

December 1, 2016

Business Cycle Index

The BCI at 212.5 is down from last week's 213.0. It is below the previous p high of this Business Cycle as indicated by the BCIP at 96.1. The 6-month smoothed annualized growth BCIG at 14.5 is unchanged from last week.

No recession is signaled.

December 2, 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 is steepening. Both the gold, and silver, models are invested.

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 above last week's level and at 0.82% (last week - 0.72%) 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 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 near 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-BCI_g which is 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 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 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. 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

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

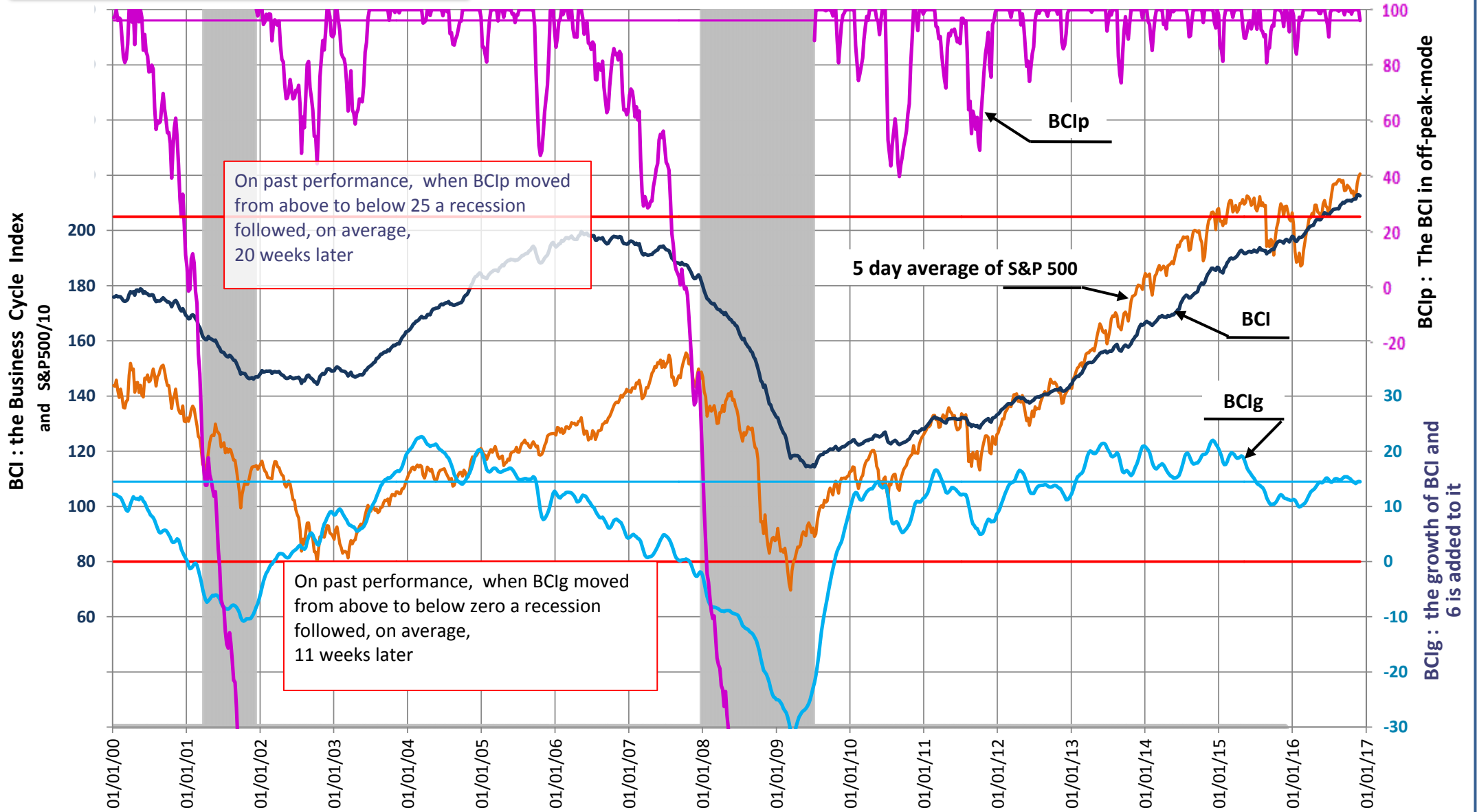
The 1-year rolling return for the end of last month is 4.82%. The Vanguard REIT Index Fund is at an all-time high; the good positive returns of TIAA Real Estate Account are expected to continue. A sell signal is not imminent.

