

EVALUATION OF IMPACT OF MODERN TECHNOLOGY, DEMAND AND SUPPLY ON REAL ESTATE

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How to cite: HASANLI F. (2023). “Evaluation of Impact of Modern Technology, Demand and Supply on Real Estate”. *Annals of Spiru Haret University. Economic Series*, 23(2), 75-93, doi: <https://doi.org/10.26458/2323>

Abstract:

The real estate industry is undergoing digital transformation, which affects its working conditions, market appearance, and economic growth factors. The characteristics and operations of real estate markets will be demonstrated in detail which is covered by both basic methods that have remained immutable for centuries and specific possibilities that have recently emerged. The prime idea is to identify industry alterations, the impact of digital transformation, investment decisions, expected future evolutions related to demand and supply, and regression analysis using Ordinary Least Square method which is used to evaluate the data that falls to the plane and variables that go beyond the restrictions in case of Azerbaijan. This paper provides some particular aspects of real estate within economic terms, to show how technological advancements could provide a comprehensive dataset with expected growth rates, real estate risk management, economic evaluation of real estate investment projects, real estate economics and most importantly demand and supply. The study supports fluctuation of prices in this market is mostly based on macro and micro economic levels.

Keywords: *real estate, property and rent, savings, digital transformation, real estate investment*

JEL Classification: *R30*

Introduction

Thousands of extremely astute businessmen, often backed by millions of dollars, are working tirelessly to alter the way real estate is currently used, traded and operated. Although people are living longer due to the advances of modern medicine, when they retire the new stage of their lives begin where they need to be carefree and to have a proper budget to handle their own place. In this period, each and every person needs to find a place with the professional assistance. Professional assistance in Real State is quite essential in this period of time as investment might be risky however the correct chosen investment strategy can make the best use of ones investment in both time and money. Experienced investors totally accept that the successful solution that can make a big difference is focusing on big picture [Turner & Dorkin, 2018]. Nevertheless, it is quite challenging to predict the evolution of budgeting of this industry in near future, it will be useful to assess the existence of new solutions in order to accelerate the process of meeting the needs of the customers within the acceptable budget.

According to an early 2014 Federal Reserve study, more than 40% of non-commercial real estate owners had at least \$1.00 in equity in their primary residence and 40% had \$10,000 in household real estate equity. According to a 2015 Yahoo Finance survey, approximately 10% of respondents believe they are equipped for an economic downturn. The real estate investment management industry is experiencing a dramatic cultural shift as a result of the global financial crisis of 2007-2009, climate change pressures, rapid urbanization, and COVID-19. It is no longer sufficient to simply guarantee high, consistent returns investors.

Table 1. Advantages and Disadvantages of Real Estate Investing

Advantages	Disadvantages
Offers capital appreciation	In most cases illiquid
Steady income	Requires massive amount of capital outlay
Might be bought with leverage	Might require active management
Diversifies portfolio	Impact of highly local factors is probable

From the above table it can be observed that it might be risky to neglect some side effects of capital appreciation. The biggest risk in this scenario is that the homeownership market suddenly changes and people stop purchasing property.

However the one who is interested in it needs to be an agile investor who is willing to get in and out of investment quickly. [Fregonara et al., 2017]

There is a significant distinction between the words real estate and real property. Real estate refers to a particular parcel of land, whereas real property refers to the interests, benefits, and rights associated with real estate ownership [Ezebilu, 2017]. The legal meaning of real estate includes the following tangible components:

- Land
- All natural elements of soil, such as trees and minerals
- All human-made structures connected to land including buildings and site improvements etc.

Furthermore, all permanent building attachments, such as plumbing, heating systems, and so on, as well as built-in items like cabinets and elevators, are typically considered real estate. Real estate has no intrinsic worth as it is the rights, or interests, in real estate that have value according to an old saying, “Under all is the land”. People's social and economic activities are supported by their land. It is a wealth-generating and as well as a physical commodity which is affected by both advanced technology and determinants of demand.

