April 16, 2020
Business Cycle Index
The BCI at 201.9 is down from last week's 234.7. Also, the 6-month smoothed annualized growth BCIg at -9.7 is down from last week's -0.1. The BCI signaled a recession warning on 4/2/2020

April 17, 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. 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 far below the buy trigger line.

 The 3-mo Hi-Lo Index Index of the S&P500 at -21.05% is below last week's -19.70%, 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 far below the buy trigger line.

Recession:
The iM-LLI reflects mainly data for February 2020, except for the BCI.

Figure 3.1 shows the recession indicator iM-BCIg below last week's level and just below the recession trigger level thus also signaling a recession warning.

The Forward Rate Ratio between the 2-year and 10-year U.S. Treasury yields (FRR2-10) is above last week's level. It is rising steeply, typically seen at a start of a recession. A description of this indicator can be found here.

The iM-Low Frequency Timer switched out of the markets on 4/13/2020. 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 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 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](#).
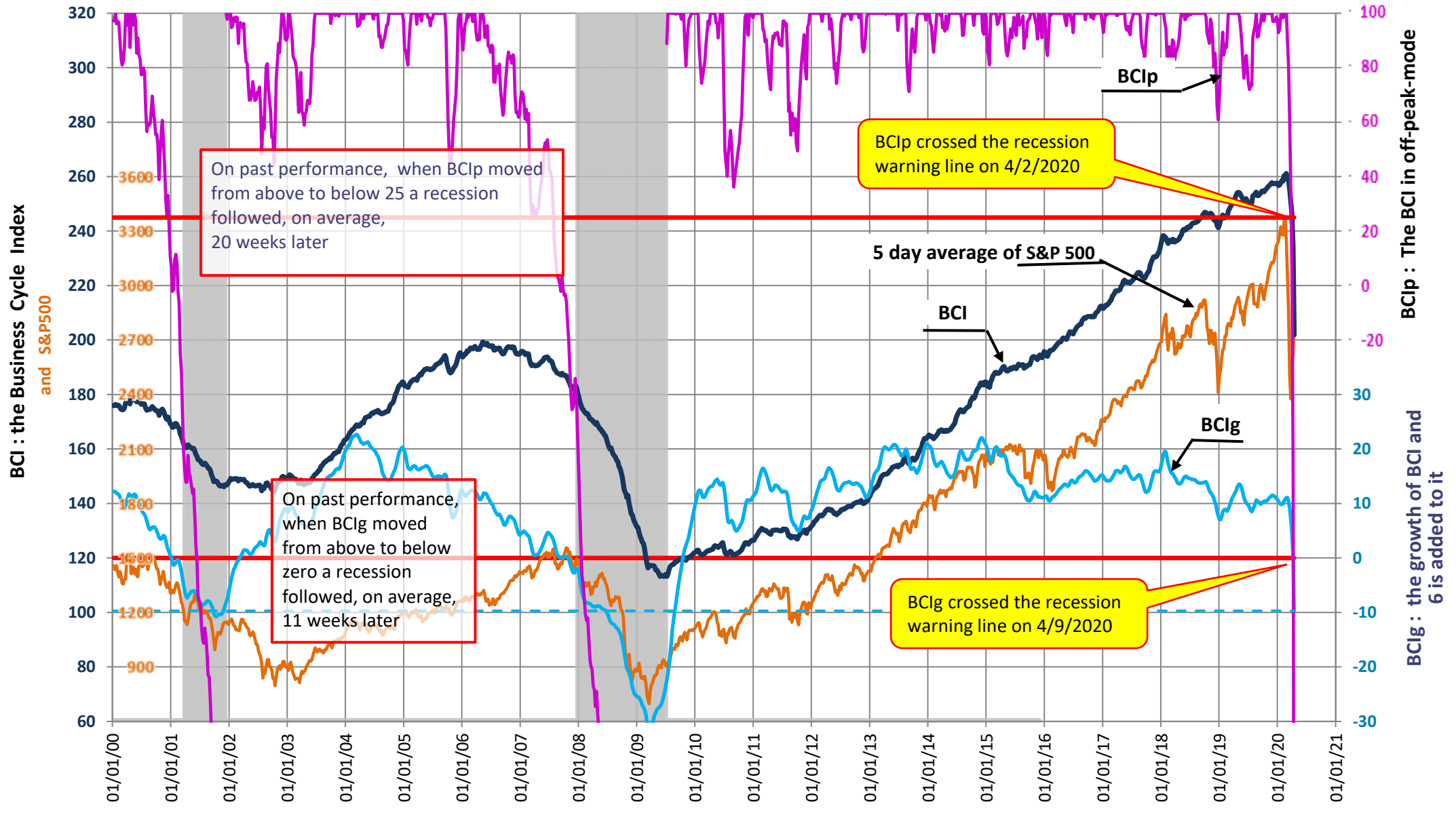
TIAA Real Estate Account

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

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iM's Business Cycle Index (BCI)

BCIp, BCI and BCIg
updated to April 16, 2020

Date	03/19	03/26	04/02	04/09	04/16
BCIp	60.7	34.5	4.4	-70.0	**-281.3**
BCI	255.0	250.9	246.3	234.7	**201.9**
BCIg	9.2	7.0	4.4	-0.1	**-9.7**

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

On past performance, when BCIp moved from above to below 25 a recession followed, on average, 20 weeks later

BCIp crossed the recession warning line on 4/2/2020

On past performance, when BCIg moved from above to below zero a recession followed, on average, 11 weeks later

BCIg crossed the recession warning line on 4/9/2020

BCIp

5 day average of S&P 500

BCI

BCIg

BCI : the Business Cycle Index
and S&P500

BCIp : The BCI in off-peak-mode

BCIg : the growth of BCI and 6 is added to it

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

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updated to…4/16/20

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

last buy spread= -222.6

last sell spread= -263.0

recession
S&P500
buy signal
sell signal
buy-spread= 34d EMA - 200d EMA*1.001
sell-spread= 40d MA - 200d MA
zero

