S&P 500 Chart

Reference - https://www.tradingview.com/symbols/SPX/

10Y Yield US Bonds Chart

Reference - https://www.tradingview.com/symbols/TVC-US10Y/

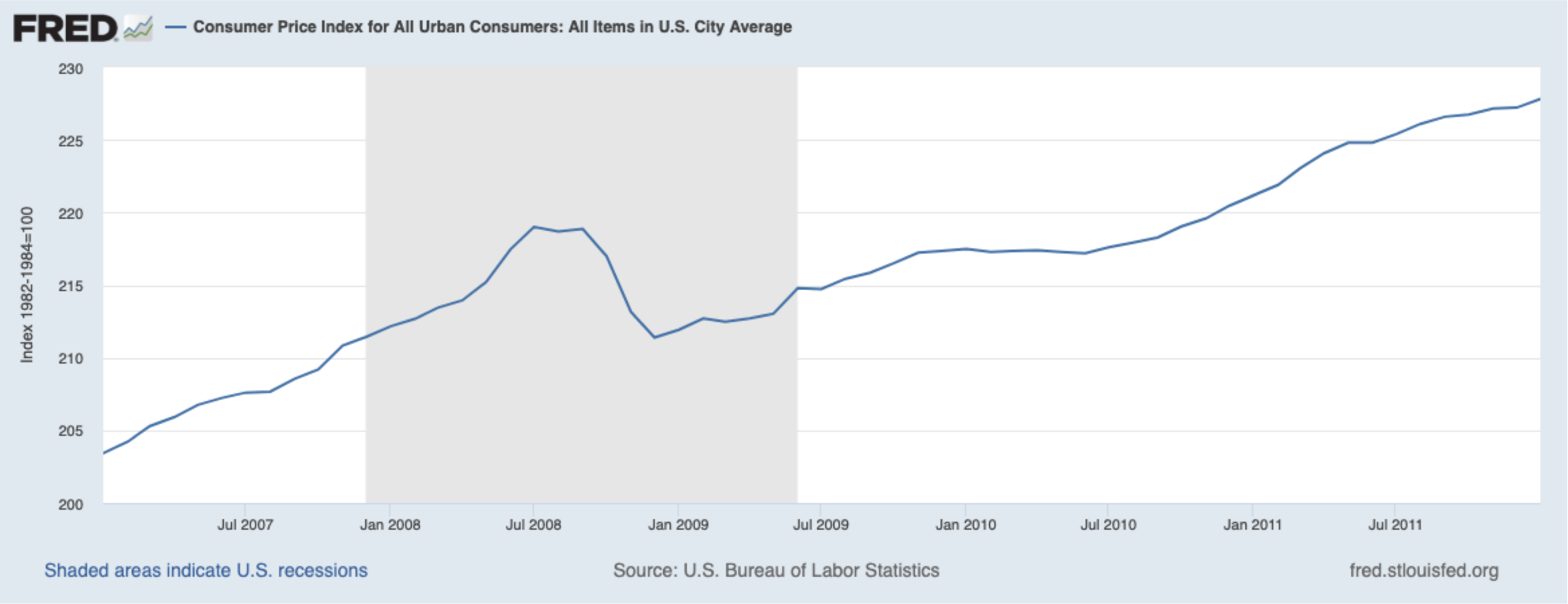
Gold Spot / USD Chart

Reference - https://www.tradingview.com/symbols/XAUUSD/

CPI-U Data

Reference-
https://fred.stlouisfed.org/series/CPIAUCSL
https://www.usinflationcalculator.com/inflation/consumer-price-index-and-annual-percent-changes-from-1913-to-2008/

Year	CPI-U
2007	207.3
2008	215.303
2009	214.537
2010	219.179
2011	224.939
2012	229.594



CPI-U (Contd.)