iM's Business Cycle Index (BCI)

Date	11/03	11/10	11/17	11/24	12/01
BCIp	100.0	100.0	100.0	100.0	96.1
BCI	211.3	211.4	212.9	213.0	212.5
BCIg	14.3	14.1	14.4	14.5	14.5

BCIp, BCI and BCIG
updated to December 01, 2016

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



On past performance, when BCIp moved from above to below 25 a recession followed, on average, 20 weeks later

On past performance, when BCIG moved from above to below zero a recession followed, on average, 11 weeks later

BCIp

5 day average of S&P 500

BCI

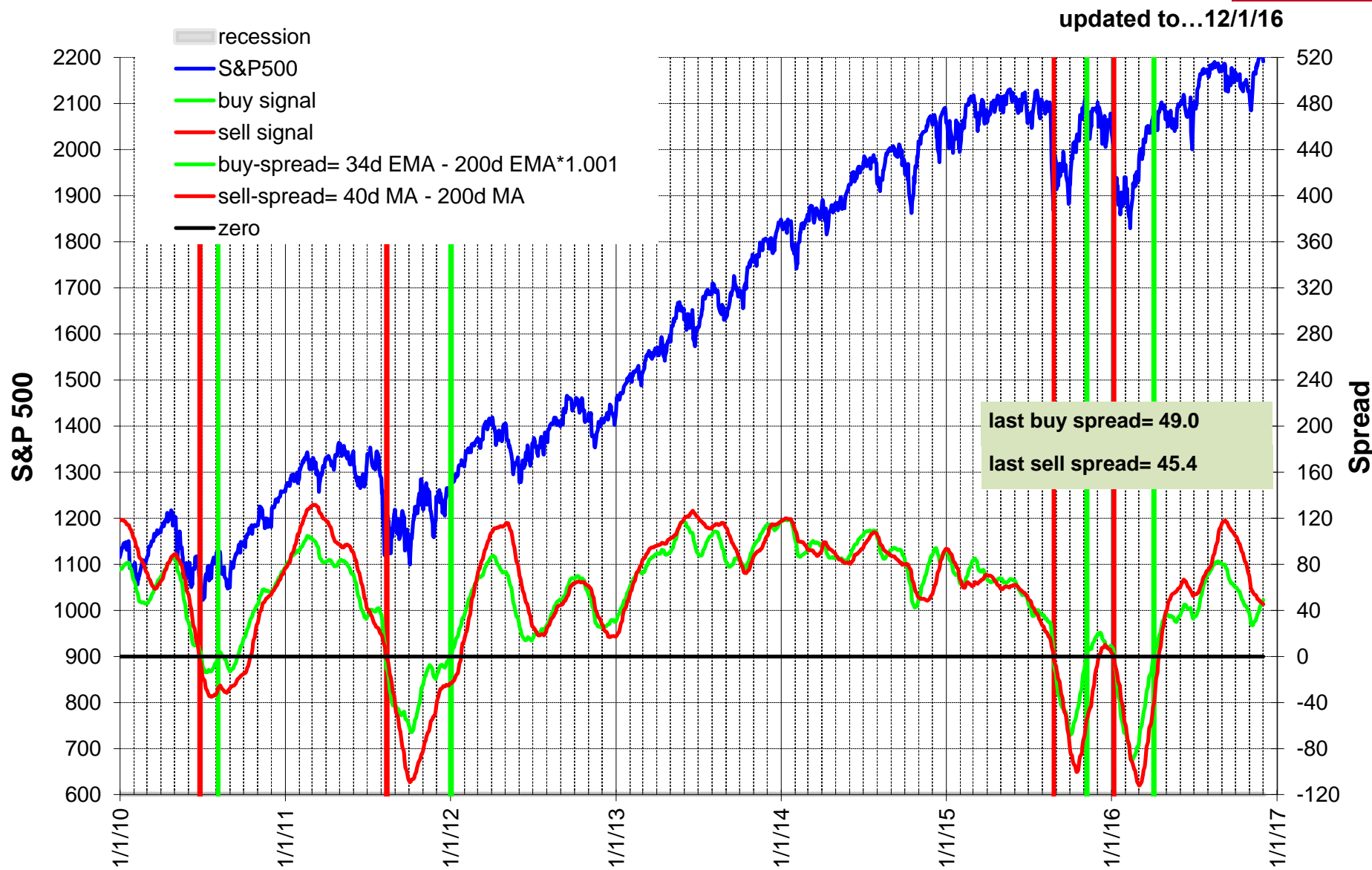
BCIG

BCIp : The BCI in off-peak-mode

BCIg : the growth of BCI and BCIG is added to it

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

Figure 2: Buy and Sell signals for S&P 500 2010-16 from the modified golden-cross MAC-System



