Economic Twistory

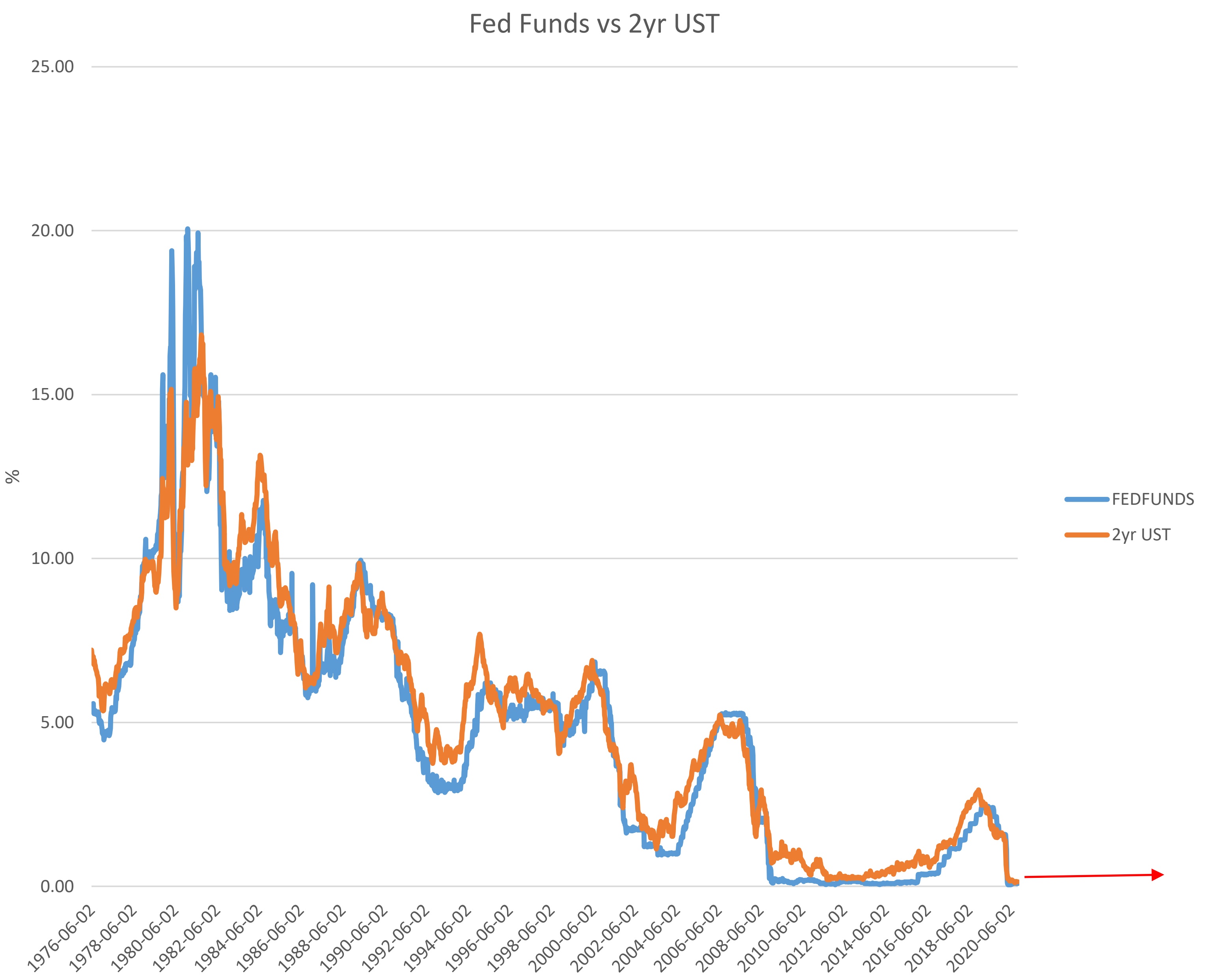
What economic history teaches us today…

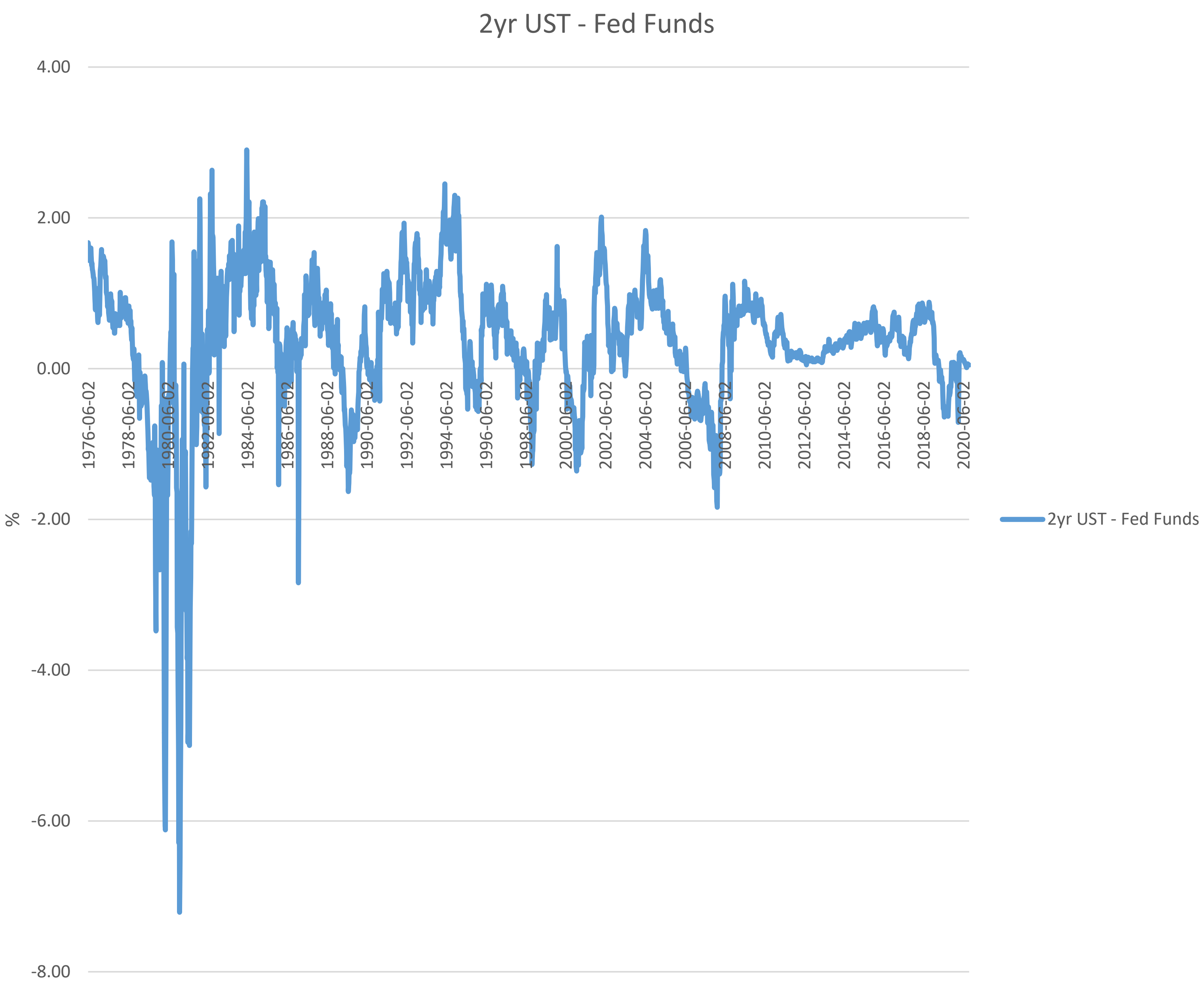
Yield curve steepeners often result from recessions where front end rates get cut

- After the steepening happened, rates often moved sideways for an extended period of time
- With Fed funds hitting 0% once again, market does not price in steepening of the curve as much as during 2009 and hence 2012 should be used as a comparison of how steep the curve can run

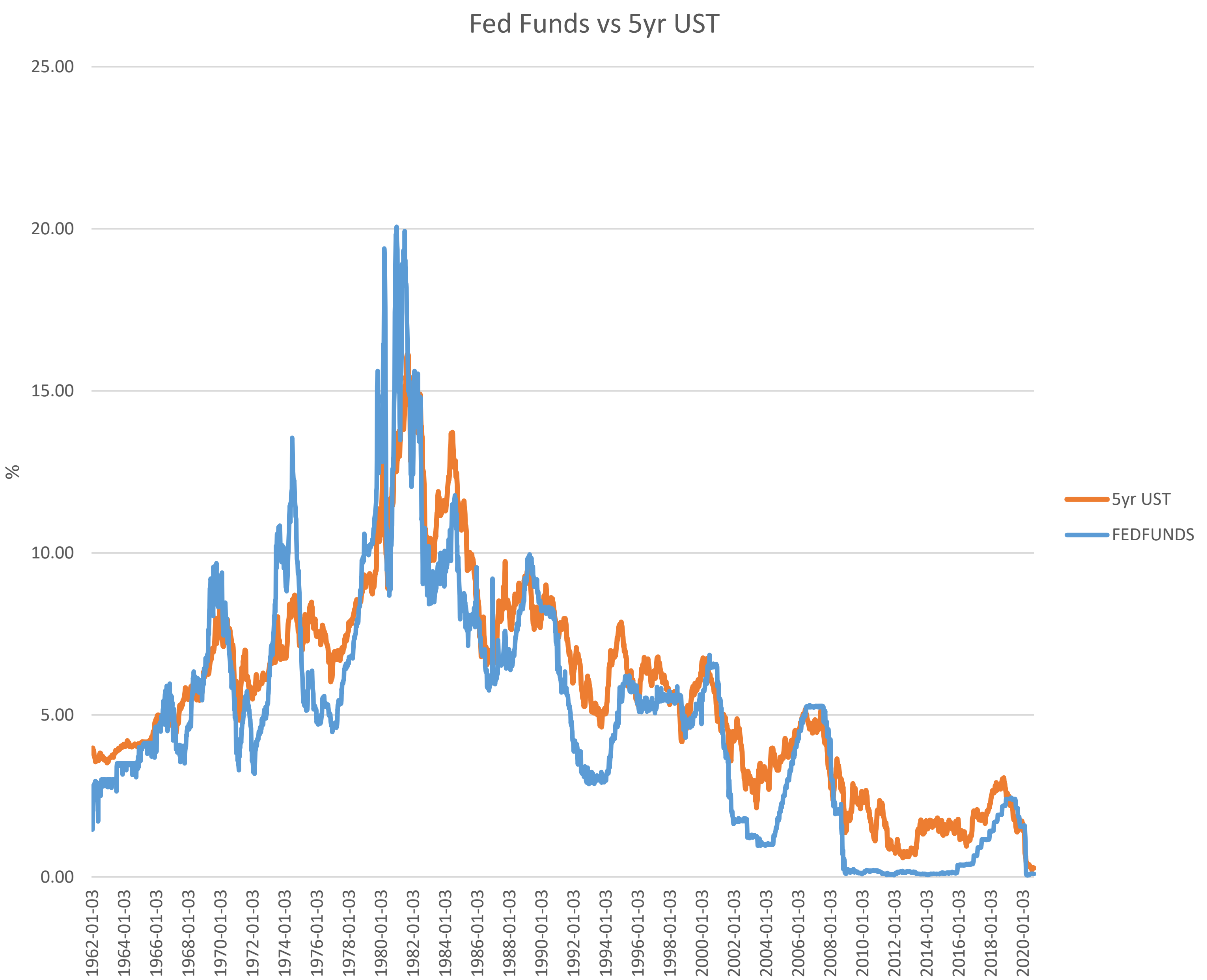
2yr UST anticipates FED easing in most instances throughout history

Again hit the lower bound



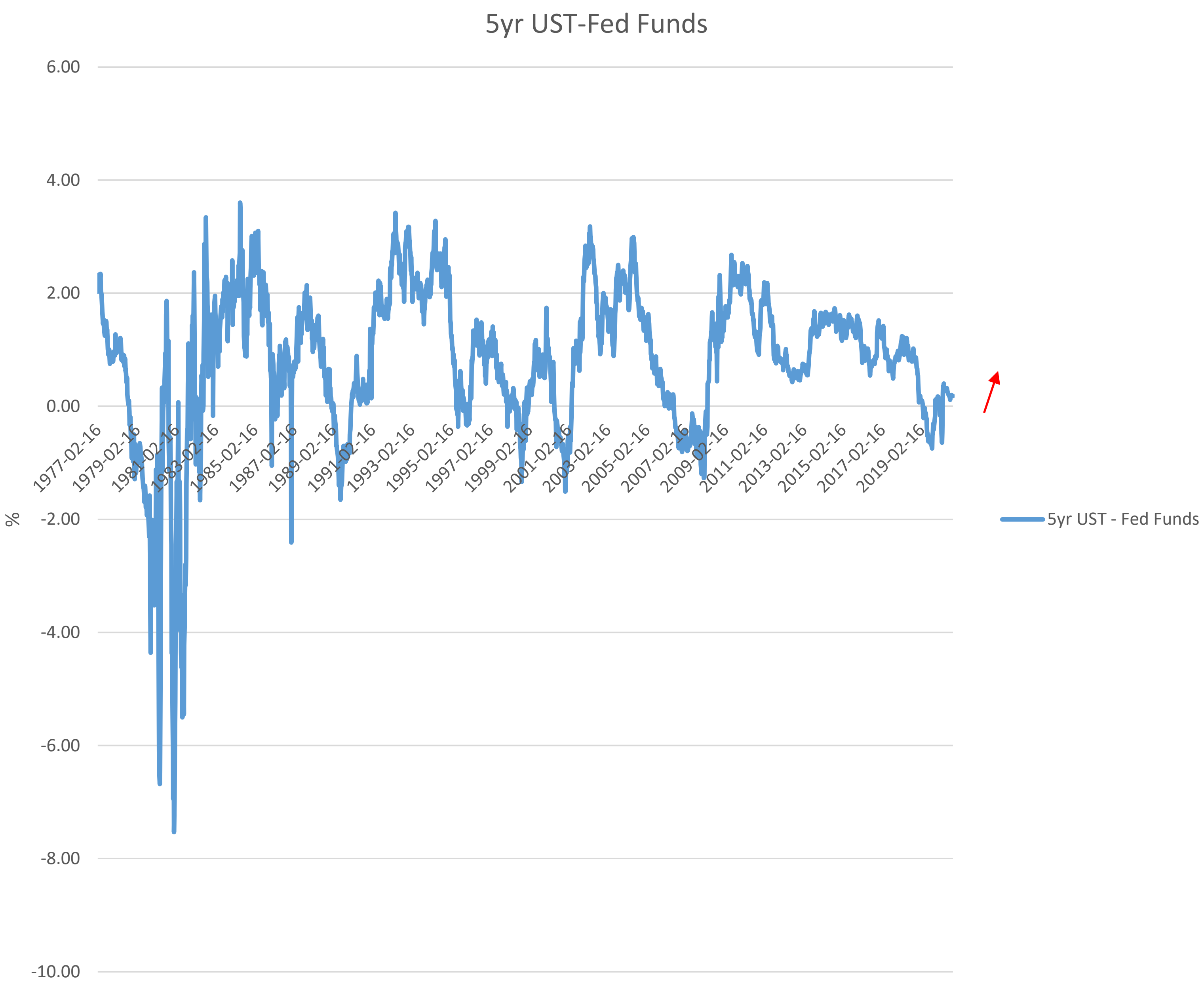


2yr UST – Fed Funds now back positive and expected to stay here for some time



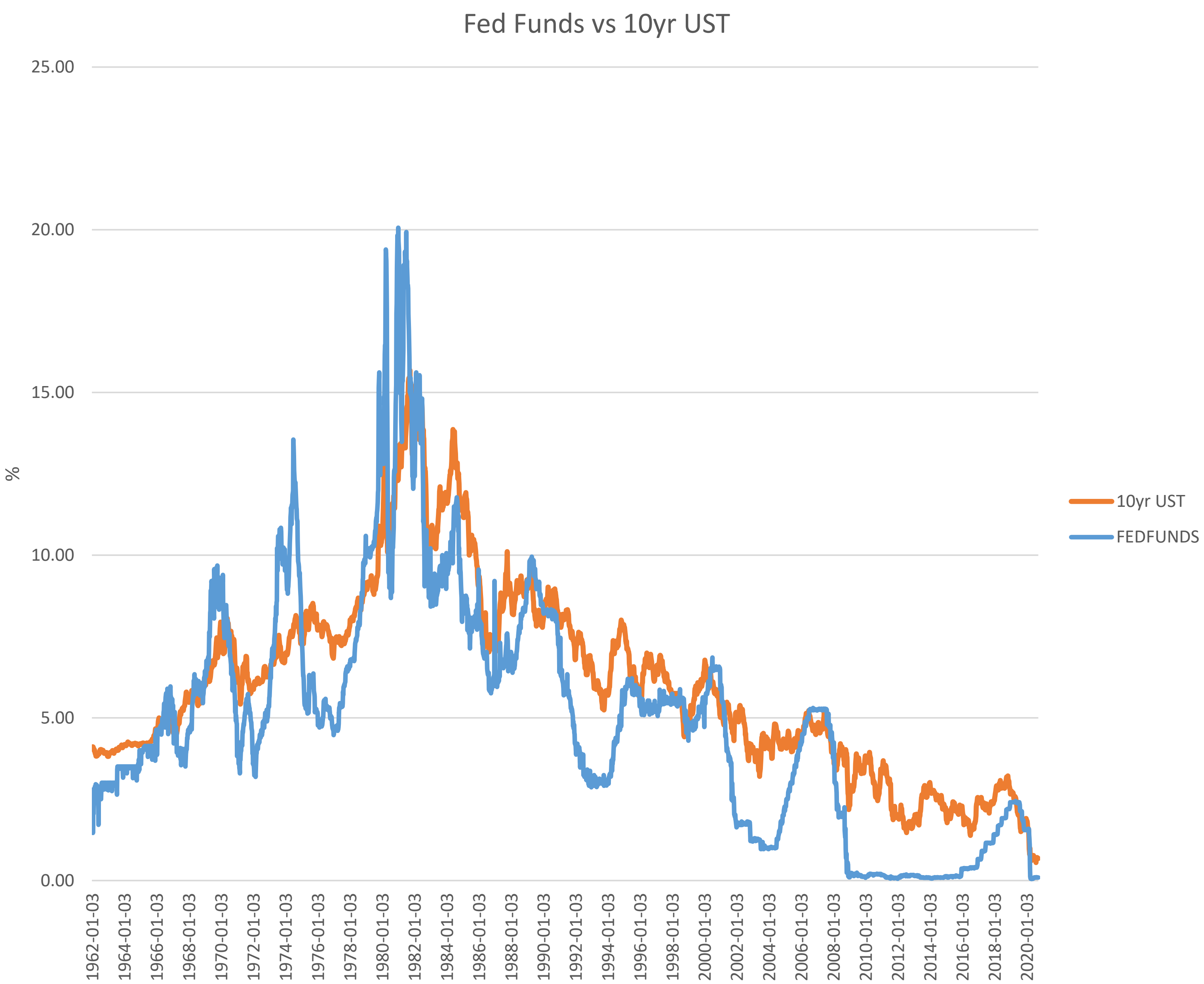
2012 the 5yr hit a low, which was exactly 1/7 of the 2007 fed fund highs

Current 5yr yield at 0.27% are almost 1/9 of the 2018 Fed fund highs



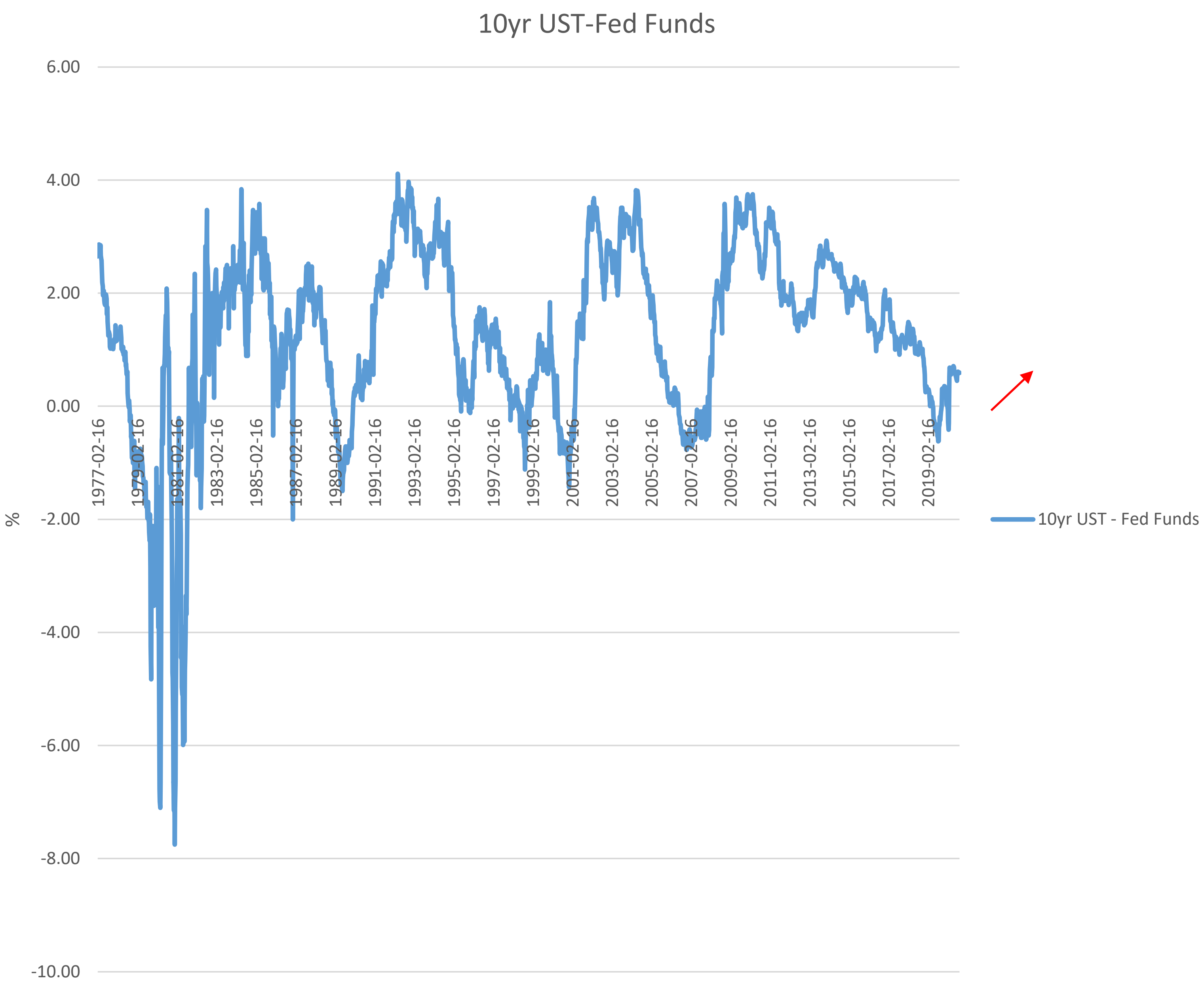
5yr yields been struggling to rise, but historically should be moving higher from here

To move from 1/9 to 1/7 of 2018 Fed funds highs, the 5yr only needs to move from 0.27% to 0.34%



2012 the 10yr hit a low, which was slightly lower than 1/3 of the 2007 fed fund highs

Current 10yr yield at 0.68% is similarly slightly lower than 1/3 of the 2018 Fed fund highs



