May 16, 2019

Business Cycle Index

The BCI at 258.4 is marginally below last week's 258.6, and is below the previous high of this business cycle indicated by the BCIp of 99.1. However, the 6-month smoothed annualized growth BCIg at 14.1 is above last week's 13.7. Both BCIp and BCIg are not signaling a recession.

May 17, 2019

Market Signals Summary:

The MAC-US model, iM-Low Frequency Timer and the "3-mo Hi-Lo Index of the S&P500" are invested in the markets. Also, the S&P500 Coppock is in the markets since 5/9/2019. The MAC-AU is invested in the markets. The MAC-AU is 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 and a buy STPP signal being generated. The gold Coppock model generated a new buy signal on 3/28/2019 and remains invested in gold, however the silver model is in cash. The iM-Gold Timer is in cash.Stock-markets:

MAC-US

The MAC-US model switched into the markets on 2/26/2019. The sell-spread (red line) is above 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 below last week's level at 13.2% (last week 14.12 %), and is in the market since 2/27/2019.

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 above last week's value and needs to move below zero to generate a sell signal.

Recession:

COMP

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

iM-BCIg

Figure 3.1 shows the recession indicator iM-BCIg above 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 near last week's level and is not signaling a recession. The FRR2-10 general trend is downwards.

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 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 above last week's level and is possibly entering an upward trending phase. It signaled a buy STPP this week. 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

May 3, 2019 (next update June 7, 2019)

Unemployment

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

The Dynamic Linearly Detrended Enhanced Aggregate Spread:

The updated level of this indicator, -212bps, below last months -199bps, confirms the January 20, 2017 signal. Based on past history a recession could have started as early as October 2017, but not later than January 2019. 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 0 to +2 end of April-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 are estimated at 5.9% with a 95% confidence interval : 4.5% to 7.3%, which are down 0.1% from last month.

iM-GT Timer

Fig-10.-2-1-2019The iM-GT Timer, based on Google Search Trends volume switched to cash on 11/1/2018 and remains out of the market.

Trade Weighted USD

The Trade Weighted $ value is on a moderate rising trend

TIAA Real Estate Account

The 1-year rolling return for the end of last month is 5.58%.   A sell signal is not imminent.

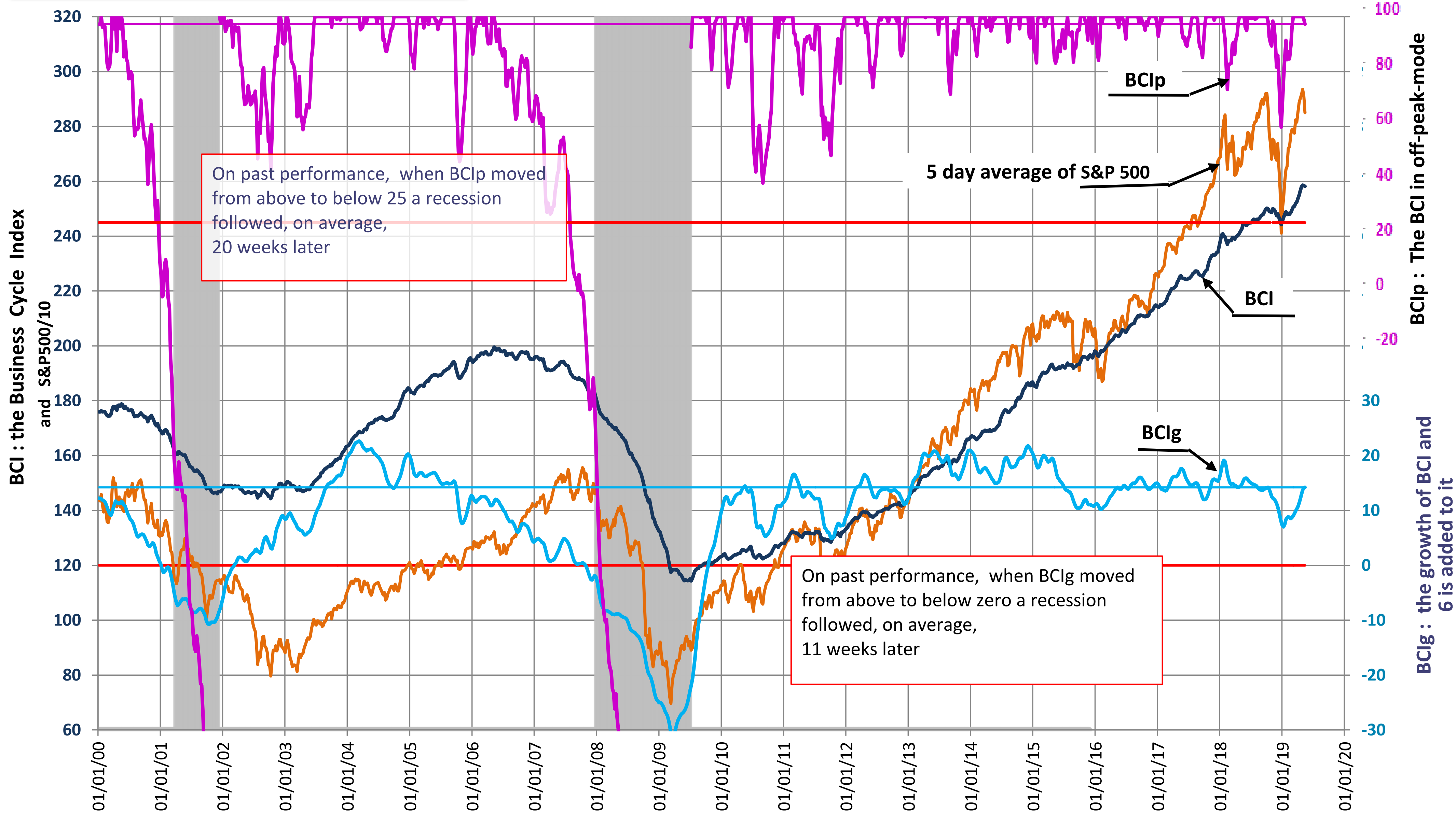
iM imarketsignals.com

iM's Business Cycle Index (BCI)

