December 15, 2016

Business Cycle Index

The BCI at 214.0 is above last week's 213.1, a new high for this Business Cycle as indicated by the BCIp at 100. However, the 6-month smoothed annualized growth BCIg at 14.5 is below last week's 14.6.

No recession is signaled.

December 16, 2016

Market Signals Summary:

The MAC-US model is invested. Also invested is the "VMNFX vs. SPY Timer". as well as the "3-mo Hi-Lo Index of the S&P500" after a buy signals on mid December 2016. The monthly updated S&P500 Coppock indicator entered the markets in May. The MAC-AU is also invested. The recession indicators COMP and iM-BCIg do not signal a recession. The bond market model avoids high beta (long) bonds, the yield curve is steepening. Both the gold and silver Coppock models are invested, however the iM-Gold Timer is in cash.

Stock-markets:

The MAC-US model generated a buy-signal 4/5/2016 and thus is invested in the stock-markets. The sell-spread (red graph) is up from last week's level and has to fall below zero to signal a sell.

The 3-mo Hi-Lo Index of the S&P500 is above last week's level and at 5.89% (last week 3.5%) and is in the market since 12/14/2016 when it crossed the 5% threshold.

The VMNFX vs. SPY Timer signaled an entry into the stock markets on 3/28/2016. For this model to exit the markets the indicator has to rise above the 2% trigger line, the indicator is above last week's level.

The MAC-AU model is invested in the markets after it generated a buy signal on March 21, 2016. The sell-spread is below last week's level and has to fall below zero to signal a sell. This model and its application is described in MAC-Australia: A Moving Average Crossover System for Superannuation Asset Allocations.

Recession:

Figure 3 shows the COMP above last week's level. No recession is indicated. COMP can be used for stock market exit timing as discussed in this article The Use of Recession Indicators in Stock Market Timing.

Figure 3.1 shows the recession indicator iM-BCIg which is below last week's level. An imminent recession is not signaled. 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 near the previous week's level and far away from signaling a recession. 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. The BVR is below 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) which declined over the last year, and has formed a trough and is rising. A buy STPP signal was generated on 11/7/2016. 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 early November 2016 and is invested in gold. This indicator is described in Is it Time to Buy Gold Again? – Wait for the buy signal …….

The iM GOLD-TIMER generated a sell signal on November 28, and thus the model is in cash..

This indicator is described in the article: The iM Gold-Timer

Silver:

The modified Coppock Silver indicator shown in Fig 7. This model generated a new buy signal late November 2016 and is invested in silver.This indicator is described in Silver – Better Than Gold: A Modified Coppock Indicator for Silver.

Monthly Updates

December 2, 2016 (next Update 1-6-2018)

Unemployment

The unemployment rate recession model (article link), has been updated with the November UER of 4.6%. Based on the historic patterns of the unemployment rate indicators prior to recessions one can reasonably conclude that the U.S. economy is not likely to go into recession anytime soon. The growth rate UERg decreased to -4.82% (previous at -3.15%) and EMA spread of the UER widened to -0.21% (previous at -0.10) Here is the link to the full update.

The Dynamic Linearly Detrended Enhanced Aggregate Spread:

Long leading indicator DAGS at 11 (last month 9), a level from which it has never recovered in the past. Should this downward trend continue then, according to this indicator, a recession could be expected to begin after September-2017.

Coppock Indicator for the S&P500

The Coppock indicator for the S&P500 generated a buy signal on May 19, 2016. This model is now in the market. This indicator is described here.

Trade Weighted USD

The TW$ value has again risen and the 6 month moving average is increasing too.

TIAA Real Estate Account

The 1-year rolling return for the end of last month is 4.82%. The Vanguard REIT Index Fund is at an all-time high; the good positive returns of TIAA Real Estate Account are expected to continue. A sell signal is not imminent.

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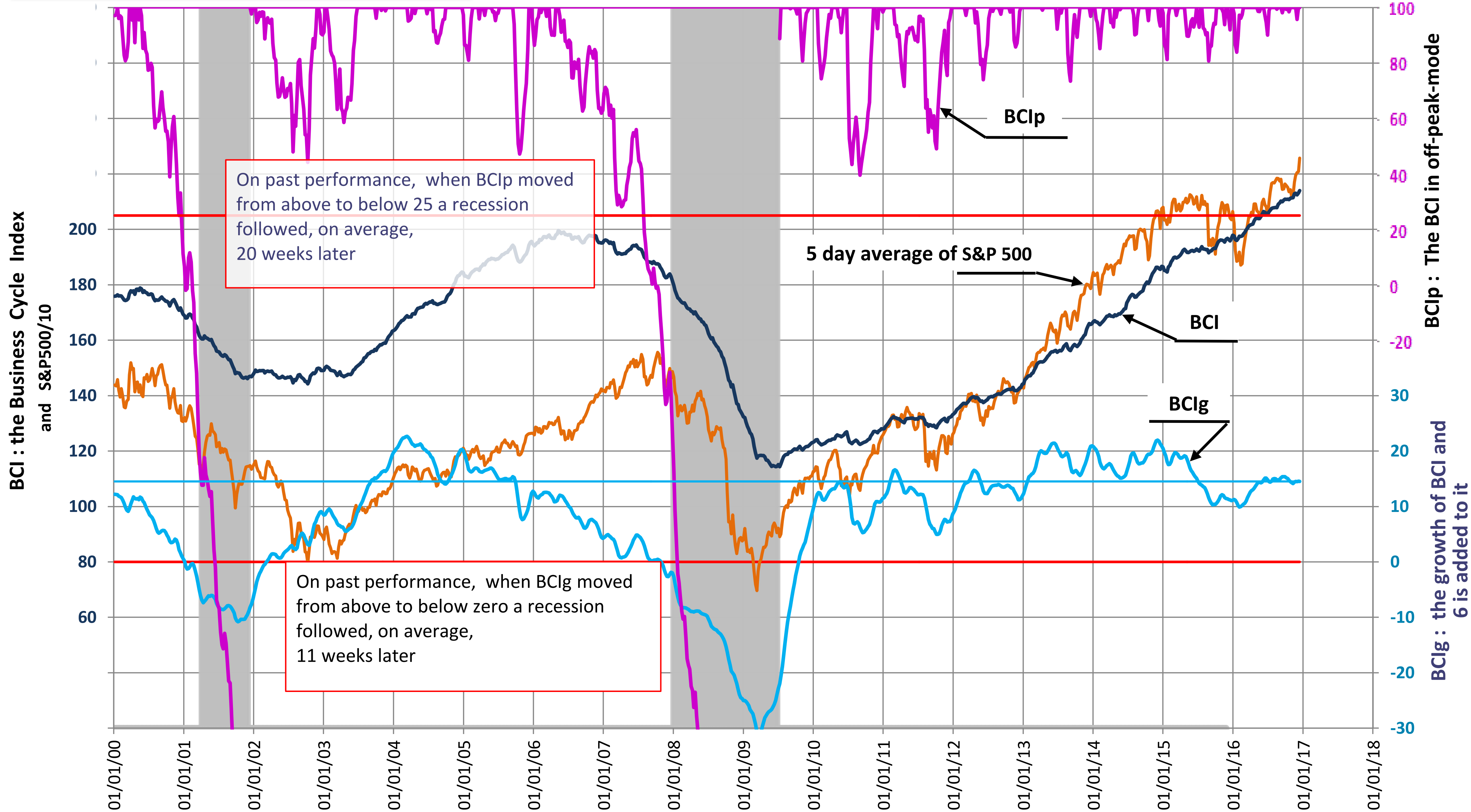
iM's Business Cycle Index (BCI)

