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Report-The Great Recession

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1 Introduction

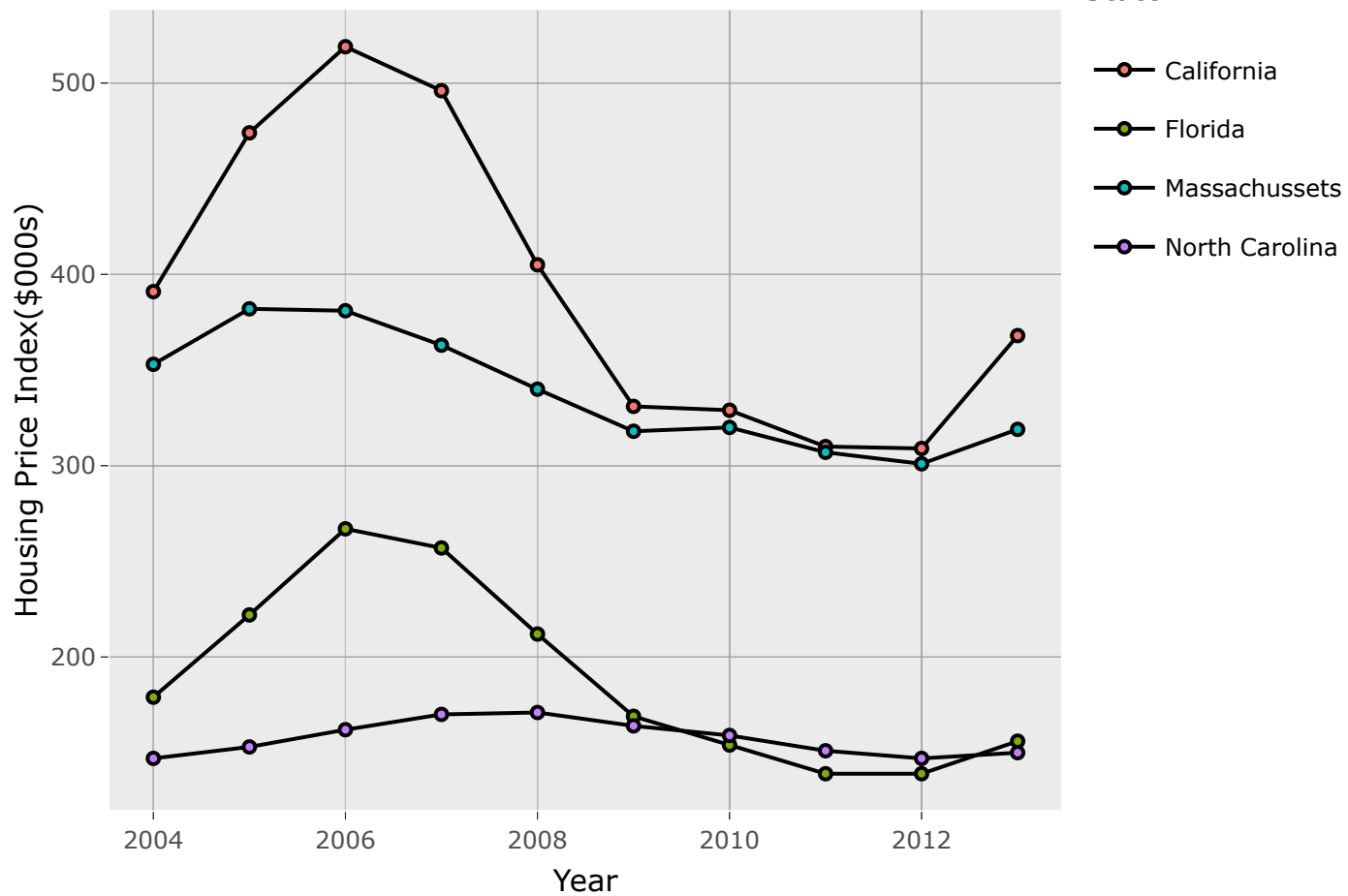
The Great Recession was a period of economic downturn which was observed from 2007 to 2009. The recession was largely blamed on the real estate market as the great recession started after the bursting of the US housing bubble. The effects of the downturn were observed all over the world. Here we will see the effects in United States of the Great Recession on real estate, macroeconomic factors, financial and capital markets.

One interesting thing regarding the Great Recession was that the causes of the economic crisis could not be blamed on the housing market alone. The interest rates on housing loans were lowered by the government to boost growth in housing sector after a minor recession in 2000. The concept of bundling of mortgage assets (under Collateral Debt Obligations commonly referred to as CDOs) with other types of financial securities was becoming popular and investment banks started using it to take these bundles of loans from banks and sell them to other big investors in market like pension funds, insurance companies. This allowed the primary banks to give housing loan to subprime borrowers (borrowers with poor credit history) as the banks could pass on the risk of default to the third party to whom they sold subprime mortgage bundled funds. Thus the low interest on housing loans and easy availability of subprime mortgage allowed a huge housing bubble to build up until it finally burst when the subprime borrowers started defaulting on loans.

2 What were the implications on the real estate market?

2.1 Zillow Housing Price Index

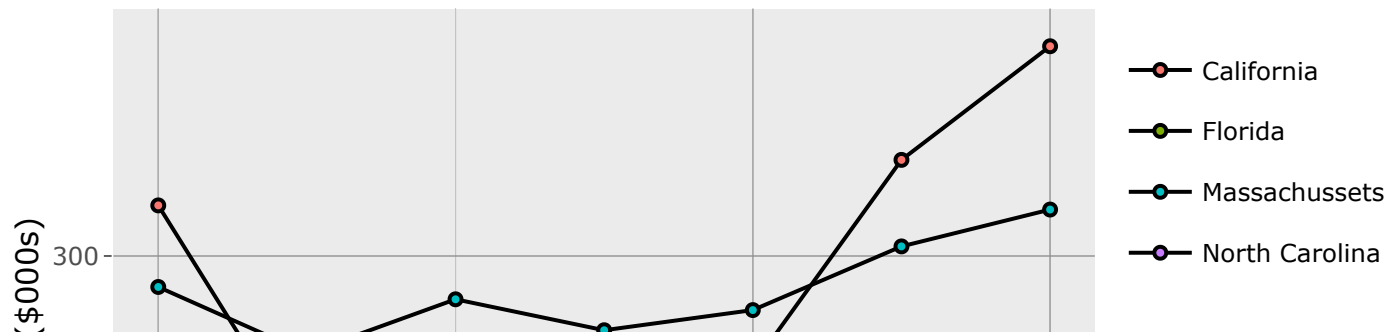
Zillow Housing Price Index (seasonally adjusted) for all homes (SFR, Cor

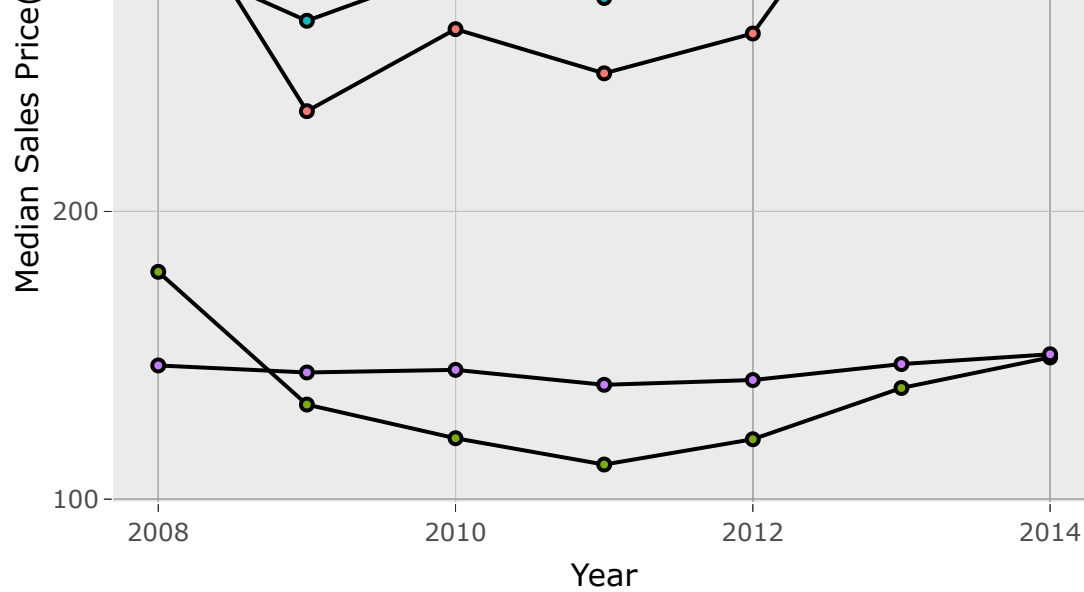


There was a drastic fall in the Housing Price Index (estimated by Zillow) between October 2007 and April 2009. California, Florida and Massachusetts had the greatest impact