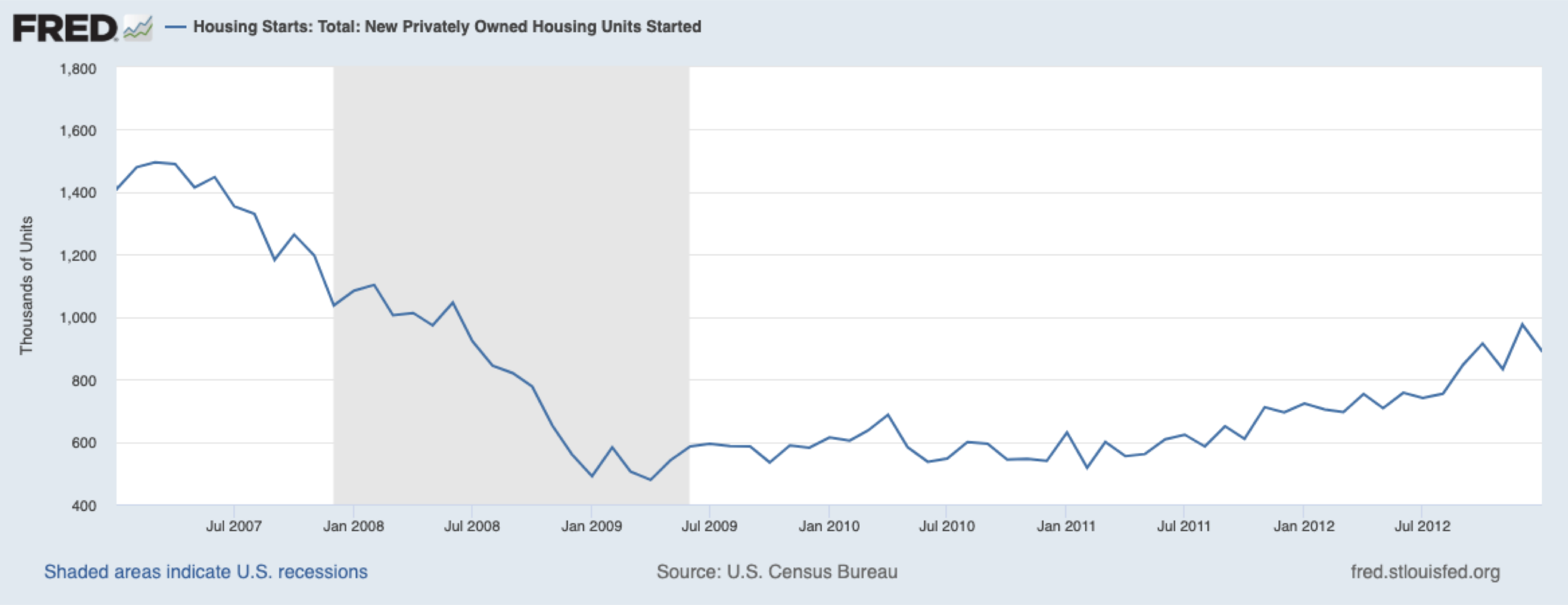
Notes-

- 2007-2012 there was a spike in CPI-U every year except for the year 2009.
- This suggests that there was deflation in 2009
- Effect on Stock Market-
  - Spike in CPI leads to an increase in Interest Rates and Corporate borrowings. This indicates that corporations are in poor health which is an indicator of poor health for stock markets.
  - This is because, even though Spike in CPI increases revenues and profits of the companies (owing to the rise in inflation), share market investors prefer to see earnings increase due to greater sales and not from hikes in price of goods/services.
  - Hence, just on the basis of CPI-U we predict that S&P 500 should perform poorly from 2007-2012. Though this isn't completely accurate, it does give a pretty good picture.
- Effect on Bond Market-
  - Spike in CPI leads to increase in Interest Rates and this is an indicator of poor health of Bond Markets.
  - Thus we predict that on basis of CPI-U data, 10Y Yield Bonds to fall over 2007-2012. This is an accurate representation of what actually happened.

Housing Starts

Reference-
https://fred.stlouisfed.org/series/HOUST

Year	Privately Owned Homes (Thousands)
2007	1341.83
2008	900.00
2009	554.00
2010	585.50
2011	611.92
2012	783.75