Technology in Real Estate

The impact of the technological revolution on the real estate business is complex, as is forecasting changes in this sector. The real estate business operates in a relatively traditional and conservative manner. This is undoubtedly due to the unique character of real estate and its performance in the legal, technical, economic and social domains. Consequently, the real estate market itself is less open to the expansion of innovation, due to institutional and legal limitations serving, among others, the protection of real estate transactions. However, current worldwide data delineates that technology is also entering this industry, and future technological advancements may profoundly transform the entire real estate sector in particular trading. Technology changes the way we operate in the real estate market but, while we can observe innovative solutions and new business models, we must also be aware that we are dealing with a traditional business in which technology enters gradually. [Malkowska, 2020]

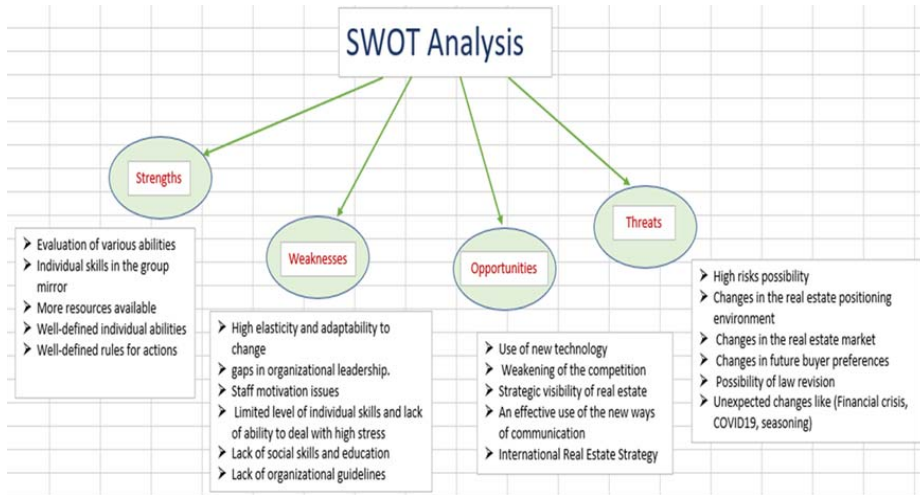


Fig. 1. SWOT Analysis of Real Estate Industry

Real estate is an information-intensive industry [Geideman & Krause, 2016]. The data on the basis of which analyses, predictions and decisions are made originates from several different sources and are of varied nature. Most of them are location-specific, reflecting the patterns of local real estate markets. To exemplify below table depicts average price and average price per meter for each district of Baku, the capital of Azerbaijan.

Table 2. Average Price and Average Price per Meter in Districts of Baku, Azerbaijan

District	Average price (AZN)	Average price per meter (AZN)
Nasimi	≈ 185,174	≈ 1,668
Yasamal	≈ 152,562	≈ 1,540
Sabail	≈ 195,730	≈ 2,113
Khatai	≈ 143,555	≈ 1,418
Binagadi	≈ 118,880	≈ 1,404
Narimanov	≈ 179,438	≈ 1,658
Nizami	≈ 109,142	≈ 1,355
Sabunchu	≈ 88,647	≈ 1,186
Surakhani	≈ 68,145	≈ 1,027
Khazar	≈ 62,871	≈ 950
Garadagh	≈ 65,472	≈ 960
Pirallahi	≈ 45,883	≈ 996
Average in Baku	≈ 148,907	≈ 1,515

According to the above table the highest housing price is witnessed in Sabail district. Subsequently, Nasimi follows the same pattern by being close behind at 185,174 AZN. In the Khazar and Pirallahi districts inclination declines with the lowest real estate prices.

Technological advancements allow for the collection of an increasing variety of data, including big data based on human behavior detected via the Internet. There are distinguished three kinds of data used in real estate, including traditional and technological data sources [Geideman & Krause, 2016]:

1. Core information – Information which is based on sale transactions, lease transactions, mortgage information, assessment values etc.;
2. Spatial information – It is the extra-locational information including data outside of the property which is available from Geographic Information Systems (GIS) such as geographic information, road network data, spatial economic indicator etc.;
3. Peripheral data – The main exception of peripheral data is that it is about the data about people that is automatically gathered. The advancement of cloud computing provides numerous advantages to both large and small and medium-sized businesses. Primary benefits of cloud computing for large organizations are improved control over data centers and lower costs.

