November 3, 2016

Business Cycle Index

The BCI at 211.9 is up from last week's 211.6 and it is above its previous high for this Business Cycle as indicated by the BCIp at 100. However, the 6-month smoothed annualized growth BCIg at 14.6 is down from last week's 14.7.

No recession is signaled.

November 4, 2016

Market Signals Summary:

The MAC-US model is invested. Also invested is the "VMNFX vs. SPY Timer". The "3-mo Hi-Lo Index of the S&P500" generated a sell signal on 9/27/2016 . 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 may be in the process of forming a new trough. The gold model is invested and the silver model exited the market on June 24.

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 down 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 below last week's level and at -4.18% (last week -1.63%) and is not invested the stock markets since 9/27/2016. It has to rise above 5% to generate a entry signal.

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 near 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 down from 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 also down from 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 signalling 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 seems to have formed a trough. 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 buy end February 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 is invested in gold. This indicator is described in the article: The iM Gold-Timer

Silver:

The modified Coppock Silver indicator shown in Fig 7 and exited the market on June 24, 2016, as the holding period since the last buy has expired . This indicator is described in Silver – Better Than Gold: A Modified Coppock Indicator for Silver.

Monthly Updates

November 4, 2016 (next update December 02, 2016)

Unemployment

The unemployment rate recession model (article link), has been updated with the October UER of 4.9%. 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. However, the growth rate UERg continues to rise (now at -3.15%) and EMA spread of the UER is near last month's value (now at -0.10), supporting the trend of the long leading indicator DAGS. Here is the link to the full update.

The Dynamic Linearly Detrended Enhanced Aggregate Spread:

Long leading indicator DAGS at 9 (last month 19), 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 August-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 steadied, and the 6 month moving is near the 4wk average.

TIAA Real Estate Account

The 1-year rolling return for the end of last month is 5.02%. 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.

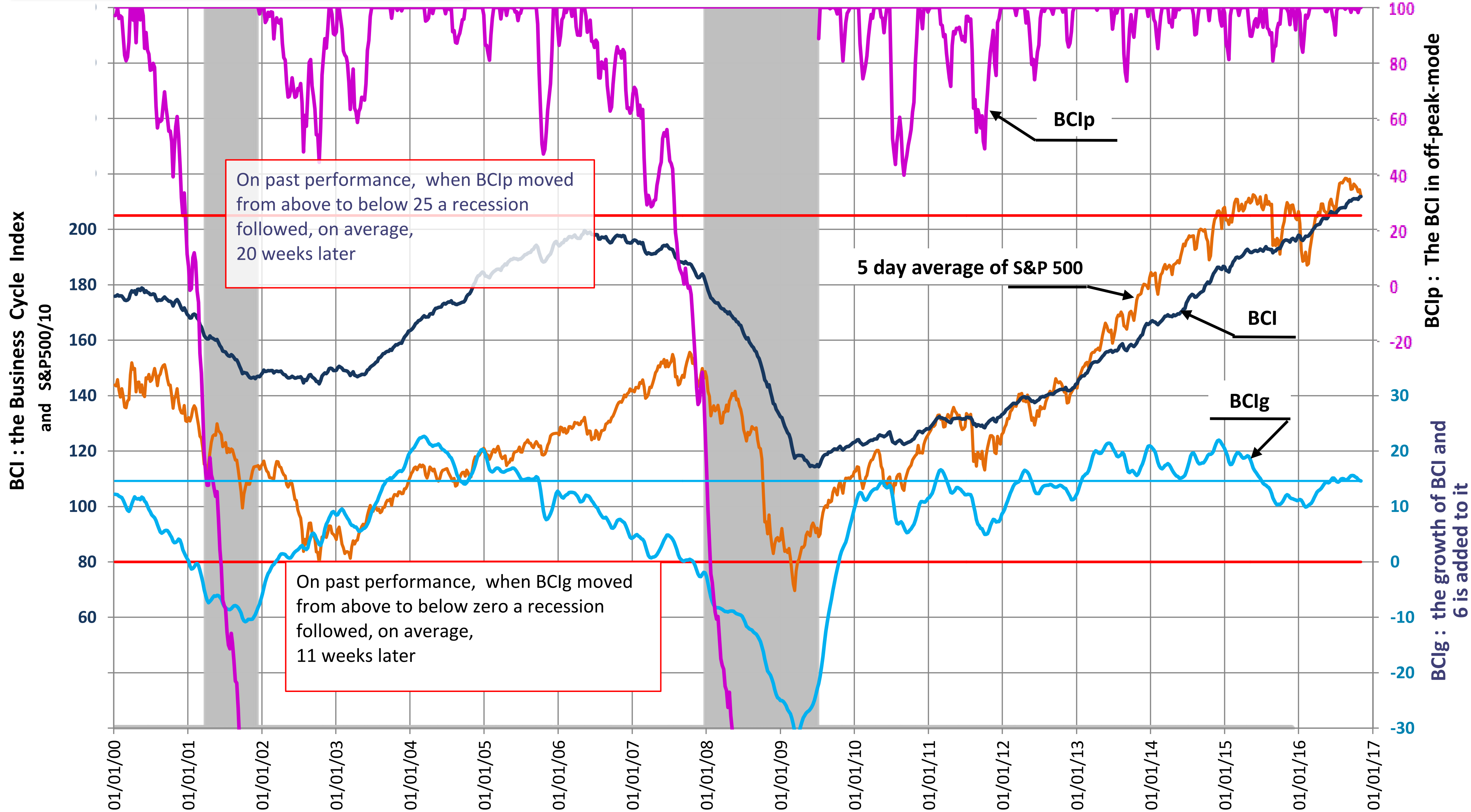
iM imarketsignals.com

iM's Business Cycle Index (BCI)

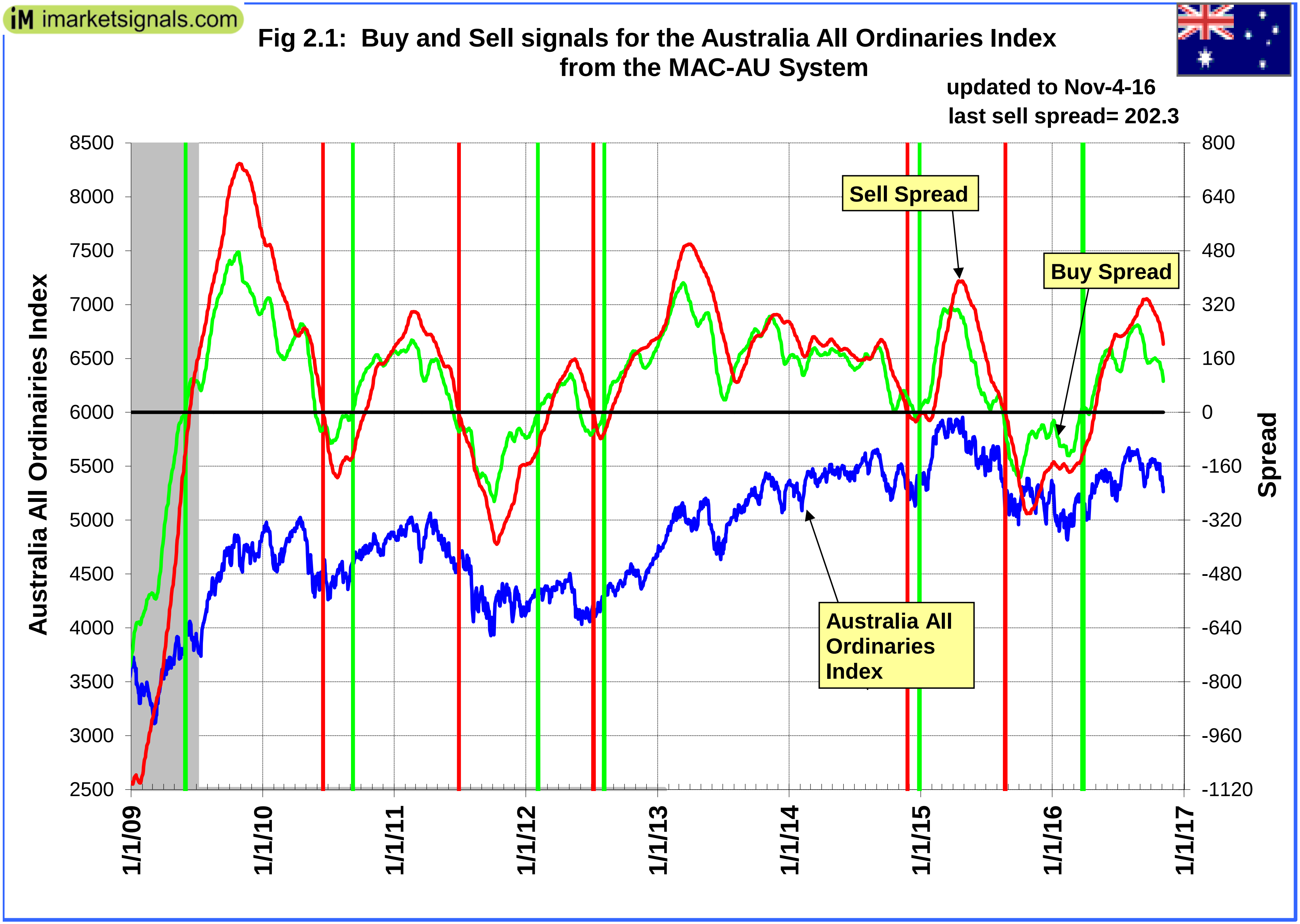
BCIp, BCI and BCIg
updated to November 03, 2016