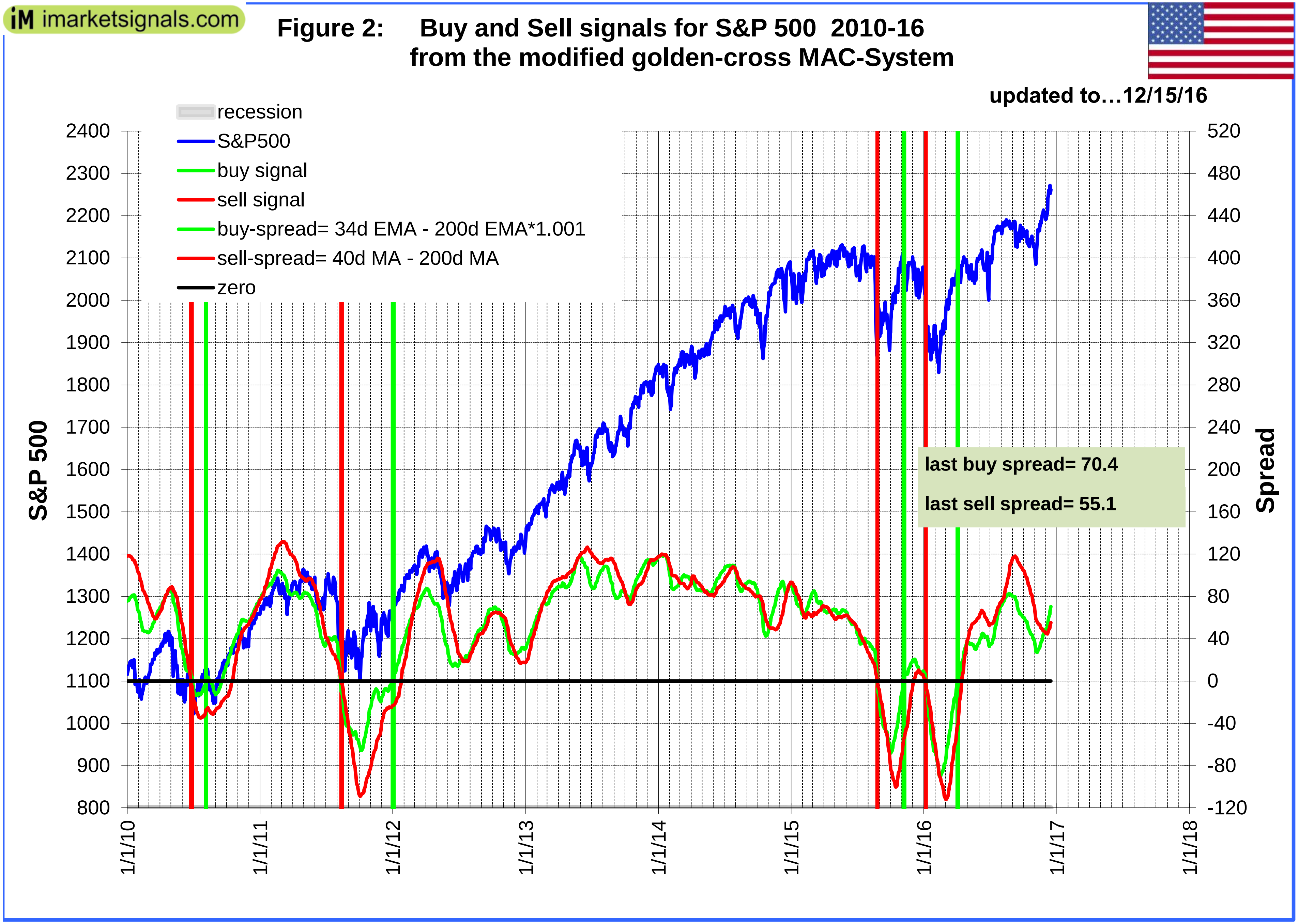
Date	11/17	11/24	12/01	12/08	**12/15**
BCIp	100.0	100.0	95.8	100.0	**100.0**
BCI	212.9	213.0	212.5	213.1	**214.0**
BCIg	14.4	14.5	14.5	14.6	**14.5**

