September 19, 2019

Business Cycle Index

The BCI at 257.3is up from last week's downward revised 257.0, and remains below the previous high of this business cycle indicated by the BCIp of 91.9.   However, the 6-month smoothed annualized growth BCIg at 9.9 is below last week's 10.2.

Both BCIp and BCIg are not signaling a recession.

September 20, 2019

Market Signals Summary:

The MAC-US model, iM-Low Frequency Timer, and the S&P500 Coppock are invested in the markets, however the "3-mo Hi-Lo Index of the S&P500" is out of the market. 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 has flattened significantly The gold Coppock remains invested in gold, however the silver model is in cash. The iM-Gold Timer is in cash.

MAC-US

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

3-mo Hi-Lo Index

The 3-mo Hi-Lo Index of the S&P500 is at last week's level at 2.75% (last week 3.00%), and is out of the market. This indicator slipped below the 5.0% level on 8/16/23 but recovered by 8/22/2016. But, a day later, on 8/23/2019 Hi-Lo Index again slipped to 4.94%, below the 5% threshold.

Coppock Indicator for the S&P500

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

MAC-AU

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

Recession:

COMP

Figure 3 shows the COMP above last week's level. No recession is indicated.

iM-BCIg

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

Forward Rate Ratio

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.

iM-Low Frequency Timer

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 below last week's record high. 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 continues to flatten. 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:

Coppock 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.

iM GOLD-TIMER

The iM GOLD-TIMER Rev-1 sold gold on 12/31/2018 and the model is in cash

Silver:

Coppock 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

September 6, 2019 (next update October 4, 2019)

Unemployment

The unemployment rate recession model (article link), has been updated with the August UER of 3.7%. The model does not signal a recession.

The Dynamic Linearly Detrended Enhanced Aggregate Spread:

The updated level of this indicator, -268bps, below last months -254bps, confirms the January 2017 signal. Based on past history a recession could have started as early as October 2017, but not later than June 2020.The average lead time to previous recessions provided by DAGS was 15 months which would indicate a recession start for April 2019. (Note: All our other recession indicators are far from signal 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 moved from +2 to 0 end of May-2019.

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 increased from 5.9% to 6.4% with a 95% confidence interval : 5.1% to 7.8 (previous 4.5% to 7.3%).

iM-GT Timer

Fig-10.-2-1-2019The iM-GT Timer, based on Google Search Trends volume is invested in the markets 7/1/2020.

Trade Weighted USD

The trend of Trade Weighted $ value is indeterminate.

TIAA Real Estate Account

The 1-year rolling return for the end of last month is 4.95%.   A sell signal is not imminent.