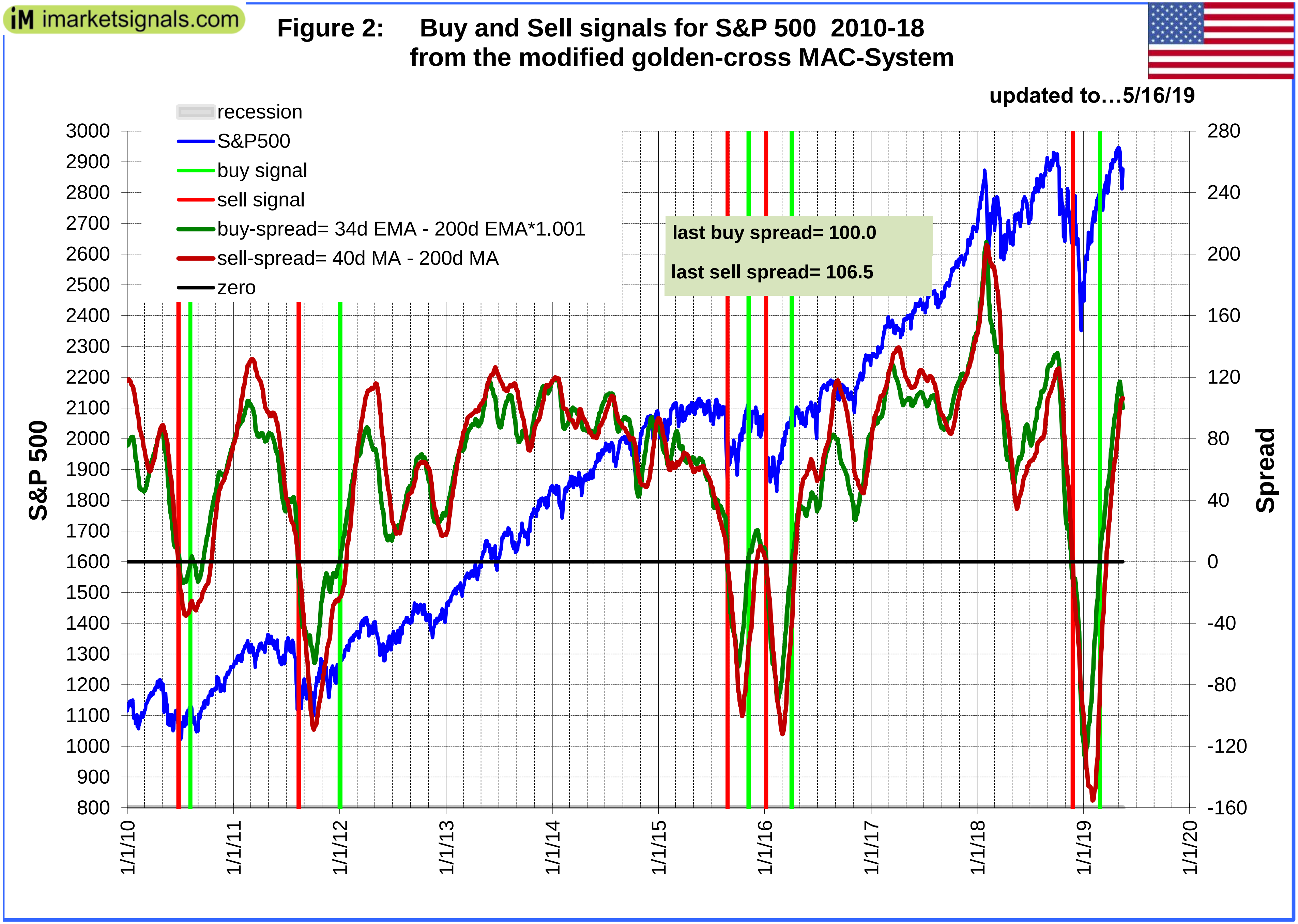
Date	04/18	04/25	05/02	05/09	**05/16**
BCIp	100.0	100.0	100.0	99.1	**97.3**
BCI	256.5	258.0	258.6	258.4	**258.1**
BCIg	12.1	12.9	13.7	14.1	**14.2**

BCIp, BCI and BCIg
updated to May 16, 2019

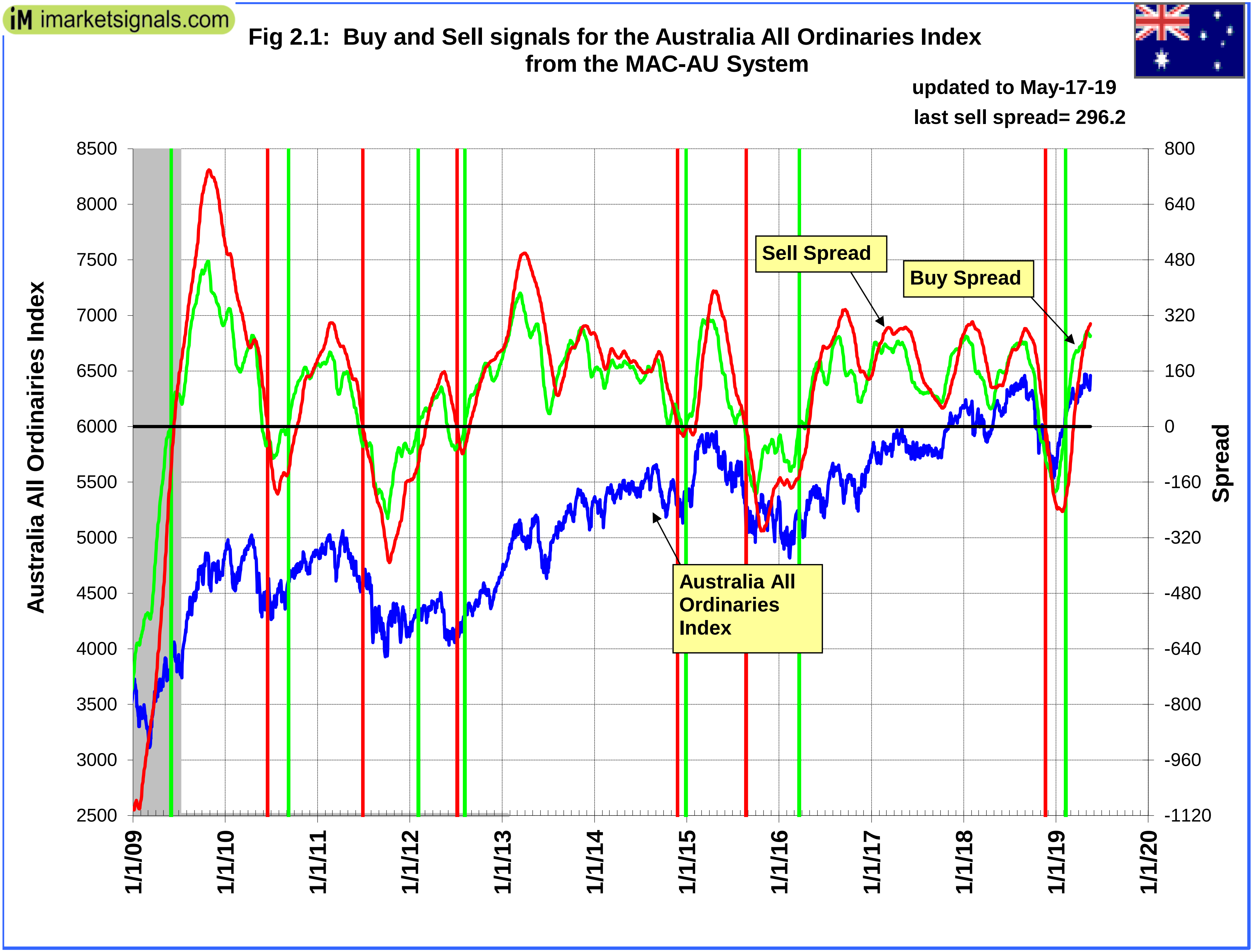
On past performance, BCIp = 100 can be interpreted as an average one year "time-to-live" to a recession.



