



## Analyzing Real Estate(Residential) Demand And Its Relation With Interest Rates(Economics And Investment Perspective).

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**Abstract:** As we all know, Real estate is one of the human being's favorite sectors from history. Many emotional values are attached to it, for some it may be a dream house, for some it may be investment(value creation)etc. According to economic perspective also, real estate provides major employment across the globe. It also accounts for the largest share in gdp, it may be developed countries or developing countries. Real estate supports many sectors. Any boom in the real estate sector means a boost in the economy. There are many theories, researches, and books to understand the Market situation. So after researching all the articles, we have developed an indicator which can help us to understand the market cycle and to determine our actual result that region or country is in a demand zone or over supplied zone.

In this paper, we will study the real estate market and analyze the situation (like the market is in a demand zone or supply zone) and how interest rate affects the market sentiments. We will also study the market prediction from an economic and global investments perspective.

**Index Terms** - Property market, Household rate, Interest rate, Global Investments, Rs(Indian rupee).

### I. INTRODUCTION

Real estate is one of the fastest growing sectors across the globe. In many developing countries it accounts for a major share in GDP. It also provides major employment directly or indirectly. Real estate has many types such as residential, commercial, industrial etc. But in this we will only study residential . Majorly every country has faced a real estate boom from the 1960s, due to many factors such as Industrialization, Commercial hub etc. Due to the boom, property prices have seen skyrocketing jumps in prices. Average property costing in 1960= 10000 Rs (Rs =Indian rupee) is now not less than 1000000 Rs. So, there is also a universal myth fitted in everyone's mind (“**prices will also rise in future, buy now**”). So many people across the globe put their hard-earned money in investing properties across the globe in expectation of heavy returns from investment. There is always news ringing in ears from tv, radio or any other sources that “There is limited supply, these countries need so many million homes to cater its population”.

This information or news plays as catalyst, people relate it with current market and pay prices for homes which are fundamentally overvalued (IT'S JUST AN EMOTION VALUE, WHICH CONSUMER FEELS)

There are many countries which are really facing real shortages and some countries are facing imaginary shortages.Many countries are building multiple homes in reaction to news which really do not have fundamental truth. We will study every part in detail and understand the relation with it.

### II.LITERATURE REVIEW

Real Estate Investment

This paper has helped us to understand why investments in real estate are important, which factors can influence the investment decision. (Klimczak,2010)

Real Estate finance in India:

This book has helped us to understand how banking decisions affect the consumer decision and its impact on the real estate market.

There are many theories, ideologies, and researches. Books which help us to understand market analysis. After studying various materials we understand the housing cycle like how interest rate plays a huge role..We also studied market current situation of more than 50 countries to understand and check the working of our indicator.

### III.NEED OF STUDY

- 1.To understand the relation between real estate and population.
- 2.To properly understand the Difference between real demand and imaginary demand.
- 3.How interest rates play a major role and how it can affect market sentiments.
- 4.To understand the proper demand and make investment decisions.

### UNDERSTANDING

#### 3.1 Relation between property market and Economy

Every country in the world was agricultural oriented in the past. Today also major economies in the world are agricultural dependent (gdp and employment wise). In the late 1700s industrialization started, as the economy started to rise the average national income also started to rise. Employment ratio started to increase. Due to rising income the demand for property grew, but due to low supply, consumers started to pay higher prices to acquire property above the real prices, as the prices started to increase (due to demand) the more supply started to rise. It became a huge source for employment. This is the relation we learnt from economics and history..

#### 3.2 Relation of property with population

In villages and cities , where population is more but place to live is less ,then we call it shortage.Where supply of homes exceeds the actual demand then we call it over supply.

From history ,we have seen transitional shifts from a very big joint family(with more than 4,5 peoples) to a nuclear family( 2,3 members). As the years are passing this shift is seen across every country across the globe. Due to the increasing population the need for homes also increases.

After studying this information and keeping it in our mind we will move towards our real methodology to understand the Real Demand with population relation.

### IV. Methodology

As we have studied the property market relation with population .

After studying various articles,theories and information .

We have come to the conclusion that on average the household rate of each home is 3. (HouseHold Rate= average members living in a single home.)