Date	10/06	10/13	10/20	10/27	**11/03**
BCIp	99.3	99.9	98.3	100.0	**100.0**
BCI	211.0	211.1	210.9	211.6	**211.9**
BCIg	15.4	15.2	14.9	14.7	**14.6**

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

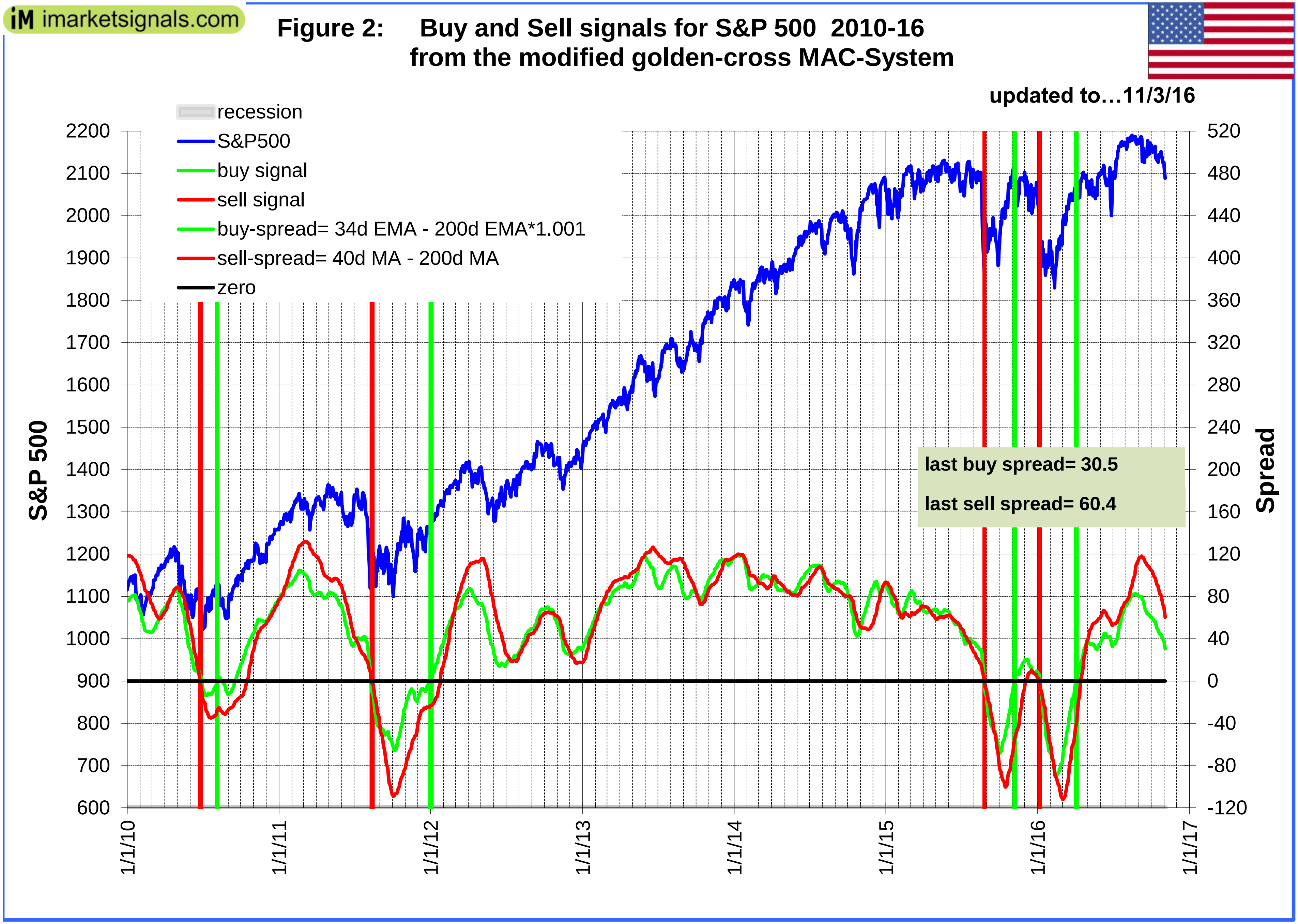


Please note: Past performance does not guarantee future returns, investments may increase or decrease in value and you may lose money using this model.