2.2 Zillow Median Sales Price

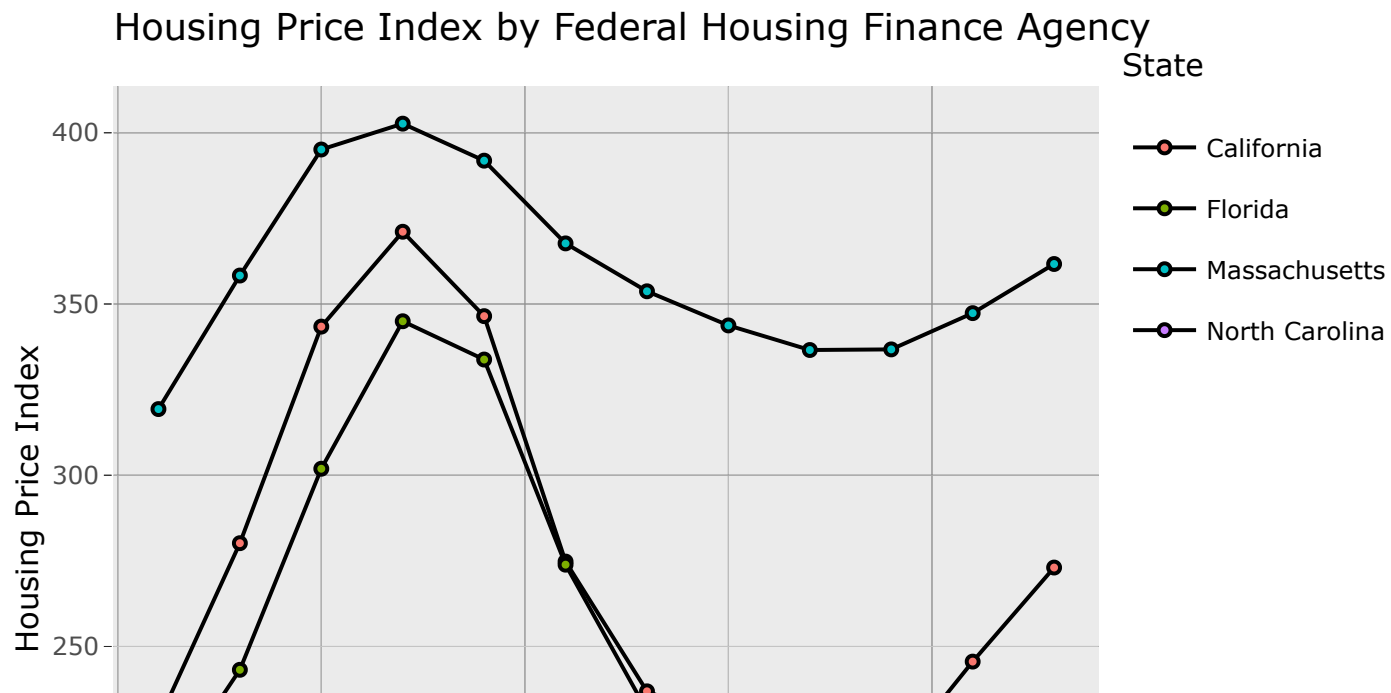
Median Sales Price (seasonally adjusted) for all homes (SFR, Condo/Co-op) for all states

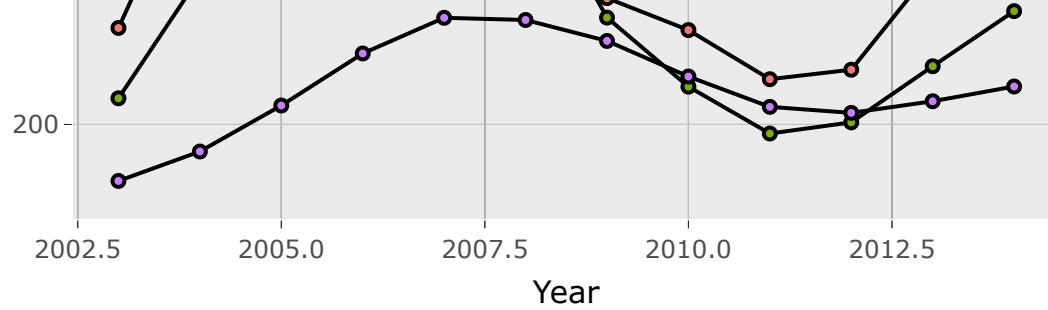




The median sales price for all homes combined(SFR, Condo/Co-Op) decreased significantly between 2008 and mid-2009.The data is only available after 2008

2.3 Housing Price Index provided by Federal Housing Finance Agency

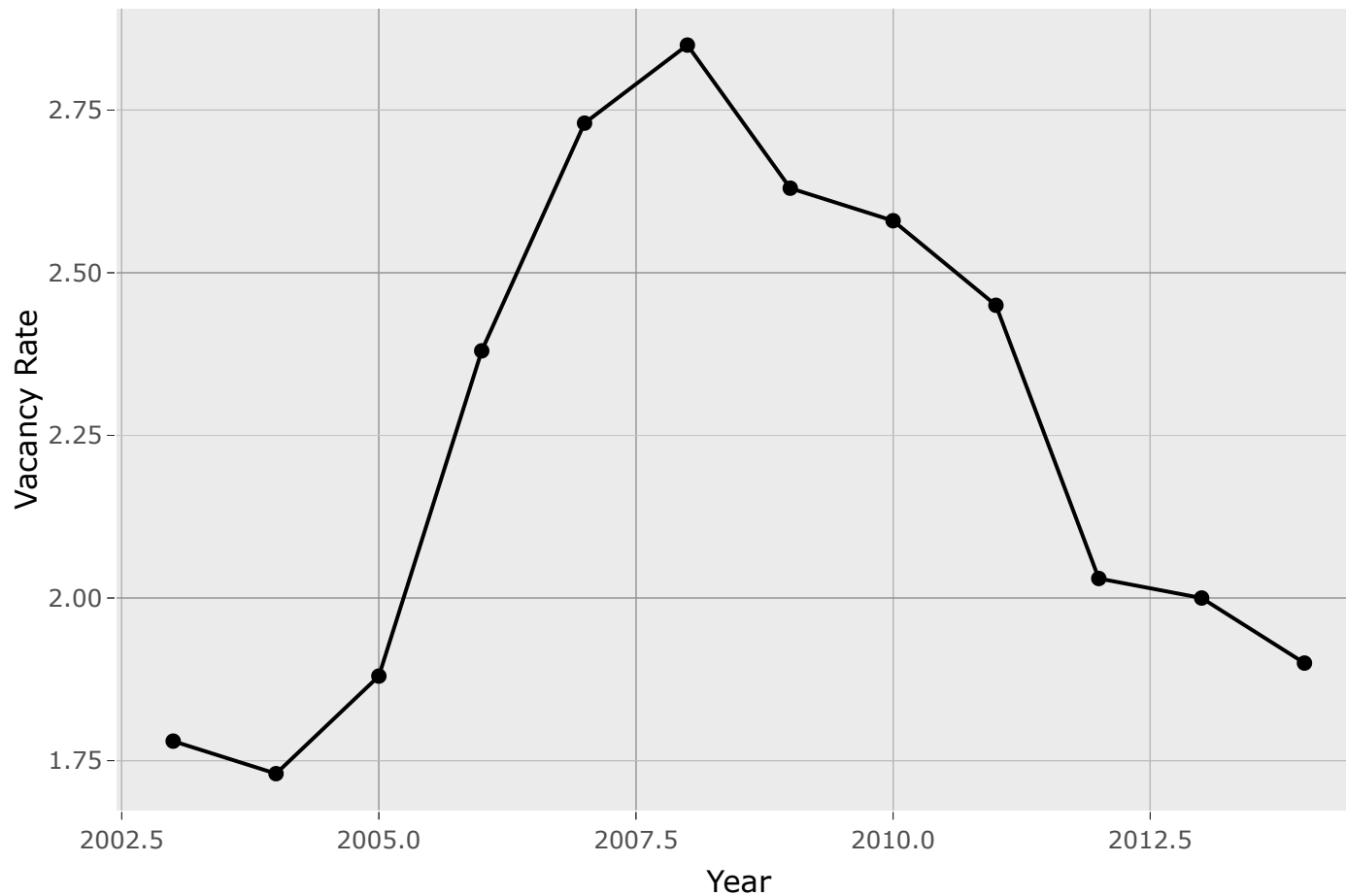




Drastic fall in the housing price index from 2007 and it's effects continuing till 2009. The index keeps falling between 2009 and 2011(though at a lower rate) after which it starts to improve after 2011