10yr UST-Fed Funds
6.00
4.00
2.00
0.00
-2.00
-4.00
-6.00
-8.00
-10.00
%
1977-02-16
1979-02-16
1981-02-16
1983-02-16
1985-02-16
1987-02-16
1989-02-16
1991-02-16
1993-02-16
1995-02-16
1997-02-16
1999-02-16
2001-02-16
2003-02-16
2005-02-16
2007-02-16
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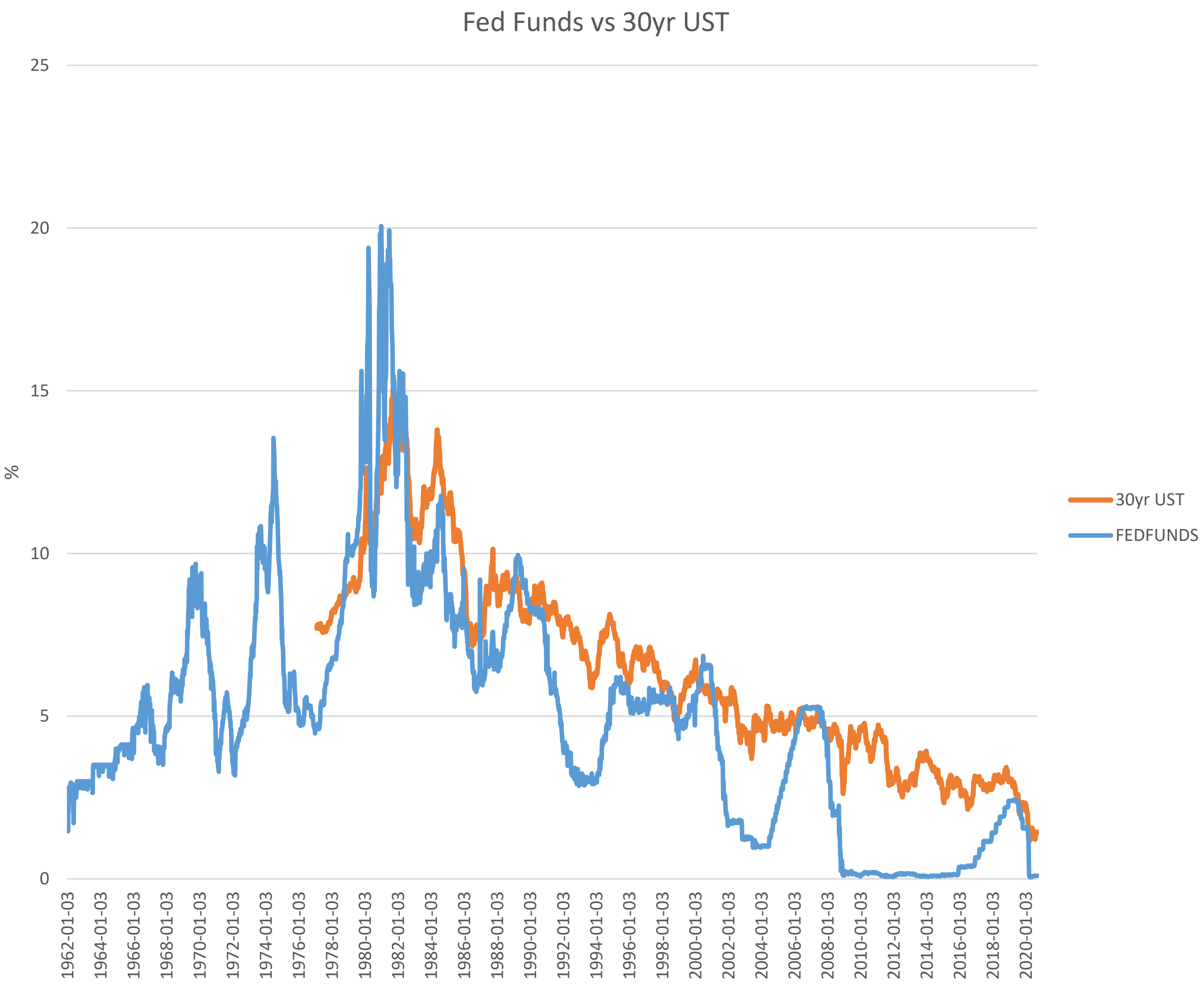
2011-02-16
2013-02-16
2015-02-16
2017-02-16
2019-02-16
10yr UST - Fed Funds

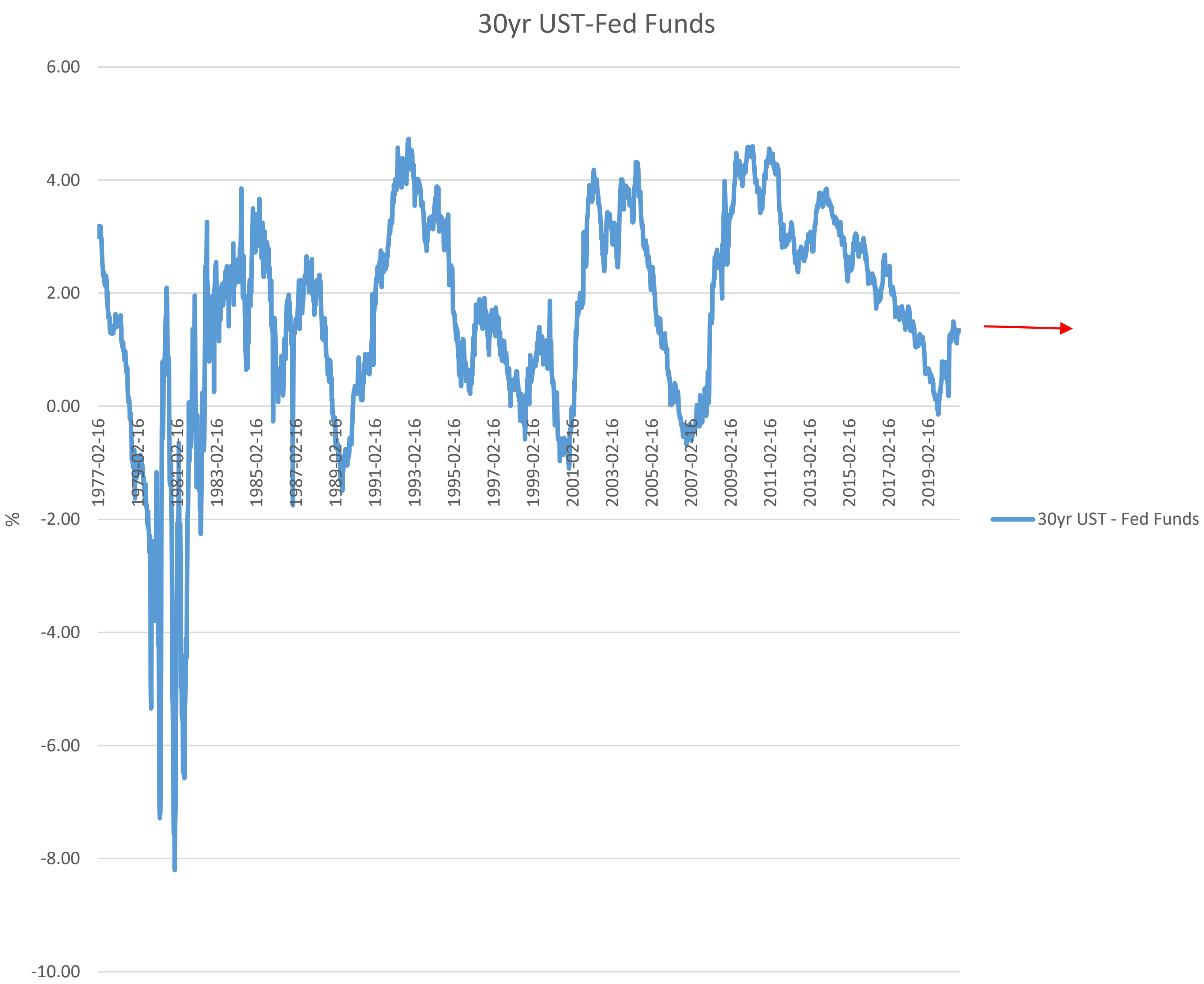


30yr UST all time low was 1.19% in end April 2020

Current 30yr rate is 1.42%

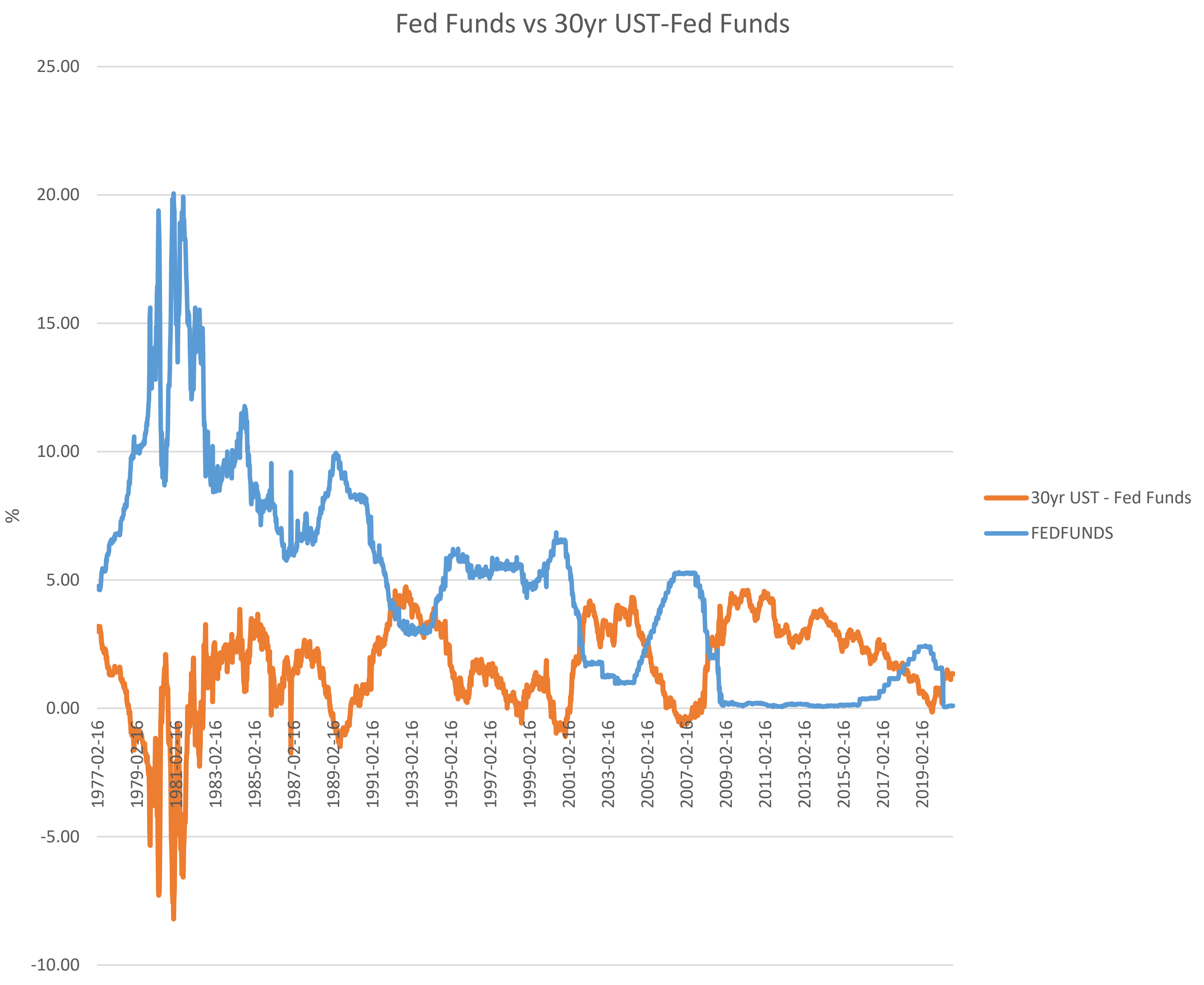
30yr rate has made a major move this year, but it does not look like rates will move much higher from here and rather stay in the 1.19-1.50% window

First 5-10yr need to start rising

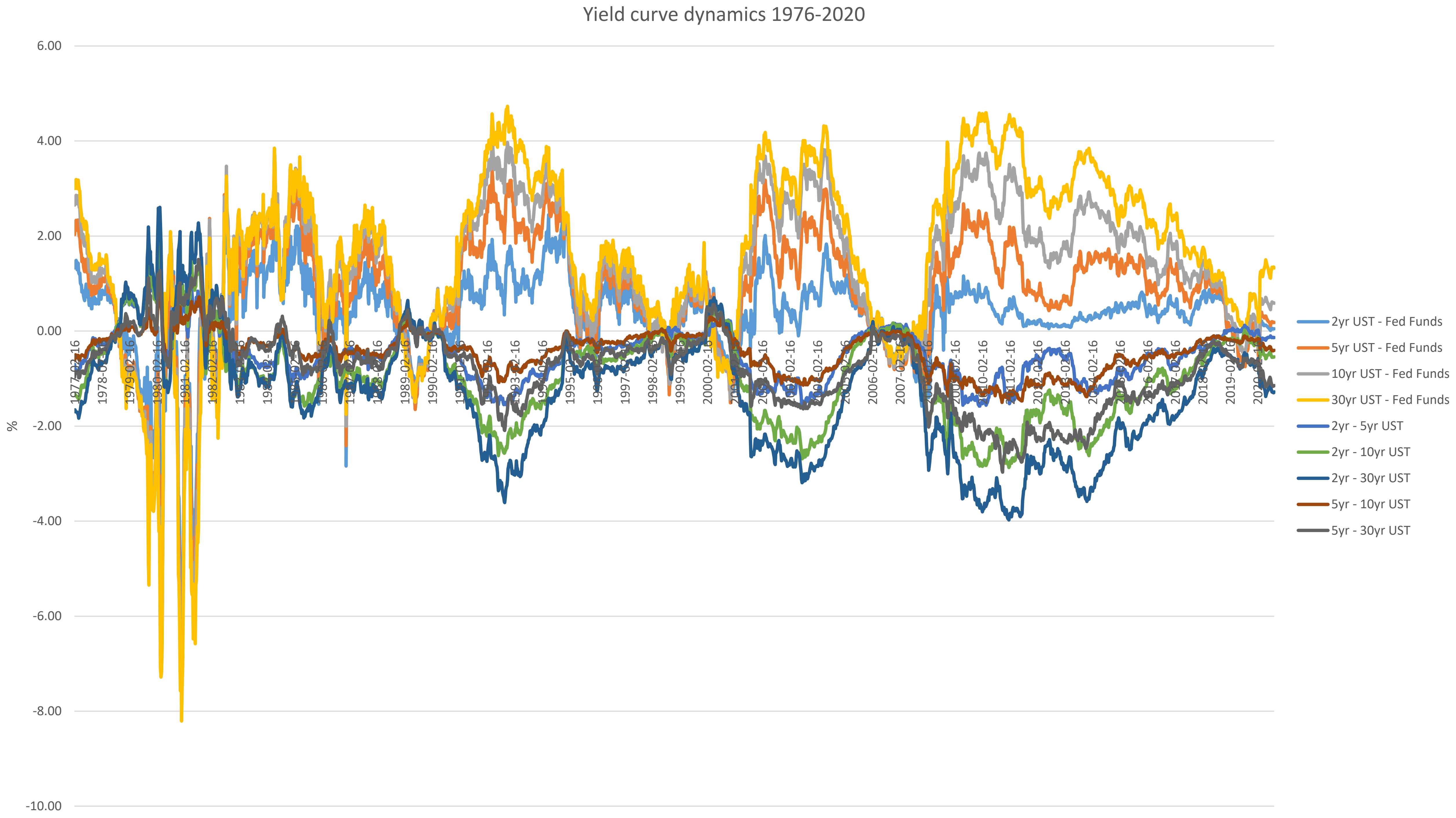


30yr UST still yielding more than Fed Funds, but only 40bps short of their all time low

30yr yields don't necessarily need to drop below Fed Funds, as Fed Funds is much lower than in the past



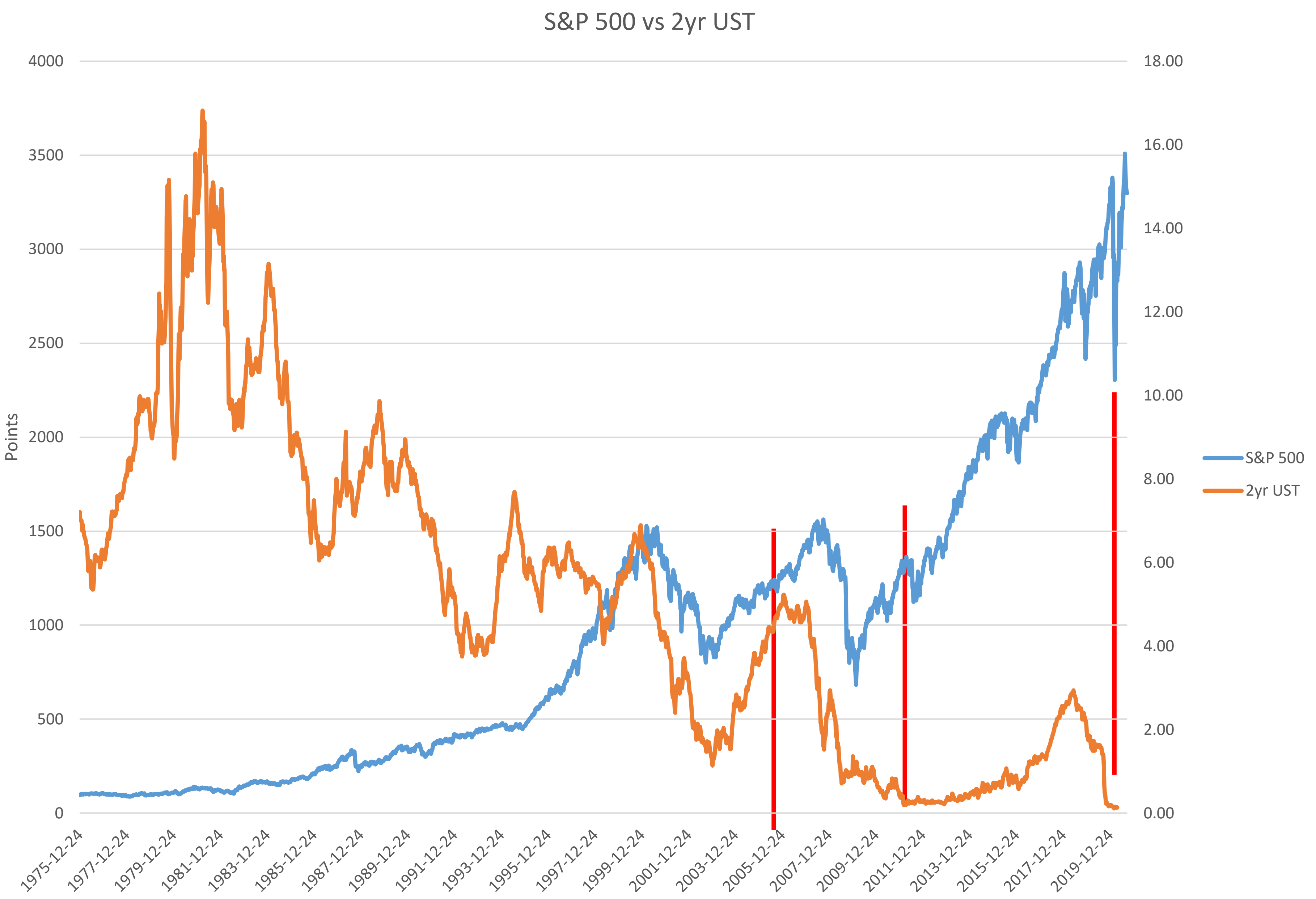
Given 30yr hit half of 2007 Fed fund highs during most of 2010s, it is fair to say 30yr will stay around half of 2018 highs (1.2-1.4%)



Yield curve dynamics 1976-2020
%
6.00
4.00
2.00
0.00
-2.00
-4.00
-6.00
-8.00
-10.00
2yr UST - Fed Funds
5yr UST - Fed Funds
10yr UST - Fed Funds
30yr UST - Fed Funds
2yr - 5yr UST
2yr - 10yr UST
2yr - 30yr UST
5yr - 10yr UST
5yr - 30yr UST

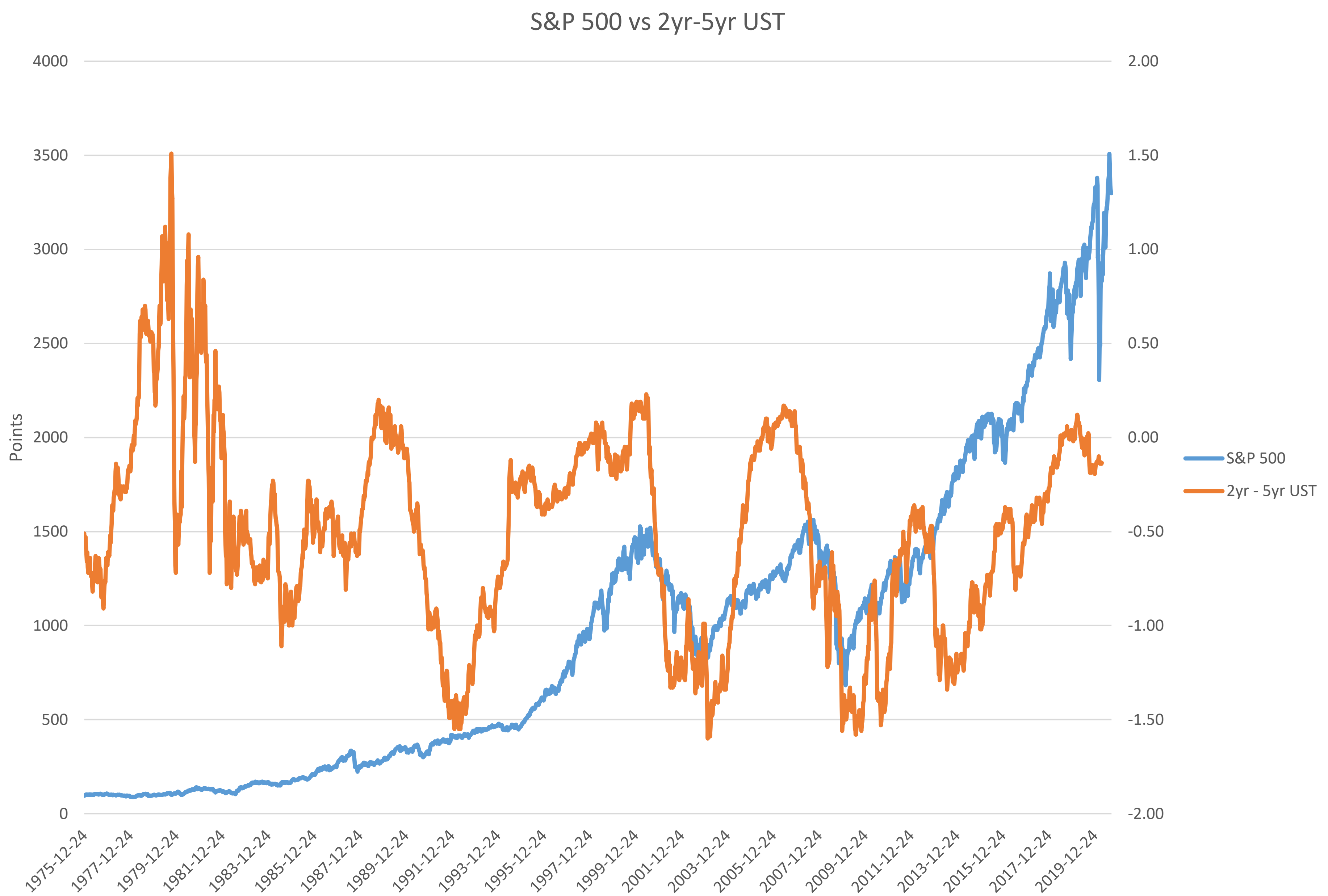
A steeper yield curve has often led to higher equity prices in the past

- Equity, precious metals move higher, while US dollar sells off
- Taxes and globalisation have also played a major role
- Now we might face higher taxation and de-globalisation? Higher Inflation balances corporate profits?