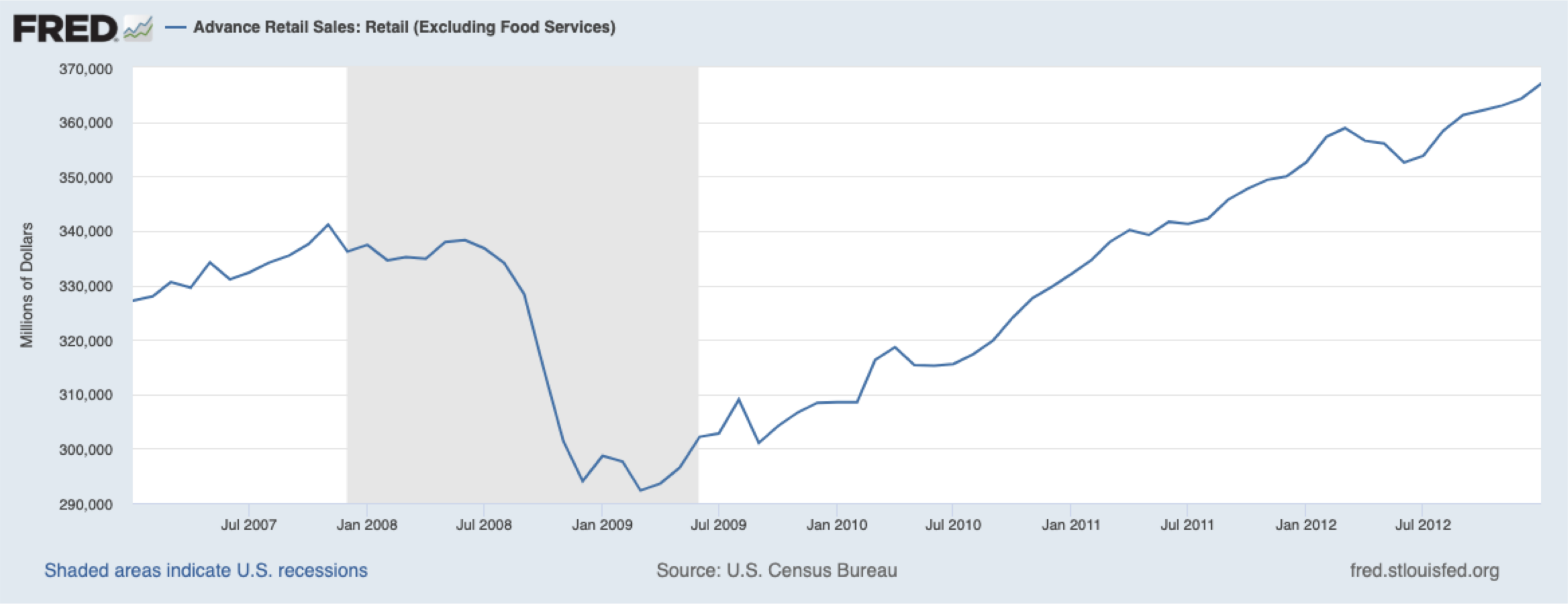
Housing Starts (Contd.)

- From 2007 to 2009, there is a steep decline in the number of home owners in the country. This is followed by a period of modest increase from 2009 to 2011. 2011 to 2012 saw a sharp increase in number of home owners.
- A fall in housing numbers through 2007-2009 indicates that the country was in a period of recession during the years. Modest increase of 2009-2011 followed by sharp increase of 2011-2012 shows that the economy started to turn.
    - **Share Market-**
        - Poor housing reports from 2007 to 2009 indicates poor health for stock markets.
        - Modest housing reports of 2009-2011 and Vibrant housing reports of 2011-2012 indicates good health for stock markets.
        - Hence, on basis of housing report, we expect the S&P to fall from 2007-2009 and increase from 2009 onwards. This assumption is correct.
    - **Bond Market-**
    - A vibrant housing report is considered bad for Bond Markets.
        - Hence we should assume on basis of housing data that 2007-2009, the bond markets should perform well and 2009 onwards they should fall.
        - This is not completely true from what we see.

Retail Sales (excluding food)

References- https://fred.stlouisfed.org/series/RSXFS#0

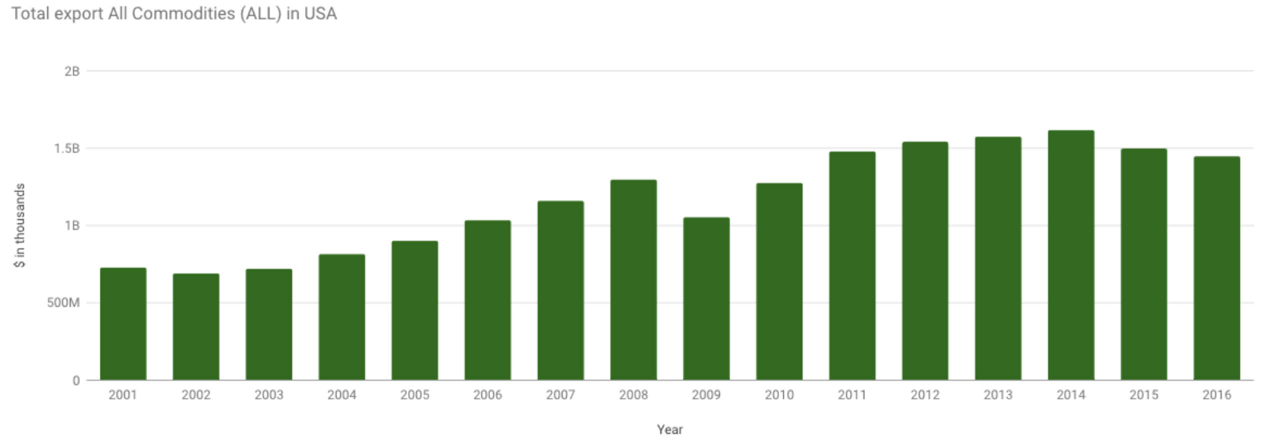
Year	Dollars (Millions)
2007	333113.00
2008	327303.00
2009	301082.33
2010	318063.33
2011	341835.58
2012	358063.50

