

February 6, 2020

### **Business Cycle Index**

The BCI at 261.4 is up from last week's downward revised 260.7, and is below the previous high for this business cycle indicated by the BCIp of 96.6. However, the 6-month smoothed annualized growth BCIG at 9.3 is below last week's downward revised 9.4. Both BCIp and BCIG are not signaling a recession.

February 7, 2020

### **Market Signals Summary:**

The MAC-US model, iM-Low Frequency Timer, and the S&P500 Coppock are invested in the markets, as is the "3-mo Hi-Lo Index of the S&P500" which entered the market on 10/22/2018. The MAC-AU is also invested in the markets. The recession indicators COMP and iM-BCIG do not signal a recession. The bond market model avoids high beta (long) bonds, and the yield curve is steepening. The gold Coppock remains invested in gold, however the silver model is in cash. The iM-Gold Timer is invested in gold since 1/21/2020

### **Stock-markets:**

The [MAC-US](#) model switched into the markets on 2/26/2019. The sell-spread (red line) is above last week's value and needs to move below zero to generate a sell signal.

The [3-mo Hi-Lo Index](#) of the S&P500 is above last week's level at 14.28% (last 13.75%), and is invested in the stock market since 10/22/2019.

The Coppock indicator for the S&P500 entered the market on 5/9/2019 and is invested

The MAC-AU model is invested in the markets after signaling a buy on February 7, 2019. The sell-spread (red line) is above last week's value and needs to move below zero to generate a sell signal.

### **Recession:**

The current level of iM-LLI is plus 3.76 and is below last week's downward revised 3.80, hence this indicator signals that a recession is unlikely to begin during the next 8 months.

Figure 3.1 shows the recession indicator iM-BCIG below last week's level. An imminent recession is not signaled

The Forward Rate Ratio between the 2-year and 10-year U.S. Treasury yields (FRR2-10) is near last week's level and is not signaling a recession.

The iM-Low Frequency Timer is back in the markets since 1/22/2019.

### **Bond-market:**

The [BVR-model](#) avoids high beta bonds (long-bonds) and also intermediate duration bonds.

The Bond Value Ratio is shown in Fig 4. The BVR is above last week's level. According to the model, only when BVR turns upward after having been lower than the lower offset-line should one consider long bonds again.

### **The Yield Curve:**

The [yield curve model](#) indicates the trend of the 10-year and 2-year Treasuries yield spread. Figure 5 charts ( $i_{10} - i_2$ ) shows that the yield curve is near last week's level. FLAT and STPP are ETNs; STPP profits from a steepening yield curve and FLAT increases in value when the yield curve flattens. This model confirms the direction of the BVR.

### **Gold:**

The modified Coppock Gold indicator shown in Fig 6. This model generated a new buy signal end March 2019 and is invested in gold.

The [iM GOLD-TIMER Rev-1](#) is invested in gold since 1/21/2020.

### **Silver:**

The modified Coppock Silver indicator shown in Fig 7. This model generated a sell signal early August 2018 and is in cash.

Monthly Updates (next update 3/6/2020)

### **February 7, 2020**

#### **Unemployment**

The unemployment rate recession model ([article link](#)), has been updated with the January UER of 3.6%. The model does not signal a recession.

The Dynamic Linearly Detrended Enhanced Aggregate Spread:

This update is discontinued and replaced by our weekly updated iM-LLI.

## **CAPE-Cycle-ID**

Fig 9a depicts the CAPE-Cycle-ID and the year-on-year rate-of-change of the Shiller CAPE; the level switched from 0 to +2 end of October-2019. This indicator is described [here](#).

To avoid the bear market, exit stocks when the spread between the 5-month and 25-month moving averages of S&P-real becomes negative and simultaneously the CAPE-Cycle-ID score is 0 or -2.

## **Estimated Forward 10-Year Returns**

The estimated forward 10-year annualized real return decreased to 5.9% (previous 6.1) with a 95% confidence interval : 4.5% to 7.3 (previous 4.7% to 7.5%).

## **iM-GT Timer**

The iM-GT Timer, based on Google Search Trends volume switched into the markets on 12/02/2019. This indicator is described [here](#).

## **Trade Weighted USD**

Not included in this PDF. Will be updated later on the website, the weekly FRED data series we used was discontinued and replacement series is daily and runs from 2015. We need to adapt our software and graphics first.

## **TIAA Real Estate Account**

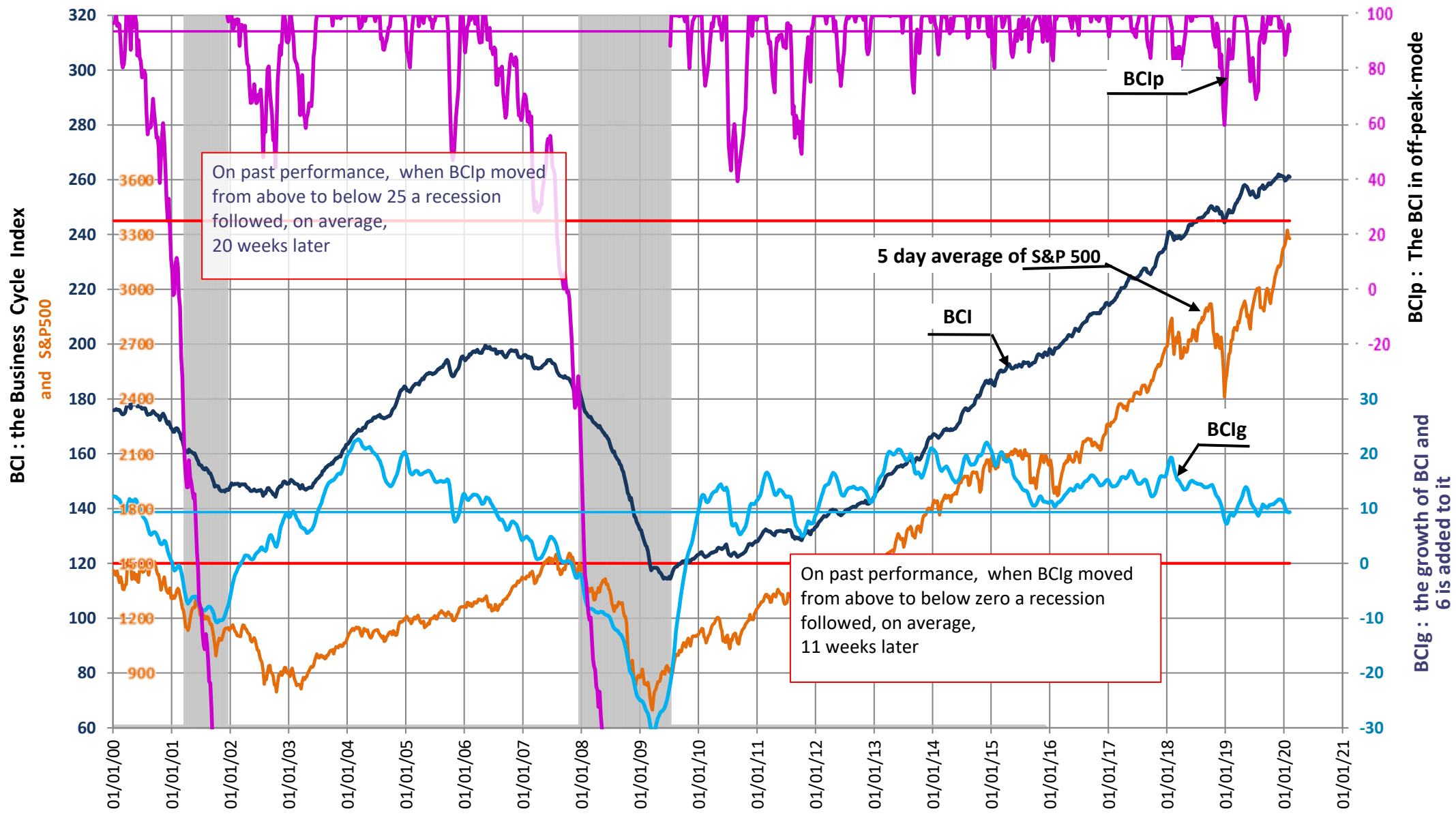
The 1-year rolling return for the end of last month is 4.59%, down from last month. A sell signal is not imminent.

# iM's Business Cycle Index (BCI)

Date	01/09	01/16	01/23	01/30	02/06
BCIp	85.5	87.1	92.1	96.6	<b>94.1</b>
BCI	259.7	259.9	260.7	261.4	<b>261.0</b>
BCIg	10.2	9.7	9.4	9.3	<b>9.4</b>

BCIp, BCI and BCIG  
updated to February 06, 2020

On past performance, BCIp = 100 can be interpreted as an average one year "time-to-live" to a recession.