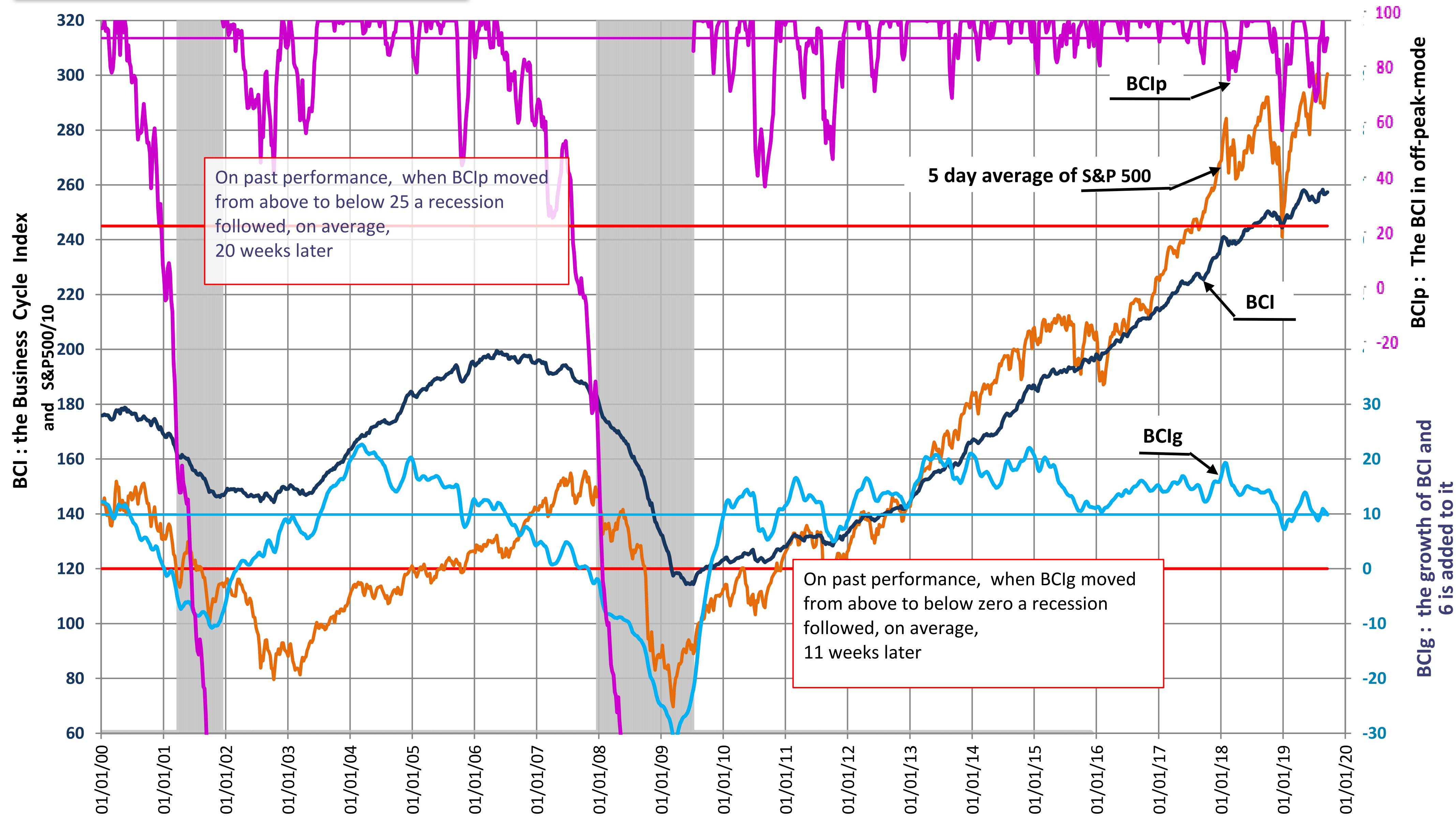
iM imarketsignals.com

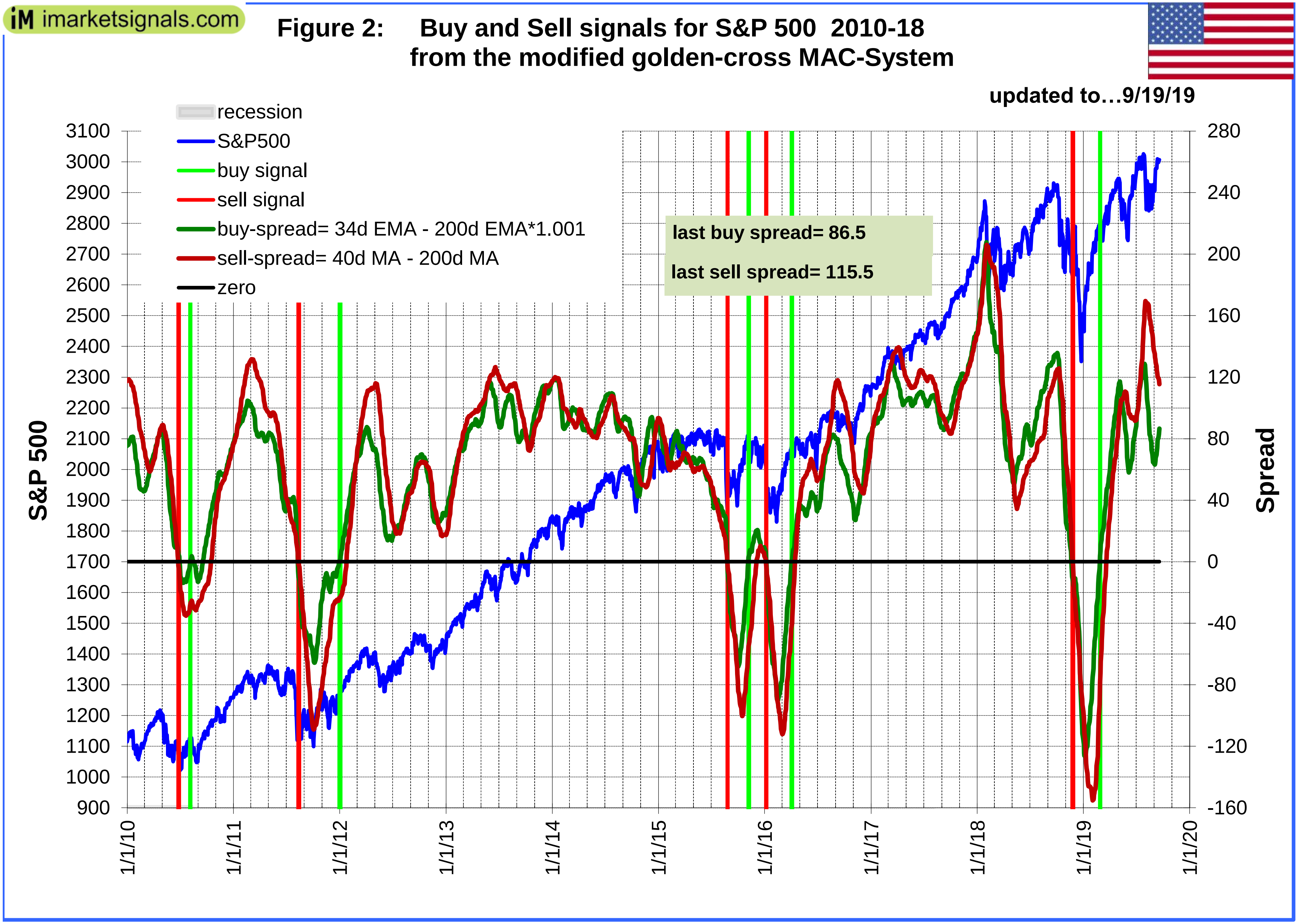
Date	08/22	08/29	09/05	09/12	**09/19**
BCIp	100.0	88.8	88.7	91.4	**93.6**
BCI	258.3	256.6	256.6	257.0	**257.3**
BCIg	10.9	10.7	10.4	10.2	**9.9**

iM's Business Cycle Index (BCI)

BCIp, BCI and BCIg
updated to September 19, 2019

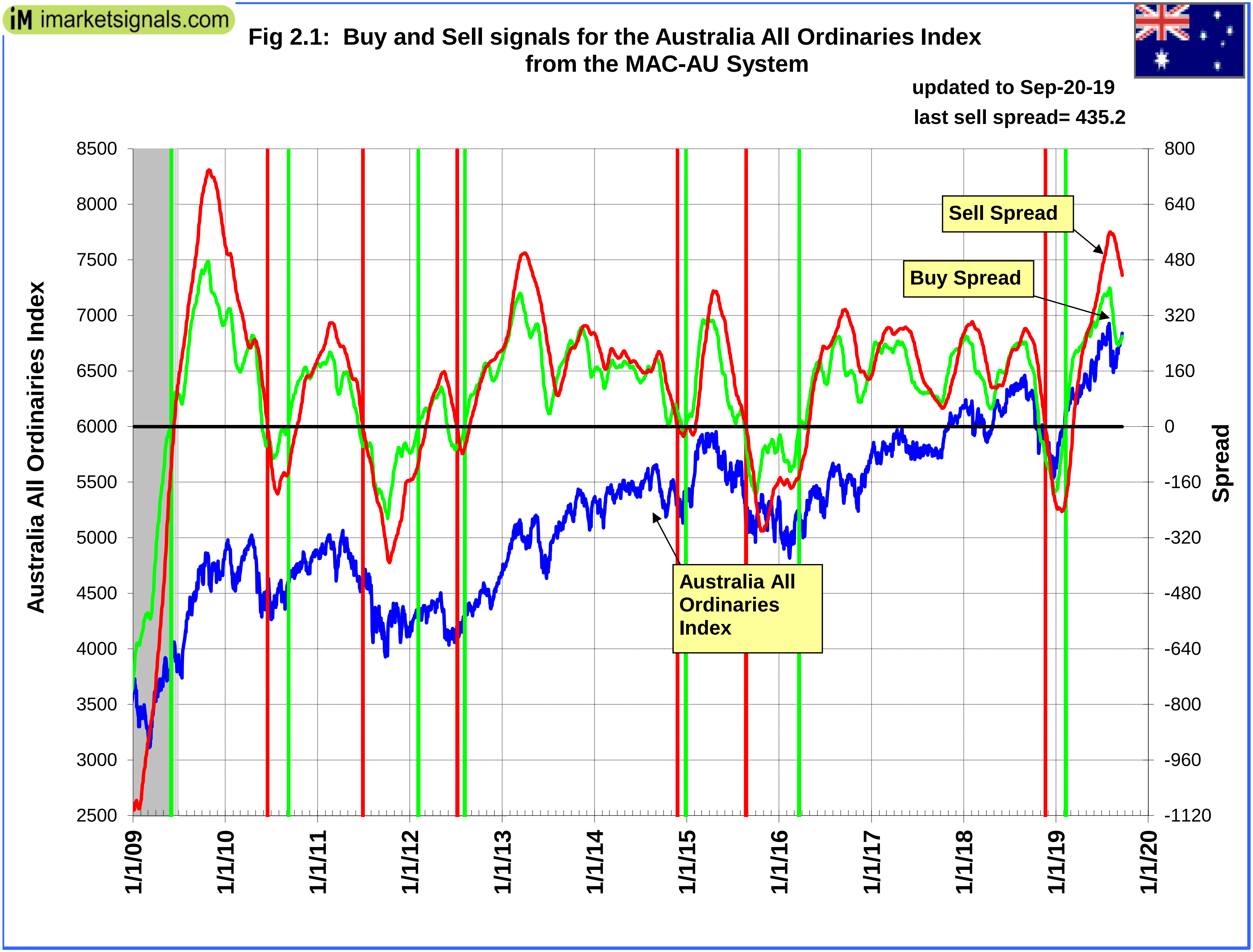
On past performance, BCIp = 100 can be interpreted as an average one year "time-to-live" to a recession.