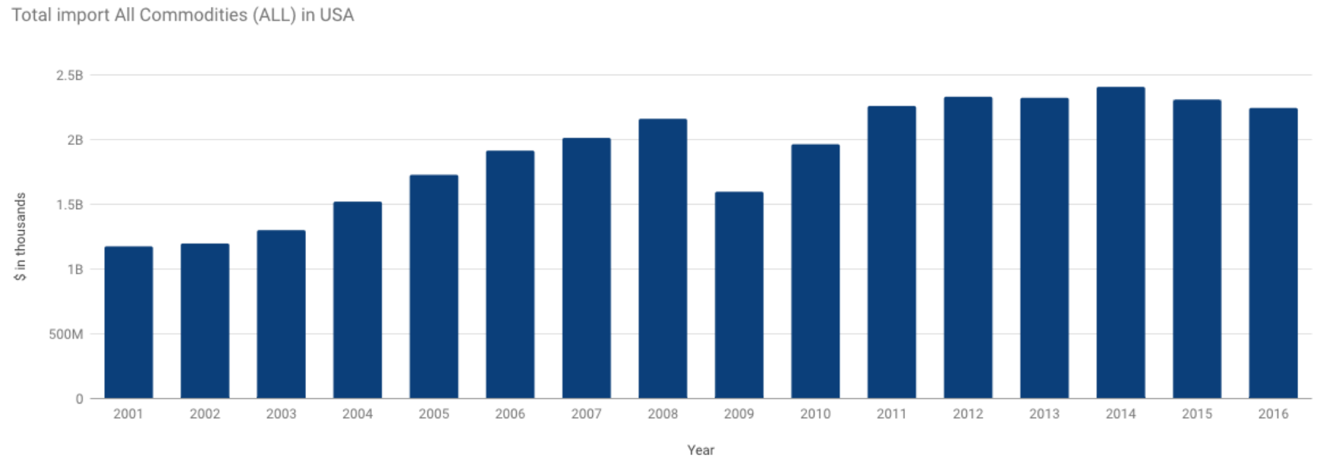


Export-Import Data

Reference- https://www.eximpulse.com/global-details.php?Country=USA

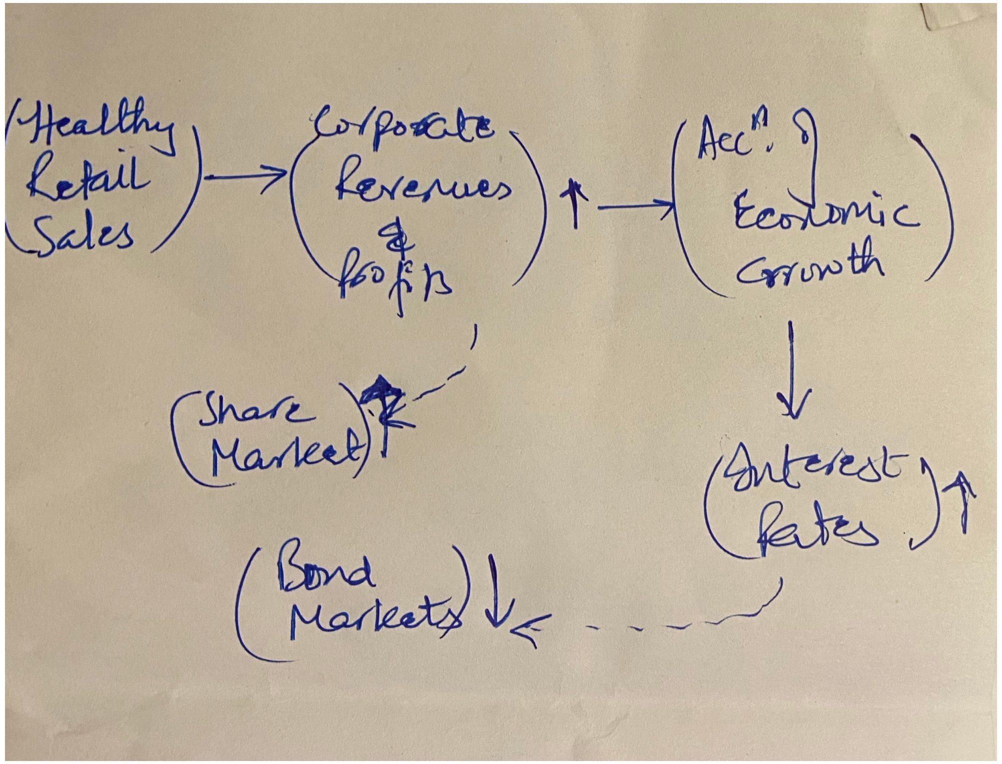
Year	Exports (Dollars in Billions)	Imports (Dollars in Billions)
2007	1160	2020
2008	1300	2160
2009	1060	1600
2010	1280	1970
2011	1060	2260
2012	1540	2330





Retail Sales (Contd.)