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



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

updated to Dec-2-16
last sell spread= 156.6

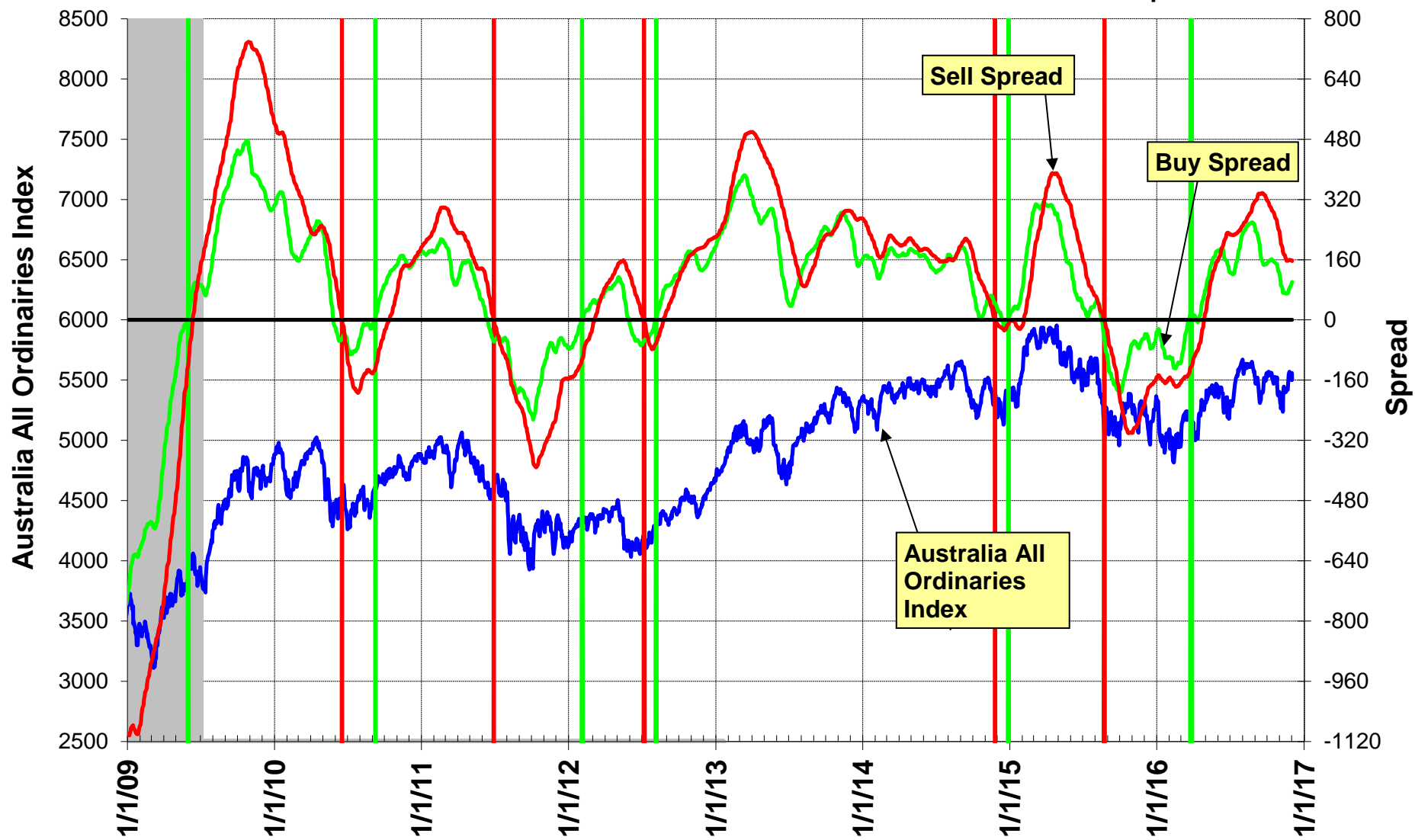
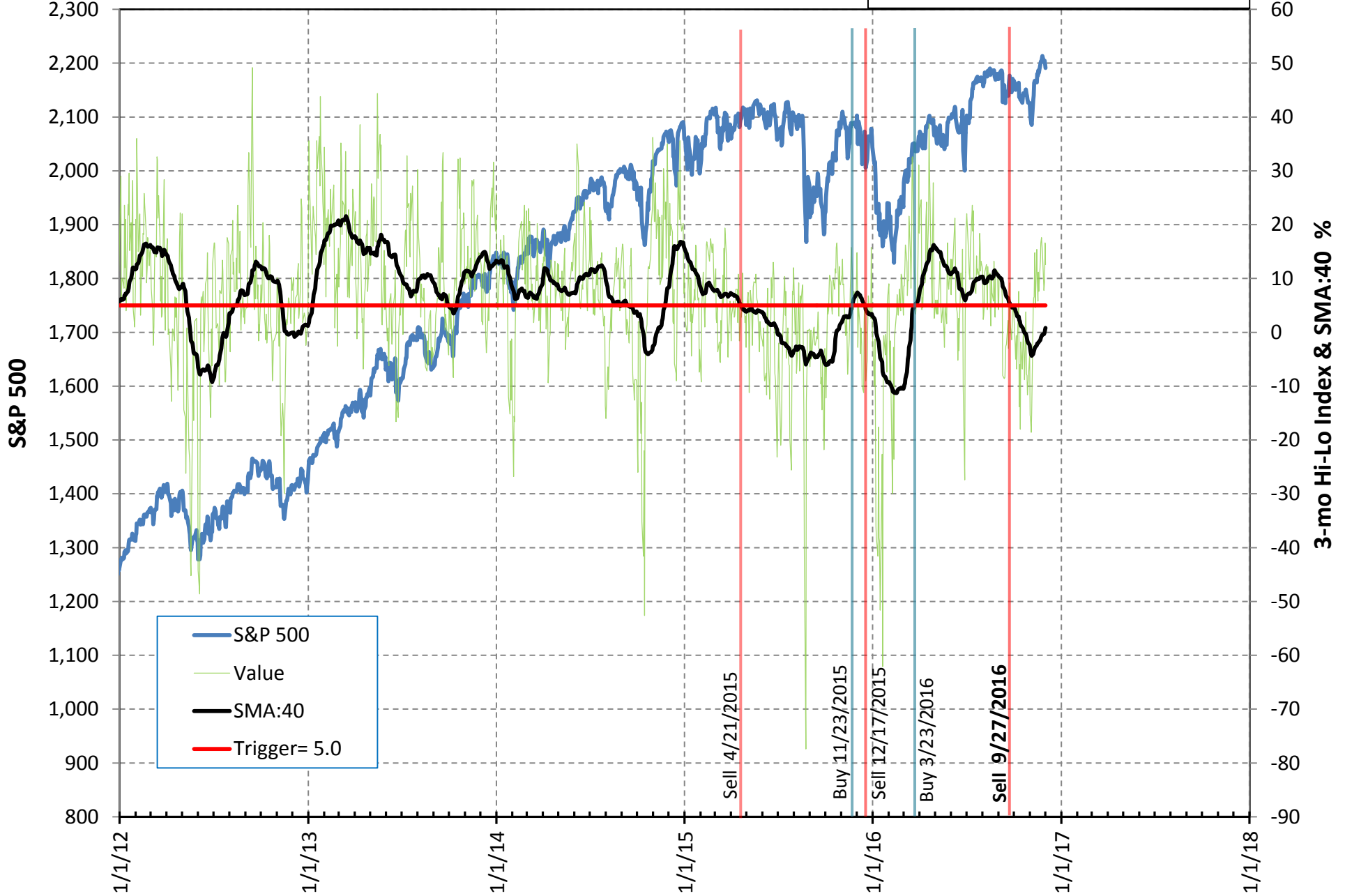