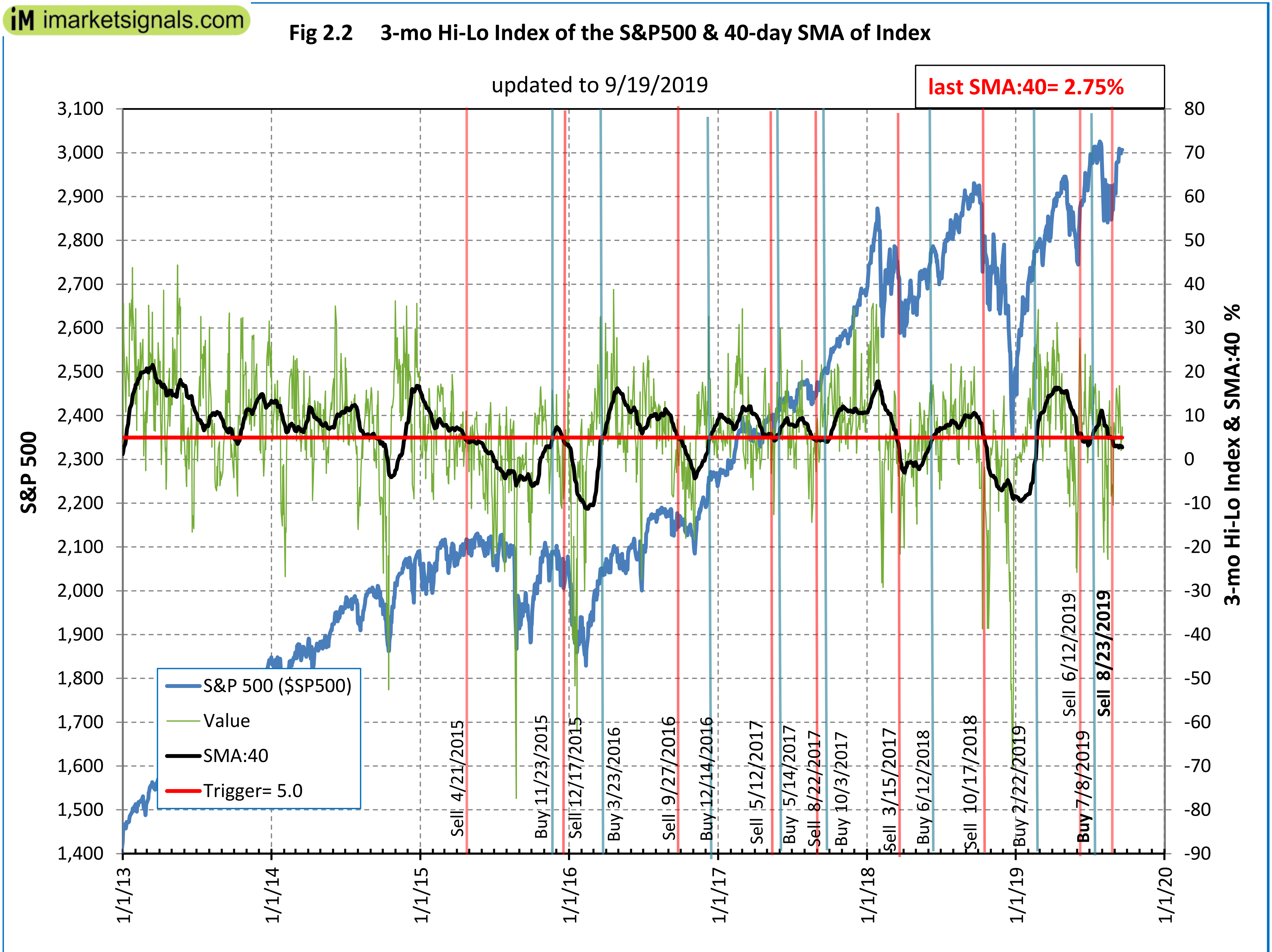




2-MAC rev8-27-15.xlsb

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





iM imarketsignals.com
Fig 2.2 3-mo Hi-Lo Index of the S&P500 & 40-day SMA of Index
updated to 9/19/2019
last SMA:40= 2.75%
S&P 500
3-mo Hi-Lo Index & SMA:40 %
S&P 500 ($SP500)
Value
SMA:40
Trigger= 5.0
Sell 4/21/2015
Buy 11/23/2015
Sell 12/17/2015
Buy 3/23/2016
Sell 9/27/2016
Buy 12/14/2016
Sell 5/12/2017
Buy 5/14/2017
Sell 8/22/2017
Buy 10/3/2017
Sell 3/15/2017
Buy 6/12/2018
Sell 10/17/2018
Buy 2/22/2019
Sell 6/12/2019
Buy 7/8/2019
Sell 8/23/2019
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1/1/14
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1/1/16
1/1/17
1/1/18
1/1/19
1/1/20

