

We want more than we can get, our inability to get everything we want is called scarcity, and Even Houses face **Scarcity**

Economics is the social science that studies the choices that individuals, businesses, governments, and entire societies make as they cope with scarcity and the incentives that influence and reconcile those choices.

Economics has two parts:

Microeconomics: is the study of the choices that individuals and businesses make, the way these choices interact in markets, and the influence of governments.

Ex: How would an increase in percentage of tax will affect the people

Macroeconomics: is the study of the performance of the national economy and the global economy.

Ex: Why is the tax percentage on Housing Industry is more compared to global Economy

When you construct a home, you want a lot of raw material like land, labour, infrastructure, you must find place where people sell those items or offer those services. The place in which you find them is a **market**, a market is any arrangement that enables buyers and sellers to get information and to do business with each other

Producers offer items for sale only if the price is high enough to cover their opportunity cost. And Consumers respond to changing opportunity cost by seeking cheaper alternatives to expensive items. We need to understand the relationship between a price and an opportunity cost.

The **Demand and Supply Framework** determines price of the Product

Law of Demand: Other things remaining the same, the higher the price of a good, the smaller is the quantity demanded and the lower the price of a good, the greater is the quantity demanded

Law of Supply: Other things remaining the same, the higher the price of a good, the greater is the quantity supplied and the lower the price of a good, the smaller is the quantity supplied

Market Equilibrium: The equilibrium price is the price at which the quantity demanded equals the quantity supplied.

Ex: The Price at where the buyer wants to buy the house & the seller agreed to sell by covering up opportunity cost

People who want to buy/invest the homes will come under real estate. I am going to showcase the underlying Main categories for the real estate

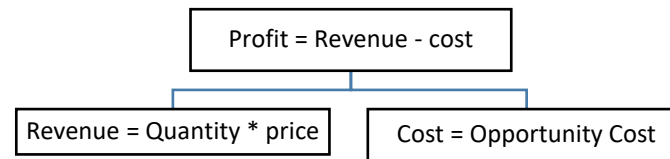
- Land use and Property Right
- Legal
- Marketing
- Residential real estate
- Taxes
- Technology
- International Real estate

Here In this Case we are going to discuss about Residential real estate in USA & How the Consumers are buying and the Producers are selling Residential Homes across US. Applying the concepts of **Supply and Demand Framework** I Would like to explore the Residential Home Price in USA by prioritizing main underlying factors

Residential investment is a volatile component of GDP in the U.S. and it has had a highly significant relation to the business cycle. Residential investment represents essentially all economic activity directly related to housing structures. It is comprised of three main components:

- construction of new single family homes
- construction of new housing units in multifamily structures
- "other structures," which includes improvements as well as brokerage commissions

Let's begin the approach, A Residential Housing Company/Corporation wants to invest in the Business is not an idea of **"Out of the Blue"**. In Earlier from 19th Century and then Economists are doing educated guesses and demand forecasting methods by their vast experience in their respective domain and through historical data that has been gathered from time to time and they make Profit out of it



The price of an object is the number of dollars that must be given up in exchange for it. Economists refer to this price as the money price

The opportunity cost of an action is the highest valued alternative forgone

Note: Opportunity cost undergoes several type of costs like time, Labour, Material, etc.

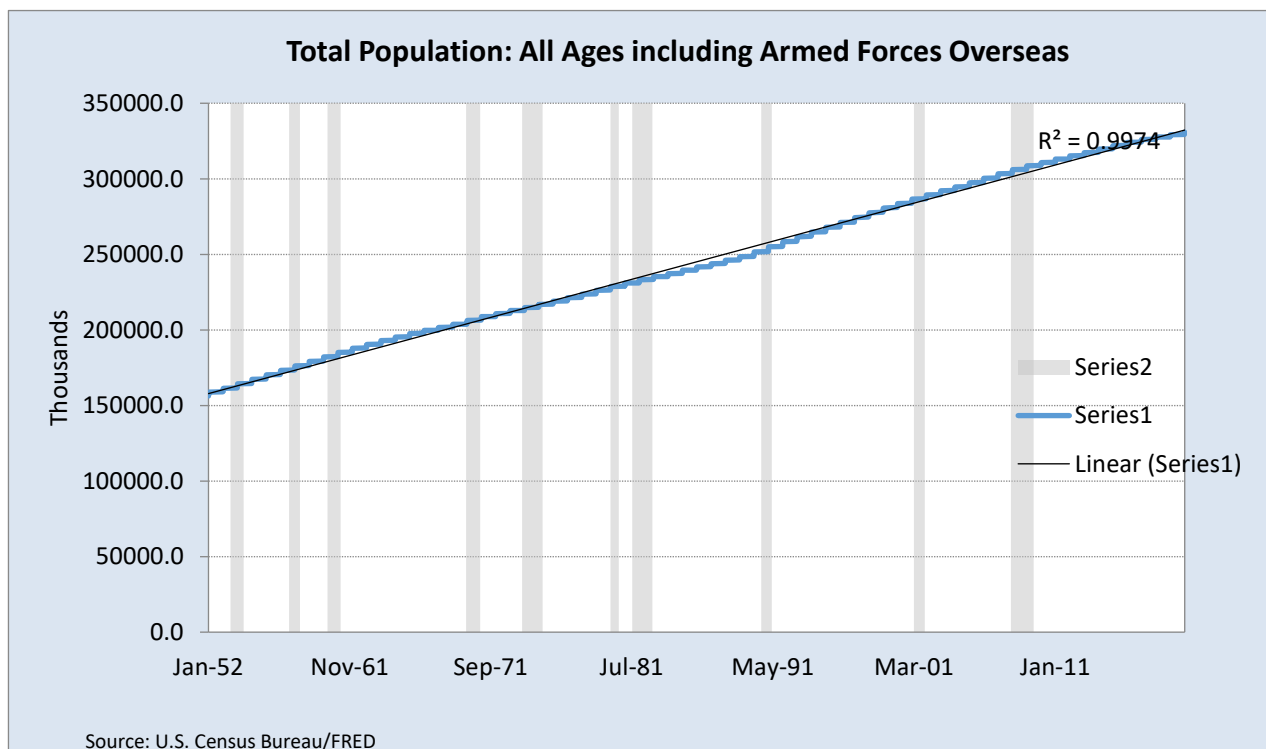
Hence by above, Price is the Key factor that has to be considered and to be controlled all the time and we will discuss how price is going to affect the Residential Homes across USA.