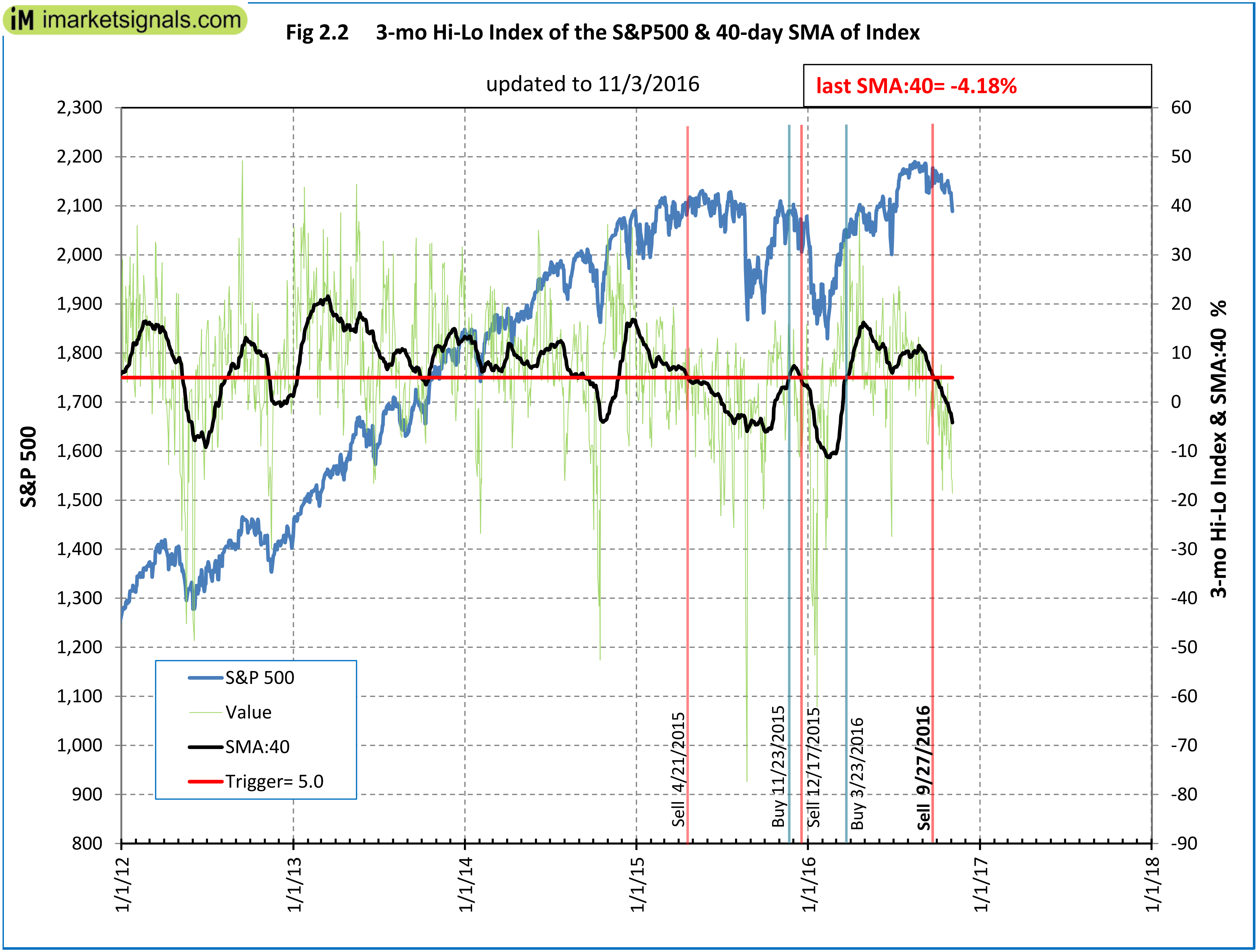


2.1-MAC Australia.xlsm

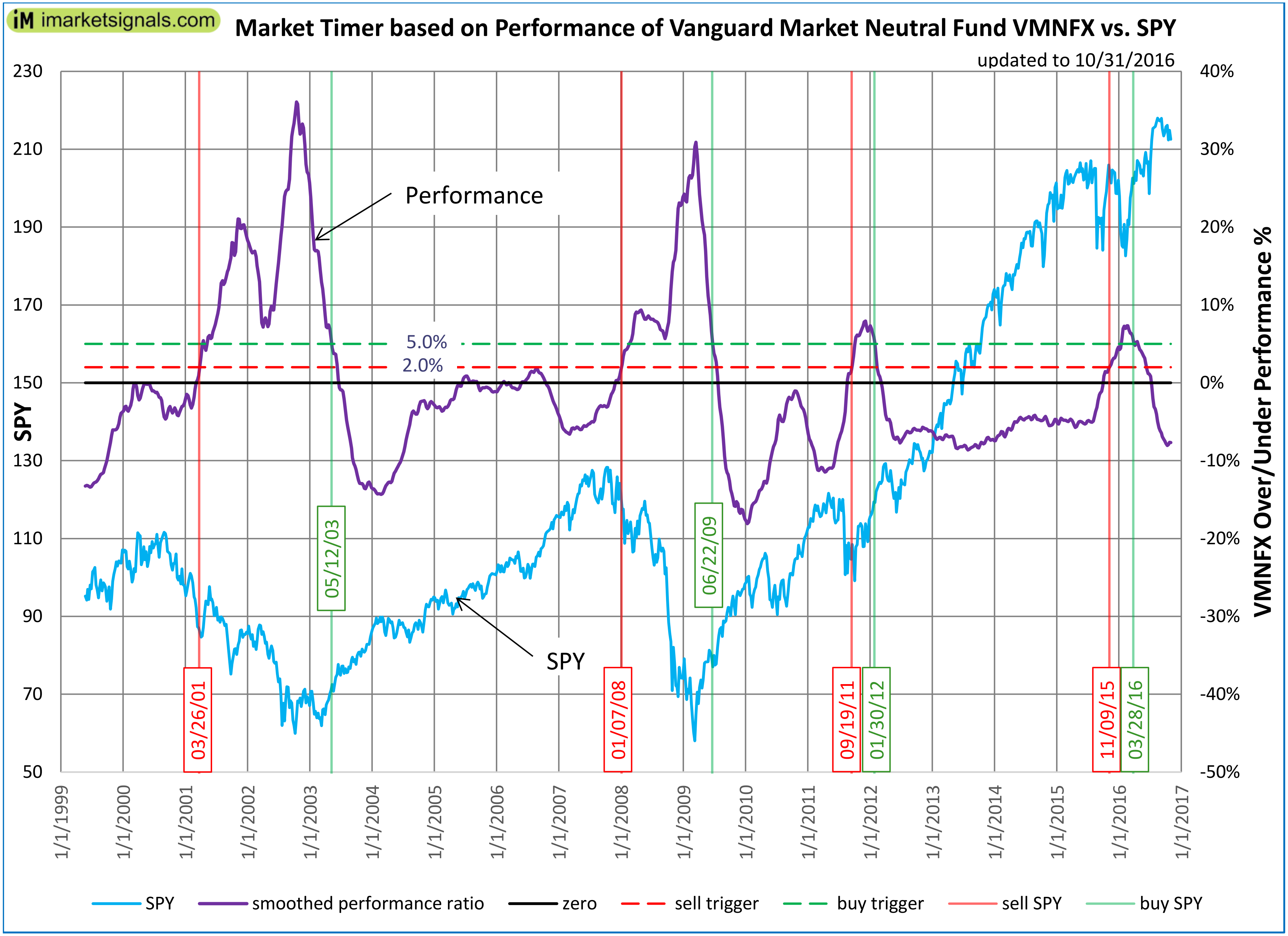
Please note: Past performance does not guarantee future returns, investments may increase or decrease in value and you may lose money using this model.

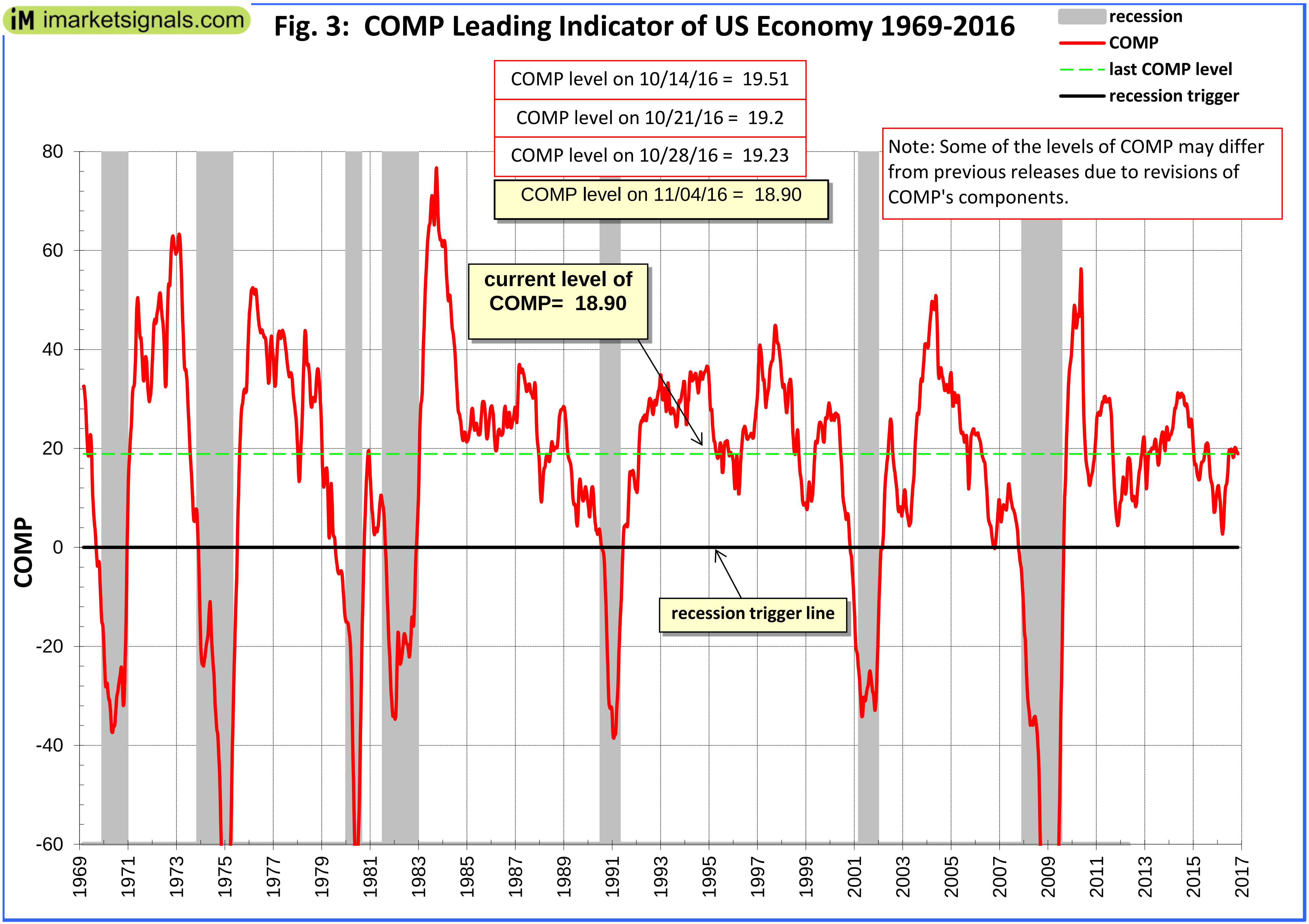


2-MAC rev8-27-15.xlsm

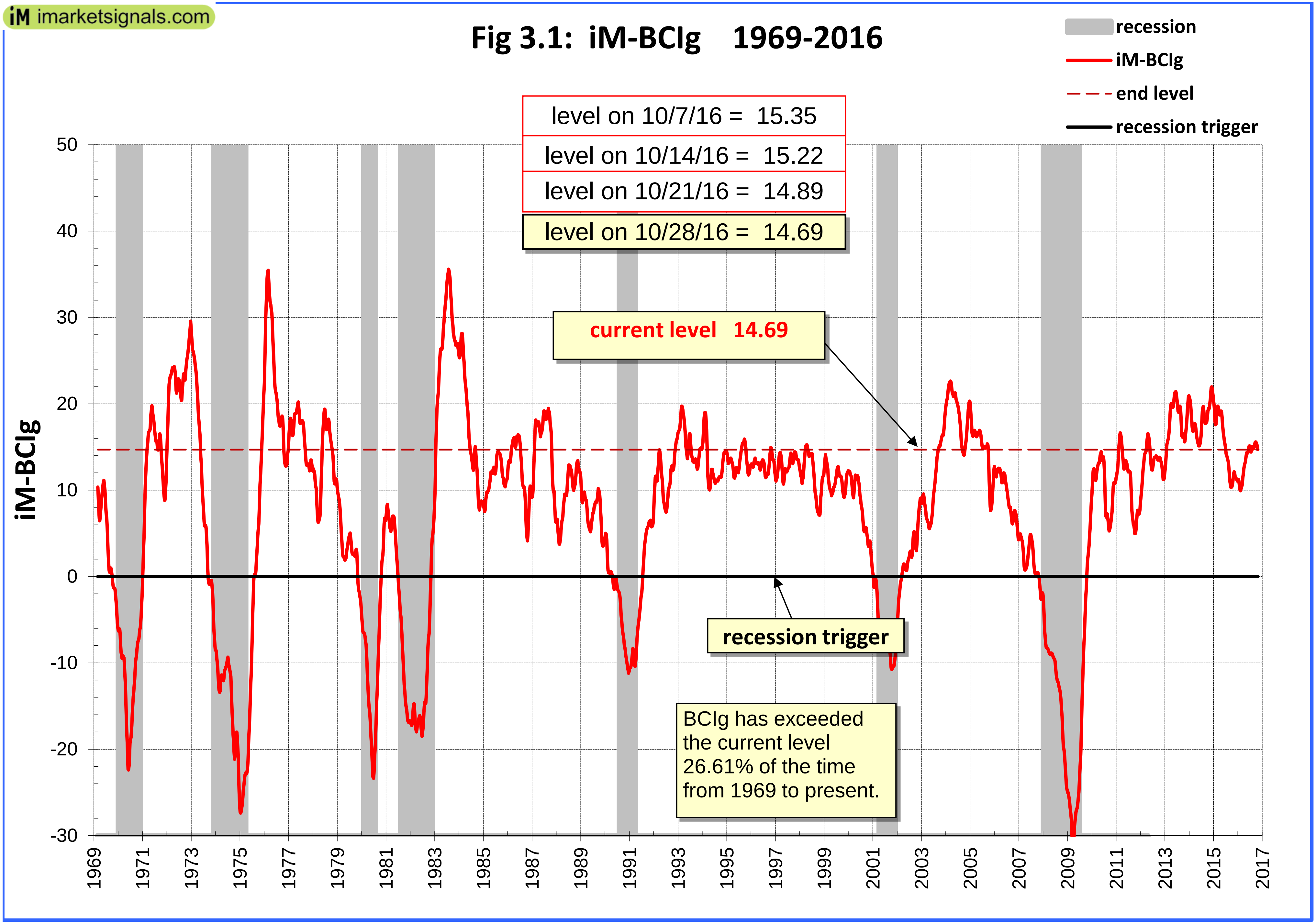


iM imarketsignals.com
Fig 2.2 3-mo Hi-Lo Index of the S&P500 & 40-day SMA of Index
updated to 11/3/2016
last SMA:40= -4.18%
S&P 500
3-mo Hi-Lo Index & SMA:40 %
2,300
2,200
2,100
2,000
1,900
1,800
1,700
1,600
1,500
1,400
1,300
1,200
1,100
1,000
900
800
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
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
1/1/12
1/1/13
1/1/14
1/1/15
1/1/16
1/1/17
1/1/18


