January 30, 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.

January 31, 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

The monthly iM-Google Trend Timer is invested since 12/1/2019.

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 Index of the S&P500 is below last week's level at 13.75% (last 14.48%), 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 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 4.31 and is below last week's 4.35, as indicated by the green dashed line in the figure. It is evident that the business cycle is near a cycle peak, in the "Boom" phase of the cycle, but a recession is not yet indicated. Therefore it is not likely, absent of a "black swan" event, that there will be a business cycle peak (recession start) during the next six 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 below 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 (i10 – i2) shows that the yield curve is below 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 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.

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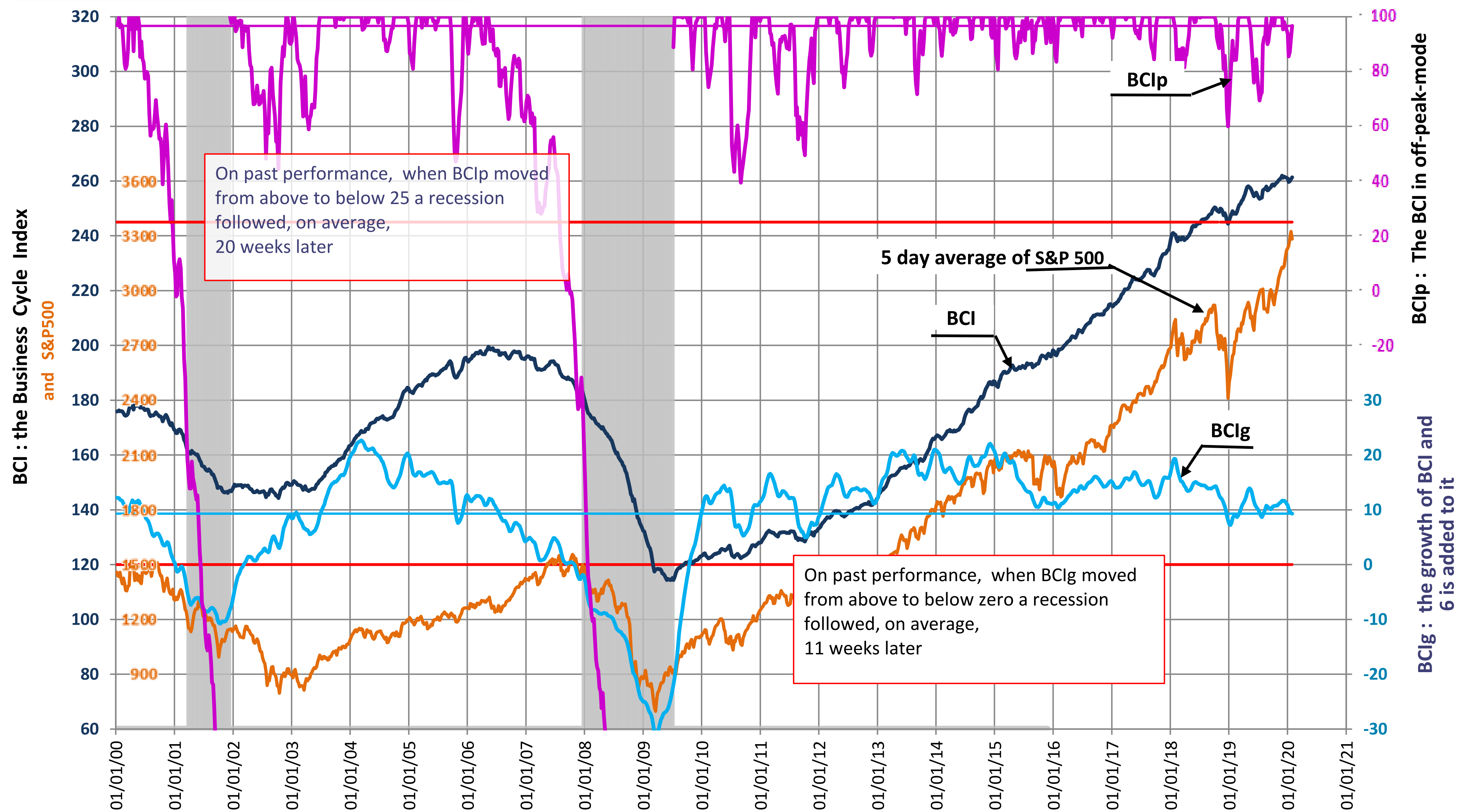
iM's Business Cycle Index (BCI)

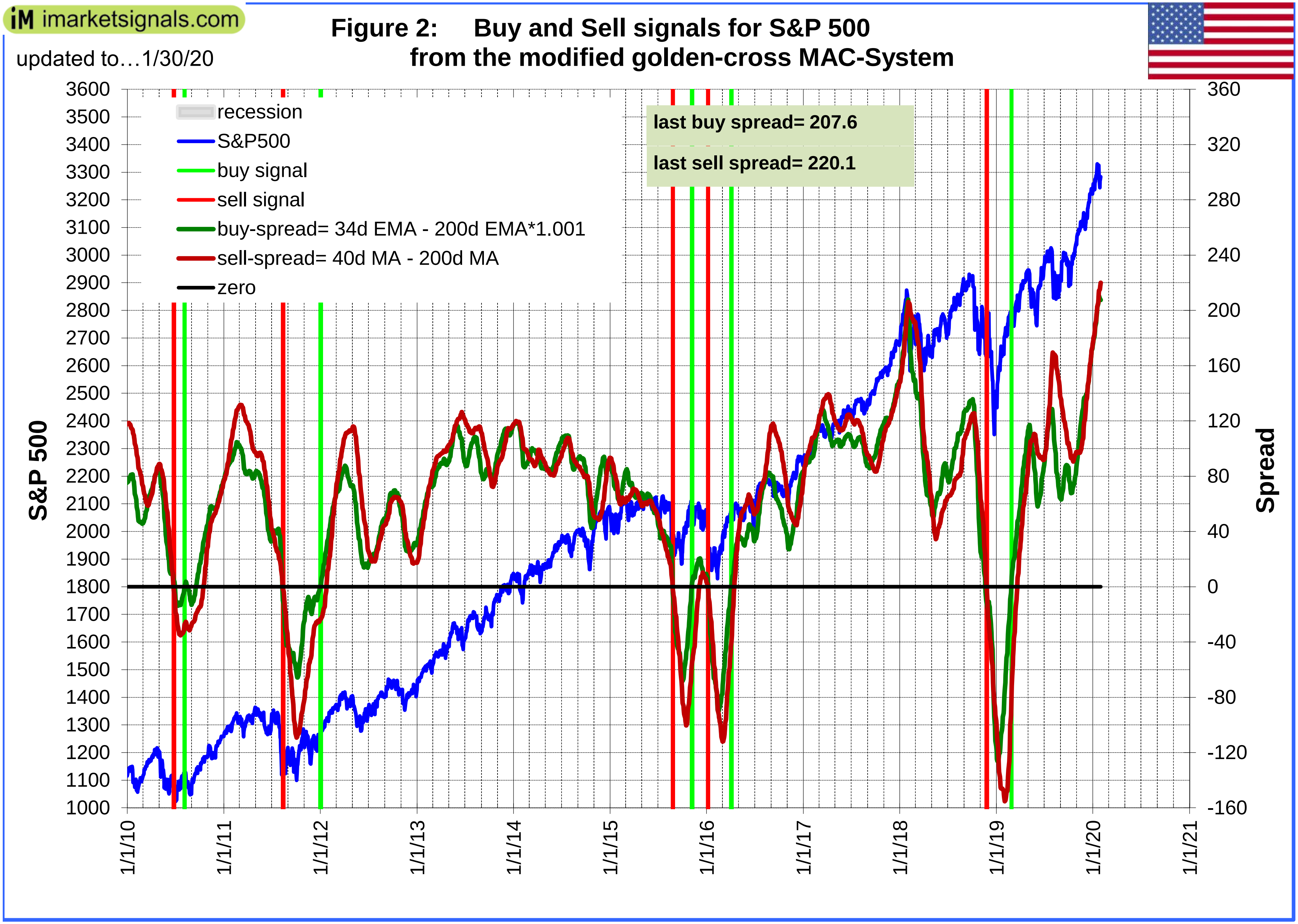
BCIp, BCI and BCIg
updated to January 30, 2020