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



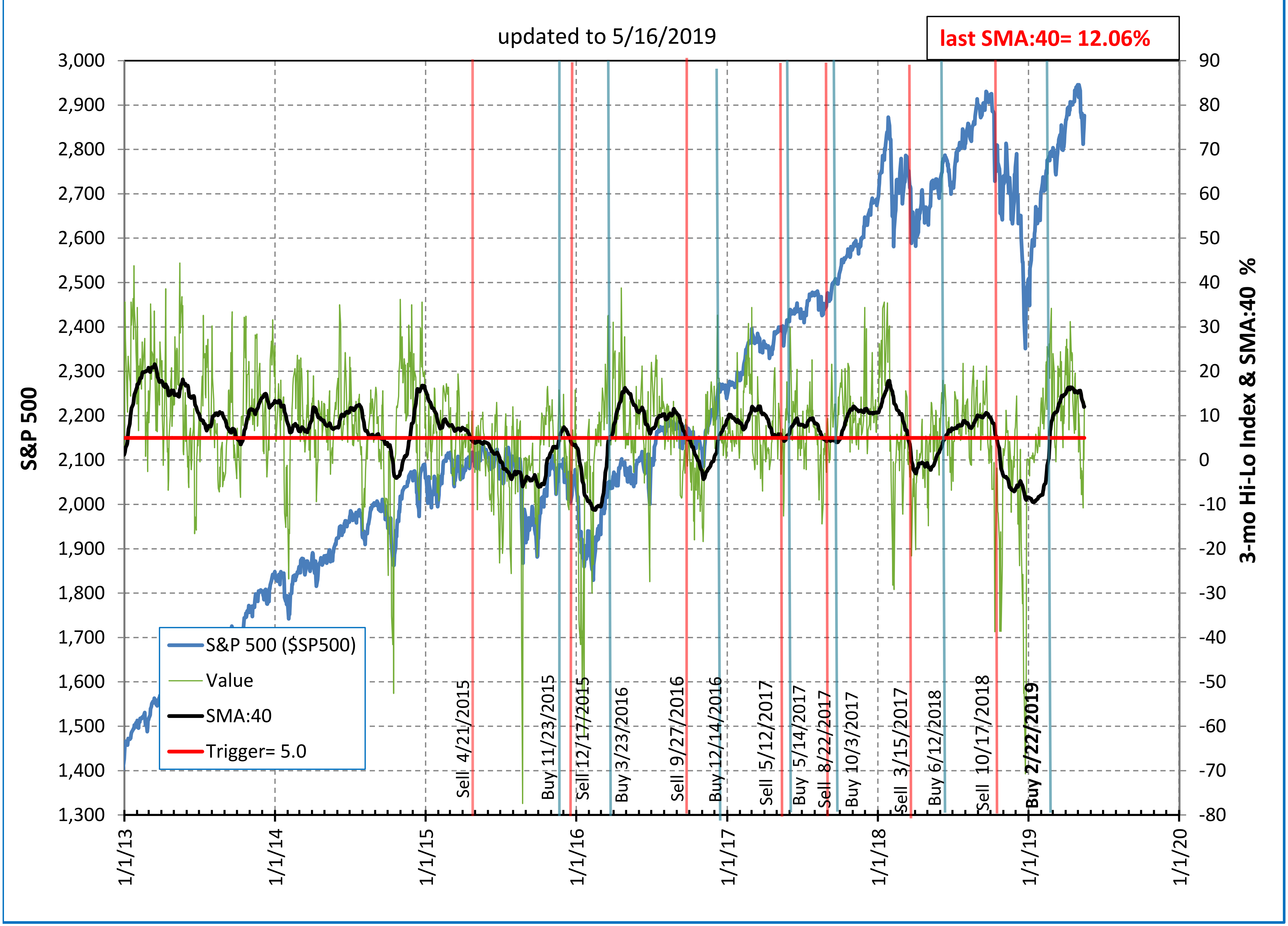
2-MAC rev8-27-15.xlsm

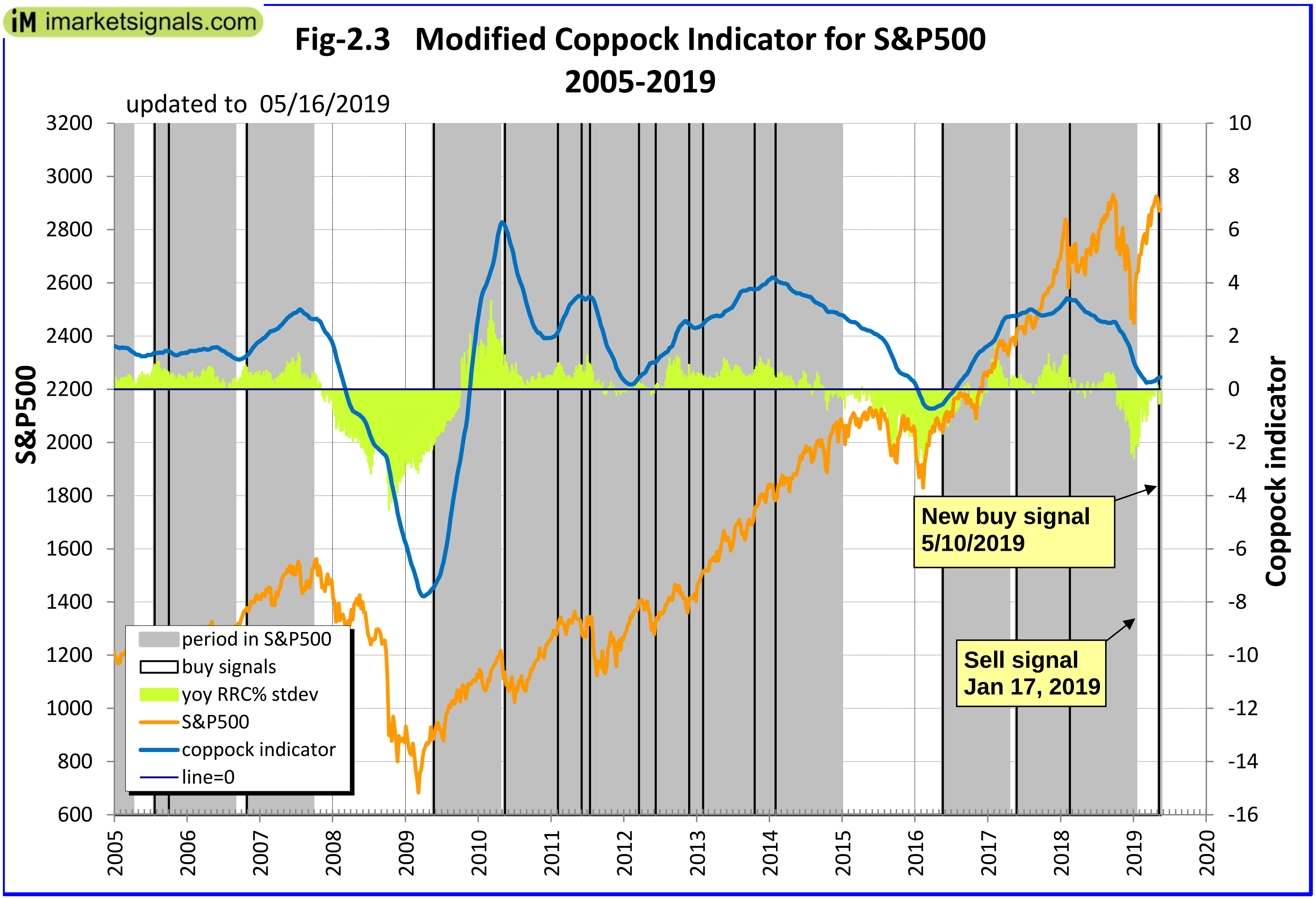


iM imarketsignals.com
Fig 2.1: Buy and Sell signals for the Australia All Ordinaries Index
from the MAC-AU System
updated to May-17-19
last sell spread= 296.2
Australia All Ordinairies Index
Spread
8500
8000
7500
7000
6500
6000
5500
5000
4500
4000
3500
3000
2500
800
640
480
320
160
0
-160
-320
-480
-640
-800
-960
-1120
Sell Spread
Buy Spread
Australia All Ordinaries Index
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