Here are some key factors

- Affordability
- Location
- Convenience
- Risks

Let's start analysing the Important Key factors and other Underlying factors

1. Total Population

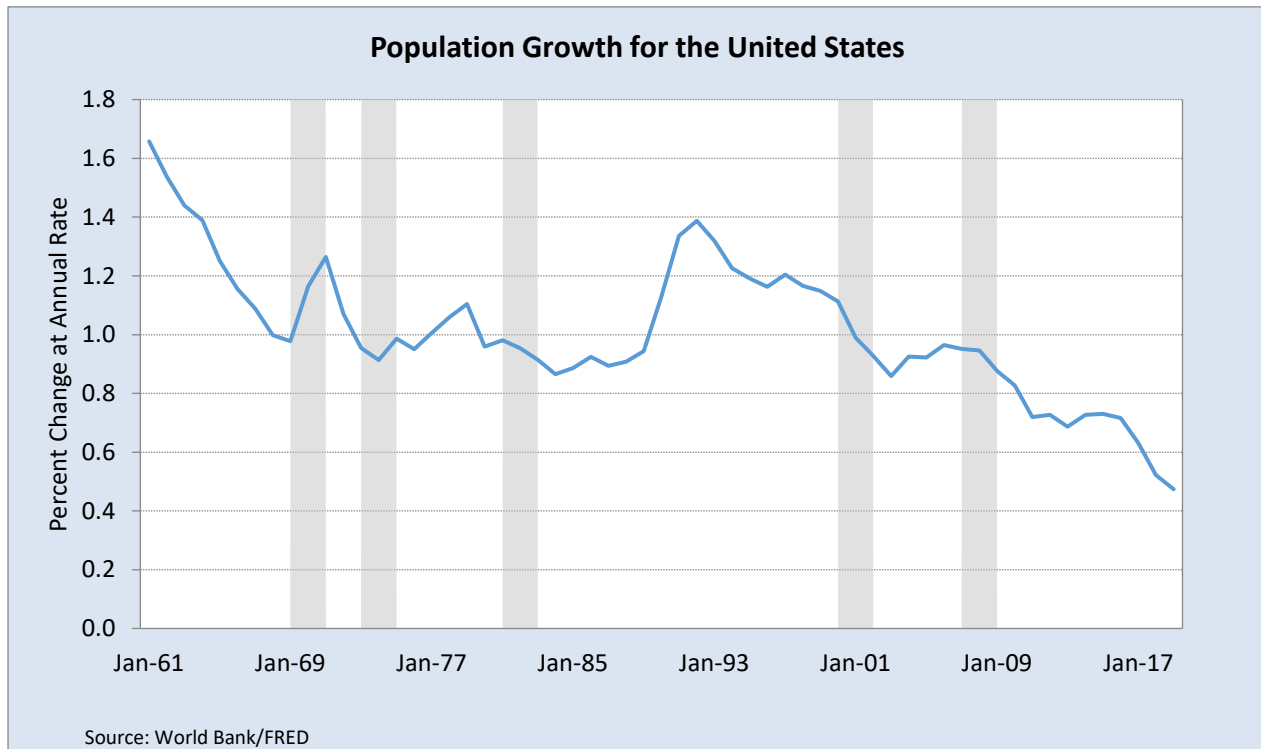


Time Frame: 1952 - 2020

- The above chart shows the Overall Population in USA from 1952 to 2020 with a time period of 68 years

- during this period the Population was increased linearly over the time and this would have an impact in Residential Homes that people willing to buy new homes every year

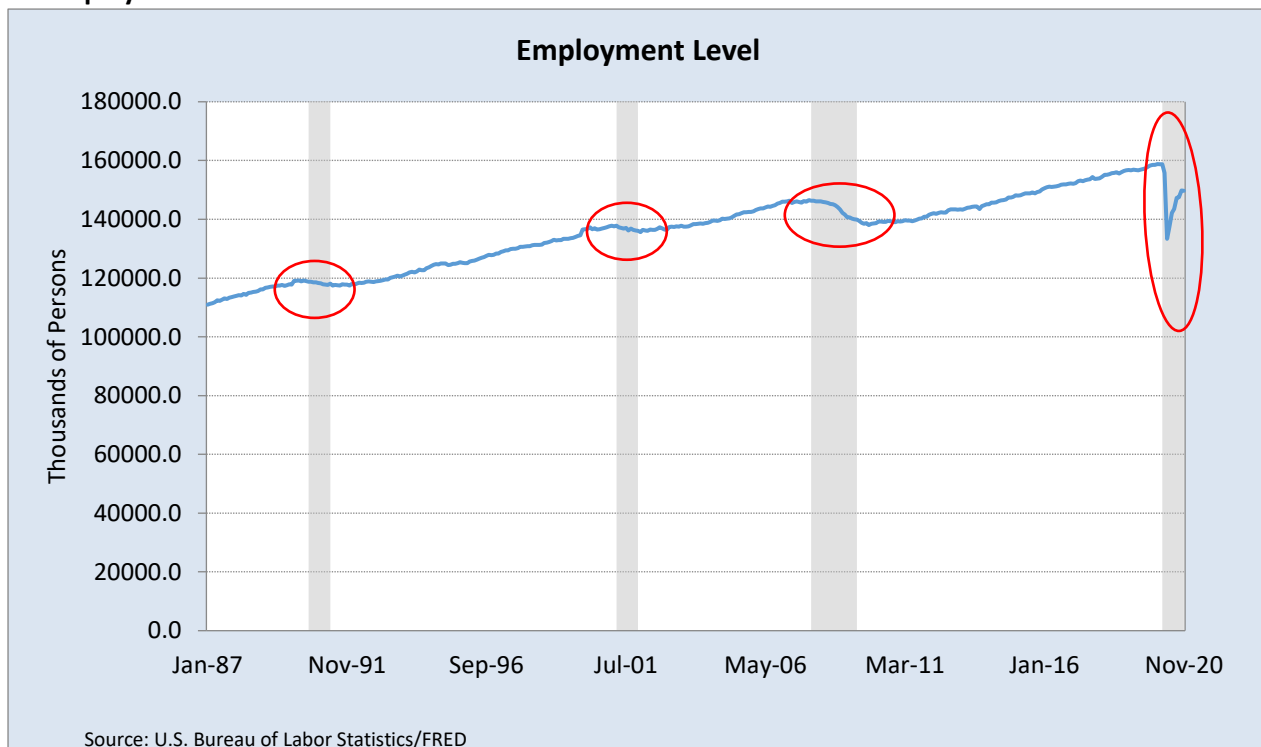
1.1 Percentage of Growth in the Total Population