Date	01/02	01/09	01/16	01/23	**01/30**
BCIp	93.8	85.5	87.1	92.1	**96.6**
BCI	261.0	259.7	259.9	260.7	**261.4**
BCIg	10.9	10.2	9.7	9.4	**9.3**

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.



2-MAC rev8-27-15.xlsb

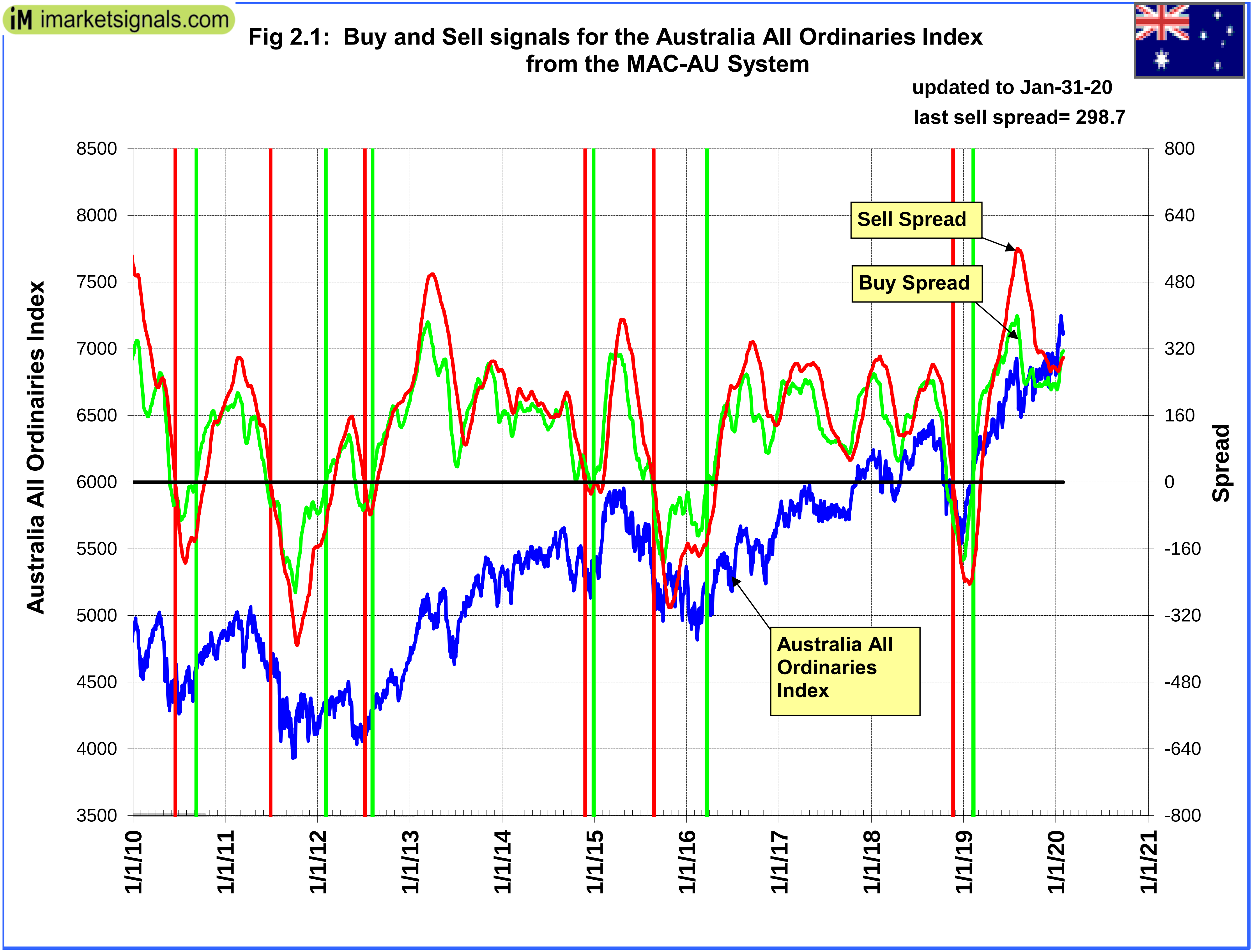


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Fig 2.1: Buy and Sell signals for the Australia All Ordinaries Index
from the MAC-AU System
updated to Jan-31-20
last sell spread= 298.7
Sell Spread
Buy Spread
Australia All Ordinaries Index
Australia All Ordinairies Index
Spread
8500
8000
7500
7000
6500
6000
5500
5000
4500
4000
3500
800
640
480
320
160
0
-160
-320
-480
-640
-800
1/1/10
1/1/11
1/1/12
1/1/13
1/1/14
1/1/15
1/1/16
1/1/17
1/1/18
1/1/19
1/1/20
1/1/21