Fig 2.2 3-mo Hi-Lo Index of the S&P500 & 40-day SMA of Index

updated to 12/1/2016

last SMA:40= 0.82%



Market Timer based on Performance of Vanguard Market Neutral Fund VMNFX vs. SPY

updated to 11/28/2016

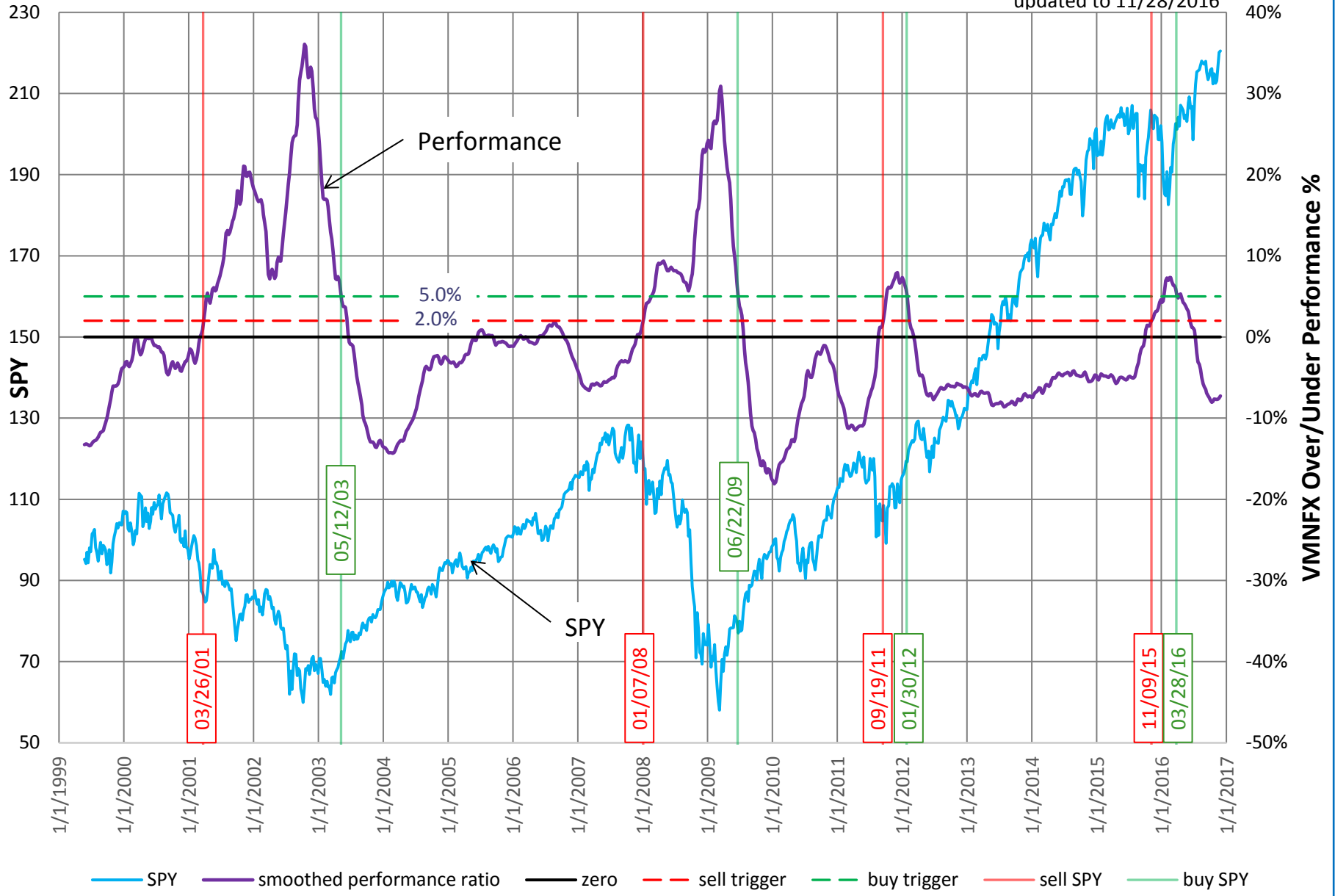


Fig. 3: COMP Leading Indicator of US Economy 1969-2016

- recession
- COMP
- last COMP level
- recession trigger

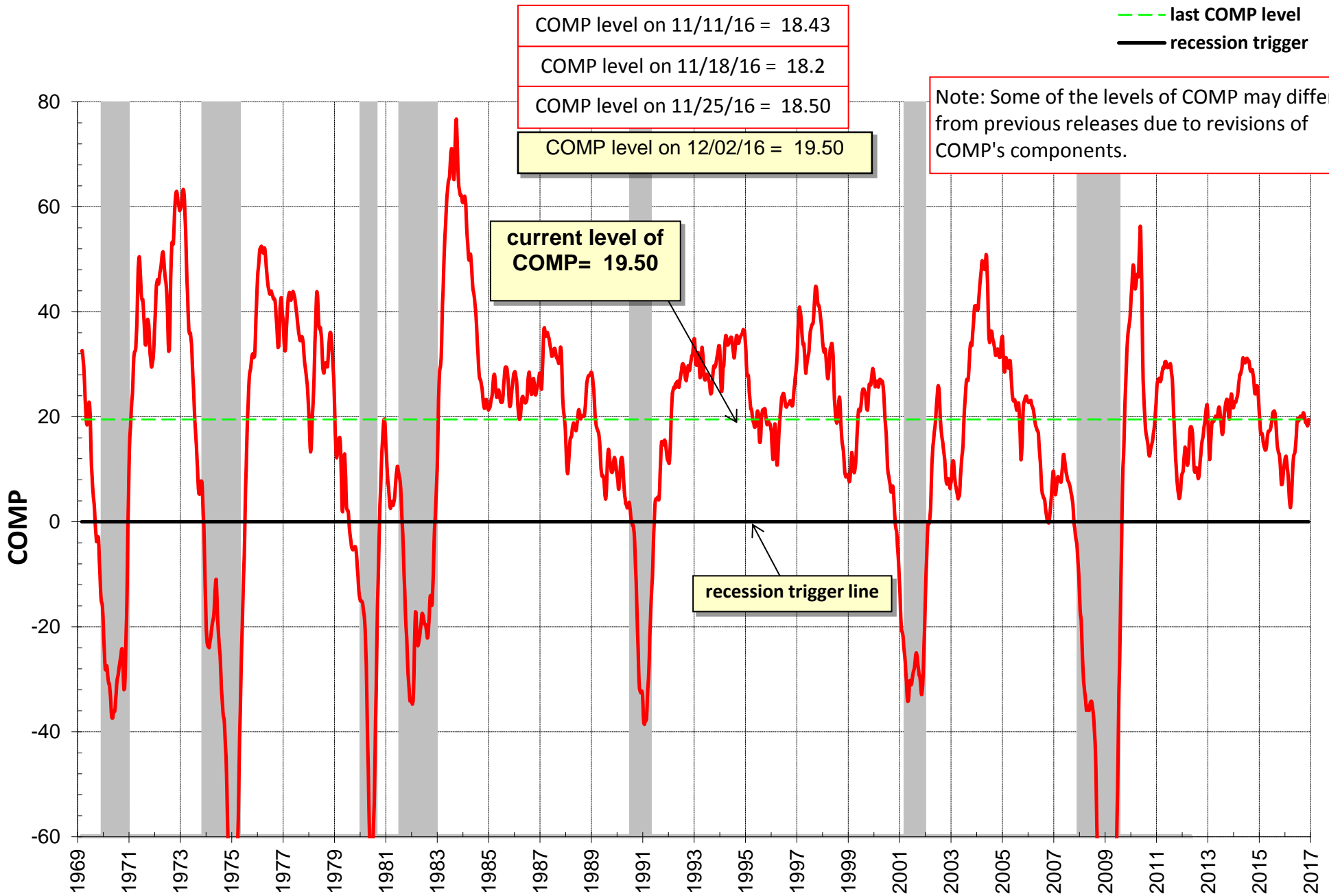


Fig 3.1: iM-BCI_g 1969-2016

- recession