Time Frame: 1961 – 2019

- This is an Interesting Insight from the graph during the time frame 1961-2019.
- There is a down ward slope graph briefing about percentage of population growth was reducing and also moderate overall the years

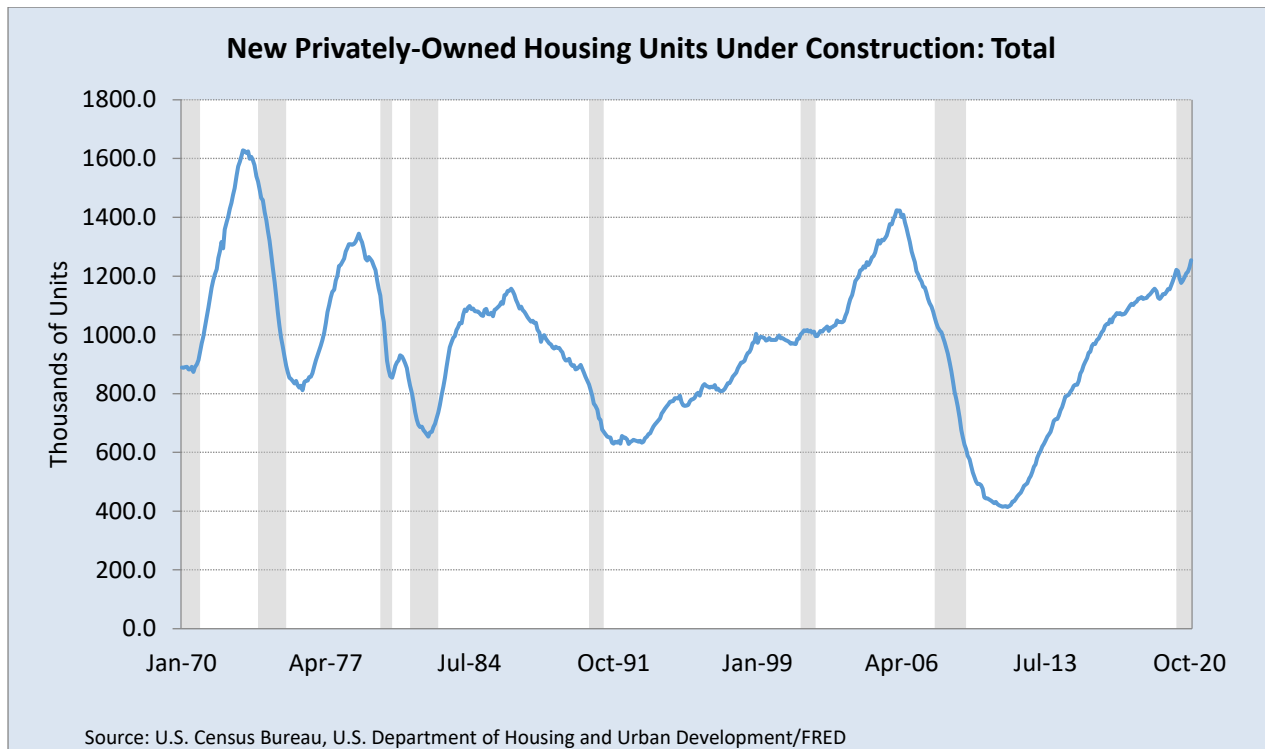
1.2 Employment Level:



Time Frame: 1987-2020

- This is the Employment level in USA from 1987-Present
- At every Financial Crisis there is a reduce in Employment As we can see the graph is a downward slope saying that there is enough supply or resources

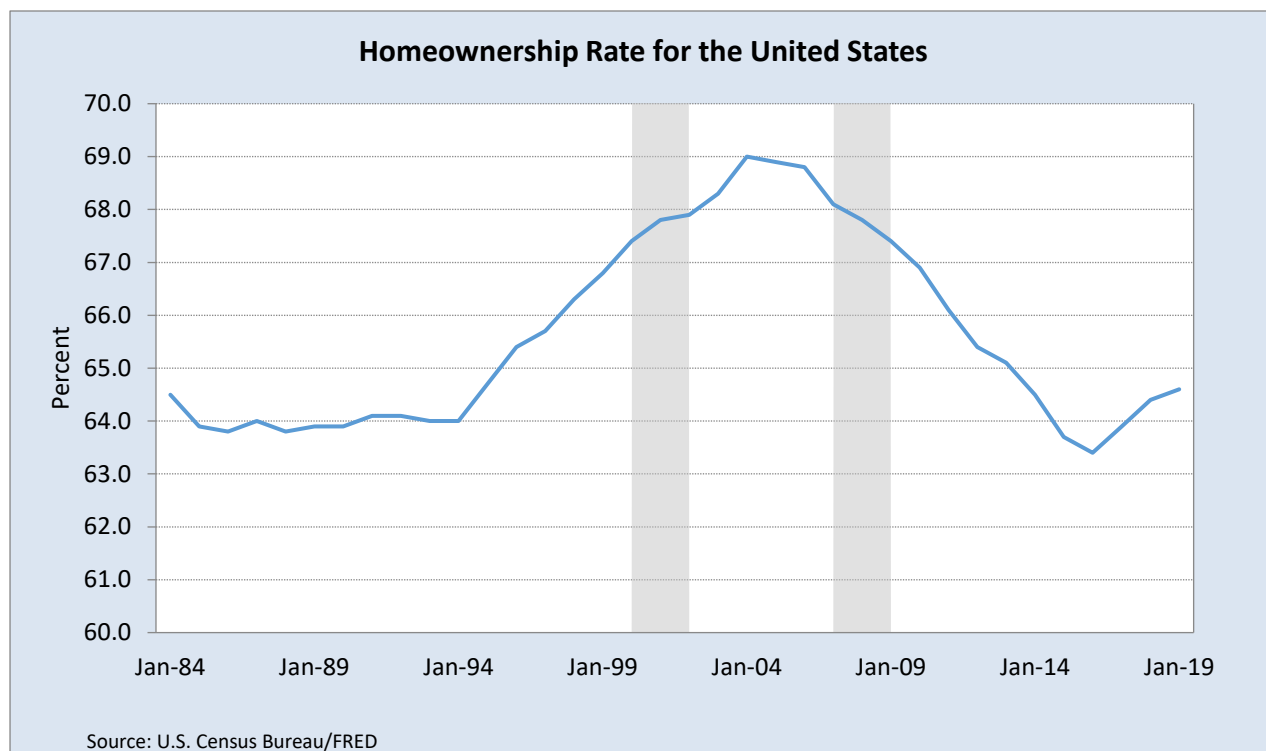
2. Construction Houses:



Time Frame: 1970-2020

- From the above graph we can say that the number of units of houses that are built in a period of time there is a growth in the quantity demanded for the units and within a short time there is a downfall in the quantity demanded
- And then there is a speculative bubble driven by extravagant expectations for future price increases.
- There is an Increase in the Opportunity cost at Recession and during this period due to increase In the expectation of house prices made a huge demand and the number of the units constructed has been increased.

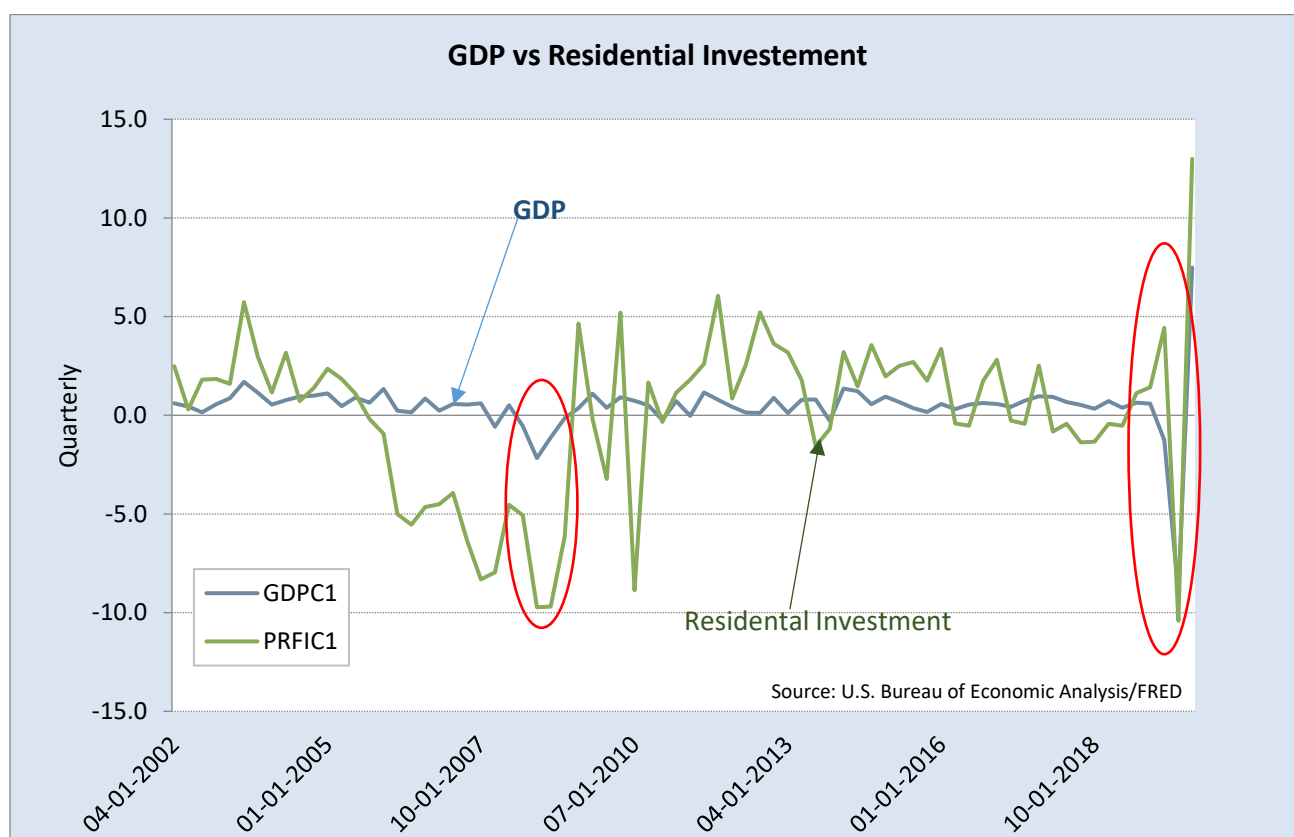
2.1 House Ownership Rate:



Time Frame: 1984-2020

- The Homeownership rate increase since 1994 due to large part of remarkable boom, encouraged potential suppliers and buyers and there is a steep fall from 2007
- There was a strong fall in the demand of buyers after Economic crisis being to be entitled with Homeownership