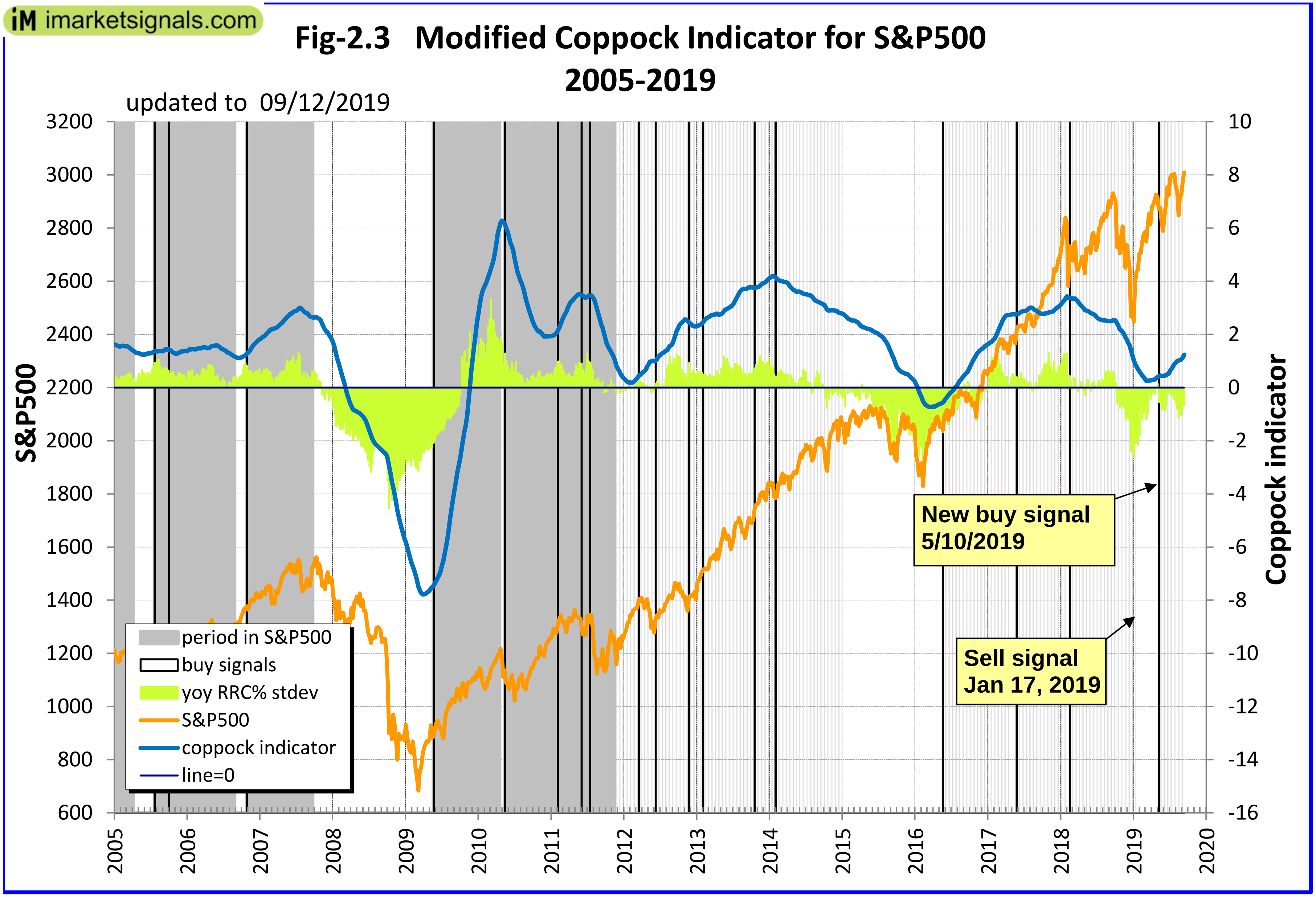
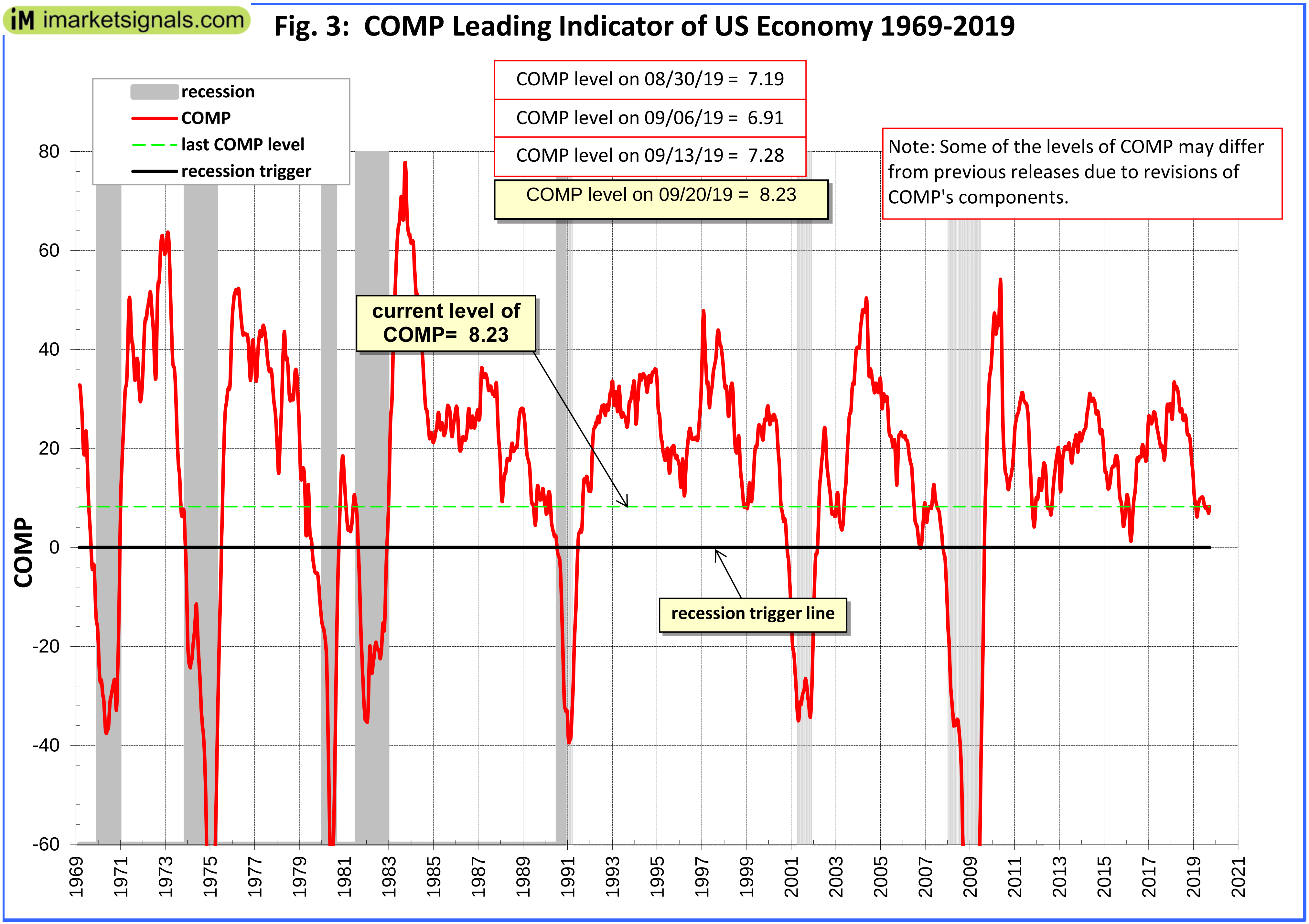
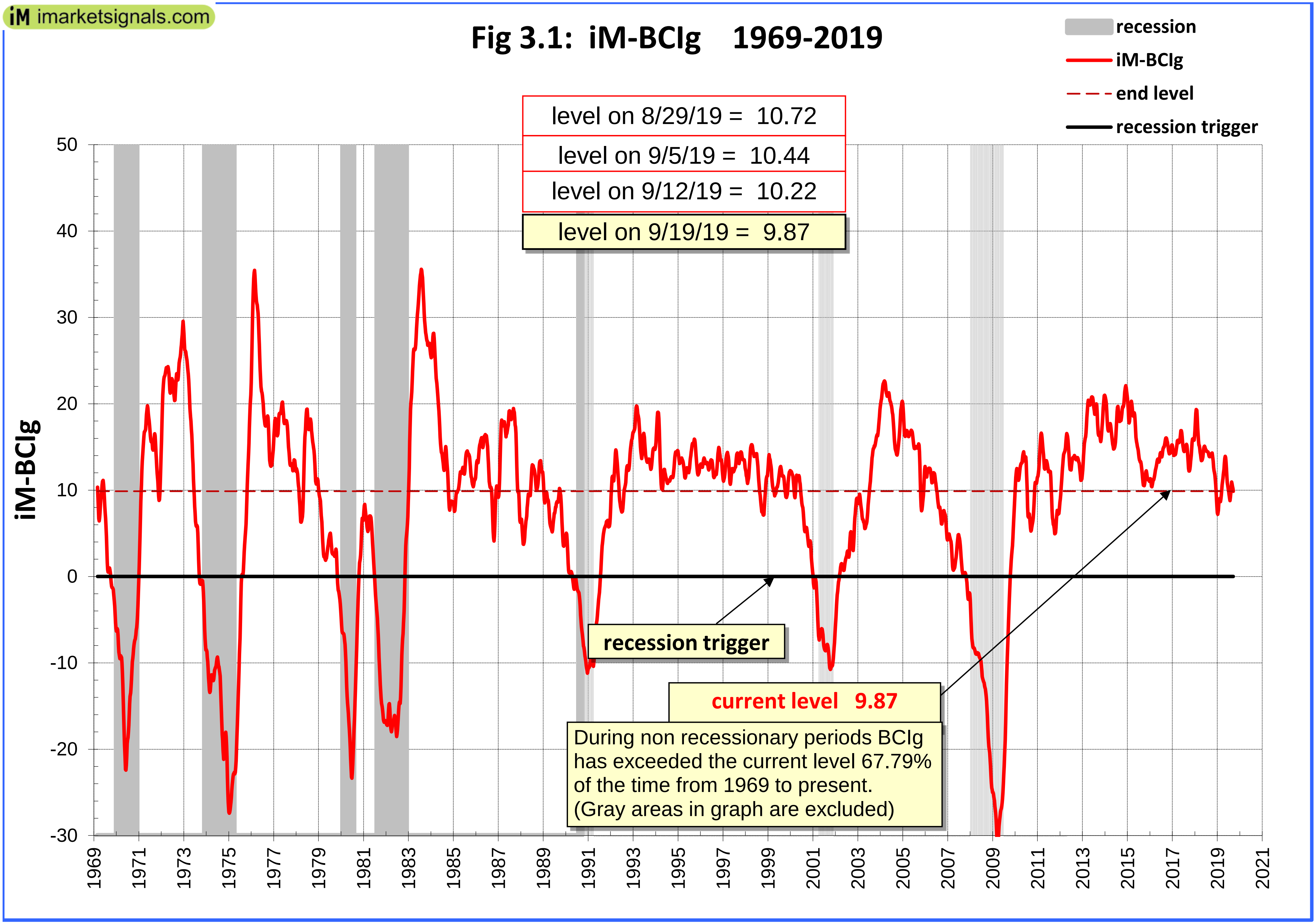