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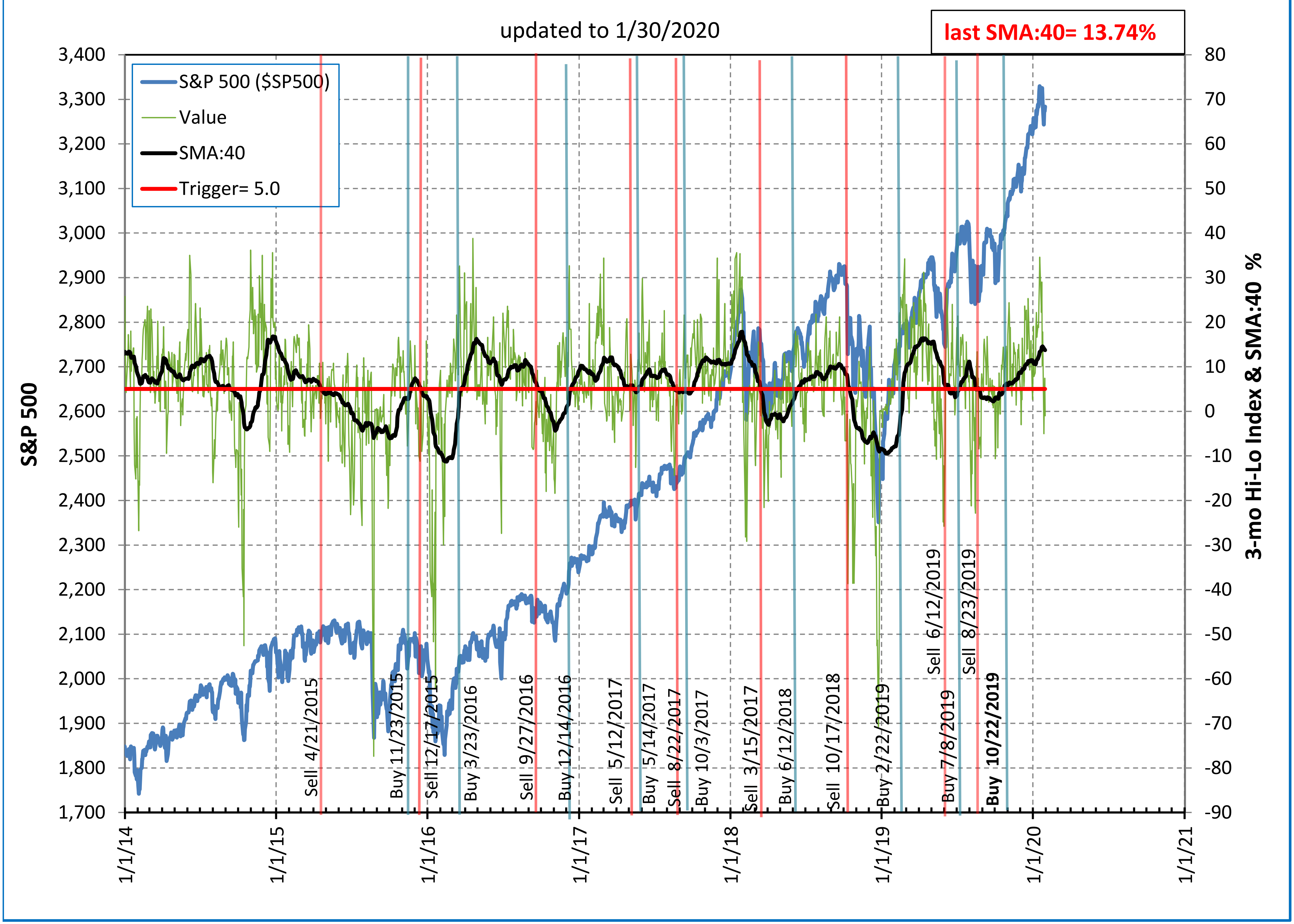
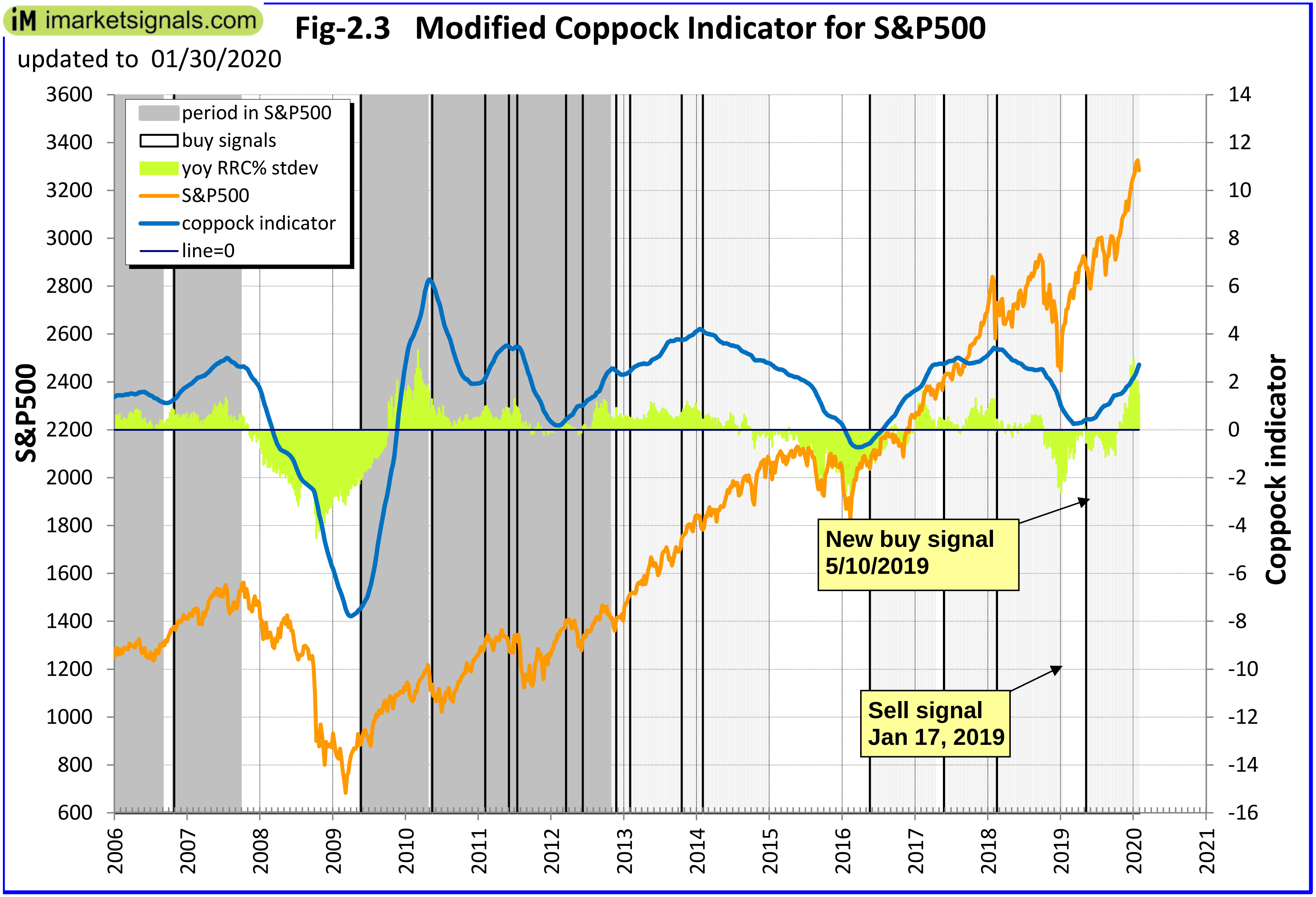
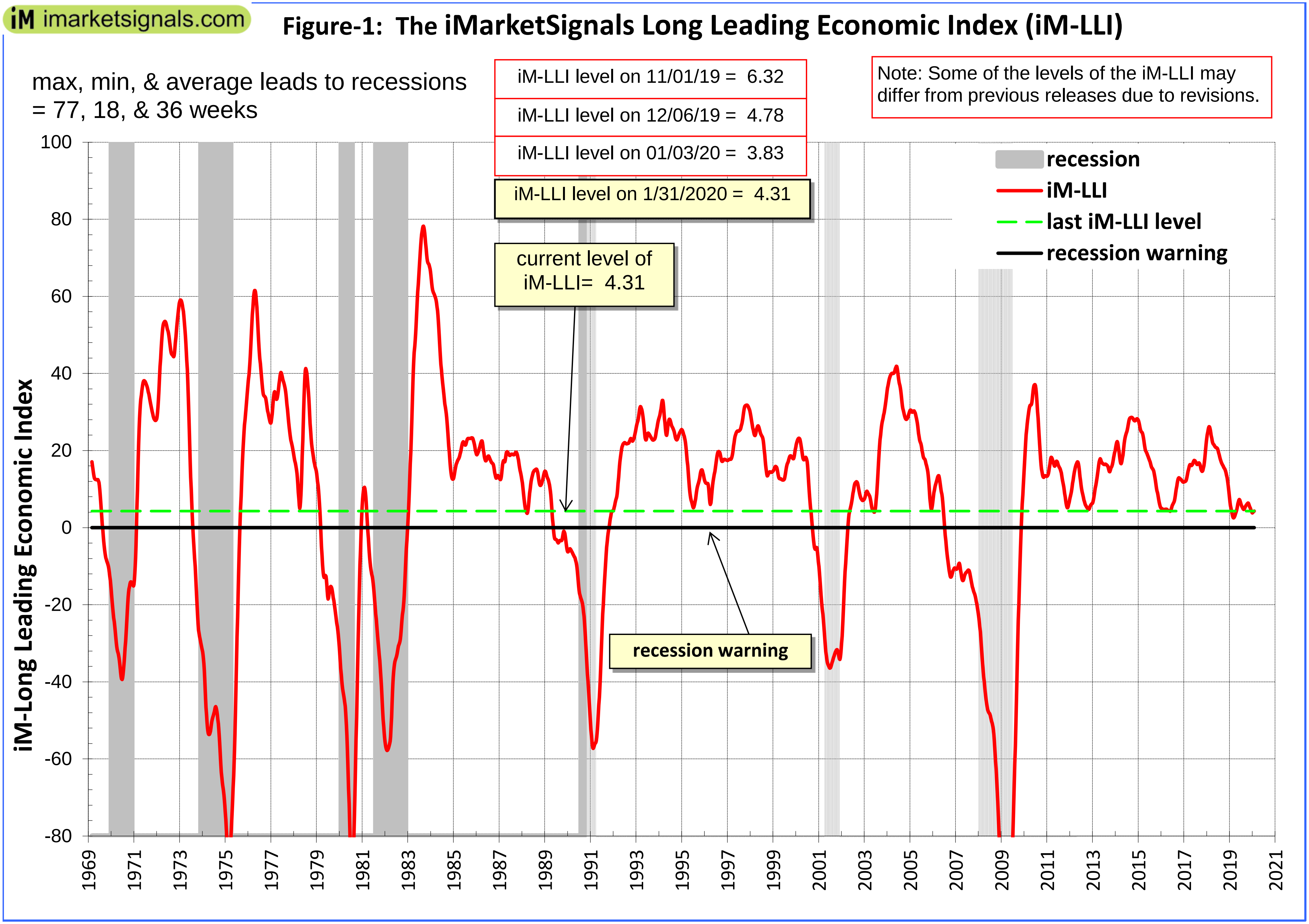
Fig 2.2 3-mo Hi-Lo Index of the S&P500 & 40-day SMA of Index