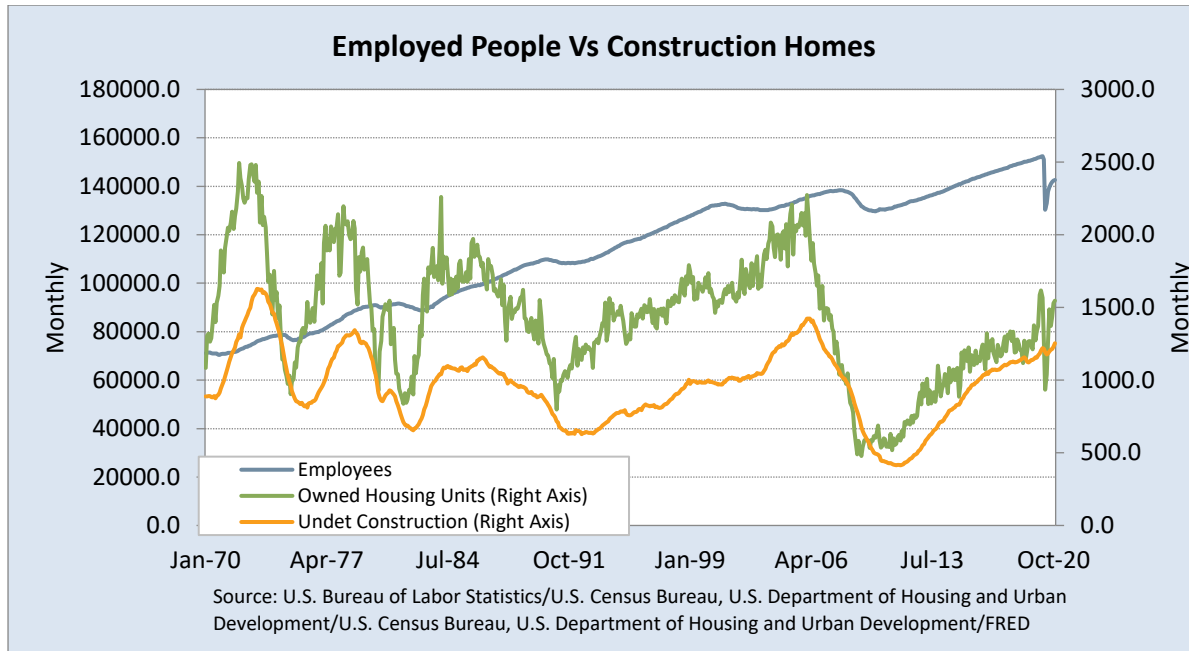
2.2 GDP vs Residential Investment:



Time Frame: 2002-2018

- From the above graph by negation I can state that GDP Growth is constant all over the time except when there is an Economical Crisis in 2007 and 2020 there is a downward slope graph.
- For Example Consider the Suppliers not able to produce the Homes and there is no investment in Residential investment and there is a reduce in the percentage of GDP growth

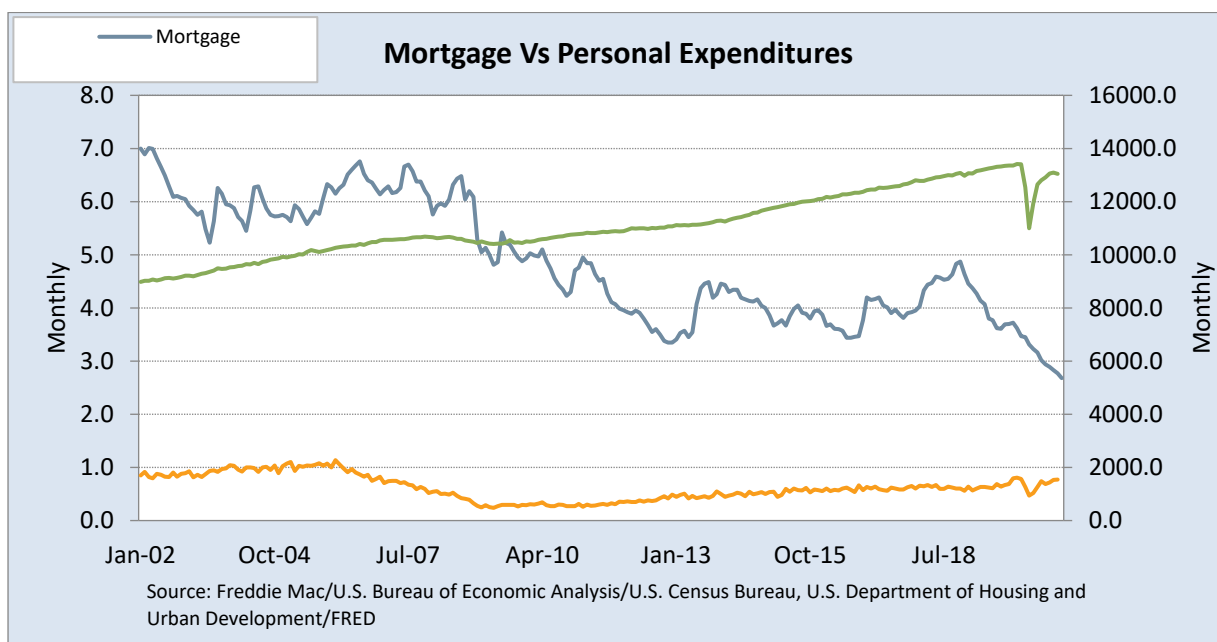
2.3 Employees VS Construction Homes:



Time Frame: 1970-2020

- This measure provides useful insights into the current economic situation
- Because it can represent the number of jobs added or lost economy. Increases in employment might indicate that Companies are hiring workers which might also suggest that businesses are growing.
- Hence, The Demand for the house depends upon Constant Employment Payroll so they can afford to buy new homes