Fig-2.3 Modified Coppock Indicator for S&P500 2005-2019


iM imarketsignals.com
Fig. 3: COMP Leading Indicator of US Economy 1969-2019
recession
COMP
last COMP level
recession trigger
COMP level on 08/30/19 = 7.19
COMP level on 09/06/19 = 6.91
COMP level on 09/13/19 = 7.28
COMP level on 09/20/19 = 8.23
Note: Some of the levels of COMP may differ from previous releases due to revisions of COMP's components.
current level of COMP= 8.23
recession trigger line
COMP
80
60
40
20
0
-20
-40
-60
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021

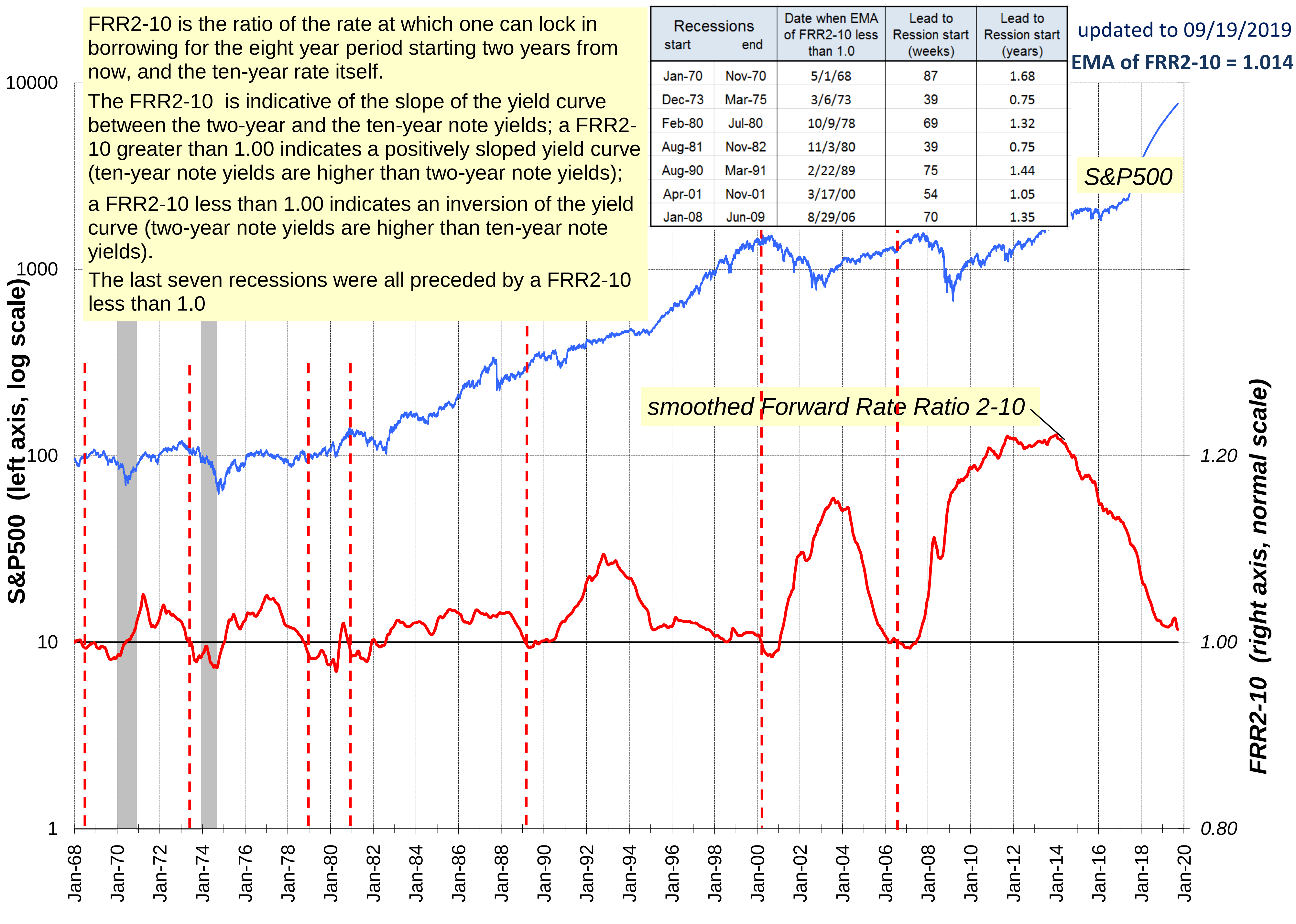
3-COMP.xlsb



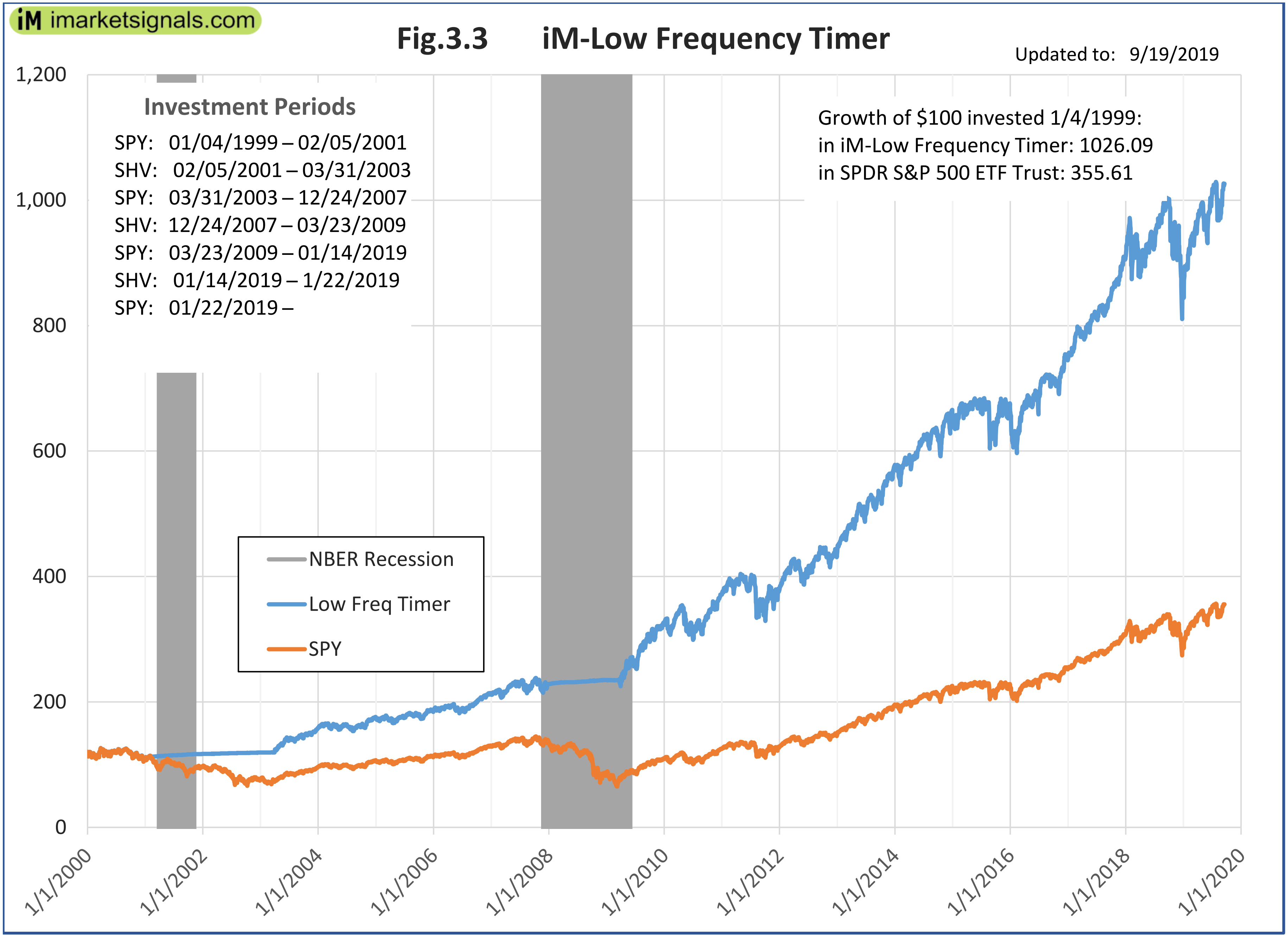
BCIg Toni.xlsb

iM imarketsignals.com

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



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



imarketsignals.com
Fig.3.3 iM-Low Frequency Timer
Updated to: 9/19/2019
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: 1026.09