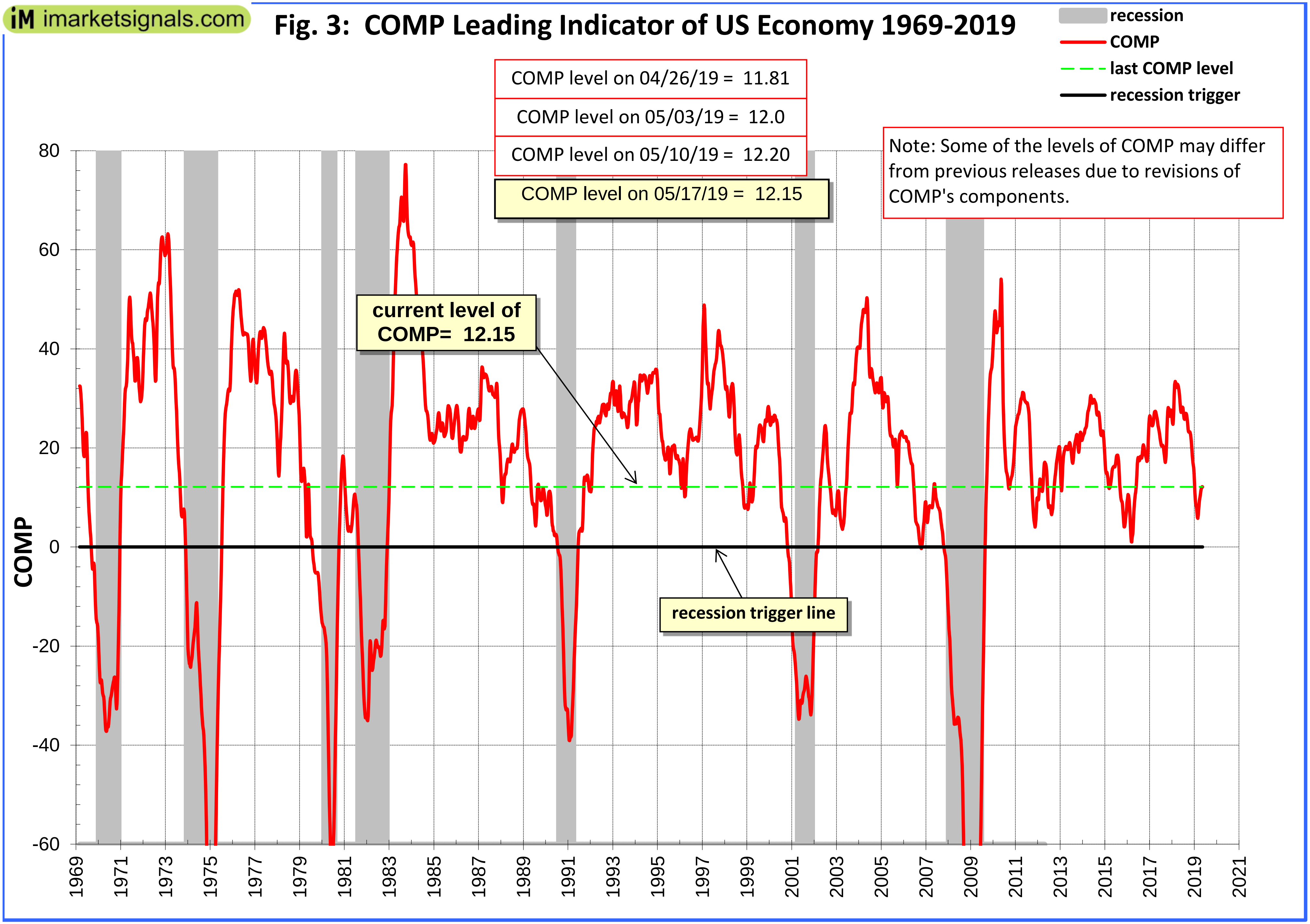
iM imarketsignals.com

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



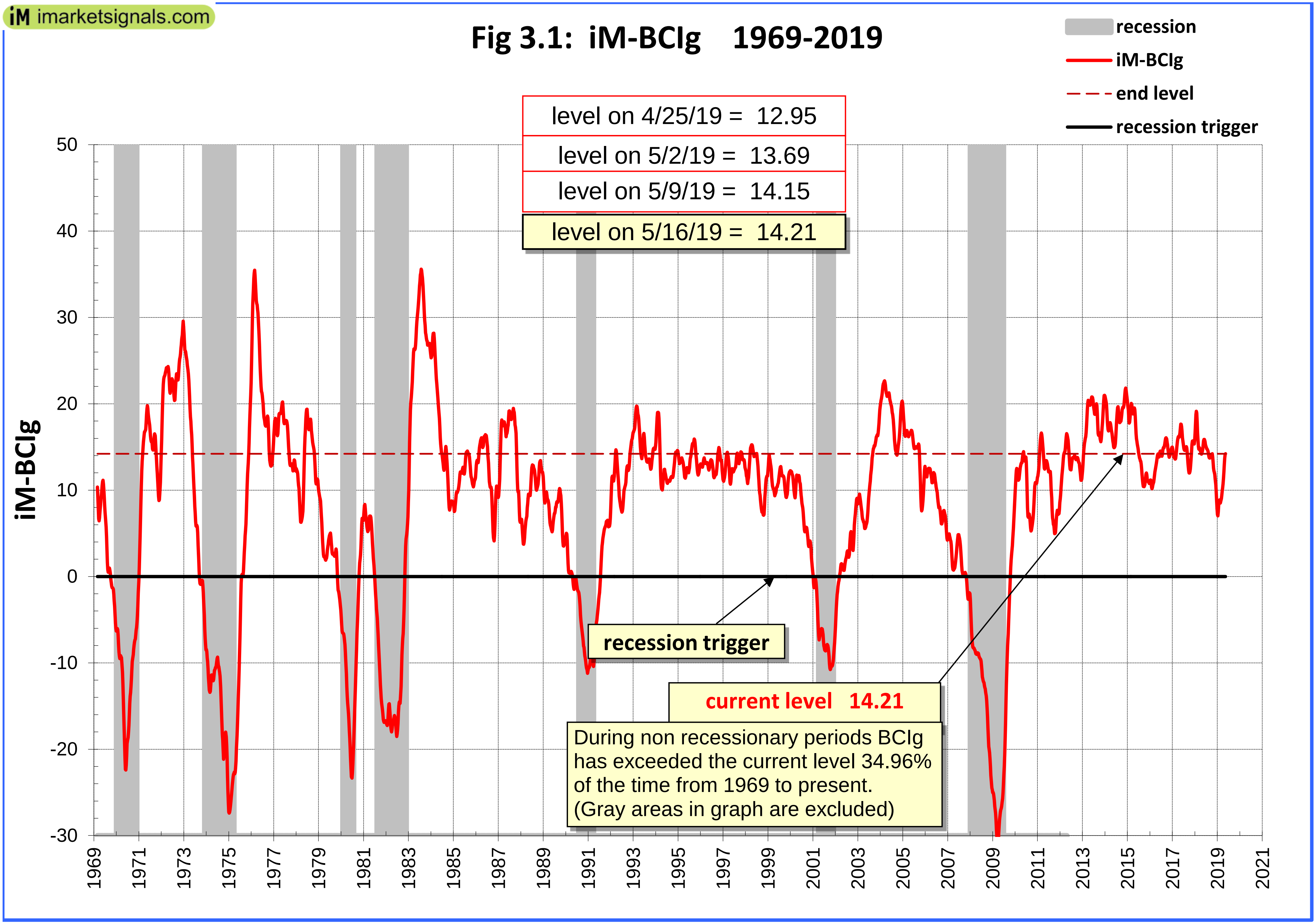


iM imarketsignals.com
Fig-2.3 Modified Coppock Indicator for S&P500
2005-2019
updated to 05/16/2019
S&P500
Coppock indicator
3200
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600
10
8
6
4
2
0
-2
-4
-6
-8
-10
-12
-14
-16
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
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



