

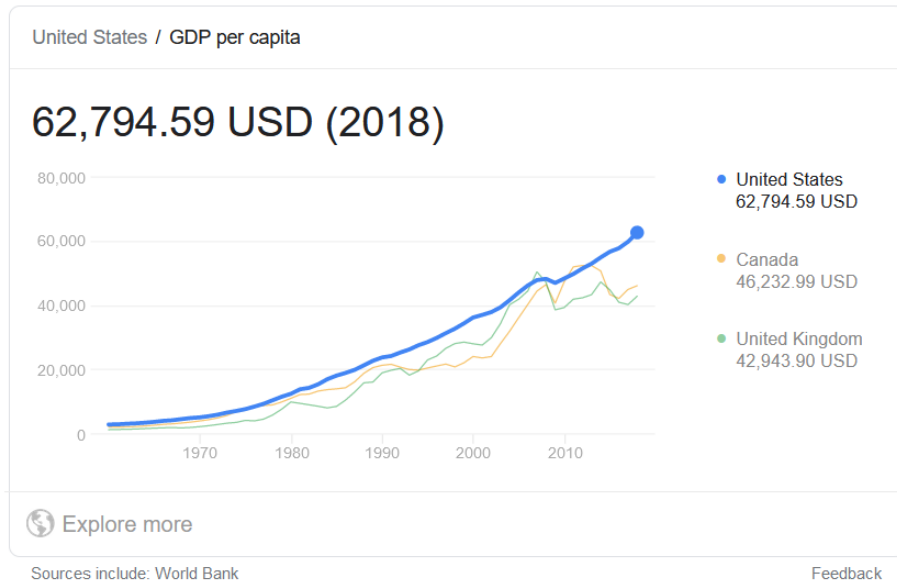
FACTORS THAT
WILL INFLUENCE
RESIDENTIAL HOME
PRICES
IN THE UNITED
STATES OVER THE
NEXT 10 YEARS.

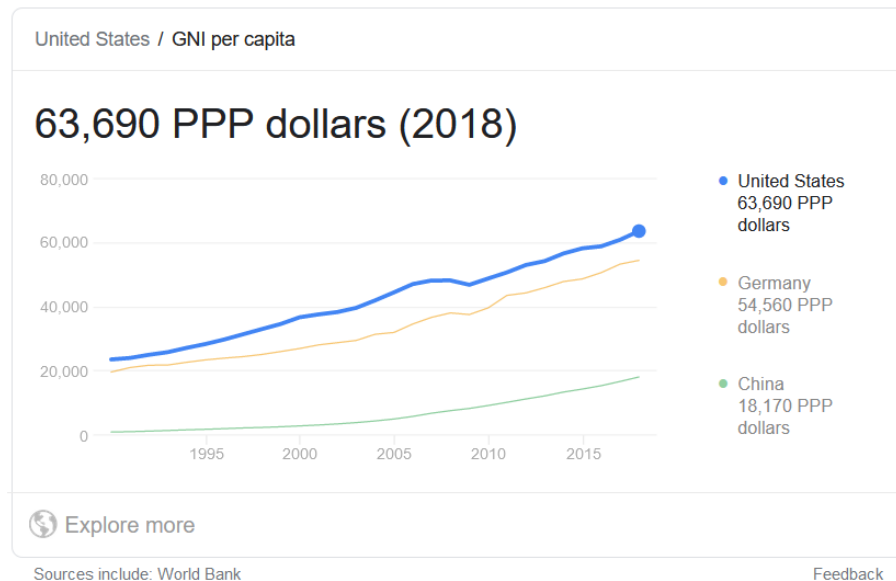
1. INTRODUCTION

Housing markets experience substantial price volatility, short-term price change momentum, and mean reversion of prices over the long run. This article **covers factors will influence US Housing market over the next 10 Years.**

2. Factors Influencing Housing Price

A. USA Economic Growth:





As the USA GDP (Gross Domestic Product), GDP per capita, GNI (Gross National Income) increasing Year after year, it shows strong economic growth of USA till now. Strong economic growth empowers citizens of USA to buy more which ultimately helps the housing market. Unemployment, mortgage rate, economic growth plays vital role in housing market.

The only threat to US economy to be largest economy in the world is China. As per many global researchers china may take over US economy being largest economy in the world in this upcoming decade as COVID-19 Pandemic favoured china in political as well as economical aspects whereas it pulled back the growth of US economy. Many surveys shows that **people are eager to spend more on housing in 2021** as economy slowly recovering from pandemic.

