

April 2, 2020

Business Cycle Index

The BCI at 249.0 is down from last week's 253.1, and is below the previous high for this business cycle indicated by the **BCIp at 6.6, which signals a recession**. Also, the 6-month smoothed annualized growth BCIG at 3.8 is down from last week's 6.2. BCIG probably will be below zero next week or the week thereafter.

April 3, 2020

Market Signals Summary:

The 3-mo Hi-Lo Index is out of the market since 3/5/2020 and the MAC US and the MAC AU are out of the markets since 3/26/2020. The bond market model avoids high beta (long) bonds, and the yield curve is steepening and signaled a buy STPP. The Gold Coppock remains in gold but the iM-Gold Timer is in cash, However the Silver Coppock model is invested in silver.

The BCI, the iM-Comp and the iM-Unemployment models all signal a recession

The iM-GT Timer, based on Google Search Trends volume switched out of the markets on 3/5/2020.

Stock-markets:

The [MAC-US](#) model switched out of the markets on 3/26/2020. The buy-spread (green line) is below last week's value.

The [3-mo Hi-Lo Index](#) Index of the S&P500 at -18.02% is below last week's -17.07%, and is out of the stock market since 3/5/2020.

The Coppock indicator for the S&P500 entered the market on 5/9/2019 and is invested. This indicator is described [here](#).

The MAC-AU model switch out of the markets on 3/27/2020. The buy-spread (green line) is below last week's value.

Recession:

The [iM-LLI](#) reflects mainly data for February 2020, except for the BCI.

Although we discontinued COMP, we updated it weekly and with the input data of 3/27/2020 signals a recession. This model uses following three components: (i) [ECRI's WLIW](#), (ii) [Aruoba-Diebold-Scotti Business Conditions Index](#) (ADS), and (iii) [The Conference Board Leading Economic Index® \(LEI\) for the U.S](#). Mainly the ADS drove the COMP downwards.

Figure 3.1 shows the recession indicator iM-BCIg below last week's level. However, BCIp has signaled a recession. Please also refer to the [BCI page](#)

The Forward Rate Ratio between the 2-year and 10-year U.S. Treasury yields (FRR2-10) is above last week's level. A description of this indicator can be [found here](#).

The iM-Low Frequency Timer is back in the markets since 1/22/2019. A description of this indicator can be [found here](#).

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. 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 (i10 – i2) shows that the yield curve is above last weeks 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 in cash since 3/16/2020.

Silver:

The modified Coppock Silver indicator shown in Fig 7. This model generated a buy signal March 19, 2020 (previously not reported).

Monthly Updates (next update May 8)

April 3, 2020

Unemployment

The unemployment rate recession model ([article link](#)), has been updated with the **March UER of 4.4% and signals a recession**.

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. ([read more](#))

Estimated Forward 10-Year Returns

The estimated forward 10-year annualized real return increased to 7.8% (previous 5.8) with a 95% confidence interval : 6.6% to 9.1% (previous 4.4% to 7.2%).

iM-GT Timer

The iM-GT Timer, based on Google Search Trends volume switched out of the markets on 3/5/2020. This indicator is described [here](#).

TIAA Real Estate Account

The 1-year rolling return for the end of last month is 3.63%, down from last month's 4.63%.

iM's Business Cycle Index (BCI)

Date	03/05	03/12	03/19	03/26	04/02
BCIp	84.8	75.5	56.7	33.1	6.6
BCI	261.2	259.8	256.8	253.1	249.0
BCIg	10.7	9.8	8.3	6.2	3.8

BCIp, BCI and BCIG
updated to April 02, 2020

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

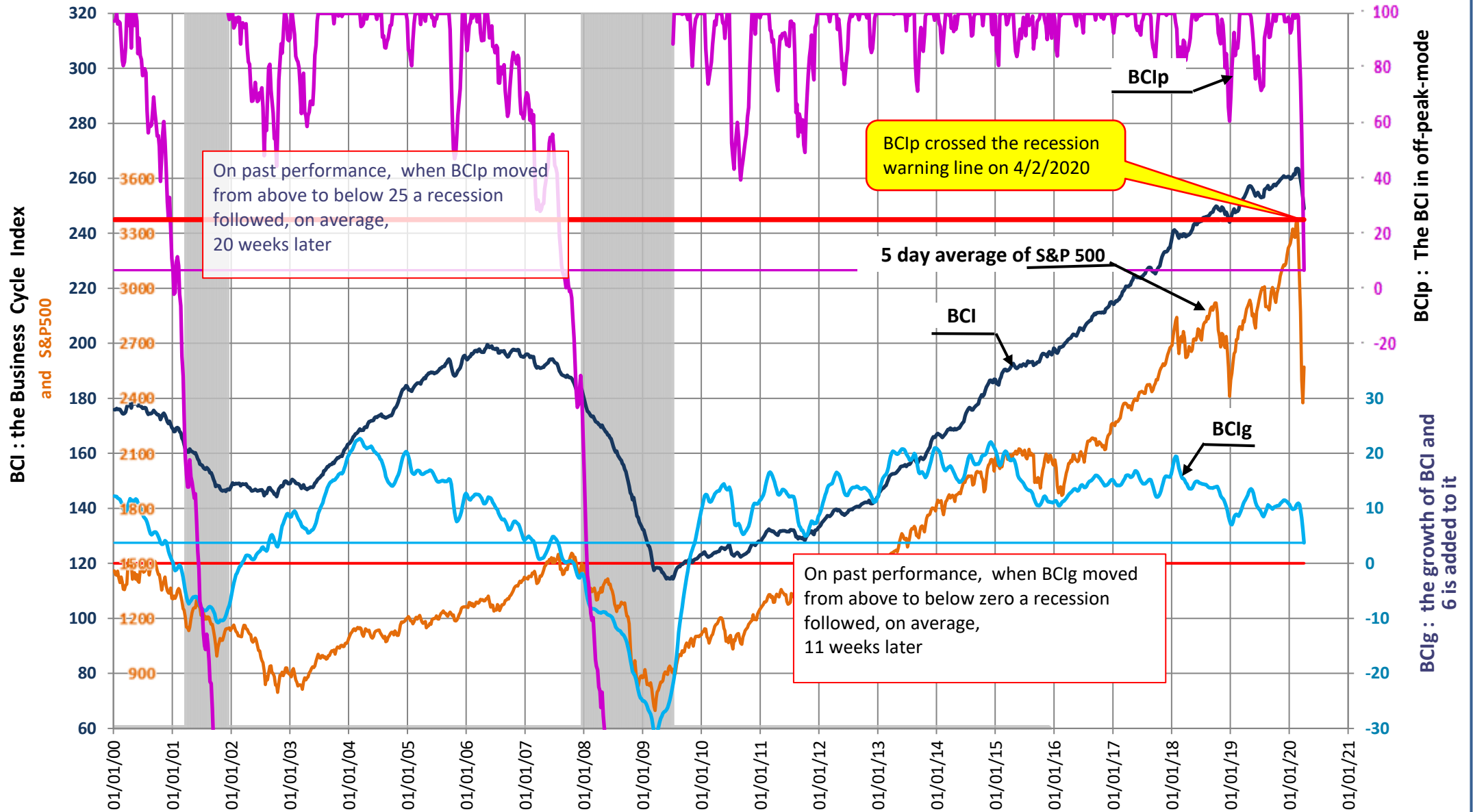
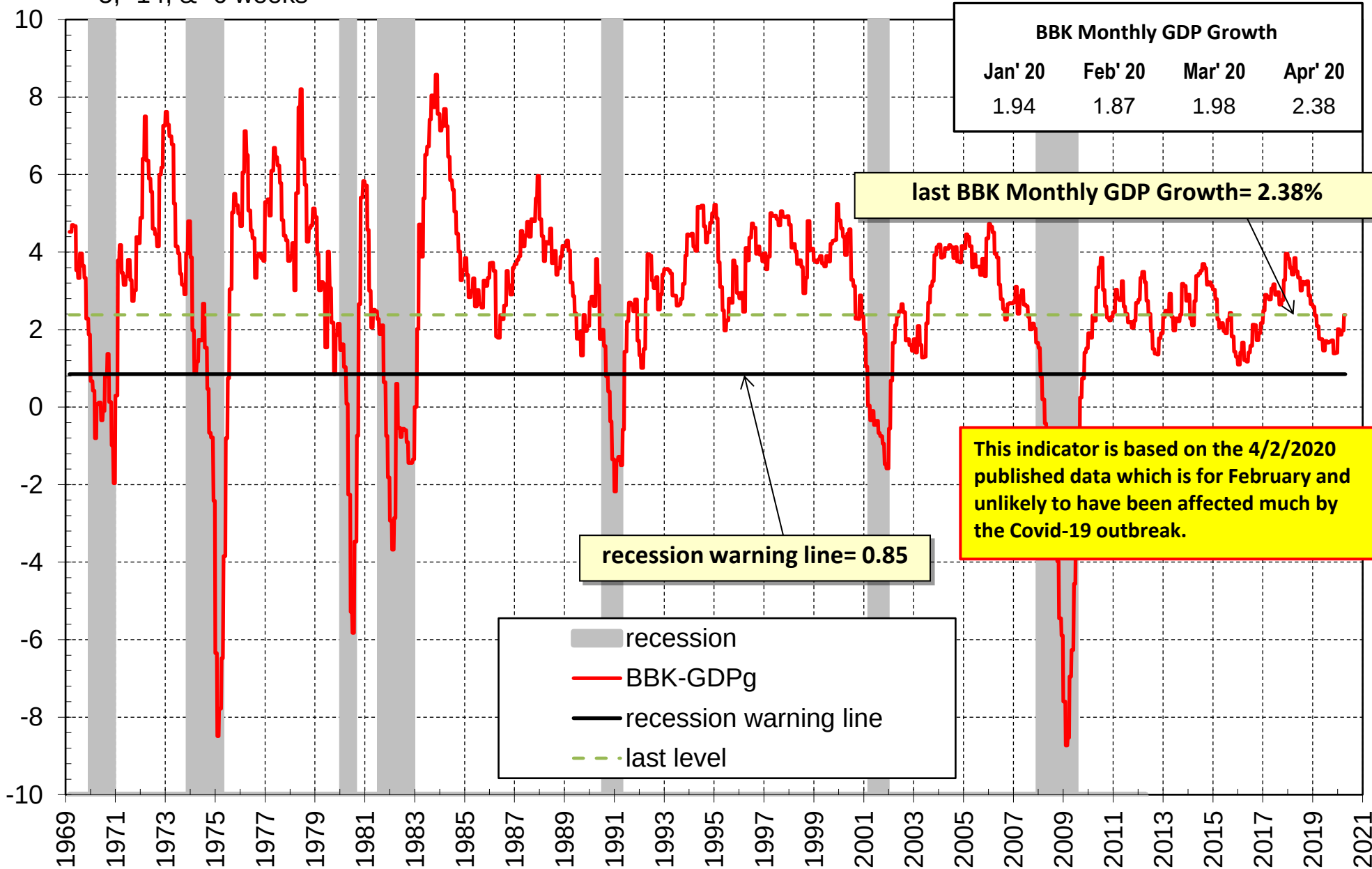