To understand in easy language

We can assume the modern family consists of 3 members.

eg

1=Father

2=Mother

3=Child

It can be anyone ,but to understand in an easy way we have taken the above example.

In many regions the household rate can be more, but on average and study from both developing and developed countries we have come to that point as time grows in modern type of economy the average household rate is 3 or stables at 3.

## V. ANALYSIS THE DEMAND USING METHODOLOGY

To find demand for the property market = divide the population by 3.  
(3 is average household rate or household rate which gets stable at 3 for a growing economy.)

let's understand this by, eg

Assume there in one village

Population of village =10000 .

Demand for houses in the village =10000/3=333.

So the actual house needed in the village is =333.

Assume

Total houses in the village are=200.

so we can say there are 133 more houses in demand.

But if total houses in village are =400

so we can say houses are in oversupply.(Because our actual need is 333 houses.)

How did we conclude this to the above example? Currently there are 200 houses meaning the household rate or average people living in one house is 5.as the economy will grow the demand will rise.

or we can say

The 5 people living in each house are 1.father ,2.Mother. 3.child 1 , 4.Child 2, 5.Child 3 ,As the time will grow the children will have their own houses so the demand is there but time for demand to come in execution matters.

### We can understand this with country wise example

This shows how some countries named above have so much future potential in the property market..(cr =Crore)

Table 1 (a)

Country	Population	Divided by 3	Total houses needed.	Current house	Result
India	142.56 cr	47.52 cr	47.52 cr	29.97 cr	Demand.
China	140.97 cr	46.99 cr	46.99 cr	52.26cr	Over Supply.
Usa	33 cr	11 cr	11 cr	13.27 cr	Overy Supply.
Bangladesh	16.96 cr	5.65 cr	5.65 cr	3.79 cr	Demand.
Vietnam	9.64 cr	3.21 cr	3.21 cr	2.55 cr	Demand.
Japan	12.58 cr	4.19 cr	4.19 cr	5.57 cr	Over Supply.
Afghanistan	3.28 cr	1.09 cr	1.09 cr	0.40 cr	Demand.
France	6.71 cr	2.23 cr	2.23 cr	3.02 cr	Over Supply.
Brazil	21.23 cr	7.07 cr	7.07 cr	6.41 cr	Demand.
Germany	8.31 cr	2.77 cr	2.77 cr	4.06 cr	Over Supply.

(Source- Wikipedia [https://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_number\\_of\\_household](https://en.wikipedia.org/wiki/List_of_countries_by_number_of_household))

But it becomes difficult to keep track of so much data, it can also be understood by household rate. (Household rate is which indicates how much an average person is living in each home.

Household rate = total population / Current Houses.

Country	Table 1(b)		(cr =Crore)		Result
	Population	Total house -hold rate needed	Current house -hold rate		
India	142.56 cr	3	4.7		Demand.
China	140.97 cr	3	2.70		Over Supply.
Usa	33 cr	3	2.49		Over Supply.
Bangladesh	16.96 cr	3	4.47		Demand.
Vietnam	9.64 cr	3	3.78		Demand.
Japan	12.58 cr	3	2.26		Over Supply.
Afghanistan	3.28 cr	3	8.04		Demand.
France	6.71 cr	3	2.22		Over Supply.
Brazil	21.23 cr	3	3.31		Demand.
Germany	8.31 cr	3	2.05		Over Supply.

(Source -Wikipedia [https://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_number\\_of\\_households](https://en.wikipedia.org/wiki/List_of_countries_by_number_of_households)).

Both the above results ,help us to understand the demand or over supplied zone. Fig.1(a) we divided the population by 3, then we came to our result that how much houses are needed ,then analyzing with current houses we came to our final result the demand is there or not.

Fig 1(b).we have divided the population by 3,we already know our indicator represents household rate 3, then analyzing with current household rate we came to our final result the demand is there or not.

But,

As we seen many countries are facing oversupply rate and many countries are having huge demand but then question rises in everyone's mind that,

If some countries named above are facing supply rates then why are prices so high ? If supply increases above demand then why are people giving high prices ?

if the country or region is having an over supply quantity, then why are the government or people building more?

Answer:Property Relation with interest rates.