2-MAC rev8-27-15.xlsb
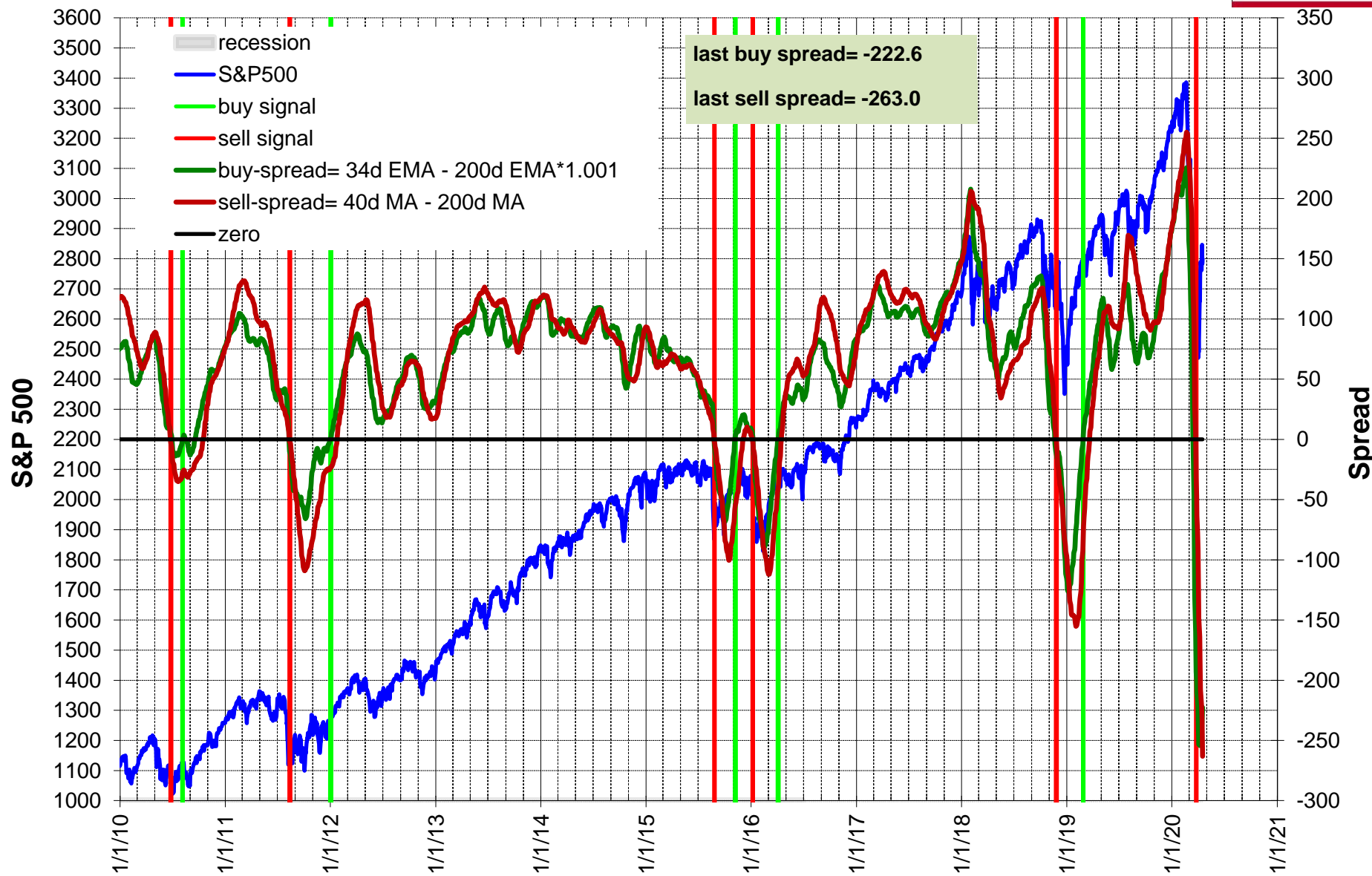
Fig 2.1: Buy and Sell signals for the Australia All Ordinaries Index from the MAC-AU System
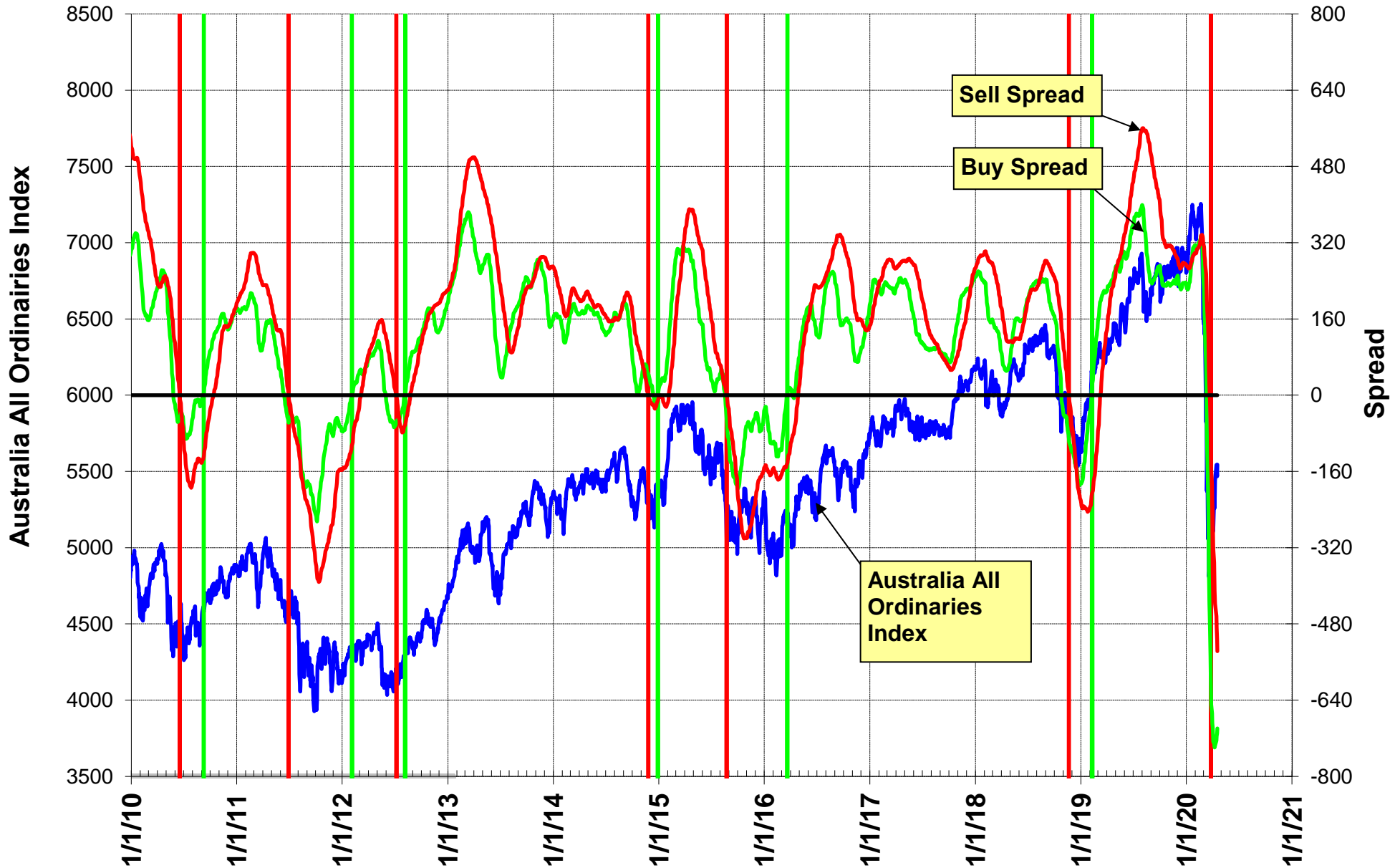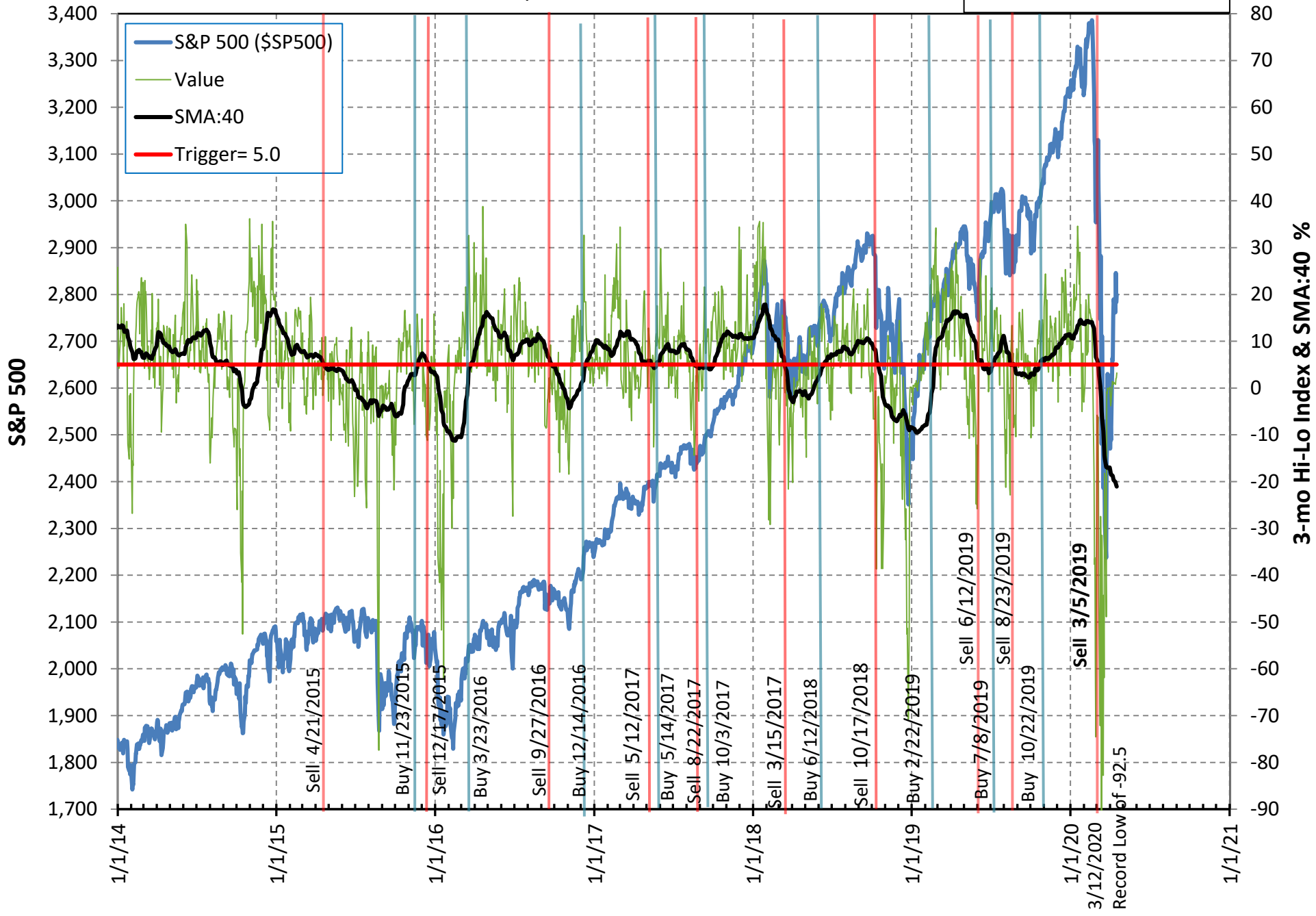
Fig 2.2   3-mo Hi-Lo Index of the S&P500 & 40-day SMA of Index