B. Pandemic Like COVID-19

USA is still the worst hit country by COVID-19 and the count still increasing. Almost 20 million jobs lost in US alone due to pandemic. Due to such unemployment people became conservative about their money. But **surprisingly, during pandemic house prices kept increasing, reasons** for which is discussed further in this article.

If we believe the chain reaction like, **Pandemic -> unemployment -> no mortgage payment -> defaulters increases -> banks have too many houses to be sold to recover loan -> high supply, low demand -> house market crash (just like US house market crash 2008)**, then this pandemic should have been the cause of how house prices, but what happened is exactly opposite, house prices increases in 2020 and still increasing.

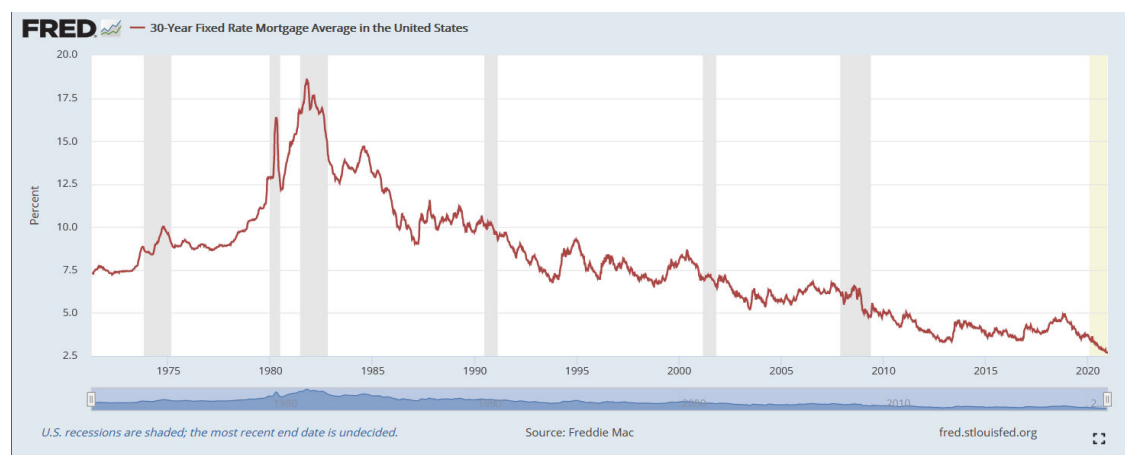
Since many people lost their jobs FED came to help businesses so that they don't fire their employees and employees get their salaries to pay mortgage payments. Government introduced **Forbearance Plan** which is hold on mortgage payment till 2021 & in 2021 hopefully vaccine will come, and people can start repayment of mortgage. Again, government **lowered the mortgage interest** and now the **interest is at record low (2.5%)**.

So, due to low interest rate liquidity increased in market so does house demand but supply did not increase so house price increased rapidly in 2020. Due to **fear of COVID-19 sellers not selling houses** as they do not want to relocate to new place amid pandemic.

Before pandemic **less than 65% of population owned houses**, late 2020 appx **68% of population own houses**. In **2008 3.1M people were not paying mortgage** and now in **2020 appx 2.7M people not paying mortgage**. Wall street bankers doubt if situation like 2008 recurred. Bankers also not sure **what if people do not start paying house mortgage** once forbearance ends. This is mainly because some people really do not have money to pay mortgage and some people just enjoying the pause from paying mortgage.

If banks do not get mortgage payment then banks will turn to government to help them out then government will turn towards tax payers and government will increase tax %.

C. Mortgage Rate



Mortgage rate in US is at **record low (2.5%)** which is one of the prominent reasons for such an increase in house demands. Ownership of a house benefits the owner in **tax deduction** if he/she rents it out, so people build an asset while enjoying a tax deduction. People with this sentiment see this current situation as a golden opportunity. Mortgage rates are decreasing over the period of time and it is not likely to rise by a large amount in the upcoming time.

D. IT Hubs

The **United States** is the largest tech market in the world, representing 33% of the total, or approximately \$1.6 trillion for 2021. IT industry provides the most number of jobs in US. So, people prefer to live near their workplace to avoid traveling time. This increases demand of houses in cities where large IT hubs reside. Below are 8 largest IT hubs in US and appx house price in those cities along with expected % change in price next year.