Renting a house is the most 'never going out of style' requirement. There is a wide range of investment in this sector, from affordable housing to luxury resorts to office buildings. There are startups that provide people with the most convenient way to access services over the Internet with just a few clicks [Saul & Baum, 2020]. Based on the project plan that could be used in the near future due to the excessive demand, users might get a proper requested information such as getting real estate advisory, analysis helping with selection, application filling, guiding, fully/semi furnished apartments. Social networking sites such as Facebook, video content sharing sites including YouTube, Instagram, blogs and knowledge sharing tools like Wikipedia are the most well-known types of social media. The virtual environment may be used to share the company's message to its business associates [Öztürk & Batum, 2018]. Nowadays, clients of the real estate industry benefit from the use of technology and social media. It is an essential tool to enable this industry to get proper insight about the requirements of the clients, to communicate within this business or generally for goodwill. Through internet investors and clients may have an access to the range of information in the most convenient way, controls perception and increases quantity of demanded. As the result of recent

technological advancements, big data has significantly high impact on the outbreak of quantity and quality of relevant data [Diebold, 2020]. In this sector proper provision of information is the essential factor. It is a sector in which the primary product has several characteristics including fixed location, high capital intensity, differentiation, value reliance. Rights of the properties are transferred in transactions entail a large number of stakeholders. It is worth to mention that the real estate market is diverse, and trade on real estate industry includes a wide range of products. Aside from property assets, the this industry offers many services such as consulting, analysis, valuation, real estate management, real estate finance etc.

How to invest in real estate

Stocks, bonds, savings, currencies, and real estate are all options for people to put their money into something sufficient. One of the most common reasons people invest in real estate is to attain financial independence, but there are other factors to consider [Turner & Dorkin, 2018]. It is quite obvious that listing property at 5% above current market provides a tenfold sales advantage than pricing at 15-20%. A house that is overpriced will suffer from a lack of exposure; the longer it is on the market, the more difficult it will be to sell, and it will still remain constant after price reductions are made to attract buyers [Ezebilo, 2017]. People contribute for real estate investing because they want financial freedom. So, the owner or the investor should consider appreciation, cash flow, depreciation, leverage and tax benefits while engaging in real estate.

Have you ever received a box of chocolates as a gift over the holidays?

There are many choices, you need to take a little bite of each one to figure out what exactly you're going to find inside. Learning how to invest and deal with the key factors of demand in real estate is like that box of chocolates. There are dozens of different ways to make money as a real estate investor, and it's up to the each individual to choose the niche that is wanted to get into [Tajani et al., 2017]. Every real estate transaction involves money. One of the essential factors in this case is the interest rate you make on your money each year which is called return on investment (ROI). For example if the invested money is 400\$ and additional gain is 120\$ then ROI is going to be 30% for total of 520\$ which means you started with 400\$ and ended up with 520\$ after a year of return of 30%. This is the simple way which is used by real estate. Formula of return on investment is shown below:

$$ROI = (V1 - V0) / (V0)$$

V1 is the ending balance and V0 is the starting balance.

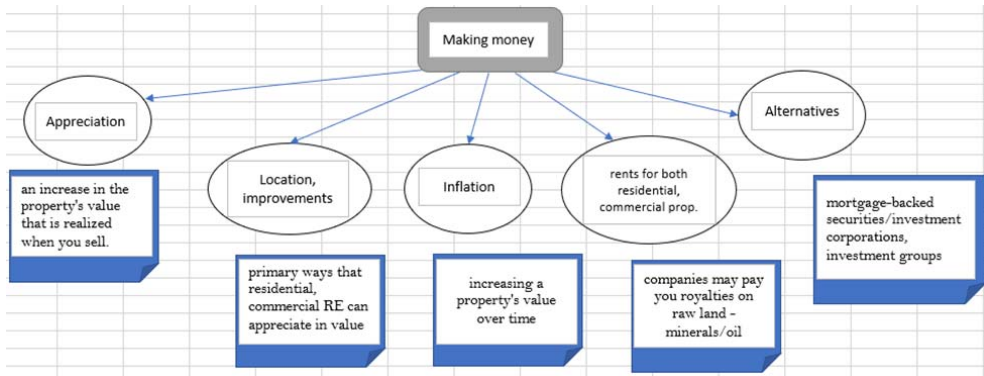


Fig. 2. Purchasing Power

While you may get five times your money due to inflation when you sell, many other goods cost five times as much to buy too, so purchasing power in the current environment is still a factor. Property owners have much more than dollars and cents tied up. But value becomes a reflection of the buyer's perspective when that property is put up for sale and buyer will shop the market, compare available homes, and try to find the very best value. Consequently, when the seller is ready to list their home, they need to step back and sharpen their focus. [Barreca et al., 2017]

