consumers' (Buyers') Decisions

Behavioral economics delves deep into the integrations of both psychology and business to formulate the best economic models. Whether it analyzes consumers' decisions on spending money or investments, towards their responses to marketing strategies, researchers have also been analyzing how decisions of purchasing real estate property or residential property collides with certain modules in psychology and sociology. (Seiler, 2014) For instance, as a reaction to certain modifications in market inefficiency, researchers have developed a model, titled Behavioral Real Estate, that arguably showcases how individuals respond to changes in house prices. (Salzman et al., 2014) For instance, in particular studies that consist of sellers and buyers, researchers have identified that "over-optimism" is one of the most singular psychological biases in real estate markets. For instance, households that predict that households that hold true to the idea that buying a house does not involve a significant amount of risk will see a 11% increase in house prices, which indicates "over-optimistic assessments of future levels of interest rates". In addition to this, another behavioral economic principle highlights the principle of overconfidence, which just like over-optimism, is a bias that is generated from hindsight bias, in making researchers have the impression that unpredictable events may become predictable. (Salzman et al., 2014)

Fed's Interest Rates' and Influence on Investment Decisions

Within the financial real estate market, monetary policies and Fed's interest rates contribute to the housing cycle in regards to how they address inflation. For instance, monetary policies in the US have become much more receptive to changes in inflation as well as the economy's GDP – as bolstered by the Taylor Rule, where the response coefficient to inflation has increased, and the response coefficient to real output has also increased. Another research publication from recent years has highlighted the evidence of expansionary monetary policies that have led to US housing price booms. (Chen et al., 2024) For instance, it is speculated that the interest rates that were held at a very low rate between 2003 and 2005 have led to a housing boom, and a mortgage crisis in the period of a global recession. Researchers have predicted that the low interest rates that were particularly the case during 2003 and 2005 were a determining factor that led to the rise of the financial crisis from 2007 to 2008. (Chen et al., 2024) When researchers date back to the bubble in housing prices, it is evident that easy monetary policies established by the Federal Reserve were what triggered a bubble in housing prices – a time which caused a significant amount of volatility and economic stress.

Sustainable Economic Development of Houses in Rural vs. Urban Areas

In the eyes of researchers, it is essential for researchers to consider the spread between both urban and rural areas, as there will be different population structures, educational accessibility, health differences by analyzing the various classifications and datasets. With all of these different economic and statistical inferences and variables, it is necessary for researchers to address different economic policies and frameworks that can govern different types of housing units. For instance, policies designed for urban and rural areas may be different, where neighborhoods may affect individuals as well as their subsequent health. Researchers have predicted that classifying either a rural or urban home takes necessity of implementing several continuous data variables, and looking for clusters of areas. (Aini et al., 2016) Specifically, it is necessary for rural policies to address the need to provide financial assistance to low-income families that reside in these communities, as well as proposing tax incentives in the form of tax breaks that can lead to property tax reductions, as well as more funding and economic resources to purchase energy-efficient tools. On the other hand, for urban housing, because of high-density, it is necessary for urban renewal programs to revitalize certain public amenities, while also addressing housing shortages in urban areas by offering low-cost rental options. (Pateman, 2011)

Analyzing Rates in Real Estate Market - Rental, Cap, Vacancy Rates

Researchers have argued that rental, cap and vacancy are determining factors – for instance, high vacancy rates suggest that a property has not been renting well, while low vacancy rates suggest that there are high and strong rental sales. For instance, high vacancy properties are typically associated with low cap rate, which is a rate that is deduced by dividing the property's net operating income (NOI) by its current market value to grasp the potential return on investment (ROI) for real estate properties. (Beracha et al., 2019) However, it is essential to keep in mind that high-vacancy properties that have more space for tenants often lead to a higher NOI growth, even though investment performance of high-vacancy properties typically leads to its value being less than the investment performance of that of low-vacancy properties, as they are associated with a higher risk. When findings were evaluated from a particular research study from 2018, researchers identified that when a market-adjusted cap rate was implemented on a sample of nearly 20,000 properties, researchers identified that high vacancy properties with more space for tenants to prospectively move in, are associated with low cap rates, which bolsters the researchers' hypothesis that high vacancy properties have low cap rates, relative to low vacancy properties. However, additional analysis showcased that in spite of this being a higher risk in terms of investors, higher vacancy properties are typically still associated with a higher future NOI growth rate in terms of the success rate of properties outperforming in the upcoming years. (Beracha et al., 2019)