*Median house price in US appx 3,20,000

City	Appx house Price 2020(in \$)	Expected % change in 2021
Austin	3,18,000	11.6
Dallas	2,40,000	11.1
Raleigh	3,07,000	9.8
San Jose	11,04,081	12.1
Charlotte	2,72,000	10.8
Seattle	8,04,504	11.1
San Francisco	13,85,000	7.5
Atlanta	3,03,900	9.8

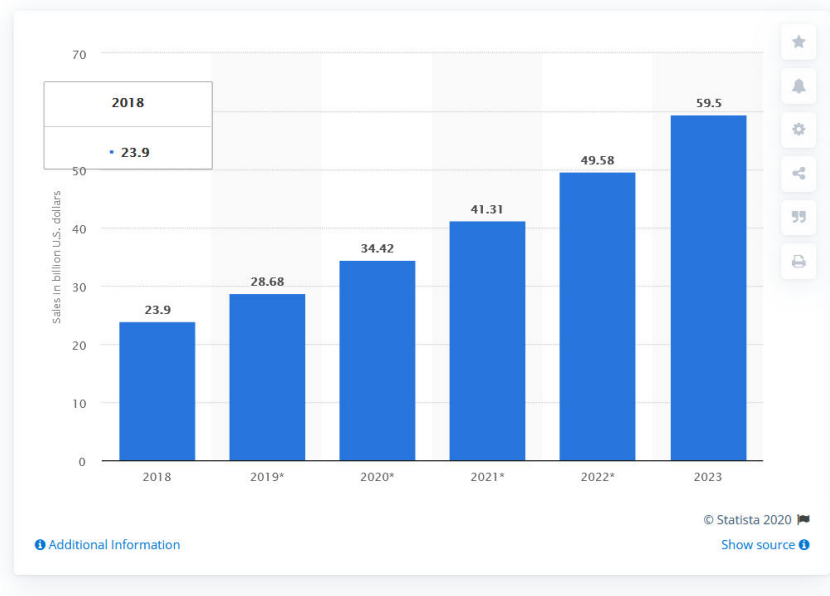
*source- zillow.com

This demand would have continued if we had not witnessed Pandemic situation. Due to pandemic people are now (or may) preferring suburb areas to buy house. Since most of the IT companies adopting work from home culture distance between your place and workplace has declined its importance.

Living in suburb area may accompany with problems like nearby stores of daily essentials etc. But online grocery shopping has solved that problem for the people living in suburbs and online grocery shopping is one of the fastest growing industry in US.

Online grocery shopping sales in the United States from 2018

(in billion U.S. dollars)



So people will find it equally comfortable living in suburb area as that of urban area considering low population density, pollution, greater social distancing in suburb area.

E. Age Group

As per US census 2019 age group **19-25 consists of appx 9%** and age group **25-34 consists of appx 12.5%** of total population on the country. So collectively this **22-23% of the population is the potential house buyers in the next decade.**

Since this group consist of millennials, who generally are tech guys, will fall into IT industry. So, the points discussed above about IT industry influencing house price has potential number of population in the next decade.

F. Price to Rent Ratio

Price to rent ratio is calculated by the formula,

$$= (\text{median house price}) / (\text{median annual rent})$$

This ratio is widely used for getting an idea of affordability.

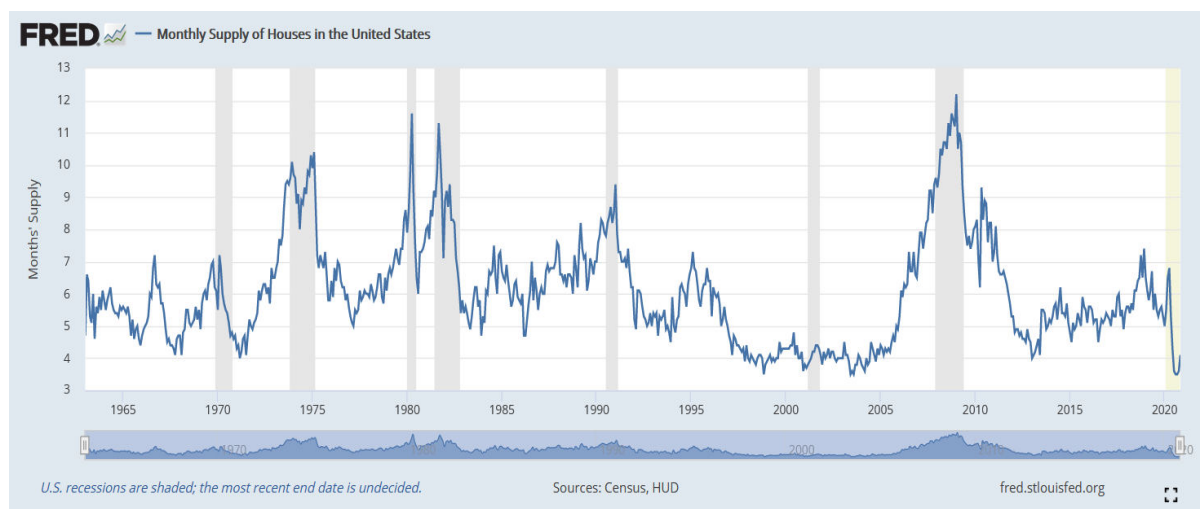
Below are top 10 and bottom 10 cities according to price to rent ratio.