2.4 Homeowners Vacancy Rate

Homeowners vacancy Rate



Homeowners vacancy rate increased significantly between 2006 and 2007 when bubble in the real estate market was being formed. The vacancy rate reached its peak in 2008. It finally starts improving after April 2010

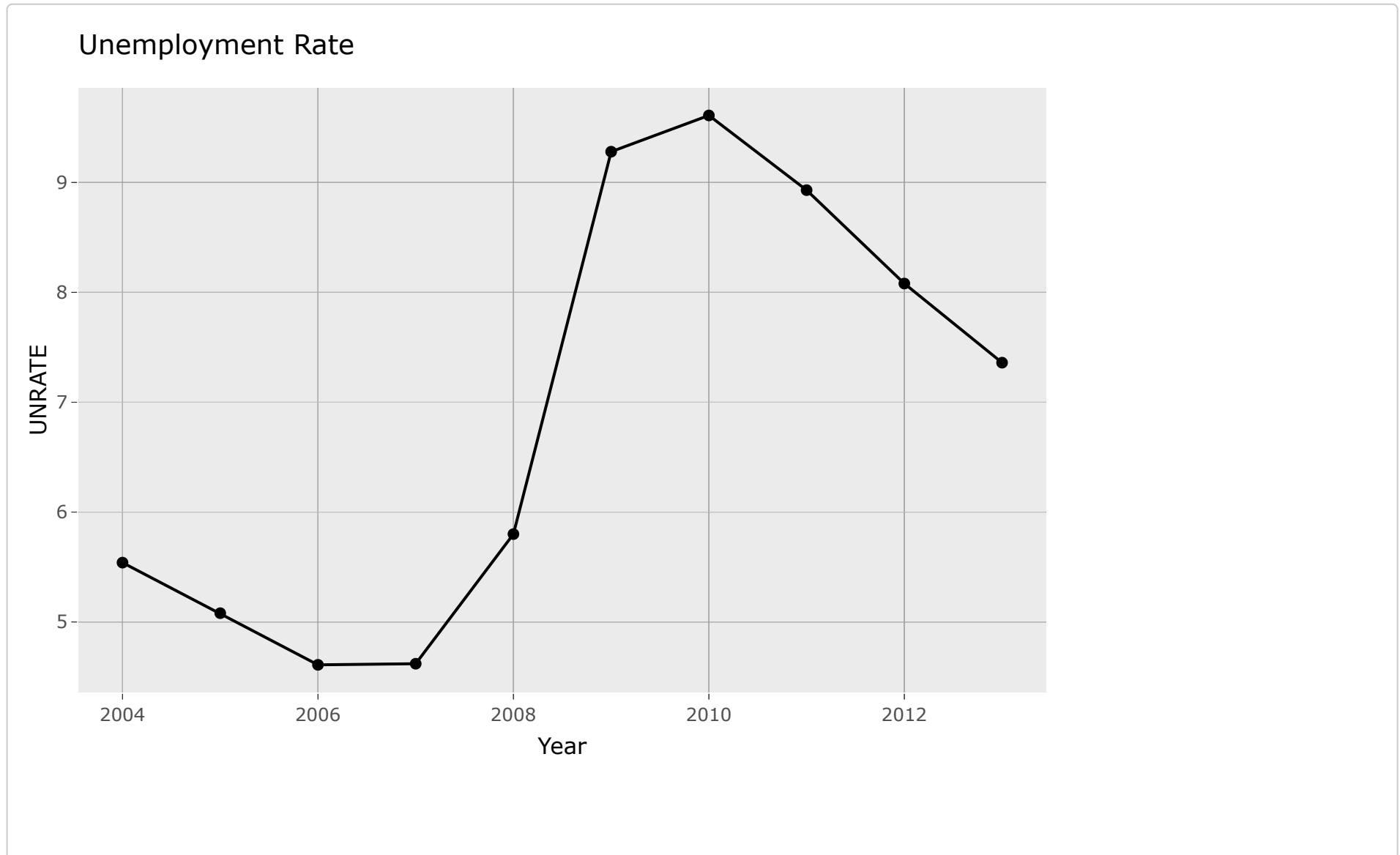
3 What were the effects on the Macro-economic and socio-economic parameters?

3.1 Urban Consumer Inflation



Average yearly urban consumer inflation for all items increased in 2007, 2008 and is negative in 2009. Negative inflation is as harmful to economy as a high positive inflation

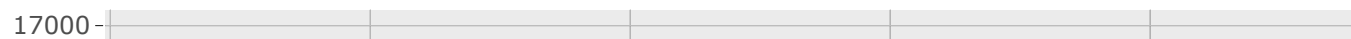
3.2 Unemployment Rate

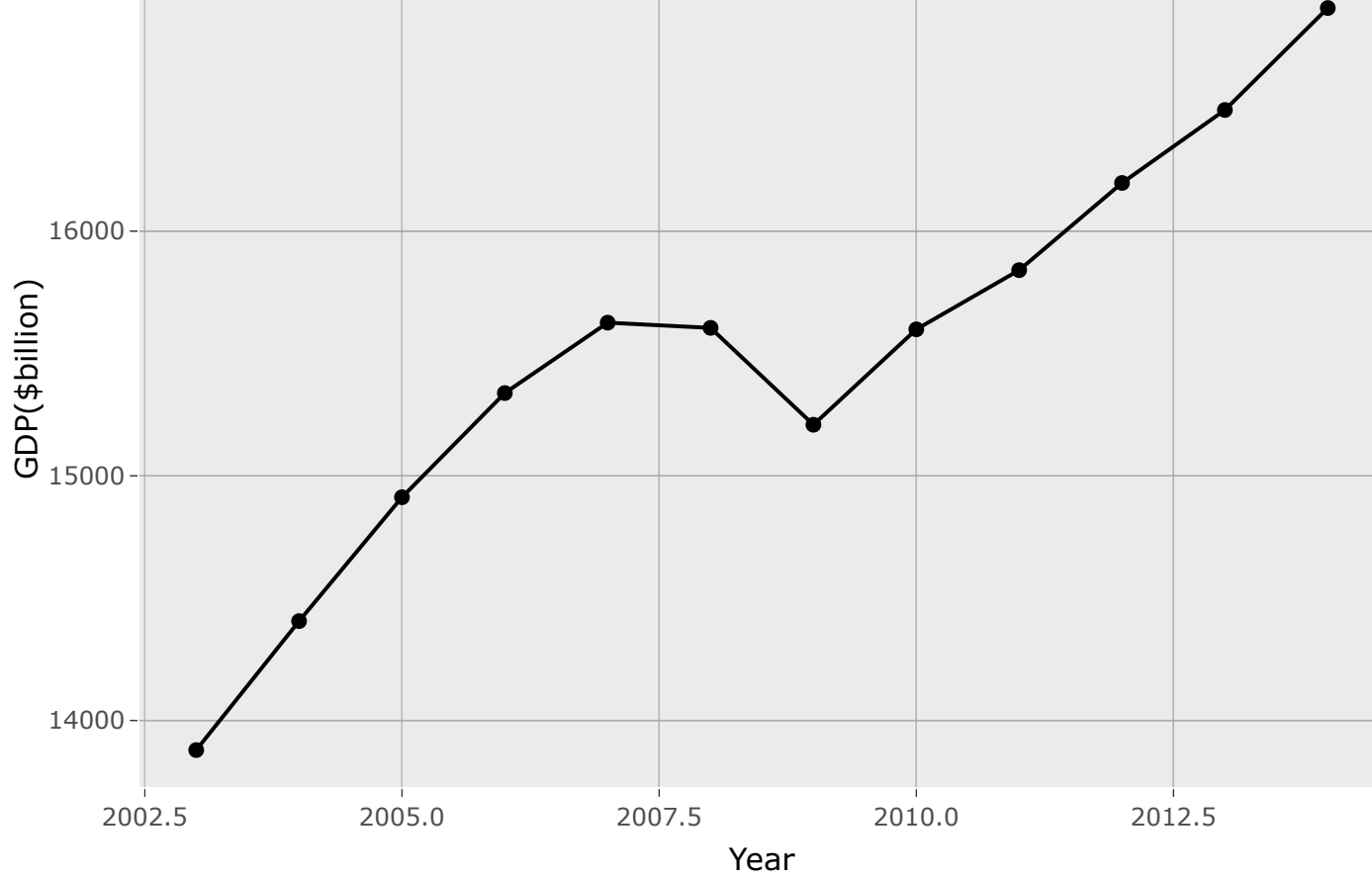


The unemployment rate for all sectors combined excluding the armed forces increases at a fast rate between 2007 and 2009. It increases marginally between 2009 and 2010 where it is the highest at 9.6%. It has been the highest unemployment rate in the entire time frame.