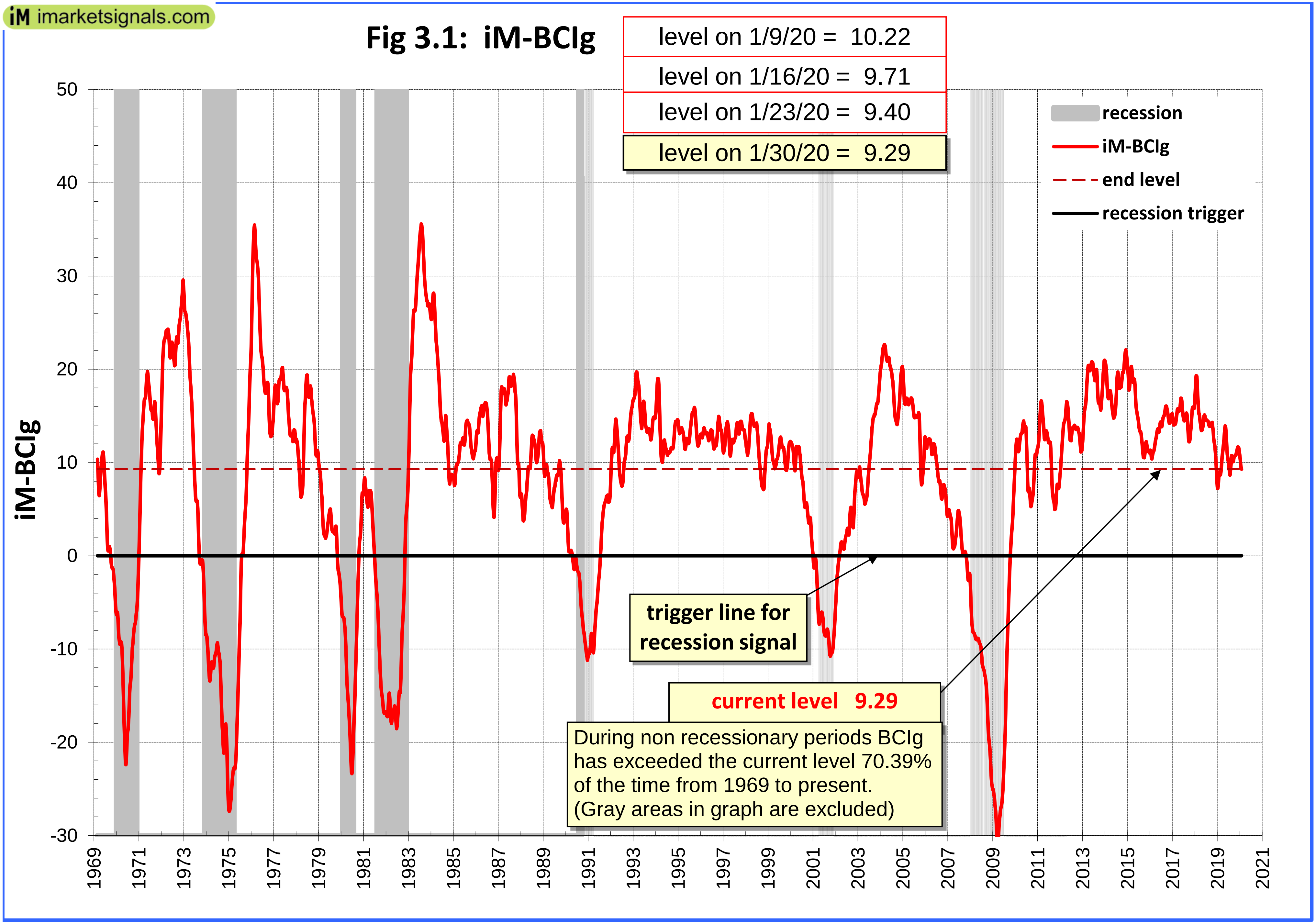




iM imarketsignals.com
Fig-2.3 Modified Coppock Indicator for S&P500
updated to 01/30/2020
period in S&P500
buy signals
yoy RRC% stdev
S&P500
coppock indicator
line=0
New buy signal
5/10/2019
Sell signal
Jan 17, 2019
S&P500
Coppock indicator
3600
3400
3200
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600
14
12
10
8
6
4
2
0
-2
-4
-6
-8
-10
-12
-14
-16
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021



3-iM-Li-SLI-bci.xlsm



BCIg Toni.xlsb

iM imarketsignals.com

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);