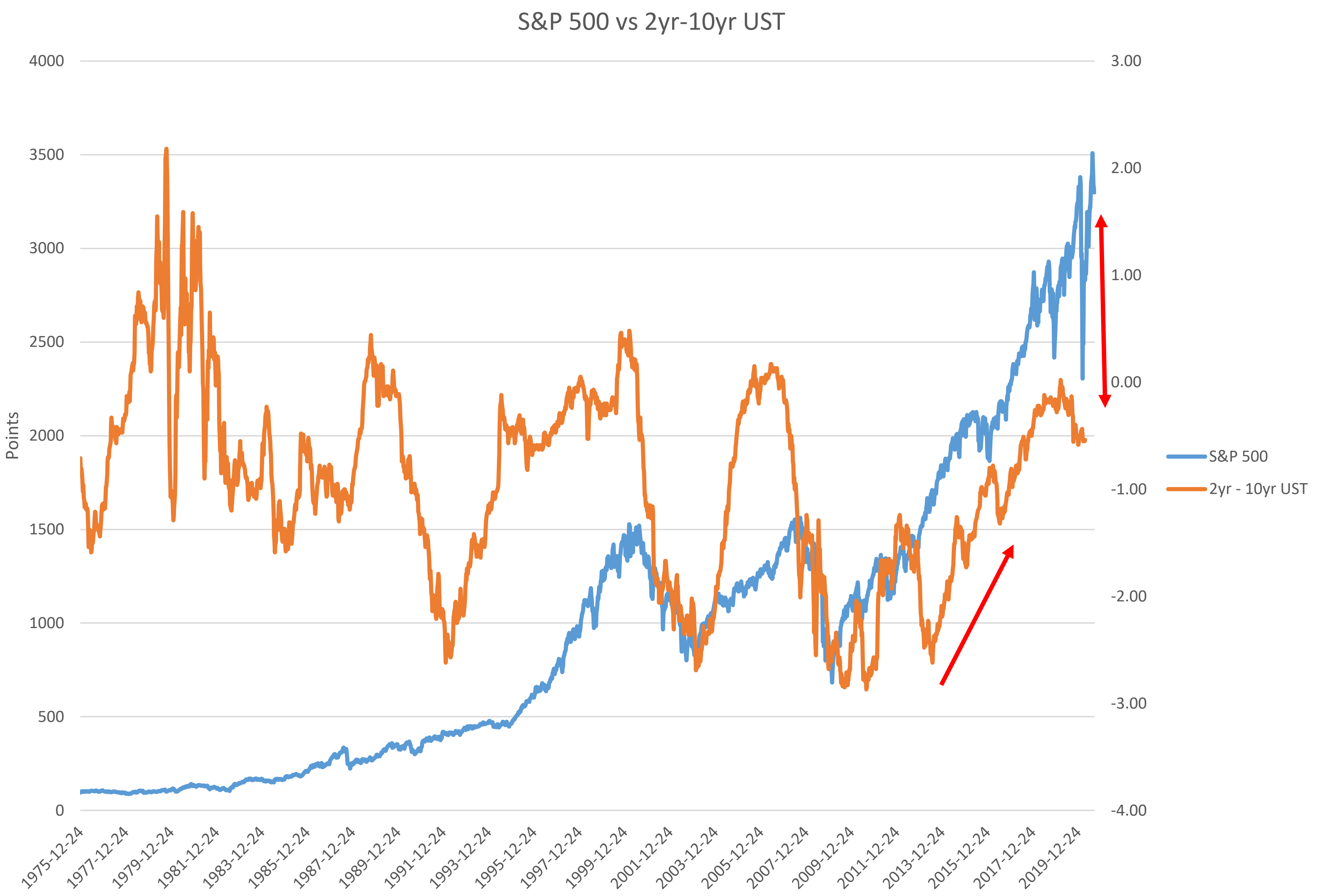
Fast falling 2yr interest rates most of the time led to fast falling equity prices, & which in the end led to fast rising equity prices

In 2020, this all happened in super speed

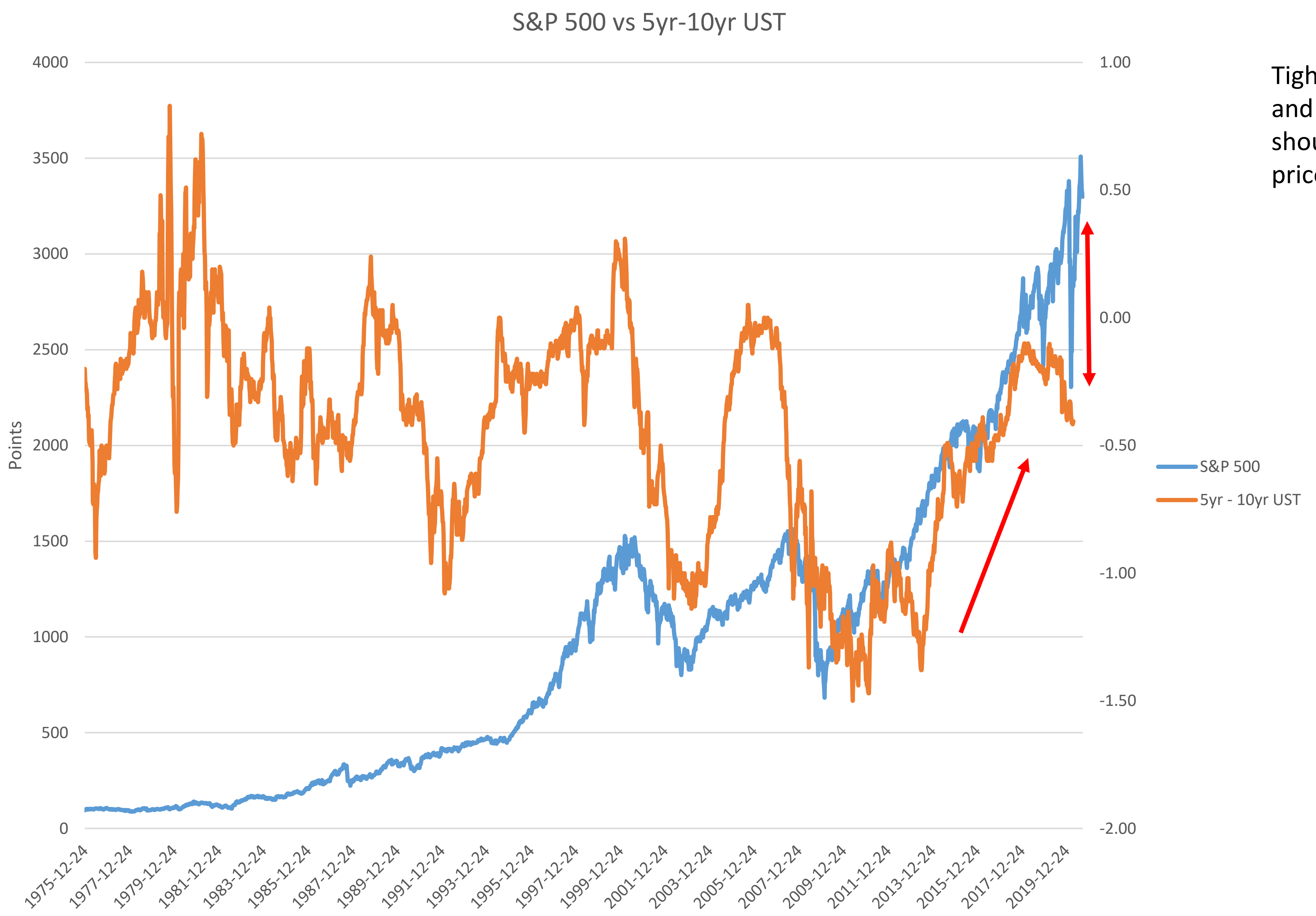


A 2s5s steepening usually came along with rising equity prices in the past

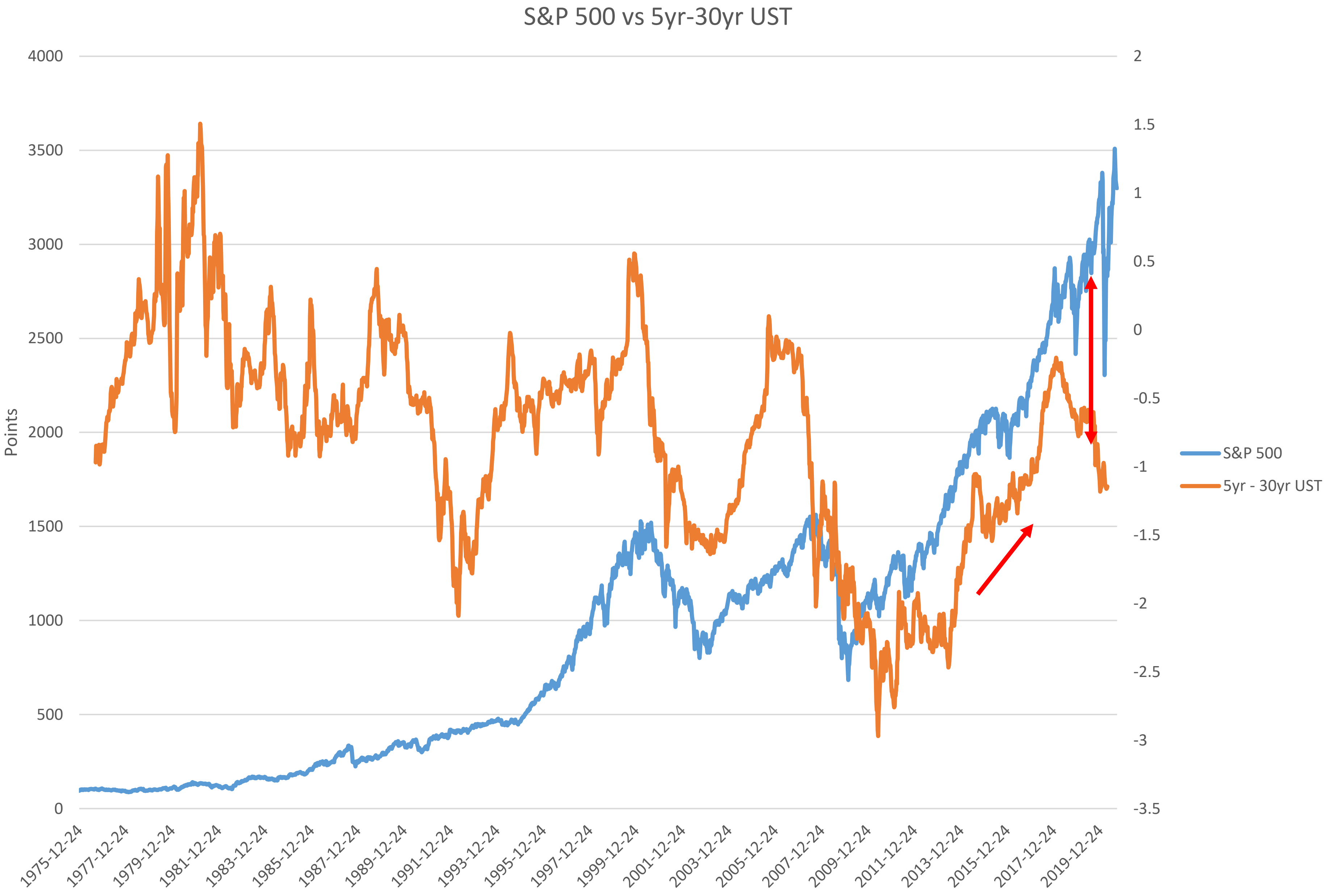
2020 has seen 2s5s relatively flat, yet equity prices have risen anyway



2s10s hasn't really steepened that much, which makes it hard for equities to move much higher here



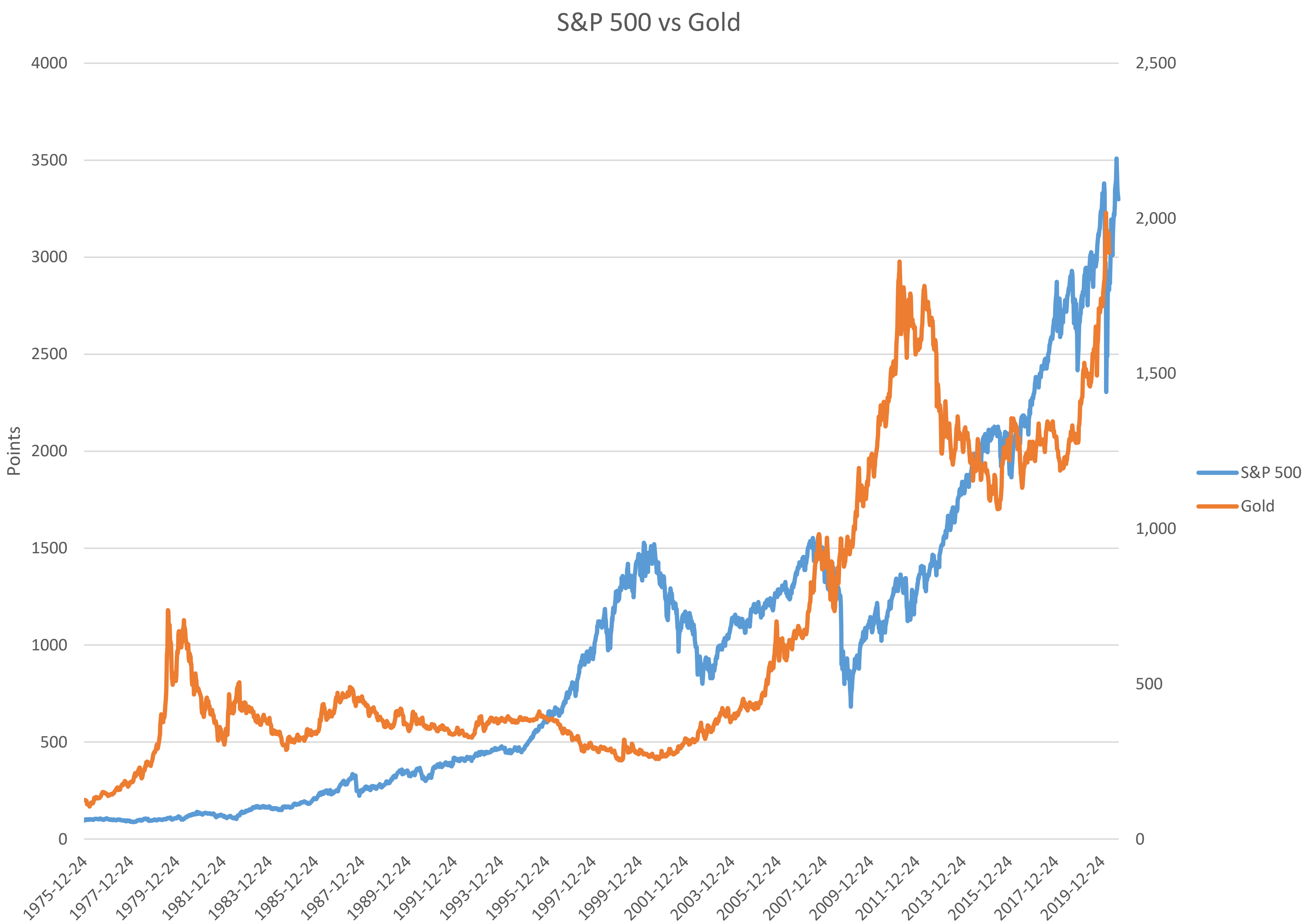
Tight range between S&P 500 and 5s10s is broken, which should point to lower equity prices



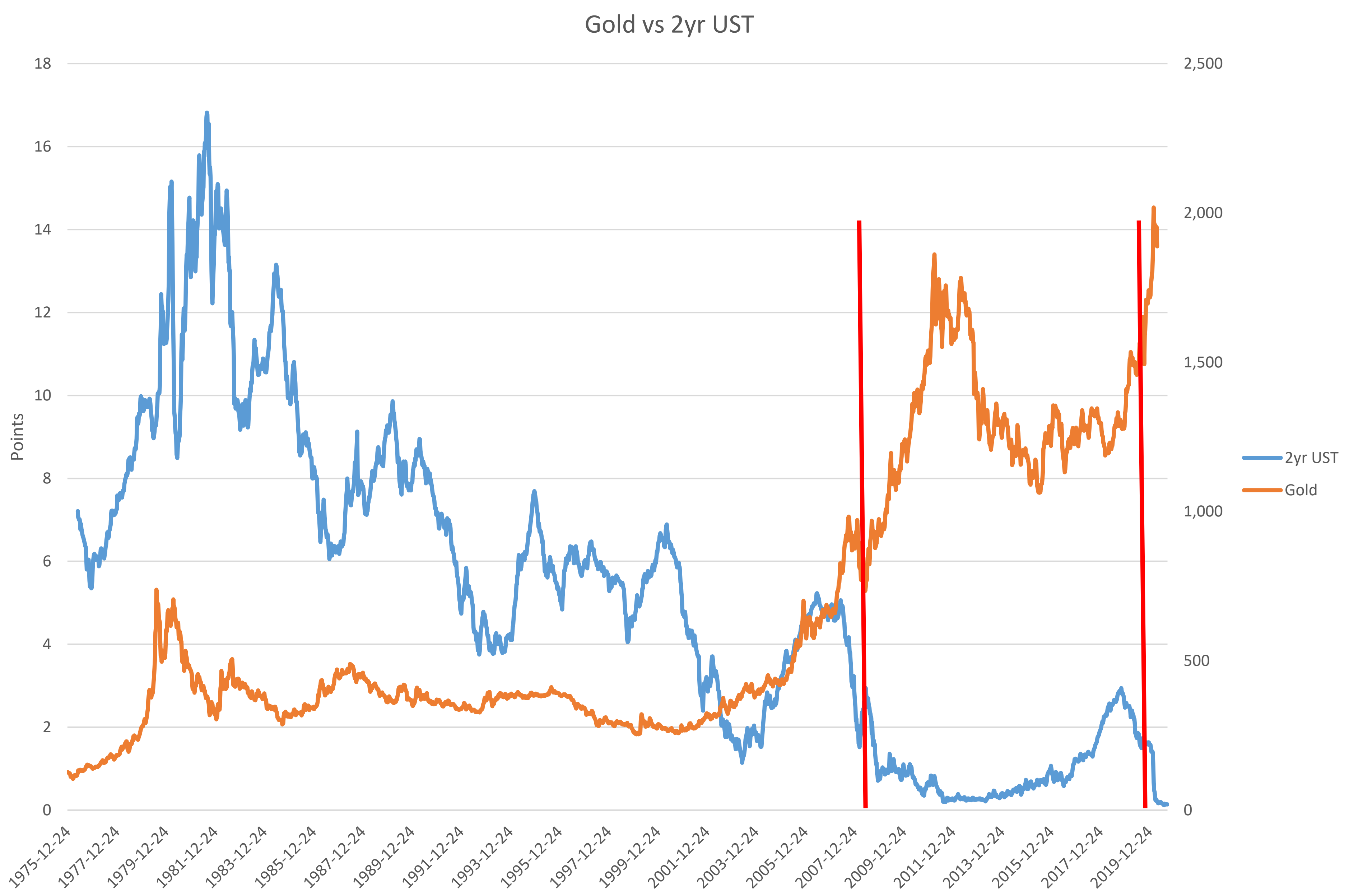
5s30s only good indicator for a downturn/rebound in equities, not thereafter

How do commodities like Gold, Oil react?

- There are generally positive correlations between 2yr interest rates and oil and negative correlations between 2yr interest rates and gold
- A weaker USD often leads to higher gold and oil prices



In a monetary driven world where we are right now, Gold and Equities often have positive correlations



Gold vs 2yr UST
Points
18
16
14
12
10
8
6
4
2
0
2,500
2,000
1,500
1,000
500
0
1975-12-24
1977-12-24
1979-12-24
1981-12-24
1983-12-24
1985-12-24
1987-12-24
1989-12-24
1991-12-24
1993-12-24
1995-12-24
1997-12-24
1999-12-24
2001-12-24
2003-12-24
2005-12-24
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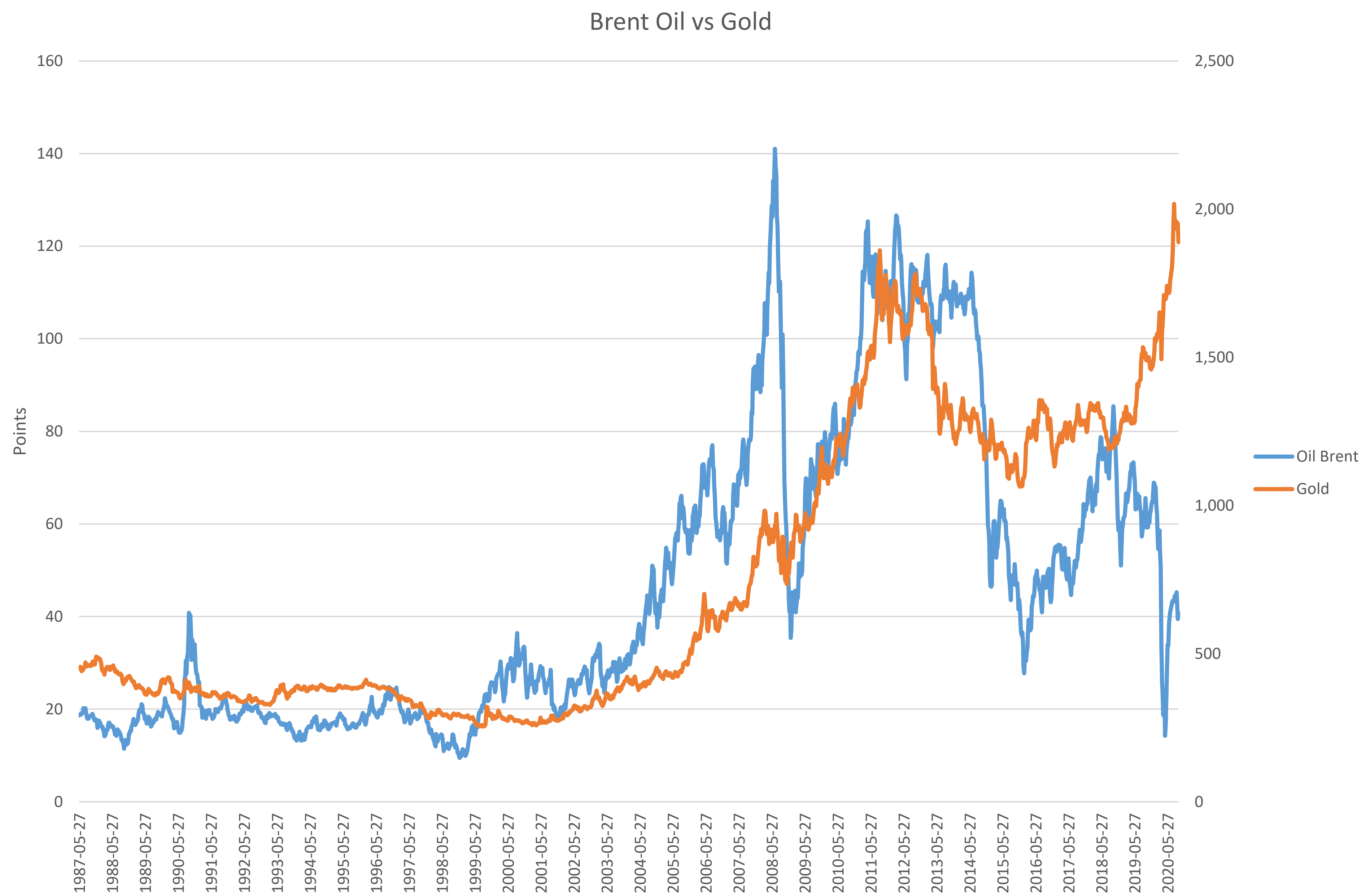
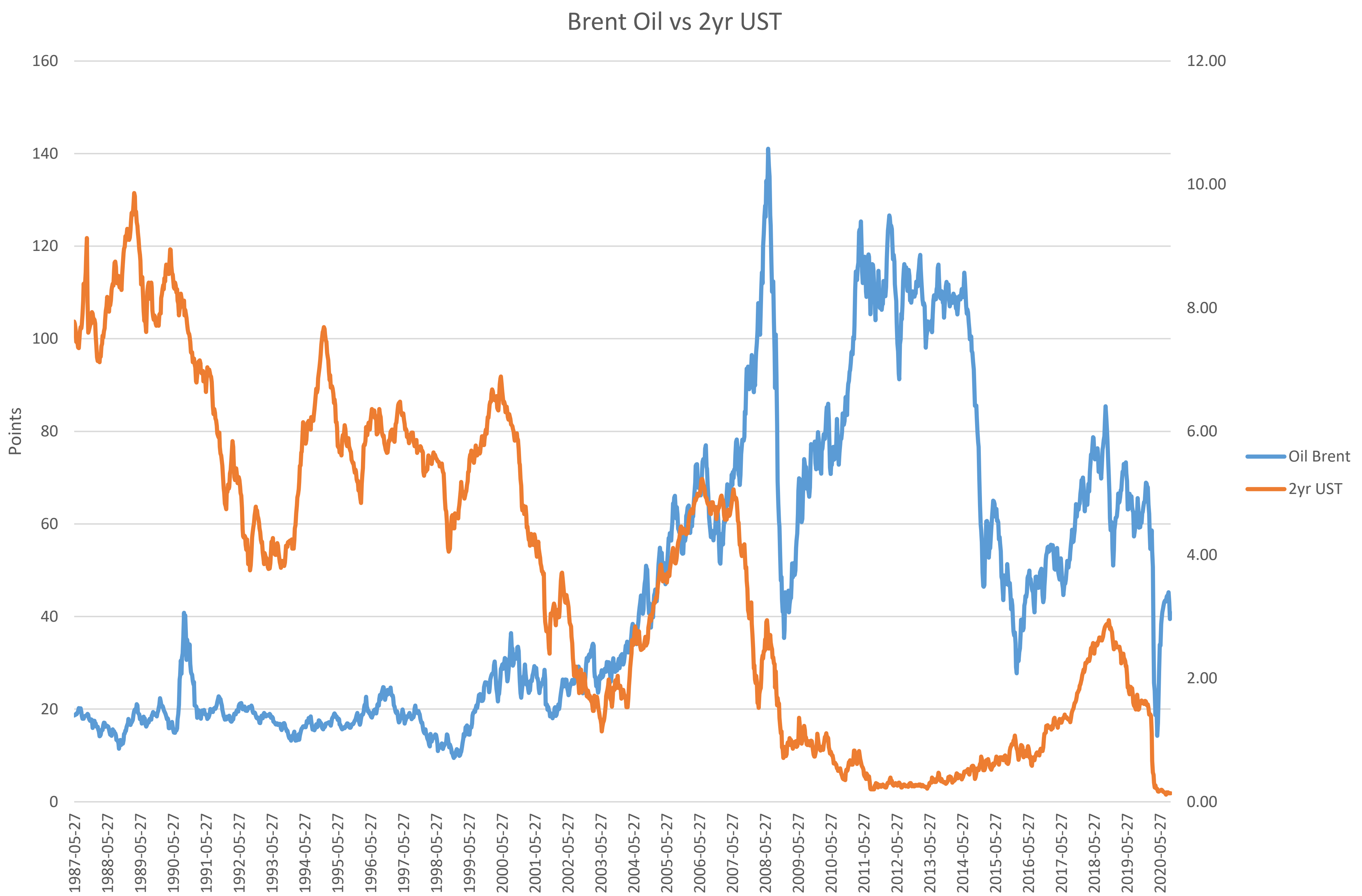
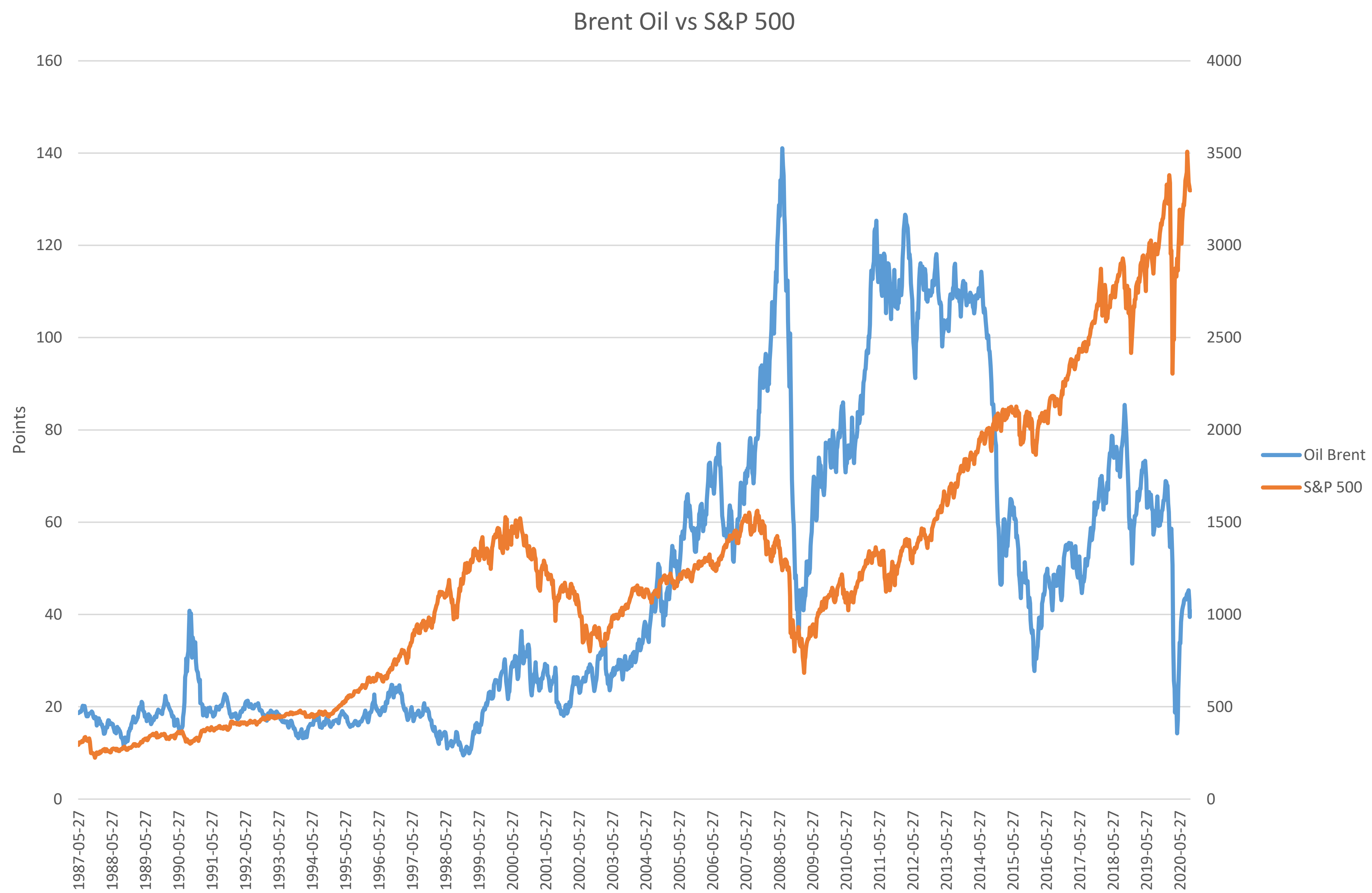
2017-12-24
2019-12-24
2yr UST
Gold