Fig-1: Brave-Butters-Kelley Monthly GDP Growth: Trend and Cycle 1969-2020

max, min, & average leads to recessions
= 5, -14, & -6 weeks

updated with FED's April 2020 BBK release



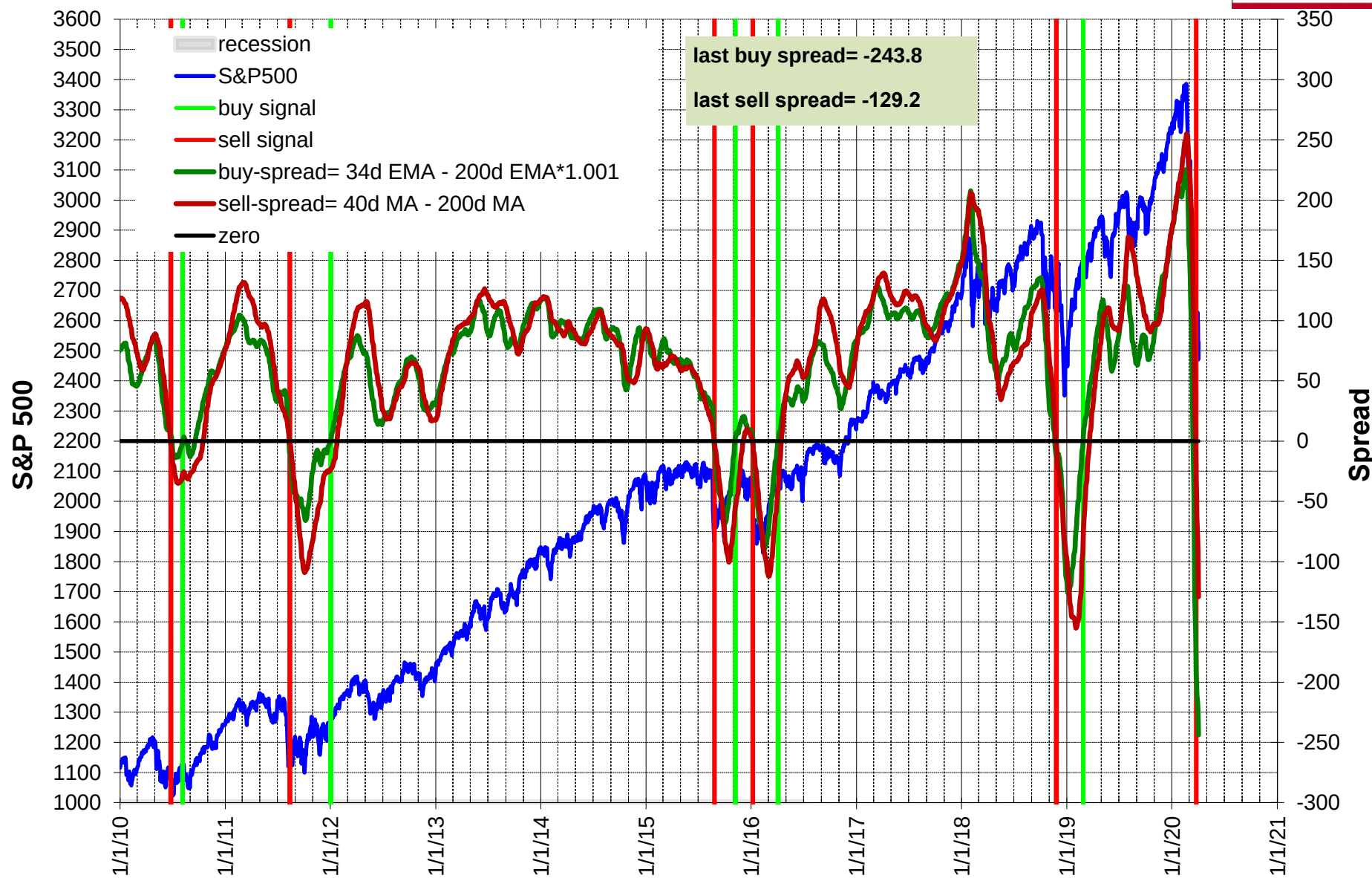
Please note: Past performance does not guarantee future returns, investments may increase or decrease in value and you may lose money using this model.