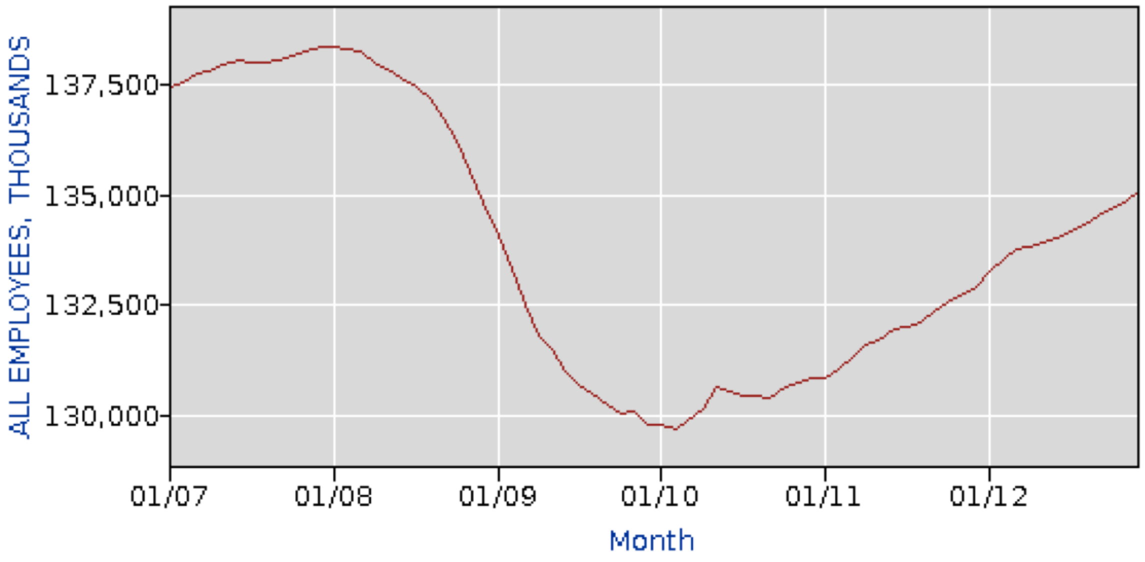
- 2007-2009, the retail sales have been on a sharp decline, following which, 2009-2012, they increase.
- Every year, USA has a negative trade surplus i.e. imports exceed exports.
- Effect on Stock markets-
    - 2007-2009, the retail figures are poor, which indicates poor health for the stock market.
    - 2009-2012, the healthy retail sales indicate good health for the stock market.
    - This can be verified by the actual data of S&P 500.
- Effect on Bond Markets-
    - Poor retail figures of 2007-2009 indicate good health for bond markets and the healthy retail figures of 2009-2012 indicate poor health for bond markets.
- It should be noted that since imports>exports, the healthy retail sales of 2009-2012 indicates a weakening value of US Dollar (since Forex traders would short it).



Jobs Report – Establishment Data

The following is the data for employees on non-farm payroll:

Year	Annual Average (Thousands)
2007	137977.5
2008	137224.58
2009	131288.83
2010	130336.75
2011	131921.67
2012	134156.58