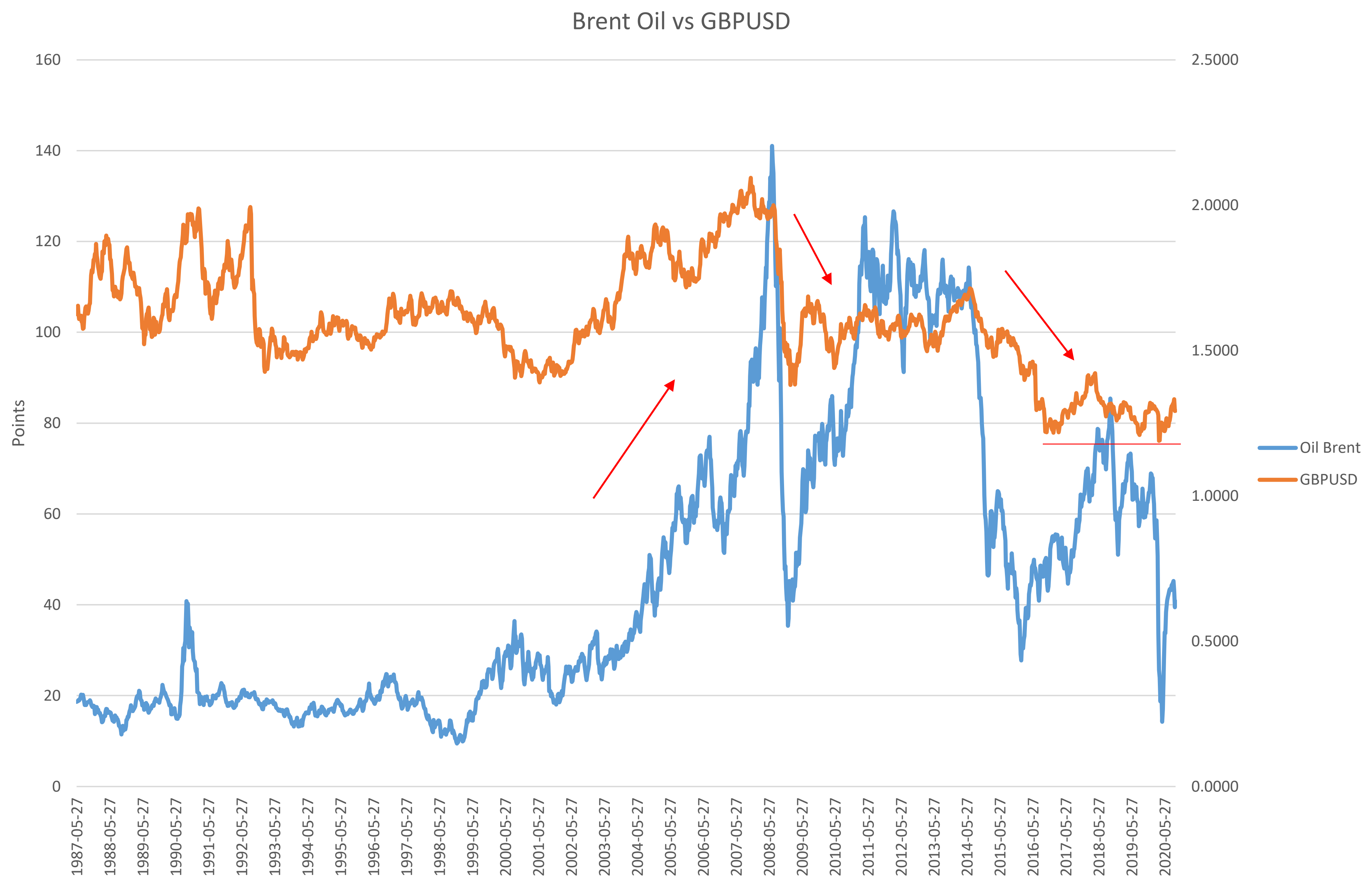
Gold and Oil's positive correlation is broken due to lockdowns (in the past it's been broken due to US shale oil)



Very weak correlation between 2yr UST and WTI Oil, however, hiking cycles often came along with higher oil prices demonstrating stronger economy



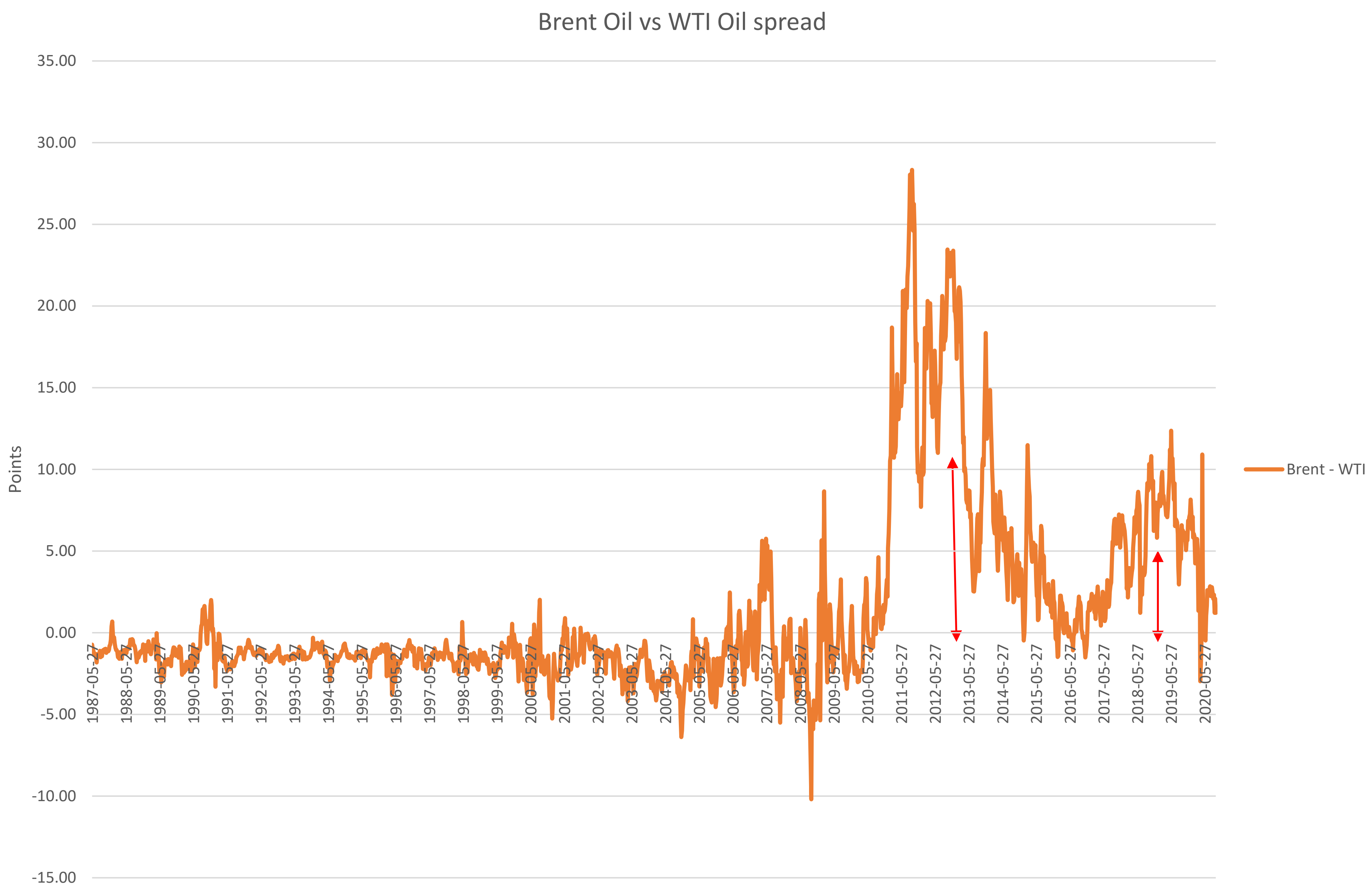
Oil prices and equities show a slight positive correlation



Brent Oil vs GBPUSD
Points
160
140
120
100
80
60
40
20
0
2.5000
2.0000
1.5000
1.0000
0.5000
0.0000
1987-05-27
1988-05-27
1989-05-27
1990-05-27
1991-05-27
1992-05-27
1993-05-27
1994-05-27
1995-05-27
1996-05-27
1997-05-27
1998-05-27
1999-05-27
2000-05-27
2001-05-27
2002-05-27
2003-05-27
2004-05-27
2005-05-27
2006-05-27
2007-05-27
2008-05-27
2009-05-27
2010-05-27
2011-05-27
2012-05-27
2013-05-27
2014-05-27
2015-05-27
2016-05-27
2017-05-27
2018-05-27
2019-05-27
2020-05-27
Oil Brent
GBPUSD

Relative value and spreads of similar products can indicate market changes…

- Wider spreads in WTI vs Brent indicate general oil weakness ahead to come… whereas tight spreads indicate oil stability and rising oil prices

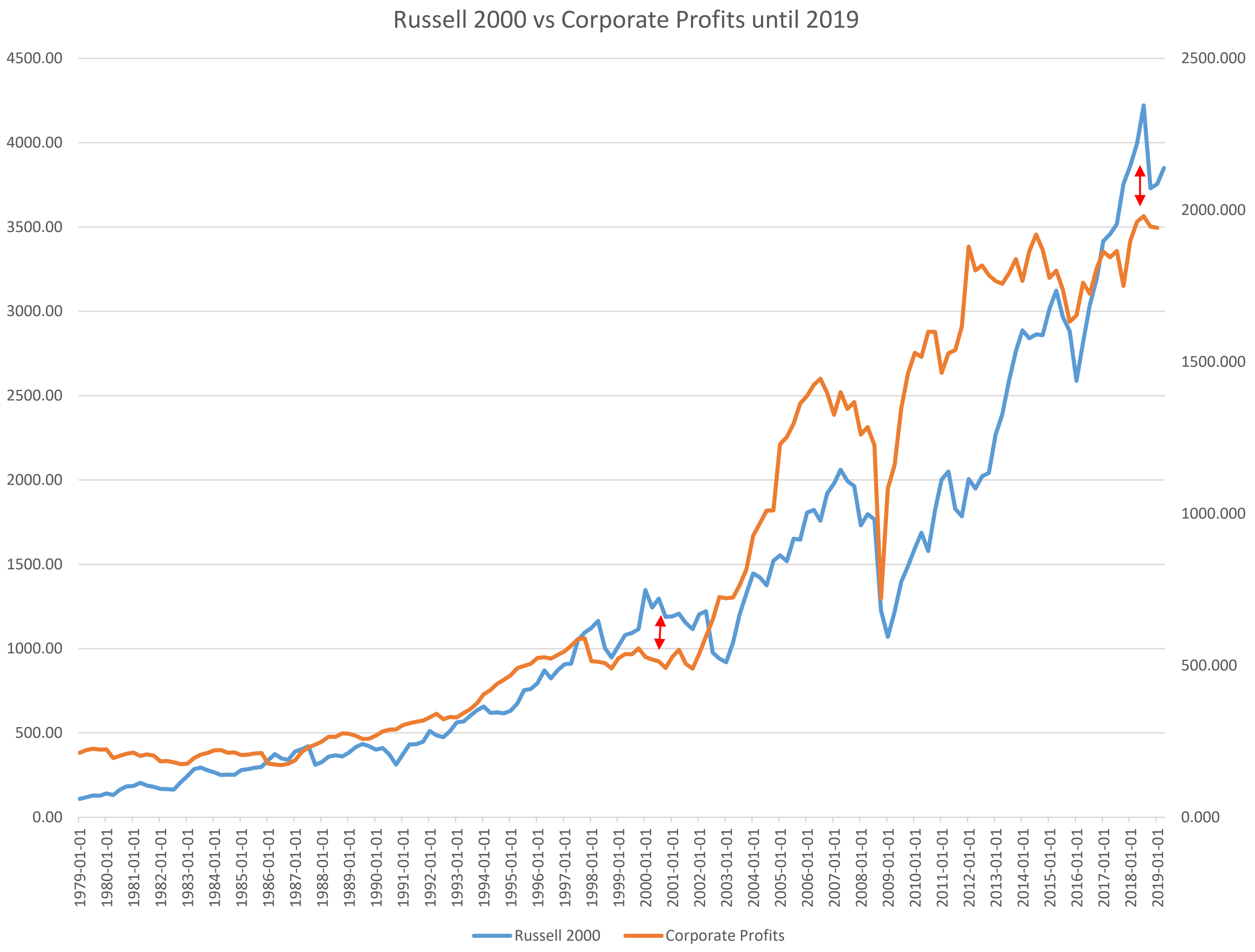


Brent trades more expensive than WTI due to Shale Oil. The wider spread led to a stabilization before a rapid decline in oil prices in the past.

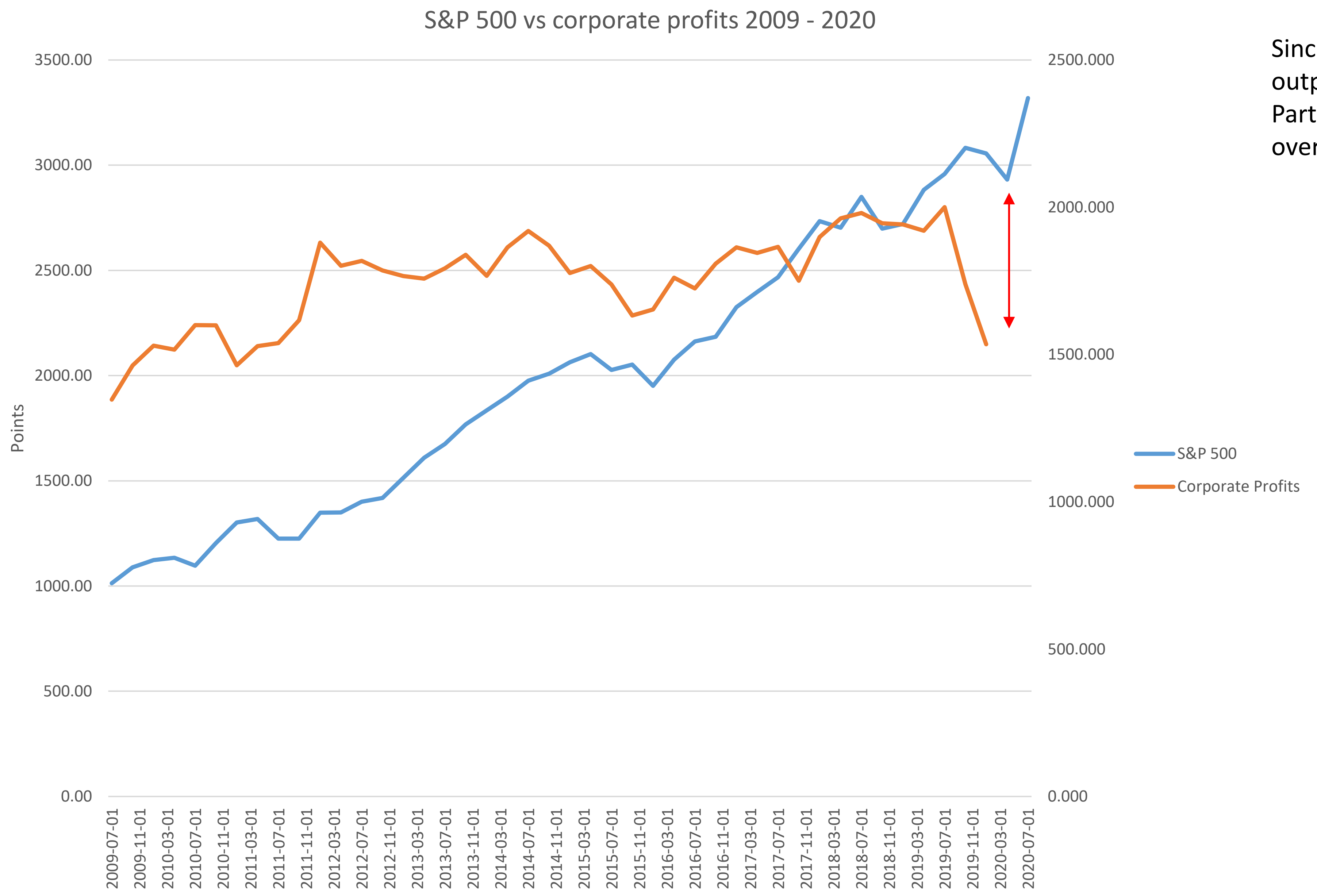
We now have a pretty tight spread, which limits further oil downside somewhat

Corporate profits have stagnated for years, yet stock prices continued to shoot higher

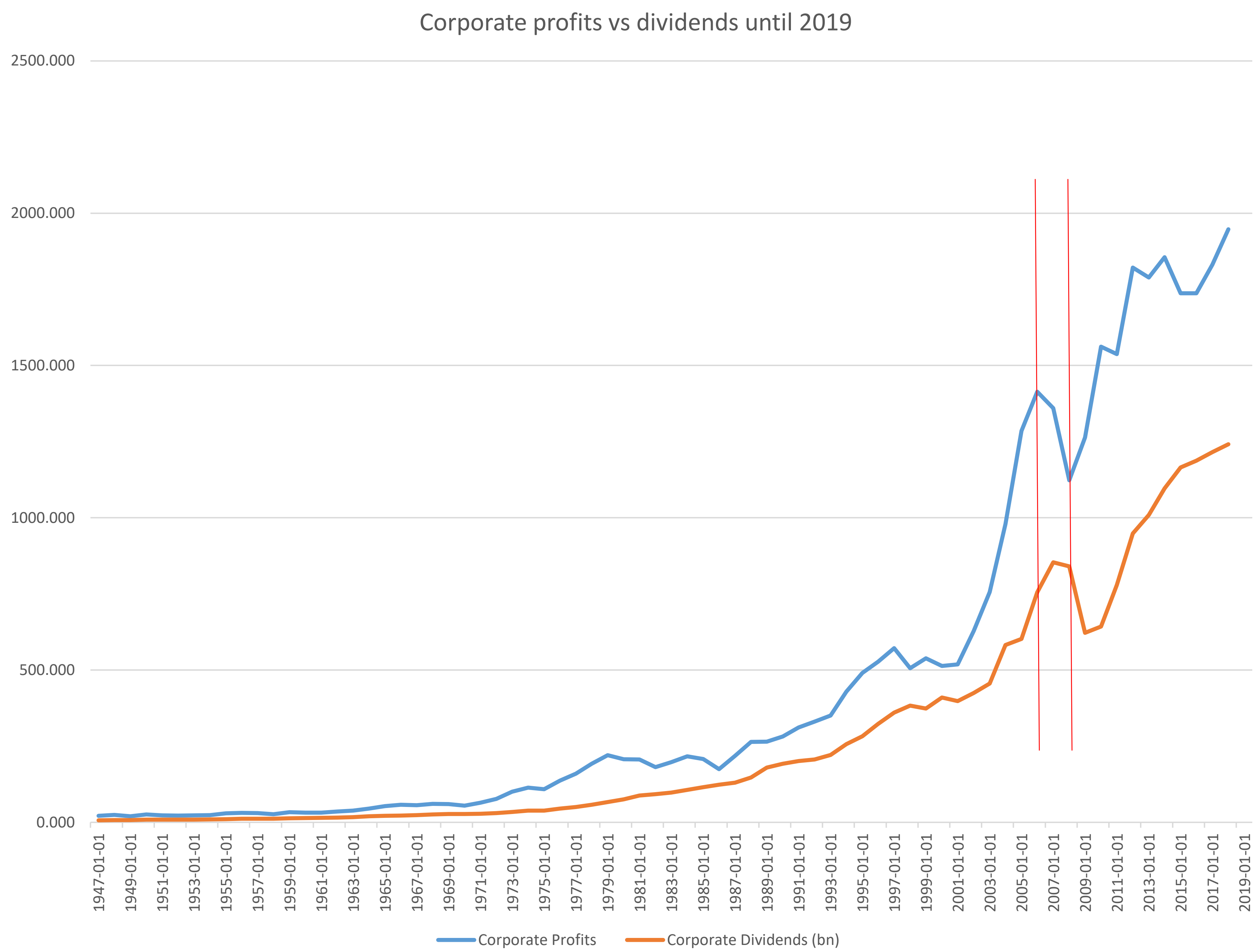
- Equity prices look stretched based on their slowing profit growth over the last years
- Recent decline in corporate profits makes a correction inevitable



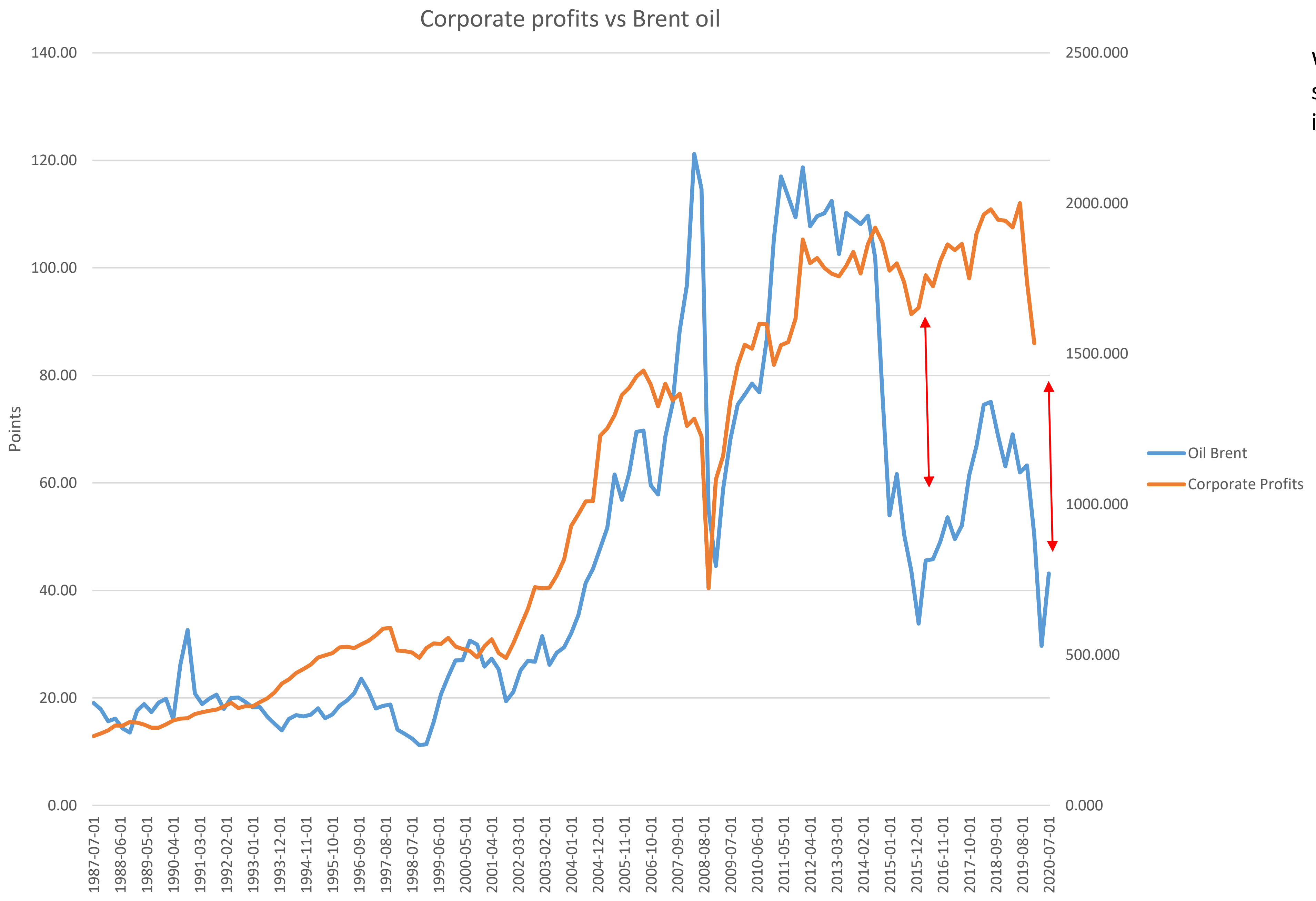
…same picture for small caps



Since 2016 stock prices outperformed corporate profits. Partly this is driven by FAANG overvaluation