iM imarketsignals.com
Fig. 3: COMP Leading Indicator of US Economy 1969-2019
recession
COMP
last COMP level
recession trigger
COMP level on 04/26/19 = 11.81
COMP level on 05/03/19 = 12.0
COMP level on 05/10/19 = 12.20
COMP level on 05/17/19 = 12.15
Note: Some of the levels of COMP may differ from previous releases due to revisions of COMP's components.
current level of COMP= 12.15
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.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);

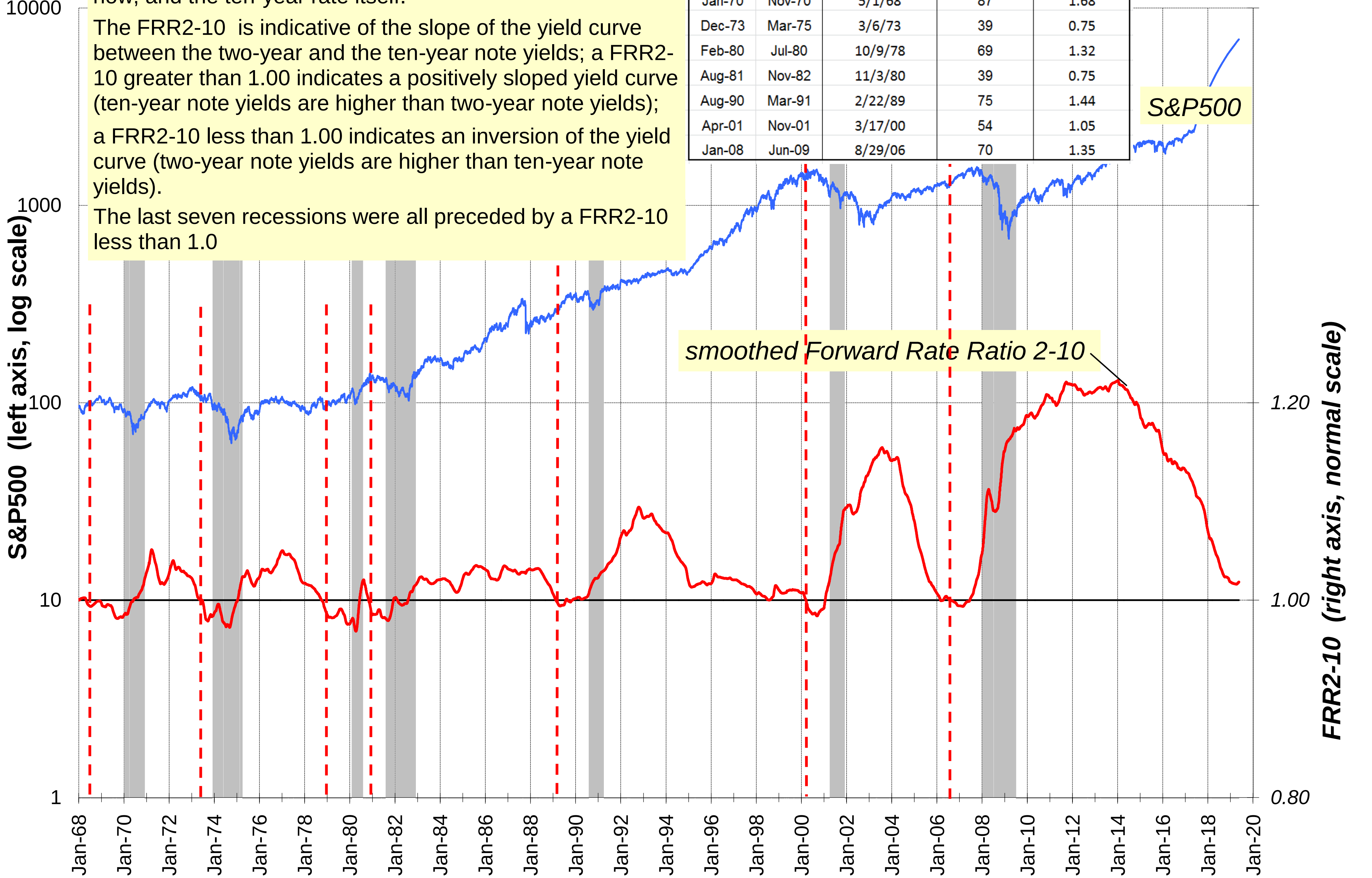
a FRR2-10 less than 1.00 indicates an inversion of the yield curve (two-year note yields are higher than ten-year note yields).

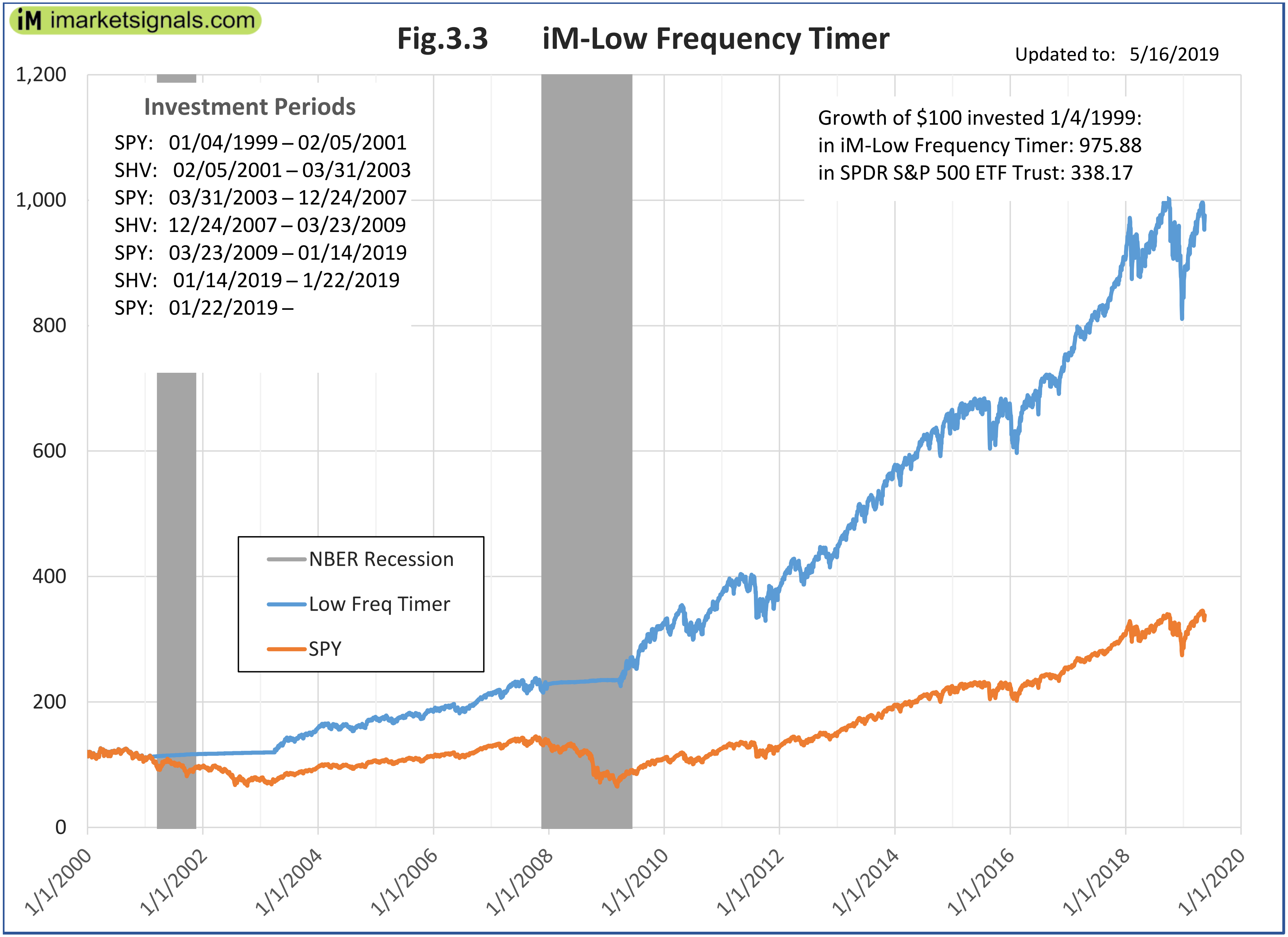
The last seven recessions were all preceded by a FRR2-10 less than 1.0