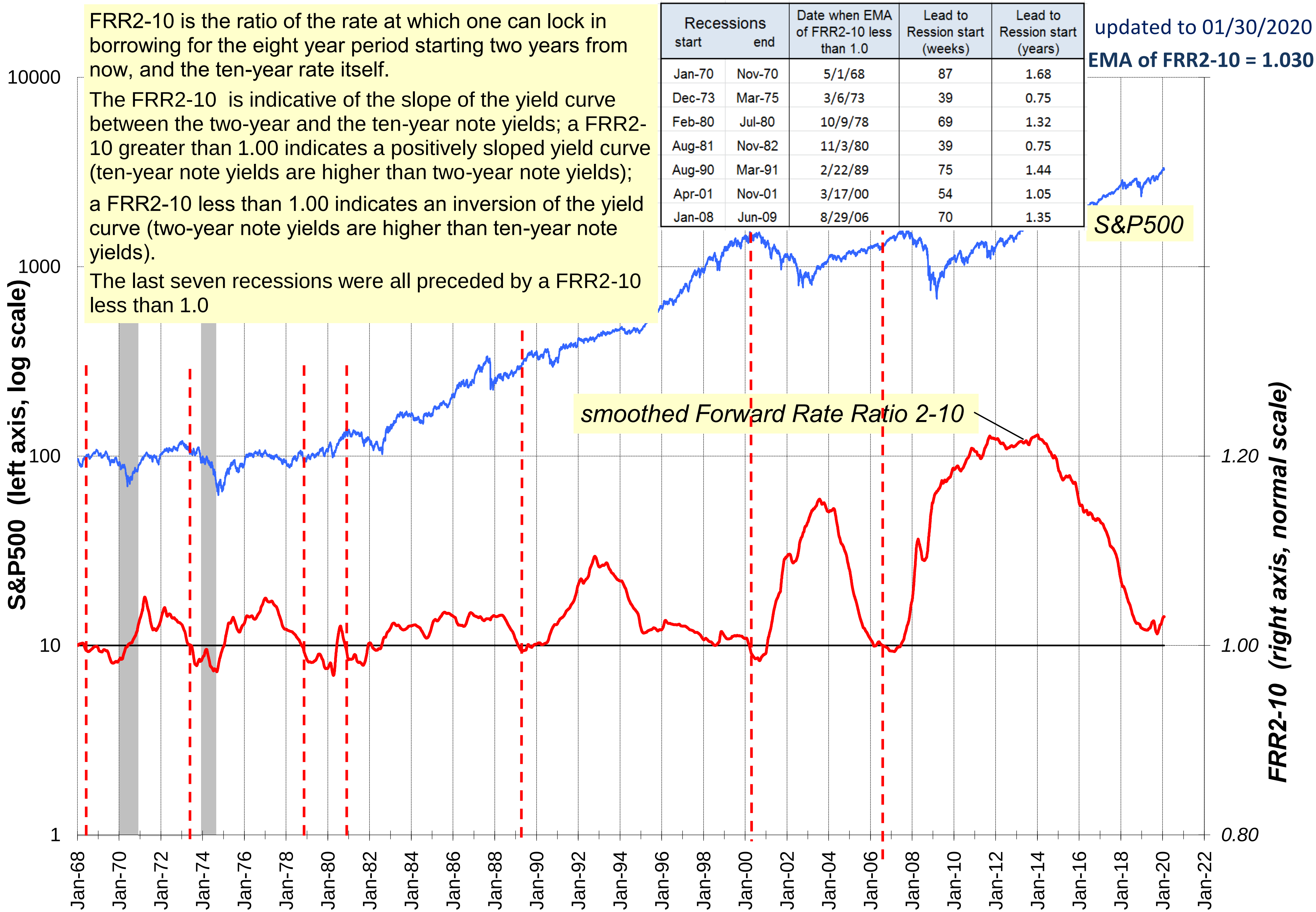
a FRR2-10 less than 1.00 indicates an inversion of the yield curve (two-year note yields are higher than ten-year note yields).

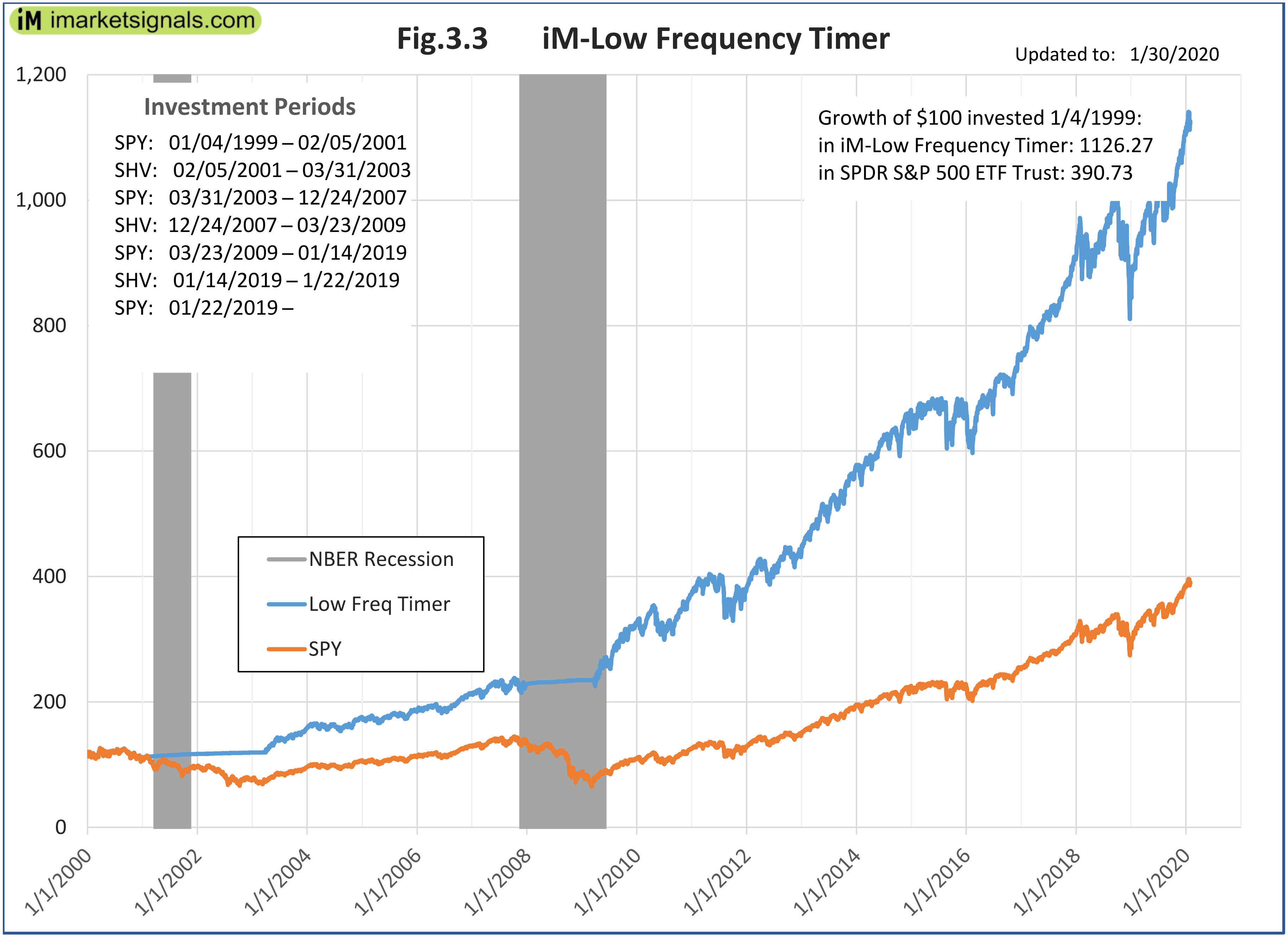
The last seven recessions were all preceded by a FRR2-10 less than 1.0