Ethics, Discussion and Limitations

In terms of ethical implications, it is apparent that some of the findings are derived from empirical studies, rather than longitudinal studies, which highlights the lack of reasonable time that returns on investments can be studied, as liquidity, ROI and other variables must be analyzed on a longer spectrum within a more significant timeframe. In addition to this, it is also significant to consider that within the real estate market, some variables may not be kept consistent – for instance, household income and financial factors must be considered, in conjunction with other variables like the state and city that they live in, as well as the relevant demographics of residents which differ across various communities. This heightens the inconsistency and ethical limitations surrounding diversifying these results for all areas within the United States. It is also prominent to consider that when exploring the ethics of the real estate market, a lot of the studies discussed in this publication are outdated from the years of 2014-2019, which suggest that regulatory compliance and industry regulations are different, leading to different implications in the financial market and real estate market. Thus, when diversifying these subset of research findings, it is essential to consider such limitations.

Conclusion

It is evident that within the interdisciplinary areas of both the financial and real estate market, there are various variables that mold the industry significantly – ranging from investments and financial development, behavioral economics, to various sectors within both residential and commercial markets. This research publication highlighted how economic models are constructed through both an analysis of consumers' decisions and behaviors as well as the availability of investments, as well as how the economic cycles within the real estate market respond to different capital and investment levels. In addition to this, this research publication also highlighted the importance of monetary policies and the Fed's adjustment to inflation, that determines how the economy and the GDP of the United States adjusts to. Another significant takeaway from this publication is that properties in urban and rural areas have different structural composition – whereby, in witnessing different population density and structures, educational accessibility and health differences, there is a significant spread between both urban and rural areas where there will be different classifications in the development of certain properties.

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References

Aini, Ainoriza Mohd, Nooraisyilah Murni, and Wan Nor Azriyati Wan Abd Aziz. "Housing aspirations of the elderly in Malaysia: A comparison of urban and rural areas." Journal of design and built environment 16.2 (2016).

Beracha, Eli, D. Downs, and Greg MacKinnon. "Investment strategy, vacancy and cap rates." Real Estate Research Institute, Working Paper (2019).

Chen, Zhihao. "Changes and Impact of Monetary Policy in the United States: Quantitative Easing and Federal rate hikes." Highlights in Business, Economics and Management 24 (2024): 2085-2092.

Downs, Anthony. Neighborhoods and urban development. Brookings Institution Press, 2010.

Krulický, Tomáš, and Jakub Horák. "Real estate as an investment asset." SHS Web of Conferences. Vol. 61. EDP Sciences, 2019.

Levitin, Adam J., and Susan M. Wachter. "The commercial real estate bubble." Harv. Bus. L. Rev. 3 (2013): 83.

Pateman, Tim. "Rural and urban areas: comparing lives using rural/urban classifications." Regional trends 43 (2011): 11-86.

Rupert, David C. "Evolution and Revolution of the Like-Kind Exchange Market." (2006).

Saiz, Albert, and Arianna Salazar Miranda. "Real trends: the future of real estate in the United States." MIT Center for Real Estate Research Paper 5 (2017).

Salzman, Diego, and Remco CJ Zwinkels. "Behavioral real estate." Journal of real estate literature 25.1 (2017): 77-106.

Seiler, MICHAEL J. "Behavioral real estate." Private real estate markets and investments 49 (2014).