Real estate Demand and Supply

This industry maybe considerably specific and even idiosyncratic in a number of ways, but basic economic principles-principles of demand and supply are still followed by real estate market.

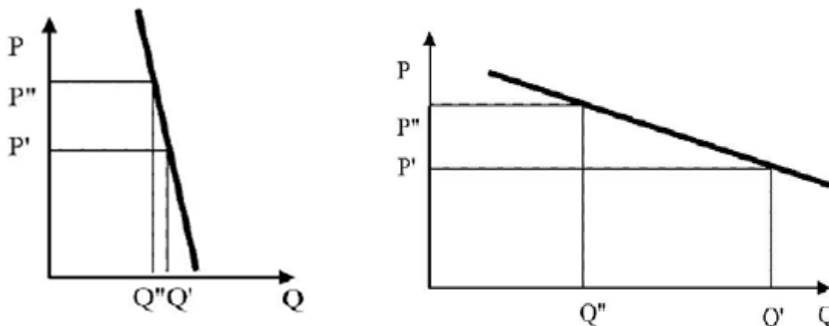


Fig. 3. Fundamental Law of Demand

Real estate demand, according to traditional economic theory, can be defined as the number of units requested at different prices.

This line graph helps to conceive demand as a schedule, as illustrated in Figure 3, rather than a single quantity that is called the basic law of demand. It states that the quantity demanded decreases with price. In case of real estate terms, a smaller amount of space or fewer units are demanded at higher prices. [Hall, 2020]

The idea of effective market demand is embedded in the definition of demand that shows the pattern where demand backed up by purchasing power. In some cases, we may also need to concentrate on ex-ante demand which is also called desired demand in real estate analysis. This is the aggregate quantity of a good that is desired before consumers interact with the market.

Demand Sensitivity to Price/Rent Changes: Price Elasticity of Demand

The sensitivity of quantity demanded to price changes is an essential feature of the demand curve. The notion of price elasticity of demand summarizes this sensitivity. In simple words, the price elasticity indicates how much the quantity demanded decreases in reaction to a surge in price. It can be shown by hypothetical estimate when the price elasticity of housing is estimated to be -0.8, the number of housing units requested will fall by 0.8% if the average price of housing rises by just 1%. In general, demand is deemed to be inelastic if the price elasticity is less than 1. As was mentioned in the Figure 3, demand is not sensitive to price increases where the demand is inelastic which means when price soars considerably in a high pattern there is witnessed small decreases in quantity demanded. Demand in the real estate industry is also inelastic. In other case, demand could be elastic if the price elasticity is greater than 1. If this theory is applied to the housing market even if there is a small percentage of increase in price, then there is a considerable dive in the amount of space that is available. [Brzezicka & Kobylinska, 2021]

In order to determine price elasticity the prime concept that should be considered is the supply of substitutes. In this industry, demand is going to be elastic once it has a lot of substitutes rather than the luxury housing with fewer ones and less elastic demand. This also explains why the majority of businesses housed in metropolitan regions by serving local population. This region compared with the local market has less elastic demand because of fewer substitutes.