imarketsignals.com

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



updated to...4/2/20





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

updated to Apr-3-20

last sell spread= -320.3

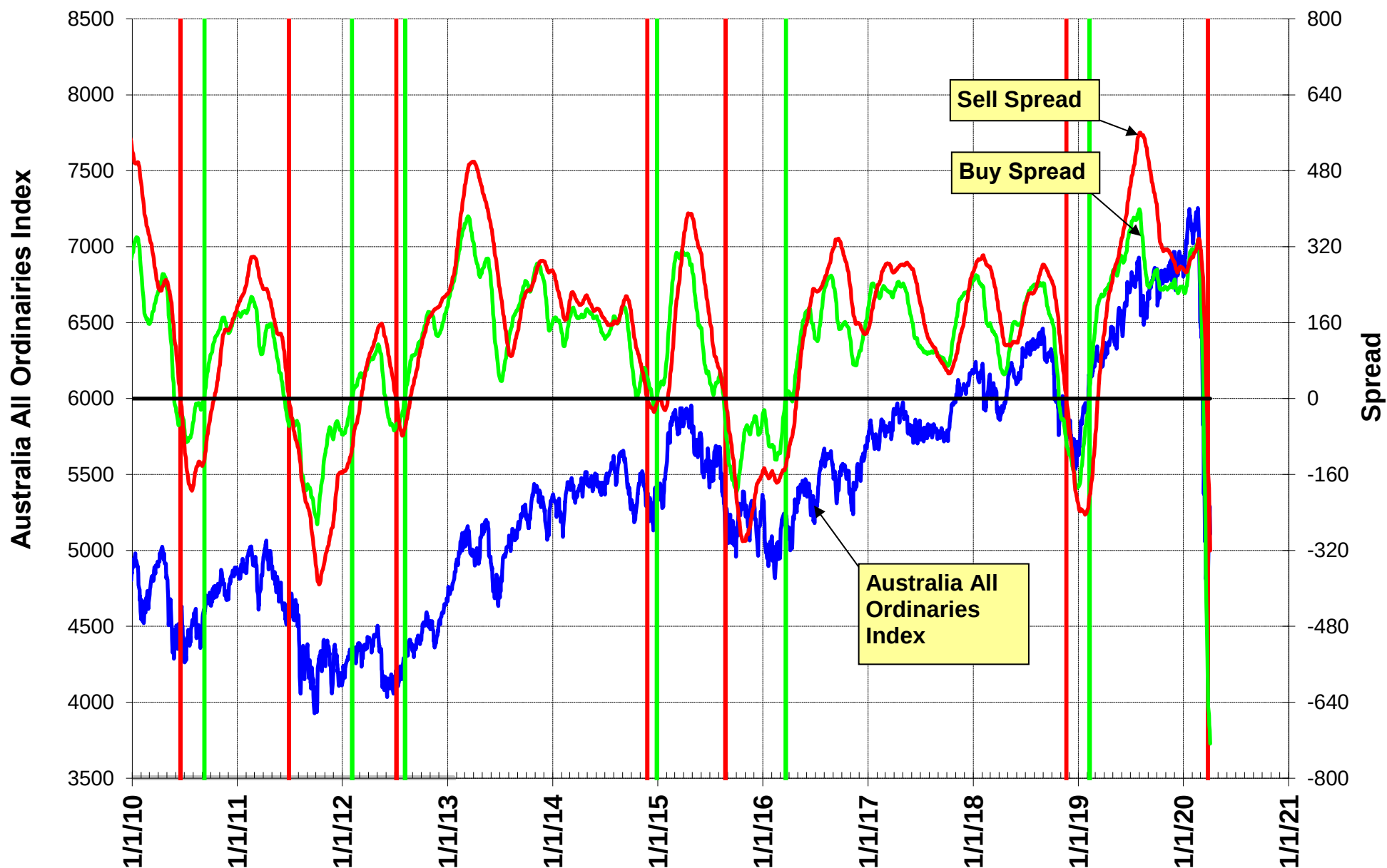


Fig 2.2 3-mo Hi-Lo Index of the S&P500 & 40-day SMA of Index

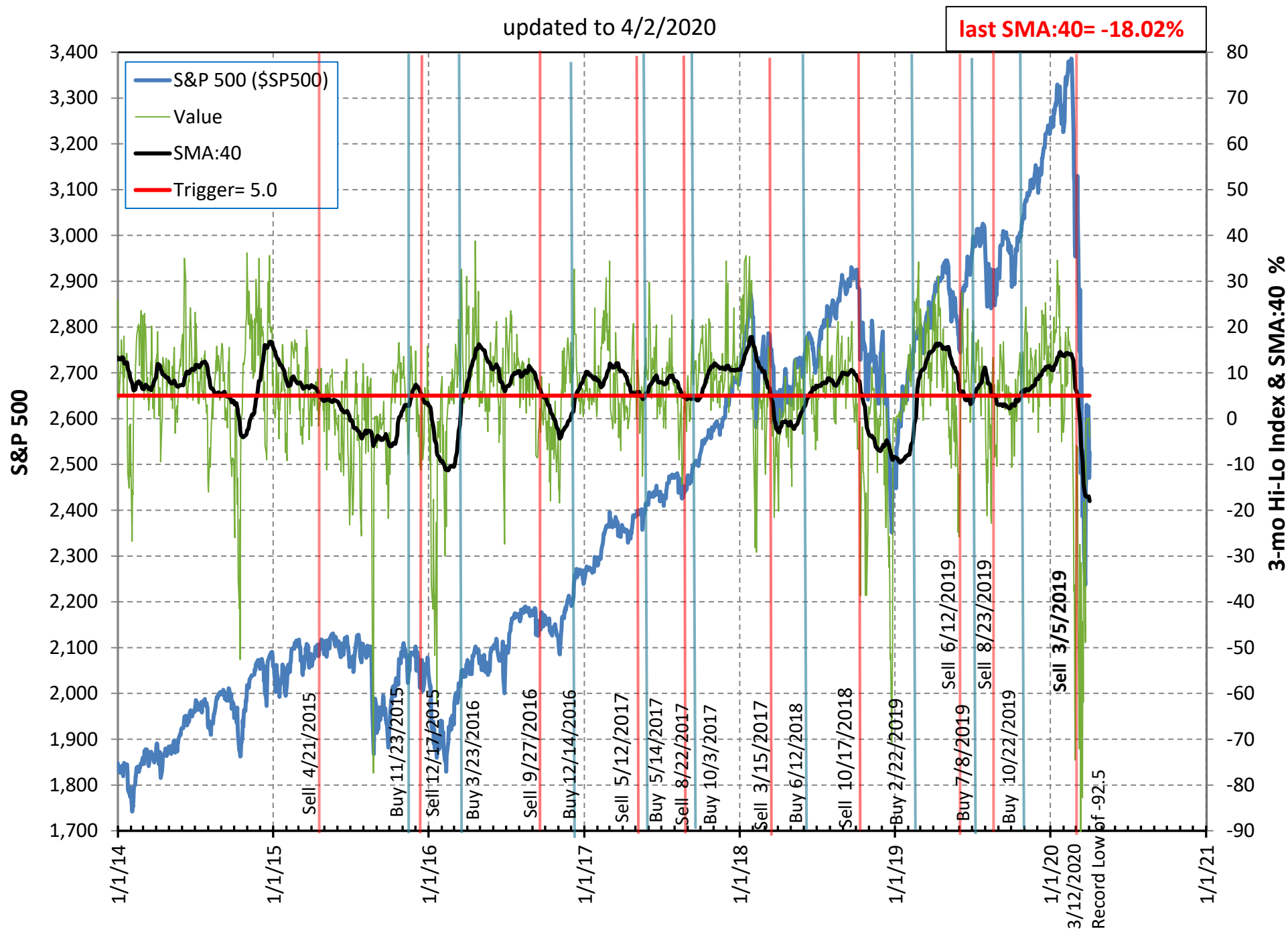


Fig-2.3 Modified Coppock Indicator for S&P500

updated to 04/02/2020

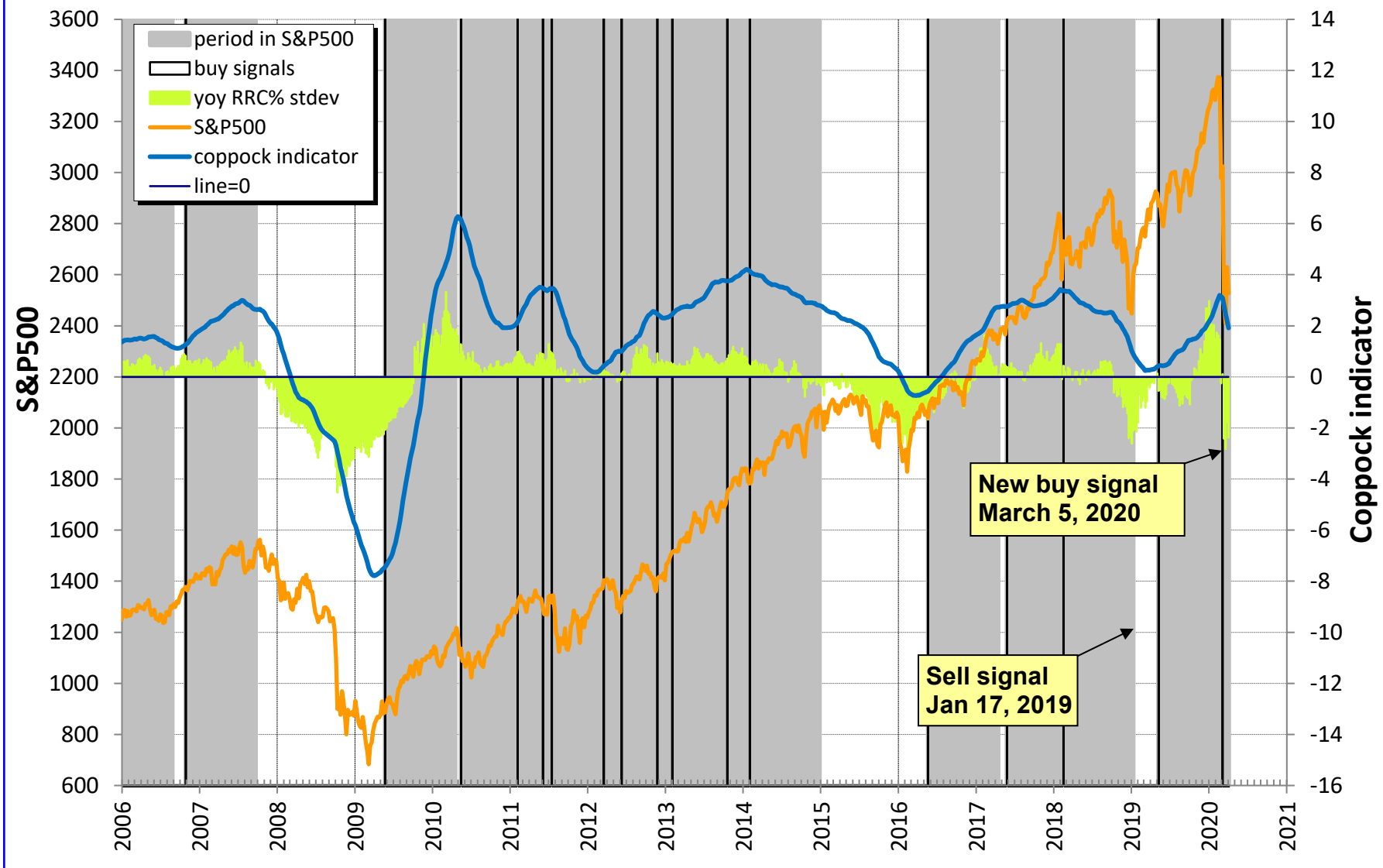


Figure-3: The iMarketSignals Long Leading Economic Index (iM-LLI)