Fig-2.3 Modified Coppock Indicator for S&P500
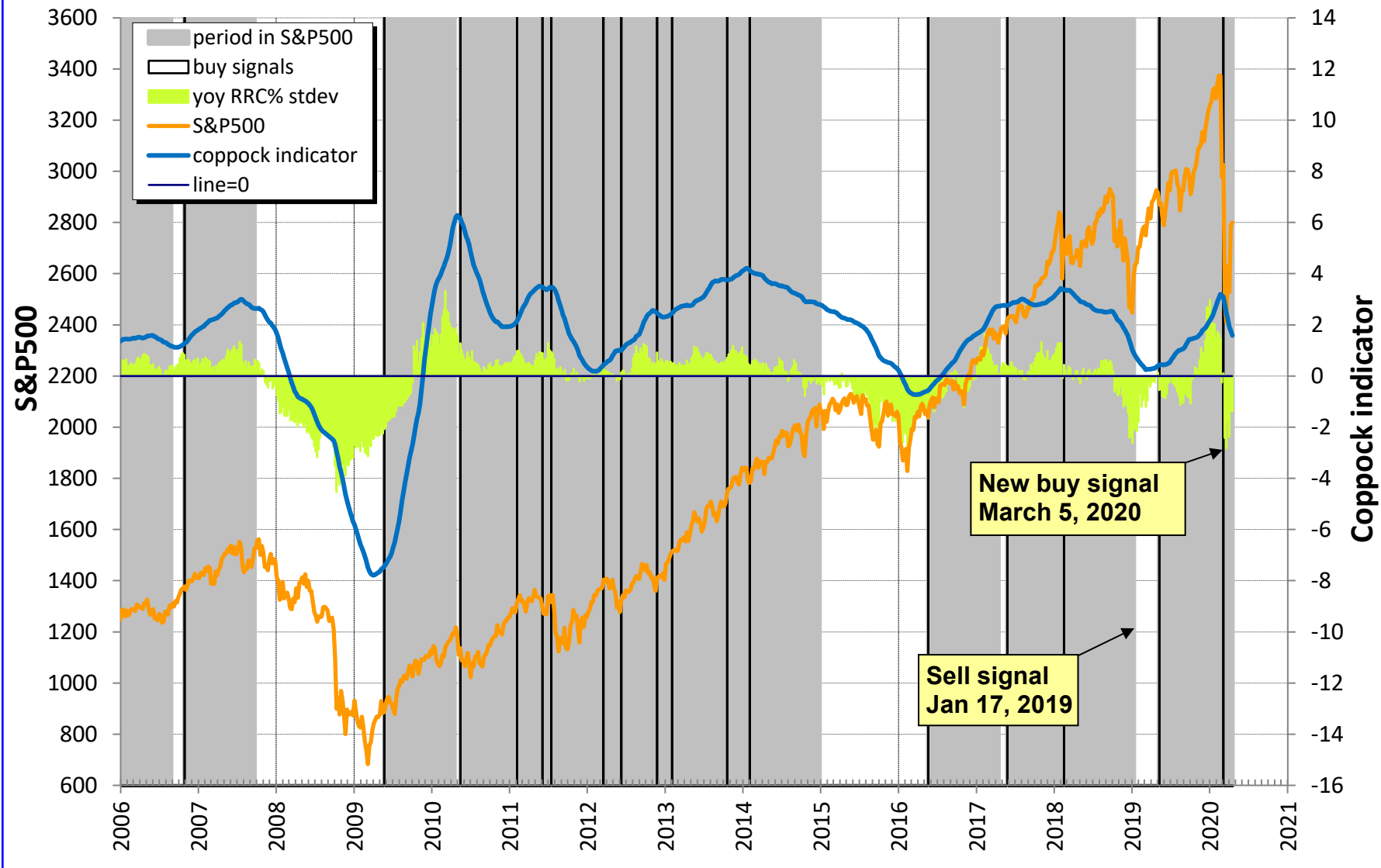
Figure-3: The iMarketSignals Long Leading Economic Index (iM-LLI)