The effects of price elasticity differ once there is a glance from micro level while investors assess the fluctuations in price, its impact on revenue and macro

level considering wider view into the number of quantity demanded evaluating changes in market prices. Investors try to achieve inelastic demand as if price goes up or rents soar, revenue of the company surges. [Haiying Ma & Jiangqiao Li, 2017]

Although above mentioned rules explain the law of demand, there could be a specific scenario where the fundamental law of demand is being violated. This effect arises from the effects of analyzing price changes. In the period of increase in housing demand with the concomitant results of price increase, some analysts may consider that the law of demand is not applied. The same assumption can be witnessed in case of rising prices of rents and absorption. The law of demand claims that when the actual prices increase inclination of demand is negative based on the price elasticity. Although in this case, the law of demand is violated, it stills follows the rules of economic theory. In previous example surge in demand is the dependent of future expected price rather than the actual one avoiding any other kinds of changes triggering demand. So, it is essential to find out the difference between the actual and expected price increase. [Hall, 2020]

Exogenous Determinants of the Demand in Real Estate Market

Despite what have been discussed, price changes are not the only factor that quantity demanded is depending on. There are other factors including exogenous ones that creates shift in the demand schedule [Cunha & Lobao, 2021].

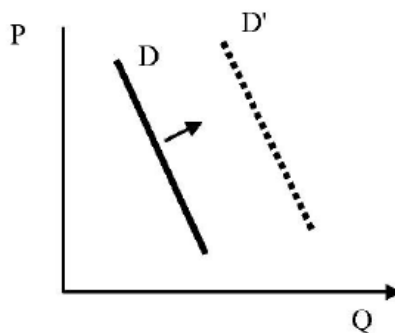


Fig. 4. Demand shifts

Forecasts of these variables can be very useful in assessing real estate market prospects and finding real estate investment opportunities. Classification of exogenous determinants for real estate is based on 4 below mentioned factors:

1) Expectations

Expectation of the potential customers, firms may differ depending on the changing needs of modern era and thus, causing changes in demand. As was mentioned previously, based on several analyses on future expected costs people may consider purchasing real estate which can increase the quantity demanded. To exemplify, alterations in the growth forecast rates of firm can conclude changes for the demand in commercial housing. It is pretty obvious that the office firm in a quickly expanding market may require more space due to the expected future growth rather than the similar business in a stable market.

2) Prices of Substitutes

The price of substitutes may cause changes in demand for real estate. Increase in apartment rents is most likely to cause a shift to the right of the demand curve for single-family housing prices. The prime reason of this shift is likely to be the need in switching from the renting of houses to home-ownership because of the rise in prices.

3) Market Size

The inclination occurring due to the market size impact on real estate demand is positive. Depending on the property type, there are several market size factors including population, employment, or output which affect the demand of housing industry. In the case of housing and retail, the essential exogenous determinant is household size, whereas for office space, office employment is considered as the most significant market-size variable. Meaning that for the same price level and bigger size of the market, more real estate will be demanded for square footage. Wealth of the population has the direct impact on residential real estate as while the price is constant and income surges buying a house could be more affordable for the households.

4) Income

Income fluctuations may have an indirect impact on demand for industrial space. In most cases, demand shifts are because of the effect of office employment on company space as there is a direct relationship between income and employment. The rise of income establishes the need of hiring more employees to meet the increase in demand of office space. The same case can surge the need of warehouse as well. Due to the increase in income of population consumption of goods will hit the peak and wholesalers may choose to expand their storage.

Real Estate Supply

Supply in case of real estate defines the amount of housing units available at different prices. The supply curve states that greater quantity is provided at higher prices. There are 3 essential categories-new construction, short-run aggregate supply and long-run aggregate supply to distinguish in supply concept in order to give a broader inside.

- The Long-Run Aggregate Supply

Long-run aggregate supply delineates the relationship between long-run prices including rents and overall quantity of units supplied in the long run.

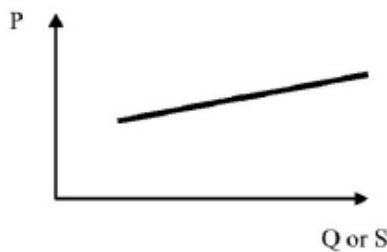


Fig. 5. Long-run aggregate supply

This specific approach is used either whenever there is a request for long run cross-market analysis or for identifying long-run behavior of housing market. Nevertheless, this concept creates various hardships when operationalized.

- The Short-Run Aggregate Supply

The overall stock of a market at a particular point in time is referred to as the short-run aggregate supply.