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

iM-LLI level on 01/03/20 = 4.24

iM-LLI level on 02/07/20 = 4.34

iM-LLI level on 03/06/20 = 4.70

iM-LLI level on 4/3/2020 = 5.03

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

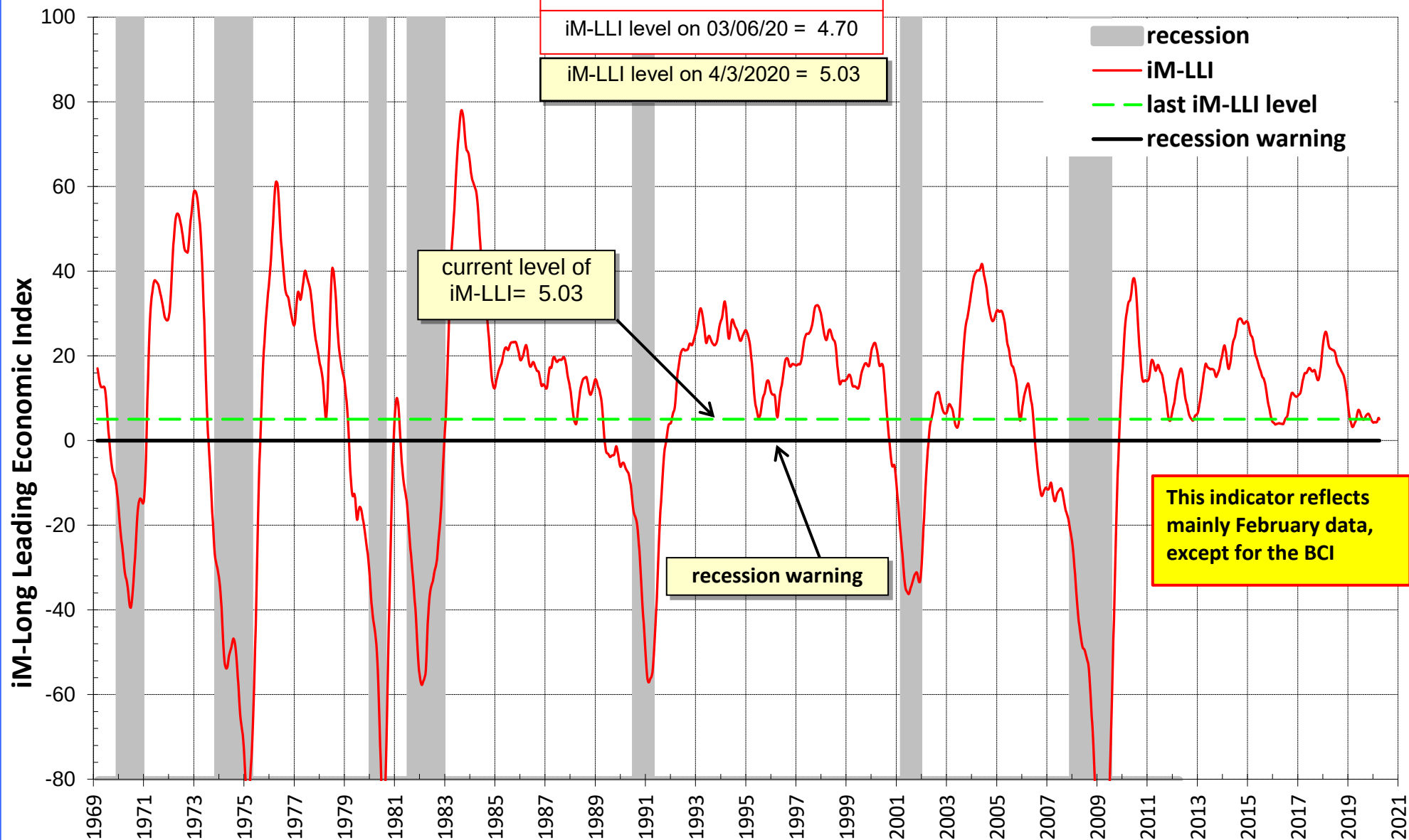


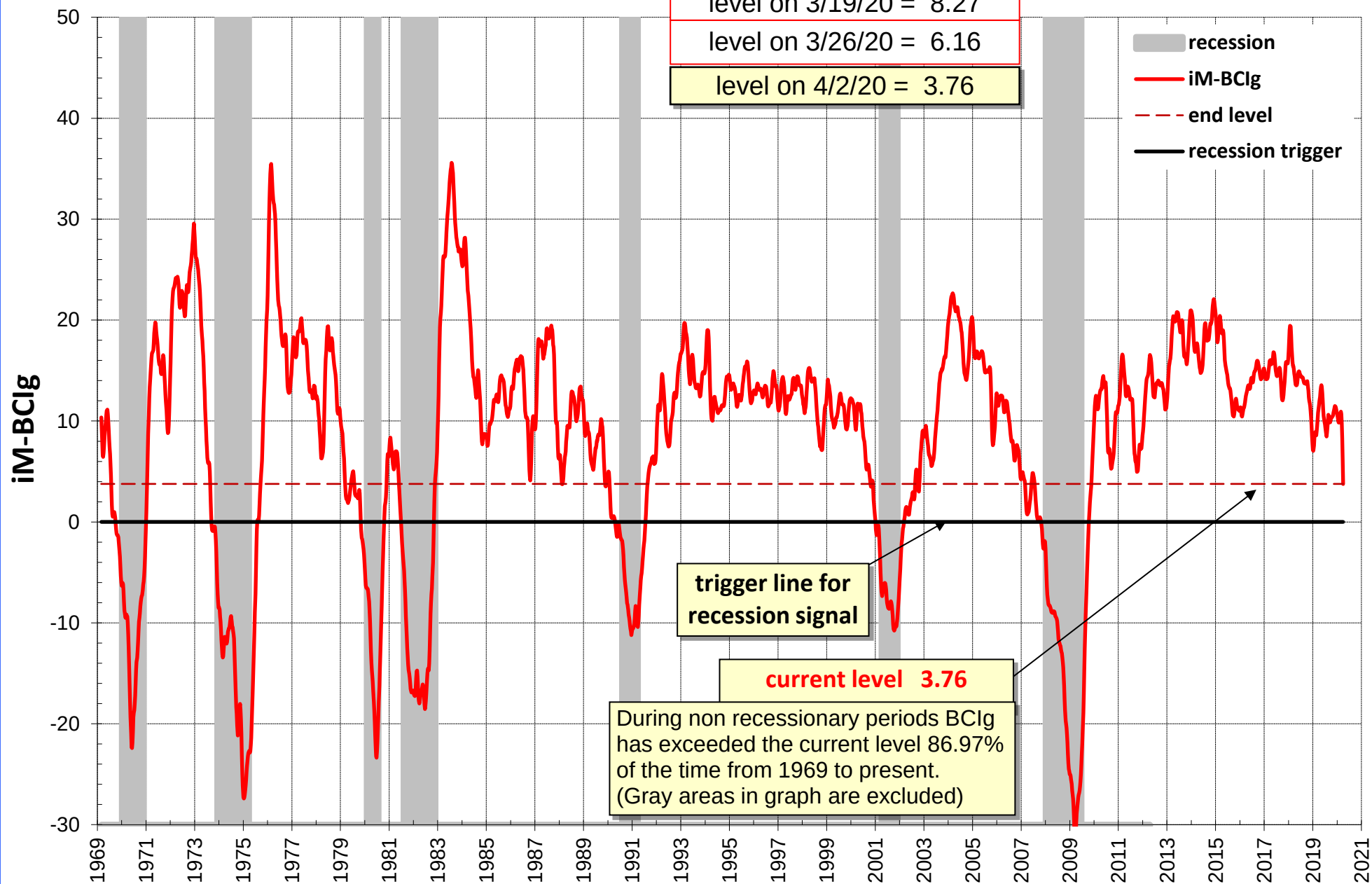
Fig 3.1: iM-BCI_g

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