Fig 3.1: iM-BCIg

iM imarketsignals.com
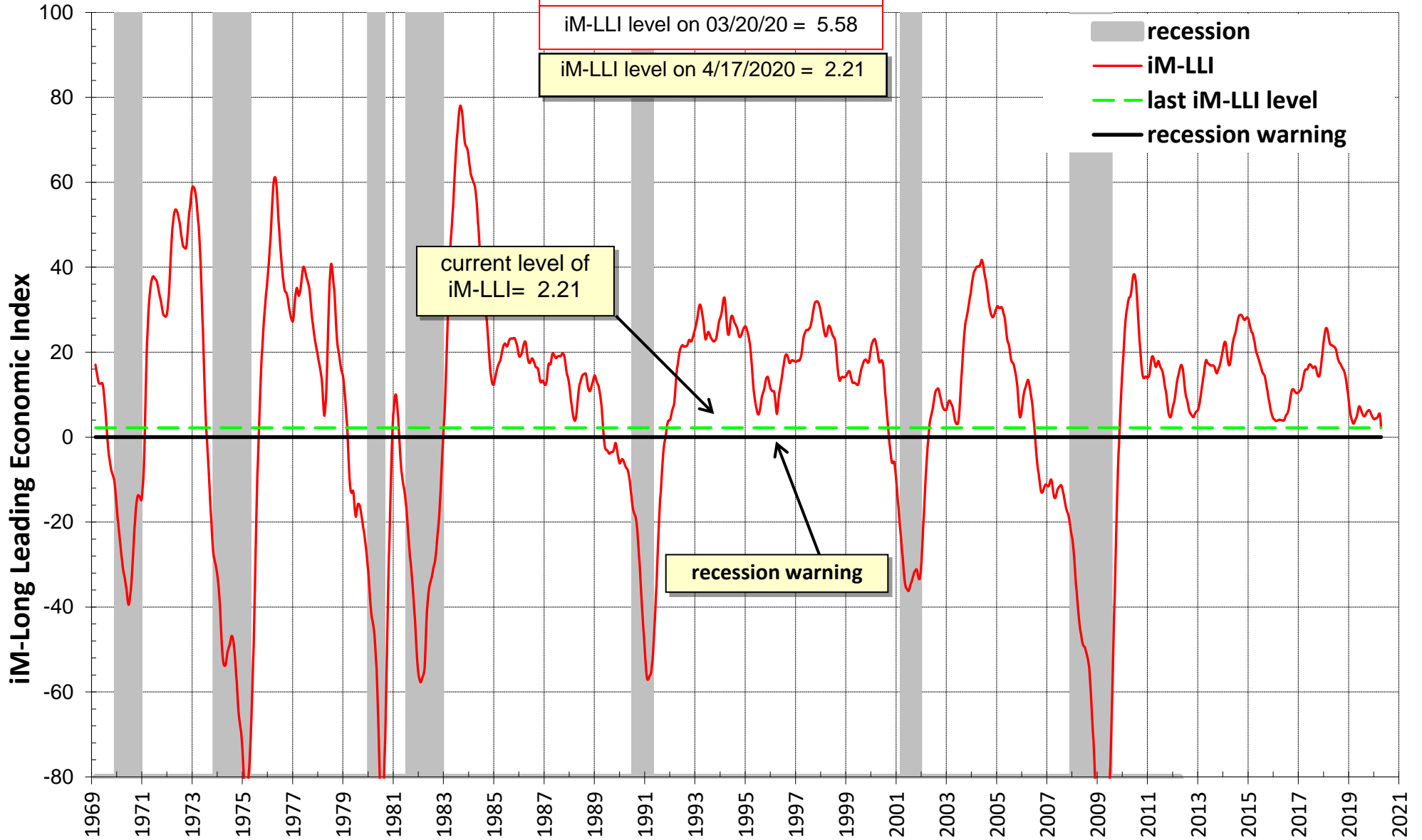
level on 3/26/20 = 7.03
level on 4/2/20 = 4.41
level on 4/9/20 = -0.08
level on 4/16/20 = -9.70

recession
iM-BCIg
end level
recession trigger

trigger line for recession signal

current level -9.70

During non recessionary periods BCIg has exceeded the current level 98.82% of the time from 1969 to present. (Gray areas in graph are excluded)