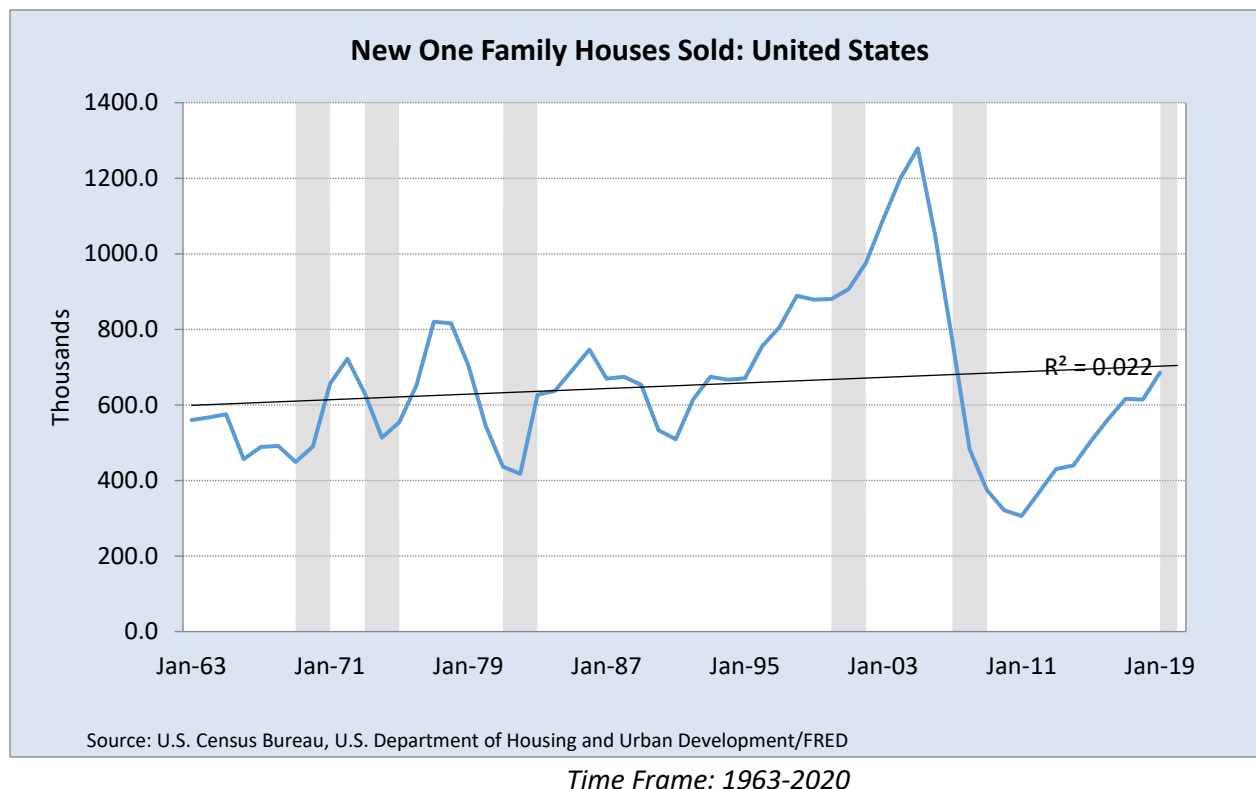
3 Mortgage Vs Personal Expenditures



Time Frame: 2002-2020

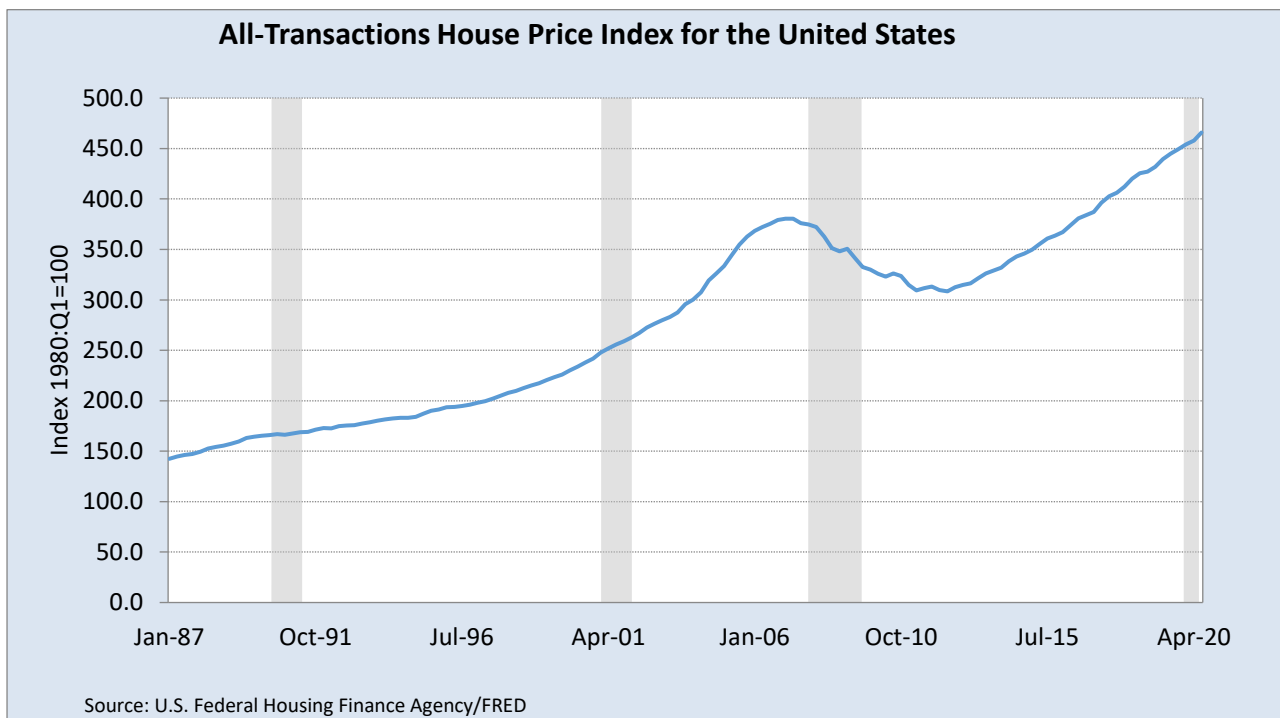
- From the graph we can conclude that there is a Decline in the Mortgage and in contrast there is a demand for the Owned Houses
- there is high chance of Probability that people would buy the homes as they can afford the cost because the Personal Expenditure for the people has gone way up and this would result a high demand for the houses
- Mortgage for the homes are perfectly elastic in nature and since there is a variation in the mortgage there is an increase in the personal Expenditures and is positively correlated with investment in houses