in SPDR S&P 500 ETF Trust: 355.61
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

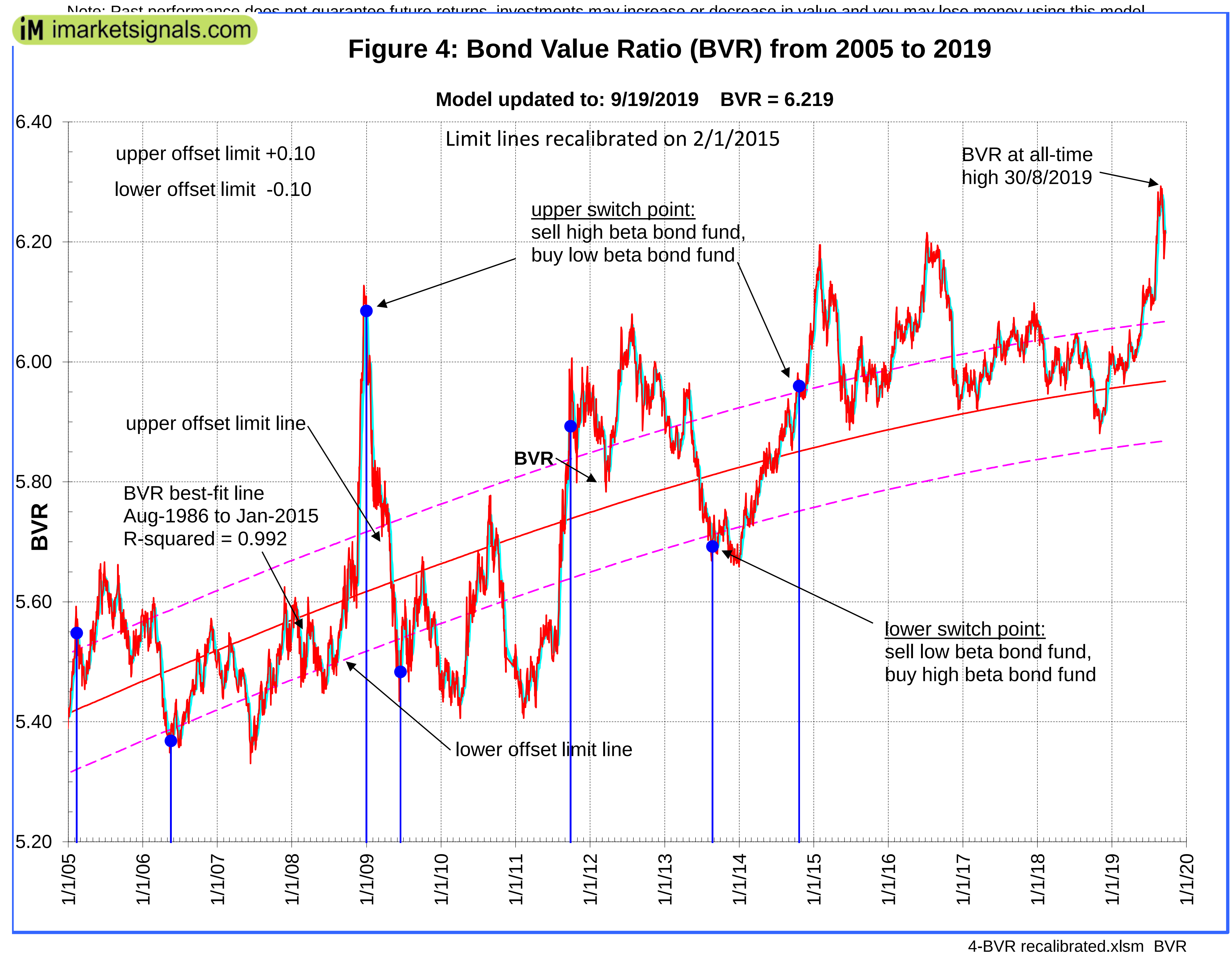

Note: Past performance does not guarantee future returns, investments may increase or decrease in value and you may lose money using this model.
iM imarketsignals.com
Figure 4: Bond Value Ratio (BVR) from 2005 to 2019
Model updated to: 9/19/2019 BVR = 6.219
Limit lines recalibrated on 2/1/2015
upper offset limit +0.10
lower offset limit -0.10
BVR at all-time high 30/8/2019
upper switch point:
sell high beta bond fund,
buy low beta bond fund
upper offset limit line
BVR
BVR best-fit line
Aug-1986 to Jan-2015
R-squared = 0.992
lower switch point:
sell low beta bond fund,
buy high beta bond fund
lower offset limit line
6.40
6.20
6.00
5.80
5.60
5.40
5.20
1/1/05
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
4-BVR recalibrated.xlsm BVR