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

updated to 04/02/2020
EMA of FRR2-10 = 1.083

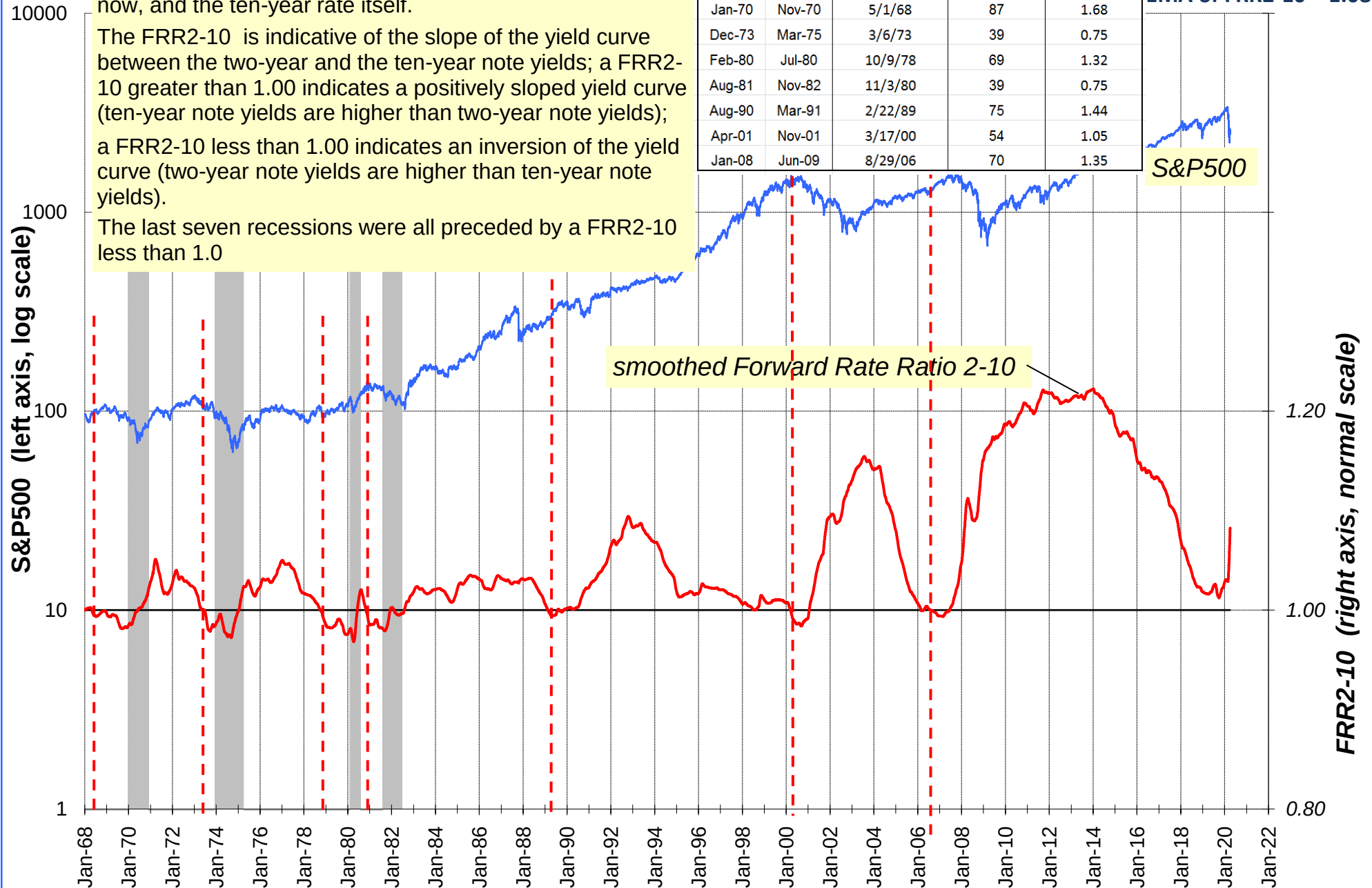


Fig.3.3 iM-Low Frequency Timer

Updated to: 4/2/2020

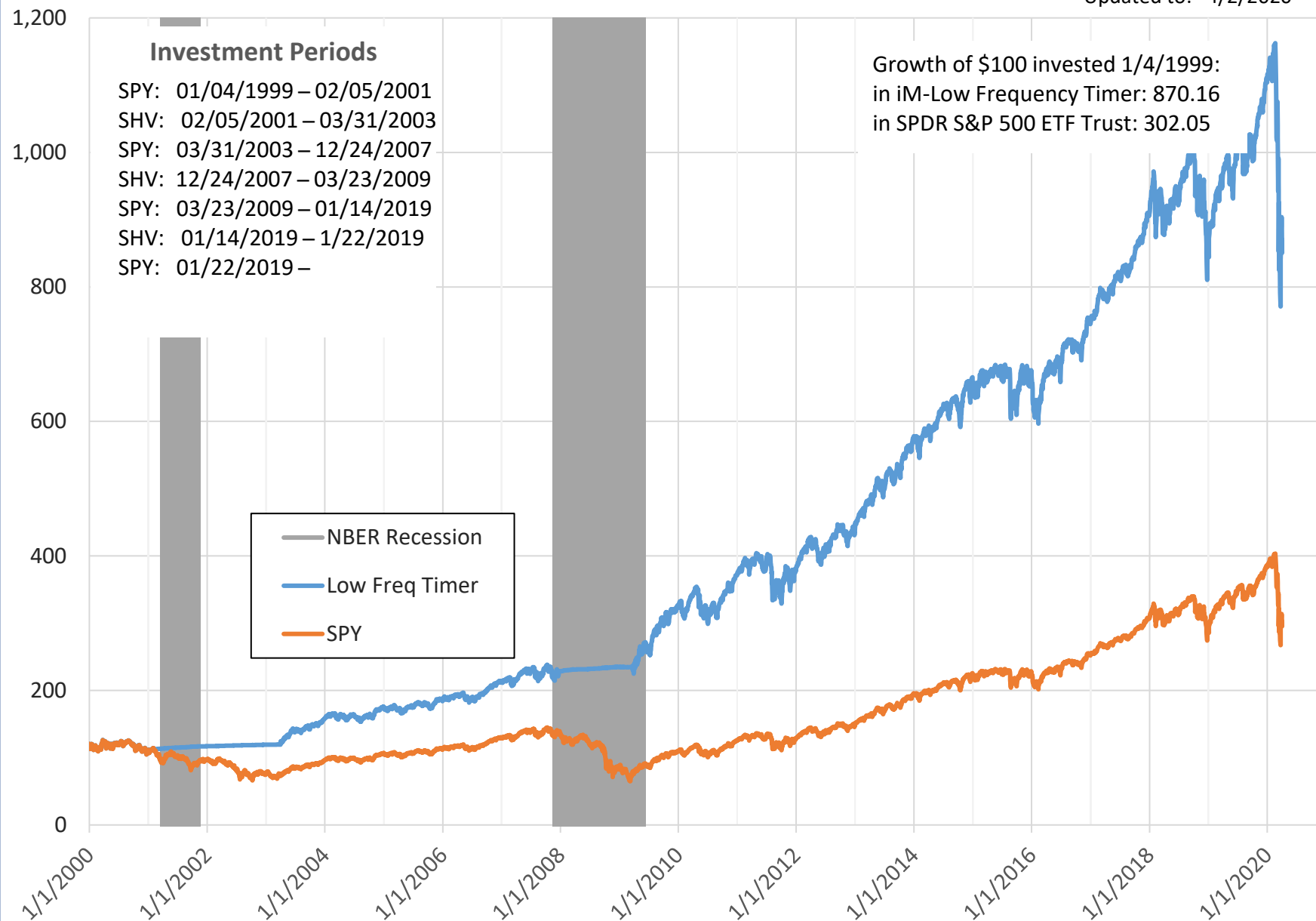


Fig. 3x: COMP Leading Indicator of US Economy

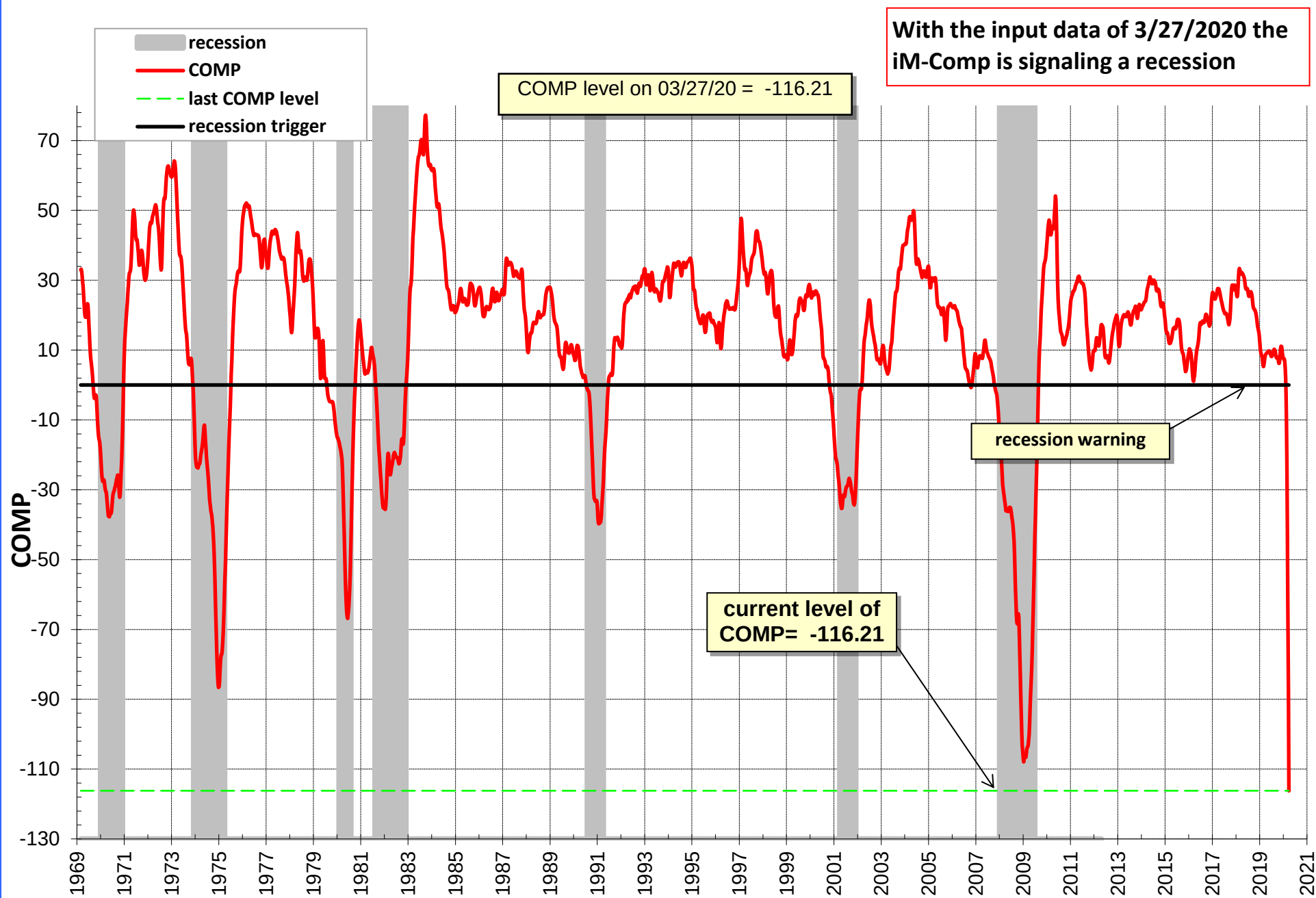
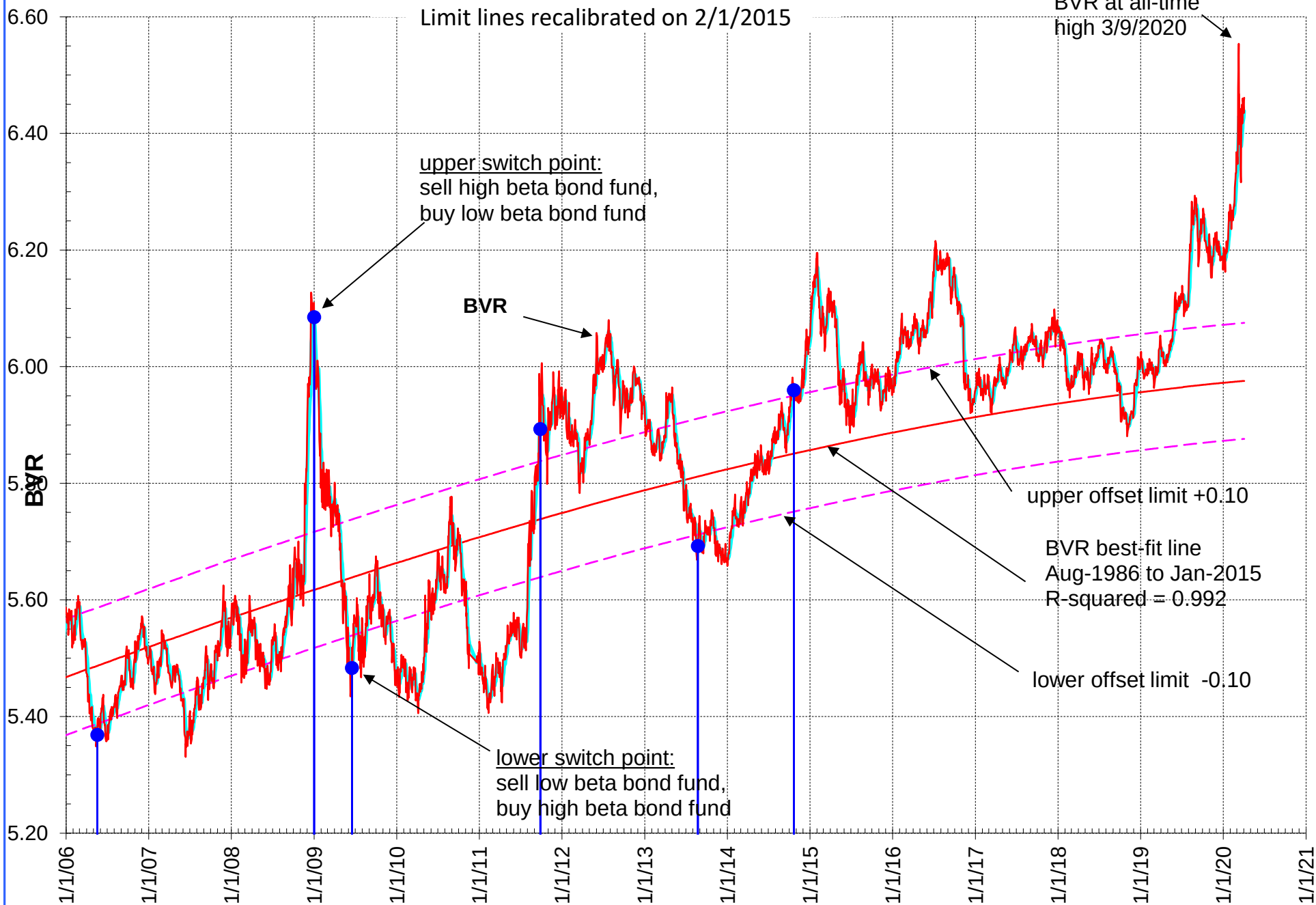


Figure 4: Bond Value Ratio (BVR)