iM imarketsignals.com
Market Timer based on Performance of Vanguard Market Neutral Fund VMNFX vs. SPY
updated to 10/31/2016
230
210
190
170
150
130
110
90
70
50
SPY
40%
30%
20%
10%
0%
-10%
-20%
-30%
-40%
-50%
VMNFX Over/Under Performance %
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
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
SPY
smoothed performance ratio
zero
sell trigger
buy trigger
sell SPY
buy SPY


iM imarketsignals.com
Fig. 3: COMP Leading Indicator of US Economy 1969-2016
recession
COMP
last COMP level
recession trigger
COMP level on 10/14/16 = 19.51
COMP level on 10/21/16 = 19.2
COMP level on 10/28/16 = 19.23
COMP level on 11/04/16 = 18.90
Note: Some of the levels of COMP may differ from previous releases due to revisions of COMP's components.
current level of COMP= 18.90
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

3-COMP.xlsm



BCIg Toni.xlsm

iM imarketsignals.com

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

updated to 11/03/2016

EMA of FRR2-10 = 1.13

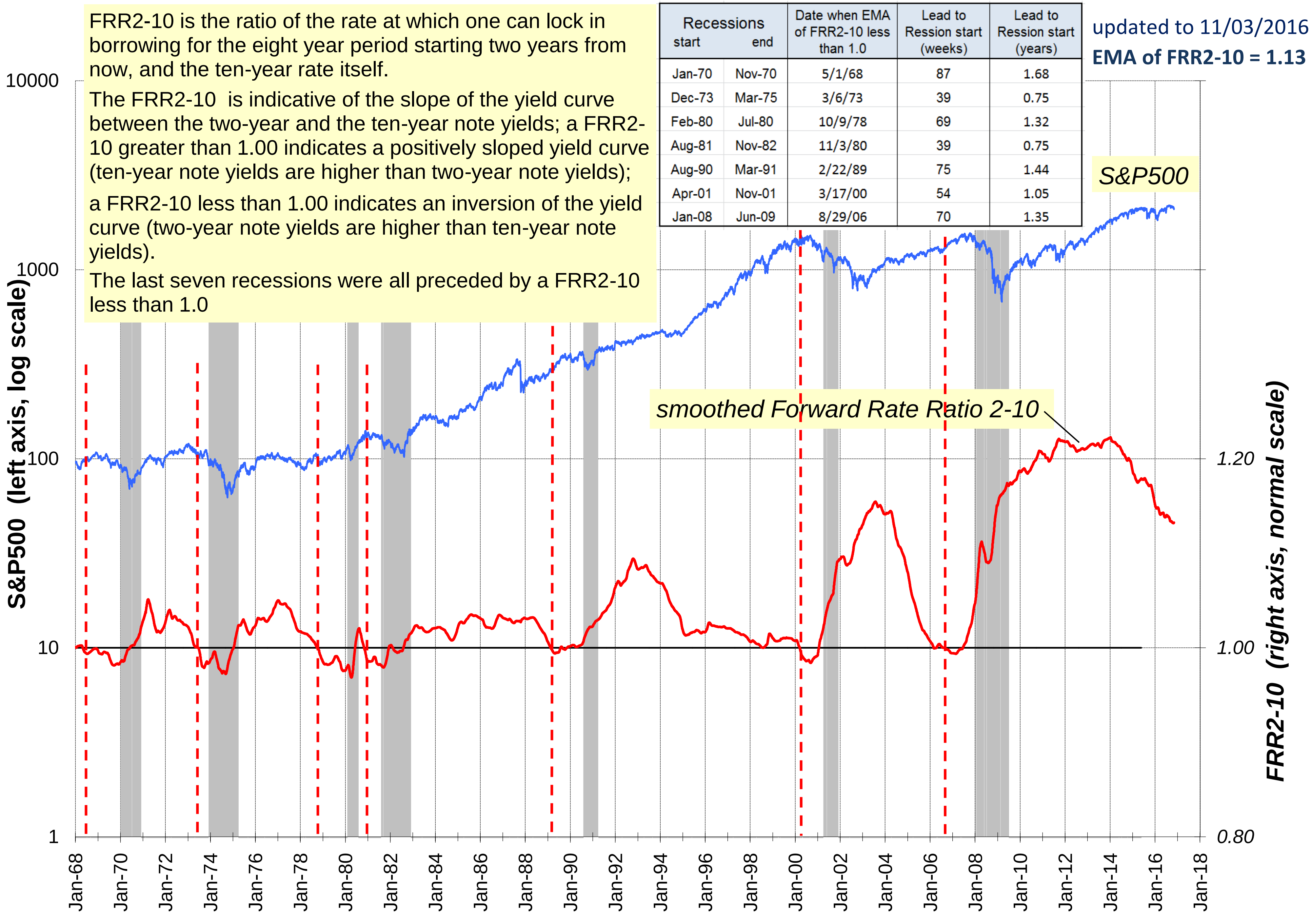
FRR2-10 is the ratio of the rate at which one can lock in borrowing for the eight year period starting two years from now, and the ten-year rate itself.

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

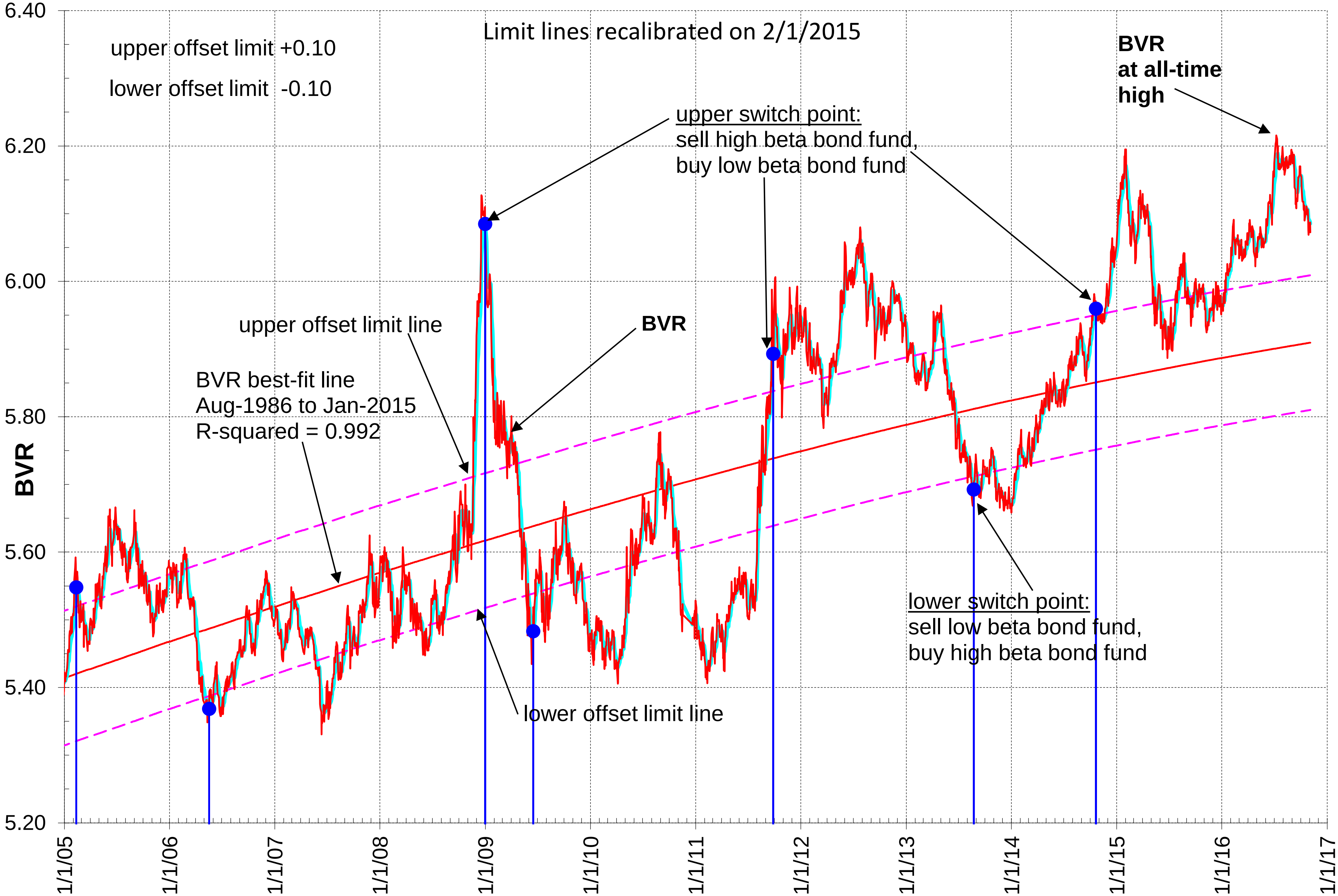


Note: Past performance does not guarantee future returns, investments may increase or decrease in value and you may lose money using this model.