This comes to our next part that is the relation of real estate with interest rates.

#### **VI.Relation of Real Estate with interest rates:**

Interest rate is the rate at which a consumer gets money to fulfill his needs. It may be education loan, Personal Loan, Business Loan etc. The interest rate plays a very major role for every sector. For eg

1.If a company wants to increase production by setting up a new factory, if the interest rate is low it can increase the loan amount according to the company's financial and risk management.

2.If a consumer wants to buy a car, if the interest rate is more ,the consumer will change his or her decision of buying or will shift it to the future.

In the real estate sector ,interest rates are like big brothers for developers and consumers. As the interest goes up or down it impacts the economy and market sentiments.

Rate change	Impact
rate increases :	consumer spending decreases.
rates decreases :	consumer spending increases.

I hope we understand the working of interest rates. Now we move to our main methodology (relation of real estate with interest rates) and the above question which has popped up in everyone's mind.

As the interest rate is low, consumers get easy money to fulfill their needs. This keeps the Demand in the market. It helps consumers get cheap money, buying property and adding it to assets or rental assets is becoming very easy. Because rental income is more than the actual interest rate to be paid to lenders.

Because of low interest rates demand is there, so the price will be high but as interest rates are increased the financial management of consumers becomes hard and artificial or speculated demand starts to decrease.

**VII . Rate changes : Impact on property market**

**Rate Increases:** consumers have less money to spend, the easy money flows decrease, Demand for property decreases, so the prices of real estate starts to decrease.

**Rate Decreases:** consumers have more money to spend, the easy money flow increases, demand increases, so the price of real estate starts to increase.

**\*\*Effects of interest rate, Country wise**

**In countries where demand is there,**

**As the interest rate will decrease:** the prices will go up.

**As the interest rate will increase :** it will have little impact on price fall because real demand is actually there so it has to come in execution today or tomorrow.

**In countries where oversupply is there.**

**As the interest rate will decrease:** artificial demand will be created, the prices will increase above fundamental prices or actual prices.

**As the interest rate will increase:** the market will actually show the over supplied reality, the prices will fall to actual value.

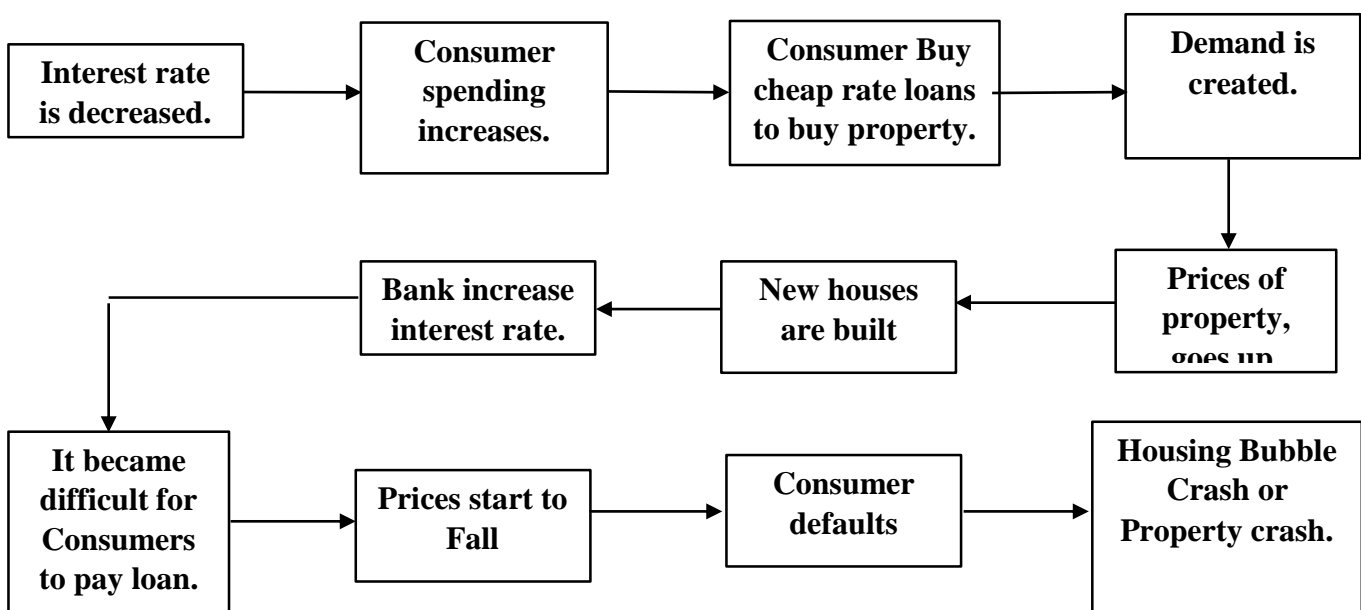
Hope, we understood the relation between real estate and interest rate.