BCIp, BCI and BCIg
updated to December 15, 2016

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

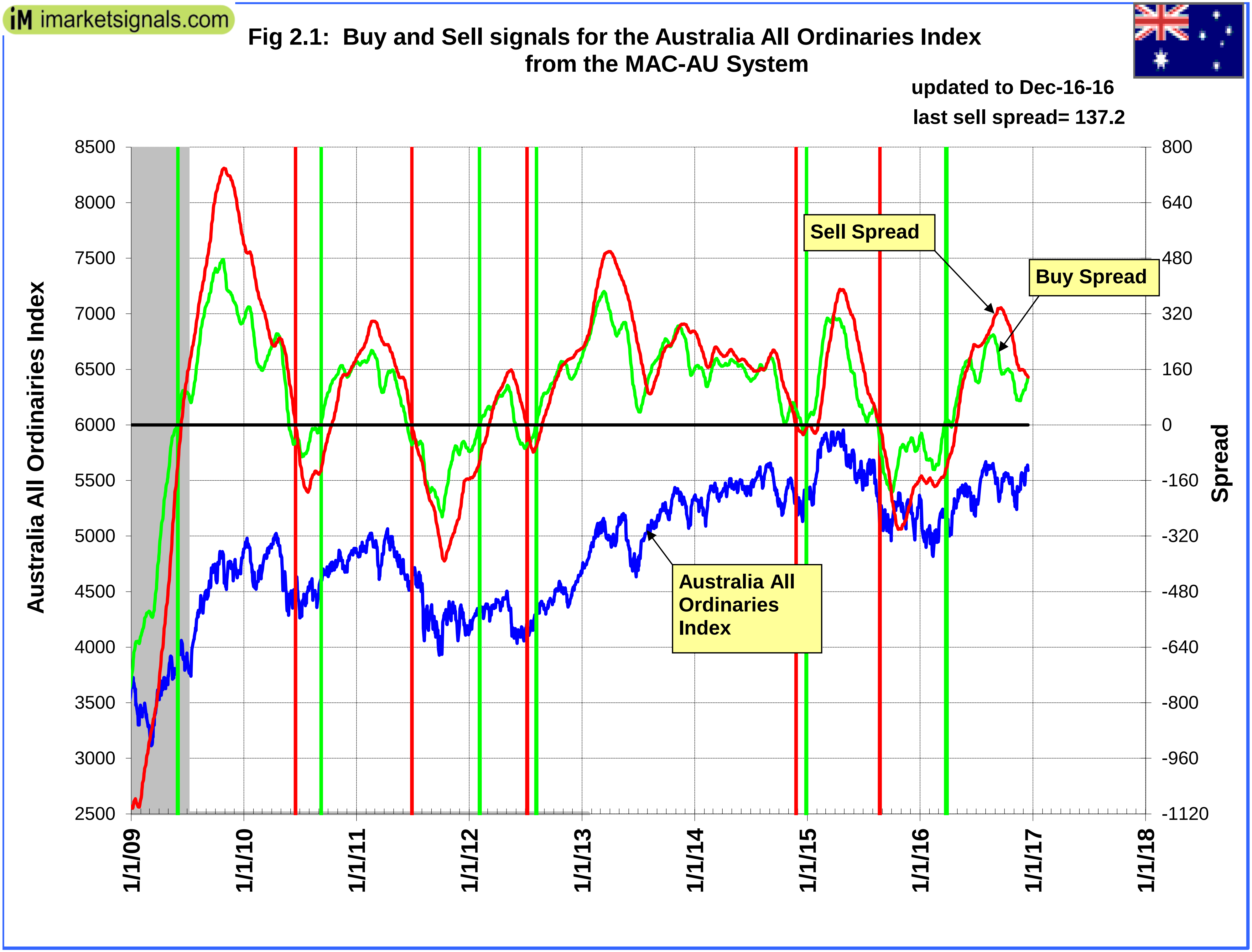


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Fig 2.1: Buy and Sell signals for the Australia All Ordinaries Index
from the MAC-AU System
updated to Dec-16-16
last sell spread= 137.2
Sell Spread
Buy Spread
Australia All Ordinaries Index
Australia All Ordinairies Index
Spread
8500
8000
7500
7000
6500
6000
5500
5000
4500
4000
3500
3000
2500
800
640
480
320
160
0
-160
-320
-480
-640
-800
-960
-1120
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