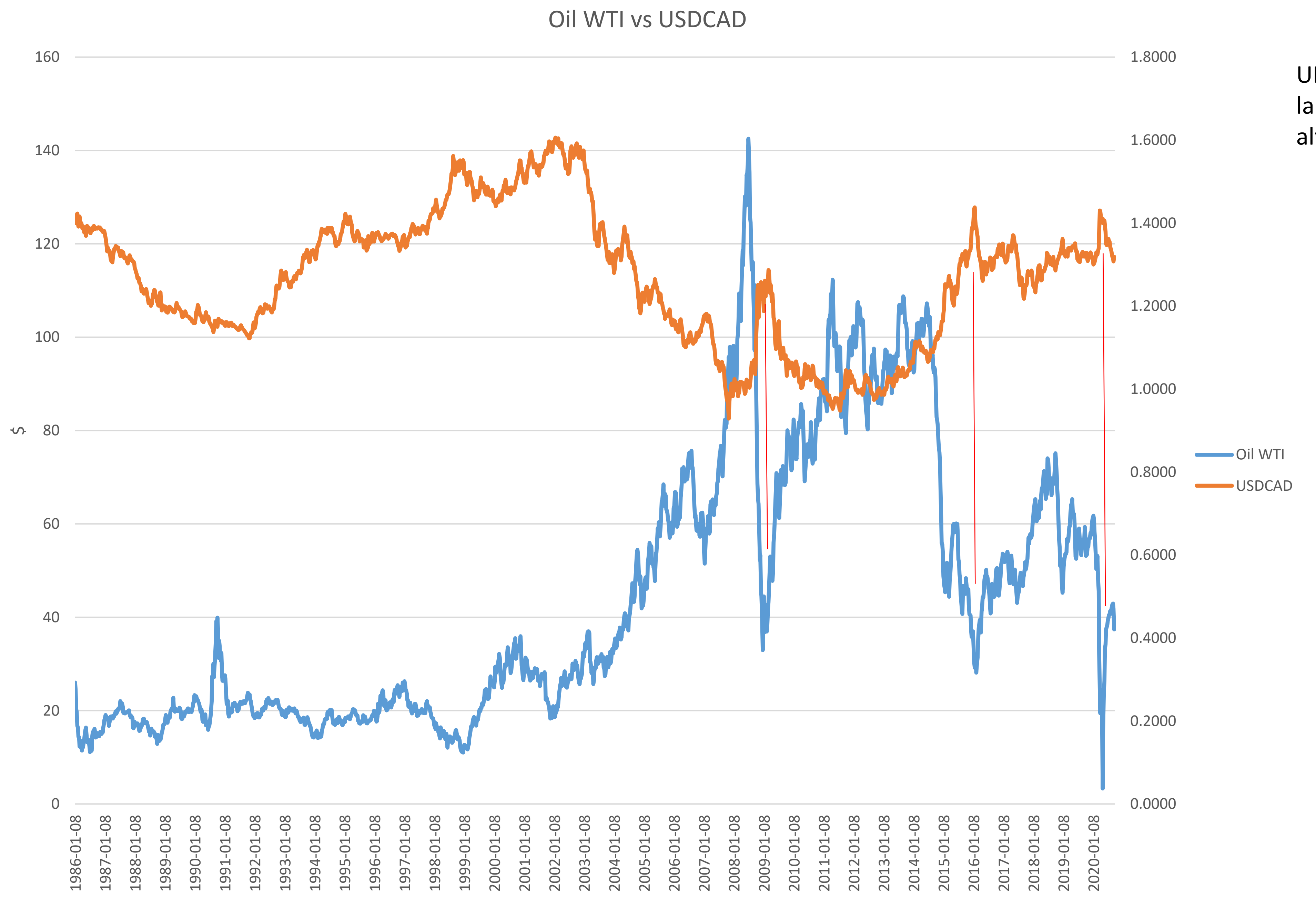
Dividends slightly lag corporate profits



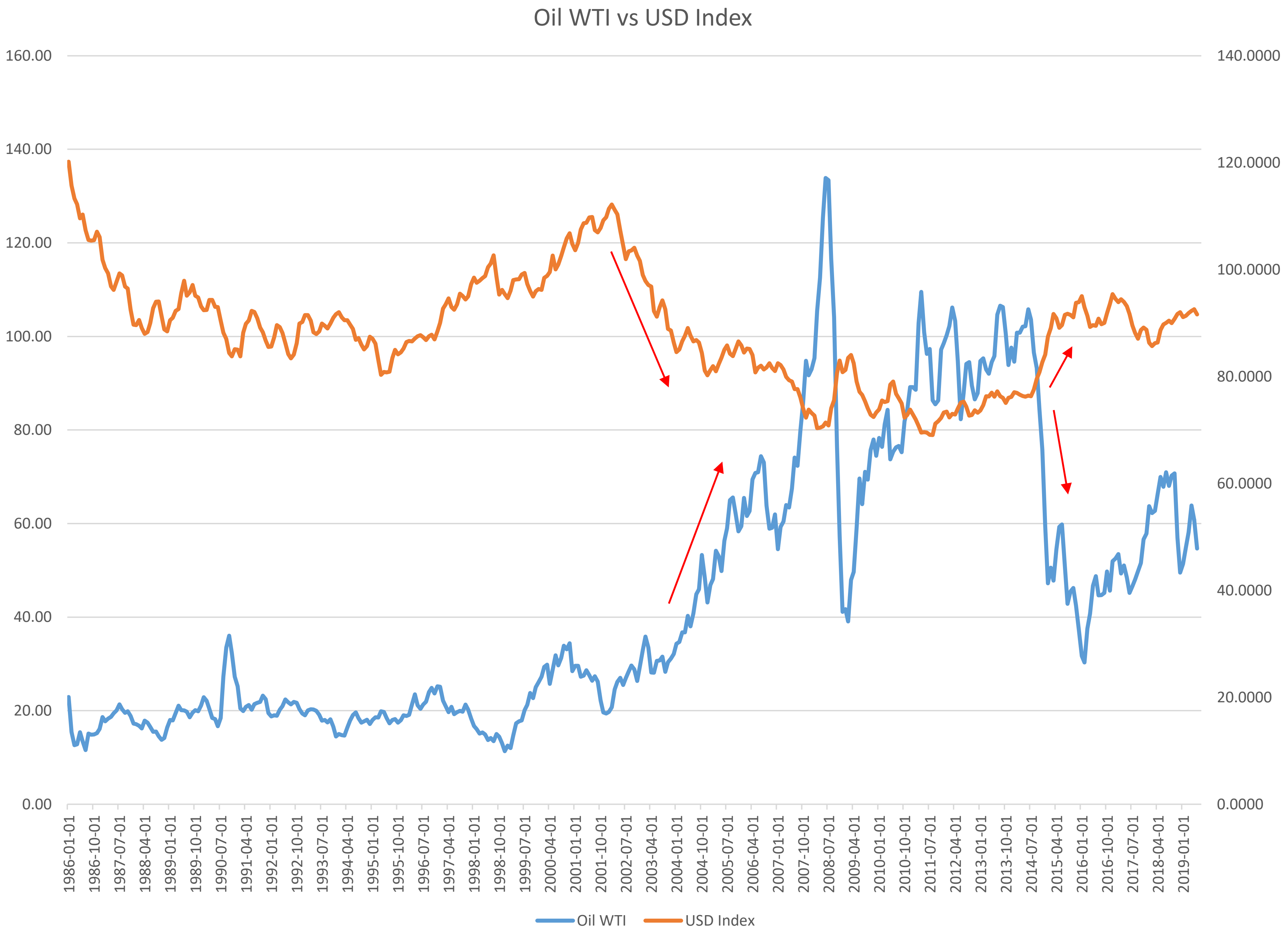
Without shale oil, you would see corporate profits very much in line with oil prices

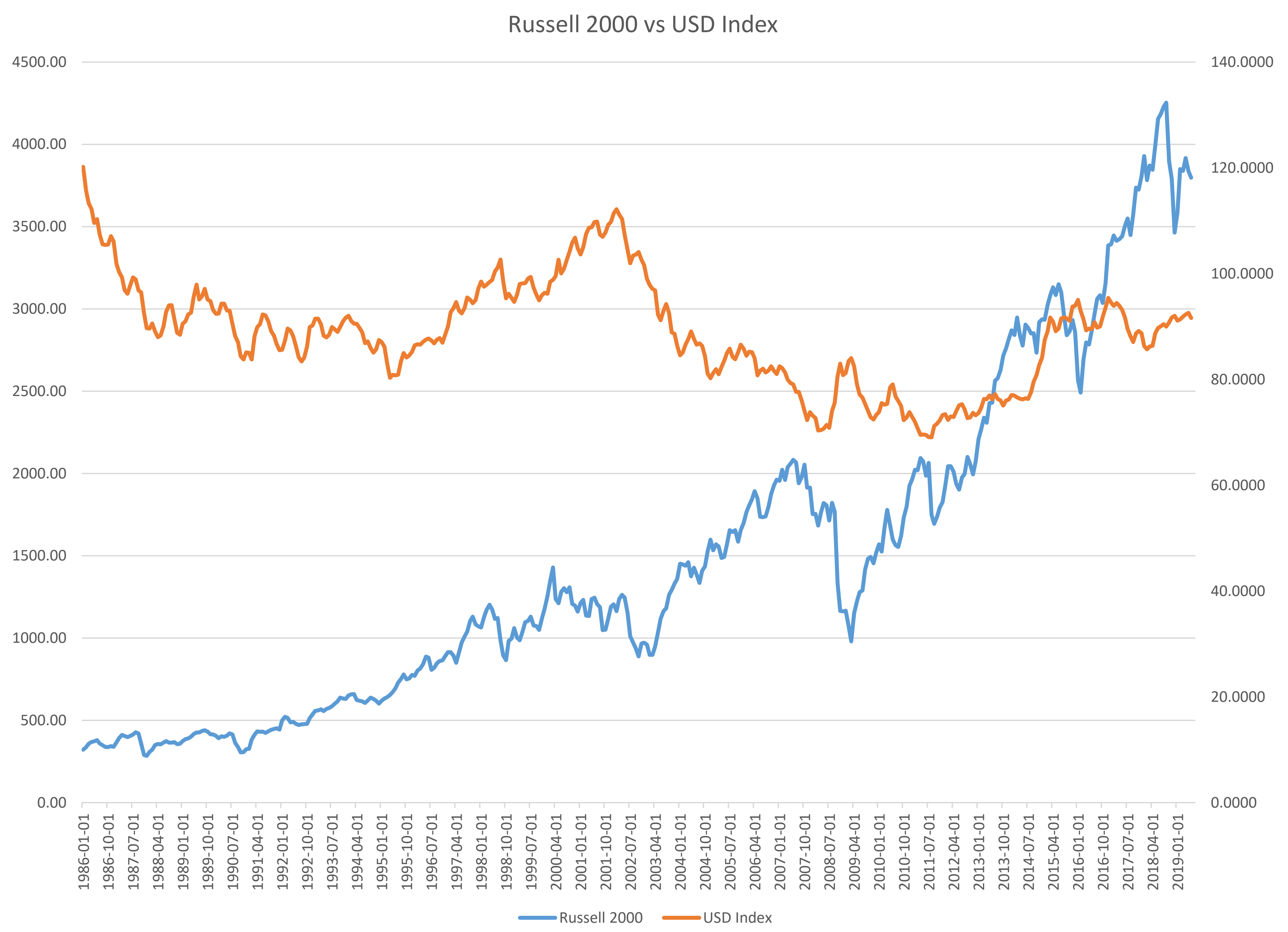
A weaker USD often preceded economic downturns

- Weaker USD was one factor leading to the rocketing Oil prices in 2008



UDSCAD moves higher on large oil price drops, but always remain temporary


Oil WTI vs USD Index
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
140.0000
120.0000
100.0000
80.0000
60.0000
40.0000
20.0000
0.0000
1986-01-01
1986-10-01
1987-07-01
1988-04-01
1989-01-01
1989-10-01
1990-07-01
1991-04-01
1992-01-01
1992-10-01
1993-07-01
1994-04-01
1995-01-01
1995-10-01
1996-07-01
1997-04-01
1998-01-01
1998-10-01
1999-07-01
2000-04-01
2001-01-01
2001-10-01
2002-07-01
2003-04-01
2004-01-01
2004-10-01
2005-07-01
2006-04-01
2007-01-01
2007-10-01
2008-07-01
2009-04-01
2010-01-01
2010-10-01
2011-07-01
2012-04-01
2013-01-01
2013-10-01
2014-07-01
2015-04-01
2016-01-01
2016-10-01
2017-07-01
2018-04-01
2019-01-01
Oil WTI
USD Index


Russell 2000 vs USD Index
4500.00
4000.00
3500.00
3000.00
2500.00
2000.00
1500.00
1000.00
500.00
0.00
140.0000
120.0000
100.0000
80.0000
60.0000
40.0000
20.0000
0.0000
1986-01-01
1986-10-01
1987-07-01
1988-04-01
1989-01-01
1989-10-01
1990-07-01
1991-04-01
1992-01-01
1992-10-01
1993-07-01
1994-04-01
1995-01-01
1995-10-01
1996-07-01
1997-04-01
1998-01-01
1998-10-01
1999-07-01
2000-04-01
2001-01-01
2001-10-01
2002-07-01
2003-04-01
2004-01-01
2004-10-01
2005-07-01
2006-04-01
2007-01-01
2007-10-01
2008-07-01
2009-04-01
2010-01-01
2010-10-01
2011-07-01
2012-04-01
2013-01-01
2013-10-01
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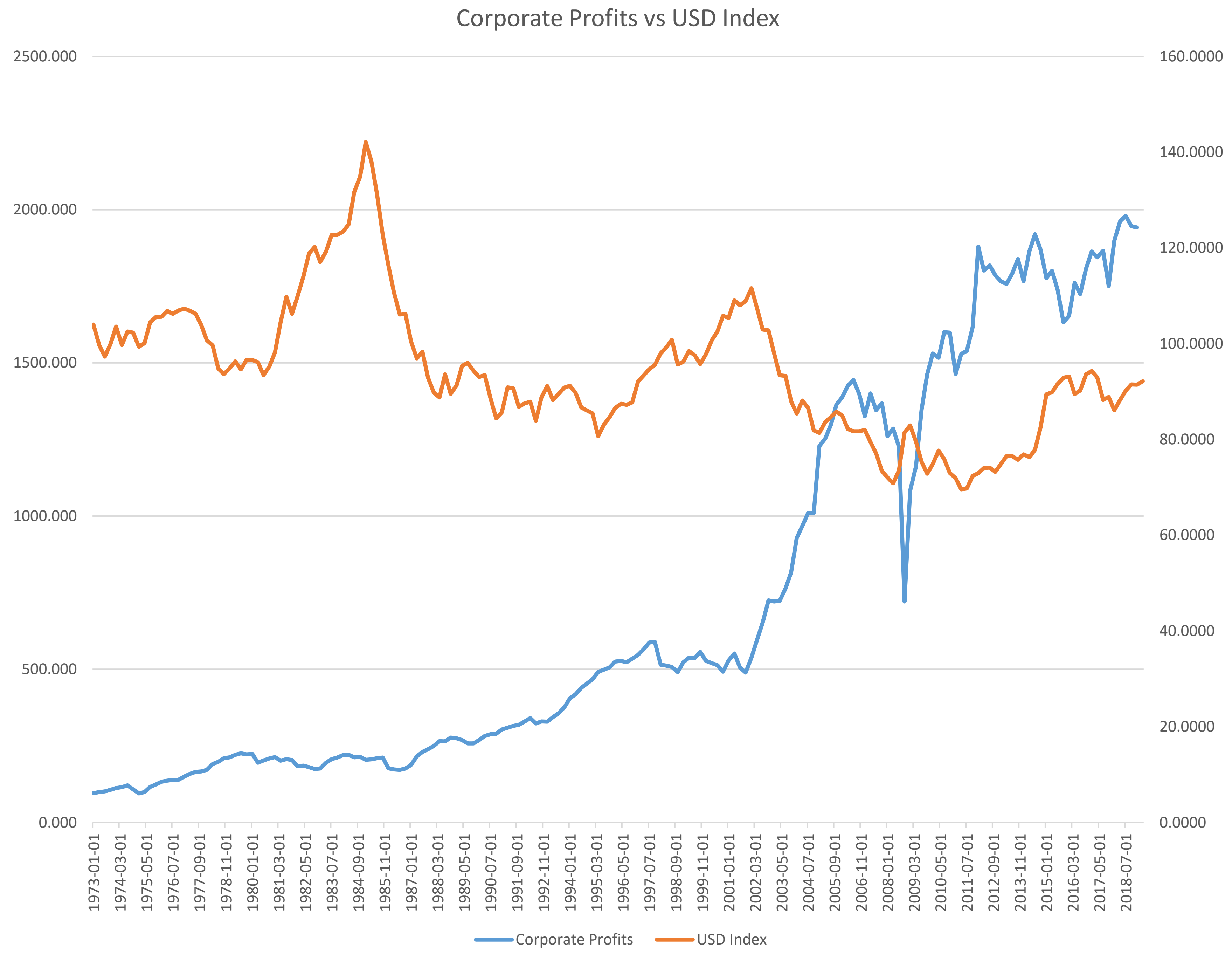
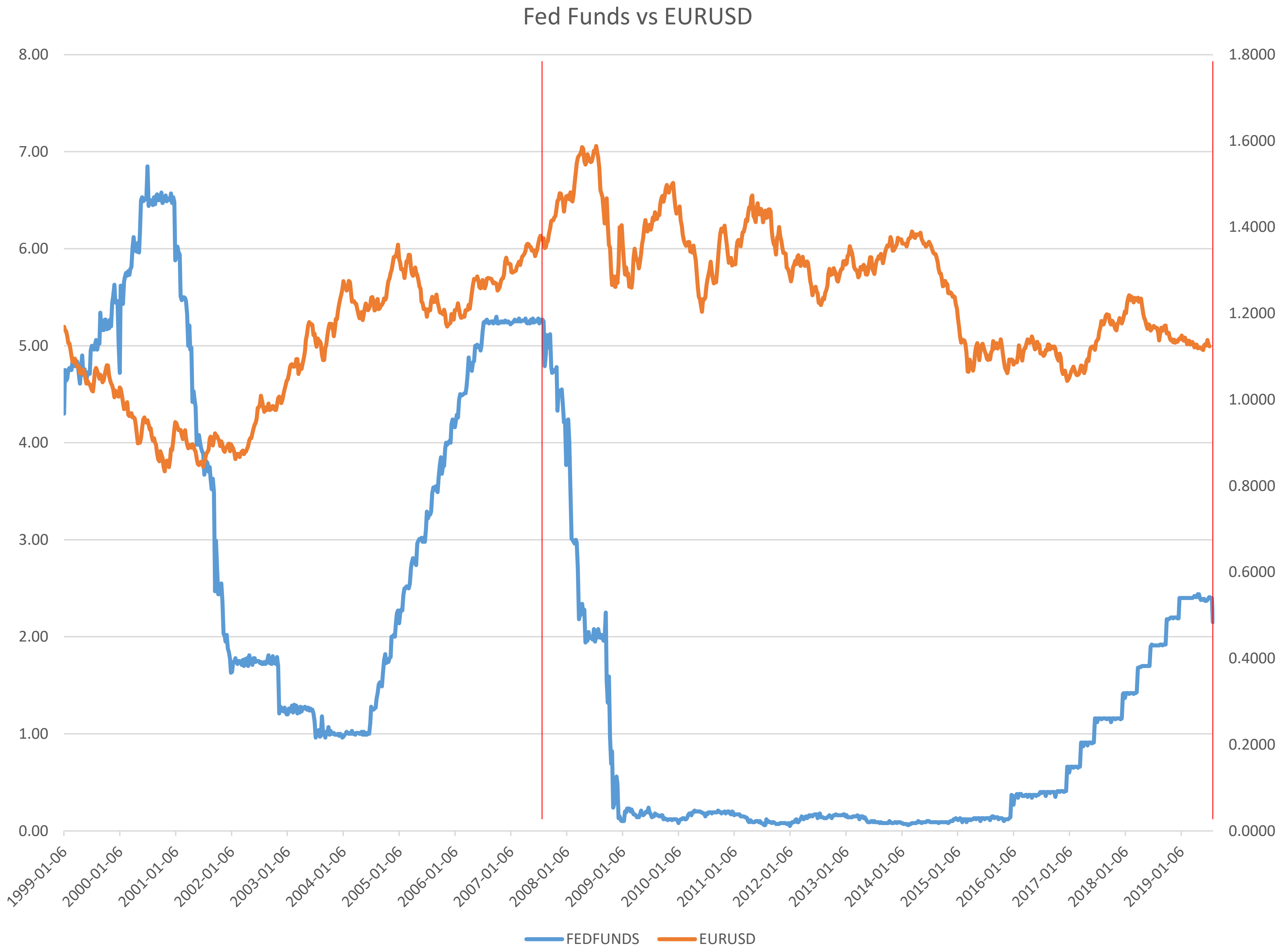
2017-07-01
2018-04-01
2019-01-01
Russell 2000
USD Index

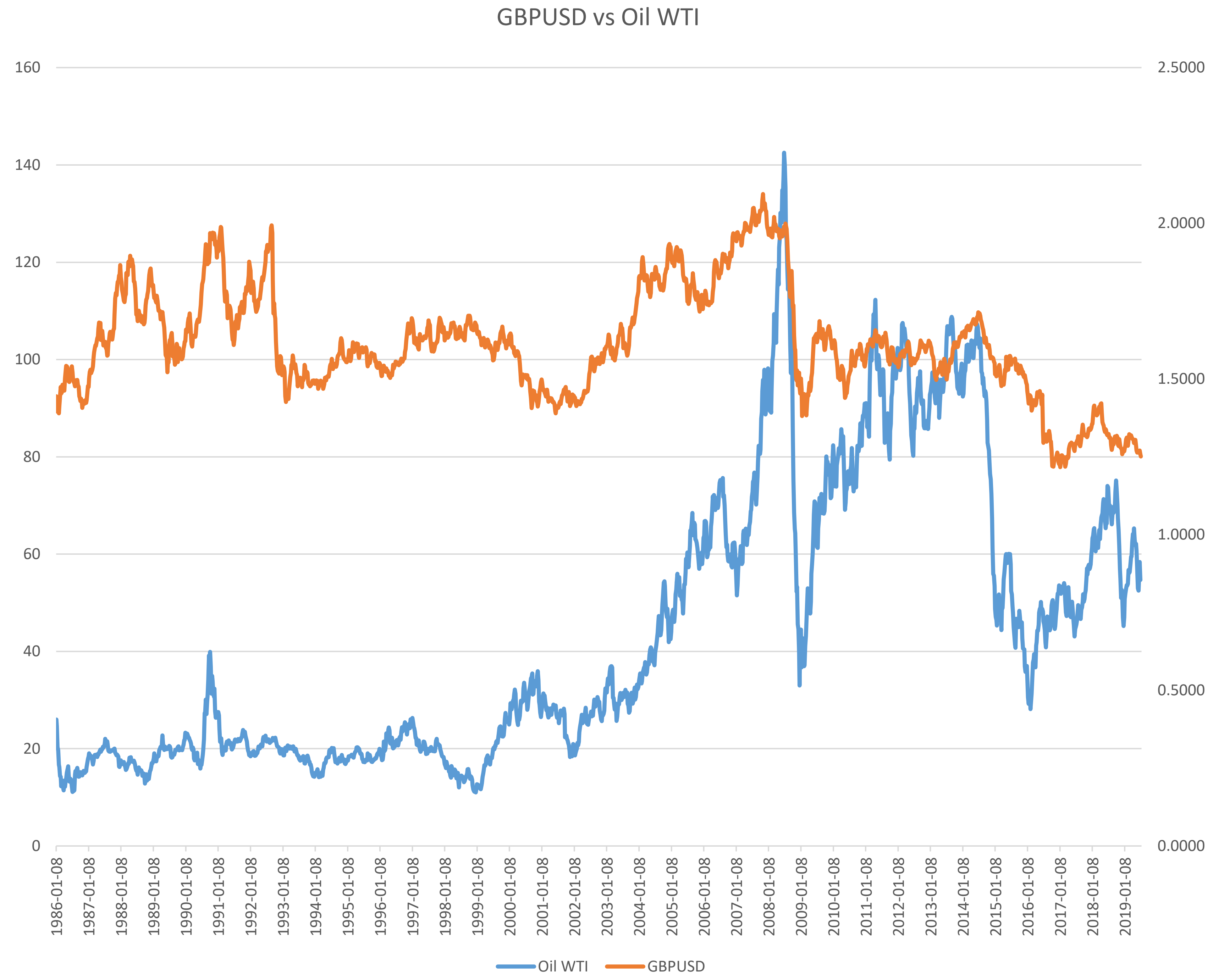


Corporate Profits vs USD Index
2500.000
2000.000
1500.000
1000.000
500.000
0.000
160.0000
140.0000
120.0000
100.0000
80.0000
60.0000
40.0000
20.0000
0.0000
1973-01-01
1974-03-01
1975-05-01
1976-07-01
1977-09-01
1978-11-01
1980-01-01
1981-03-01
1982-05-01
1983-07-01
1984-09-01
1985-11-01
1987-01-01
1988-03-01
1989-05-01
1990-07-01
1991-09-01
1992-11-01
1994-01-01
1995-03-01
1996-05-01
1997-07-01
1998-09-01
1999-11-01
2001-01-01
2002-03-01
2003-05-01
2004-07-01
2005-09-01
2006-11-01
2008-01-01
2009-03-01
2010-05-01
2011-07-01
2012-09-01
2013-11-01
2015-01-01
2016-03-01
2017-05-01
2018-07-01
Corporate Profits
USD Index