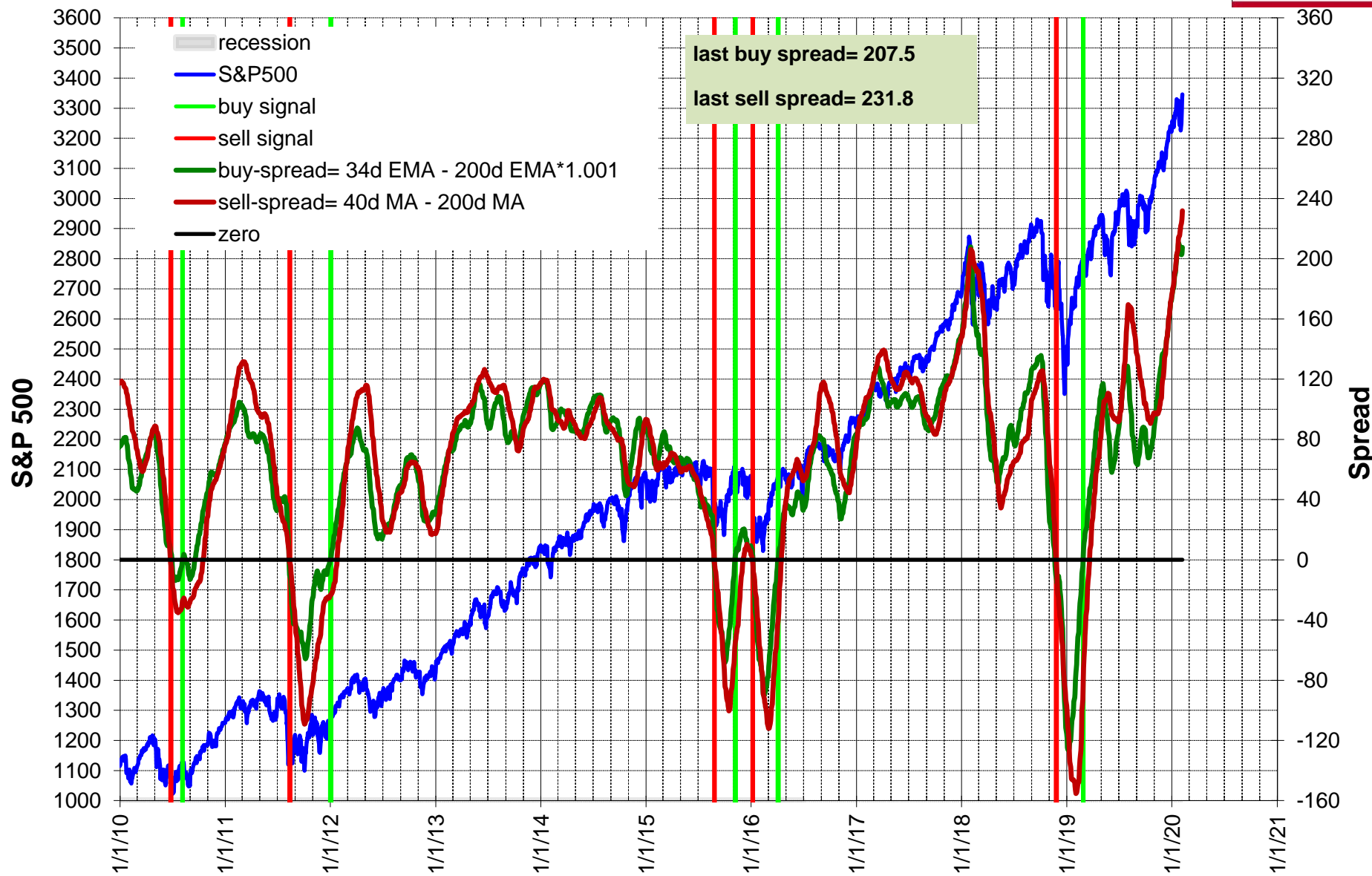


Please note: Past performance does not guarantee future returns, investments may increase or decrease in value and you may lose money using this model.

### Figure 2: Buy and Sell signals for S&P 500 from the modified golden-cross MAC-System



updated to...2/6/20





**Fig 2.1: Buy and Sell signals for the Australia All Ordinaries Index from the MAC-AU System**

updated to Feb-7-20  
last sell spread= 307.0

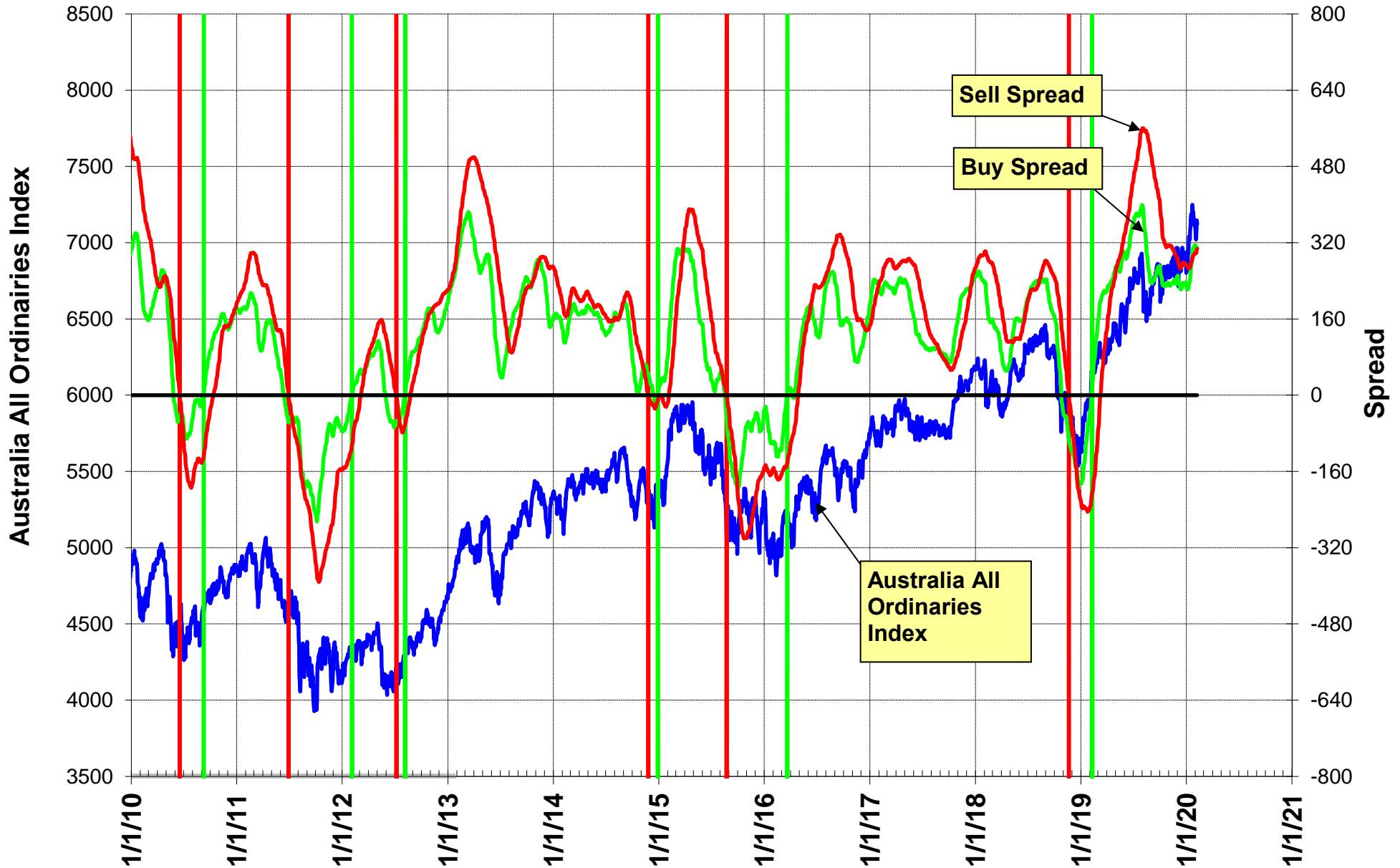
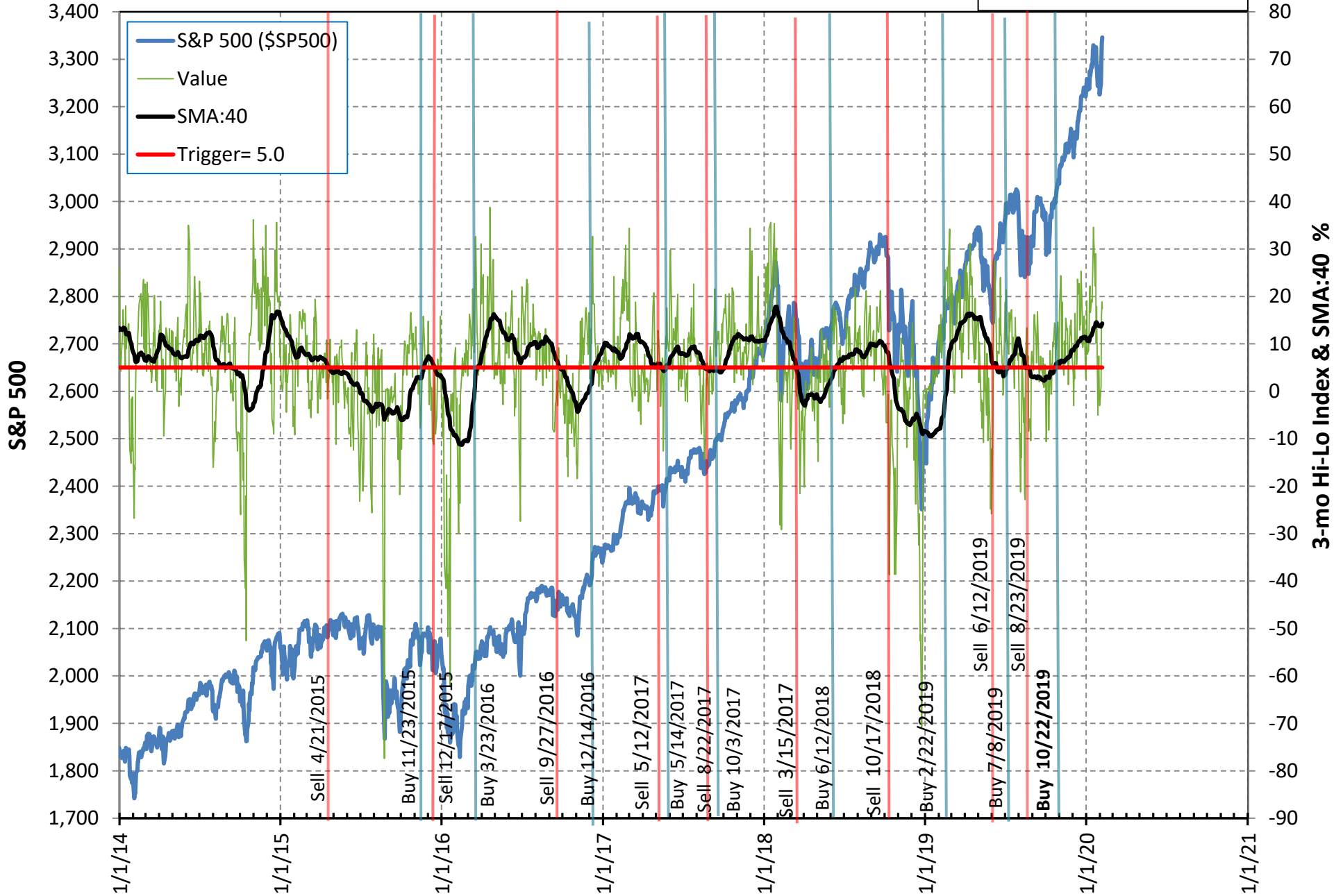