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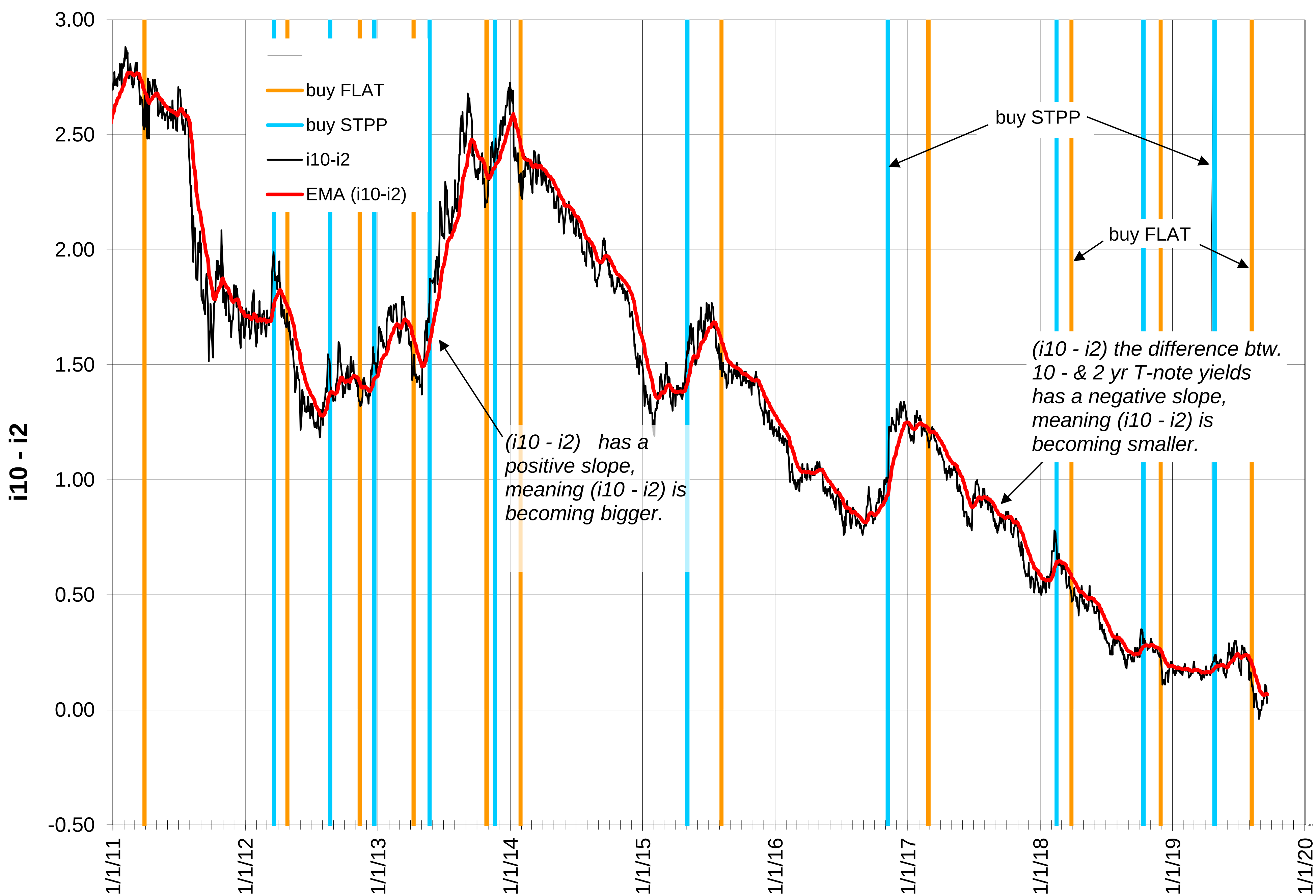
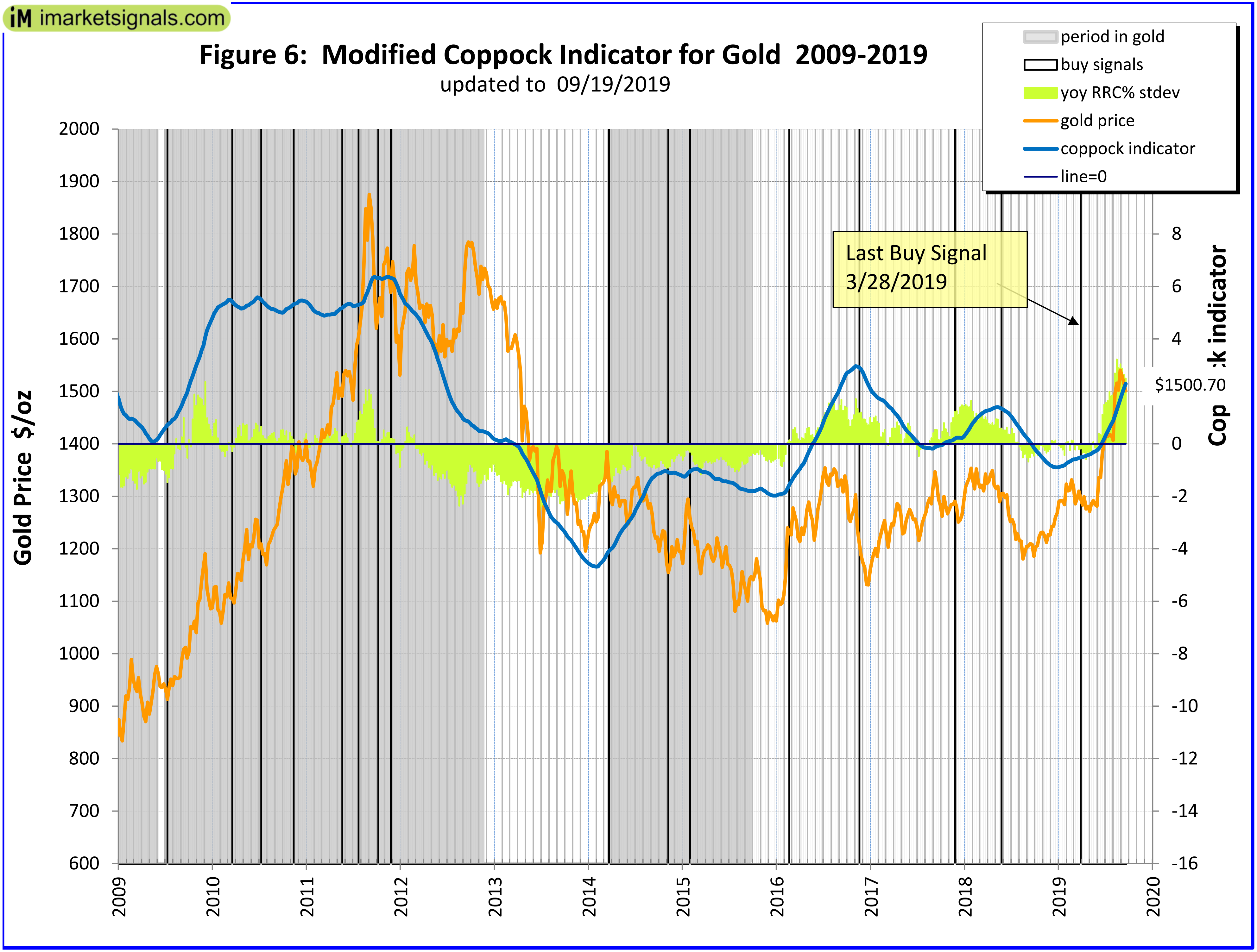
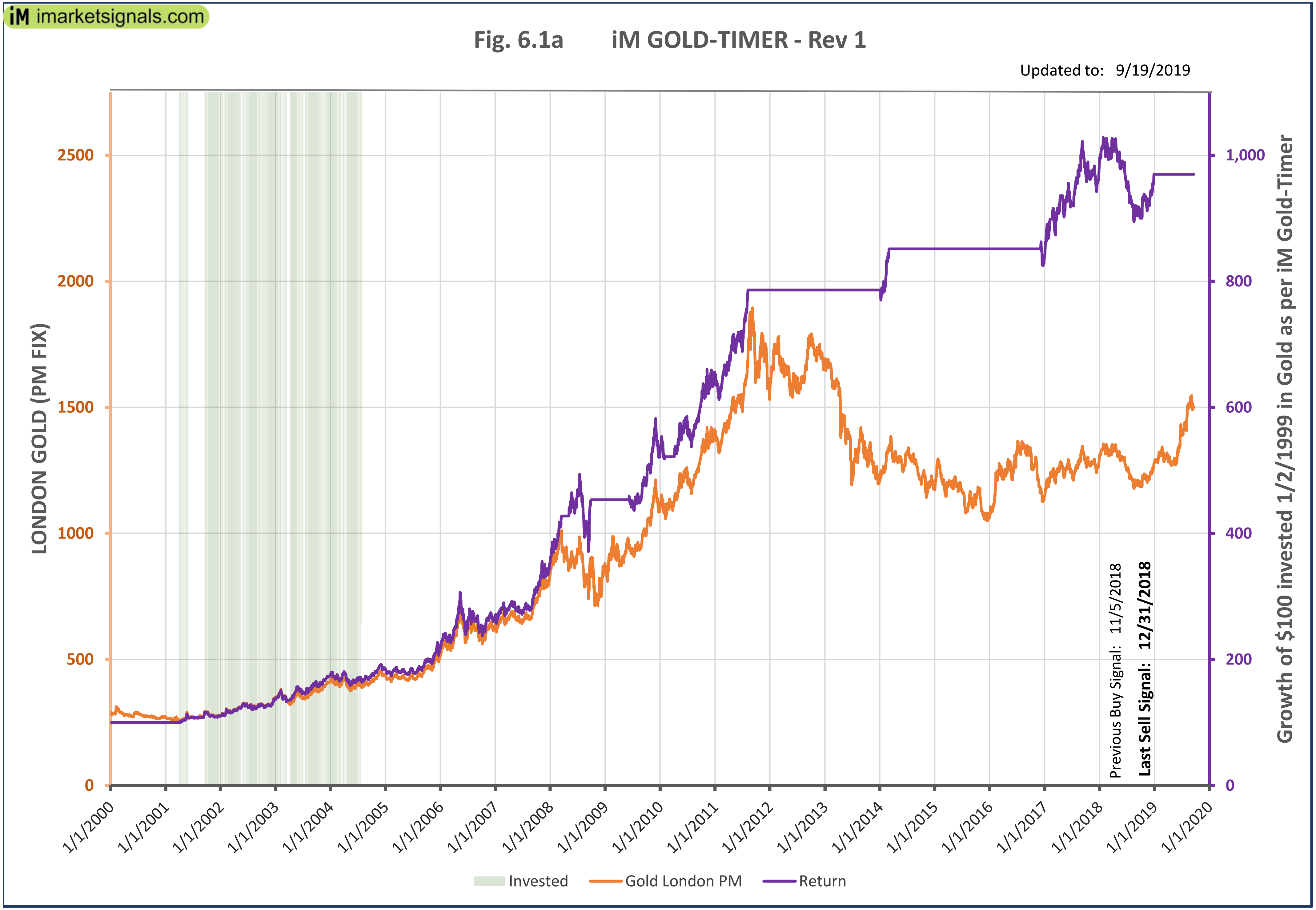
Figure 5: i10 - i2 **Updated to…..9/19/2019**