BY THE 123 NUMBERS				
Price-to-Rent Ratio in the 50 Largest U.S. Cities				
Rank	State	Median Home Value	Median Annual Rent	Price-to-Rent Ratio
1	San Francisco, CA	\$ 1,195,700	\$ 22,560	53.00
2	Oakland, CA	\$ 717,700	\$ 17,976	39.93
3	Los Angeles, CA	\$ 682,400	\$ 17,688	38.58
4	San Jose, CA	\$ 968,500	\$ 25,932	37.35
5	New York, NY	\$ 645,100	\$ 17,316	37.25
6	Long Beach, CA	\$ 600,700	\$ 16,140	37.22
7	Seattle, WA	\$ 758,200	\$ 20,388	37.19
8	Washington, DC	\$ 617,900	\$ 18,192	33.97
9	San Diego, CA	\$ 654,700	\$ 20,376	32.13
10	Boston, MA	\$ 575,200	\$ 19,764	29.10
41	Jacksonville, FL	\$ 183,700	\$ 12,888	14.25
42	Columbus, OH	\$ 159,400	\$ 11,448	13.92
43	El Paso, TX	\$ 130,900	\$ 9,576	13.67
44	Philadelphia, PA	\$ 167,700	\$ 12,384	13.54
45	Indianapolis, IN	\$ 142,700	\$ 10,572	13.50
46	San Antonio, TX	\$ 155,600	\$ 11,664	13.34
46	Baltimore, MD	\$ 167,800	\$ 12,684	13.23
48	Milwaukee, WI	\$ 126,300	\$ 10,020	12.60
49	Memphis, TN	\$ 103,700	\$ 10,356	10.01
50	Detroit, MI	\$ 51,600	\$ 10,032	5.14

Above chart shows that top 10 countries by price to rent ratio are not affordable if one is looking to rent a house. But one can buy house in those cities rather than renting one. Of course, looking price to rent ratio solely not guarantee a affordable house but it will give an idea for sure. Bottom 10 cities have low price to rent ratio so buyer may get attracted towards these cities while looking for a new house.

G. House Inventory

Let's assume there are` 100 houses being sold per month and total 600 houses are listed for sell then house **inventory is 6** (there is enough supply of houses for 6 months by average of 100 houses per month).



Currently house inventory of US is **appx 4**. Average house inventory is consider to be 6 , any value below that is consider as low and above 6 to be high/sufficient. Reason for current low is that seller's market has become stagnant and buyers are still increasing.

This indicator shows the supply-demand situation in the country. As per chart shown above **inventory value 7 is kind of resistance**, whenever level 7 **has been breached successfully, it goes 9-10-11**. So, prices of house will **decrease if house inventory value increases and vice-versa**.

3. Conclusion

- The Speculation in the minds of buyers the house market will always move up, has been proved wrong several times in the past.
- Even if country's economy/GDP grows, there are several other factors also which affects the house prices.
- World has never witness anything like COVID-19 pandemic so, here onwards pandemic situation will also get considered while predicting any market.
- One big question - Is housing market, with these increasing prices, moving towards a bubble (like 2008)?
- According to several expert, this is not the bubble like 2008 which has its roots to the non-payment of mortgage by sub-prime group. But this time situation is different, non-payment of mortgage is due to forbearance and not because of inability of paying mortgage at the first place.
- 2008 bubble burst is unlikely in 2021 provided forbearance does not increase to any significant level.
- Market is definitely over-priced at this moment so, we may see some correction in 2021.

4. Data Sources

- **USA Economic Growth –**
www.google.com
- **Mortgage Rate**
<https://fred.stlouisfed.org/series/MORTGAGE30US>
- **Home Price in Largest IT Hubs**
<https://www.zillow.com>
- **Online Grocery Shopping Sales**
<https://www.statista.com/statistics/293707/us-online-grocery-sales/>
- **Price to Rent Ratio**
<https://smartasset.com/mortgage/price-to-rent-ratio-50-largest-cities-2020>
- **House Inventory**
<https://fred.stlouisfed.org/series/MSACSR>