3.3 Gross Domestic Product

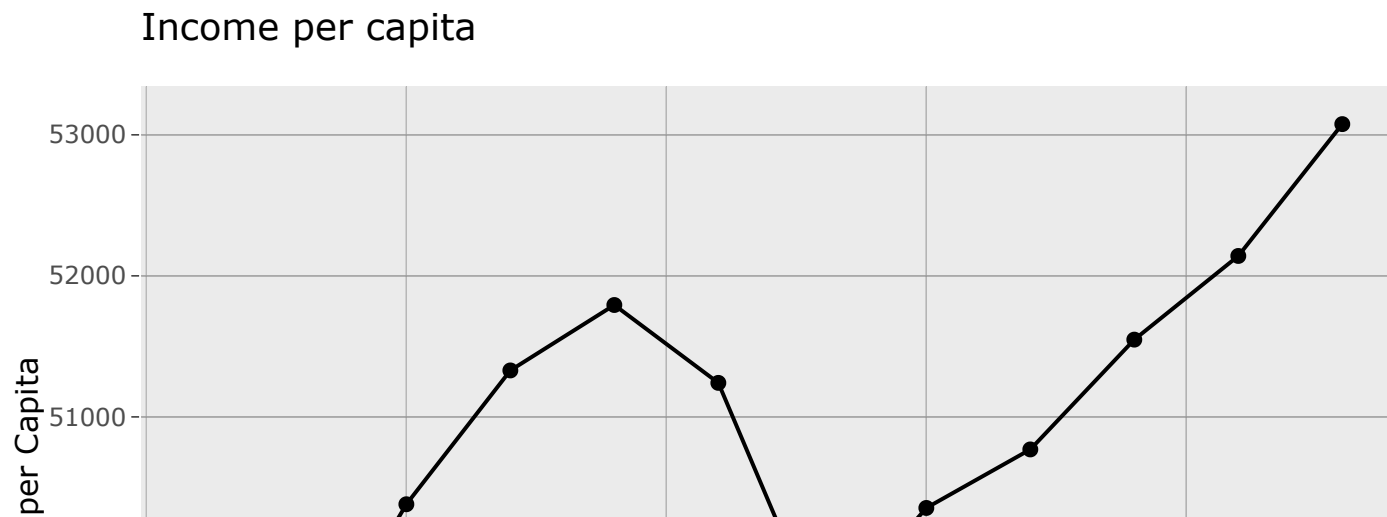
Gross Domestic Product





Real GDP has fallen between 2007 and 2009. Except this time period, it has always increased in the entire time frame being looked at

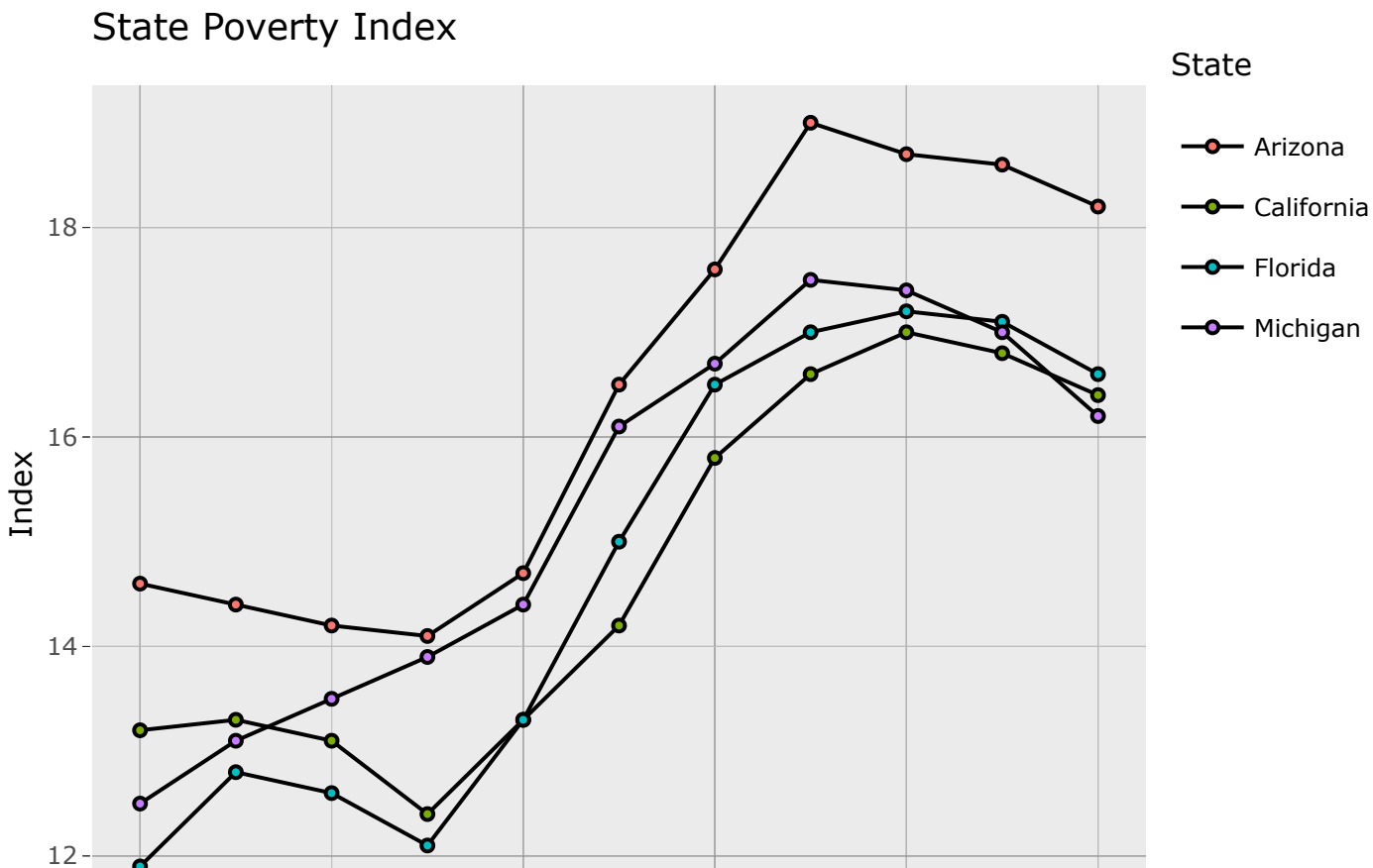
3.4 Income per capita

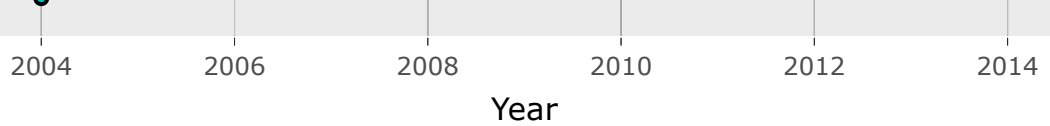




Income per capita(or Income per person or GDP per capita) has fallen between 2007 and 2009.Except this time period, it has always increased in the entire time frame