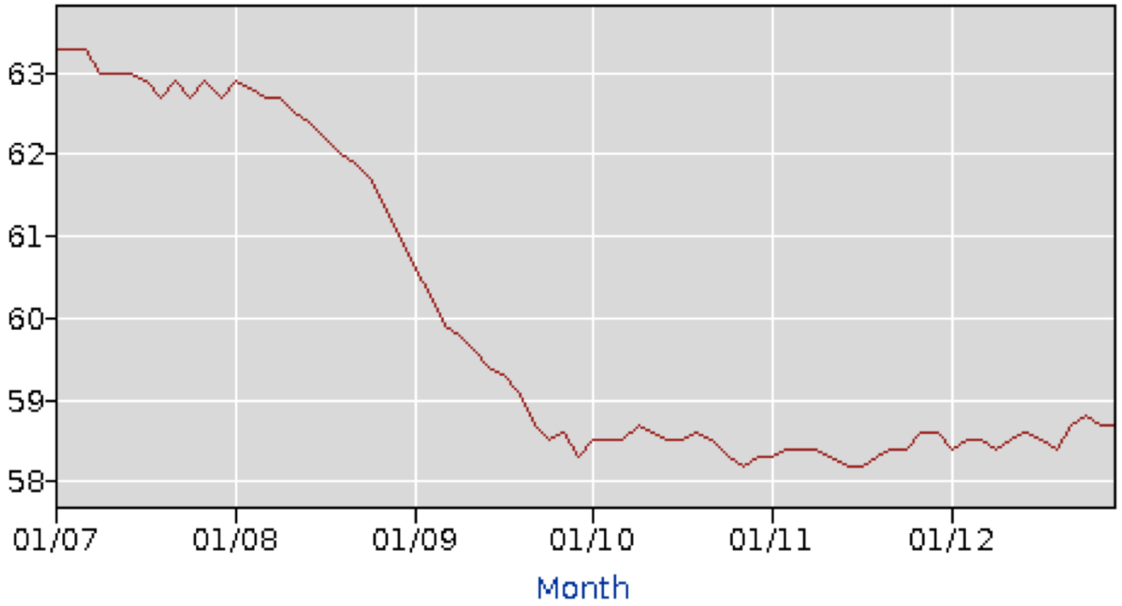


References- https://data.bls.gov/pdq/SurveyOutputServlet

Jobs Report – Household Data

The following are the employment-to-population ratio statistics:

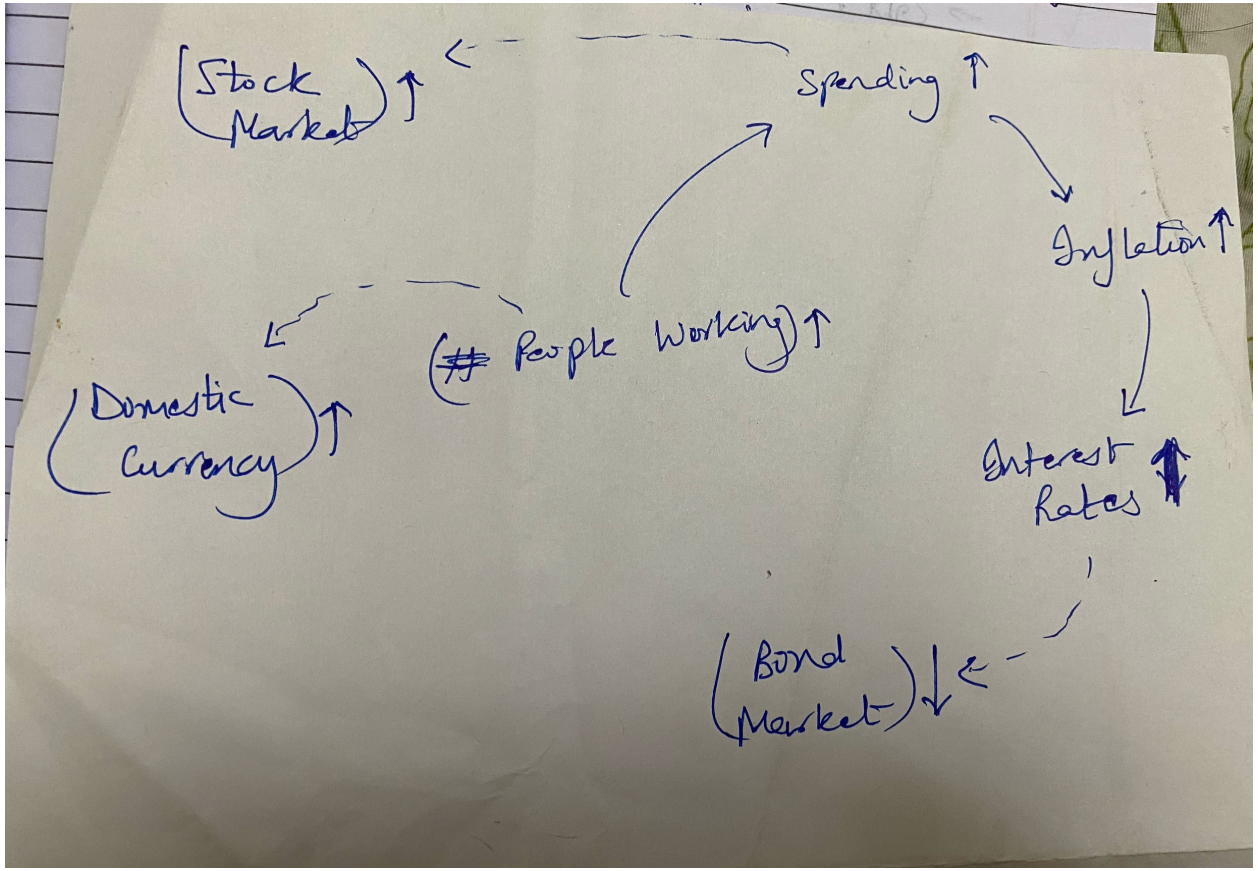
Year	Annual Average (Percentage)
2007	62.98
2008	62.18
2009	59.34
2010	58.48
2011	58.38
2012	58.56