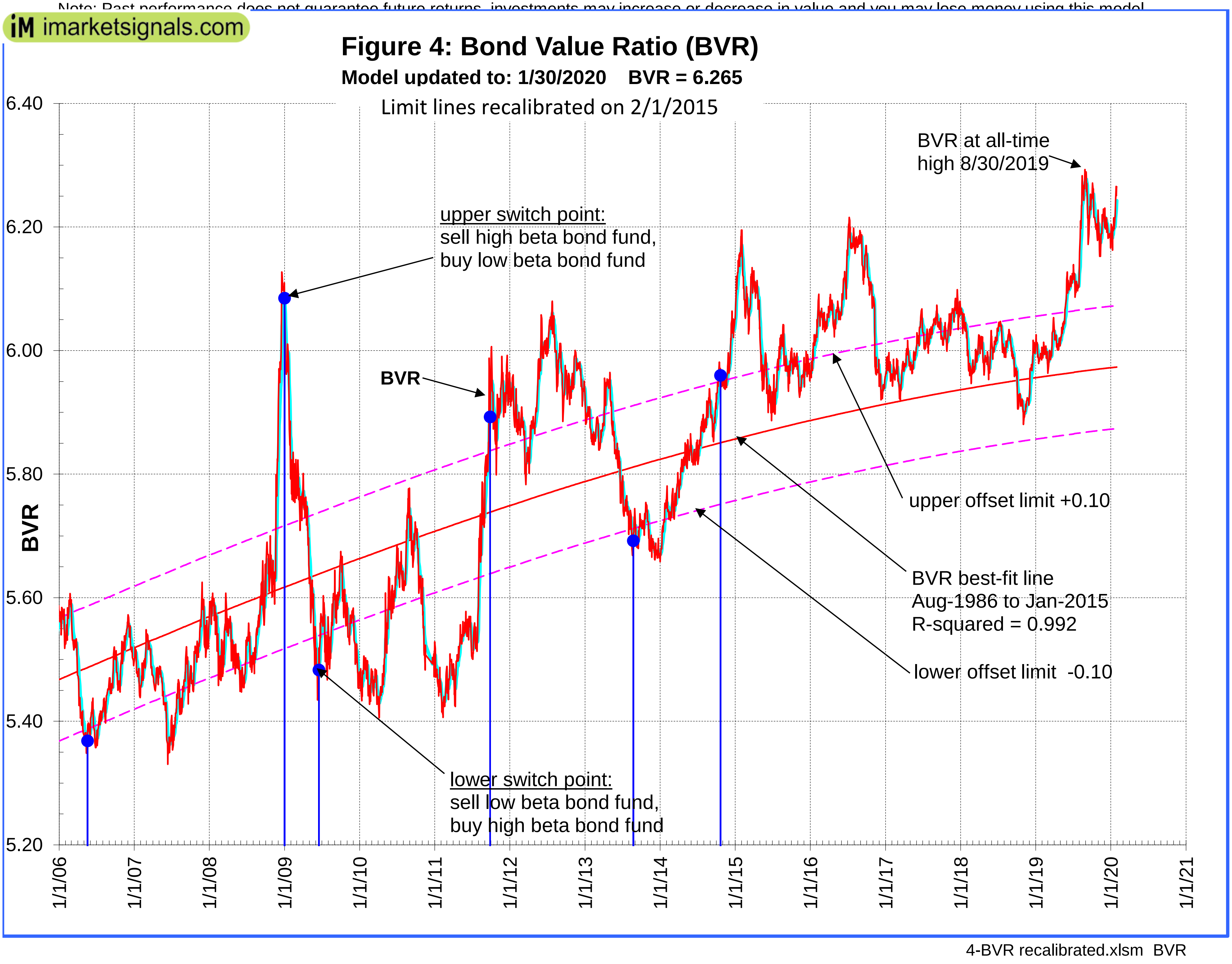
Recessions start	Recessions end	Date when EMA of FRR2-10 less than 1.0	Lead to Ression start (weeks)	Lead to Ression start (years)
Jan-70	Nov-70	5/1/68	87	1.68
Dec-73	Mar-75	3/6/73	39	0.75
Feb-80	Jul-80	10/9/78	69	1.32
Aug-81	Nov-82	11/3/80	39	0.75
Aug-90	Mar-91	2/22/89	75	1.44
Apr-01	Nov-01	3/17/00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