BCIg Toni.xlsb
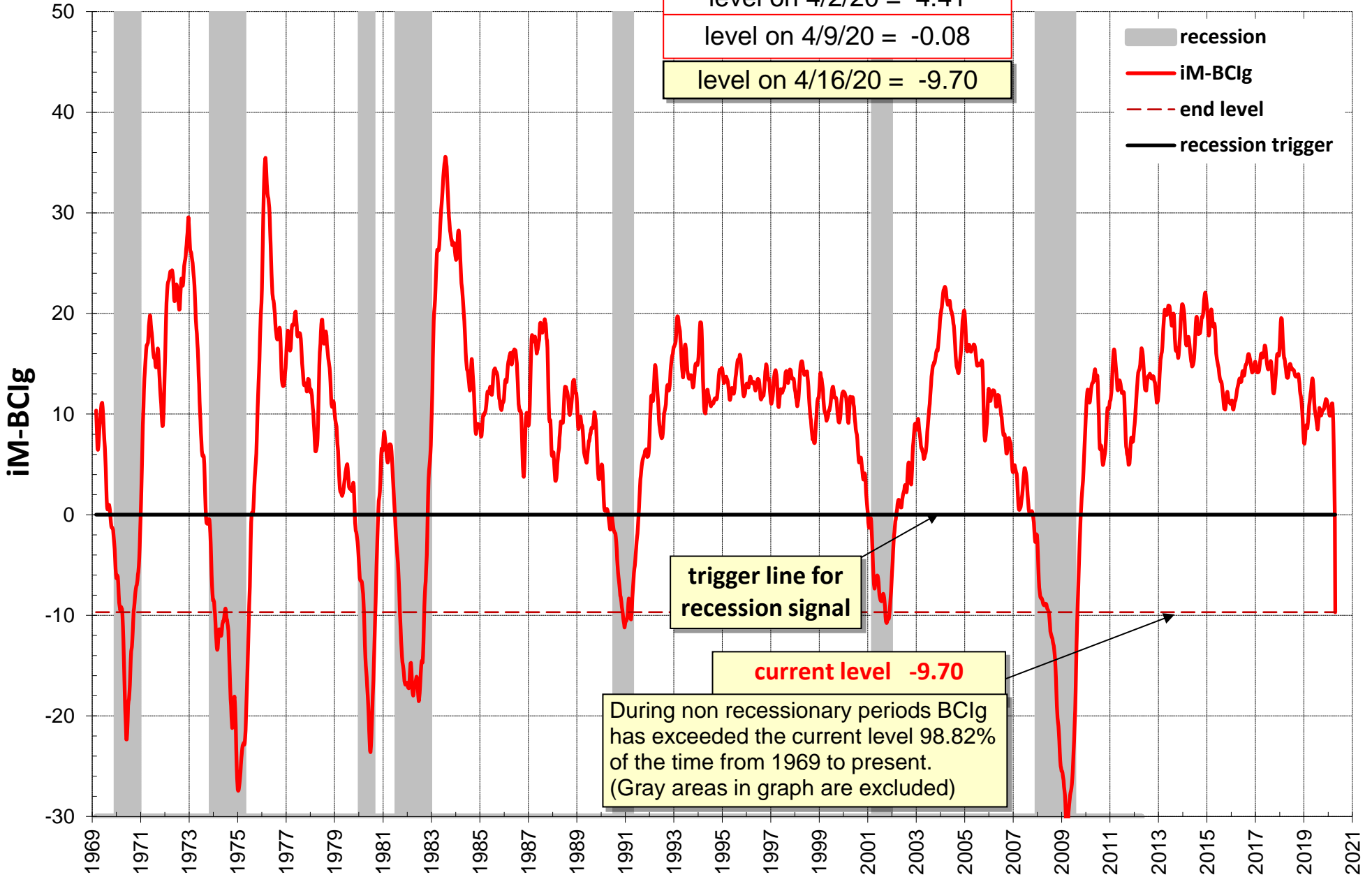
Figure 3.2: Forward Rate Ratio FRR2-10 - leads to Recessions

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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

updated to 04/16/2020
EMA of FRR2-10 = 1.102

Recessions start	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

S&P500

smoothed Forward Rate Ratio 2-10

S&P500 (left axis, log scale)

FRR2-10 (right axis, normal scale)

iM-Fig3.2 3.2 FRR2-10.xlsm Page 1

iM imarketsignals.com
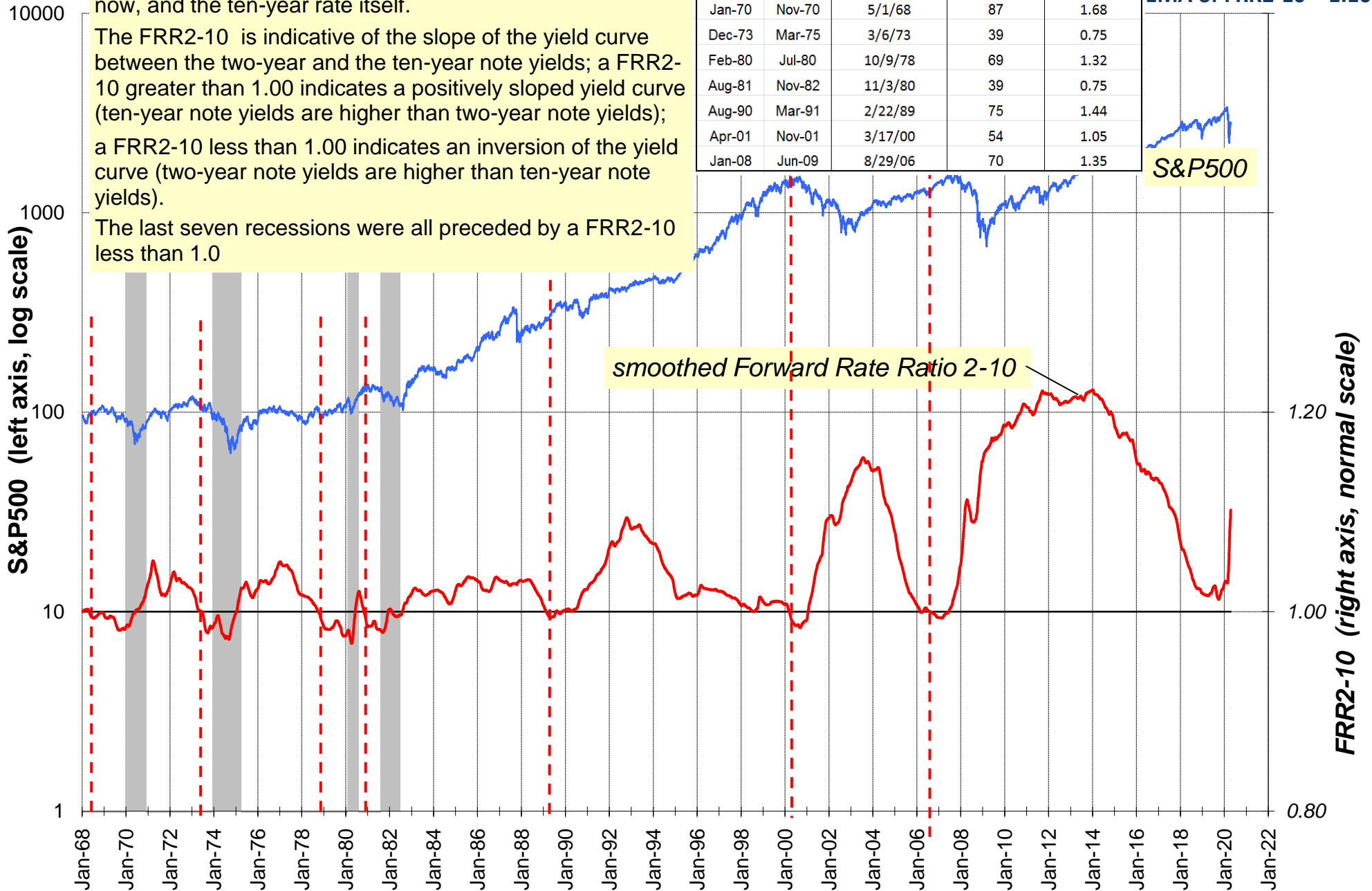
Fig.3.3   iM-Low Frequency Timer

Updated to: 4/16/2020

Investment Periods

SPY: 01/04/1999 – 02/05/2001
SHV: 02/05/2001 – 03/31/2003
SPY: 03/31/2003 – 12/24/2007
SHV: 12/24/2007 – 03/23/2009
SPY: 03/23/2009 – 01/14/2019
SHV: 01/14/2019 – 1/22/2019
SPY: 01/22/2019 –