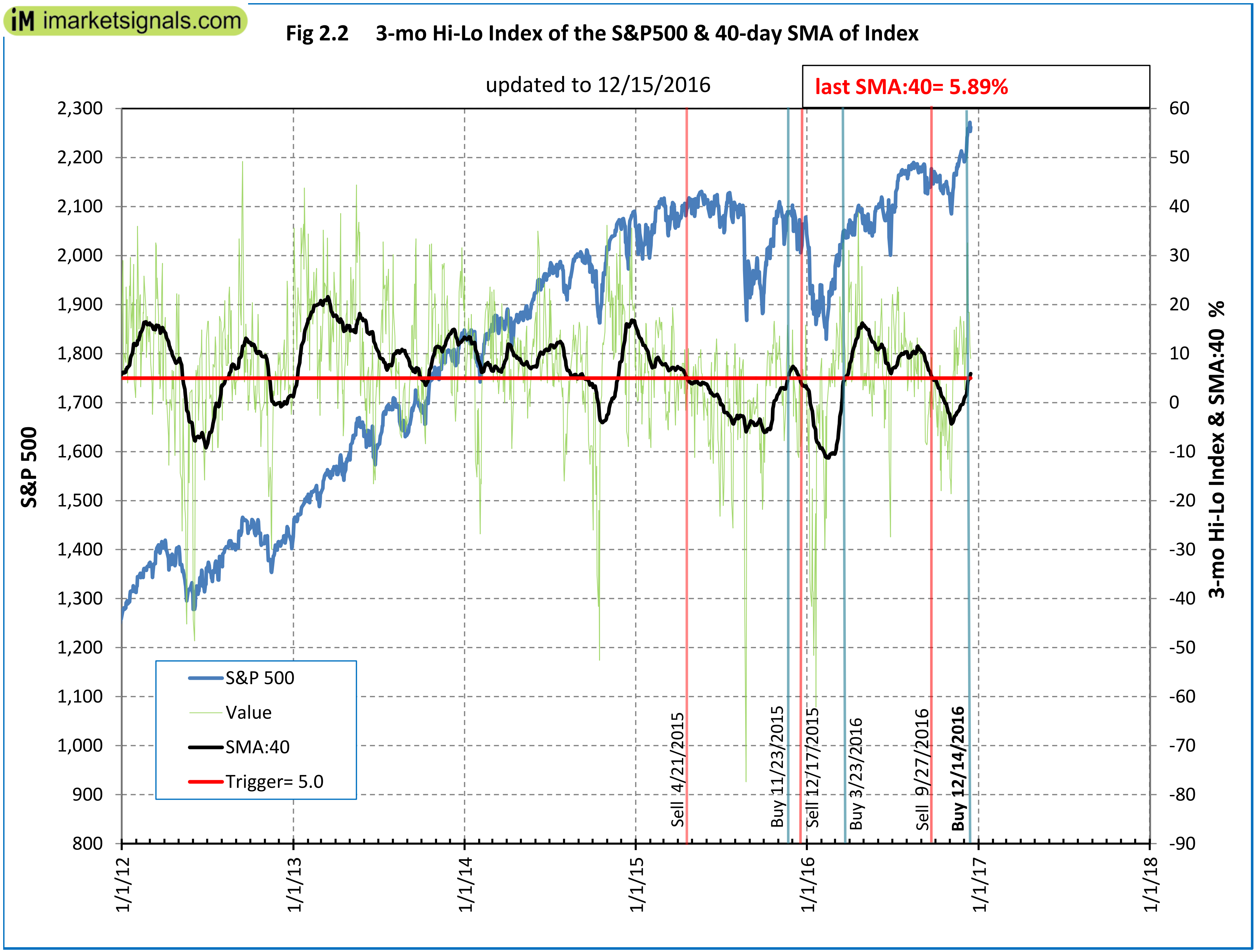

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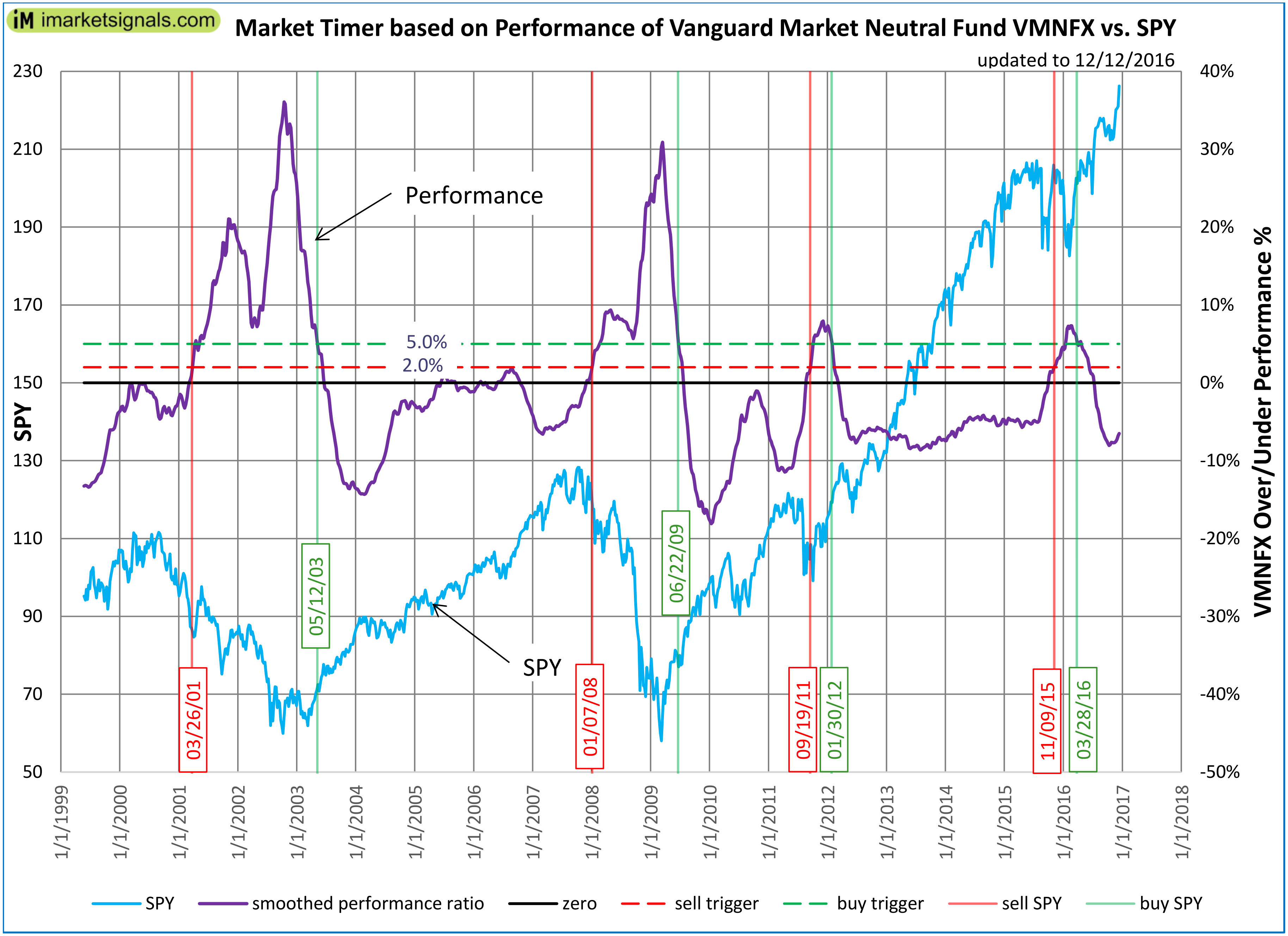
Fig 2.2 3-mo Hi-Lo Index of the S&P500 & 40-day SMA of Index
updated to 12/15/2016
last SMA:40= 5.89%
S&P 500
3-mo Hi-Lo Index & SMA:40 %
S&P 500
Value
SMA:40
Trigger= 5.0
Sell 4/21/2015
Buy 11/23/2015
Sell 12/17/2015
Buy 3/23/2016
Sell 9/27/2016
Buy 12/14/2016
2,300
2,200
2,100
2,000
1,900
1,800
1,700
1,600
1,500
1,400
1,300
1,200
1,100
1,000
900
800
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
1/1/12
1/1/13
1/1/14
1/1/15
1/1/16
1/1/17
1/1/18



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Market Timer based on Performance of Vanguard Market Neutral Fund VMNFX vs. SPY
updated to 12/12/2016
Performance
SPY
5.0%
2.0%
03/26/01
05/12/03
01/07/08
06/22/09
09/19/11
01/30/12
11/09/15
03/28/16
SPY
VMNFX Over/Under Performance %
230
210
190
170
150
130
110
90
70
50
40%
30%
20%
10%
0%
-10%
-20%
-30%
-40%
-50%
1/1/1999
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
SPY
smoothed performance ratio
zero
sell trigger
buy trigger
sell SPY
buy SPY