Model updated to: 4/2/2020 BVR = 6.461



Updated to.....4/2/2020

Fig. 5: Yield Curve: i10 - i2

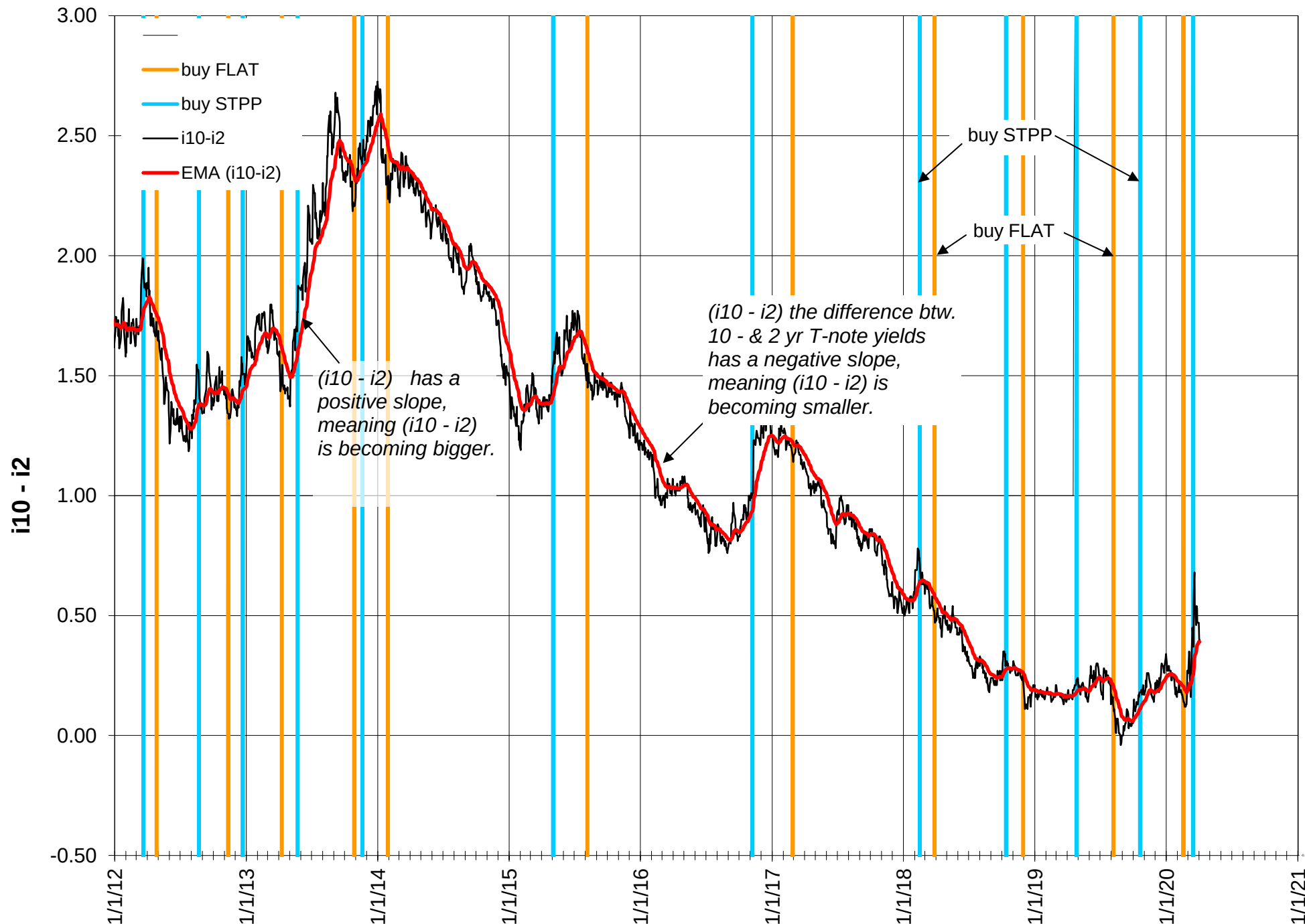


Figure 6: Modified Coppock Indicator for Gold

updated to 04/02/2020

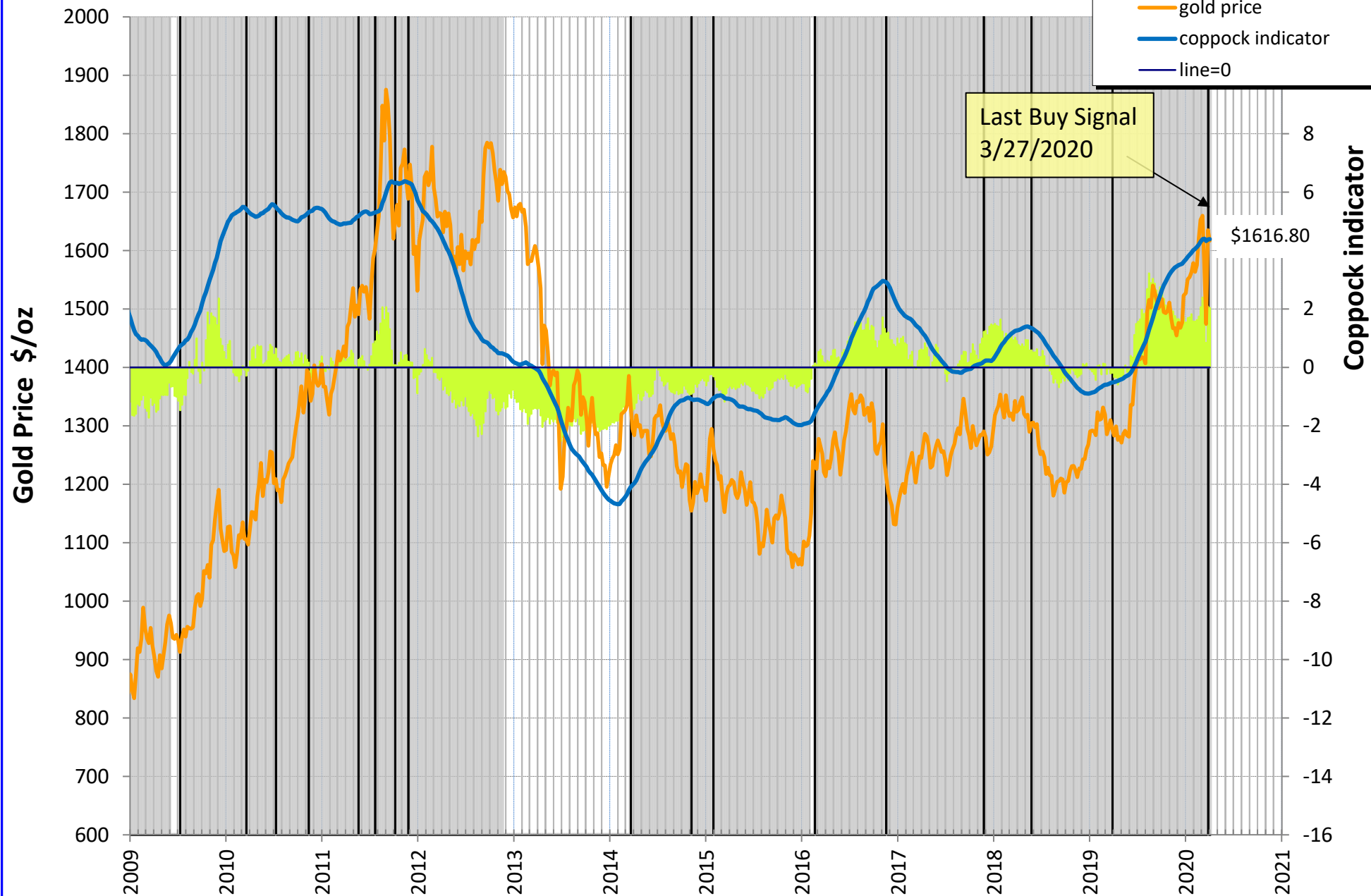


Fig. 6.1a iM GOLD-TIMER - Rev 1

Updated to: 4/2/2020

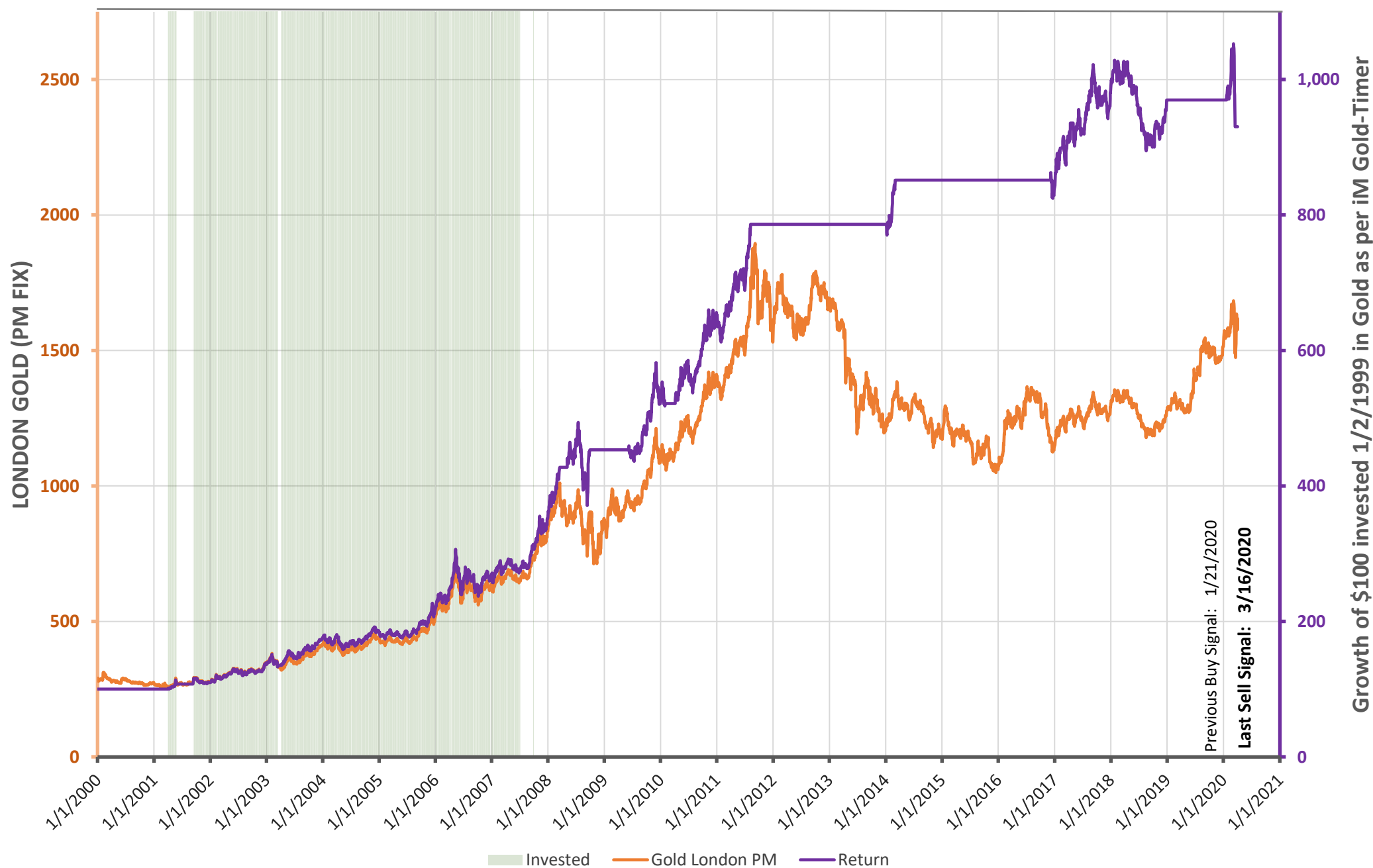


Figure 7: Modified Coppock Indicator for Silver

updated to 04/02/2020

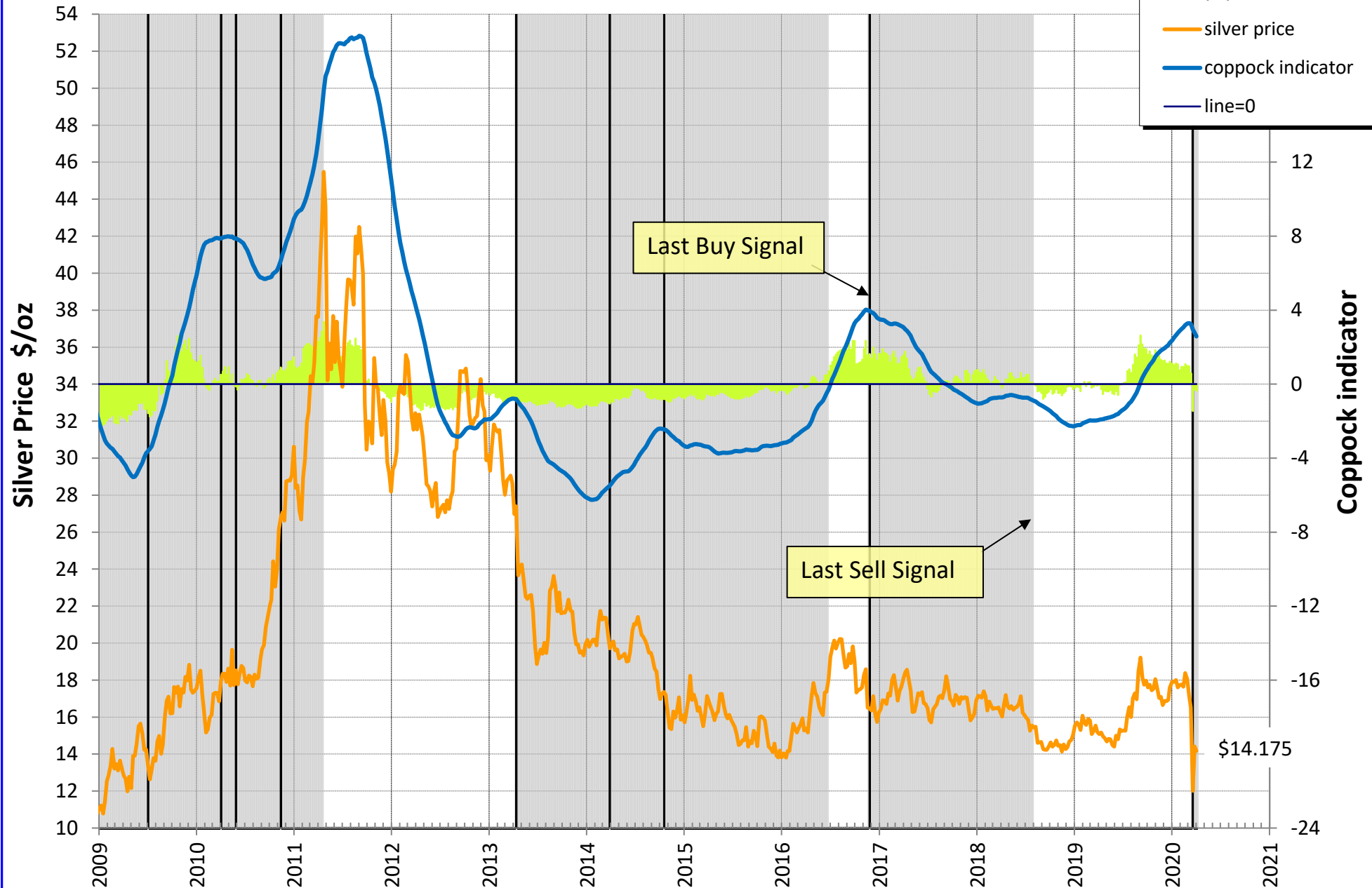