3.5 Poverty Index



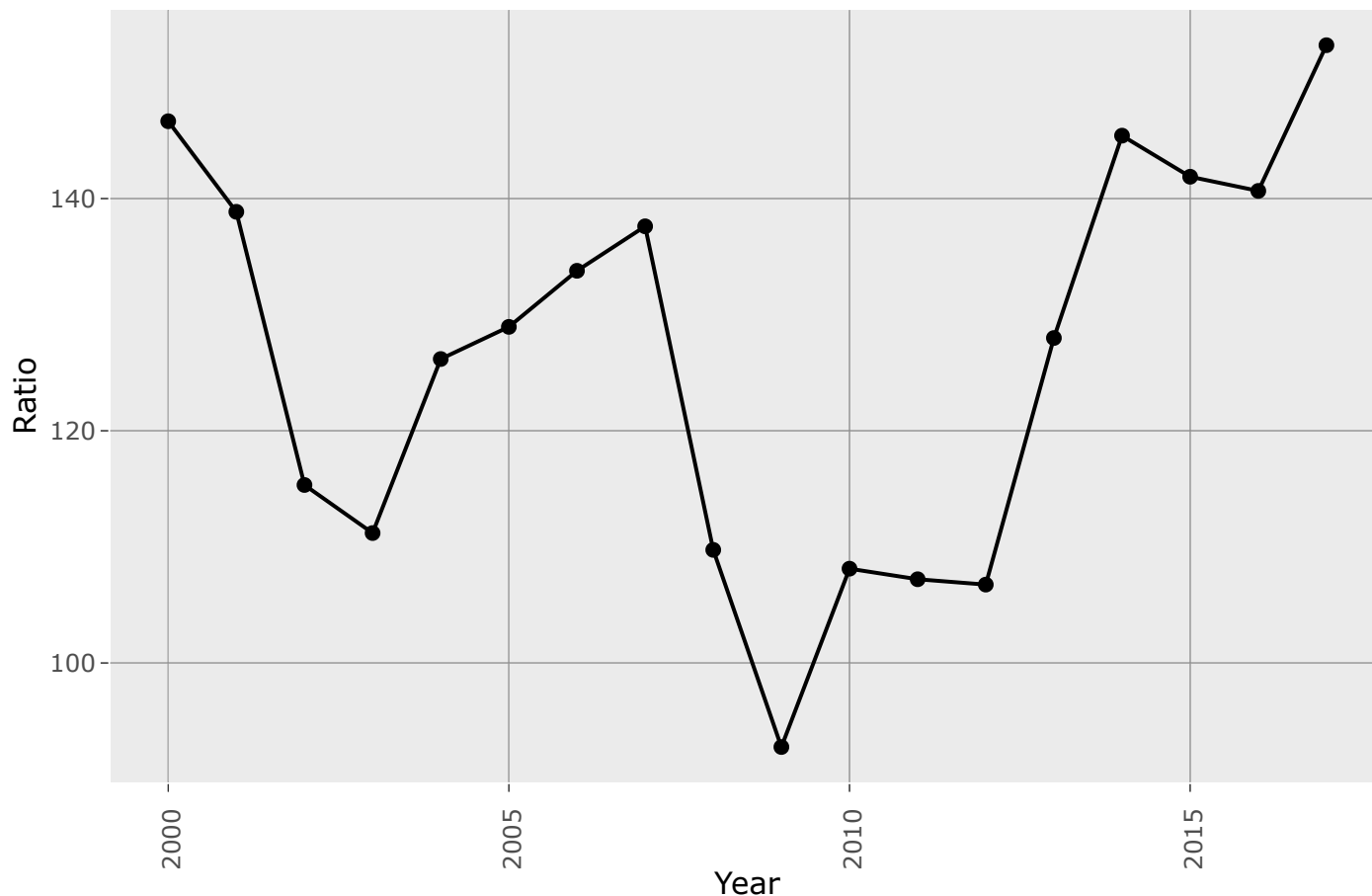


Poverty Index has increased between 2006 and 2007 for Michigan while it decreased for Arizona, California and Florida. After the recession hit in 2007, there was a sharp increase in the poverty Index for all the 4 states between 2007 and 2011. After 2011, the poverty index for all 4 States starts falling again

4 What was the Impact on the Financial and Capital markets?

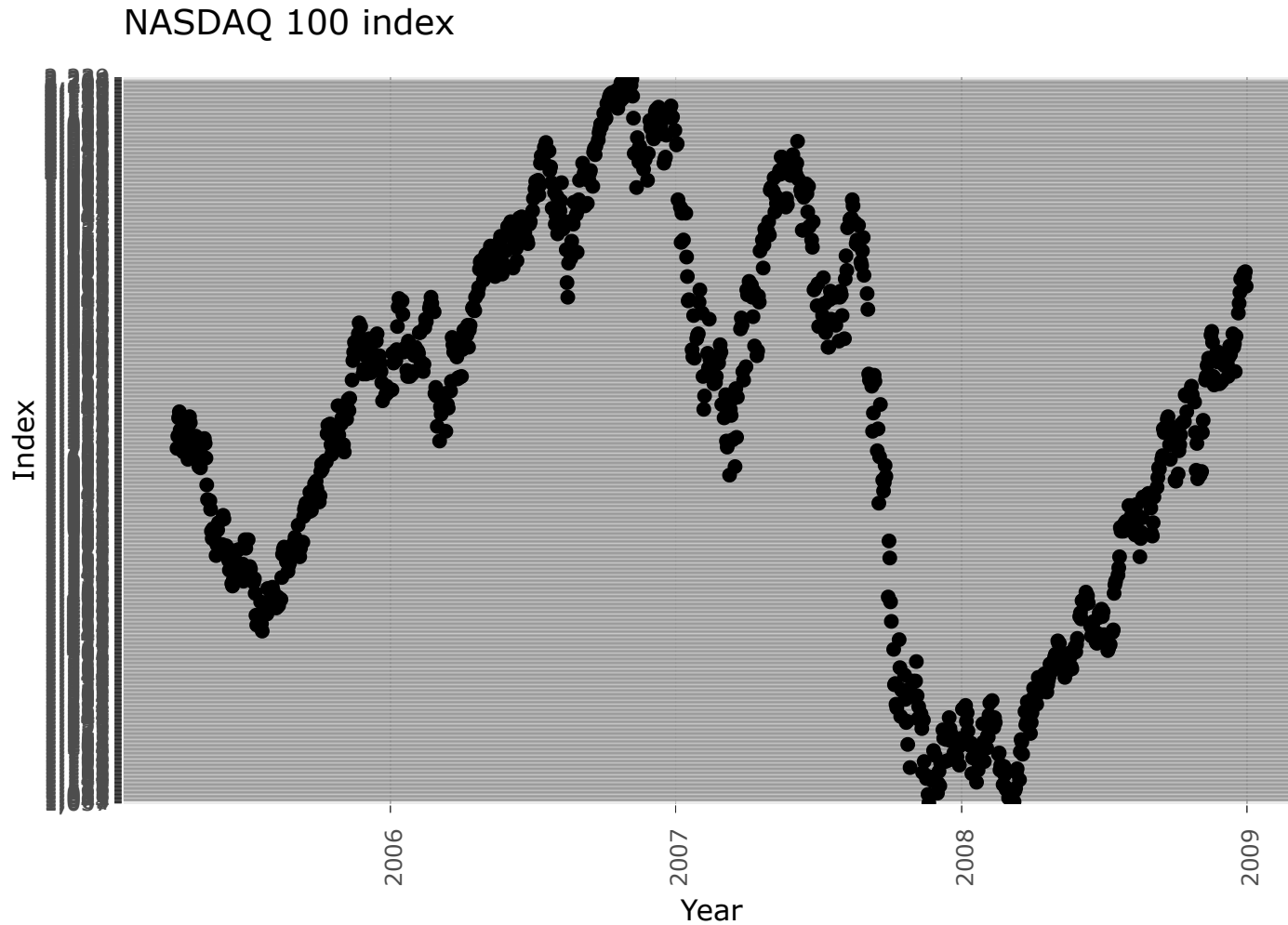
4.1 Ratio of Market Cap to GDP

Ratio of total value of listed shares in stock market(called Market Cap)



Value of listed shares to GDP fell drastically between 2007 and 2009. The ratio fell from 138 in 2007 to 110 in 2008 and 93 in 2009