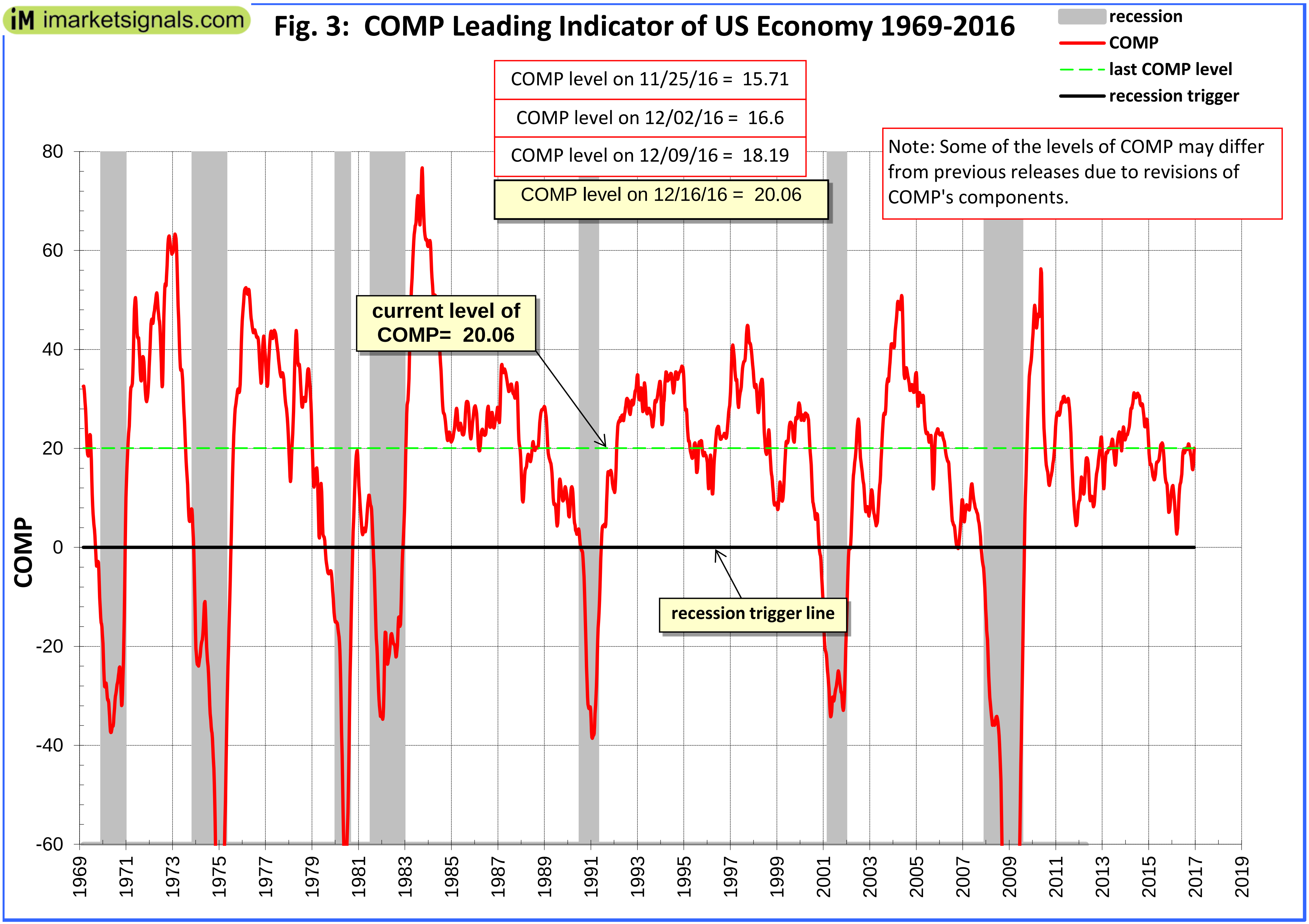

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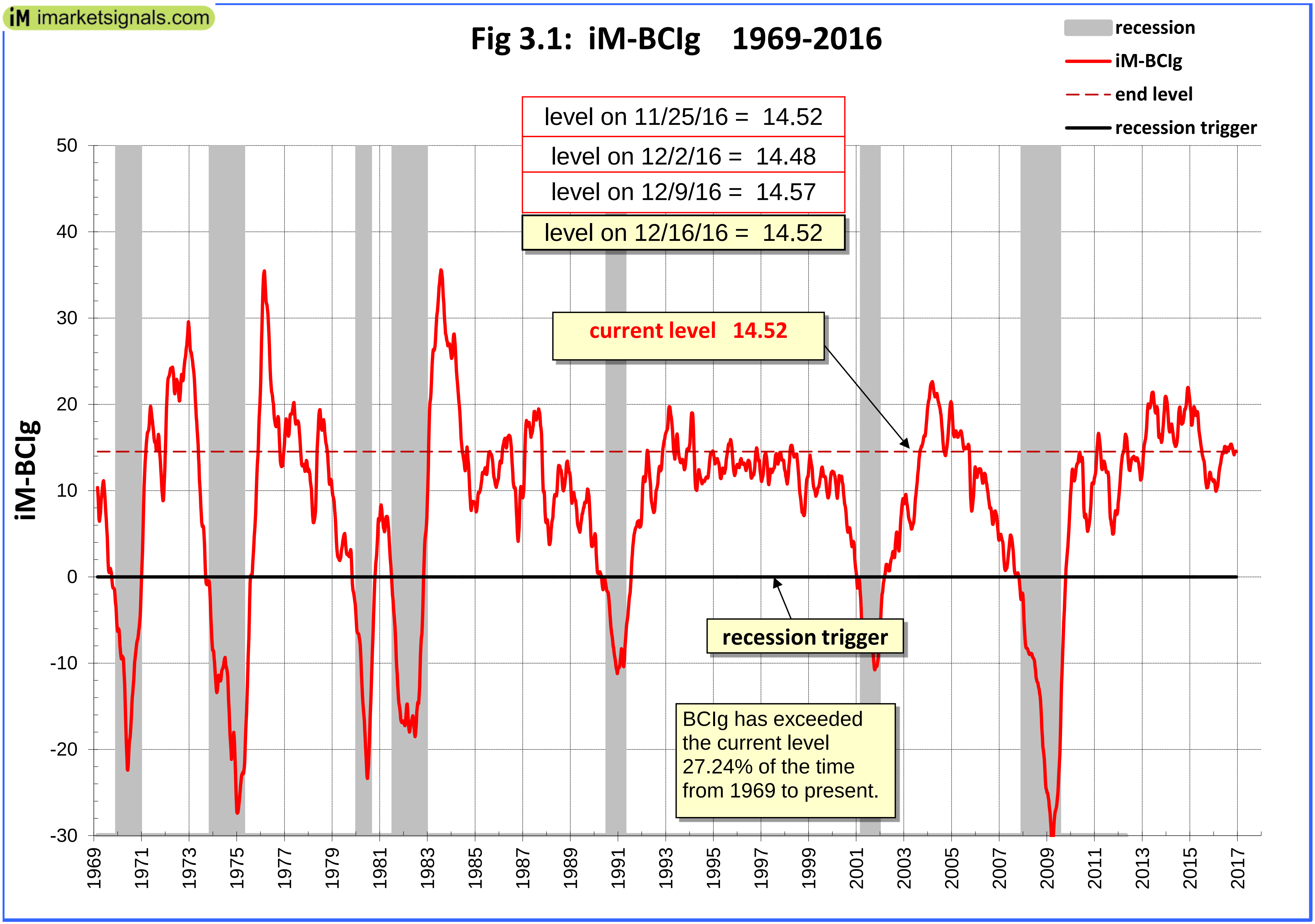
Fig. 3: COMP Leading Indicator of US Economy 1969-2016
recession
COMP
last COMP level
recession trigger
COMP level on 11/25/16 = 15.71
COMP level on 12/02/16 = 16.6
COMP level on 12/09/16 = 18.19
COMP level on 12/16/16 = 20.06
Note: Some of the levels of COMP may differ from previous releases due to revisions of COMP's components.
current level of COMP= 20.06
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

3-COMP.xlsm



BCIg Toni.xlsm

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);

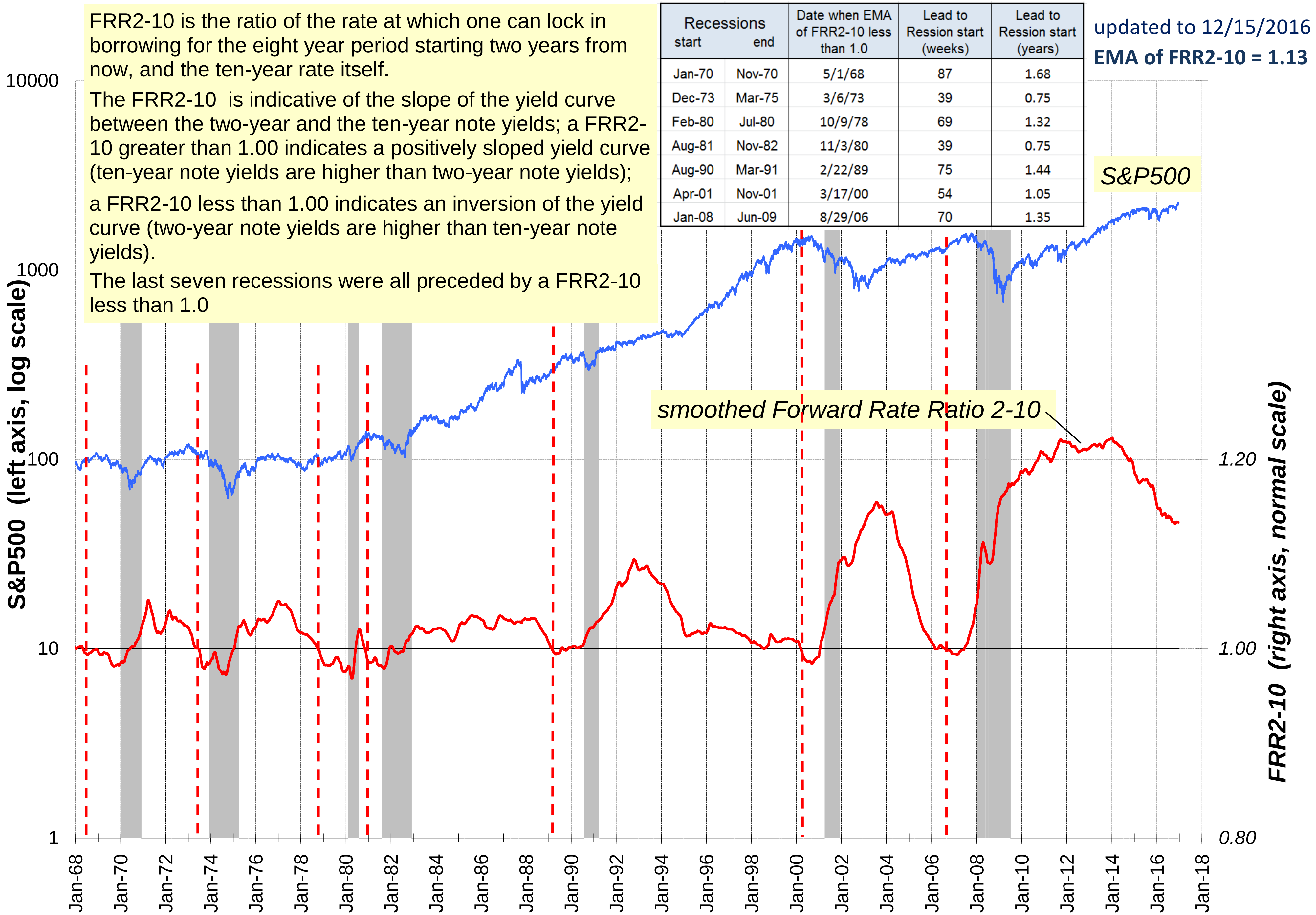
a FRR2-10 less than 1.00 indicates an inversion of the yield curve (two-year note yields are higher than ten-year note yields).