Fig 2.2 3-mo Hi-Lo Index of the S&P500 & 40-day SMA of Index

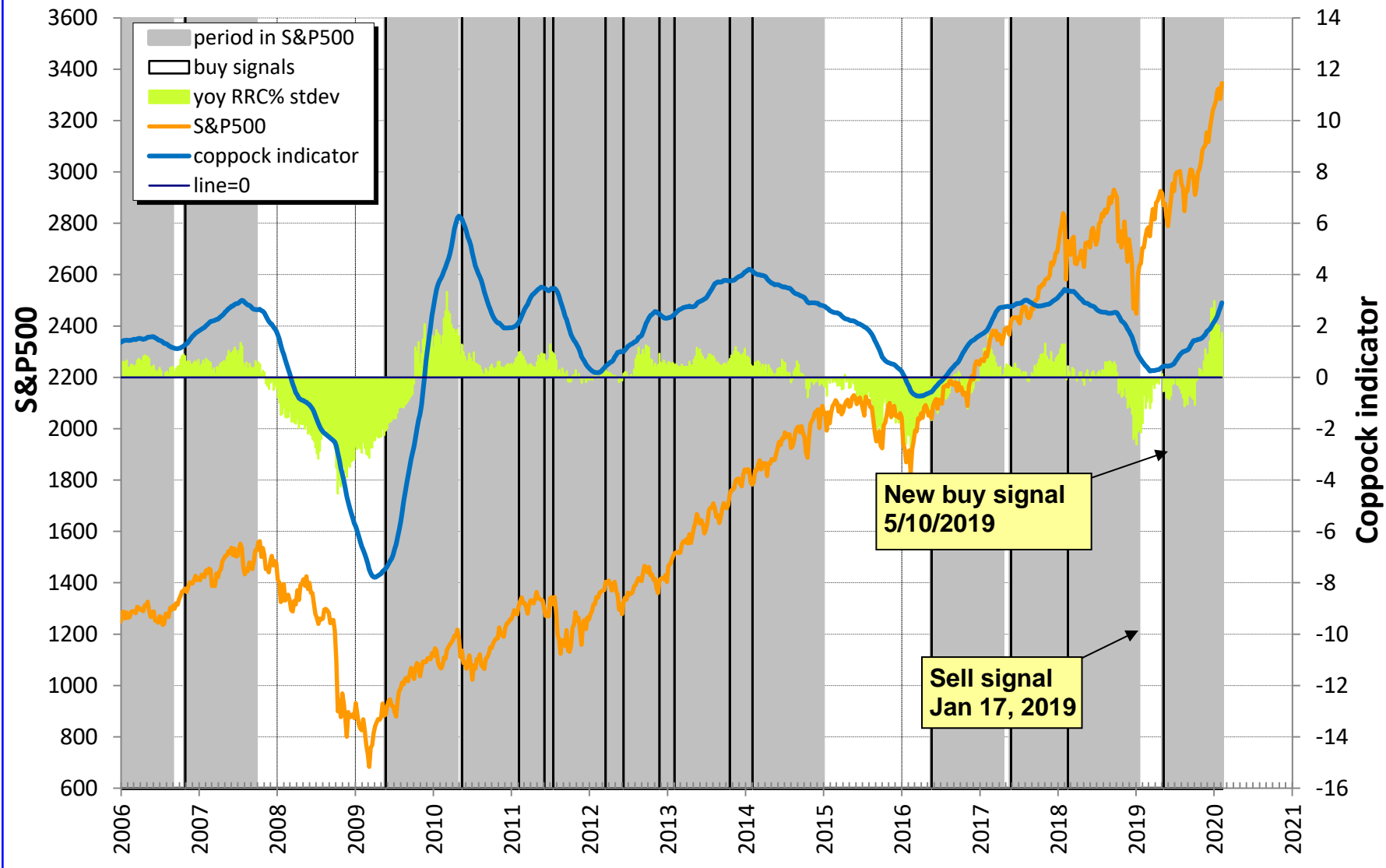
updated to 2/6/2020

last SMA:40= 14.28%



### Fig-2.3 Modified Coppock Indicator for S&P500

updated to 02/06/2020



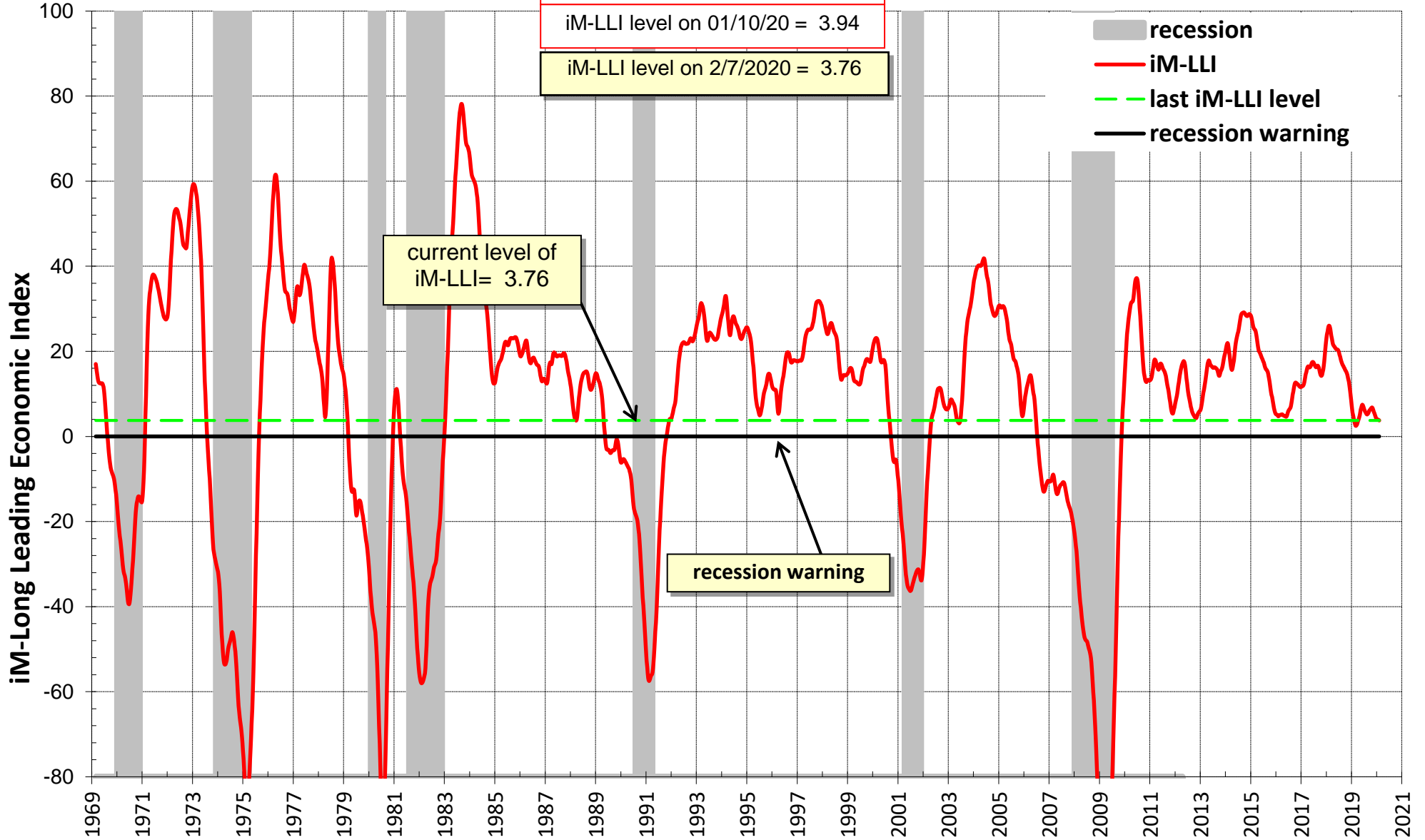


### Figure-3: The iMarketSignals Long Leading Economic Index (iM-LLI)

max, min, & average leads to recessions  
= 77, 18, & 36 weeks

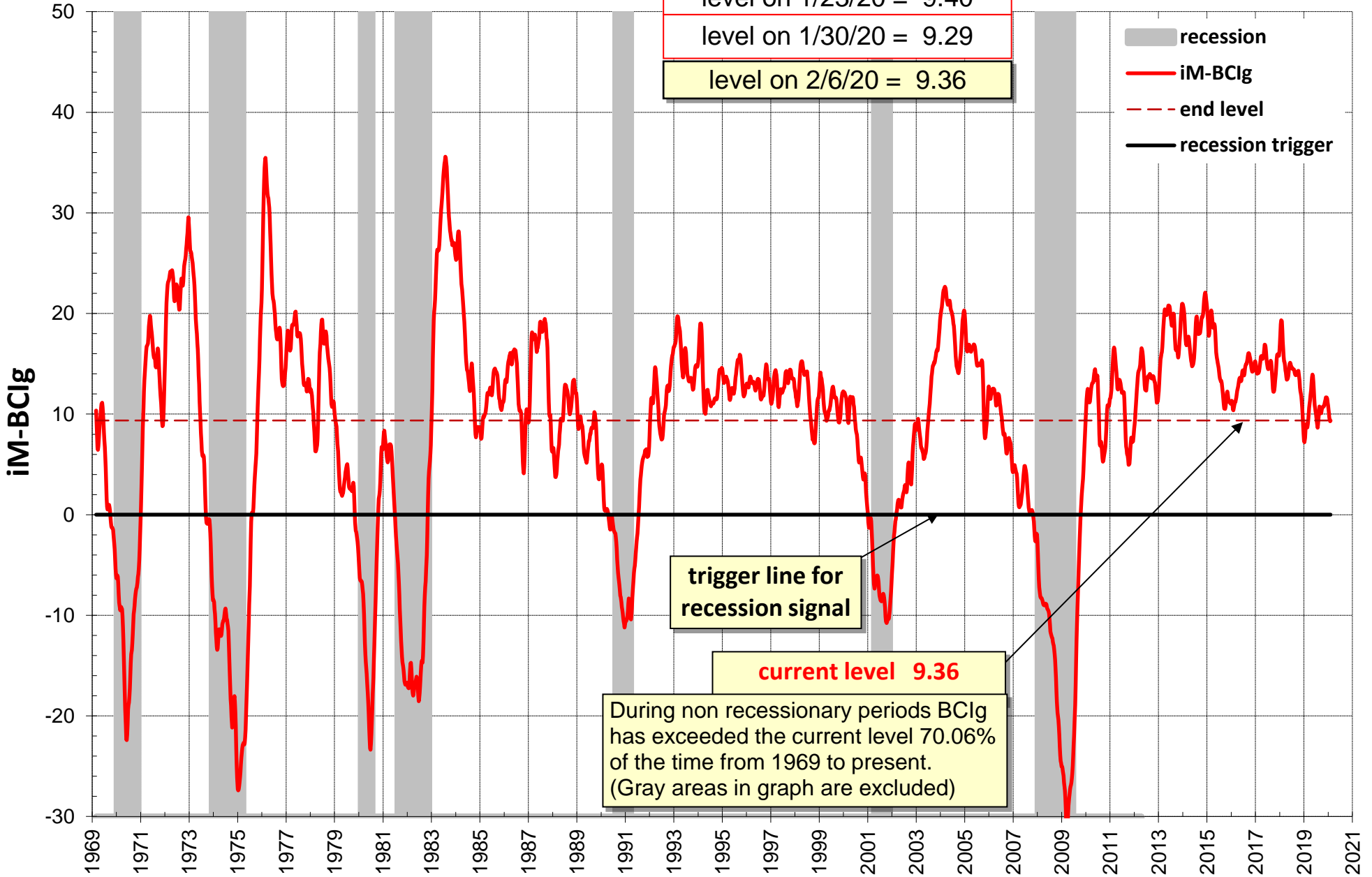
iM-LLI level on 11/08/19 = 6.52  
iM-LLI level on 12/13/19 = 4.76  
iM-LLI level on 01/10/20 = 3.94  
iM-LLI level on 2/7/2020 = 3.76

Note: Some of the levels of the iM-LLI may differ from previous releases due to revisions.



**Fig 3.1: iM-BCI<sub>g</sub>**

level on 1/16/20 = 9.71  