USD not depreciating this time as it did 2008



With Fed starting to cut interest rates, EURUSD remains surprisingly resilient


GBPUSD vs Oil WTI
160
140
120
100
80
60
40
20
0
2.5000
2.0000
1.5000
1.0000
0.5000
0.0000
1986-01-08
1987-01-08
1988-01-08
1989-01-08
1990-01-08
1991-01-08
1992-01-08
1993-01-08
1994-01-08
1995-01-08
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2009-01-08
2010-01-08
2011-01-08
2012-01-08
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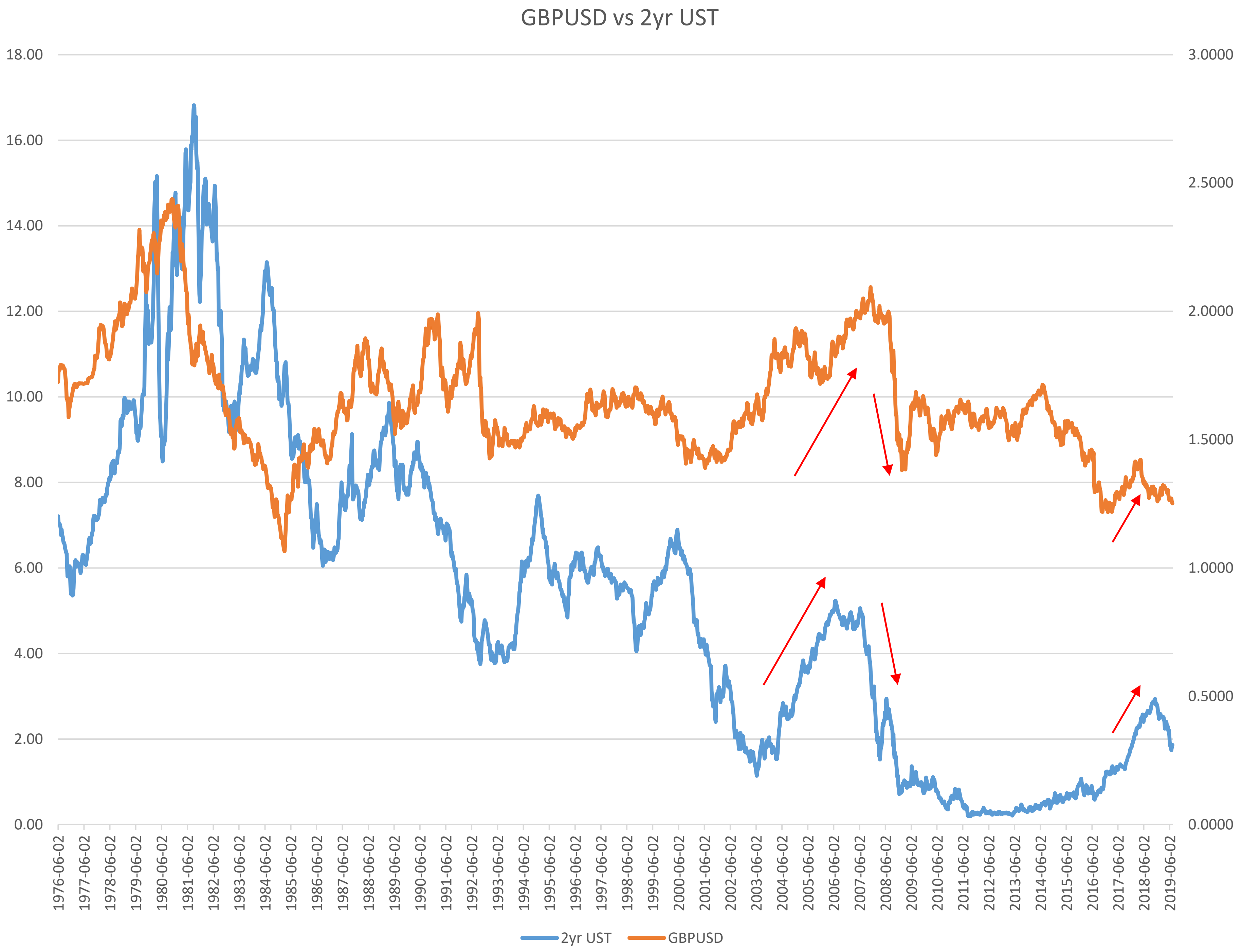
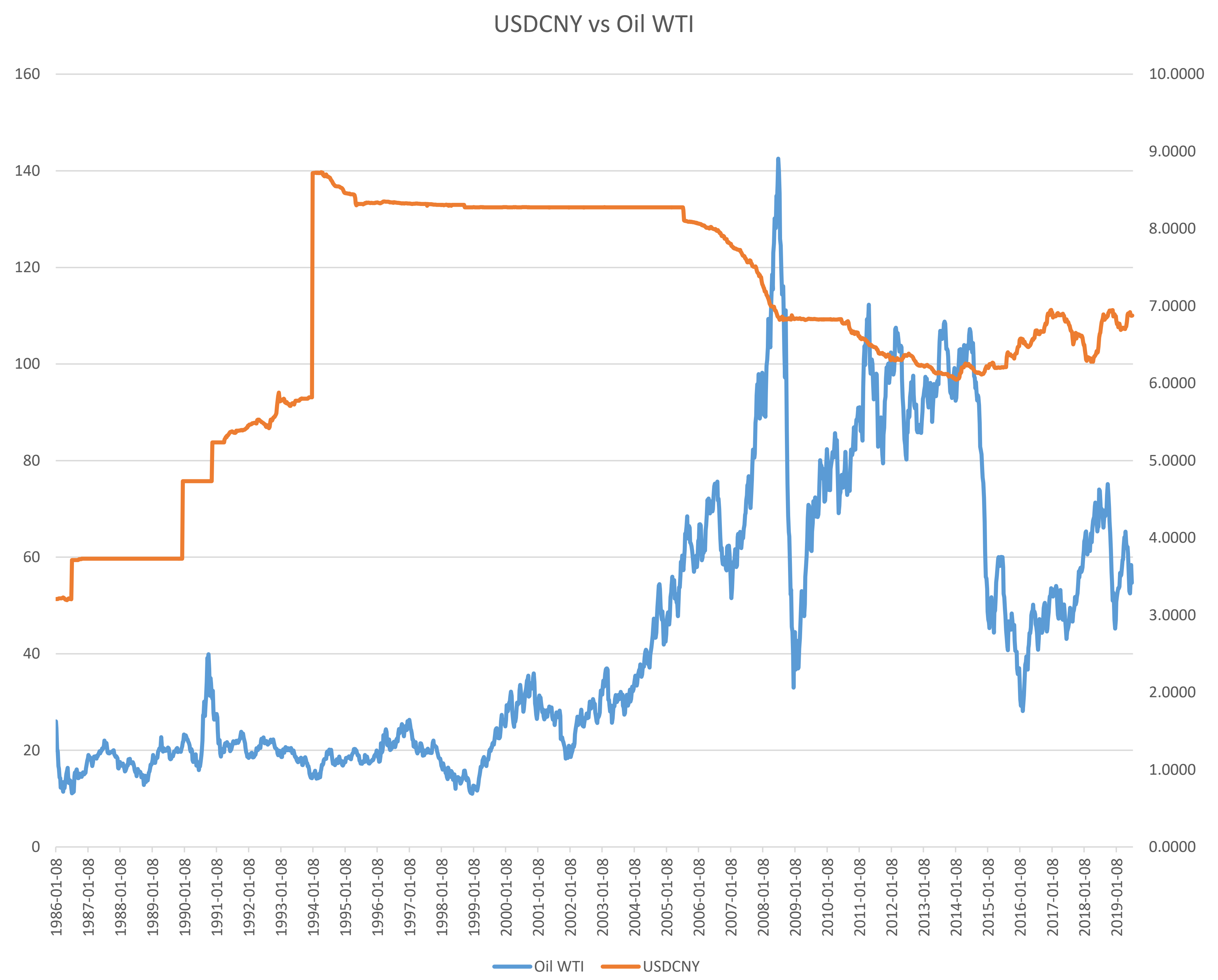
2018-01-08
2019-01-08
Oil WTI
GBPUSD



GBPUSD correlation to US interest rates is rather positive than negative


USDCNY vs Oil WTI
160
140
120
100
80
60
40
20
0
10.0000
9.0000
8.0000
7.0000
6.0000
5.0000
4.0000
3.0000
2.0000
1.0000
0.0000
1986-01-08
1987-01-08
1988-01-08
1989-01-08
1990-01-08
1991-01-08
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1995-01-08
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2008-01-08
2009-01-08
2010-01-08
2011-01-08
2012-01-08
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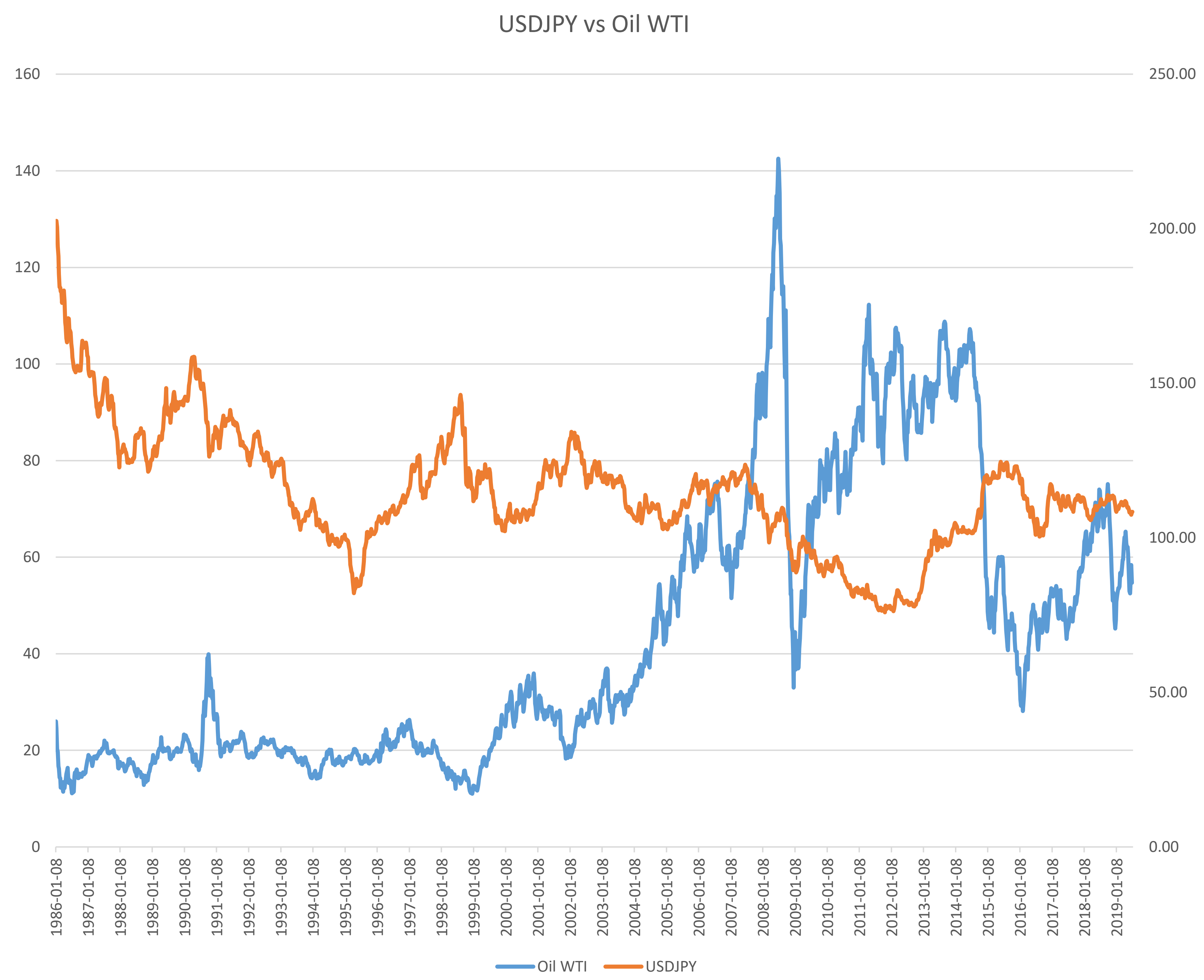
2015-01-08
2016-01-08
2017-01-08
2018-01-08
2019-01-08
Oil WTI
USDCNY


USDJPY vs Oil WTI
160
140
120
100
80
60
40
20
0
250.00
200.00
150.00
100.00
50.00
0.00
1986-01-08
1987-01-08
1988-01-08
1989-01-08
1990-01-08
1991-01-08
1992-01-08
1993-01-08
1994-01-08
1995-01-08
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2011-01-08
2012-01-08
2013-01-08
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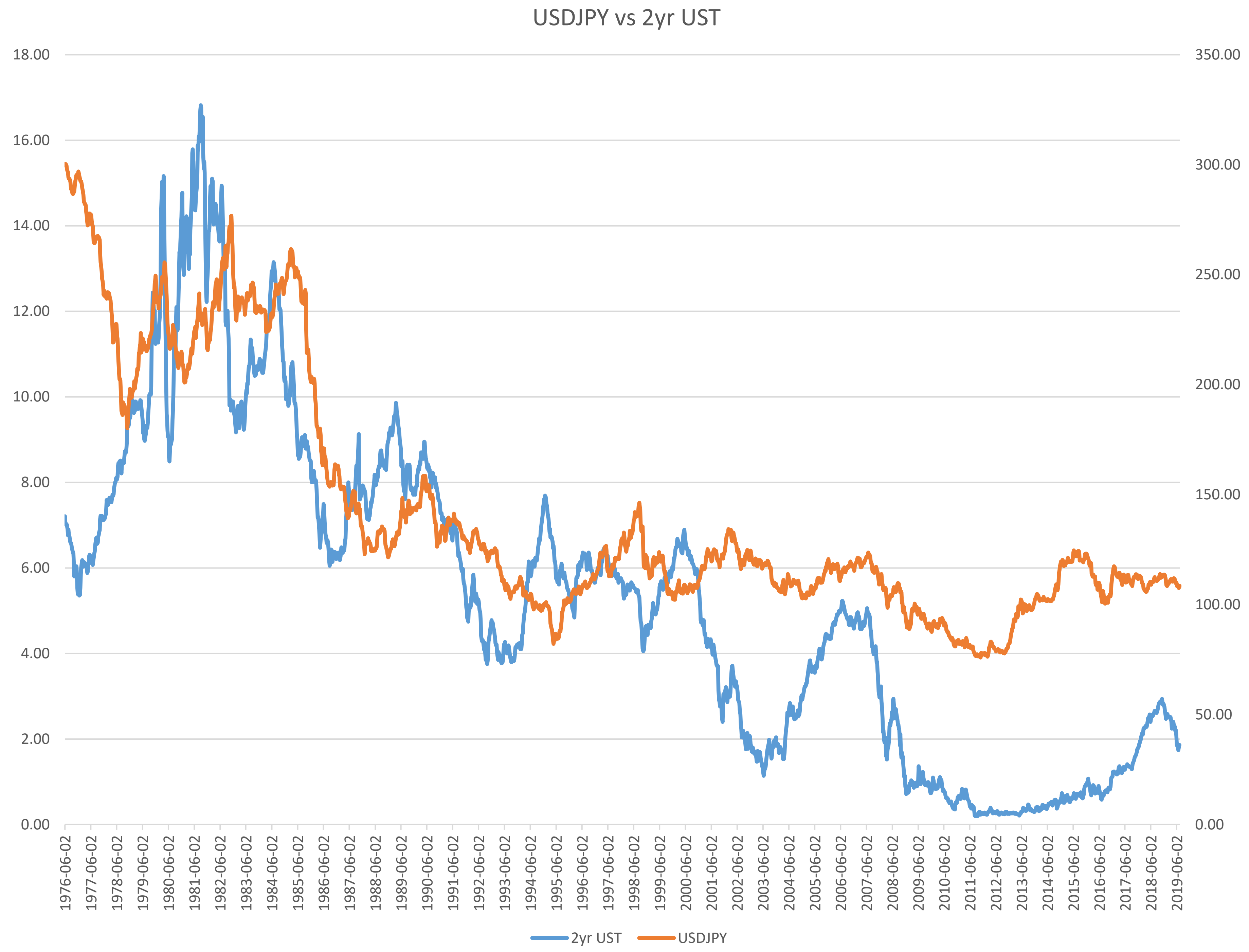
2015-01-08
2016-01-08
2017-01-08
2018-01-08
2019-01-08
Oil WTI
USDJPY


USDJPY vs 2yr UST
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
350.00
300.00
250.00
200.00
150.00
100.00
50.00
0.00
1976-06-02
1977-06-02
1978-06-02
1979-06-02
1980-06-02
1981-06-02
1982-06-02
1983-06-02
1984-06-02
1985-06-02
1986-06-02
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1993-06-02
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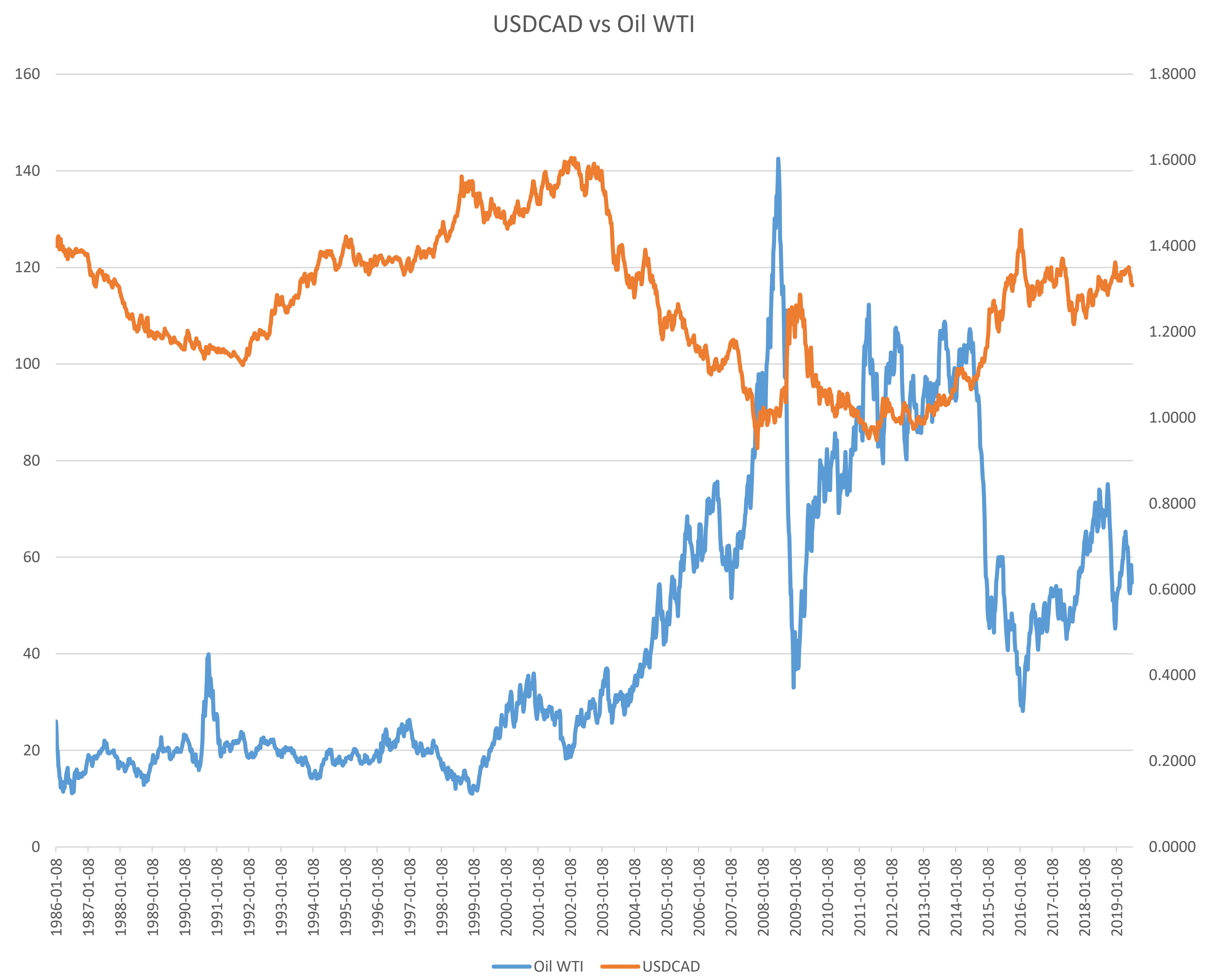
2018-06-02
2019-06-02
2yr UST
USDJPY


USDCAD vs Oil WTI
0
20
40
60
80
100
120
140
160
0.0000
0.2000
0.4000
0.6000
0.8000
1.0000
1.2000
1.4000
1.6000
1.8000
1986-01-08
1987-01-08
1988-01-08
1989-01-08
1990-01-08
1991-01-08
1992-01-08
1993-01-08
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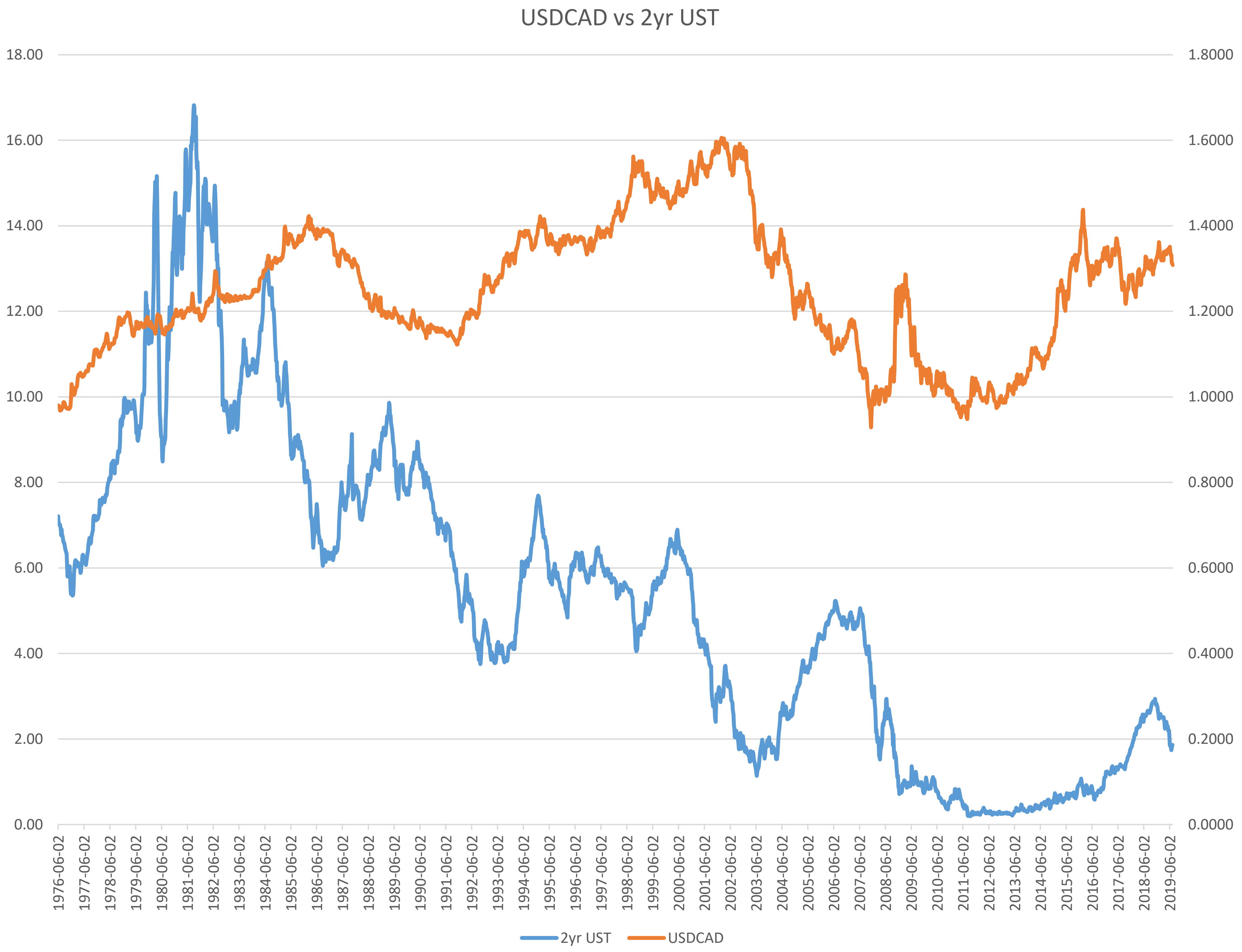
2018-01-08
2019-01-08
Oil WTI
USDCAD