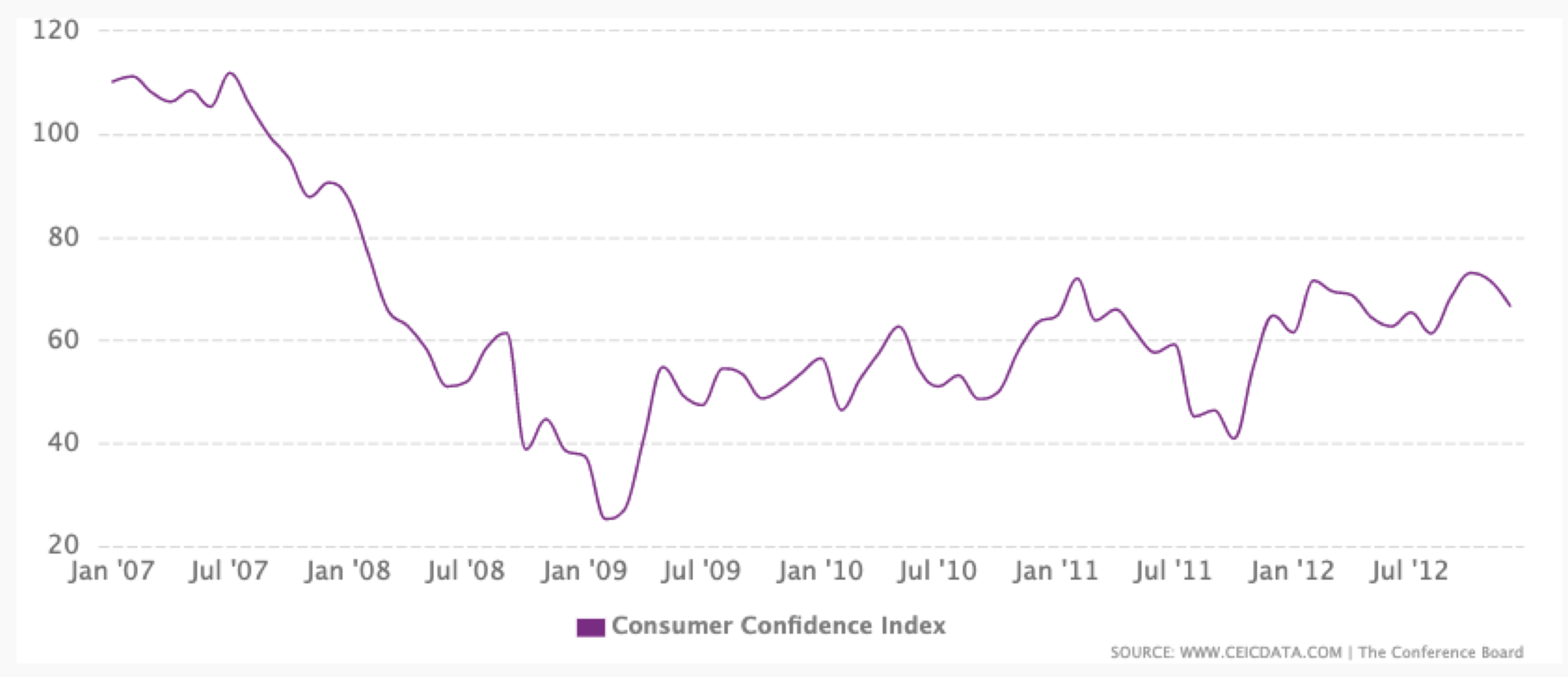
References- https://data.bls.gov/pdq/SurveyOutputServlet

Jobs Report (Contd.)

- Establishment Data: 2007-2010, the number of people employed in non-farm payroll decreased, and from 2010-2012, the same figure increased.
- Household Data: 2007-2011, the number of employed people as a percentage of the total employable population decreased every year. There was a marginal increase in 2011-2012.
- Effect on Stock and Bond Markets- clearly from the charts of S&P 500 and US 10Y Yield Bonds, the Jobs report doesn't print the best idea of market movements.