level on 1/23/20 = 9.40  
level on 1/30/20 = 9.29  
level on 2/6/20 = 9.36



**Figure 3.2: Forward Rate Ratio FRR2-10 - leads to Recessions**

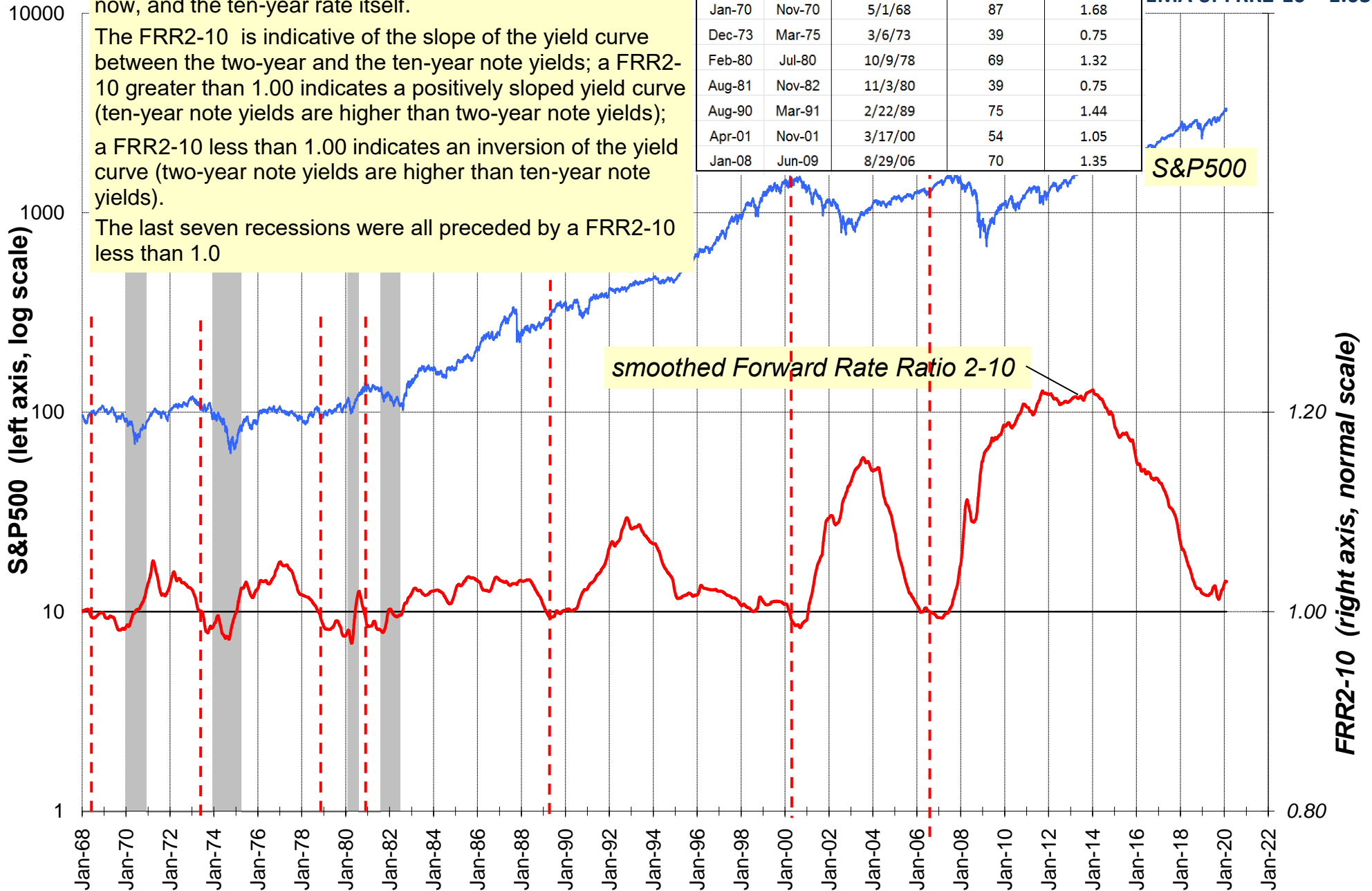
updated to 02/06/2020  
EMA of FRR2-10 = 1.030

FRR2-10 is the ratio of the rate at which one can lock in borrowing for the eight year period starting two years from now, and the ten-year rate itself.

The FRR2-10 is indicative of the slope of the yield curve between the two-year and the ten-year note yields; a FRR2-10 greater than 1.00 indicates a positively sloped yield curve (ten-year note yields are higher than two-year note yields); a FRR2-10 less than 1.00 indicates an inversion of the yield curve (two-year note yields are higher than ten-year note yields).