USDCAD vs 2yr UST
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
1.8000
1.6000
1.4000
1.2000
1.0000
0.8000
0.6000
0.4000
0.2000
0.0000
1976-06-02
1977-06-02
1978-06-02
1979-06-02
1980-06-02
1981-06-02
1982-06-02
1983-06-02
1984-06-02
1985-06-02
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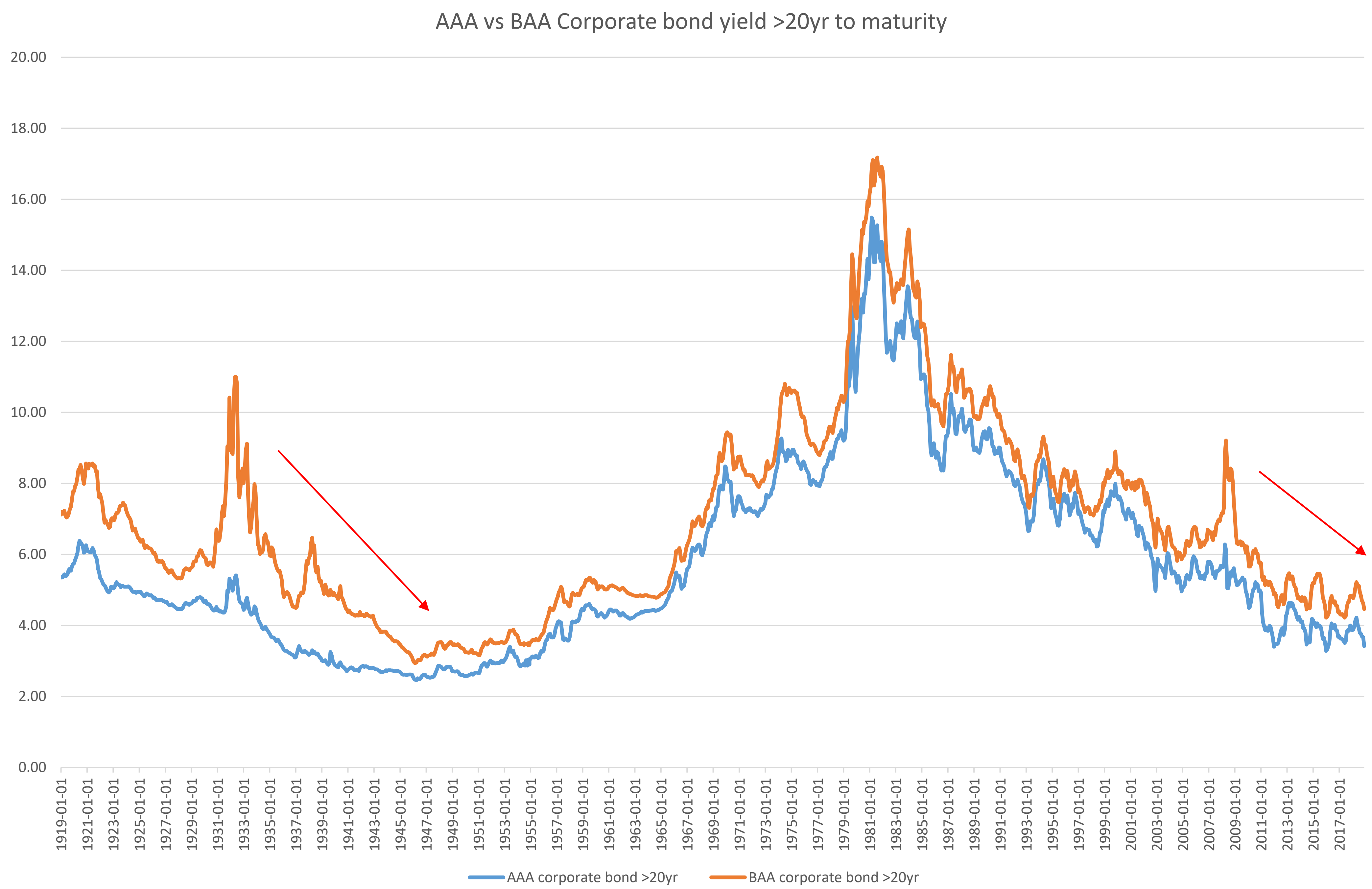
2010-06-02
2011-06-02
2012-06-02
2013-06-02
2014-06-02
2015-06-02
2016-06-02
2017-06-02
2018-06-02
2019-06-02
2yr UST
USDCAD

If the current economic state does not resemble 1998, are we approaching the dark ages of 1930s yet again?

- The spike in High Yield over Investment Grade yields in 2008 had only one historic competitor period: 1929
- The resulting crisis after 1929 led to lower yields for decades
- While initially the positive economic momentum/hope continued to be strong, 1938 led to another crisis that led to WWII and historic low yields



Another 8 years to go for lower yields, lower interest rates?

Current market looks very similar to the 1930s, potentially 1937s/8s

Presidential elections vs. Recessions

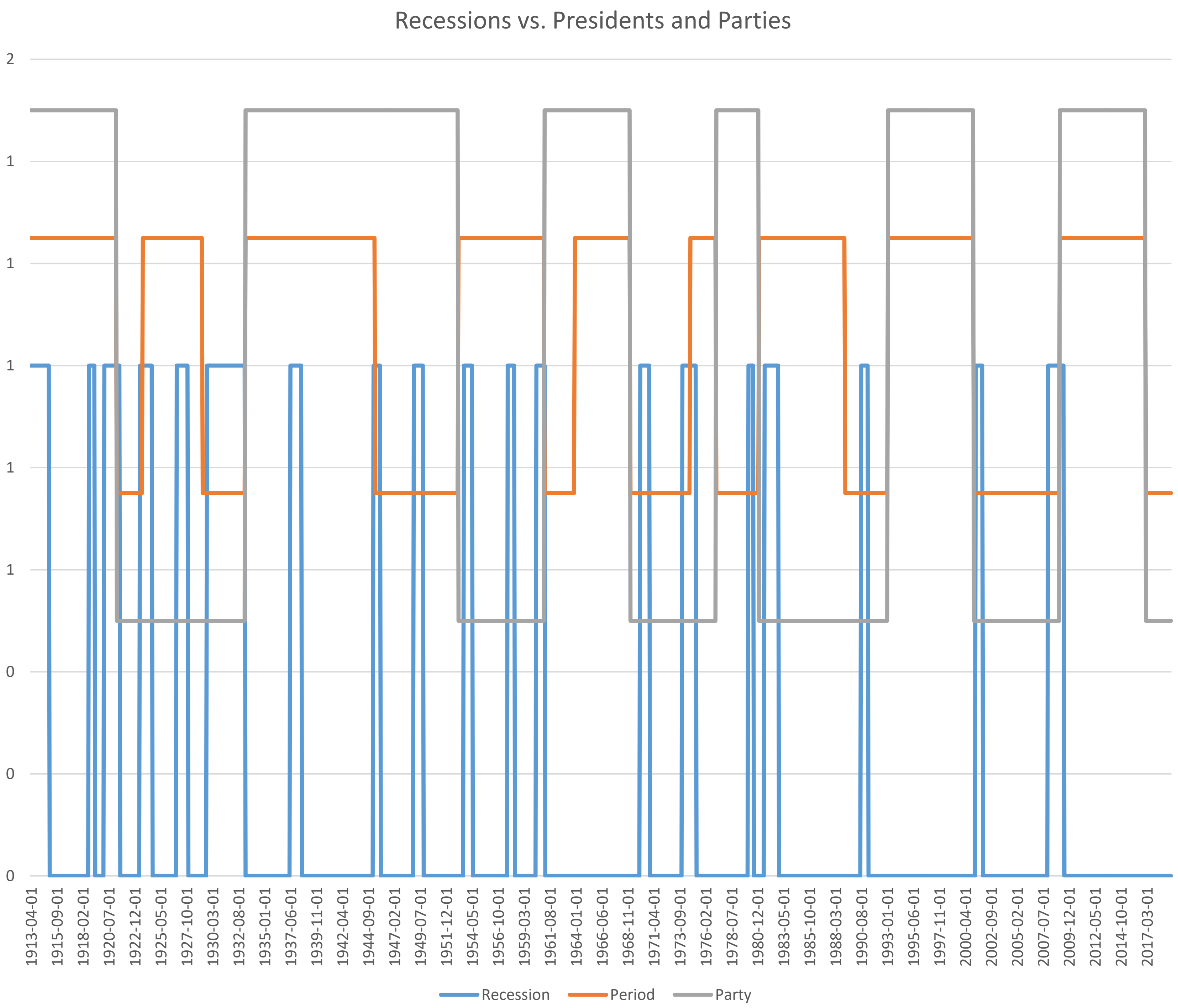
- Number of recessions have declined dramatically over last few decades compared to 100 years earlier
- Past few decades presidents generally avoided recessions during their periods, but left office in bad economic state

*Recession = 1
No recession = 0

**Period of one president = 1.25
Period of next president = 0.75

***Party Democrat = 1.5
Party Republican = 0.5

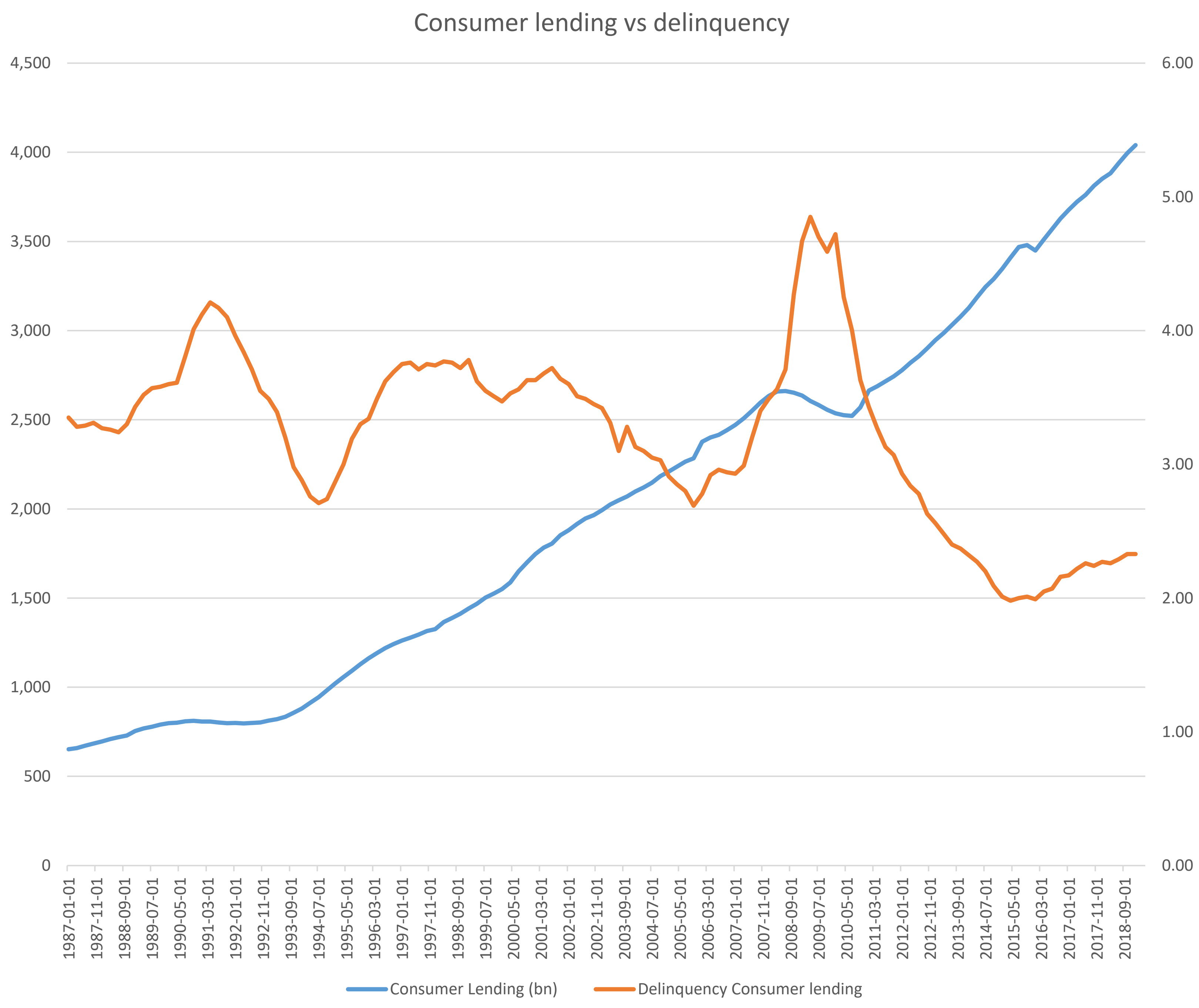
Time	Months	Recessions	Republican	Democrat
1854-Today	1975	577	422	155
1913-Today	1274	259	173	86
1953-Today	796	111	99	12



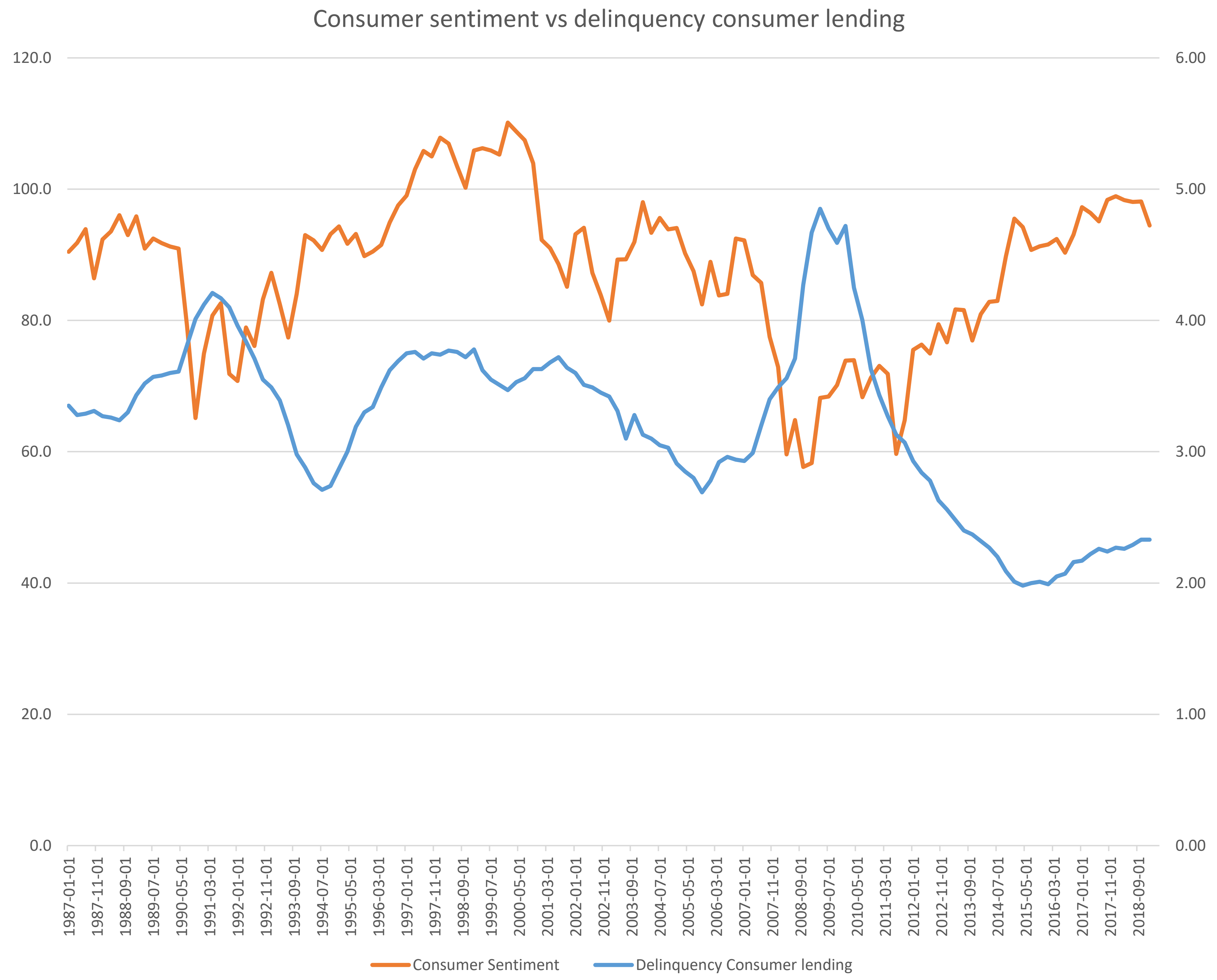
Recent presidents avoided recessions more often, but more often left office with trouble ahead

Real economy follows markets… rather than market follow real economy

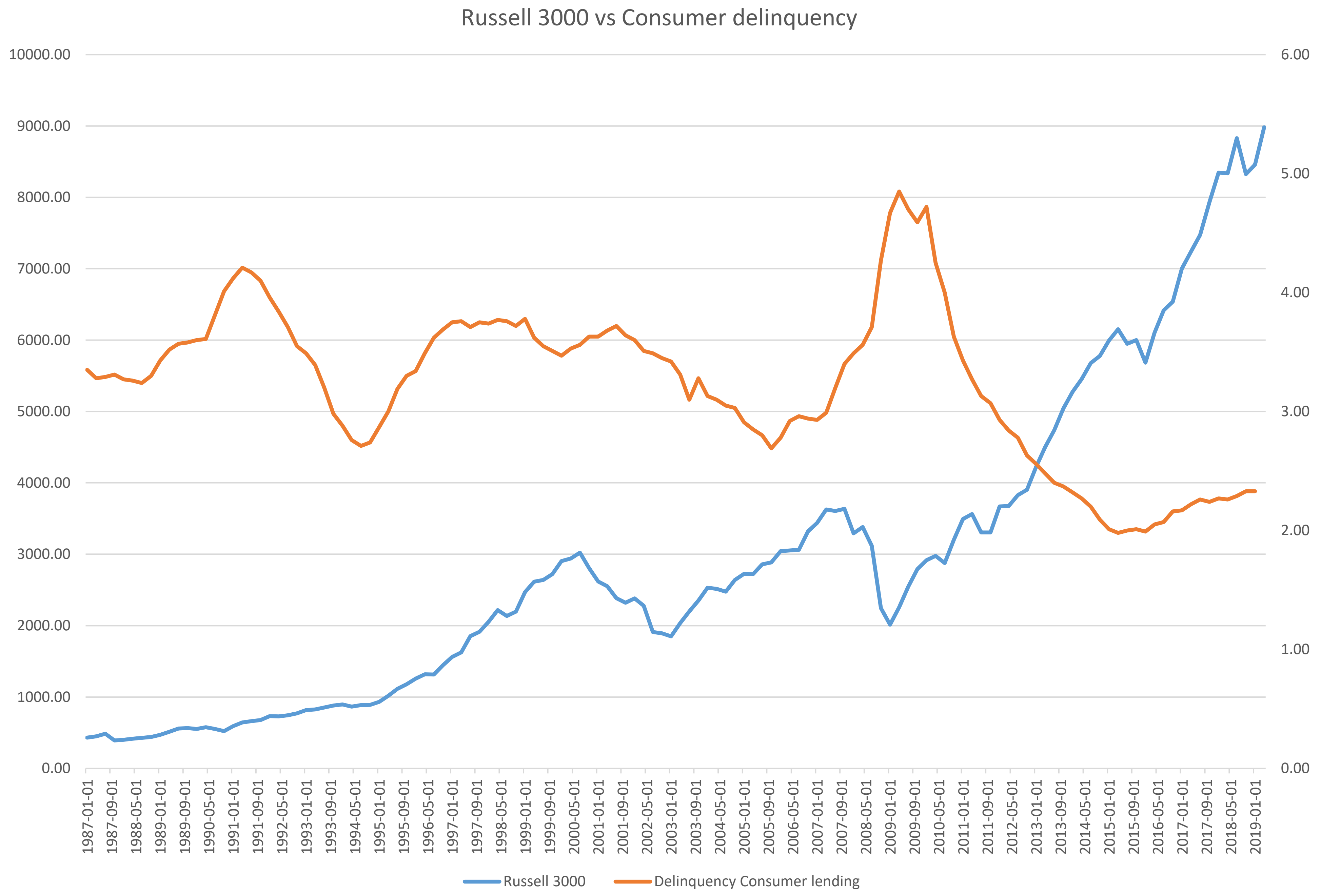
- Problem with Fed and other data dependent central banks is that market uncertainty can lead to real economic uncertainty



When delinquencies shoot up, consumer lending stagnates or declines



Sentiment a good estimate for delinquencies



Russell 3000 vs Consumer delinquency
10000.00
9000.00
8000.00
7000.00
6000.00
5000.00
4000.00
3000.00
2000.00
1000.00
0.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
1987-01-01
1987-09-01
1988-05-01
1989-01-01
1989-09-01
1990-05-01
1991-01-01
1991-09-01
1992-05-01
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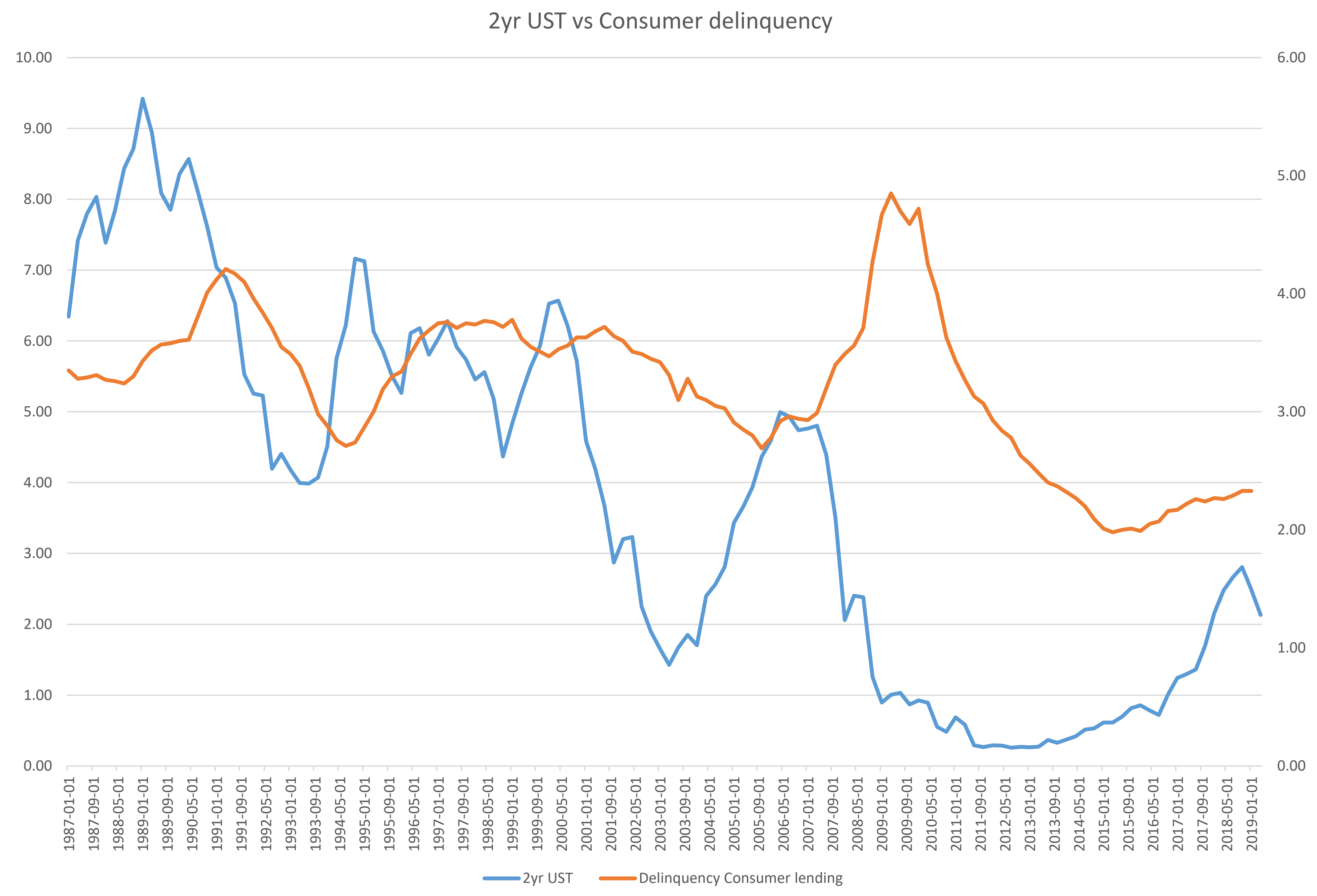
2011-09-01
2012-05-01
2013-01-01
2013-09-01
2014-05-01
2015-01-01
2015-09-01
2016-05-01
2017-01-01
2017-09-01
2018-05-01
2019-01-01
Russell 3000
Delinquency Consumer lending