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 05/16/2019

EMA of FRR2-10 = 1.018





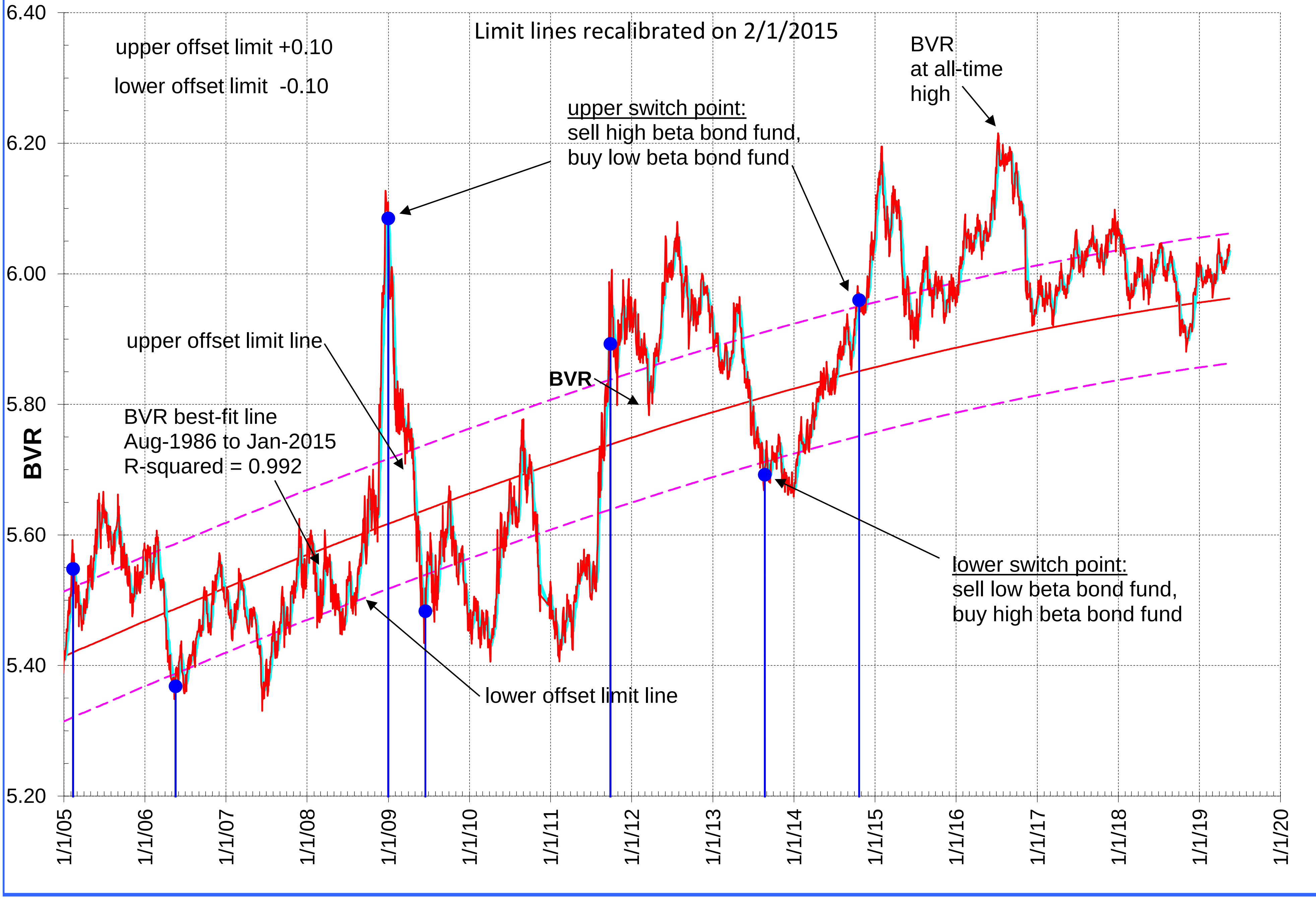
iM imarketsignals.com
Fig.3.3 iM-Low Frequency Timer
Updated to: 5/16/2019
Investment Periods
SPY: 01/04/1999 – 02/05/2001
SHV: 02/05/2001 – 03/31/2003
SPY: 03/31/2003 – 12/24/2007
SHV: 12/24/2007 – 03/23/2009
SPY: 03/23/2009 – 01/14/2019
SHV: 01/14/2019 – 1/22/2019
SPY: 01/22/2019 –
Growth of $100 invested 1/4/1999:
in iM-Low Frequency Timer: 975.88
in SPDR S&P 500 ETF Trust: 338.17
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 2018