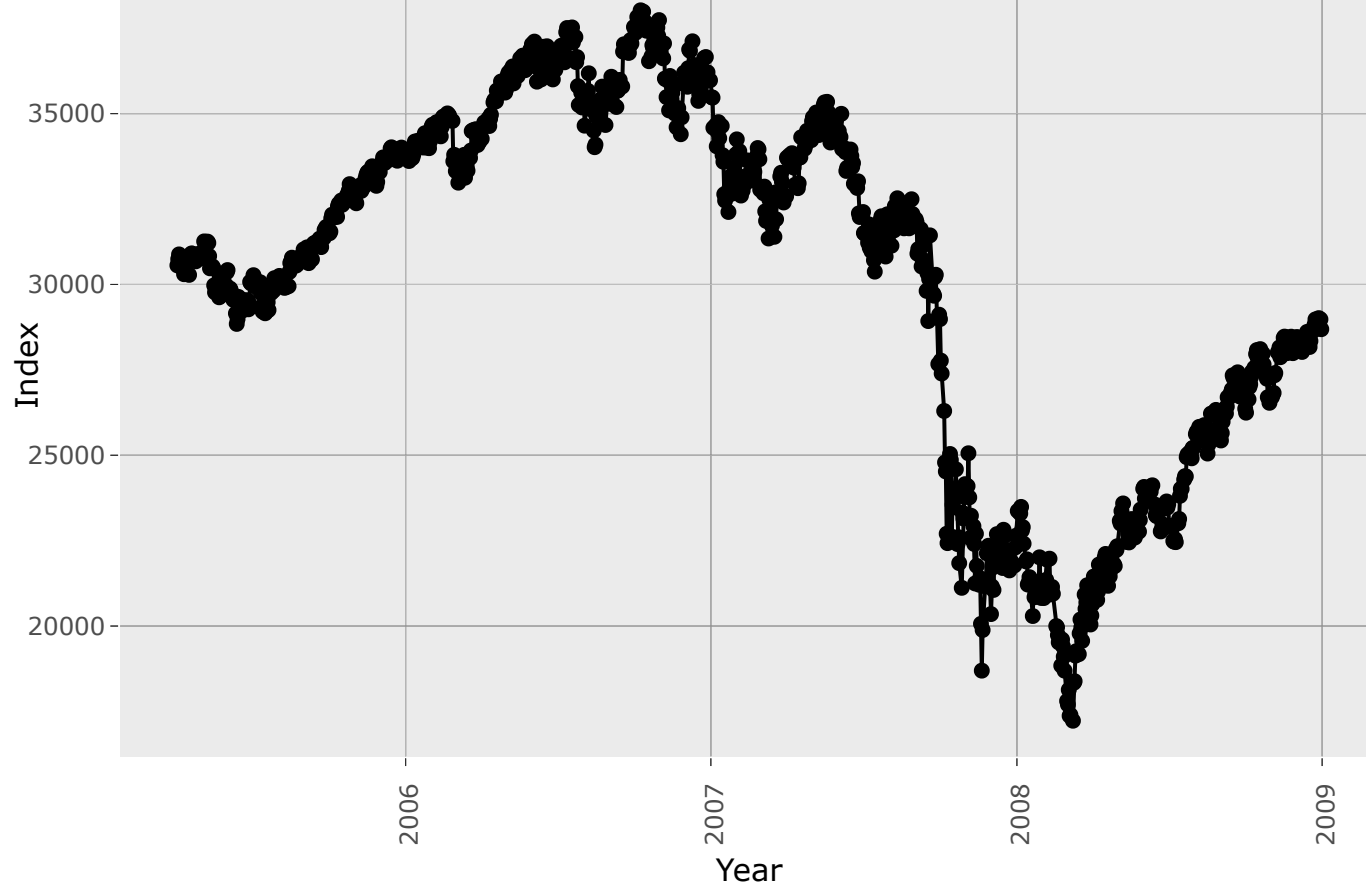
4.2 NASDAQ 100 Index



NASDAQ index is the index for top 100 companies on the US stock exchange. The NASDAQ 100 intraday index kept on falling between August 2007 and April 2009

4.3 Large Capital Index

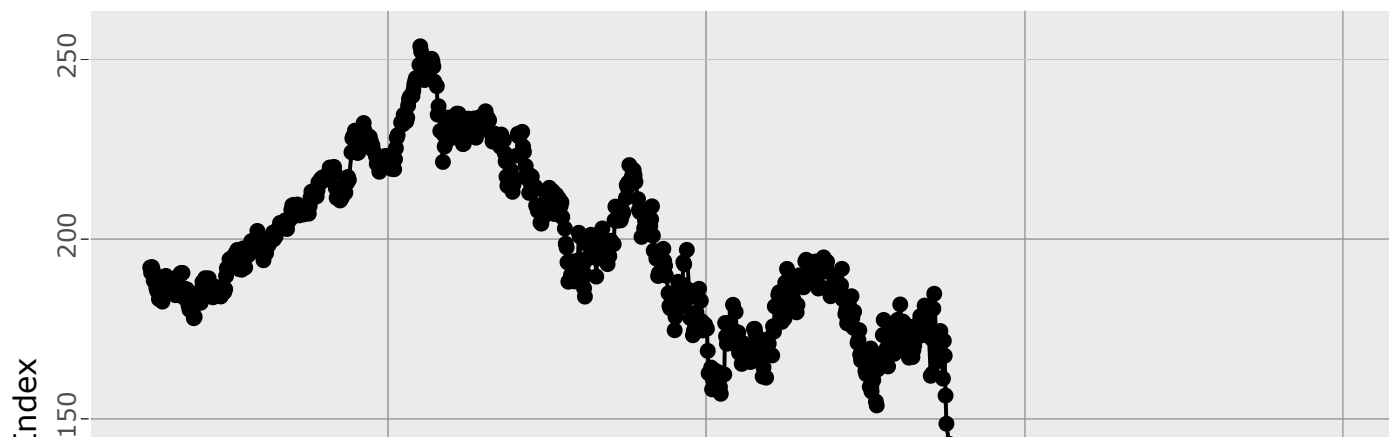
Large Cap index

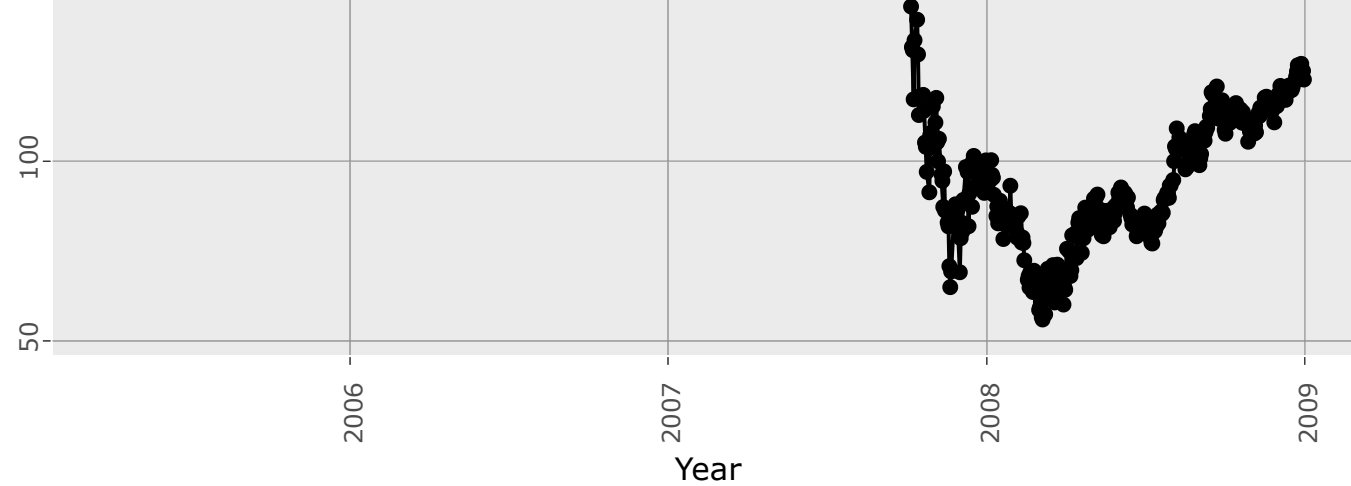


The Large cap index is the index for the companies with high market capitalization. It has fallen significantly between mid-2007 and April 2009