Growth of $100 invested 1/4/1999:
in iM-Low Frequency Timer: 949.73
in SPDR S&P 500 ETF Trust: 334.76

Legend:
— NBER Recession
— Low Freq Timer
— SPY
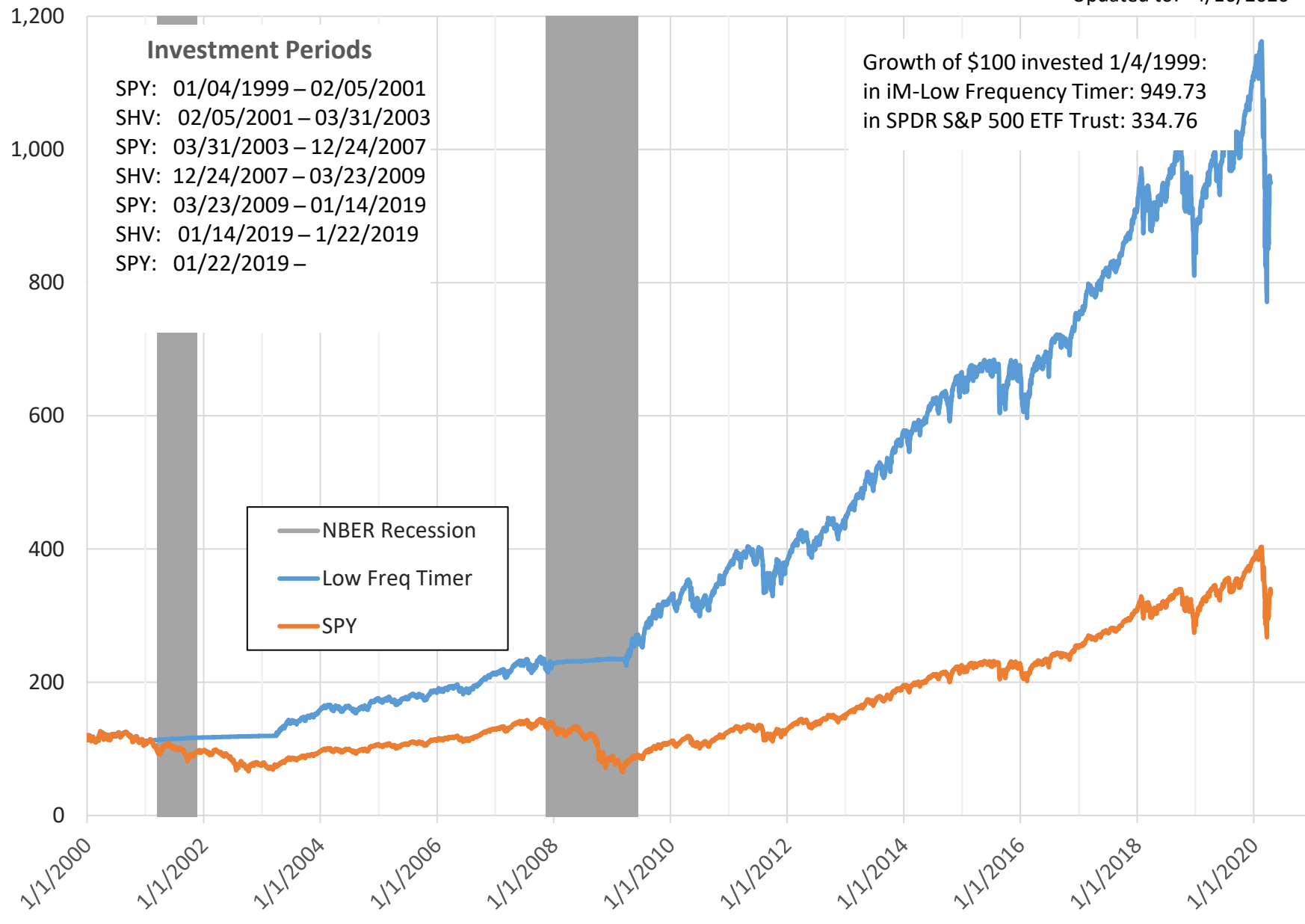
Figure 4: Bond Value Ratio (BVR)

Fig. 5: Yield Curve: i10 - i2

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

Updated to…..4/16/2020

Legend:
- buy FLAT
- buy STPP
- i10-i2
- EMA (i10-i2)

buy STPP

buy FLAT

(i10 - i2) has a positive slope, meaning (i10 - i2) is becoming bigger.

(i10 - i2) the difference btw. 10 - & 2 yr T-note yields has a negative slope, meaning (i10 - i2) is becoming smaller.