updated to 01/30/2020

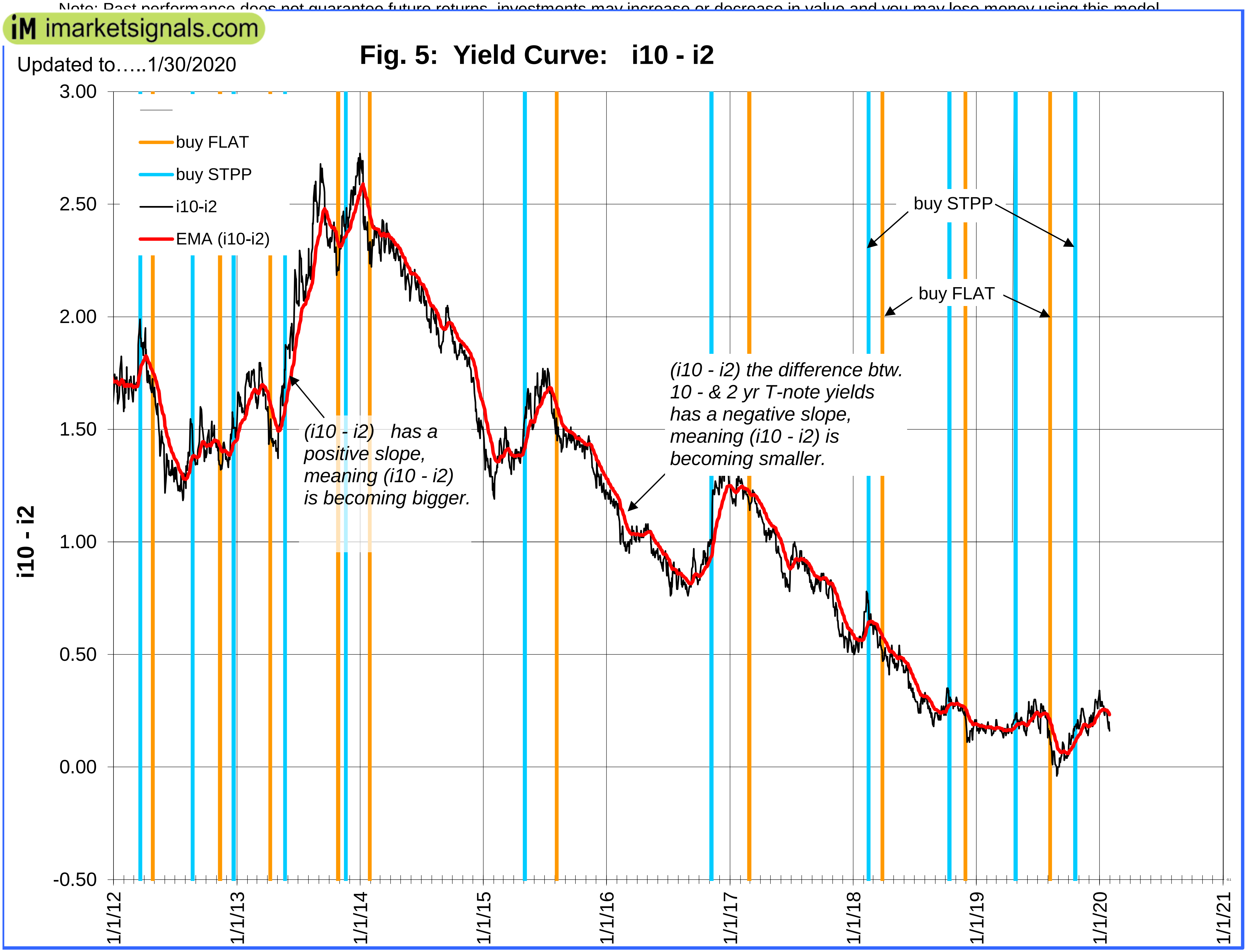
EMA of FRR2-10 = 1.030

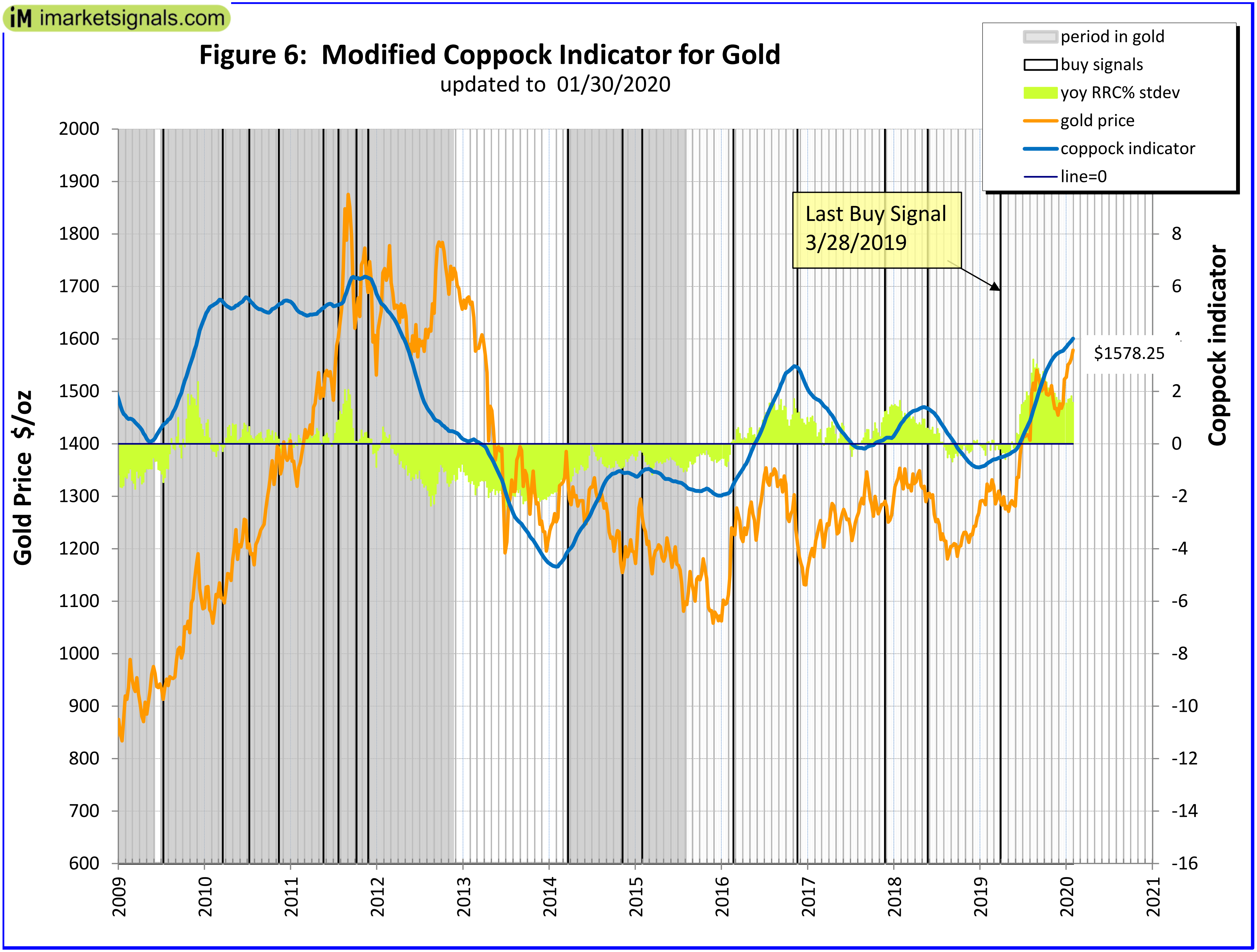



iM imarketsignals.com
Fig.3.3 iM-Low Frequency Timer
Updated to: 1/30/2020
Investment Periods
SPY: 01/04/1999 – 02/05/2001
SHV: 02/05/2001 – 03/31/2003
SPY: 03/31/2003 – 12/24/2007
SHV: 12/24/2007 – 03/23/2009
SPY: 03/23/2009 – 01/14/2019
SHV: 01/14/2019 – 1/22/2019
SPY: 01/22/2019 –
Growth of $100 invested 1/4/1999:
in iM-Low Frequency Timer: 1126.27
in SPDR S&P 500 ETF Trust: 390.73
NBER Recession
Low Freq Timer
SPY
1,200
1,000
800
600
400
200
0
1/1/2000
1/1/2002
1/1/2004
1/1/2006
1/1/2008
1/1/2010
1/1/2012
1/1/2014
1/1/2016
1/1/2018
1/1/2020