4.4 Real Estate Securities Index

Real Estate Securities index

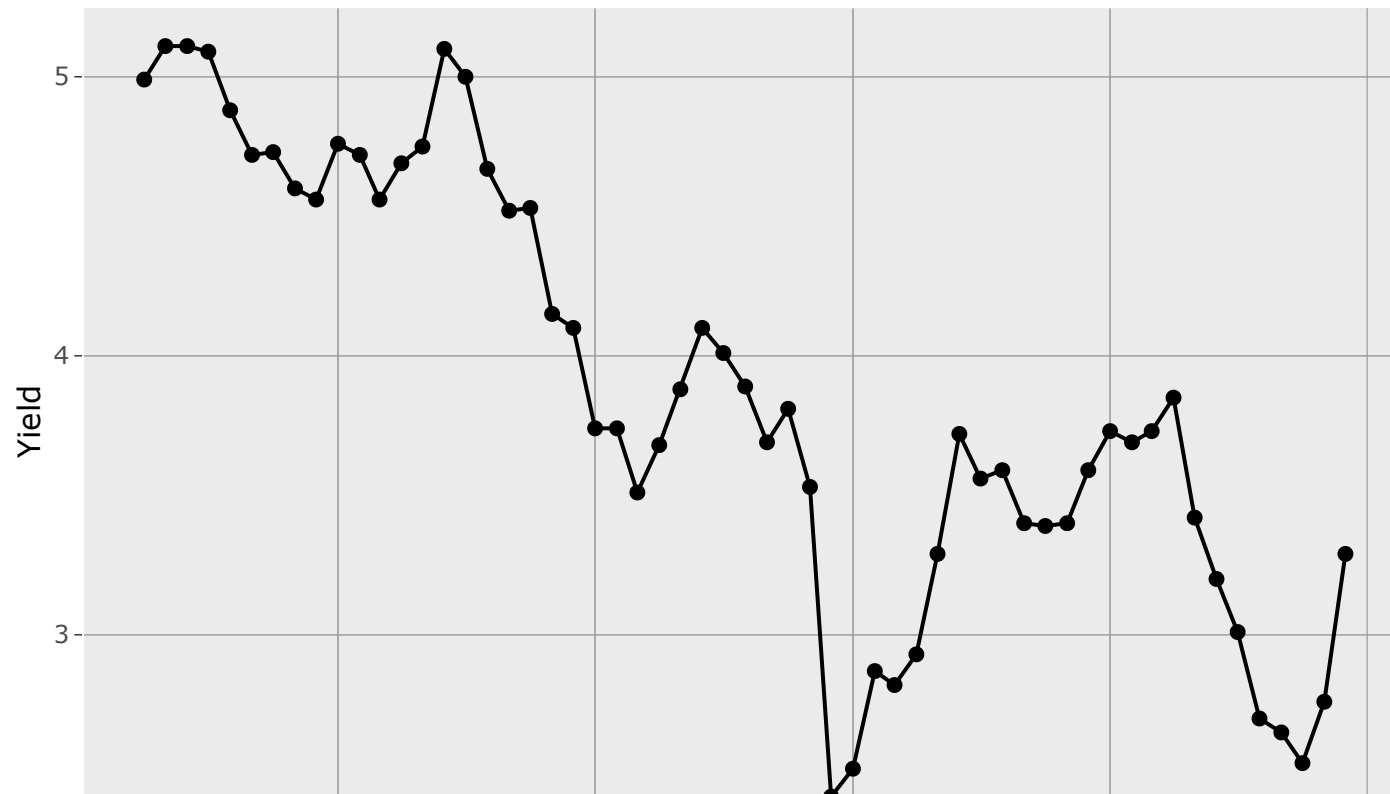




Real Estate securities index is the index for Real Estate stocks and real estate investment management firms stocks. It has fallen significantly between March 2007 and April 2009

4.5 Yield on 10 year government bond

Yield on 10 year government bond



2006

2007

2008

2009

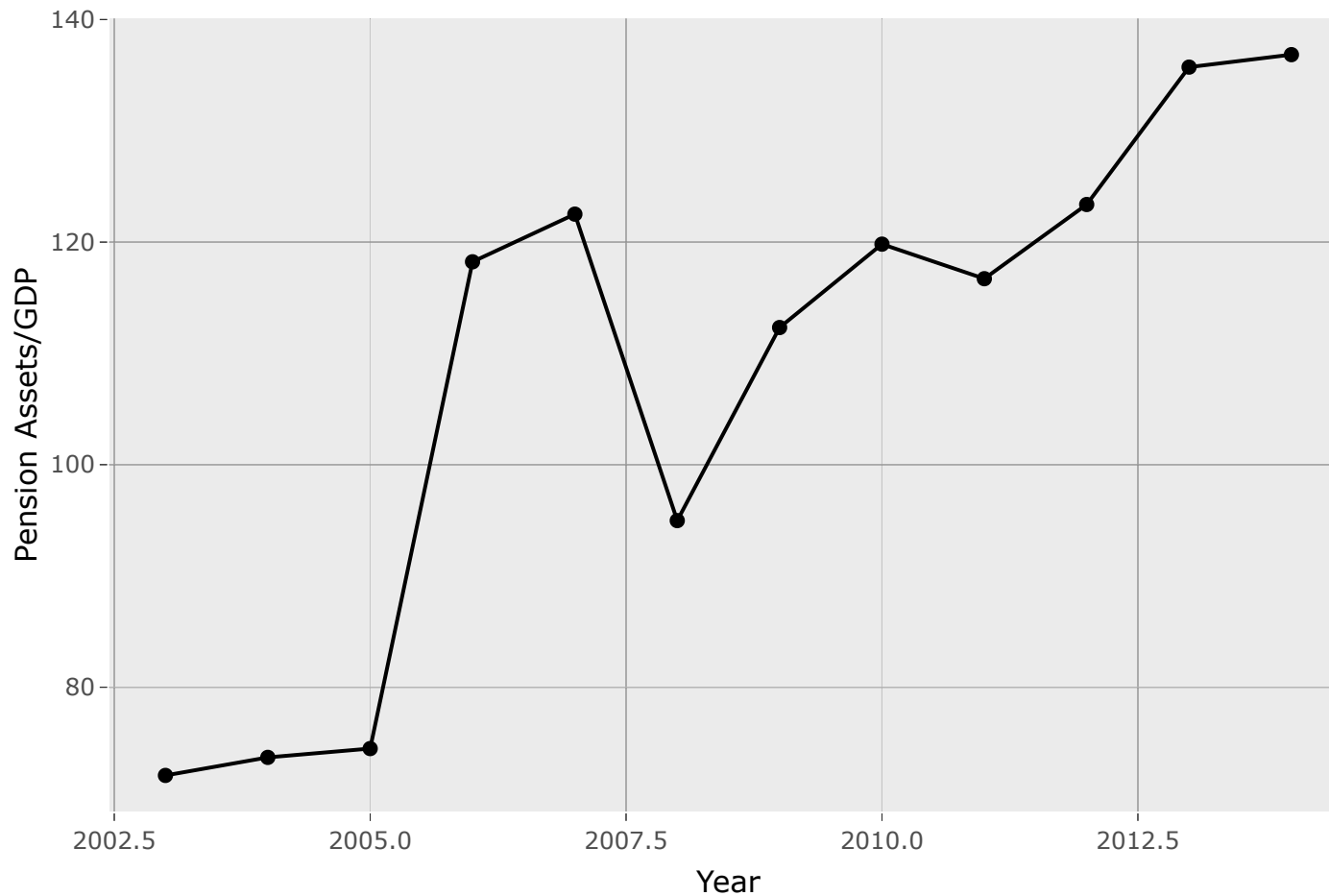
2010

Year

The yield on bonds is the governments view of the return it will be able to achieve in the next 10 years. The yield on 10-year government bond has decreased from 5% in June 2007 to 2.4% December 2018. The government bond are sovereign backed and only offers a risk-free return as there is no default risk associated with government bonds. The reduction in bond yields during this period might be because the government expected a low economic activity in the future