Fig. 6. Short-run aggregate supply

As can be seen from the above graph, real estate stock is fixed in short run. This is because of the construction lag which is the time required to complete the development of the building. This process is happening approximately between 6-24 months for office, residential and industrial projects. Due to this fact, short run supply is considered to be price insensitive and price inelastic.

Stock flow model is the way how the new construction concept applies in the real life scenarios.

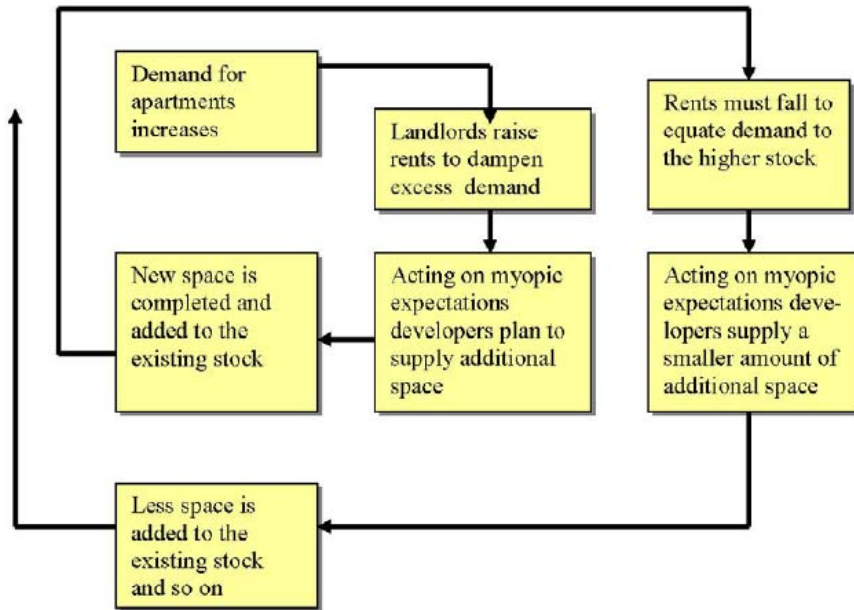


Fig. 7. Stock flow model

Assessing Demand-Supply Market Inefficiencies and Market for Real Estate Assets

Sometimes this market fails to be at equilibrium due to exogenous shocks and several detrimental effects. These are construction lags that were already mentioned, lack of information and long-term lease.

Construction lags – This refers to the late response of supply to demand and price fluctuations and can last from several months to years.

Lack of information – With the proper provided project specific information it is more realistic to evaluate transactions that is not readily available. That is because this market is quite diverse considering location and quality. In order to avoid these inefficiencies related with the prevention of demand from adjusting price fluctuations buyers conduct searches.

Long-term leases - Long-term leases impede timely adjustment of current rates to changes in supply and demand, as well as timely adjustment of space consumption to changes in market rates.

These inefficiencies are present in all property types and show the effects in different levels. In the retail markets and apartments these factors are witnessed more severe, building lags are longer, and lease contracts are shorter.

Because real estate is a long-lasting capital good, its supply and demand is decided by an asset, or capital. There should be equilibrium between demand and supply in this market. As a result, the price of a house is heavily influenced by how many households want to own property and how many units are accessible for purchase. Similarly, the price of shopping center space is determined by how many investors want to own it and how many centers are accessible for proper investment. Therefore, although increase in demand for the assets results in an increase in price, increase in supply will depress it considering the other factors which are stable. [Nanda, 2019]

The supply of new real estate assets comes from the building sector and is determined by the asset's price in relation to the cost of replacing or constructing it. This means if demand for land ownership surges unexpectedly, with a fixed supply of assets, prices will increase consequently. As this space enters the market, demand is met, and prices continue to fall back.