**Housing Bubble Crash or property market crash?**

We have seen many articles, many news about this topic. Each and every country have faced this. But what actually bubble crash means or property crash means

As we have studied now about demand/supply, how interest rates affect market sentiments. This is the main reason for property or bubble crash.

**Housing Market Cycle.**



**fig 2. Bubble Crash or Property Market Crash**

I hope we understand the cycle of the property market.

### VIII.Problems.

Now we understand the methodology ,now we should understand the problems in current market scenarios by using our above learning.

- 1.Many countries are now above supply rate?Then what will be the future scenario?
- 2.How to enhance profit in an oversupply market?.
- 3.Can an oversupply market can degrowth the economy?.
- 4.How to invest in a region with a demand zone or supply zone.(Global Investment Perspective).

### IX.Solutions.

#### Economic Perspective:

- 1.Keep track on household rate and market scenario.

#### if the region is in demand zone-

- 1.Increase policies for new construction homes.
- 2.Lower the interest rate,so it can help to create robust demand.

#### if region is in supply zone-

- 1.Keeps the interest rate stable. (any increase will devalue the market and lowering the rate above certain level will create artificial demand, and in future it may have a negative impact).
- 2.Tightening of new construction policy for some certain period, (focus on commercial construction or industrial construction).
- 3.Increase the immigration policy, which may help to create demand.
- 4.Improve the reconstruction policy, which will keep the property market on work.

#### Investor Perspective:

#### if region is in demand zone-

- 1.Understand the market scenario.
- 2.Invest from a long term perspective (Because it is already in the demand zone, today or tomorrow it will definitely give fruitful results).
- 3.Invest in market when interest rate is high and economic indicators or predictions are saying rates will start to decrease.(it will help to create value addition).
- 4.For global investments,avoid any countries with regular geopolitical tensions.

#### if region is in supply zone-

- 1.Understand the market scenario.
  - 2.If buying is there for personal living. Then don't sell it. (Because emotional value attached to property is greater than property value).
  - 3.If buying is there for investment perspective:
    - 1.Don't buy from a long-term perspective.
    - 2.Invest in the market when interest rate is high and economic indicators or predictions are saying rates will start to be decrease.. (it will help to create value addition).
  - 4.Mostly invest in diversified markets (Commercial, bonds etc.).
- Hope, we understand the problems and solutions.

**Future Predictions:**

future prediction of the market based on the above methodology. (This is just for study purposes. Before taking any investment decision, go through your own due diligence and research.

**Robust demand**

India  
Bangladesh  
Turkey  
Kenya  
Niger  
Uzbekistan  
Afghanistan  
Brazil

**Over Supply.**

Hong Kong  
Singapore  
Saudi Arabia  
Uae  
China  
Germany  
South Korea.  
USA

**X. Conclusion**

Real estate is largely influenced by the population living in a particular area, which helps us to understand demand. Analyzing the current market situation is very important to analyze and make decisions according to it. Real estate growth is largely driven by shortage of houses or any news like upcoming new infrastructure or any commercial plant near it. Household rate helps us to understand the situation in detail. Mostly the average household rate is 3 across the globe or it is stable at 3 at growing modern economy. The result is based on study on various reports, articles, theories etc. This indicator helps us to understand the demand and supply condition of the market.

Interest rate plays a major role in the economy and it helps us to understand the market cycle. The relation of interest and real estate is very important to make investments or global investments according to it. I Hope you understand the indicator properly and it will help you in the future to analyze the market. It will help you to take proper decisions and enhance the profit.

Thank You.

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