imarketsignals.com

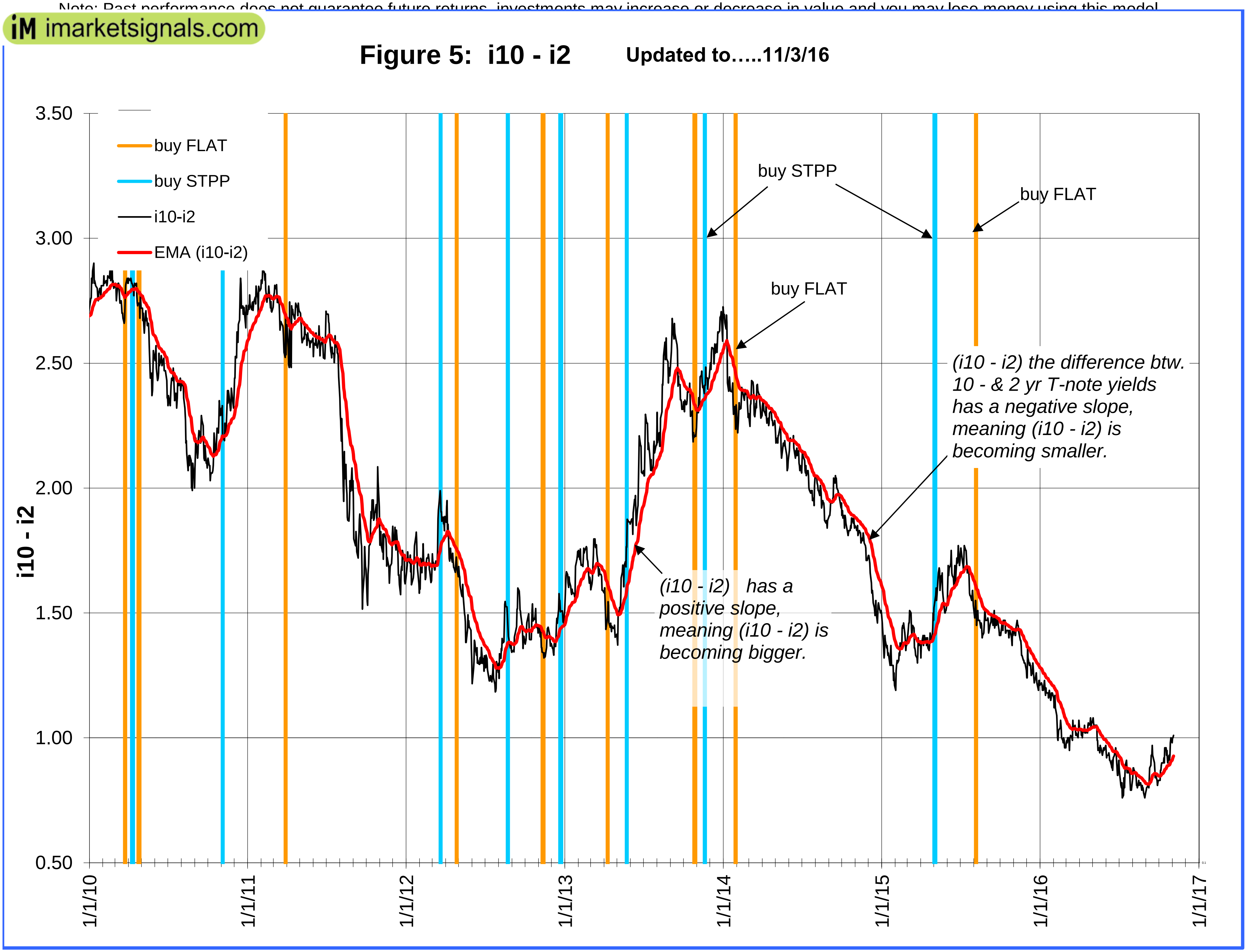
Figure 4: Bond Value Ratio (BVR) from 2005 to 2016