The occupiers of space, who are owners, companies and households, drive demand for real estate use. Space is the factor of production and its use is determined by firm output levels and the relative expense [Natsvaladze & Beraia, 2018]. Households distribute their money similarly, consuming many commodities considering space. Demand for the tenants is the dependent of the income which is divided in terms of not only housing but also other commodities such as recreation, clothing and food. The amount of owning the space is the yearly outlay which is required to acquire the required use of real estate for both businesses and households. Rent is established in the property market for the utilization of space, not for the ownership. The supply of space is provided in the asset and property

market. The prime job of property market is to find out a rent level where the demand for space use matches the supply of it. [Vincenzo & Pierfrancesco, 2018]

In recent years, the biggest threat to this sphere is new entrants trying to take advantage of high-growth industry. Competition is very fierce due to the large number of competitors, low overall profitability of all companies based on the availability of information and accessibility of technology. Nevertheless, in this area, investors need to be versatile to survive. Customers tend to look for the best service, cost packages which should be one of the focus points. Another trick that cannot be neglected is the advantage of the right ‘buying Real Estate’ season.

Descriptive Analysis and Results

Using regression model for real estate assessment has a number of advantages. Real Estate market neglected its plus points unlike the retail industry that accepted the utilization of regression analysis on the site selection. Regression analysis is ideal for huge amounts of data. Although it is considered nearly impossible to have a thorough understanding of every local real estate market in the country, regression analysis may assist in narrowing this search. [Burton, 2021]

By following the results of existed findings, multiple regression dataset is calculated to show the correlation and regression between the dependent and independent variables for the last 22 years in Azerbaijan. Regression method helps analyze the impact of explanatory variables on the prices of real estate and GDP Growth. The model itself verifies impact of alterations in inflation, unemployment, lending and deposit interest rates, and direct foreign investment (FDI) on GDP Growth which is a dependent variable. So clear is it that, these results of the used variables can suffer from the other unexpected factors that come from other determinants which are covered by error term creating bias. This can be one of the prime limitations. Depending on the determinants that are ignored, model in this study might suffer from endogeneity problem. Dataset consists of dependent variable which is GDP Growth and independent variables including inflation, unemployment, interest rates and FDI. There are also control variables such as average adjusted wage of the population, trade balance and number of residential housing. Used variables in dataset and the relationship between them are provided by the utilization of Descriptive Statistics with the measure of dispersion, association and central tendency. According to the data covering 22 years Ordinary Least Squares (OLS) regression results is provided using Python’s statmodels module.

OLS Regression Results			
Dep. Variable:	y	R-squared:	0.839
Model:	OLS	Adj. R-squared:	0.718
Method:	Least Squares	F-statistic:	6.933
Date:	Mon, 20 Mar 2023	Prob (F-statistic):	0.00142
Time:	00:08:24	Log-Likelihood:	-60.863
No. Observations:	22	AIC:	141.7
Df Residuals:	12	BIC:	152.6
Df Model:	9		
Covariance Type:	nonrobust		

Fig. 8. Summary of OLS Regression Results Driven from Python in case of Azerbaijan

Understanding of OLS is quite explicit as it provides with the best fitting line for all data that is spread and minimize square of errors. It means that regression line does not reach out for each data instead partial relationship is provided between the variable and slope. The sum of squares of variations showing observed values and the ones in the plane are minimized and coefficients are determined by this process. [Burton, 2021]

Number of observations is 22 from where degree of freedom or DF Residuals can be calculated in the form of “n-k-1” by subtracting number of variables plus 1 from the number of observations which will be 12. DF Model is just the explanatory variables that are used to predict the output. Some independent variables can be ignored depending on the less impact on dependent ones. Sample variability of the parameter used in the model can be witnessed from the analysis as well. In most cases, covariance type in the analysis is nonrobust depending on the non-elimination of data in order to calculate covariance. This term refers to the change between 2 variables in relation to each other. The scatter of data values around the fitted regression line is calculated using coefficient of determination. Once the value of R-squared is higher, it is a pointer of smaller difference between

observed data. In this case, 84% denotes that the model is able to explain the variation in output variables by input variables. The reason of the difference between the R squared and adjusted R squared is the insignificant variables of the model as in adjusted R squared insignificant variables are omitted. The difference is not high and that is a positive indicator. F statistics is 6.933 and Prob (F-Statistics) is 0.00142. These values help to evaluate the accuracy of the null hypothesis. P value is less than the 10% significance level and therefore, it denotes strong evidence against null hypothesis. We reject the null hypothesis. [Banas et al., 2021]