i10 - i2

5-Yield Curve.xlsb 09-15
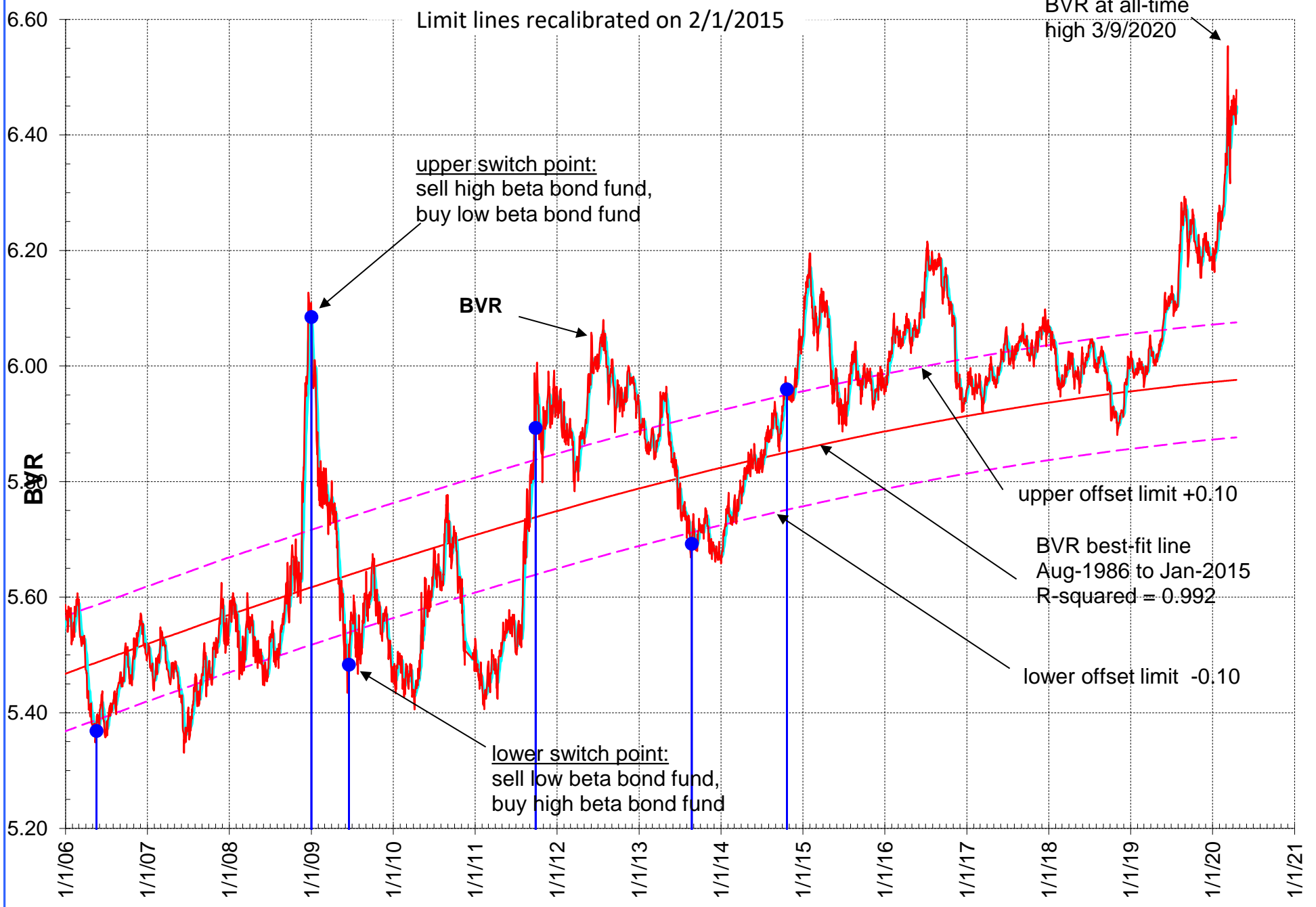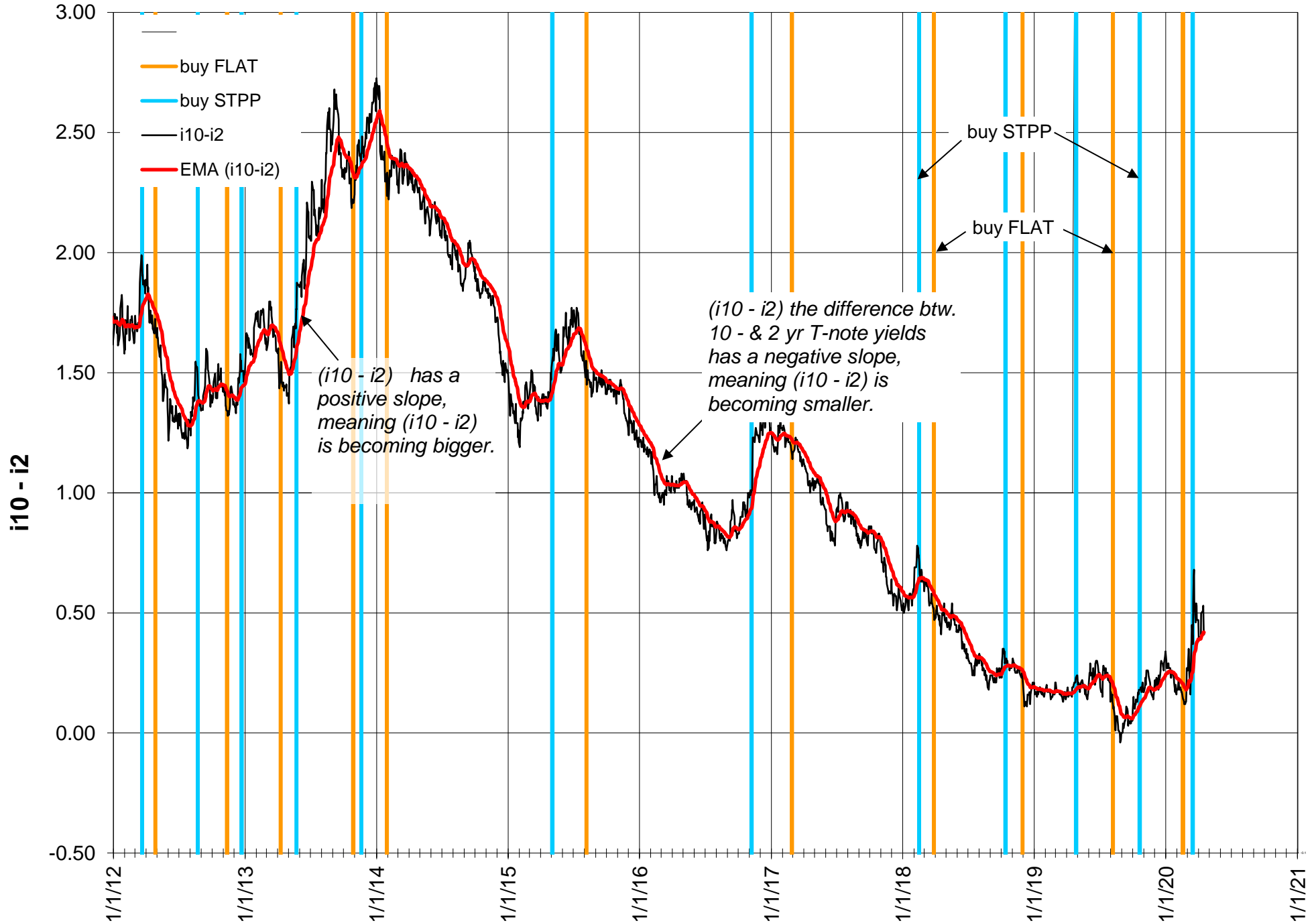
Figure 6: Modified Coppock Indicator for Gold
updated to 04/16/2020

Legend:
- period in gold
- buy signals
- yoy RRC% stdev
- gold price
- coppock indicator
- line=0