Model updated to: 9/26/2016   BVR = 6.072

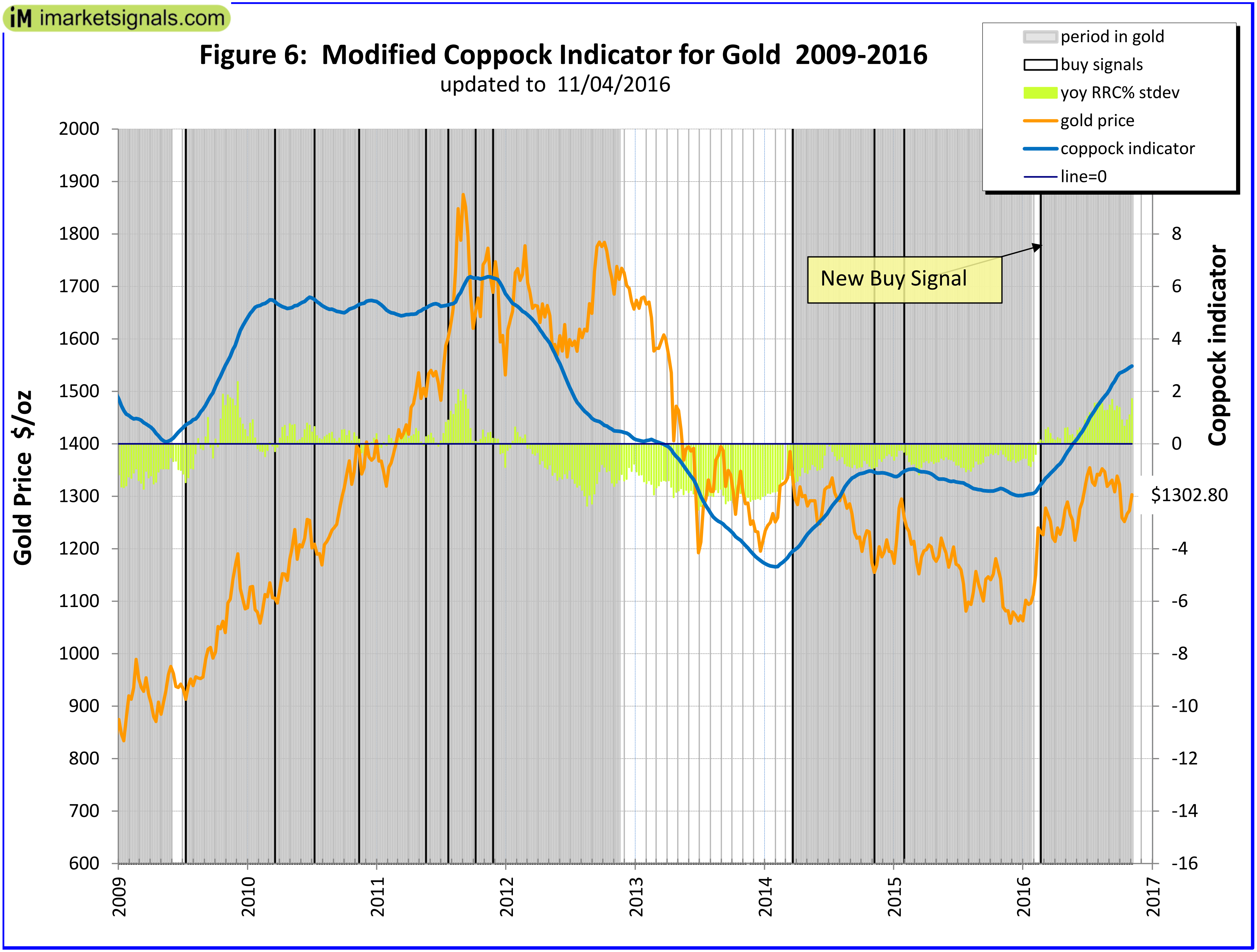


4-BVR recalibrated.xlsm fig4BVR06-14

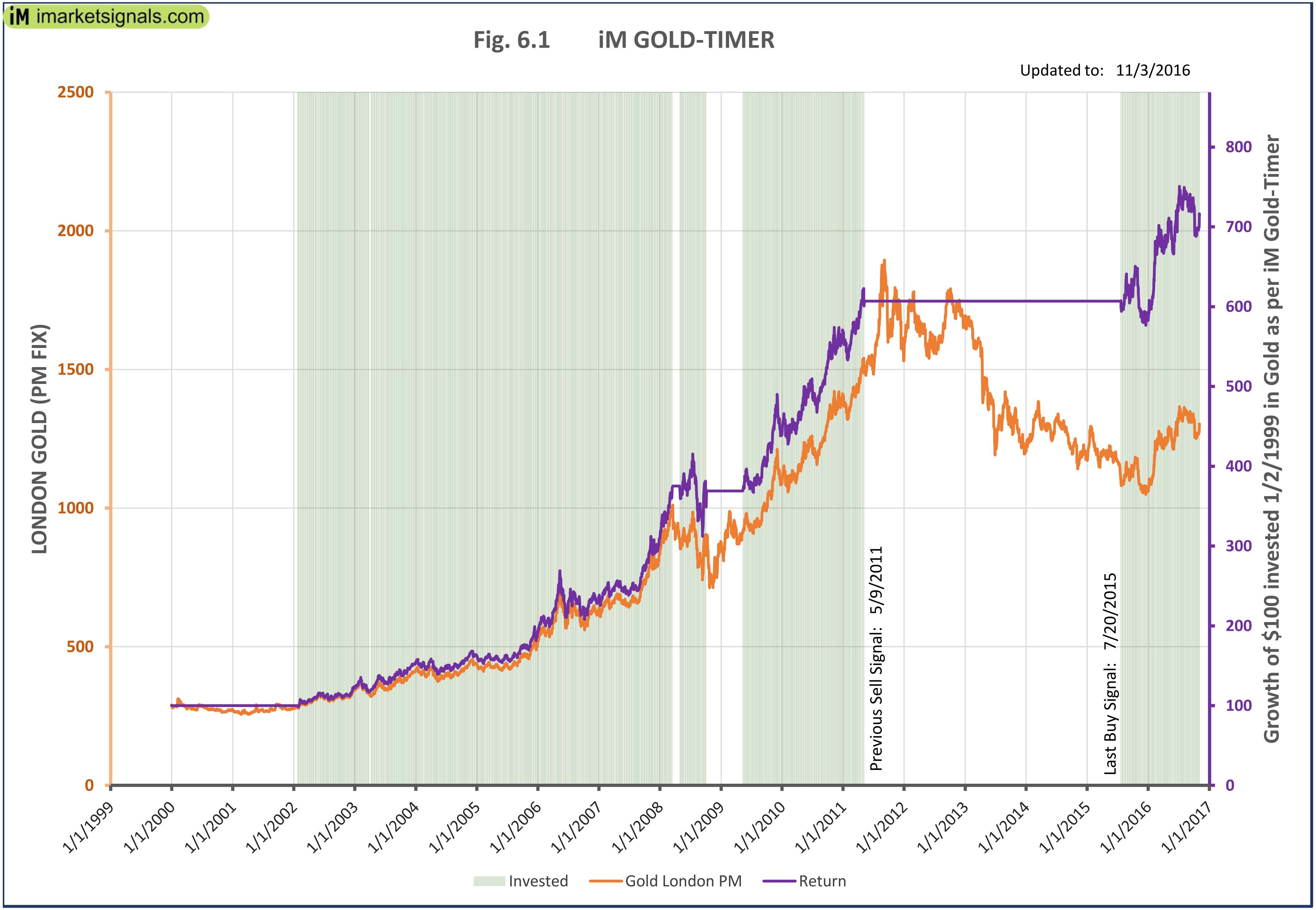
Note: Past performance does not guarantee future returns, investments may increase or decrease in value and you may lose money using this model.



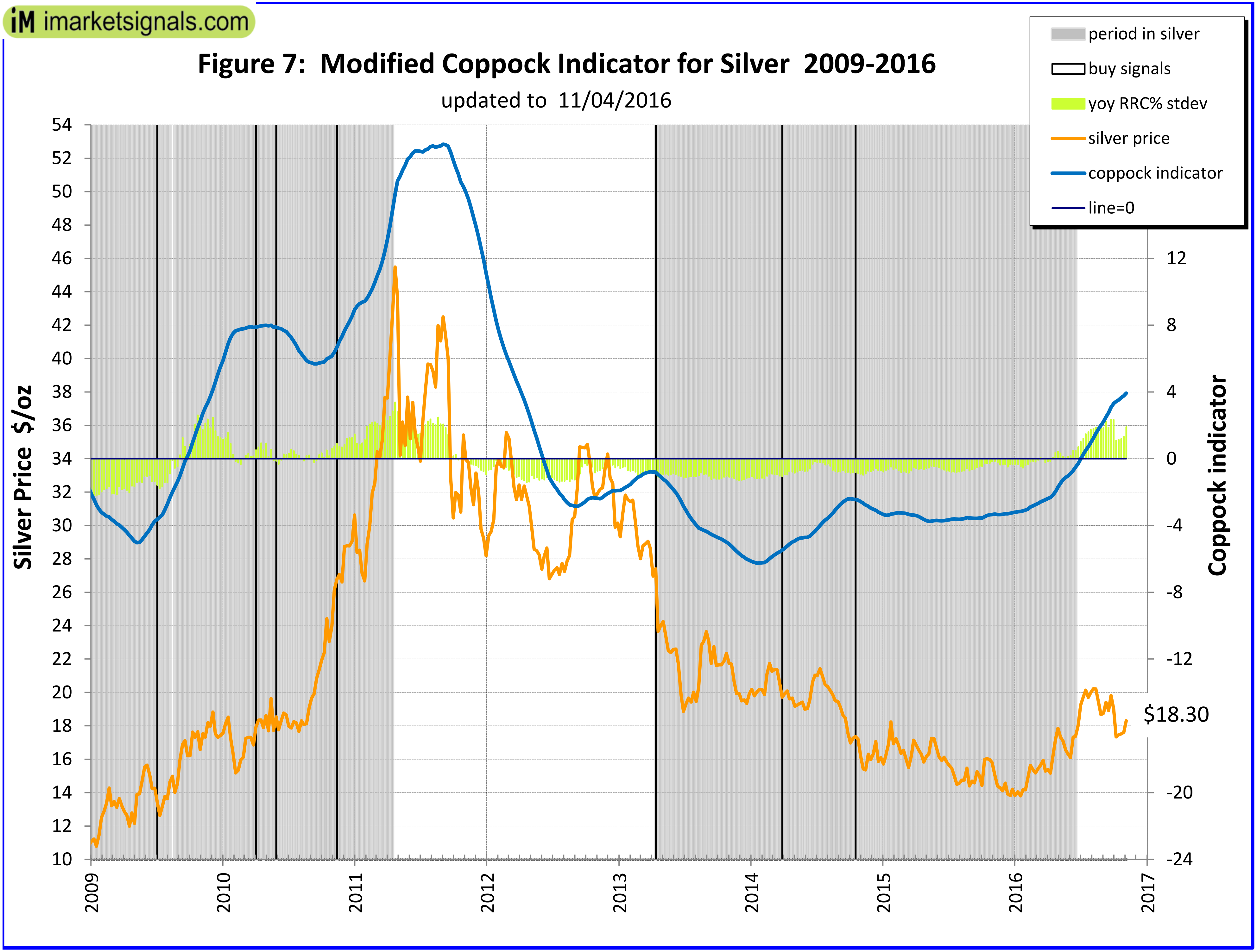
5-Yield Curve.xlsm 09-15



6-COPPOCK GOLD for updates.xlsm



iM imarketsignals.com
Fig. 6.1 iM GOLD-TIMER
Updated to: 11/3/2016
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 Sell Signal: 5/9/2011
Last Buy Signal: 7/20/2015
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
Invested
Gold London PM
Return

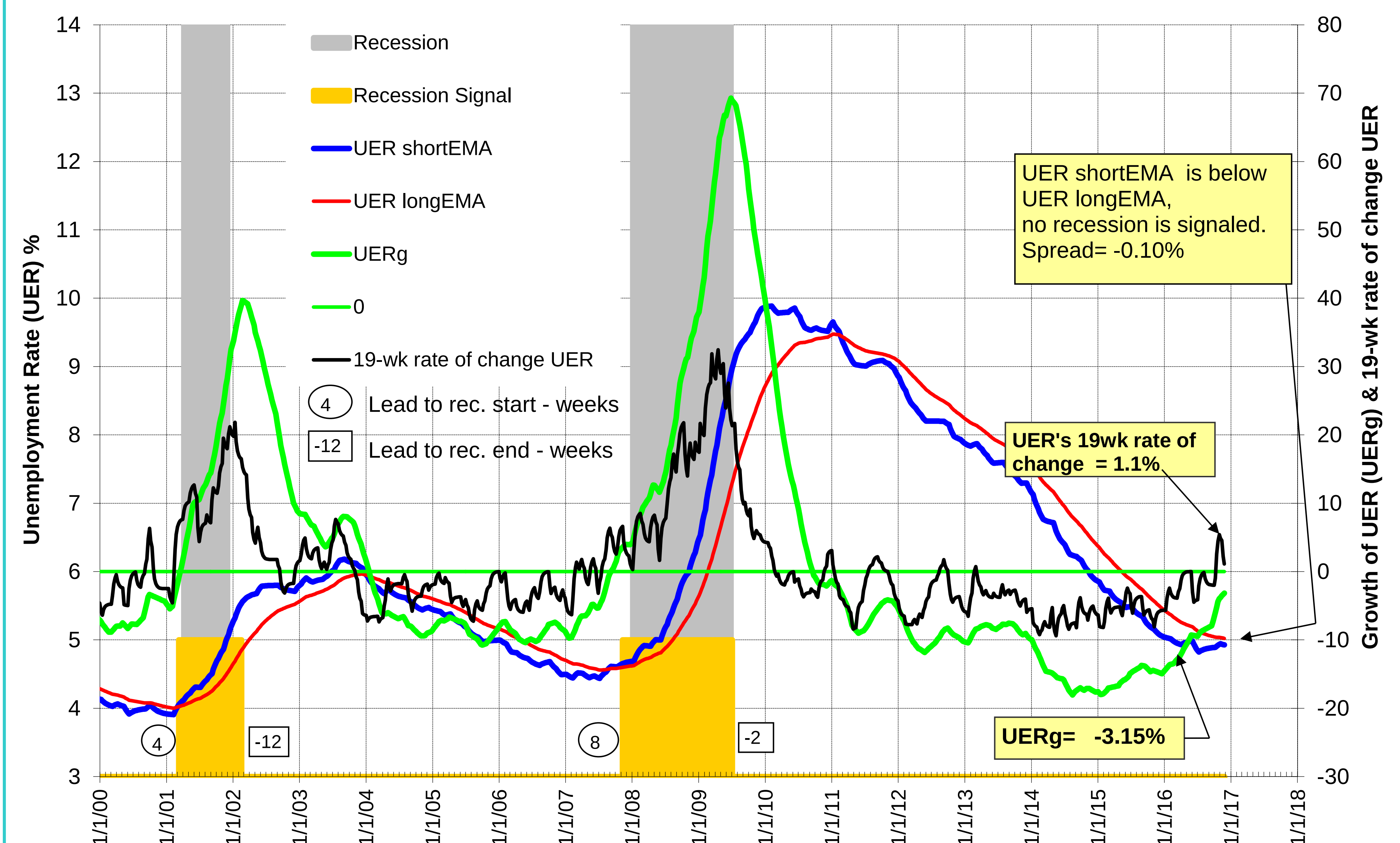


iM imarketsignals.com
Figure 7: Modified Coppock Indicator for Silver 2009-2016
updated to 11/04/2016
period in silver
buy signals
yoy RRC% stdev
silver price
coppock indicator
line=0
Silver Price $/oz
Coppock indicator
$18.30