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 12/15/2016

EMA of FRR2-10 = 1.13



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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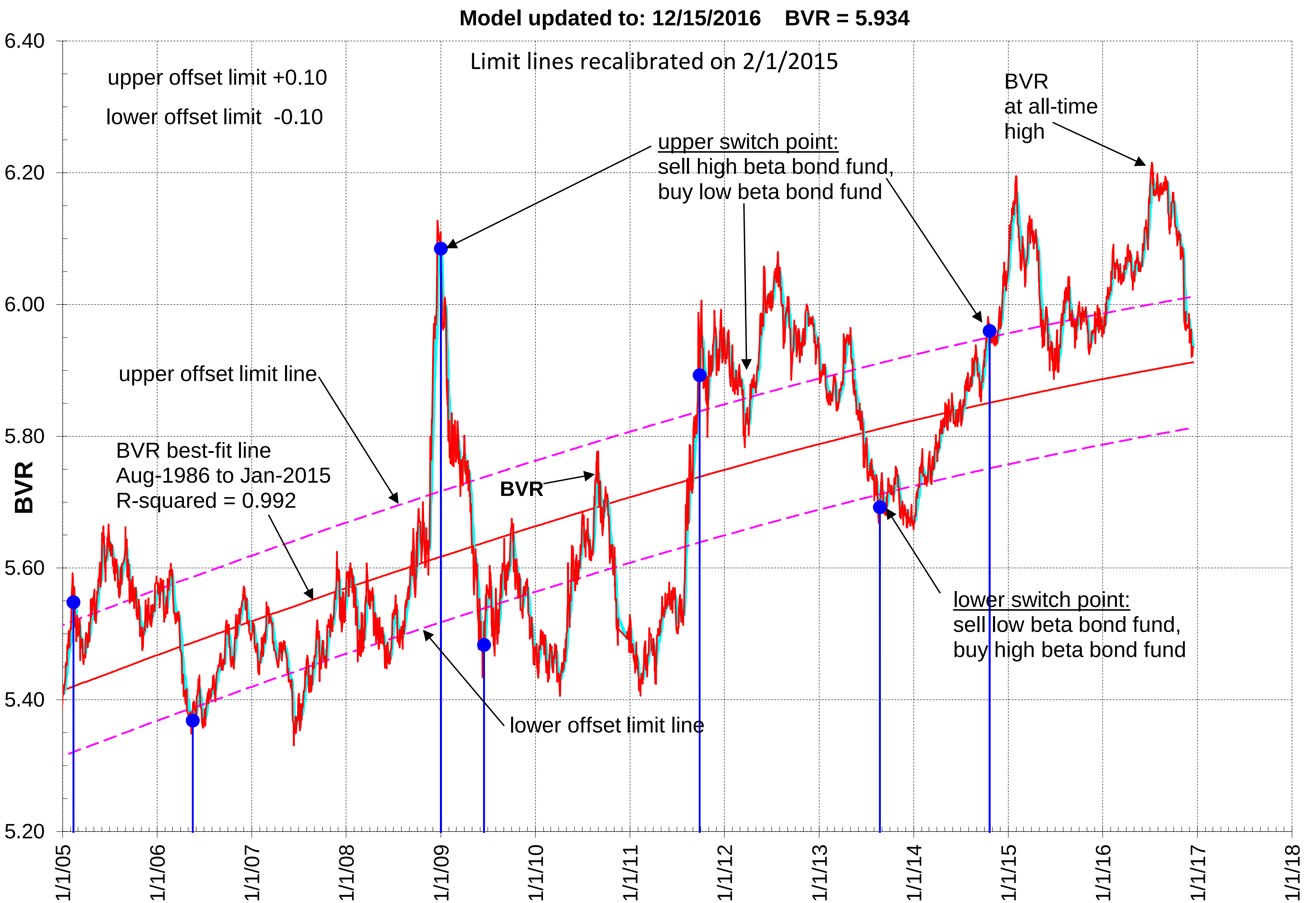
Figure 4: Bond Value Ratio (BVR) from 2005 to 2016



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.