Last Buy Signal 3/27/2020

$1729.50

6-COPPOCK GOLD for updates.xlsm
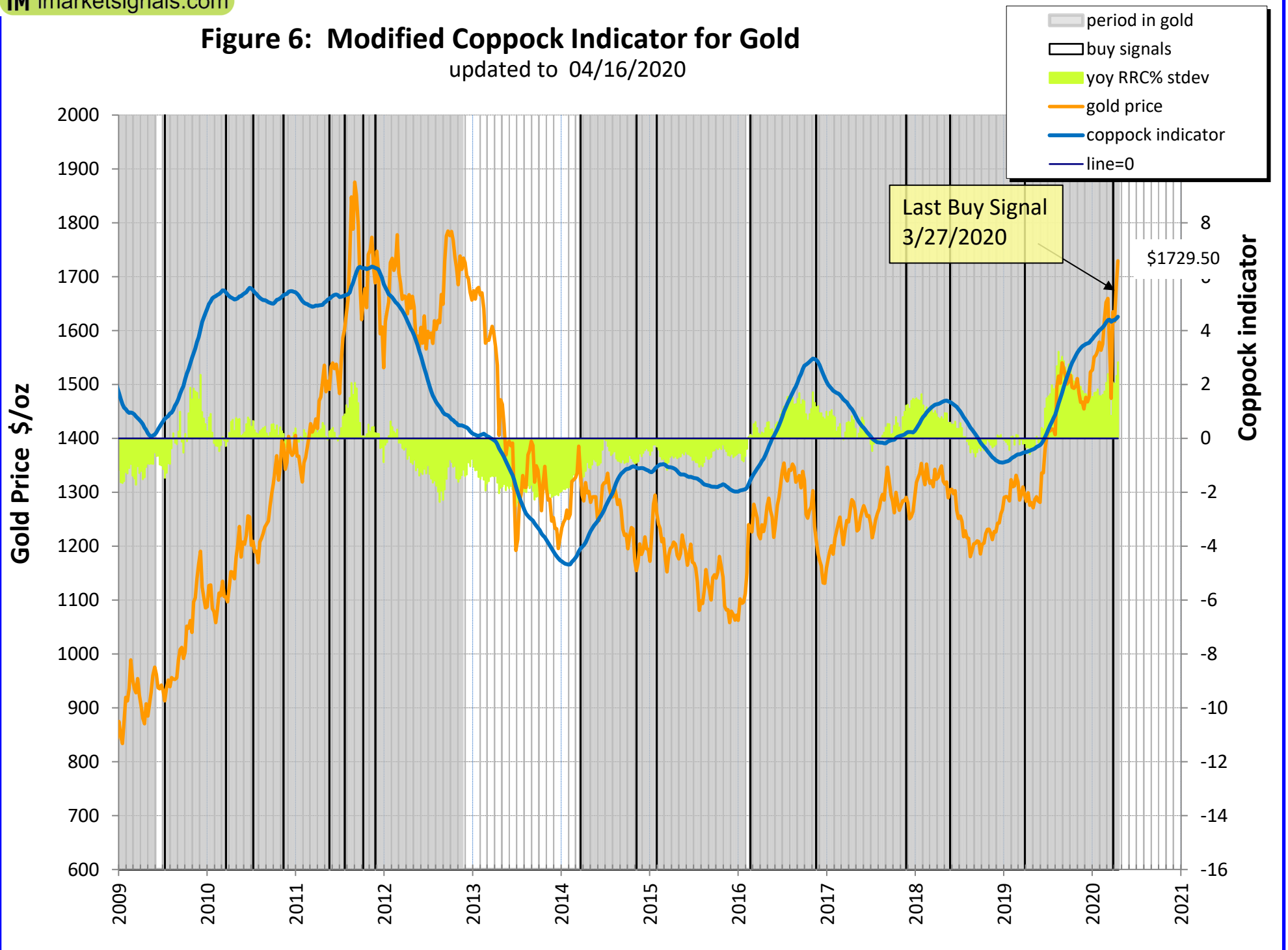
Fig. 6.1a   iM GOLD-TIMER - Rev 1

Updated to: 4/16/2020

Previous Buy Signal: 1/21/2020

Last Sell Signal: 3/16/2020

Legend: Invested — Gold London PM — Return

Y-axis (left): LONDON GOLD (PM FIX)
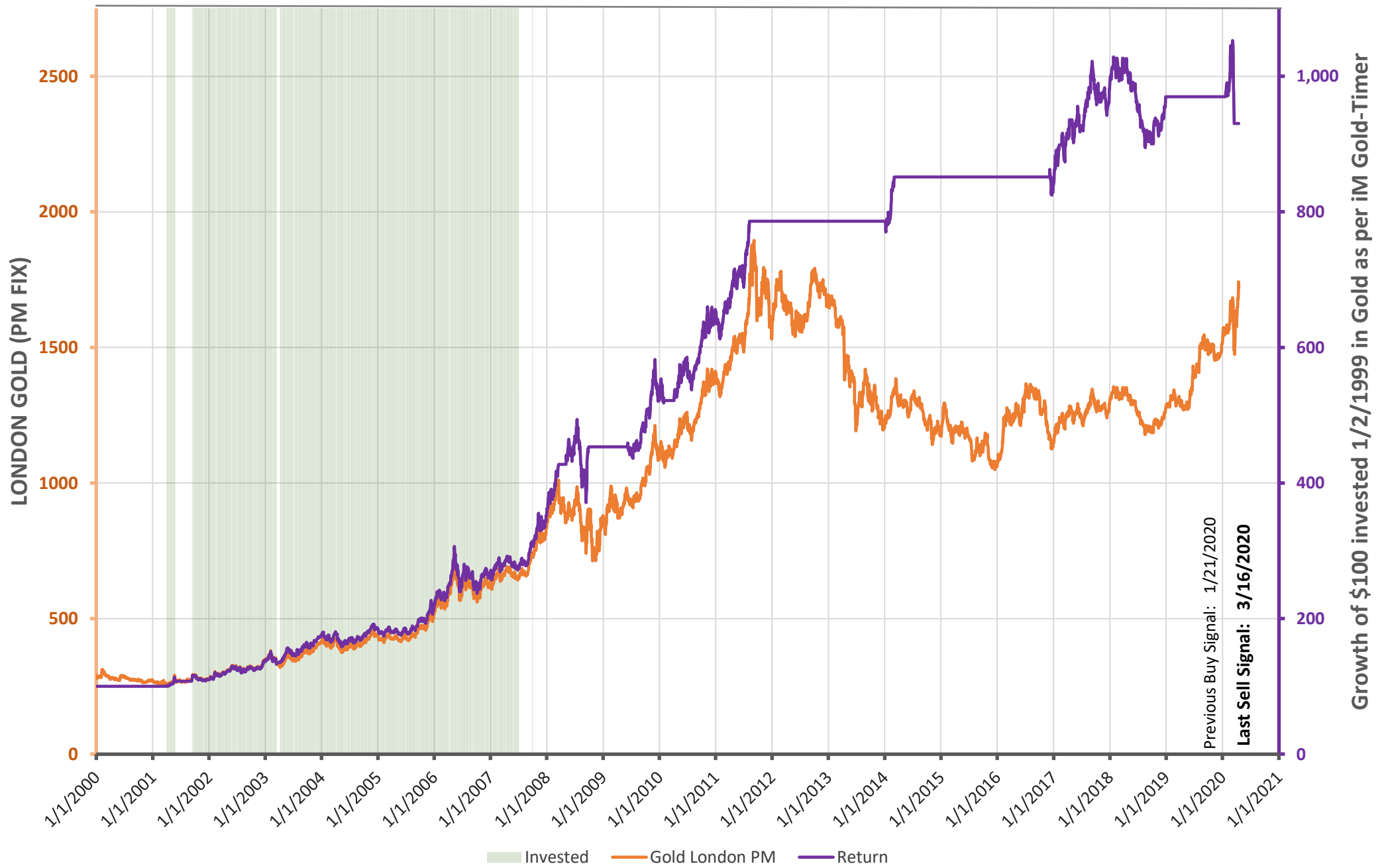Y-axis (right): Growth of $100 invested 1/2/1999 in Gold as per iM Gold-Timer

Figure 7: Modified Coppock Indicator for Silver
updated to 04/16/2020