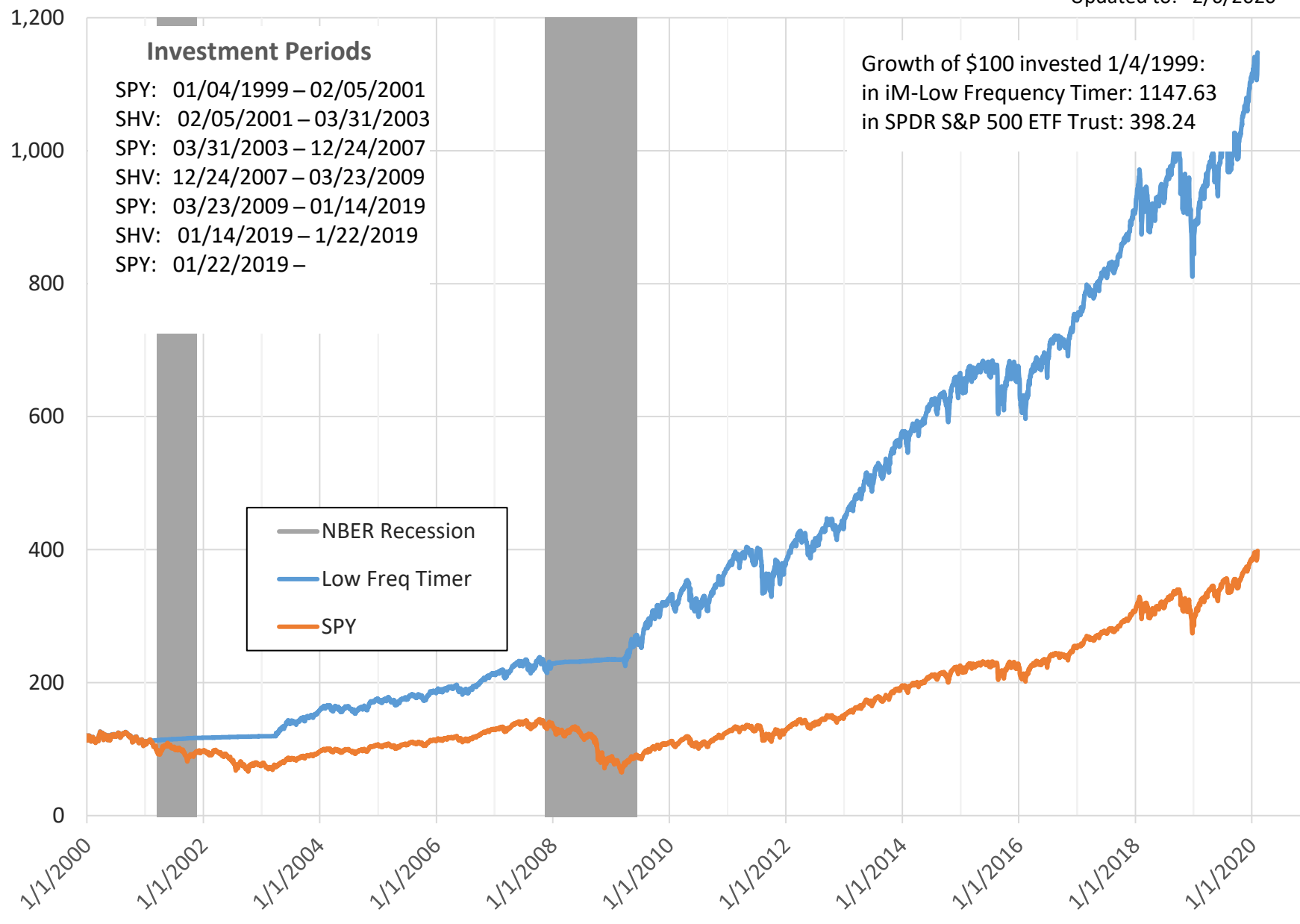
The last seven recessions were all preceded by a FRR2-10 less than 1.0

Recessions start	Recessions end	Date when EMA of FRR2-10 less than 1.0	Lead to Ression start (weeks)	Lead to Ression start (years)
Jan-70	Nov-70	5/1/68	87	1.68
Dec-73	Mar-75	3/6/73	39	0.75
Feb-80	Jul-80	10/9/78	69	1.32
Aug-81	Nov-82	11/3/80	39	0.75
Aug-90	Mar-91	2/22/89	75	1.44
Apr-01	Nov-01	3/17/00	54	1.05
Jan-08	Jun-09	8/29/06	70	1.35