2yr UST vs Consumer delinquency
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
1987-01-01
1987-09-01
1988-05-01
1989-01-01
1989-09-01
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2013-09-01
2014-05-01
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2015-09-01
2016-05-01
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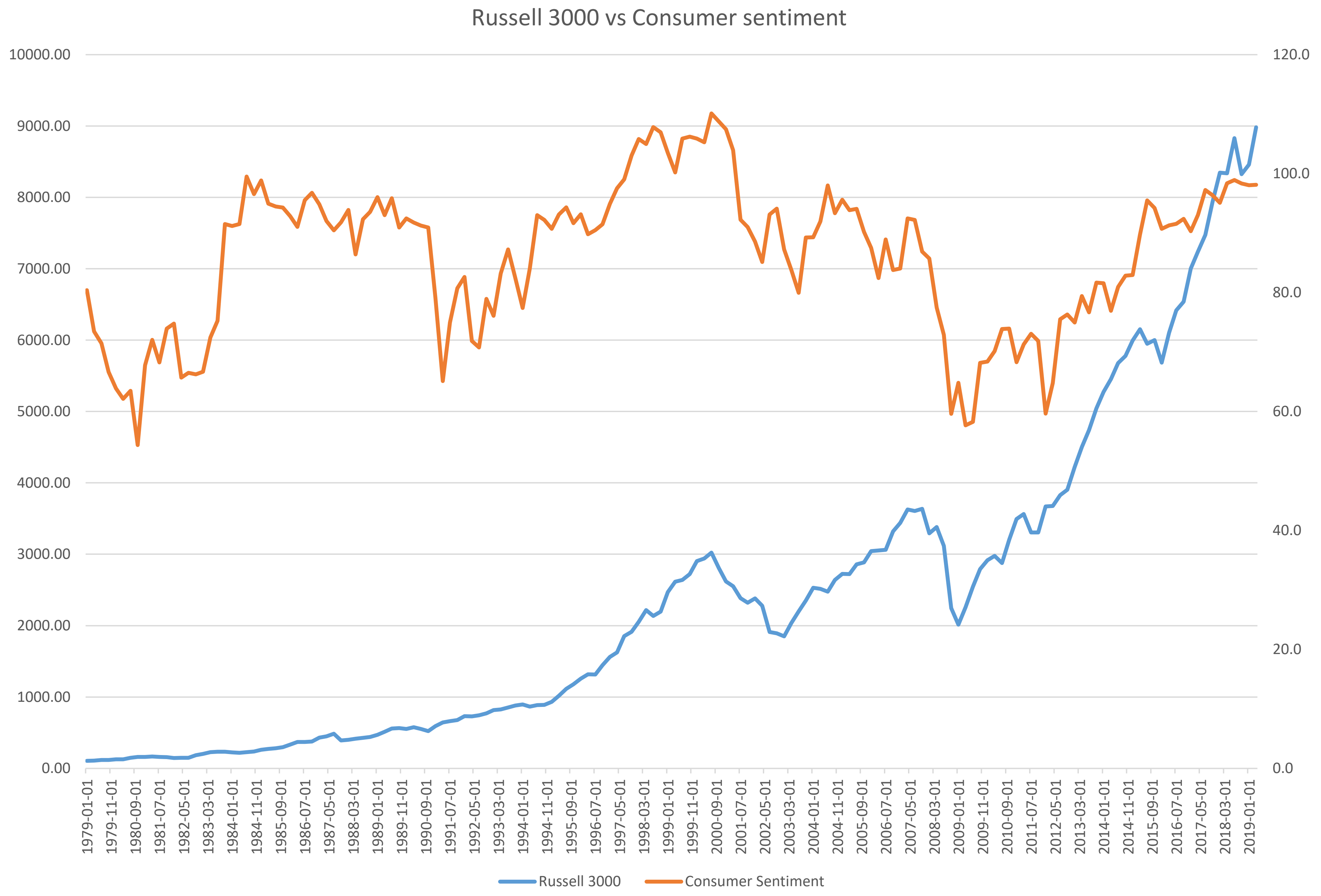
2017-09-01
2018-05-01
2019-01-01
2yr UST
Delinquency Consumer lending



Russell 3000 vs Consumer sentiment
10000.00
9000.00
8000.00
7000.00
6000.00
5000.00
4000.00
3000.00
2000.00
1000.00
0.00
120.0
100.0
80.0
60.0
40.0
20.0
0.0
1979-01-01
1979-11-01
1980-09-01
1981-07-01
1982-05-01
1983-03-01
1984-01-01
1984-11-01
1985-09-01
1986-07-01
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1989-01-01
1989-11-01
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1991-07-01
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2012-05-01
2013-03-01
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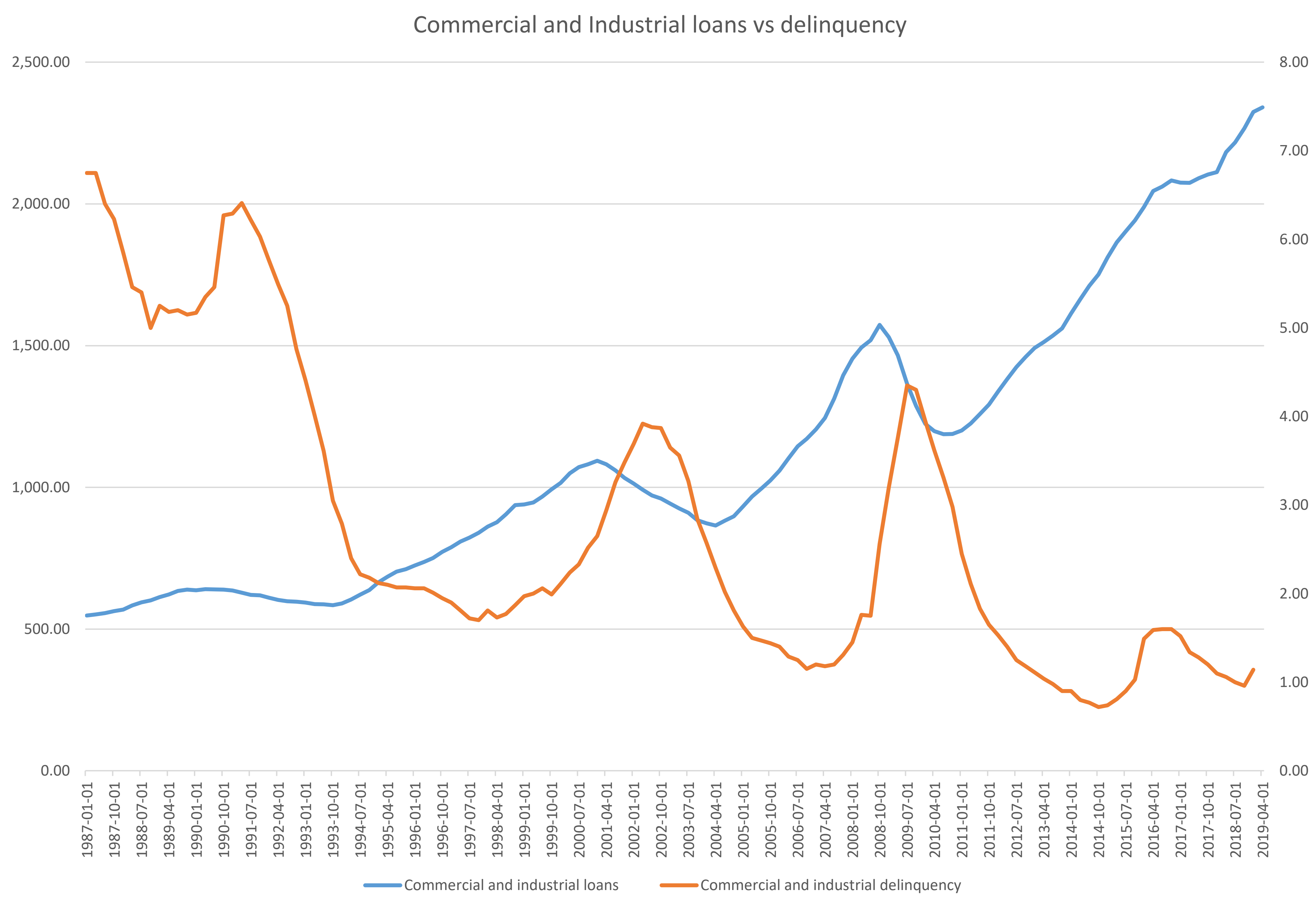
2015-09-01
2016-07-01
2017-05-01
2018-03-01
2019-01-01
Russell 3000
Consumer Sentiment



Commercial and Industrial loans vs delinquency
2,500.00
2,000.00
1,500.00
1,000.00
500.00
0.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
1987-01-01
1987-10-01
1988-07-01
1989-04-01
1990-01-01
1990-10-01
1991-07-01
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1993-10-01
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2007-04-01
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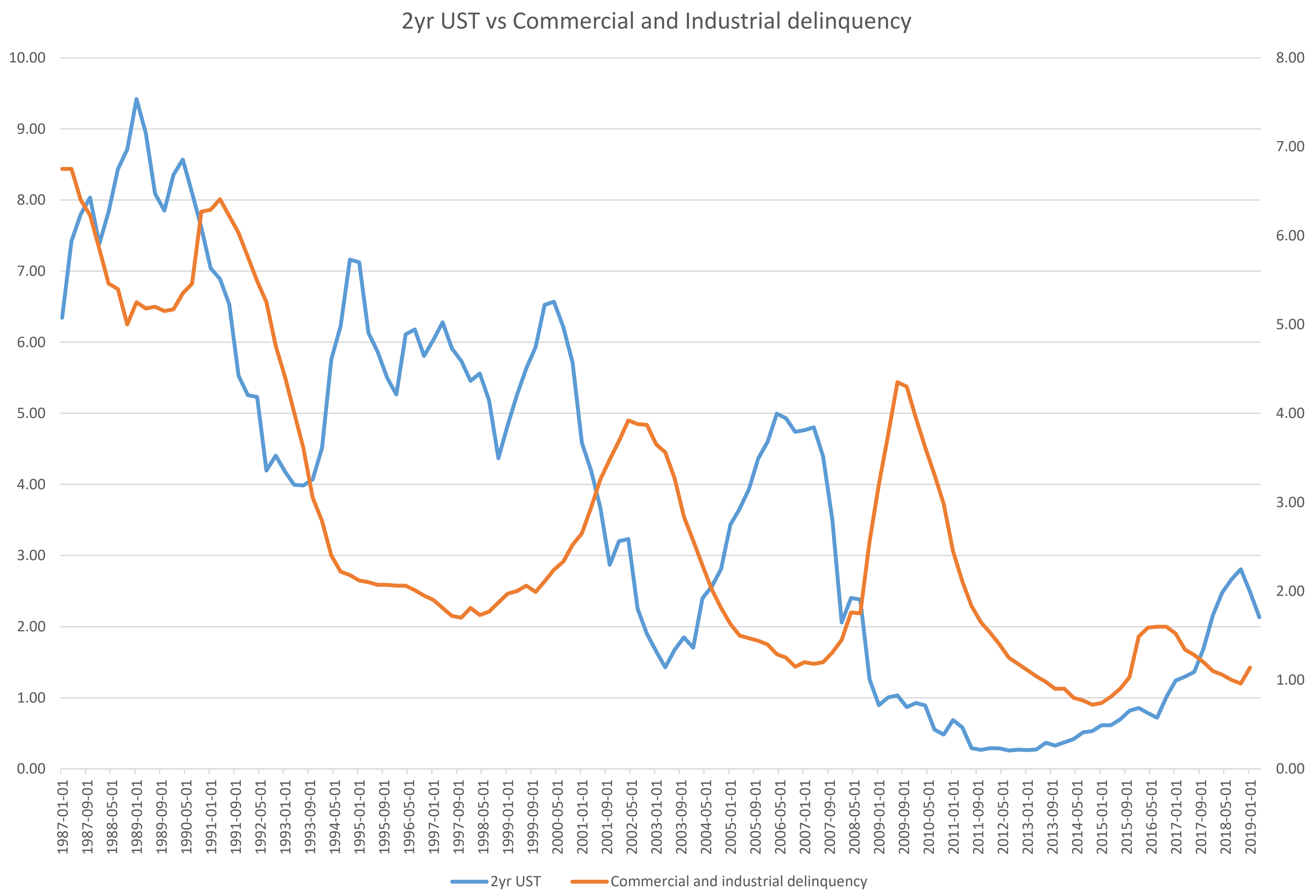
2012-07-01
2013-04-01
2014-01-01
2014-10-01
2015-07-01
2016-04-01
2017-01-01
2017-10-01
2018-07-01
2019-04-01
Commercial and industrial loans
Commercial and industrial delinquency



2yr UST vs Commercial and Industrial delinquency
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
1987-01-01
1987-09-01
1988-05-01
1989-01-01
1989-09-01
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2013-09-01
2014-05-01
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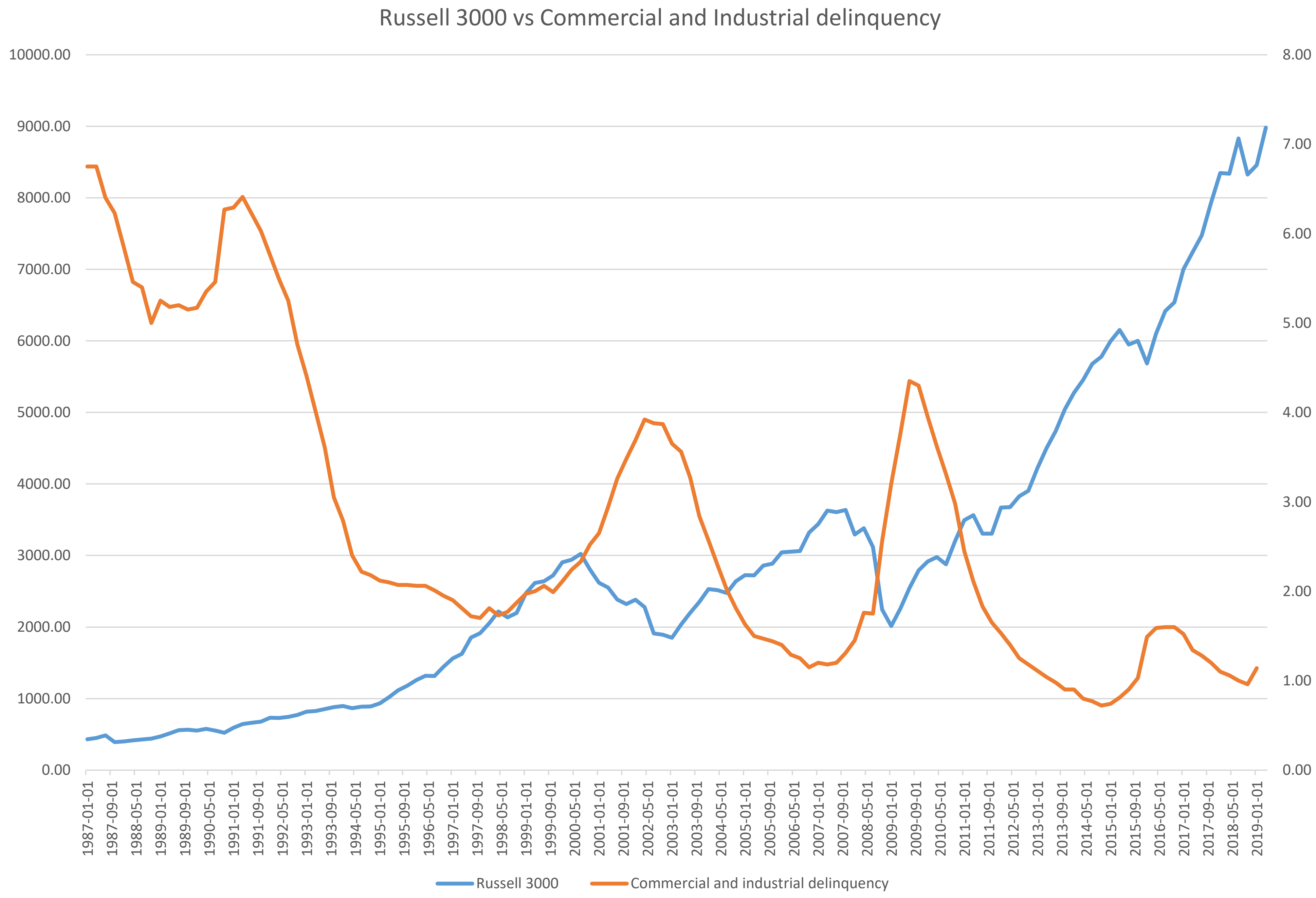
2017-09-01
2018-05-01
2019-01-01
2yr UST
Commercial and industrial delinquency



Russell 3000 vs Commercial and Industrial delinquency
10000.00
9000.00
8000.00
7000.00
6000.00
5000.00
4000.00
3000.00
2000.00
1000.00
0.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
1987-01-01
1987-09-01
1988-05-01
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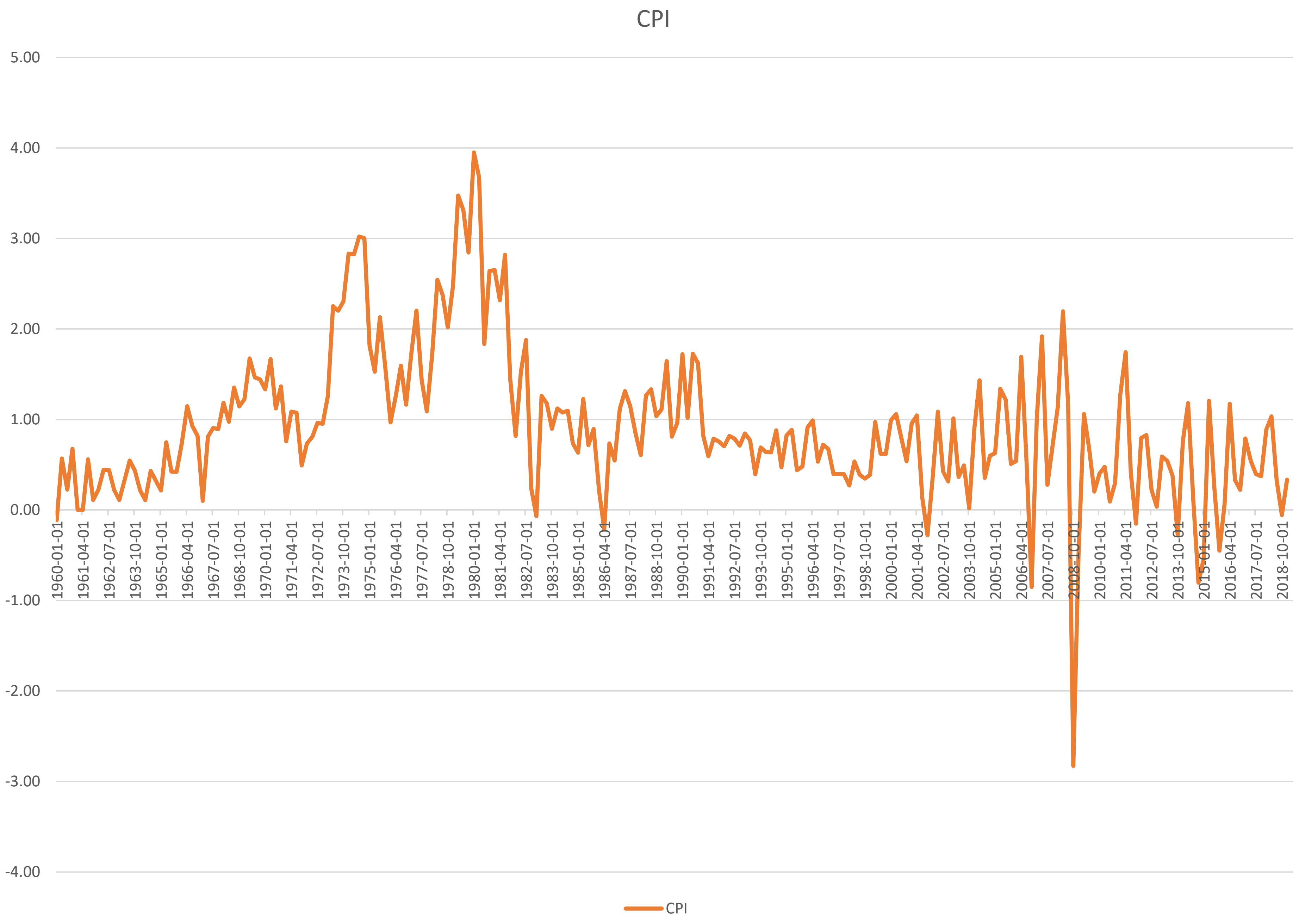
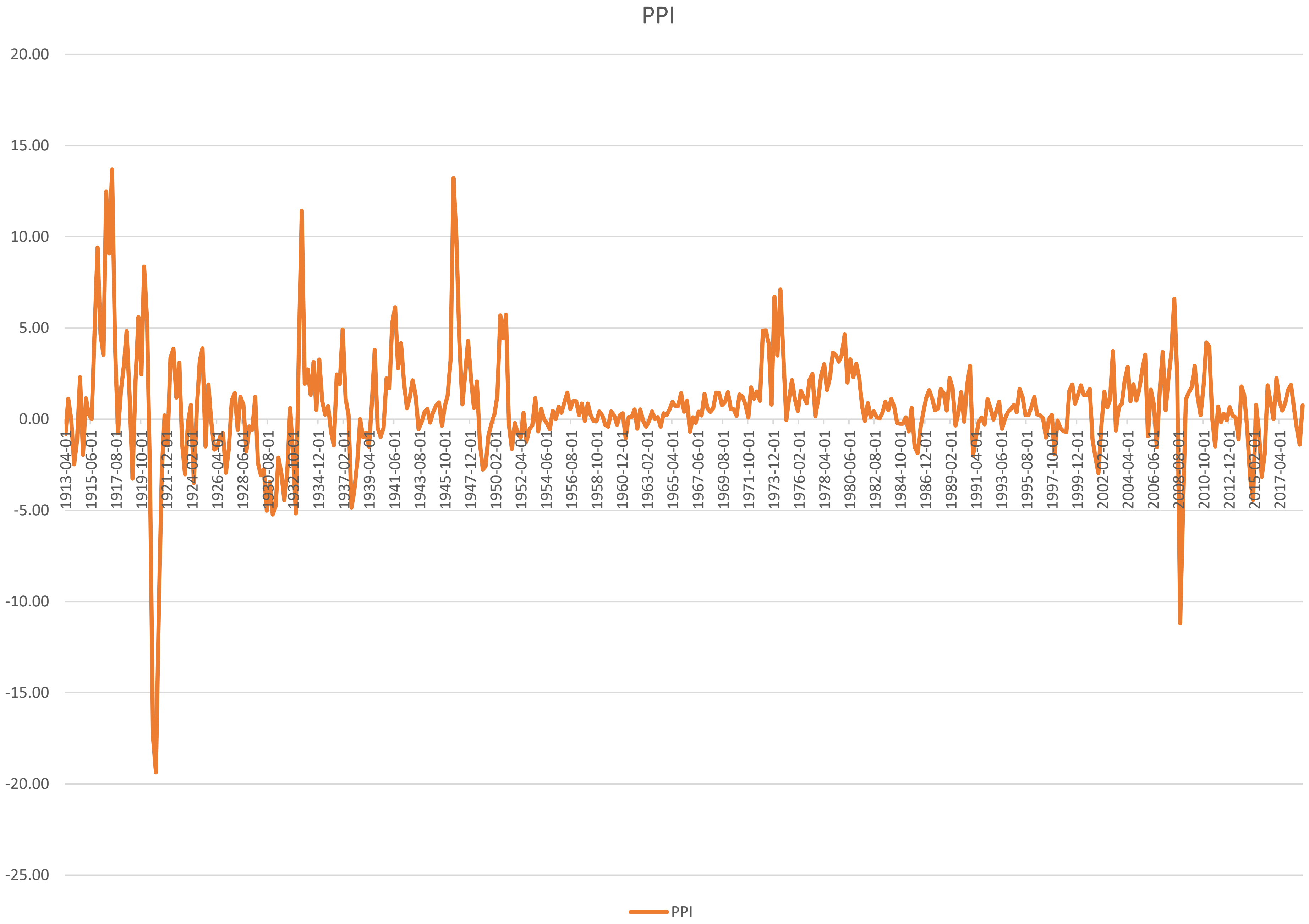
2019-01-01
Russell 3000
Commercial and industrial delinquency



The disruption in inflation over the last 20 years are rather related to Globalization and cheap oversupply from China than indicating any weakness in the economy



Up/downs in PPI look utterly familiar with the period of 1920s where we had a large push in globalization, too