Fig-8 Unemployment Rate and Recessions (real-time) 2000-2019

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

updated to 5-1-2020 with March UER= 4.4%

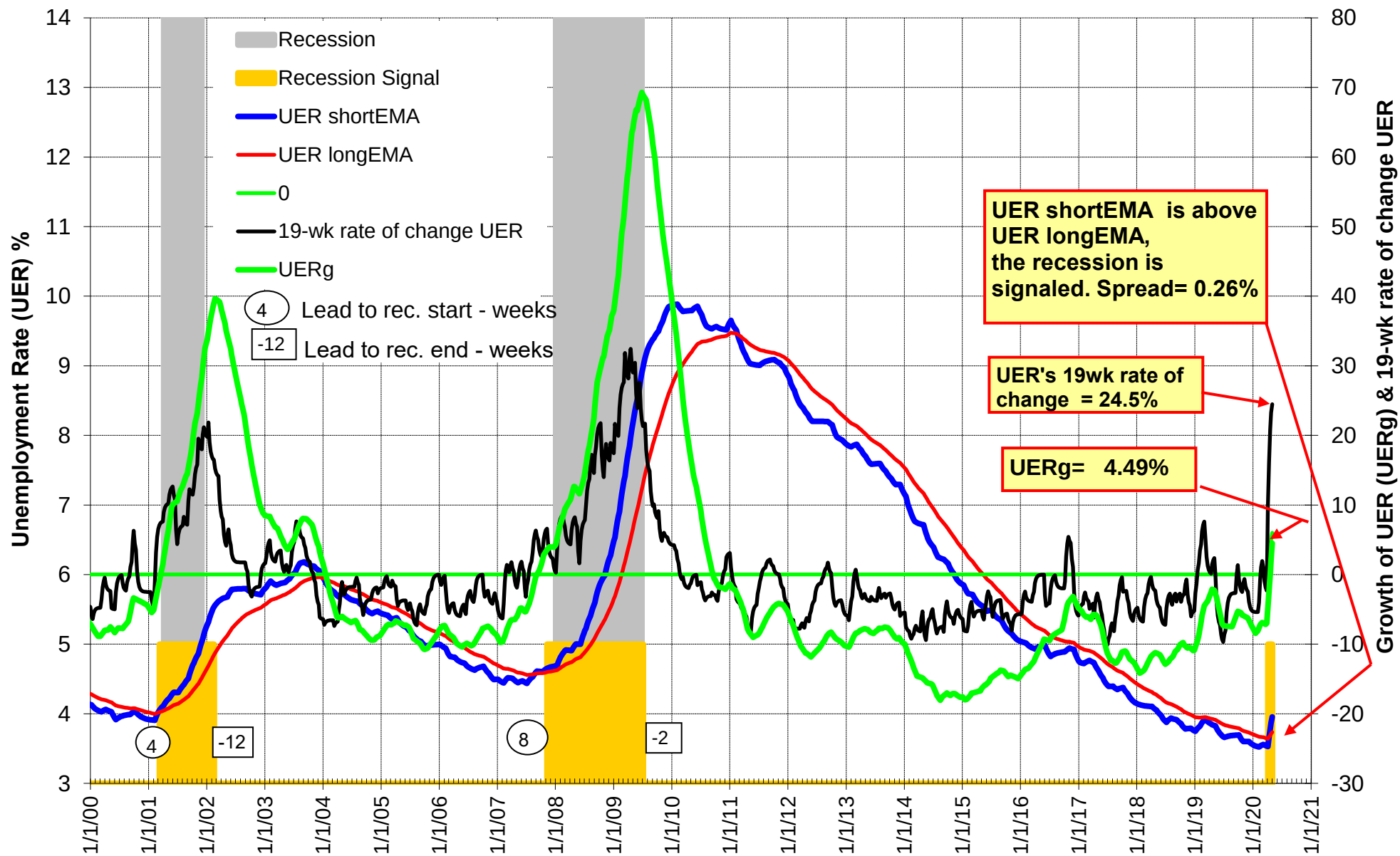


Figure-2 Probability of Recessions based on Unemployment Rate 1948-2020

updated to 5-1-2020 with March UER= 4.4%, Probability of Recession= 99%

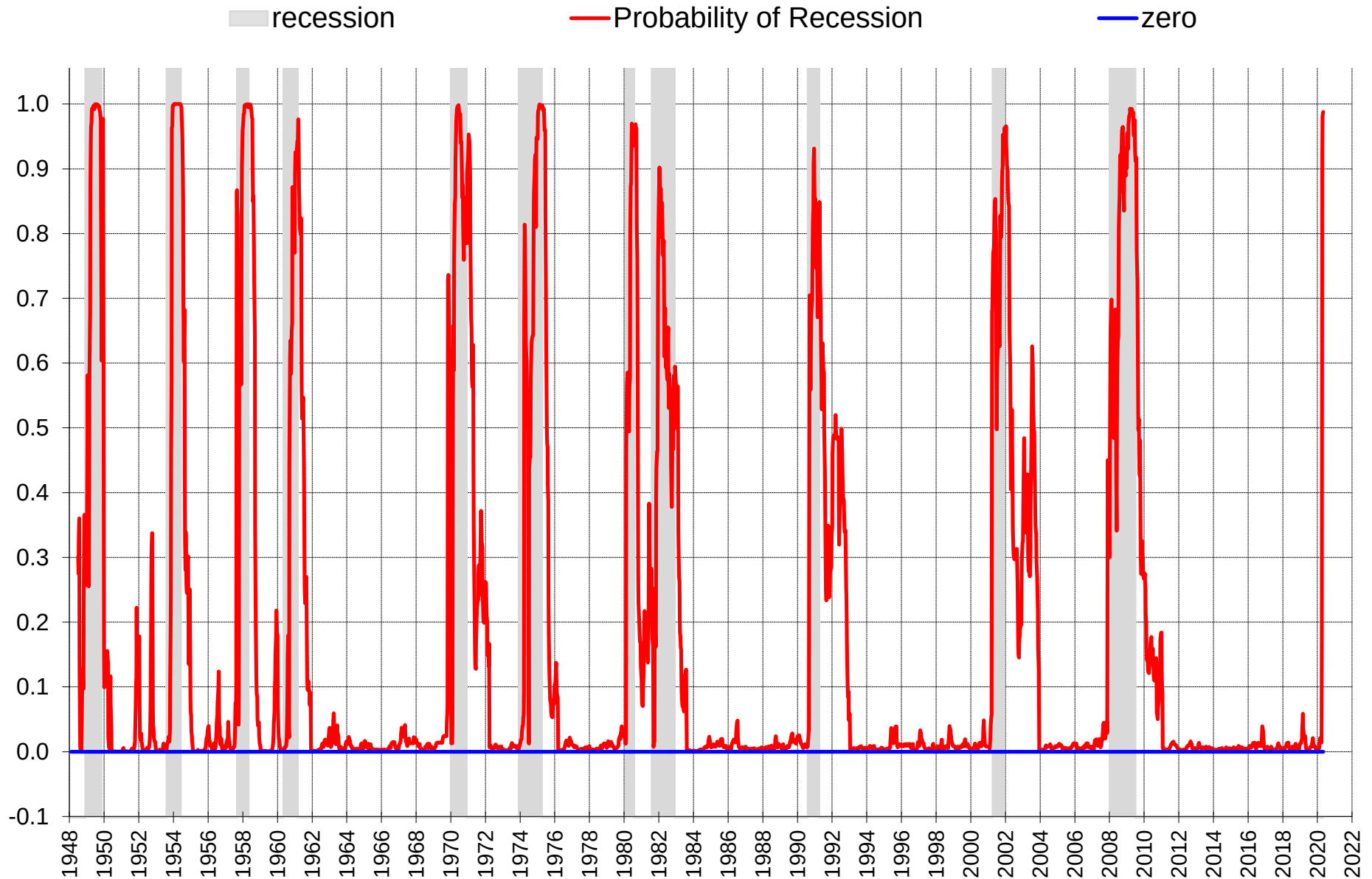


Figure-10: Cumulative Performance iM-GT Timer
(Search Term = "debt", monthly data, 5/2/2005 - 3/31/2020)