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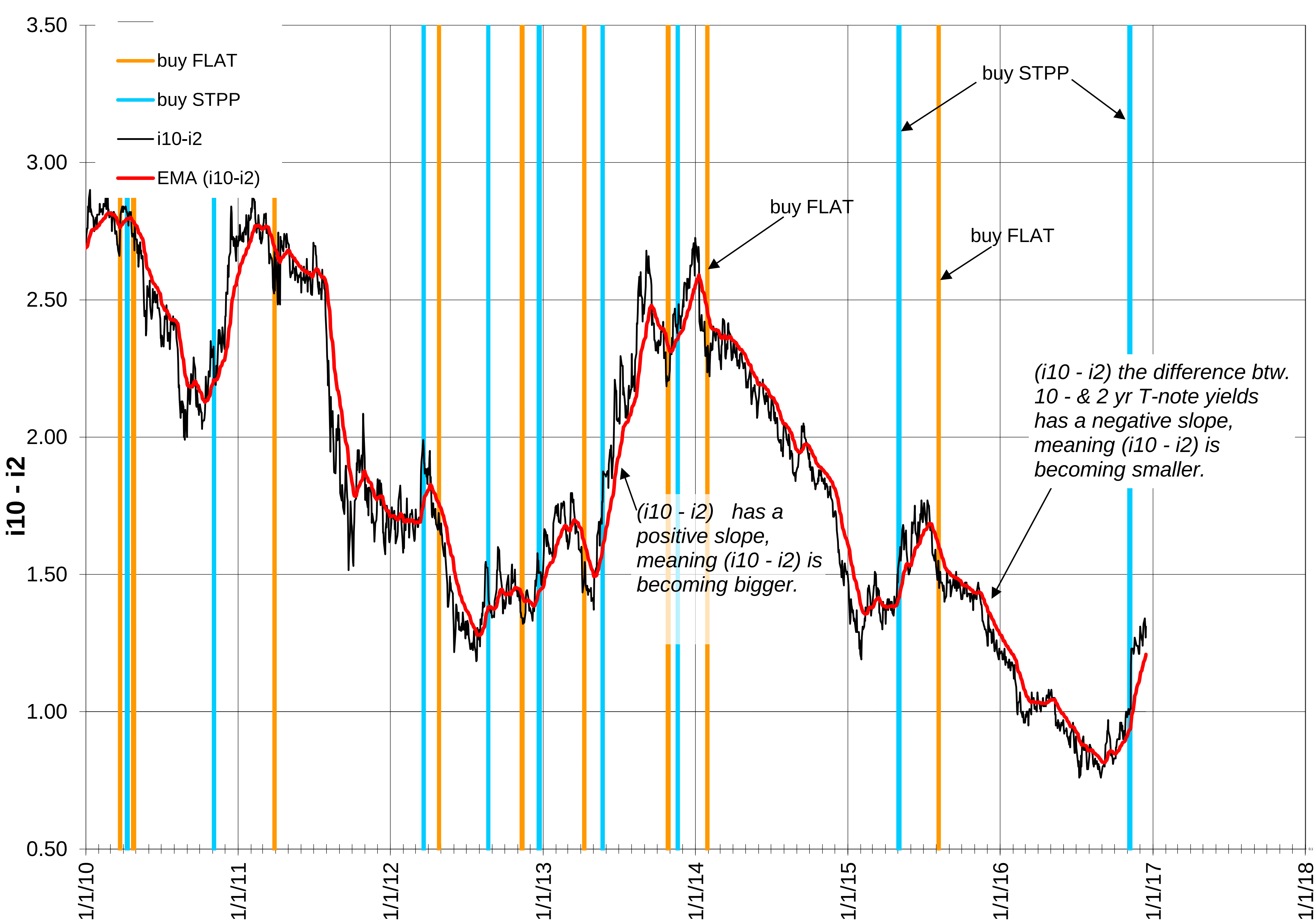
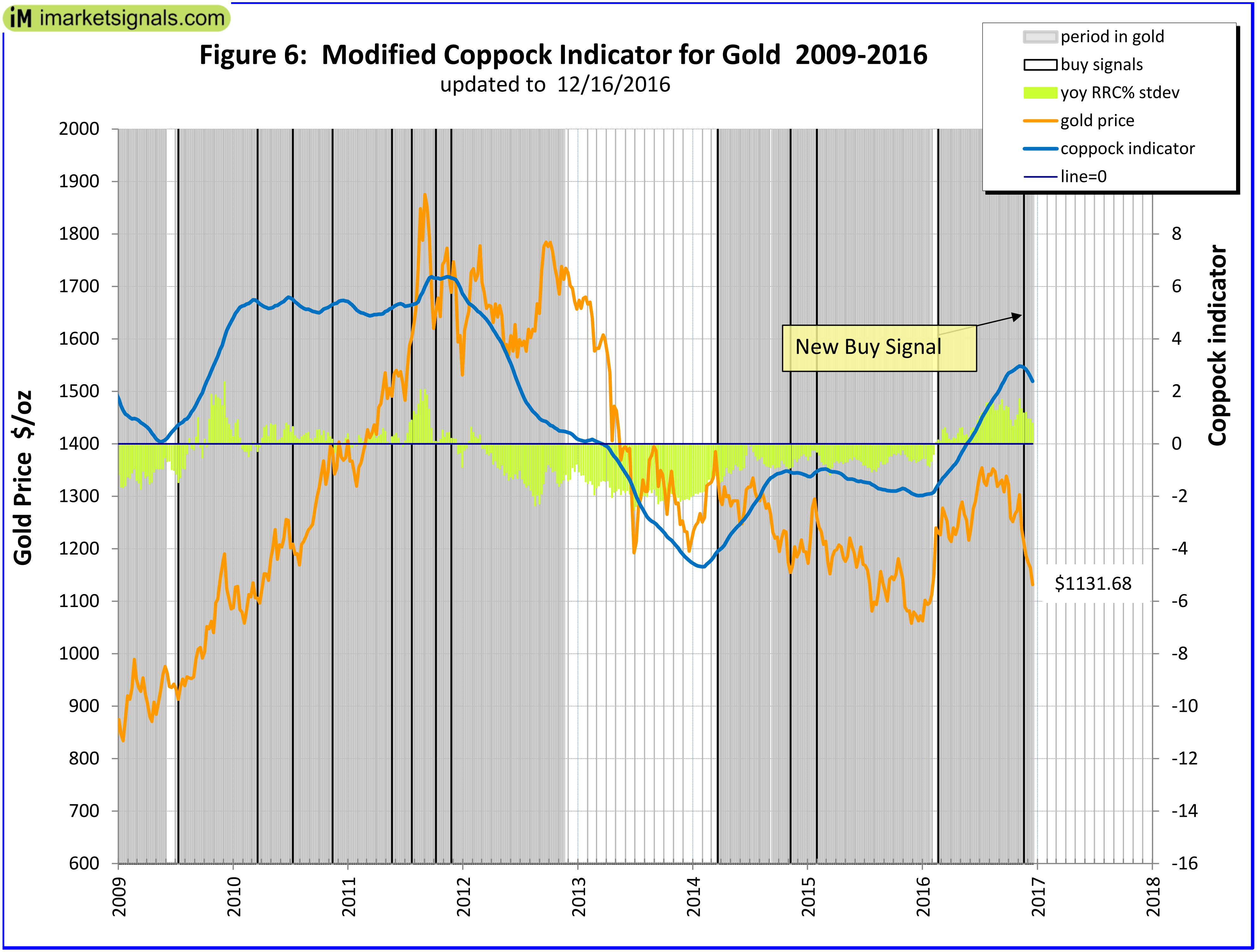
Figure 5: i10 - i2 **Updated to.....12/15/16**