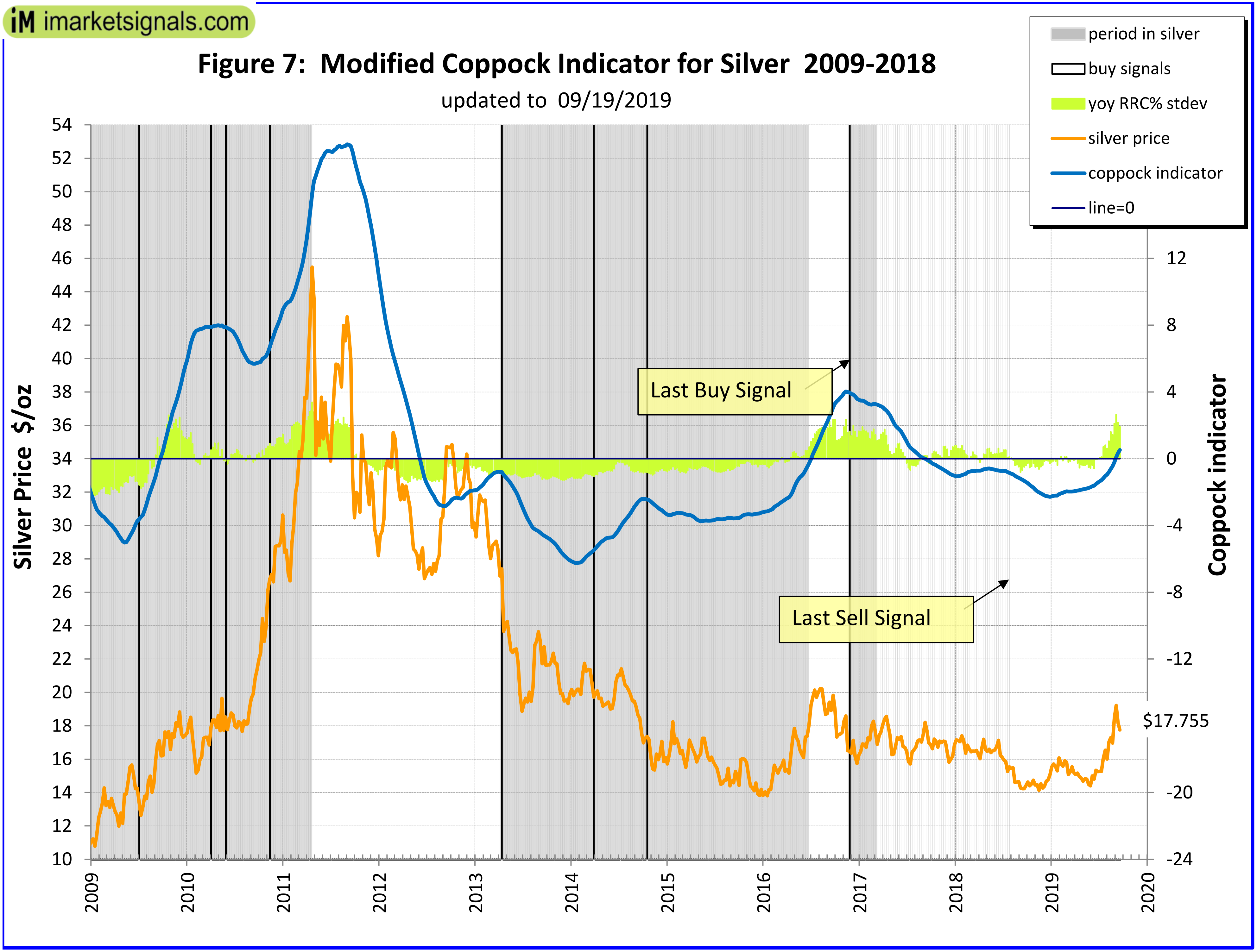




6-COPPOCK GOLD for updates.xlsm



iM imarketsignals.com
Fig. 6.1a iM GOLD-TIMER - Rev 1
Updated to: 9/19/2019
LONDON GOLD (PM FIX)
Growth of $100 invested 1/2/1999 in Gold as per iM Gold-Timer
Previous Buy Signal: 11/5/2018
Last Sell Signal: 12/31/2018
Invested
Gold London PM
Return



iM imarketsignals.com
Figure 7: Modified Coppock Indicator for Silver 2009-2018
updated to 09/19/2019
period in silver
buy signals
yoy RRC% stdev
silver price
coppock indicator
line=0
Silver Price $/oz
Coppock indicator
Last Buy Signal
Last Sell Signal
$17.755
54
52
50
48
46
44
42
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
12
8
4
0
-4
-8
-12
-20
-24
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020