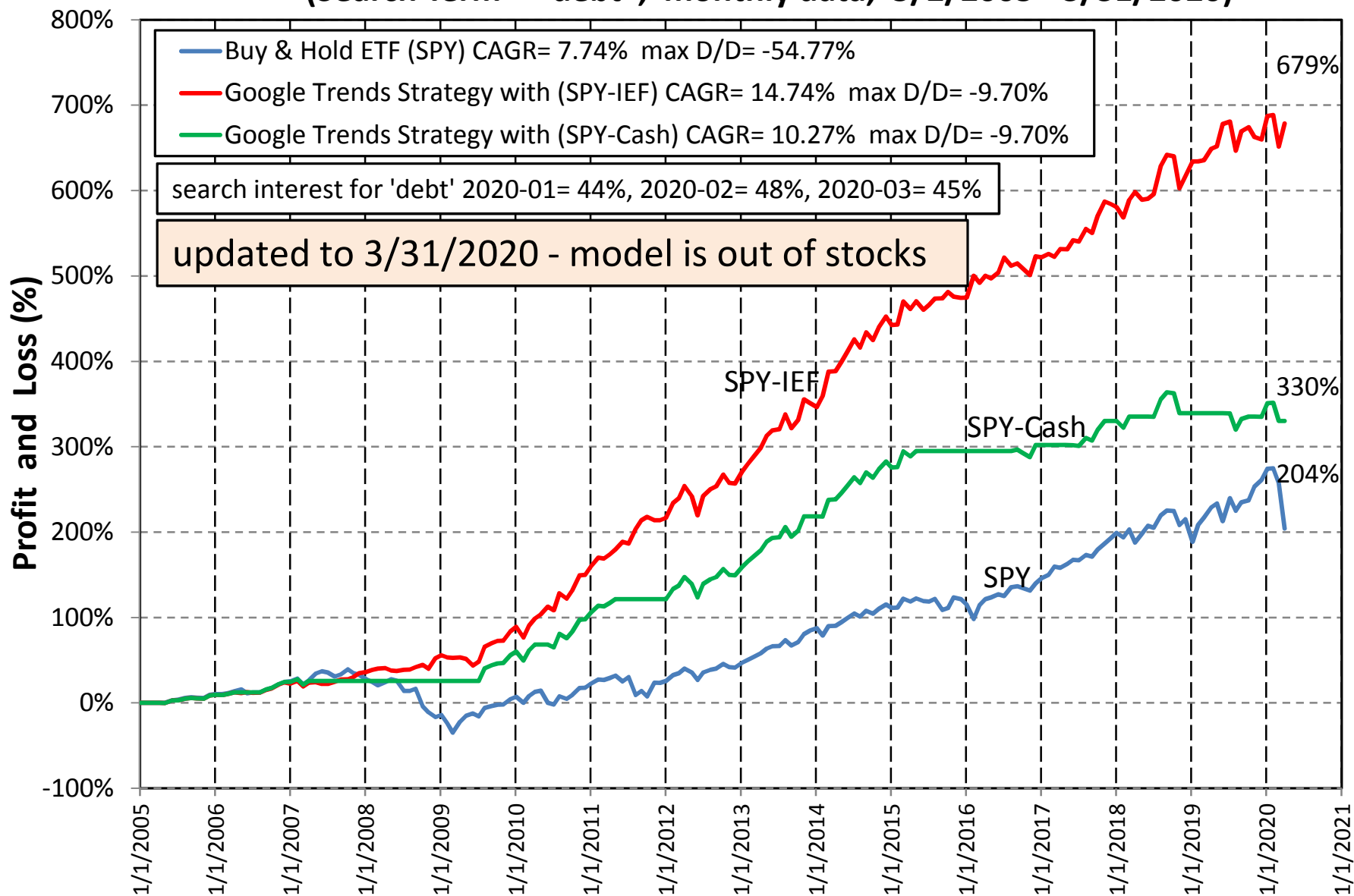


Fig. 9a CAPE-Cycle-ID and the YoY-ROC from 1990

updated to 3/31/2020

Shiller CAPE= 24.56

Spread btw 5-mo and 25-mo Moving Avg of S&P-real: (2019.12= 105,731), (2020.01= 144,888), (2020.02= 167,394), (2020.03= 126,528)

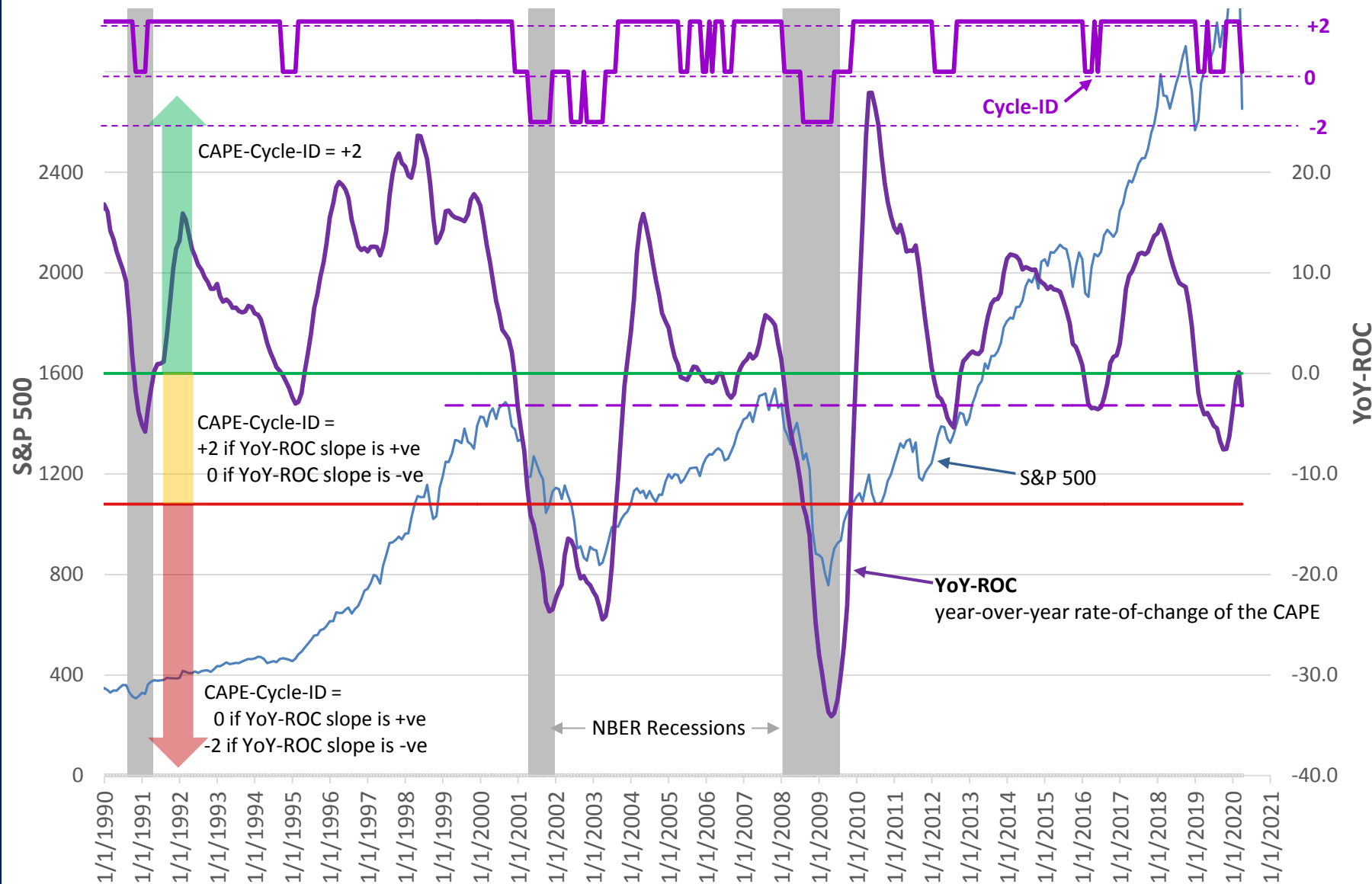
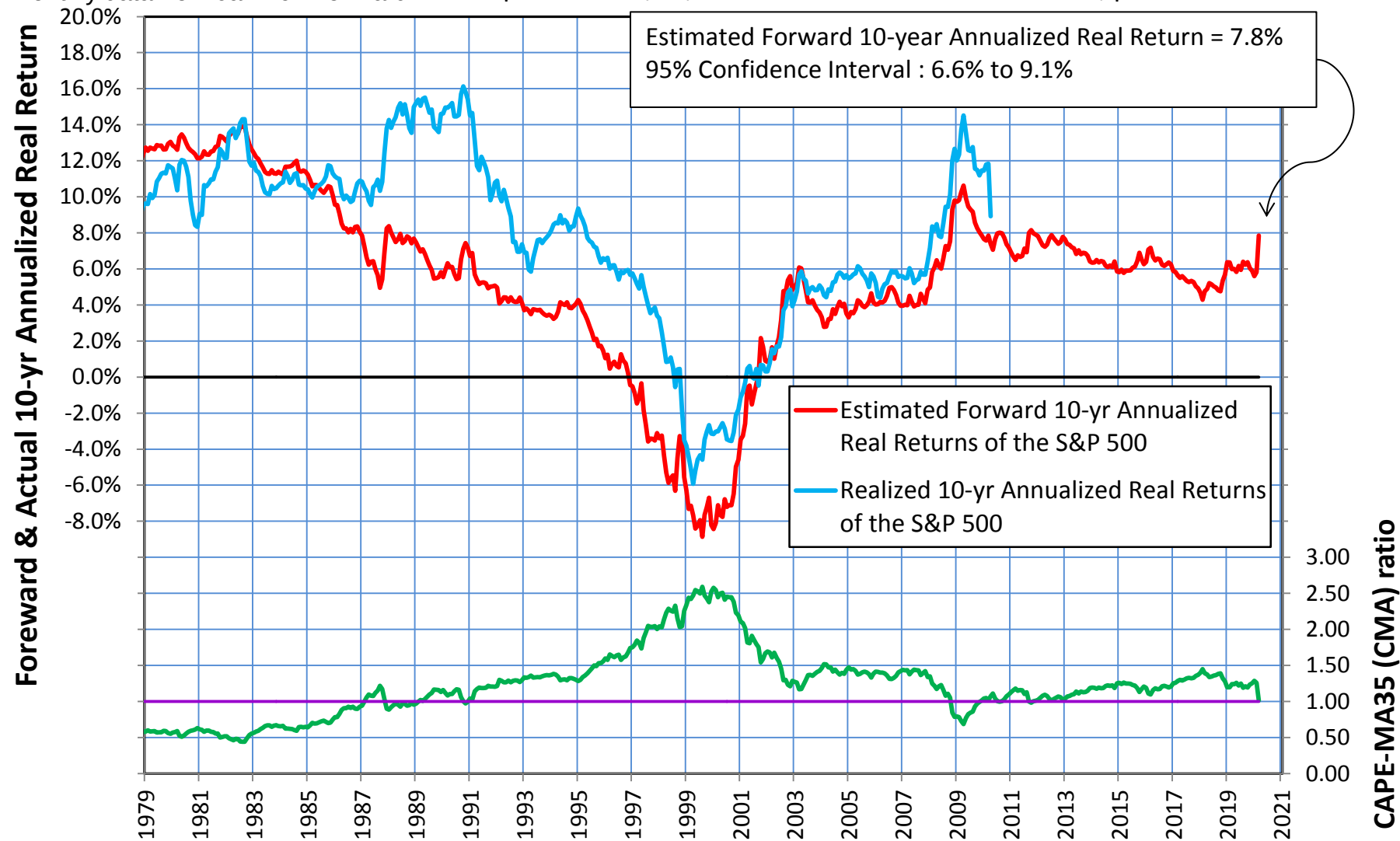


Fig 9.b Realized vs. Estimated Forward 10-year Annualized Real Returns of the S&P 500 from the CAPE-MA35 (CMA) Ratio Method

Estimated Forward 10-yr Returns are calculated from yearly regression equations, regressed on monthly data from Jan-1917 onward.

updated to 3/31/2020 Last CAPE-MA35 ratio= 1.01, previous month= 1.26



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

updated to 4/1/20, TIAAreal current 1-year rolling return= 3.63%