3. New One Family Houses Sold: United States

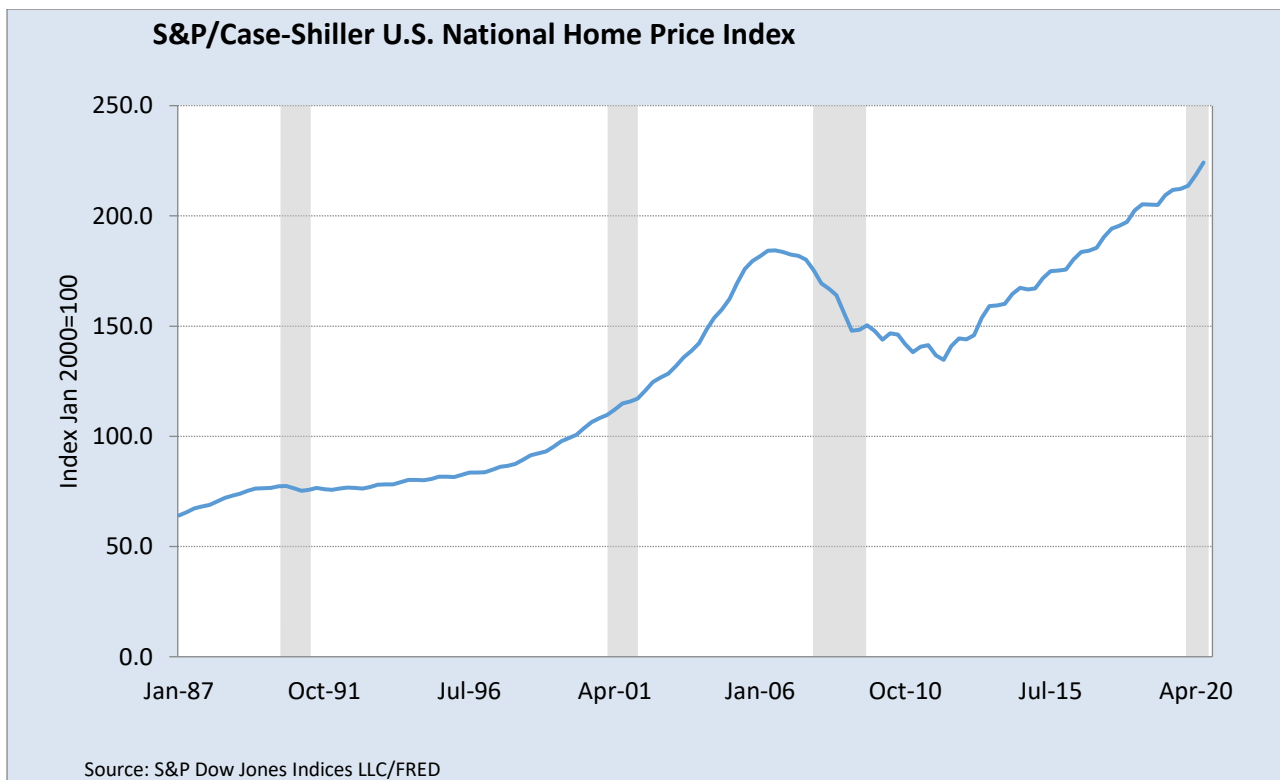


- From the above graph there is a huge demand in the Single-family owned homes in USA.
- The graph shows that there is positive trend over all the years and the quantity demanded of the housing units was more during the period of 1980 -2000 and 2003-2007 and post 2013
- This clearly shows that there is a demand for the houses in USA
- but the quantity demanded was reduced due to some Economic factors and Disrupt in the Government Policies over the period and change in the Government

3.1 All –Transactions vs Case-Shiller



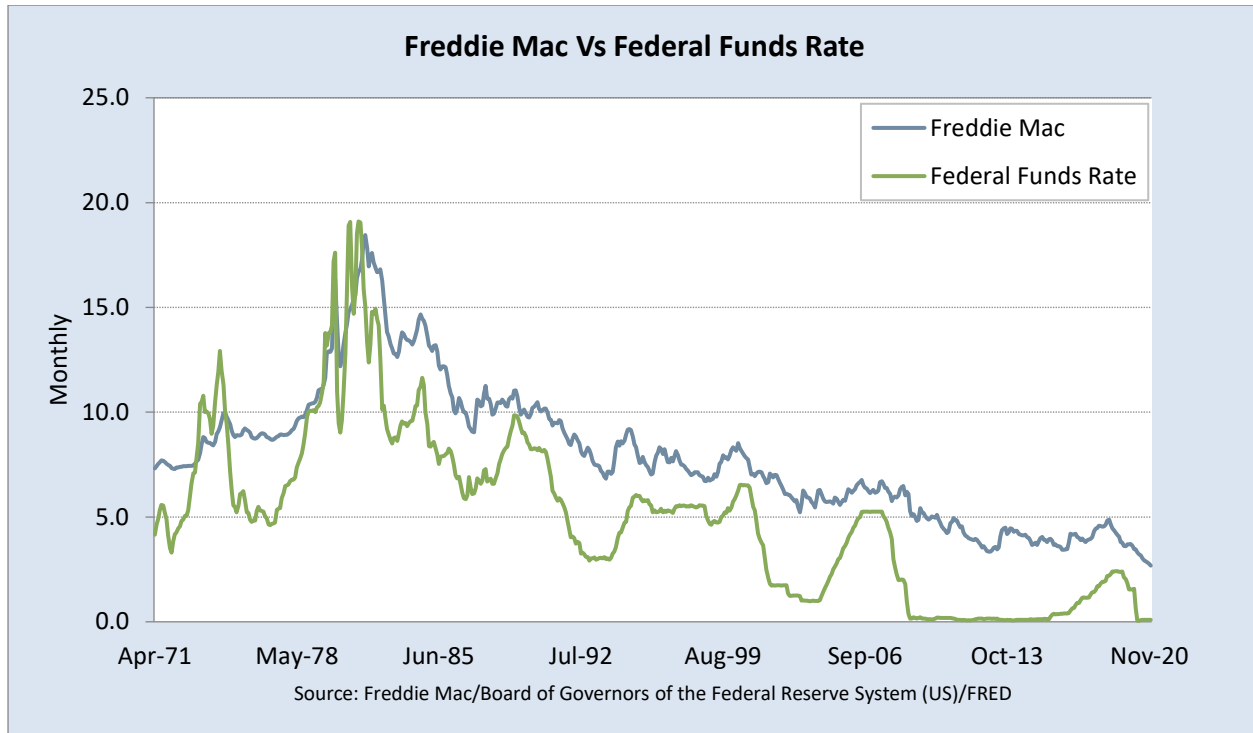
Time Frame: 1987-2020



Time Frame: 1987-2020

- From the above graph we can say that transactional HPI is an Increasing Slope graph and it is positively correlated and it was also inelastic in nature.
- For Every Arm's Length Transaction it means the House was sold at the seller's preference and across these years Even though there is an increase in HPI People are still buying the homes and it means that the Quantity demanded for the homes are increase all the years Home Prices Increases and Demand Surges