5-Yield Curve.xlsm 09-15



6-COPPOCK GOLD for updates.xlsm

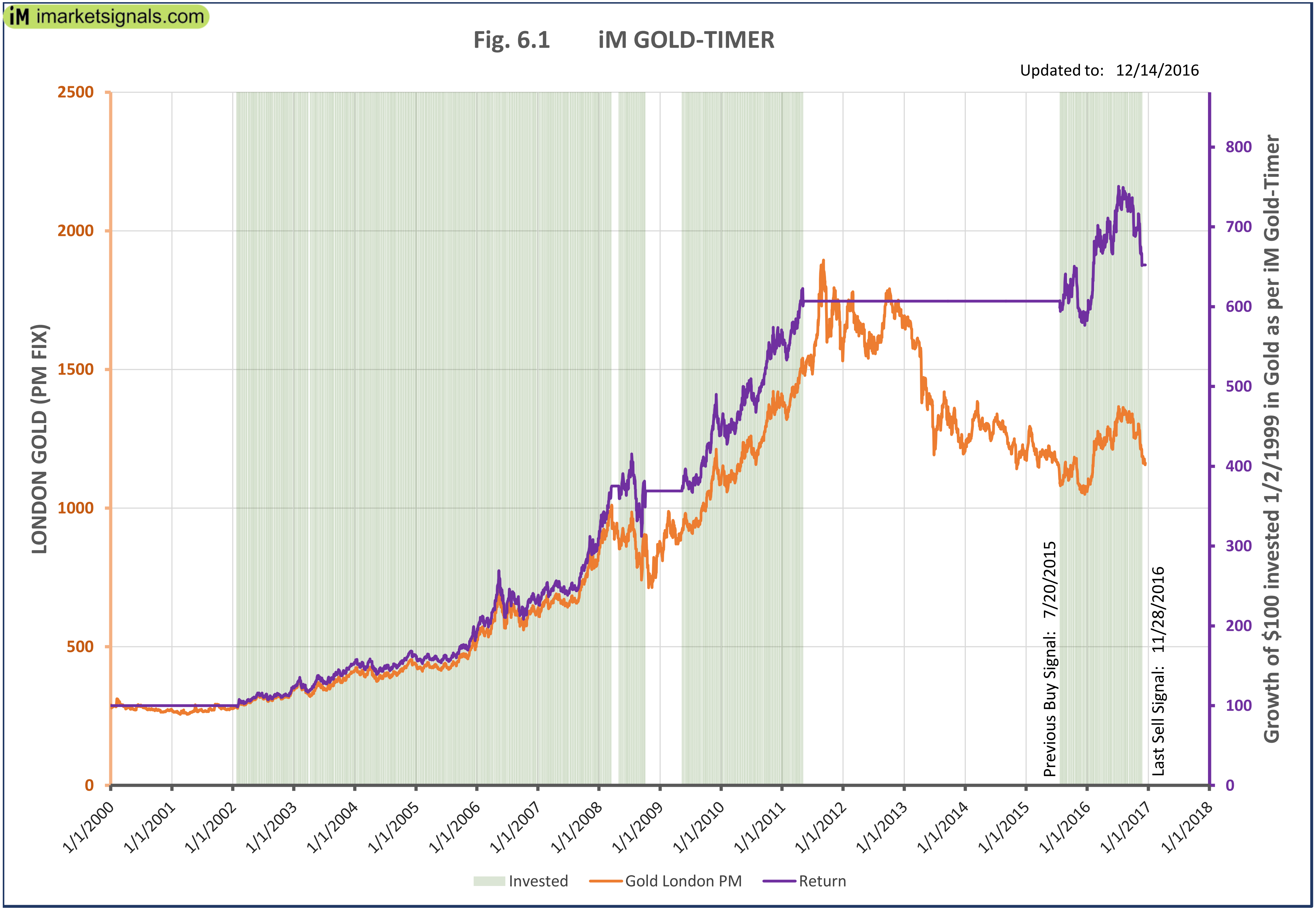


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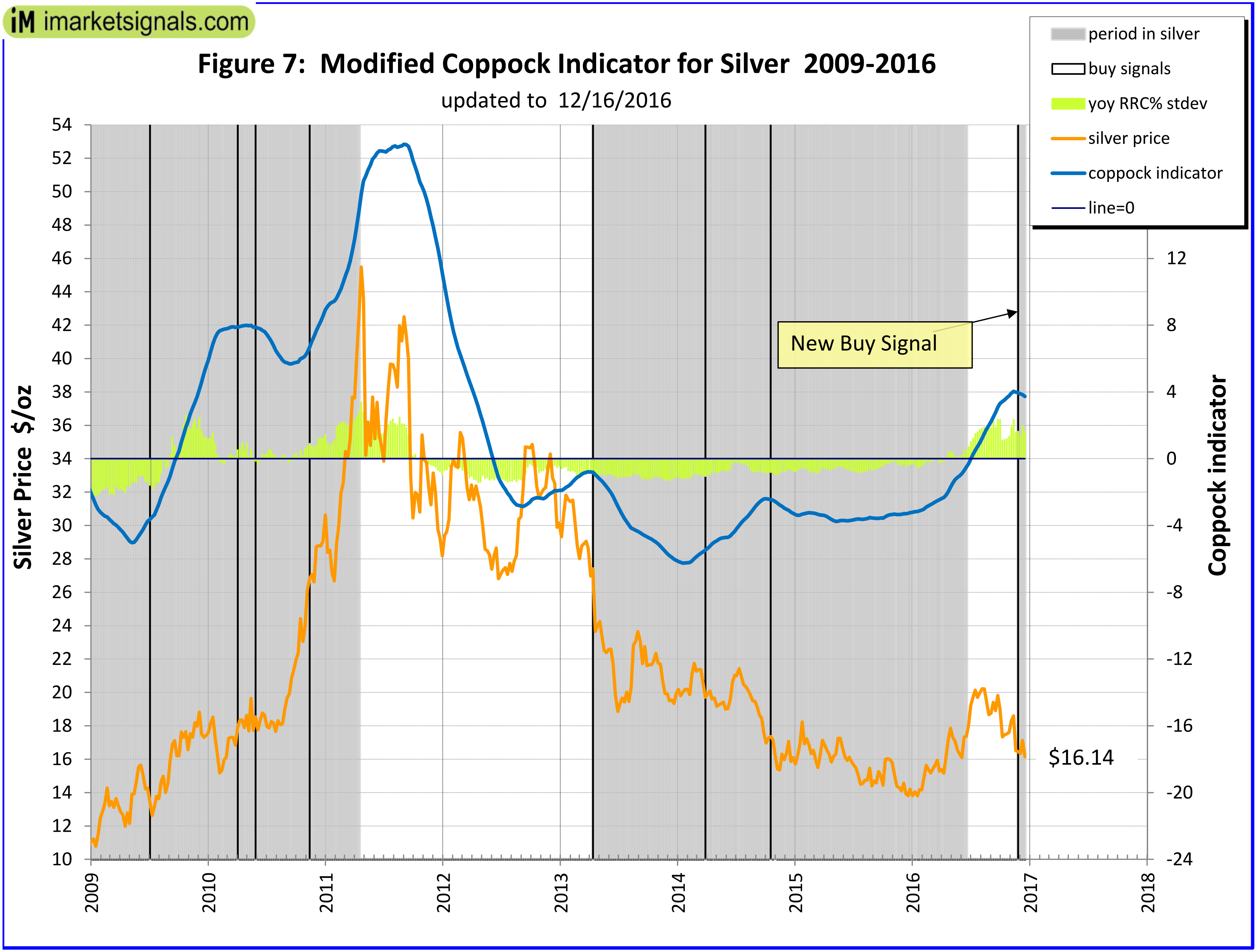
Fig. 6.1 iM GOLD-TIMER
Updated to: 12/14/2016
LONDON GOLD (PM FIX)
Growth of $100 invested 1/2/1999 in Gold as per iM Gold-Timer
2500
2000
1500
1000
500
0
800
700
600
500
400
300
200
100
0
Previous Buy Signal: 7/20/2015
Last Sell Signal: 11/28/2016
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
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
Invested
Gold London PM
Return


imarketsignals.com
Figure 7: Modified Coppock Indicator for Silver 2009-2016
updated to 12/16/2016
period in silver
buy signals
yoy RRC% stdev
silver price
coppock indicator
line=0
New Buy Signal
$16.14
Silver Price $/oz
Coppock indicator