4.6 Ratio of Market Value of Pension Assets to GDP

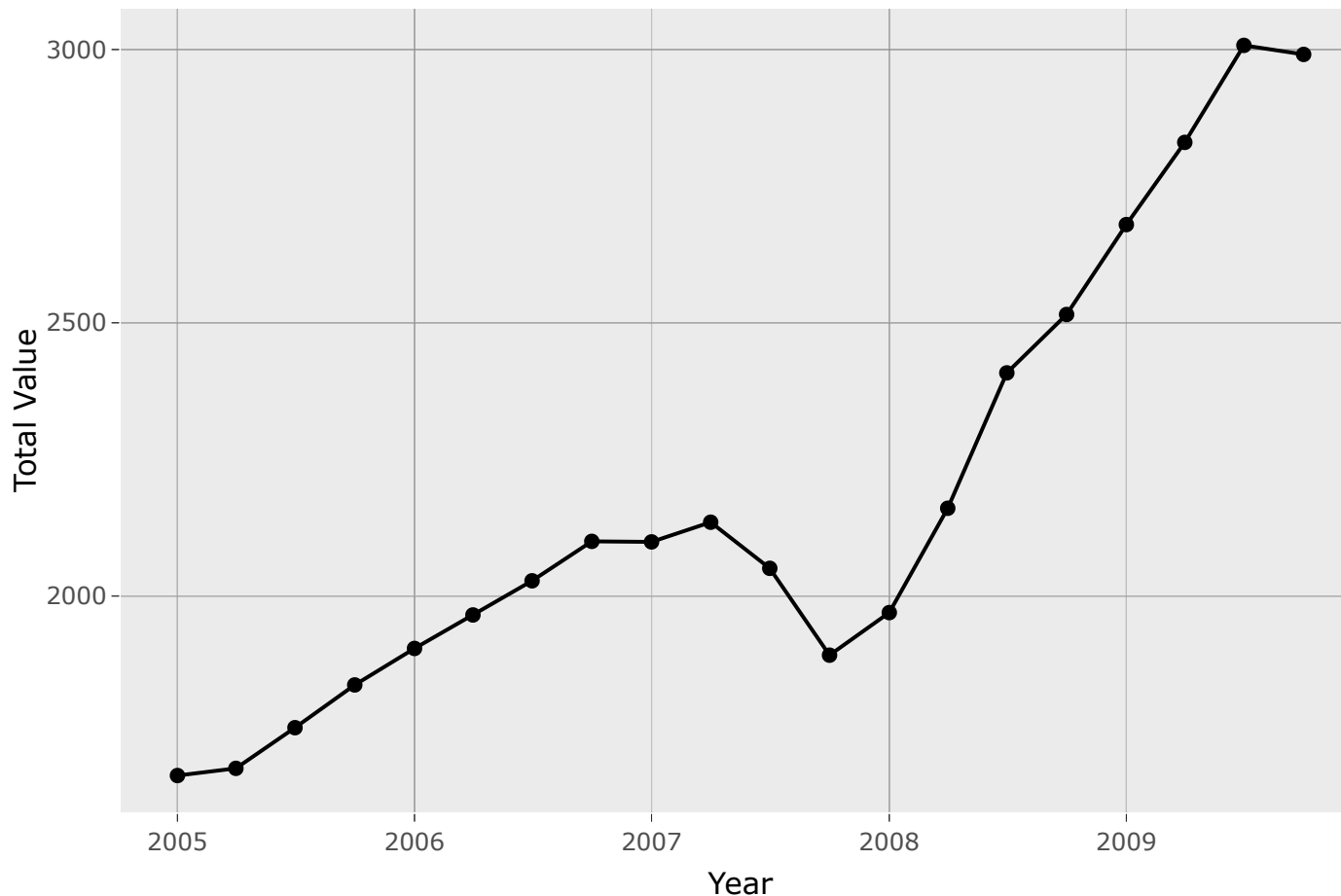
Ratio of pension assets to GDP



The ratio of Pension Assets to GDP (total of Defined Benefit, Defined Contribution schemes) fell between 2007 and 2008. The Pension Assets were affected because they had money invested in stock market and Collateral debt obligations (bundles of subprime mortgages). The ratio of Pension assets market value to GDP has fallen between 2007 and 2008 significantly. The GDP hasn't fallen much, so the main impact has been due to the steep decline in Pension Assets market value. However, it has improved after 2008

4.7 Total market value of mutual funds, debt securities and loans

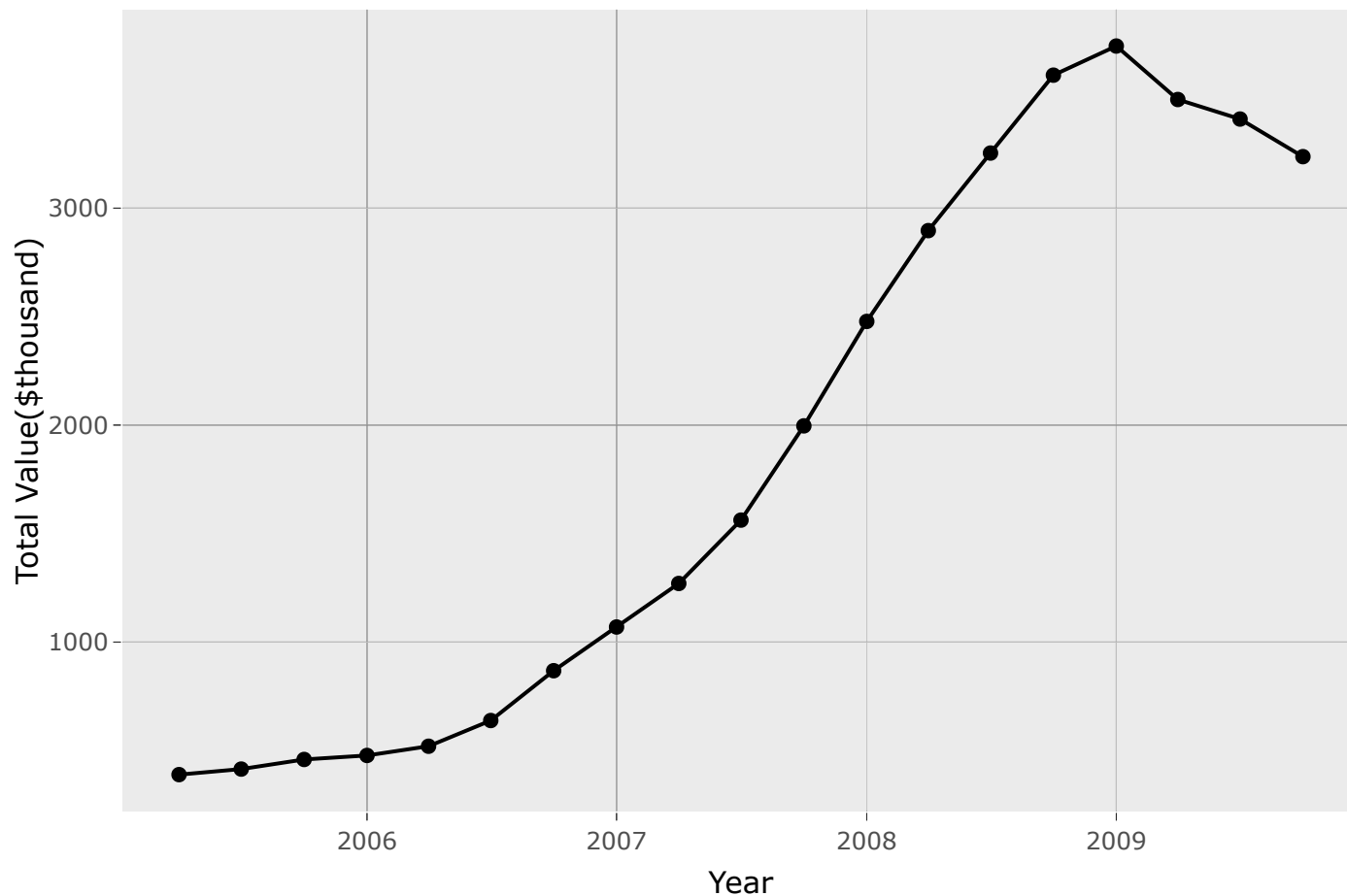
Total market value of mutual funds, debt securities and loans



A short period of drastic fall in total market value of mutual funds, debt securities and loans is observed between April 2008 and October 2008. However, the market improved after this short period of downfall

4.8 Non-performing Assets of Commercial Banks

Non-performing Assets



The final nail in the coffin was the increase in the non-performing assets of the commercial banks at an all-time high. The Non Performing Assets for Commercial Banks in the US started increasing from October 2006. The increase is drastic between April 2007 and October 2009. The NPA's reach it's peak in January 2010 from \$46 billion in October 2006 to \$374 billion in January 2010 after which it starts decreasing

5 Overall Conclusion

The housing market, macroeconomic, socioeconomic parameters and financial markets spiraled down. Many of these factors are interlinked. The defaulting of subprime mortgages were passed on to the banks and the investors of CDOs (Collateralized Debt Obligations) like pension funds, other institutional investors. The pension funds and institutional investors are also the highest investors in the stock markets. The housing markets and securities crashed. The stock markets crashed. The other financial institutions having investments in mutual funds, debt securities, corporate bonds also crashed. The crashing of stock markets had an impact on corporate profits which decreased the GDP and increased the unemployment. The government bonds yields decreased, and the inflation increased before becoming negative in 2009. The poverty index increased significantly. GDP and Income per person decreased during the Great Recession. The Non performing assets of the commercial banks were at an all time high. The housing rental market had a high vacancy rate.

All these factors combined caused and were the affects of the great recession.