3.2 Mortgage Vs Federal Funds:



Time Frame: 1970-2020

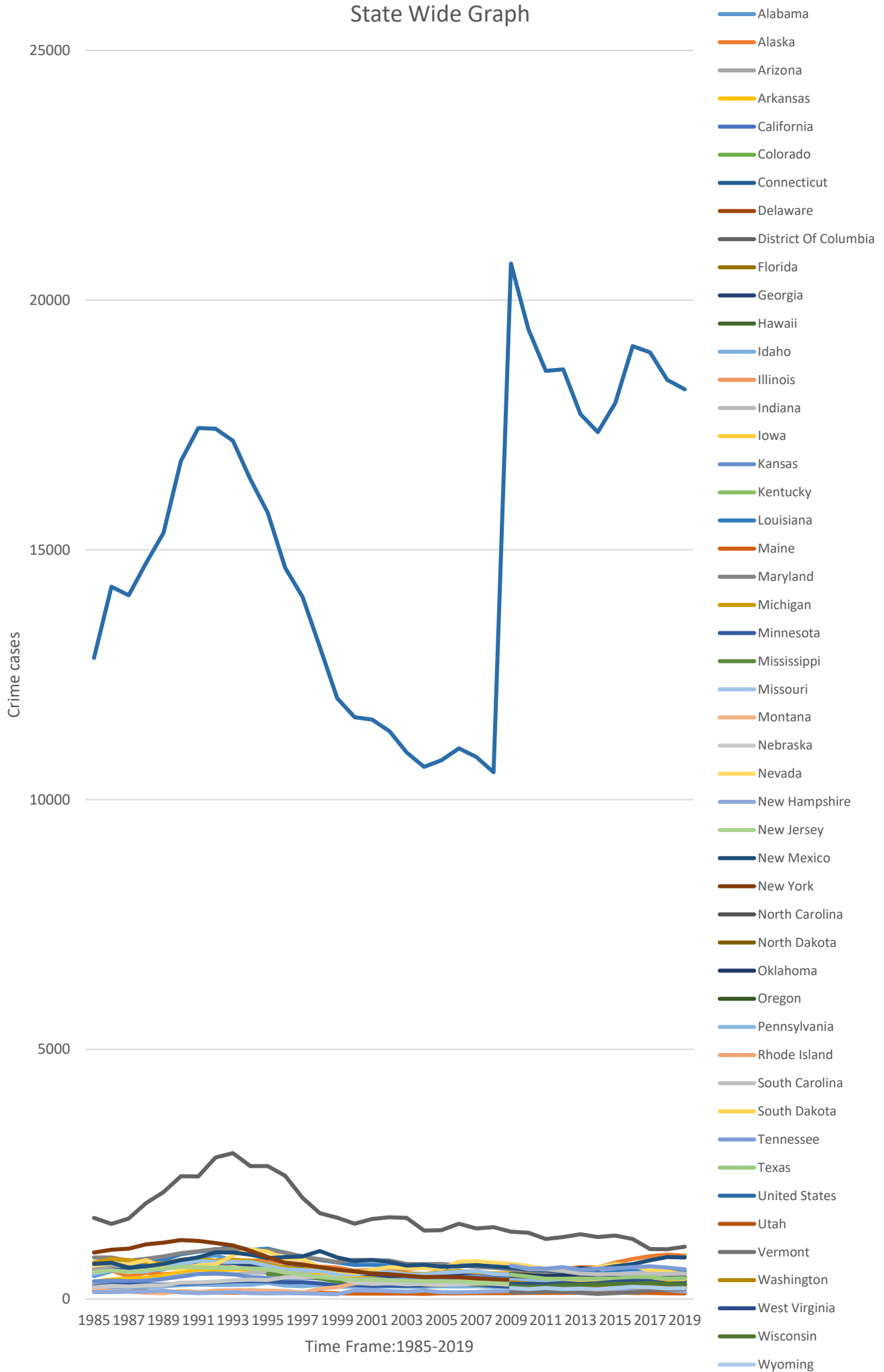
- From the above graph we can say that there is positive correlation between both the Freddie Mac and Federal Funds
- The interest rates on Freddie Mac are more when compared to the Federal Fund Rate.
- People have the tendency to choose the between those two and interest rates would become cheaper and that leads to the Payroll employment people to buy homes by taking mortgage
- The reasons that impact the Housing sector are
 - Support balanced housing choices in suburbs, cities and rural towns
 - . Reinvest in America's existing neighbourhoods and communities.
 - Provide a safety net for American families.
 - Help more Americans reach the middle class
- The MID, created in 1913, is intended to promote homeownership.
- The Federal Home Loan Bank Act of 1932 provides sources of low-cost funds to banks to extend mortgage loans.
- The tenant-based rental assistance program at HUD is intended to increase affordable housing supply for low-income households.
- The New Markets Tax Credit, created by the Community Renewal Tax Relief Act of 2000, is designed to drive investment in communities with high levels of poverty and spur economic redevelopment

4. Violent Crimes



- From the above graph we can say that there is a huge decrease in the crime cases across USA.
- But this will varies from state to state and the crime stats for different state will differ. Buyers want to buy the home where the crime and Domestic Violence is less
- Below is the Graph with crime Rates for all the states in USA
- Alabama is the state having highest number of crimes
- Wyoming is the state having lowest number of crimes
- So people tend to not to buy home at Alabama since the Crime rate is high and In contrast
- Similarly In Wyoming people will show more interest in buying homes

State Wide Graph



Note:

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