### Fig.3.3 iM-Low Frequency Timer

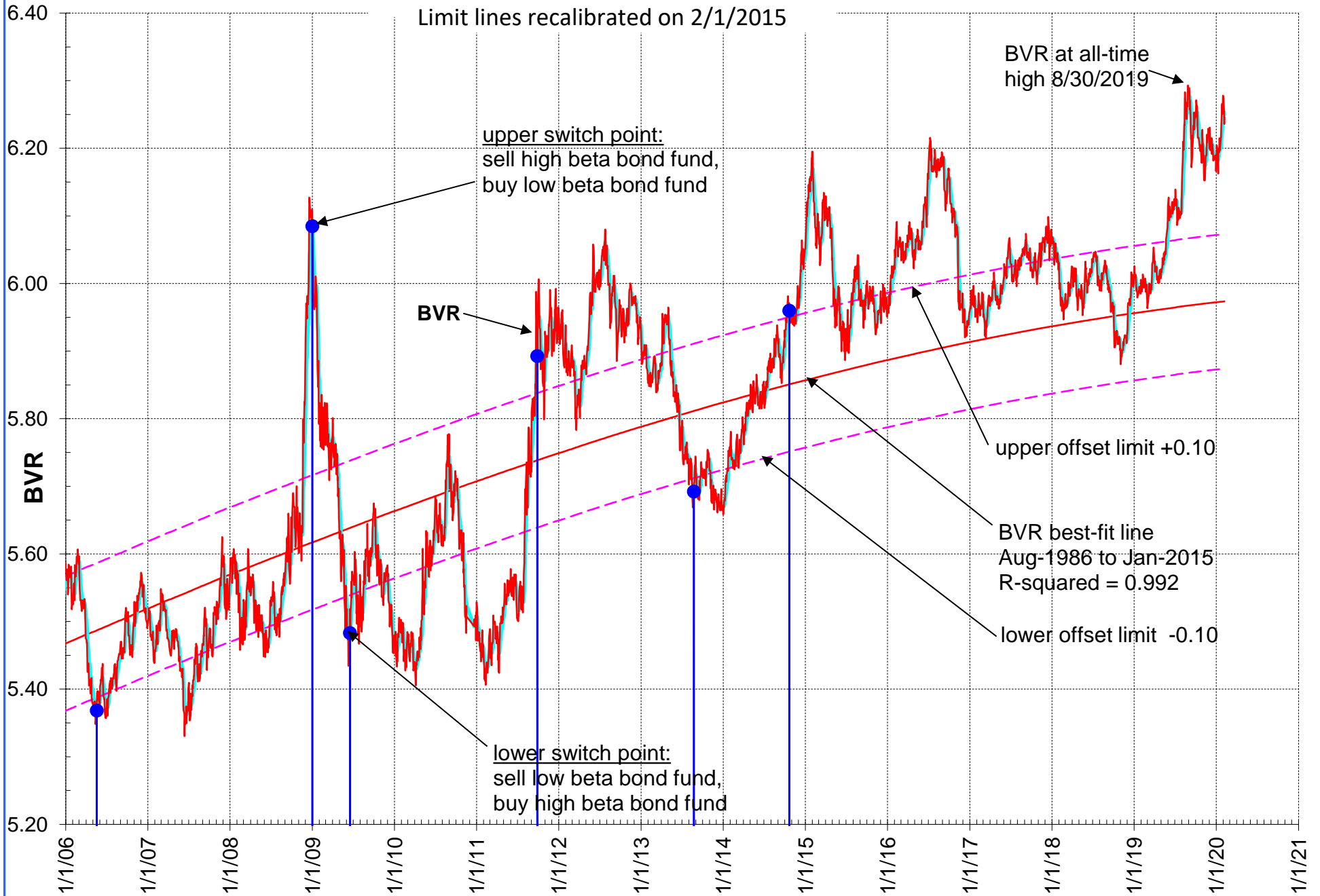
Updated to: 2/6/2020



### Figure 4: Bond Value Ratio (BVR)

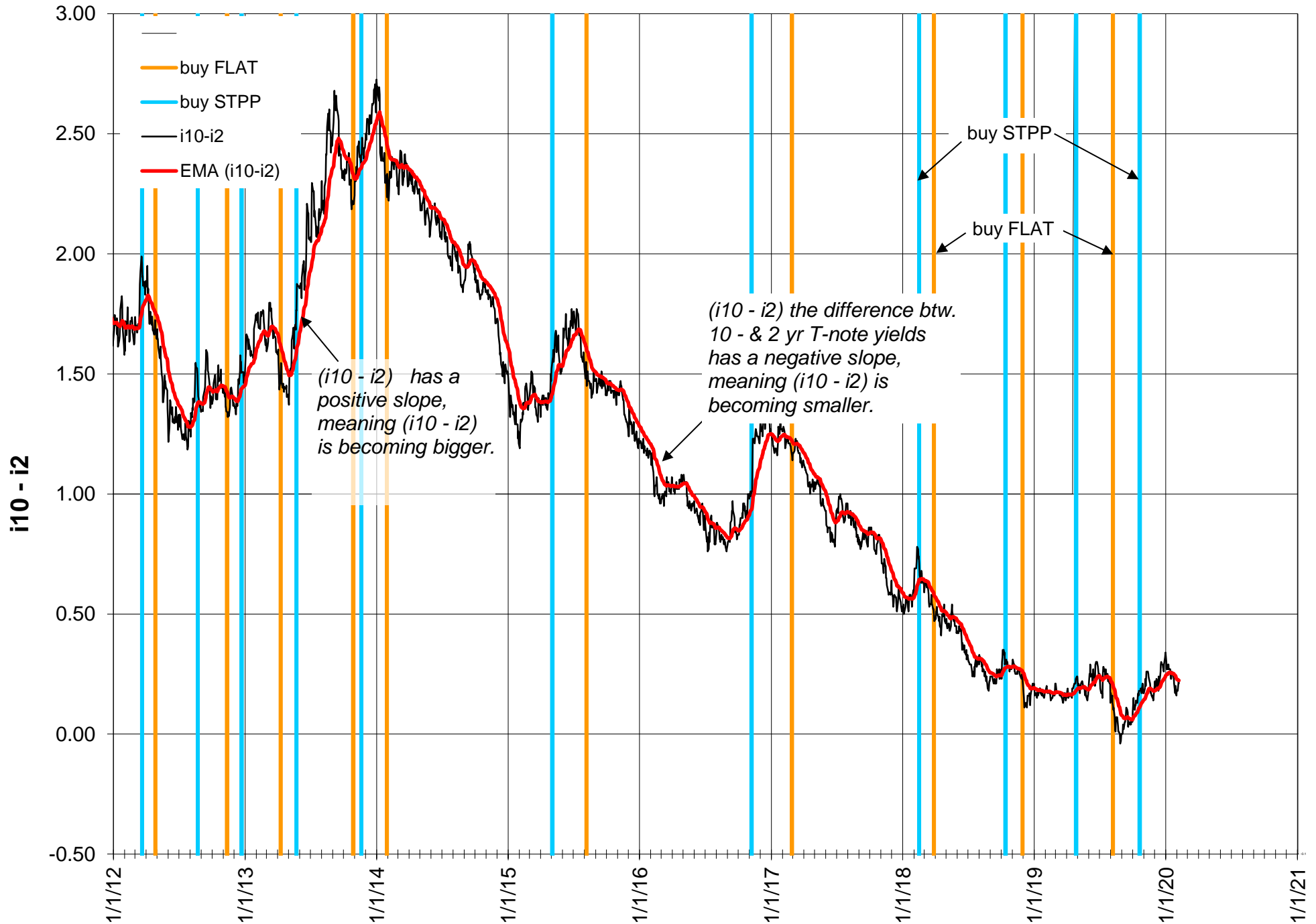
Model updated to: 2/6/2020 BVR = 6.247

Limit lines recalibrated on 2/1/2015



**Fig. 5: Yield Curve: i10 - i2**

Updated to.....2/6/2020



# Figure 6: Modified Coppock Indicator for Gold

updated to 02/06/2020

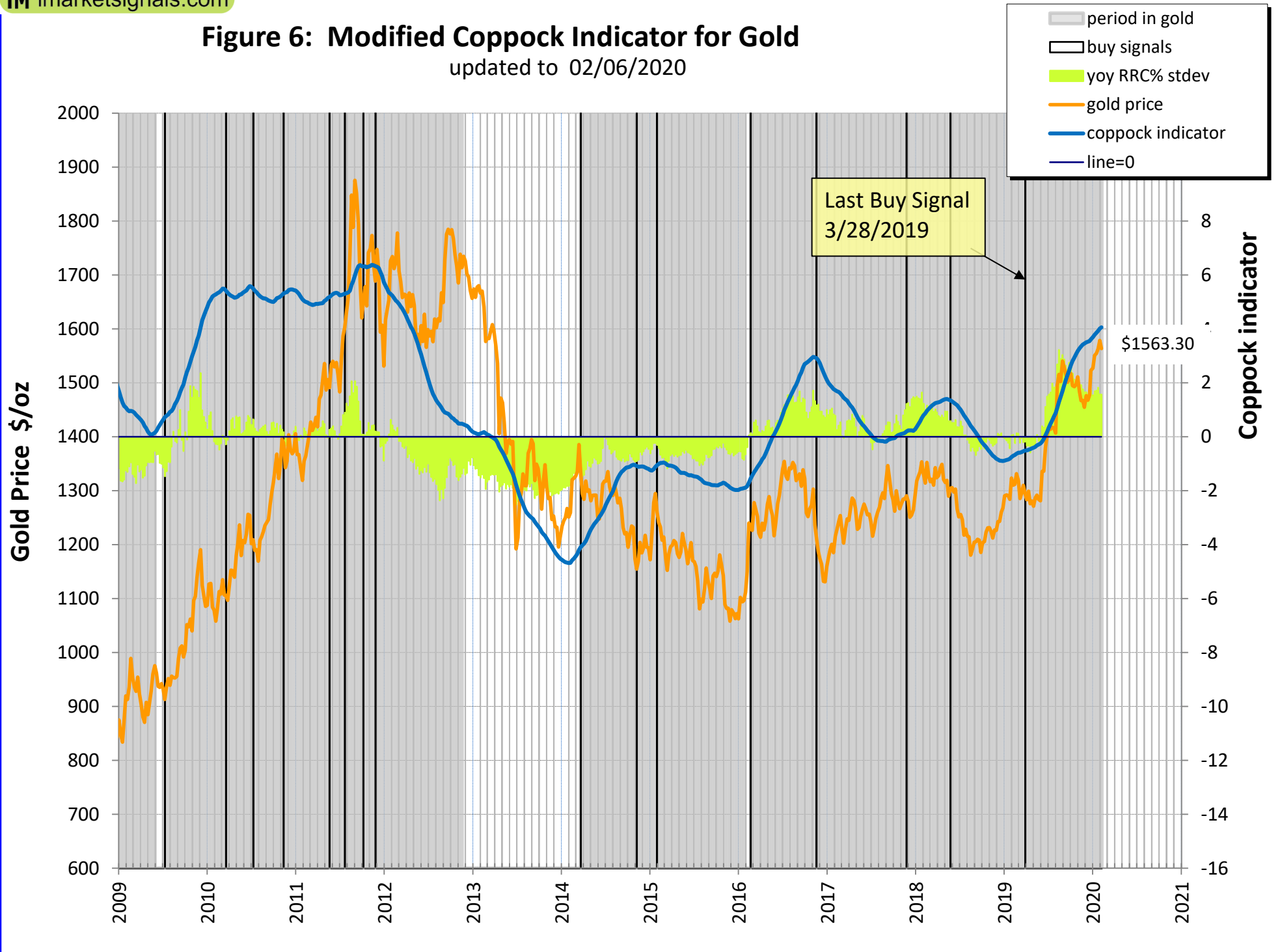
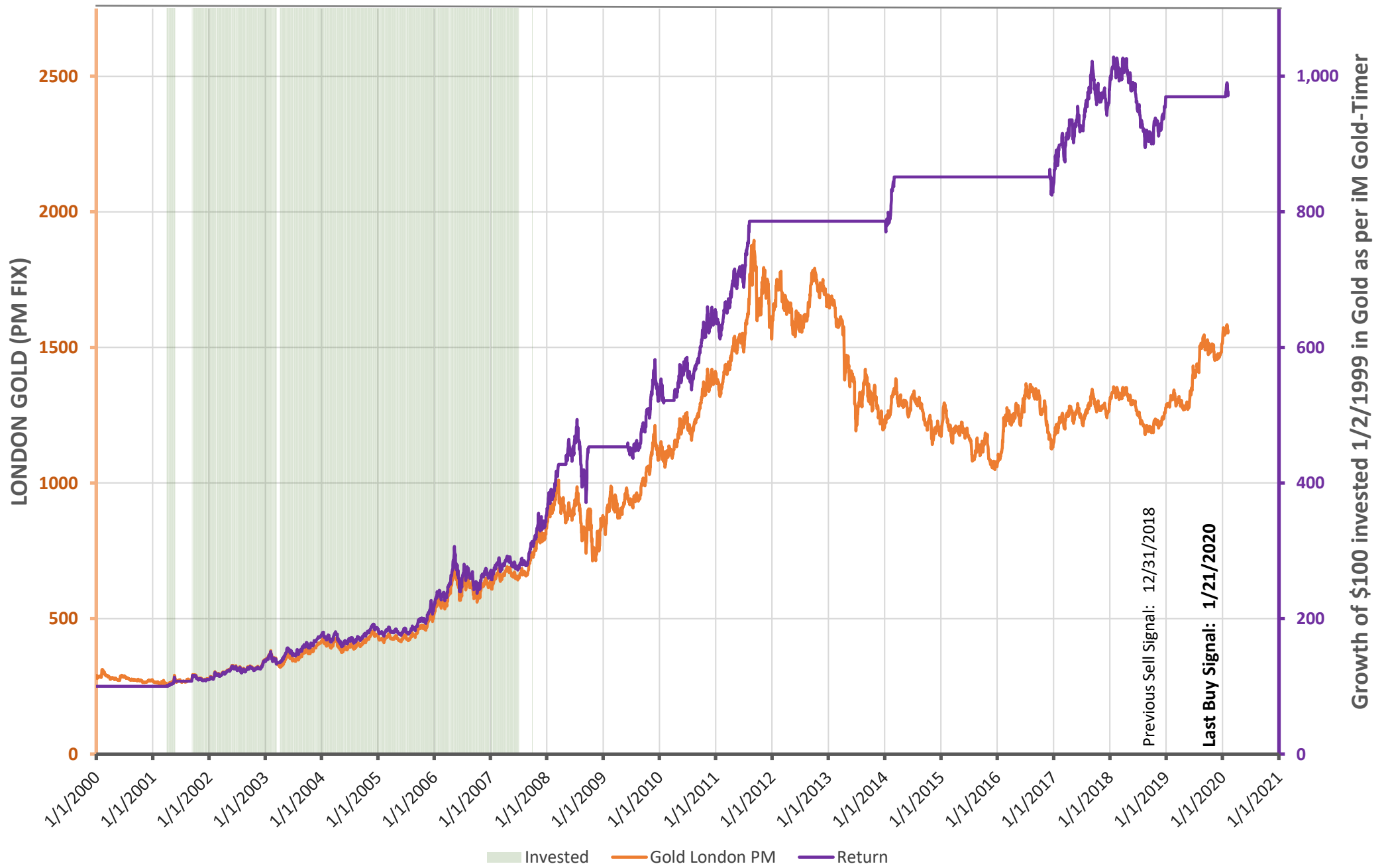