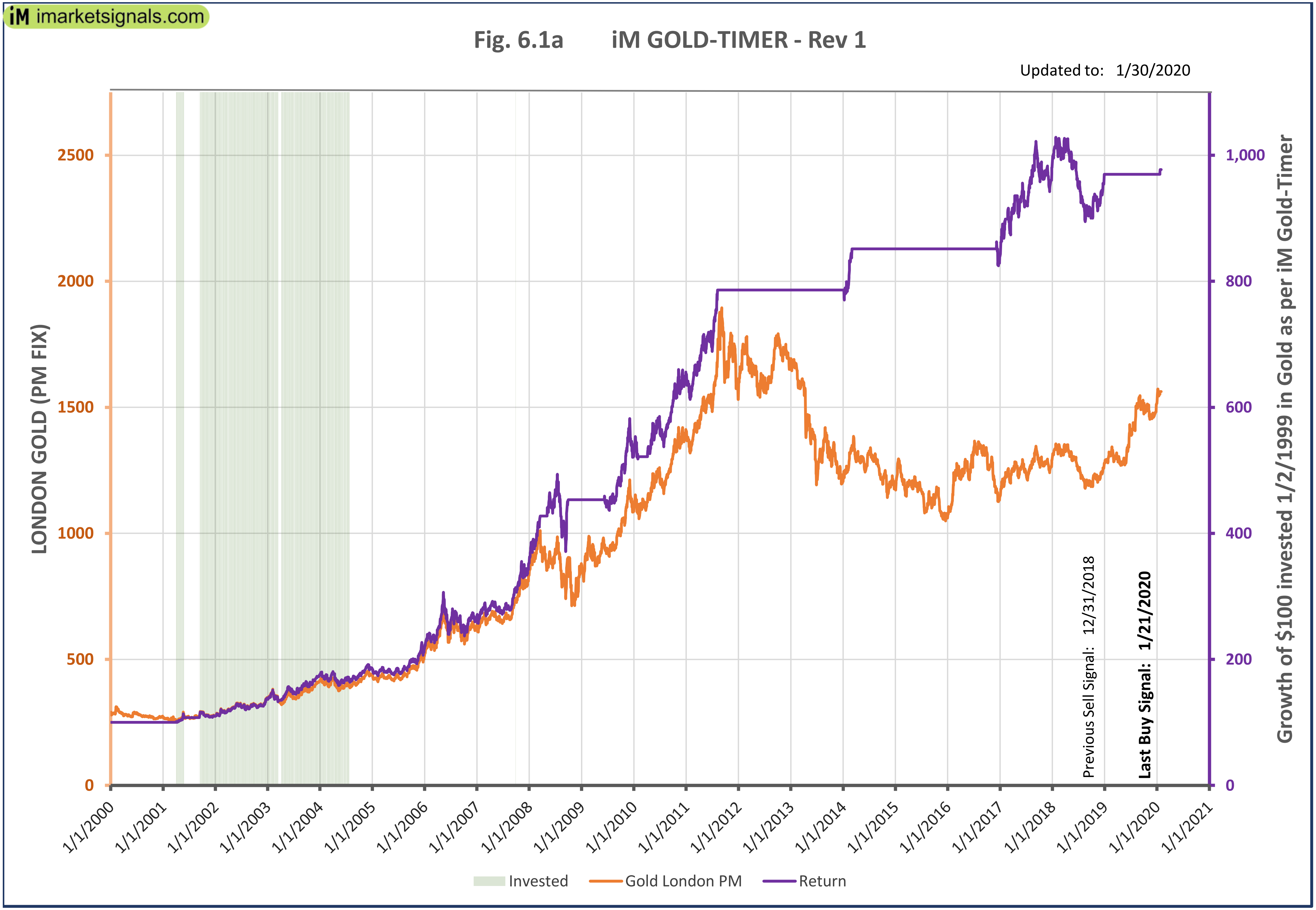

iM imarketsignals.com
Figure 4: Bond Value Ratio (BVR)
Model updated to: 1/30/2020 BVR = 6.265
Limit lines recalibrated on 2/1/2015
BVR at all-time high 8/30/2019
upper switch point:
sell high beta bond fund,
buy low beta bond fund
BVR
upper offset limit +0.10
BVR best-fit line
Aug-1986 to Jan-2015
R-squared = 0.992
lower offset limit -0.10
lower switch point:
sell low beta bond fund,
buy high beta bond fund
6.40
6.20
6.00
5.80
5.60
5.40
5.20
1/1/06
1/1/07
1/1/08
1/1/09
1/1/10
1/1/11
1/1/12
1/1/13
1/1/14
1/1/15
1/1/16
1/1/17
1/1/18
1/1/19
1/1/20
1/1/21
4-BVR recalibrated.xlsm BVR

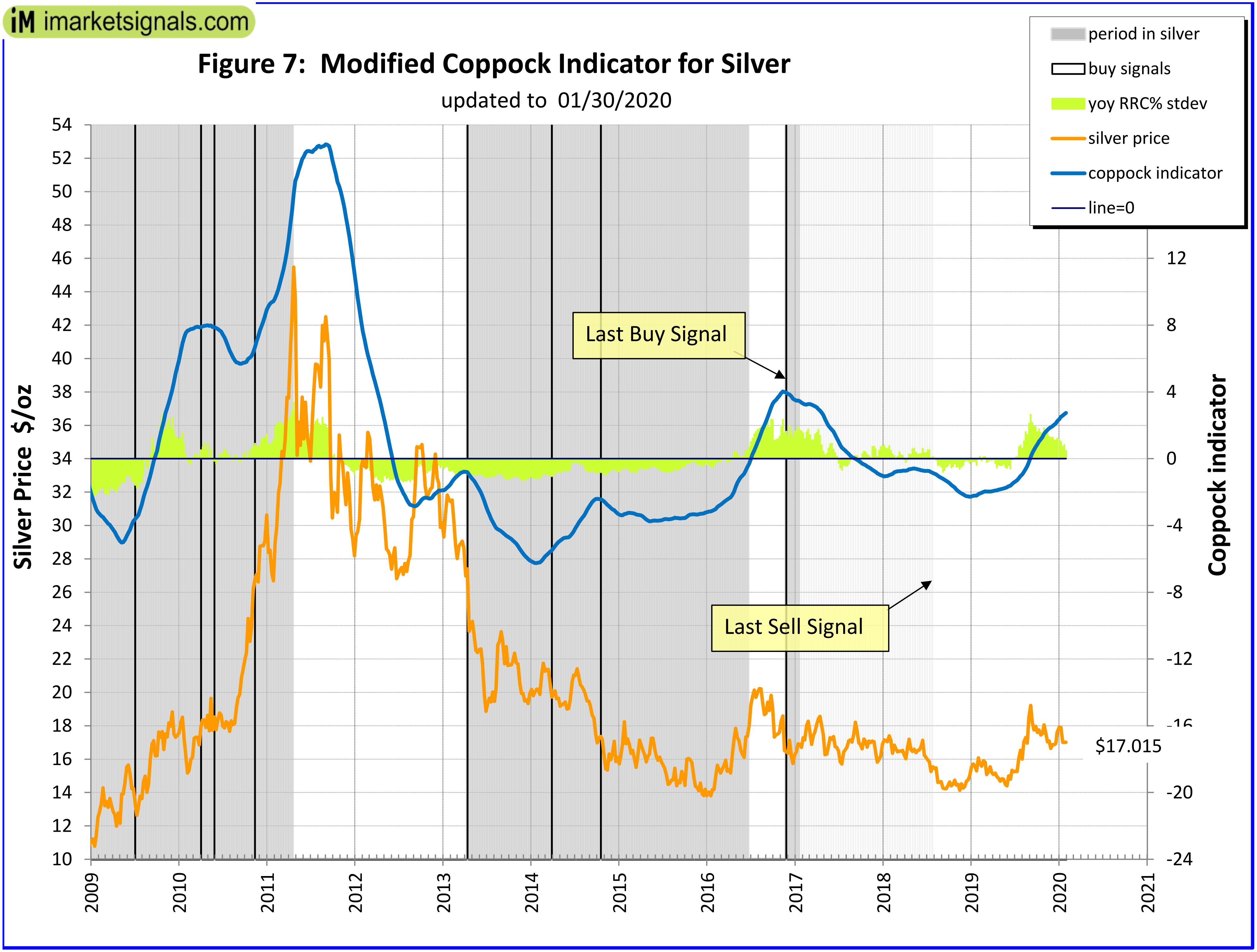
Note: Past performance does not guarantee future returns, investments may increase or decrease in value and you may lose money using this model.





6-COPPOCK GOLD for updates.xlsm


imarketsignals.com
Fig. 6.1a iM GOLD-TIMER - Rev 1
Updated to: 1/30/2020
LONDON GOLD (PM FIX)
Growth of $100 invested 1/2/1999 in Gold as per iM Gold-Timer
0
500
1000
1500
2000
2500
0
200
400
600
800
1,000
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
Previous Sell Signal: 12/31/2018
Last Buy Signal: 1/21/2020
Invested
Gold London PM
Return



iM imarketsignals.com
Figure 7: Modified Coppock Indicator for Silver
updated to 01/30/2020
period in silver
buy signals
yoy RRC% stdev
silver price
coppock indicator
line=0
Last Buy Signal
Last Sell Signal
$17.015
Silver Price $/oz
Coppock indicator