	coef	std err	t	P> t	[0.025	0.975]
const	63.0531	13.641	4.622	0.001	33.331	92.775
inflation	-10.8449	5.900	-1.838	0.091	-23.699	2.009
unemp	-237.3035	46.987	-5.050	0.000	-339.679	-134.928
lending interest rate	-88.1831	31.108	-2.835	0.015	-155.961	-20.405
deposit interest rate	-30.2491	18.645	-1.622	0.131	-70.874	10.376
FDI	-75.2639	16.819	-4.475	0.001	-111.910	-38.618
unemp deposit interest rate	67.2871	27.254	2.469	0.030	7.905	126.669
unemp lending interest rate	166.2270	35.319	4.706	0.001	89.273	243.181
unemp FDI	302.7053	56.568	5.351	0.000	179.454	425.957
lending interest rate FDI	128.7886	34.586	3.724	0.003	53.433	204.144
Omnibus:	2.540	Durbin-Watson:	1.936			
Prob(Omnibus):	0.281	Jarque-Bera (JB):	1.243			
Skew:	0.553	Prob(JB):	0.537			
Kurtosis:	3.368	Cond. No.	112.			

Fig. 9. OLS Regression Results and Work of Model

Log likelihood determines the goodness level to reach out to the maximum level of likelihood estimator. The natural logarithm function is negative for values less

than one and therefore negative result is possible. It is used to compare coefficient values for each variable in the process of creating the model. AIC and BIC are both used to compare the efficacy of models in the process of linear regression, using a penalty system for measuring multiple variables. These numbers are used for feature selection of variables.

Furthermore, we can set the objective function based on the results provided by OLS model.

$$Y=63.05-10.84\text{Inf}-237.3\text{Unemp}-88.18\text{LendR}-30.25\text{DepR}-75.26\text{FDI}+67.29\text{UnempDepR}+166.23\text{UnempLendR}+302.71\text{UnempFDI}+128.79\text{LendRFDI}$$

Depending on the above function if there is a surge in inflation rates or unemployment the GDP Growth will go down, accordingly and vice versa.

A low standard error in comparison to a high coefficient results in a high t statistics which indicates the coefficient that is highly significant. T-statistics is used in order to measure P values. In this case, P-value of inflation is 0.091. It can be said that there is 9.1% chance that the inflation has no effect on GDP Growth. Nevertheless, it seems unemployment has 0 P-value which indicates that the data is statistically significant since it is less than the 10% significance level. Therefore, we can reject null hypothesis and say that unemployment is controlling GDP Growth.

In the model, omnibus is equal to 2.54 which is almost far from 0 and its probability is 0.281. Omnibus is used for checking purposes of the normality of residuals. Prob(Omnibus) is 0.281 indicating that there is 28.1% chance that the residuals are normally distributed. Durbin-Watson (has value between 0-4) is 1.936 and checks the autocorrelation showing if the value is close to 2 or not and if the number is close to 2 then it means autocorrelation was not detected as in this case. It is preferable for the value in the model to be between 1 and 2. Additionally, it is worth to mention that p value is never absolute 0. Sometimes the statistical software displays the p value as 0, depending on the settings concerning the numbers of digits to be displayed.

Conclusion

To recapitulate, real estate is significant economic industry to talk about as it makes use of a big amount of capital as well as a significant section of the labor. It focuses on the relationship between developments in these markets and the financial sector to determine under what circumstances real estate booms and busts can develop and how they can affect the health and stability of the financial system

thoroughly. Due to the modern era and technological advancements this industry is currently facing with the evolvement which affects quantity demanded positively. Today's investors and customer of real estate market are able to successfully adapt to the current market and to use the modern tools. Nevertheless, demand of the housing market is still affected by exogenous determinants in micro and macro level. In order to give a broader insight statistical data was driven covering 22 years of period in Azerbaijan considering economic terms. This article is recommended in order to find out the adapted view and current market reaction in terms of investment, demand and supply and modern technology era in real estate industry. With the help of OLS model it can be determined that the actual output shows that fluctuations in GDP Growth rates have a significant influence by taking into account unemployment, inflation, FDI, current level of interest rates and number of residential housings. Hypothesis depicts that the ups and downs in the economic growth pointers have statistically significant impact on the proper housing system of the country and modern era faces only with the availability of big data.

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