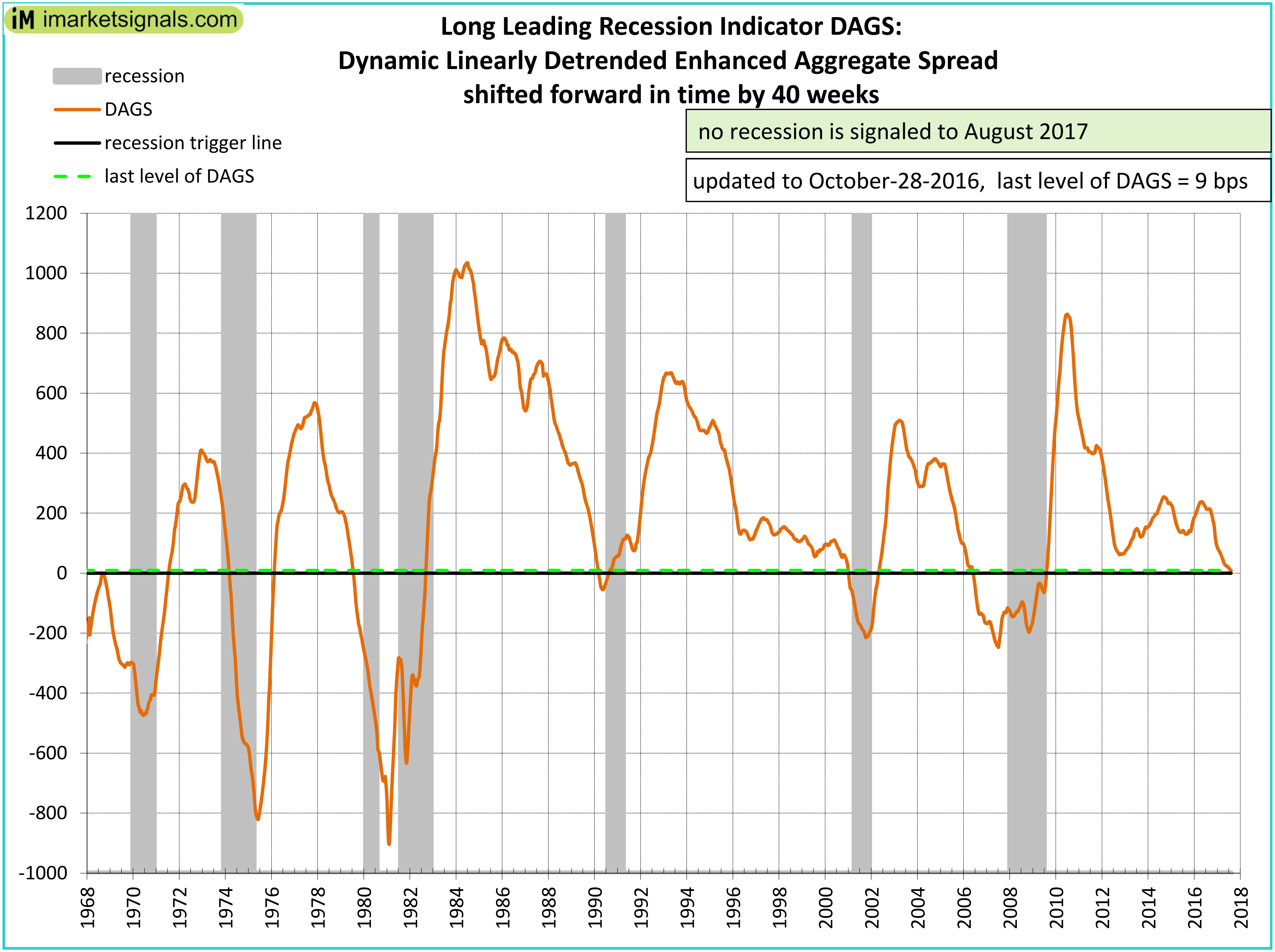
Fig-8 Unemployment Rate and Recessions (real-time) 2000-2016

Leads to recession starts and to recession ends are positive numbers in weeks, lags are negative numbers.