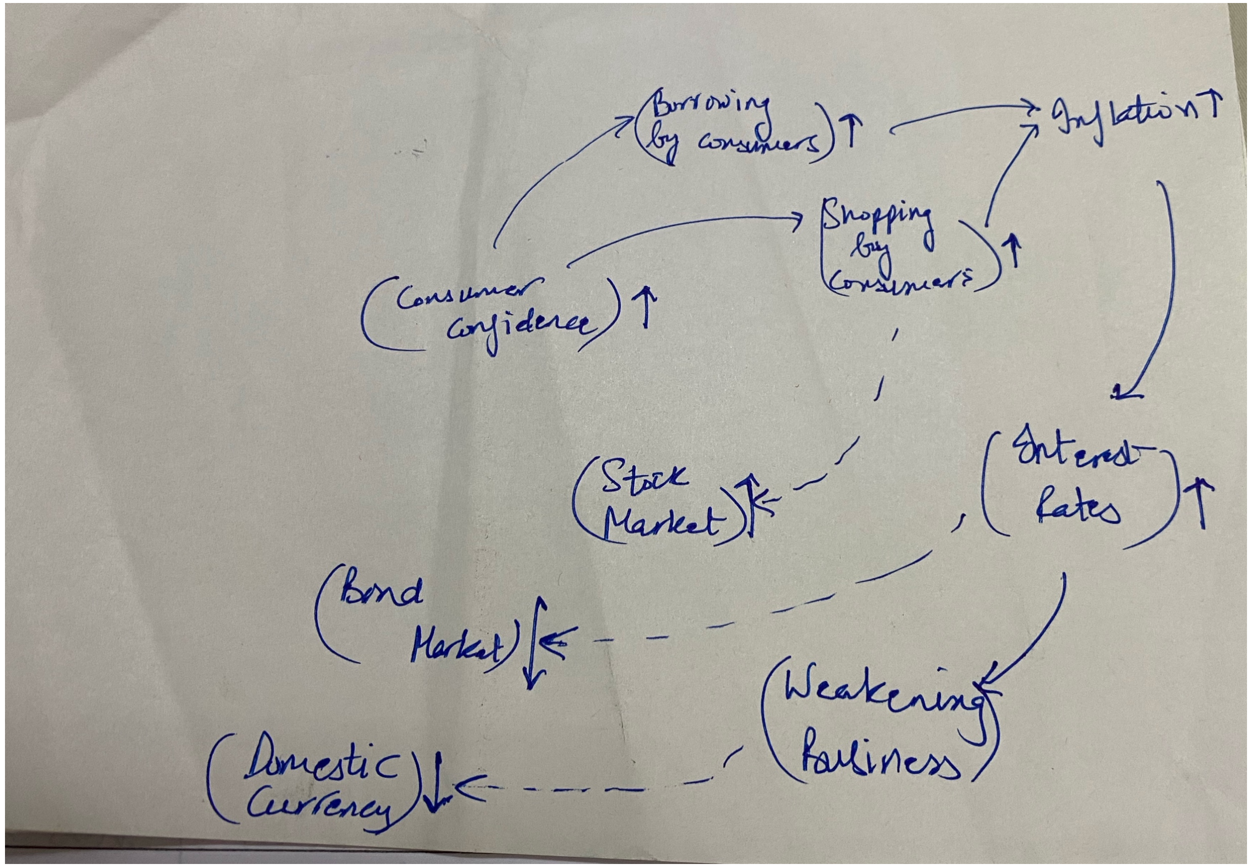
Consumer Confidence Index



References- https://www.ceicdata.com/en/united-states/consumer-confidence-index/consumer-confidence-index

Consumer Confidence Index (Contd.)

- Consumer confidence decreased from 2007-2009 and saw no apparent trend (sideways movement) every month since.
- Effect on Stock Market-
  - Decrease from 2007-2009 indicates poor health of stock markets.
  - We can verify from S&P 500 that this is indeed true.
- Effect on Bond Markets-
  - Decrease from 2007-2009 indicates good health of bond markets.
  - We can see that this doesn't paint the best picture from 10Y Yield data.



Yield Curve

- 2007-2009 – upward sloping yield curve
- 2009 -2010 – flat yield curve – signals a possible recession
- 2010-2012 –inverted yield curve –signals a possible recession or that the economy is already in recession.

Yield Curve (Contd.)

An inverted yield curve occurs when long-term yields fall below short-term yields.
Under unusual circumstances, investors will settle for lower yields associated with low-risk long term debt if they think the economy will enter a recession in the near future. For example, the S&P 500 experienced a dramatic fall in mid 2007, from which it recovered completely by early 2013. Investors who had purchased 10-year Treasuries in 2006 would have received a safe and steady yield until 2015, possibly achieving better returns than those investing in equities during that volatile period.
(Source – Wikipedia)

Gold Prices

- Gold is regarded as a safe haven for investing when the economy is in recession.
- Hence, the gold spot surged from 2007-2012