Fig. 6.1a iM GOLD-TIMER - Rev 1

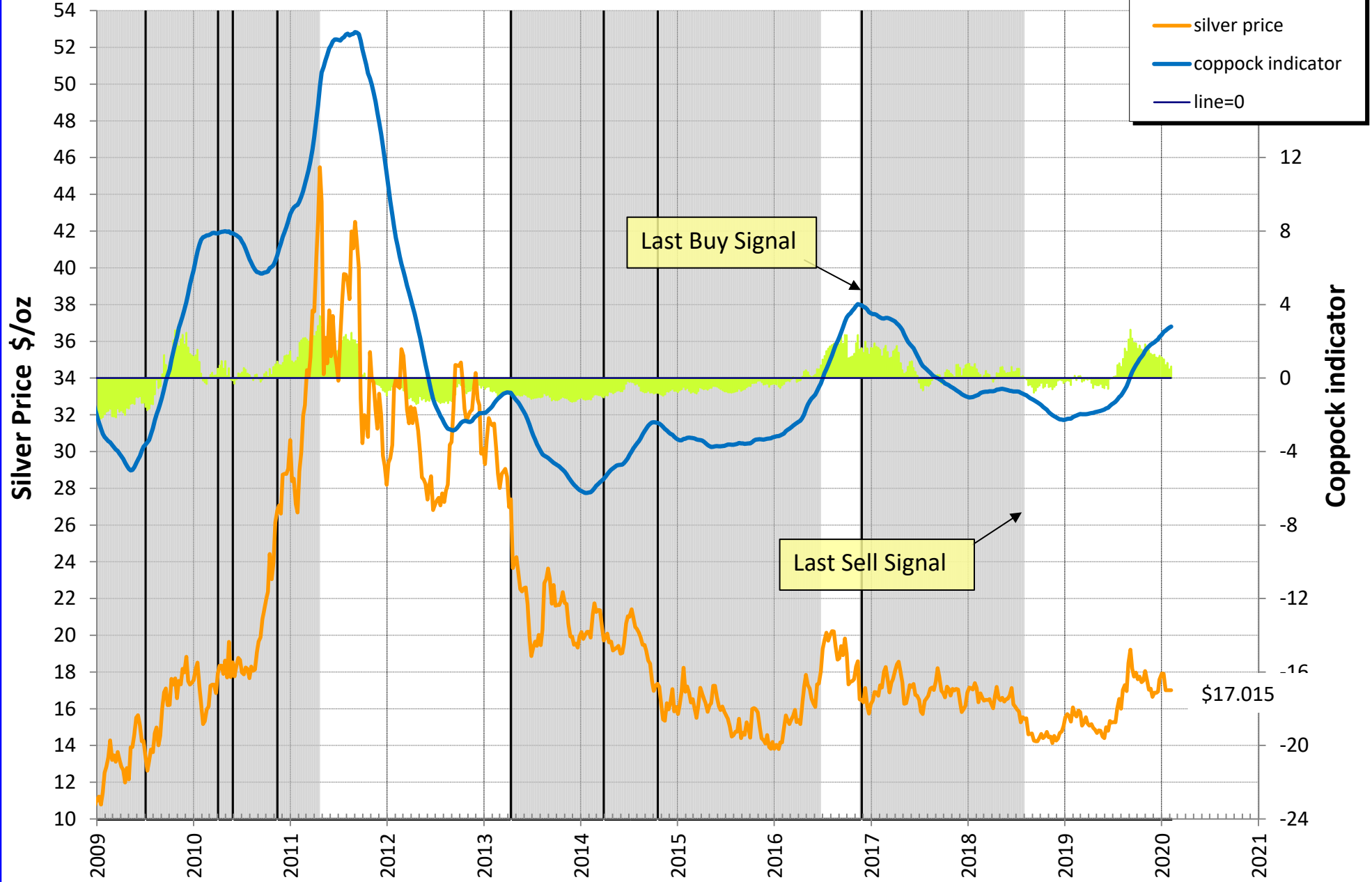
Updated to: 2/6/2020





### Figure 7: Modified Coppock Indicator for Silver

updated to 02/06/2020



### Fig-8 Unemployment Rate and Recessions (real-time) 2000-2019

Leads to recession starts and to recession ends are positive numbers in weeks, lags are negative numbers.

updated to 2-28-2020 with January UER= 3.6%

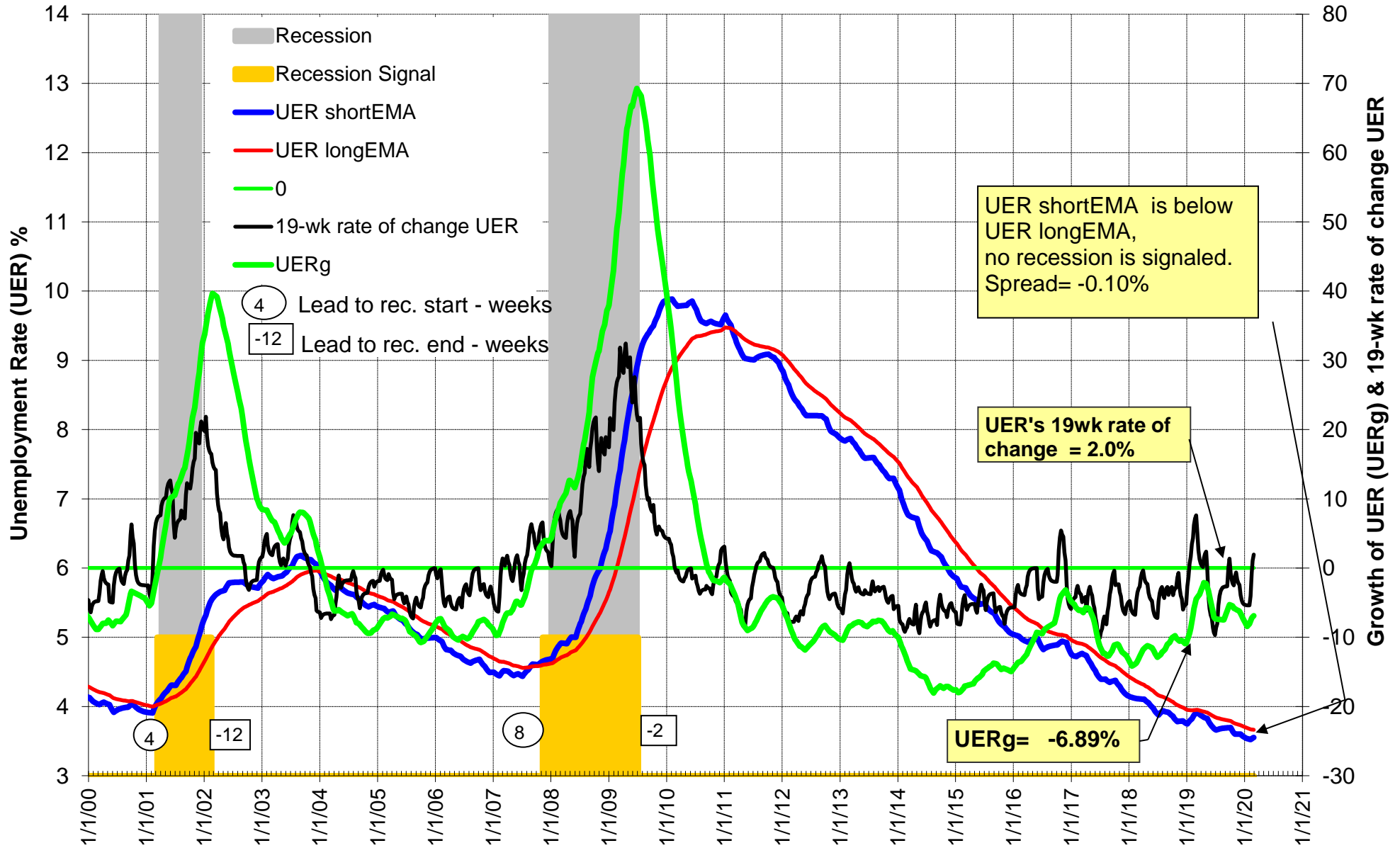
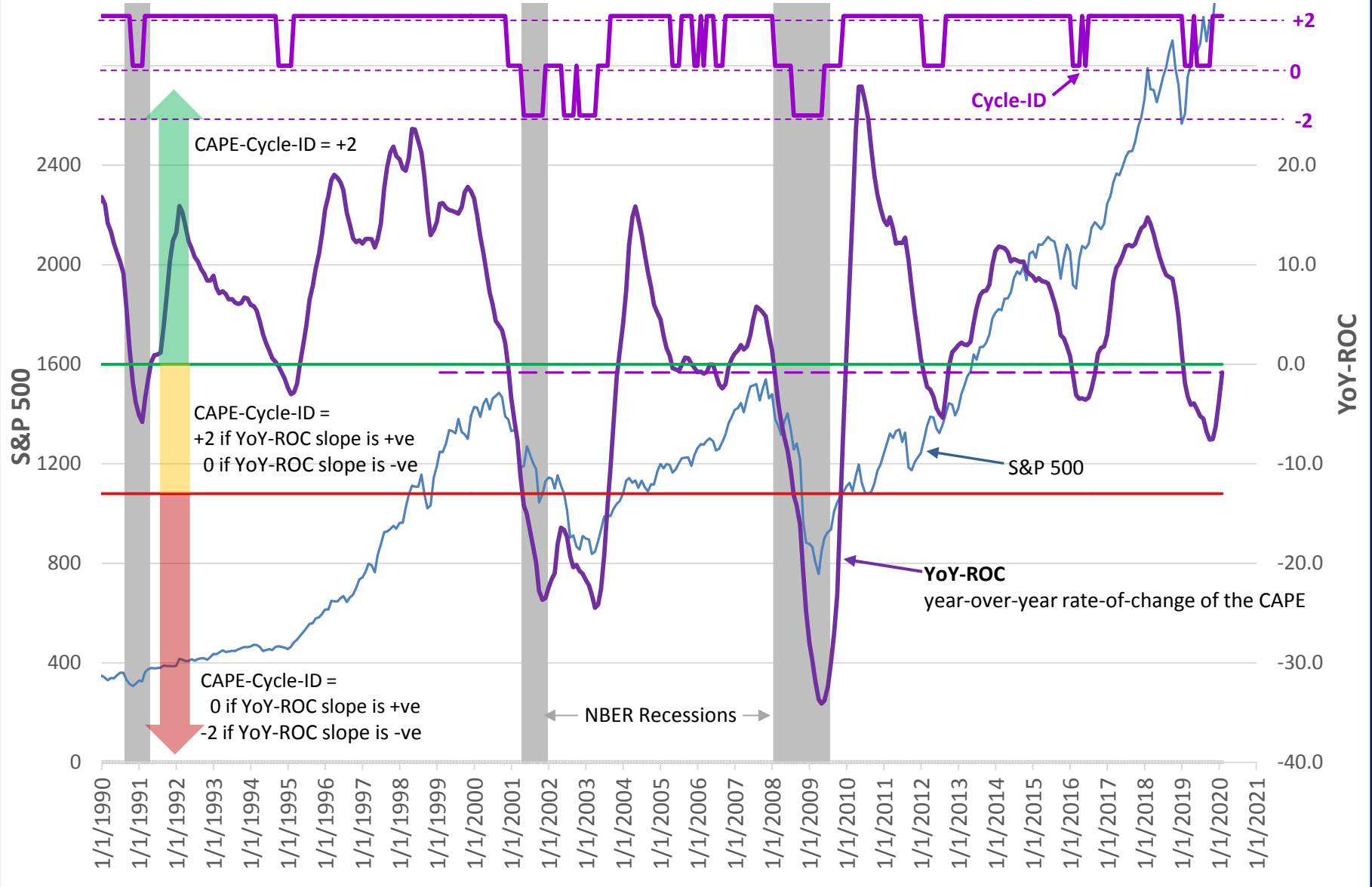