updated to 11-25-2016 with October UER= 4.9%

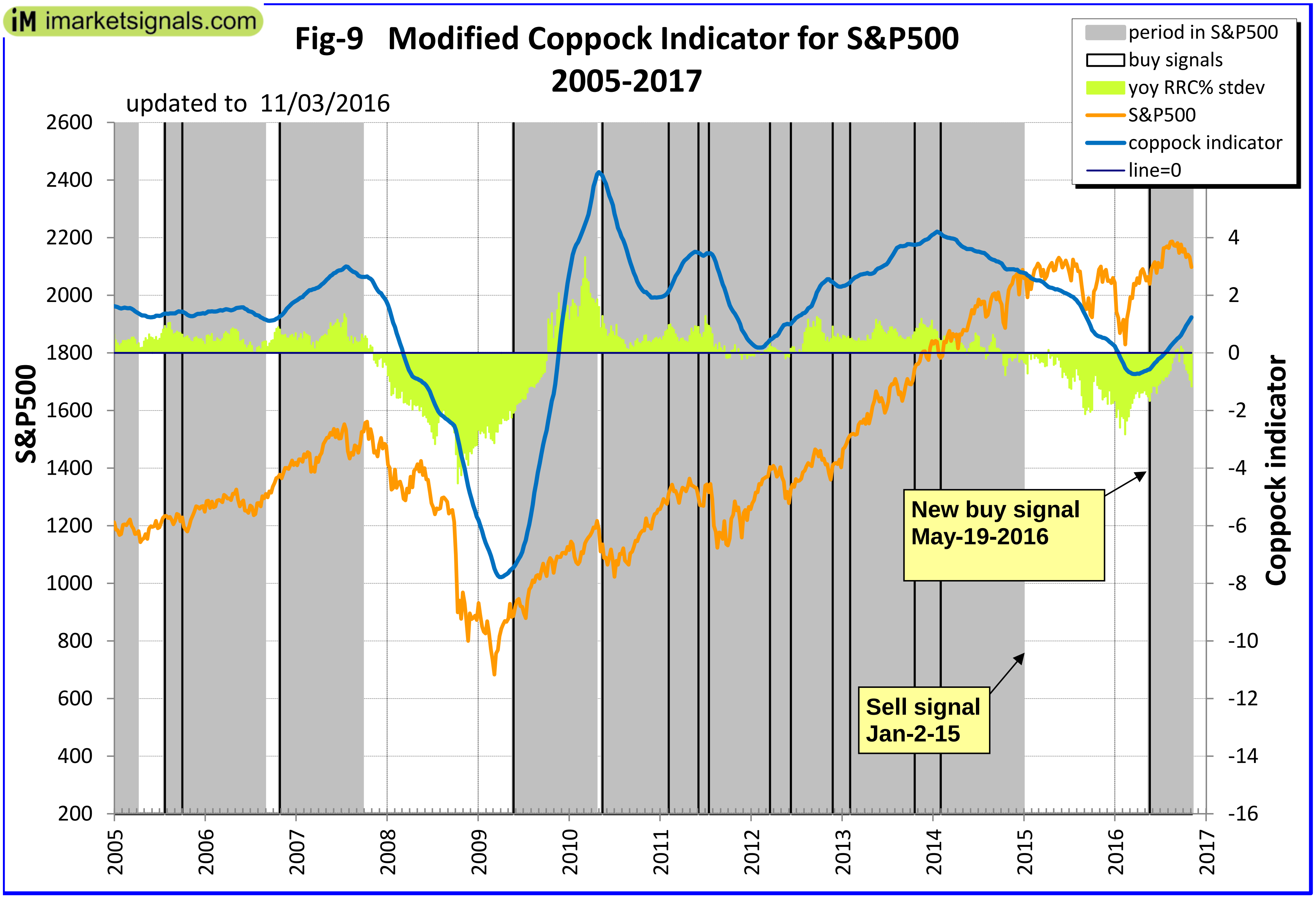


11/4/2016

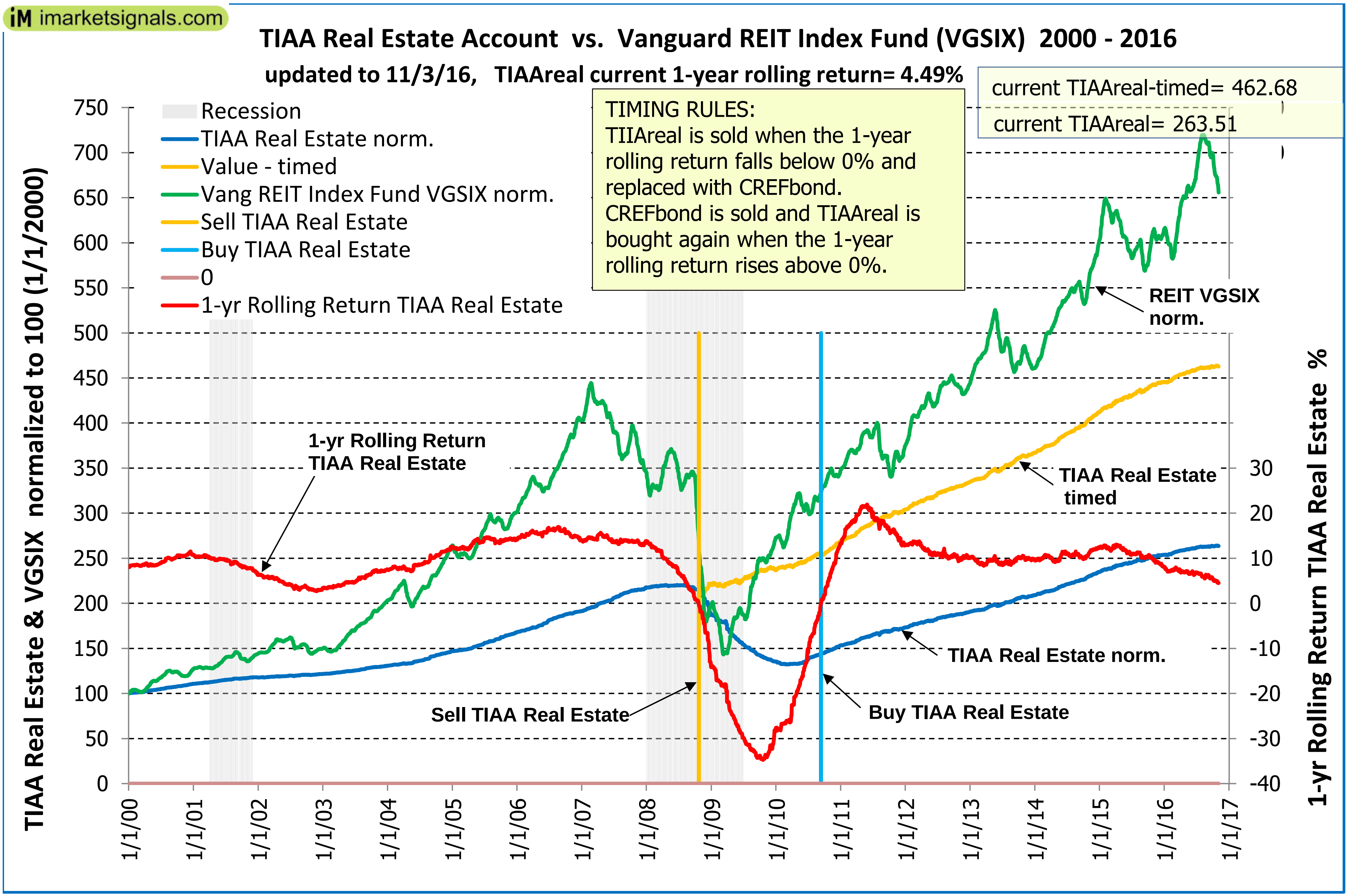


iM imarketsignals.com
Long Leading Recession Indicator DAGS:
Dynamic Linearly Detrended Enhanced Aggregate Spread
shifted forward in time by 40 weeks
recession
DAGS
recession trigger line
last level of DAGS
no recession is signaled to August 2017
updated to October-28-2016, last level of DAGS = 9 bps
1200
1000
800
600
400
200
0
-200
-400
-600
-800
-1000
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018

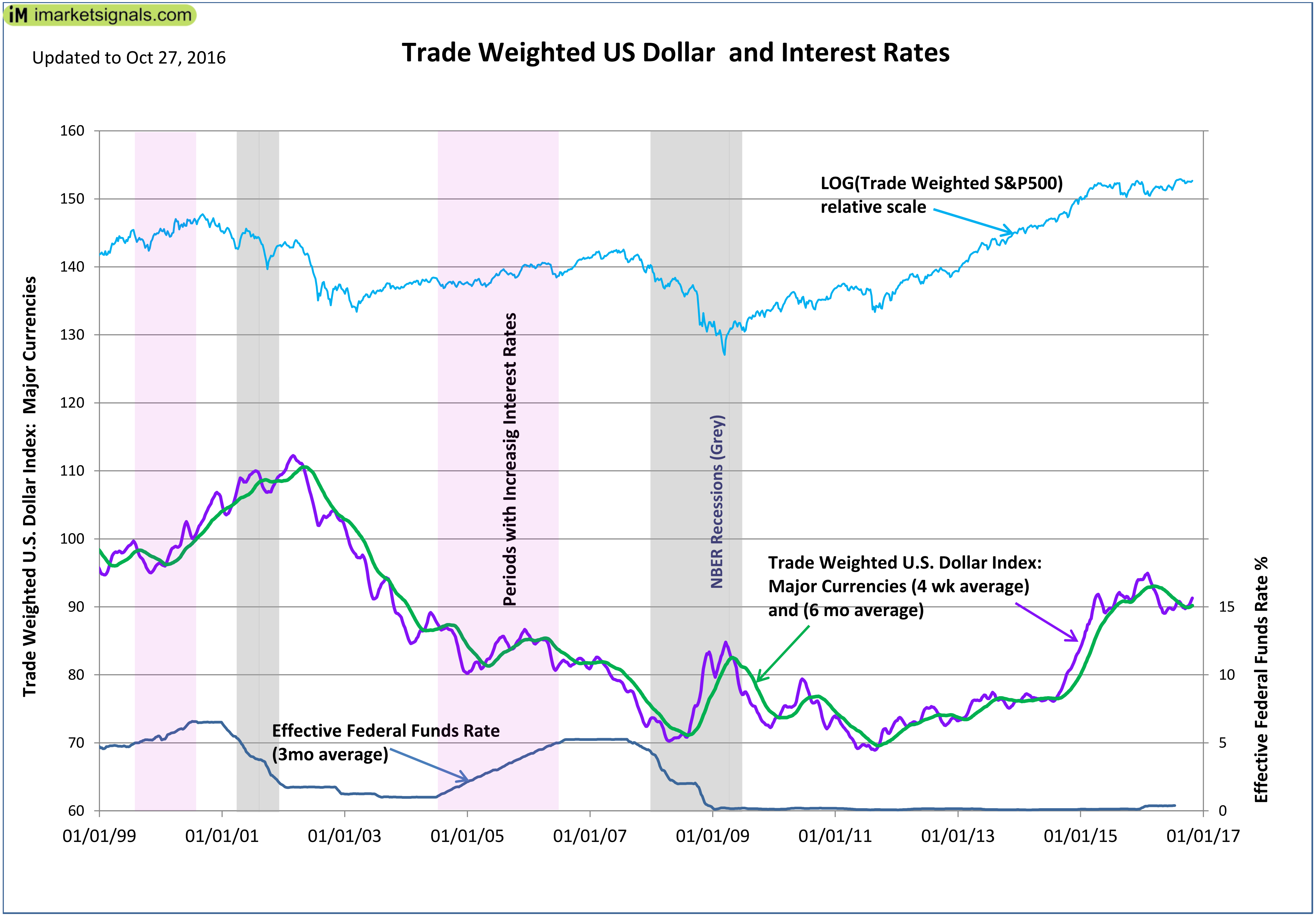
iM-DAGS.xlsm



iM imarketsignals.com
Fig-9 Modified Coppock Indicator for S&P500
2005-2017
updated to 11/03/2016
period in S&P500
buy signals
yoy RRC% stdev
S&P500
coppock indicator
line=0
S&P500
Coppock indicator
New buy signal
May-19-2016
Sell signal
Jan-2-15
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
4
2
0
-2
-4
-6
-8
-10
-12
-14
-16
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017



iM imarketsignals.com
TIAA Real Estate Account vs. Vanguard REIT Index Fund (VGSIX) 2000 - 2016
updated to 11/3/16, TIAAreal current 1-year rolling return= 4.49%
current TIAAreal-timed= 462.68
current TIAAreal= 263.51
TIMING RULES:
TIIAreal is sold when the 1-year rolling return falls below 0% and replaced with CREFbond.
CREFbond is sold and TIAAreal is bought again when the 1-year rolling return rises above 0%.
Recession
TIAA Real Estate norm.
Value - timed
Vang REIT Index Fund VGSIX norm.
Sell TIAA Real Estate
Buy TIAA Real Estate
0
1-yr Rolling Return TIAA Real Estate
TIAA Real Estate & VGSIX normalized to 100 (1/1/2000)
1-yr Rolling Return TIAA Real Estate %
1-yr Rolling Return TIAA Real Estate
REIT VGSIX norm.
TIAA Real Estate timed
TIAA Real Estate norm.
Sell TIAA Real Estate
Buy TIAA Real Estate
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
30
20
10
0
-10
-20
-30
-40
1/1/00
1/1/01
1/1/02
1/1/03
1/1/04
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



iM imarketsignals.com
Updated to Oct 27, 2016
Trade Weighted US Dollar and Interest Rates
LOG(Trade Weighted S&P500)
relative scale
Periods with Increasig Interest Rates
NBER Recessions (Grey)
Trade Weighted U.S. Dollar Index:
Major Currencies (4 wk average)
and (6 mo average)
Effective Federal Funds Rate
(3mo average)
Trade Weighted U.S. Dollar Index: Major Currencies
Effective Federal Funds Rate %
160
150
140
130
120
110
100
90
80
70
60
15
10
5
0
01/01/99
01/01/01
01/01/03
01/01/05
01/01/07
01/01/09
01/01/11
01/01/13
01/01/15
01/01/17