Model updated to: 5/16/2019 BVR = 6.040

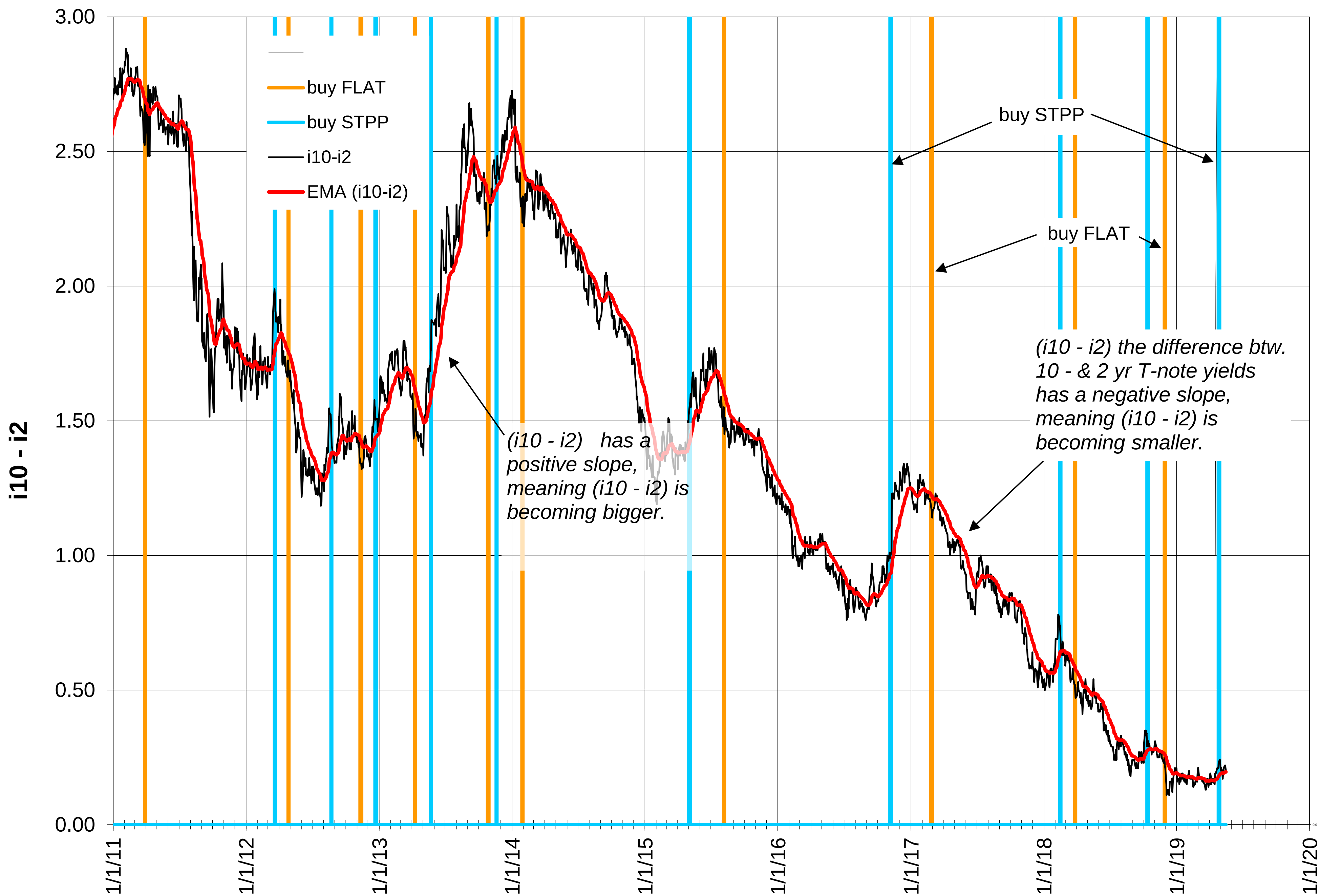


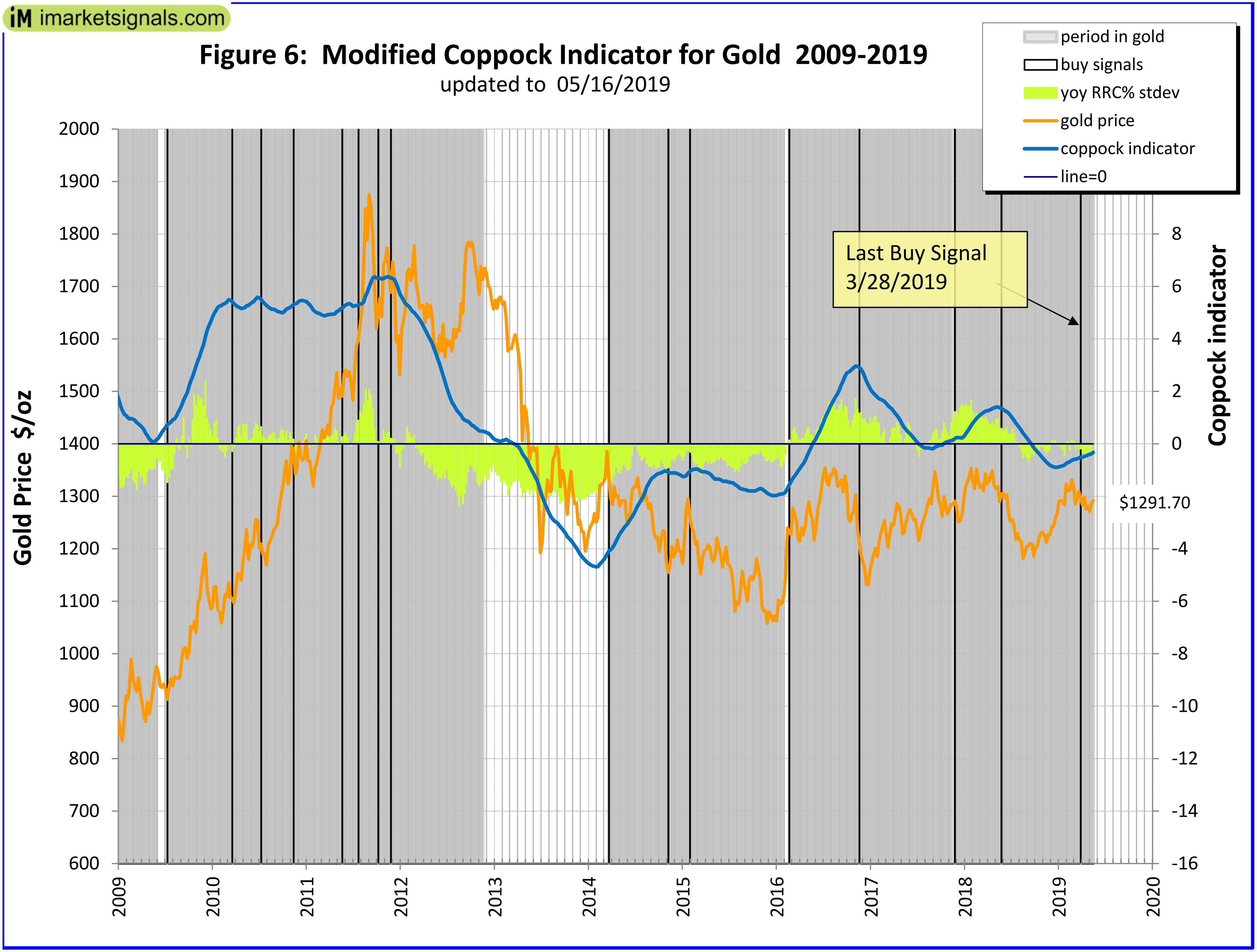
4-BVR recalibrated.xlsm fig4BVR06-14

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

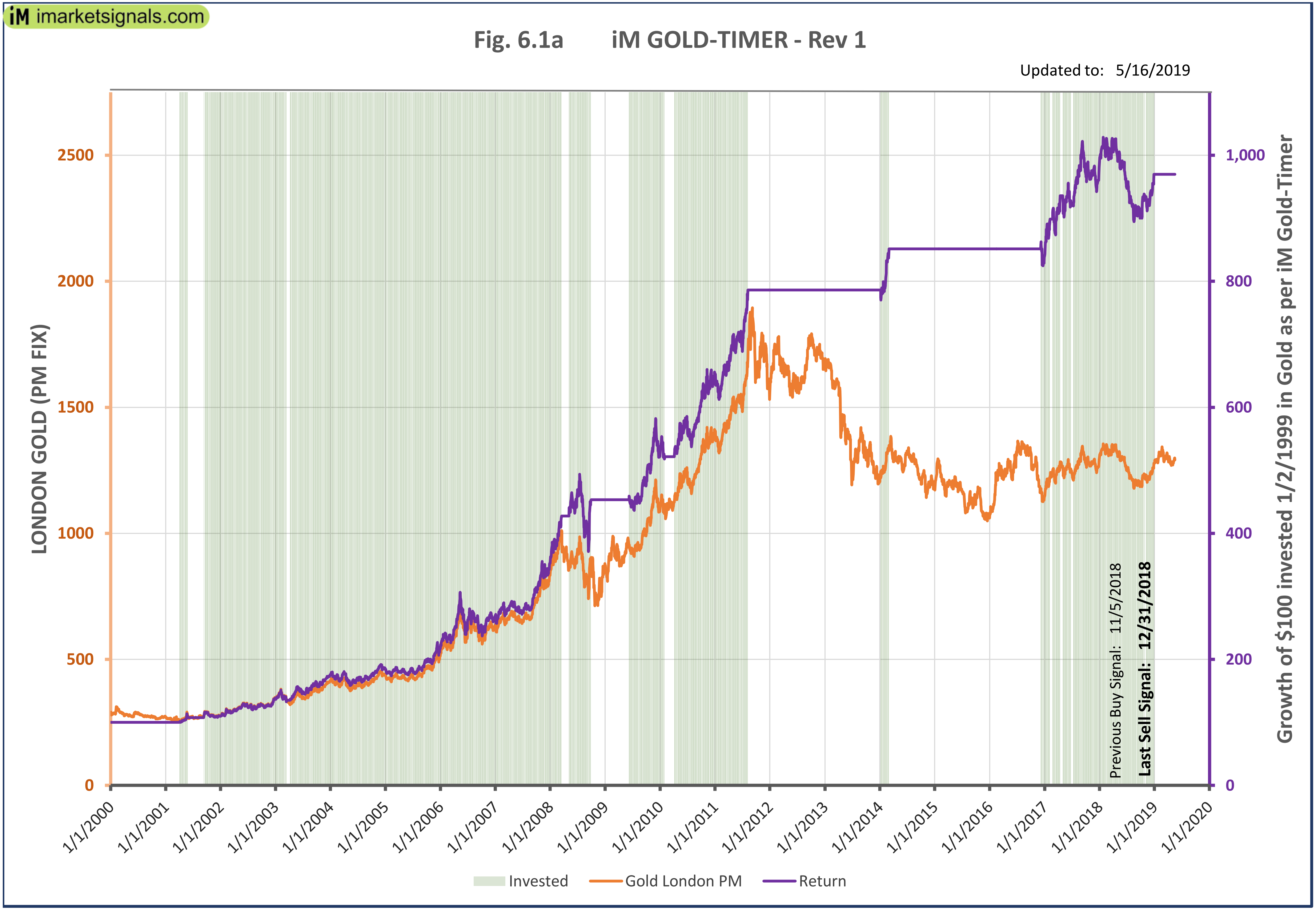
iM imarketsignals.com

Figure 5: i10 - i2 Updated to.....5/16/2019

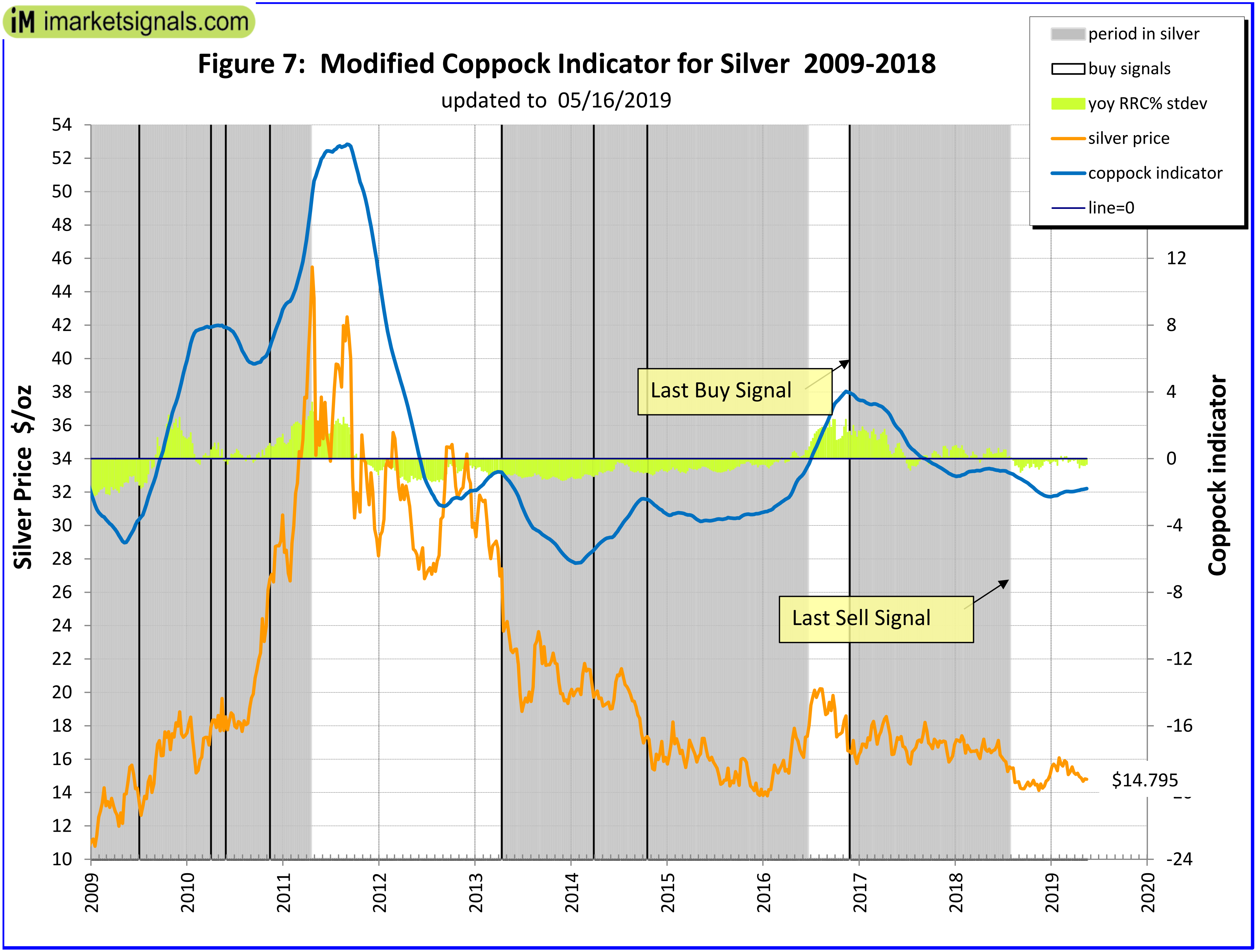




6-COPPOCK GOLD for updates.xlsm



iM imarketsignals.com
Fig. 6.1a iM GOLD-TIMER - Rev 1
Updated to: 5/16/2019
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
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
Invested
Gold London PM
Return



imarketsignals.com
Figure 7: Modified Coppock Indicator for Silver 2009-2018
updated to 05/16/2019
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
$14.795