Fig. 9a CAPE-Cycle-ID and the YoY-ROC from 1990

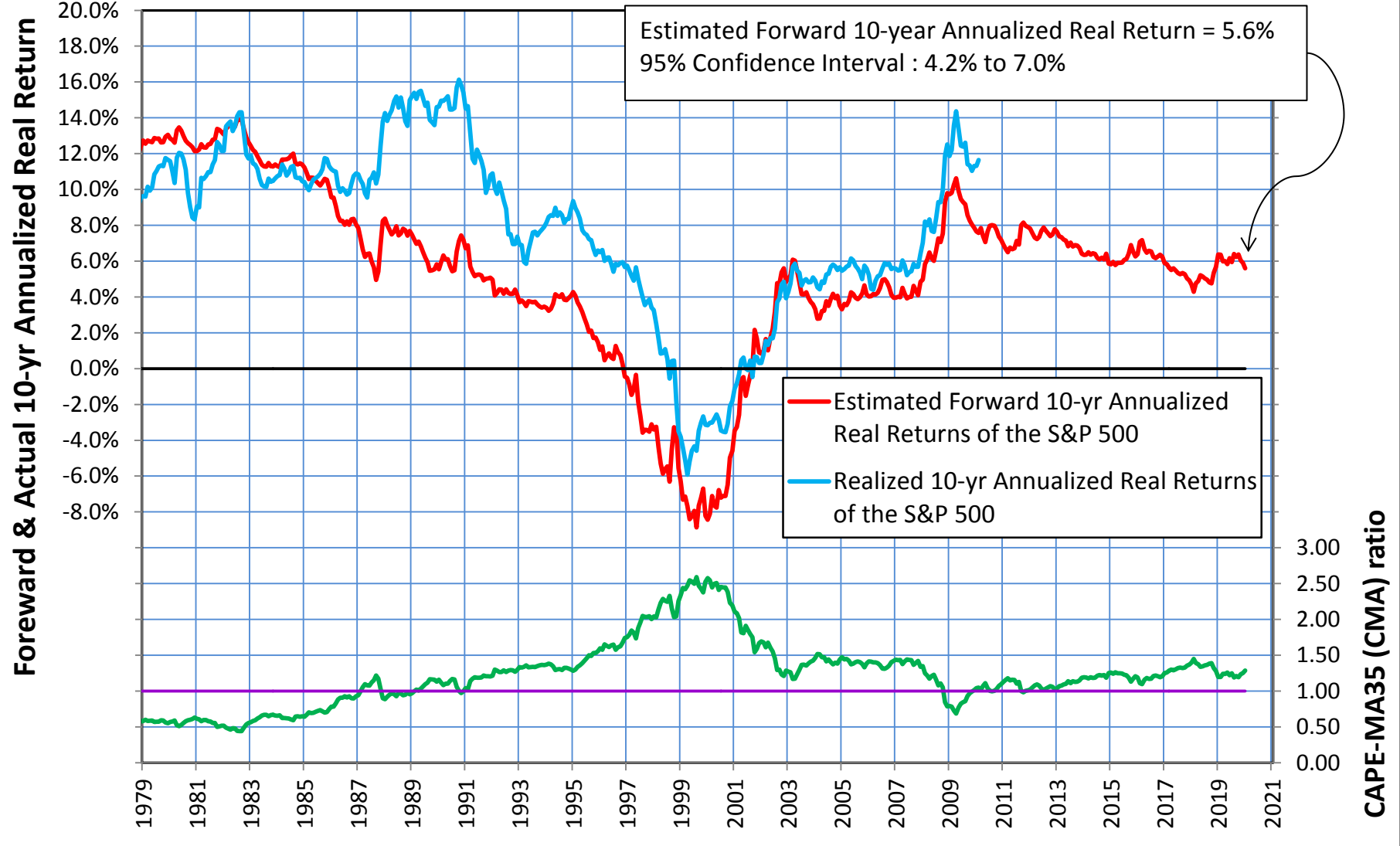
updated to 1/31/2020  
Shiller CAPE= 31.11

Spread btw 5-mo and 25-mo Moving Avg of S&P-real: (2019.10= 80,609), (2019.11= 94,066), (2019.12= 103,284), (2020.01= 141,392)

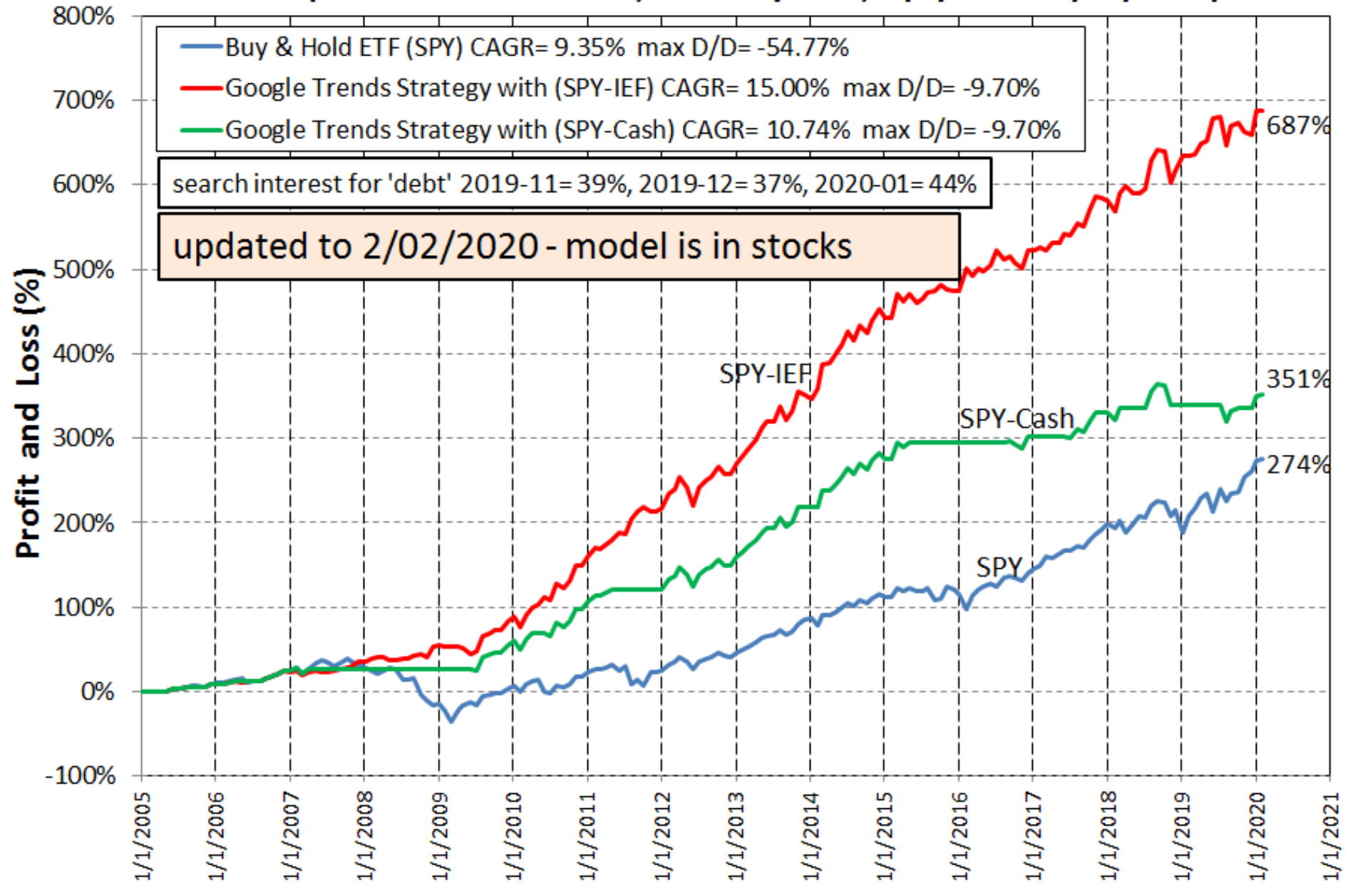


**Fig 9.b Realized vs. Estimated Forward 10-year Annualized Real Returns of the S&P 500 from the CAPE-MA35 (CMA) Ratio Method**

Estimated Forward 10-yr Returns are calculated from yearly regression equations, regressed on monthly data from Jan-1917 onward. updated to 1/31/2020 Last CAPE-MA35 ratio= 1.29, previous month= 1.25



**Figure-10: Cumulative Performance iM-GT Timer**  
(Search Term = "debt", monthly data, 5/2/2005 - 2/02/2020)



## TIAA Real Estate Account vs. Vanguard REIT Index Fund (VGSIX) 2000 - 2019

updated to 2/6/20, TIAAreal current 1-year rolling return= 4.59%