- iM-BCI_g
- end level
- recession trigger

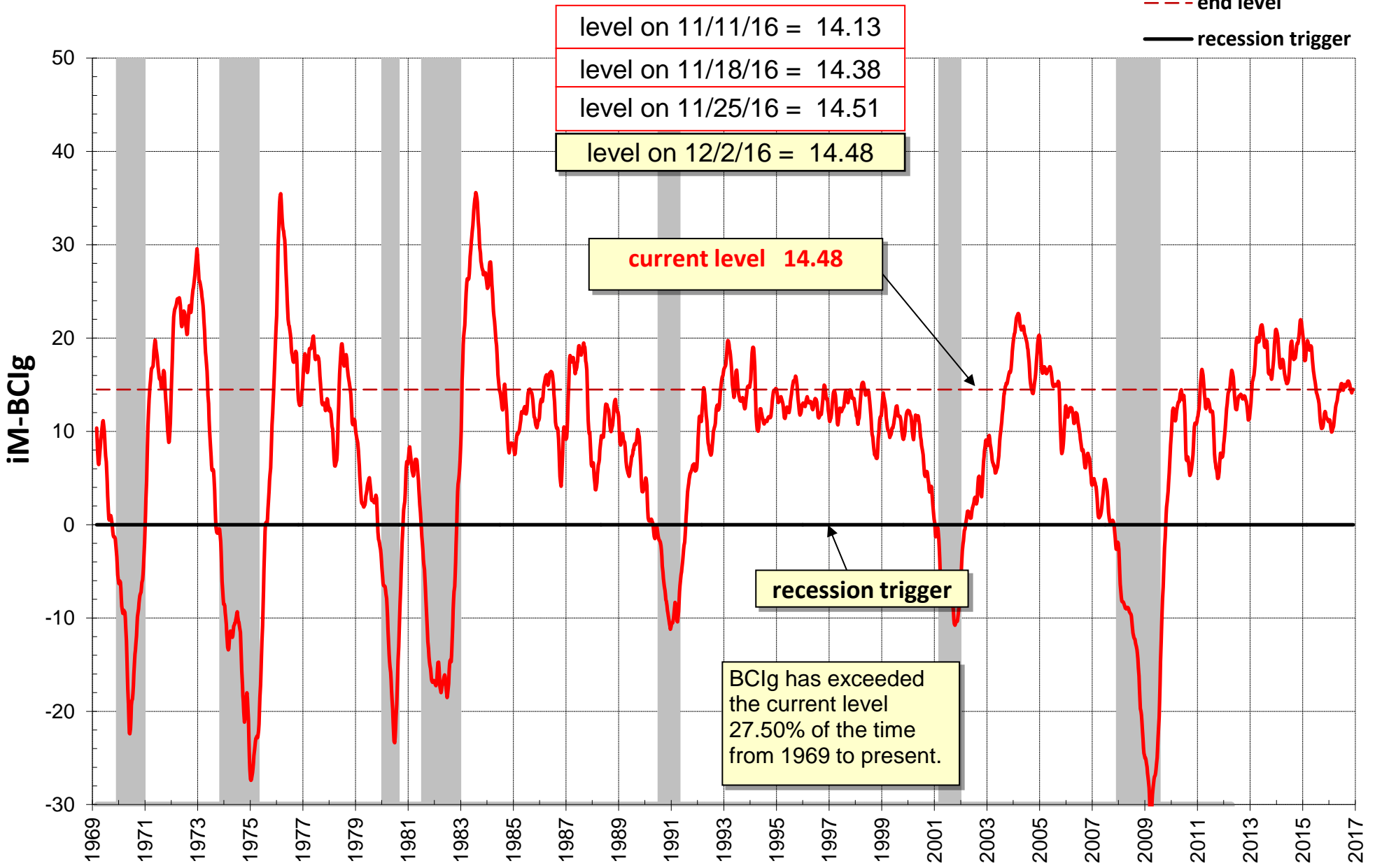


Figure 3.2: Forward Rate Ratio FRR2-10 - leads to Recessions

updated to 12/01/2016
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

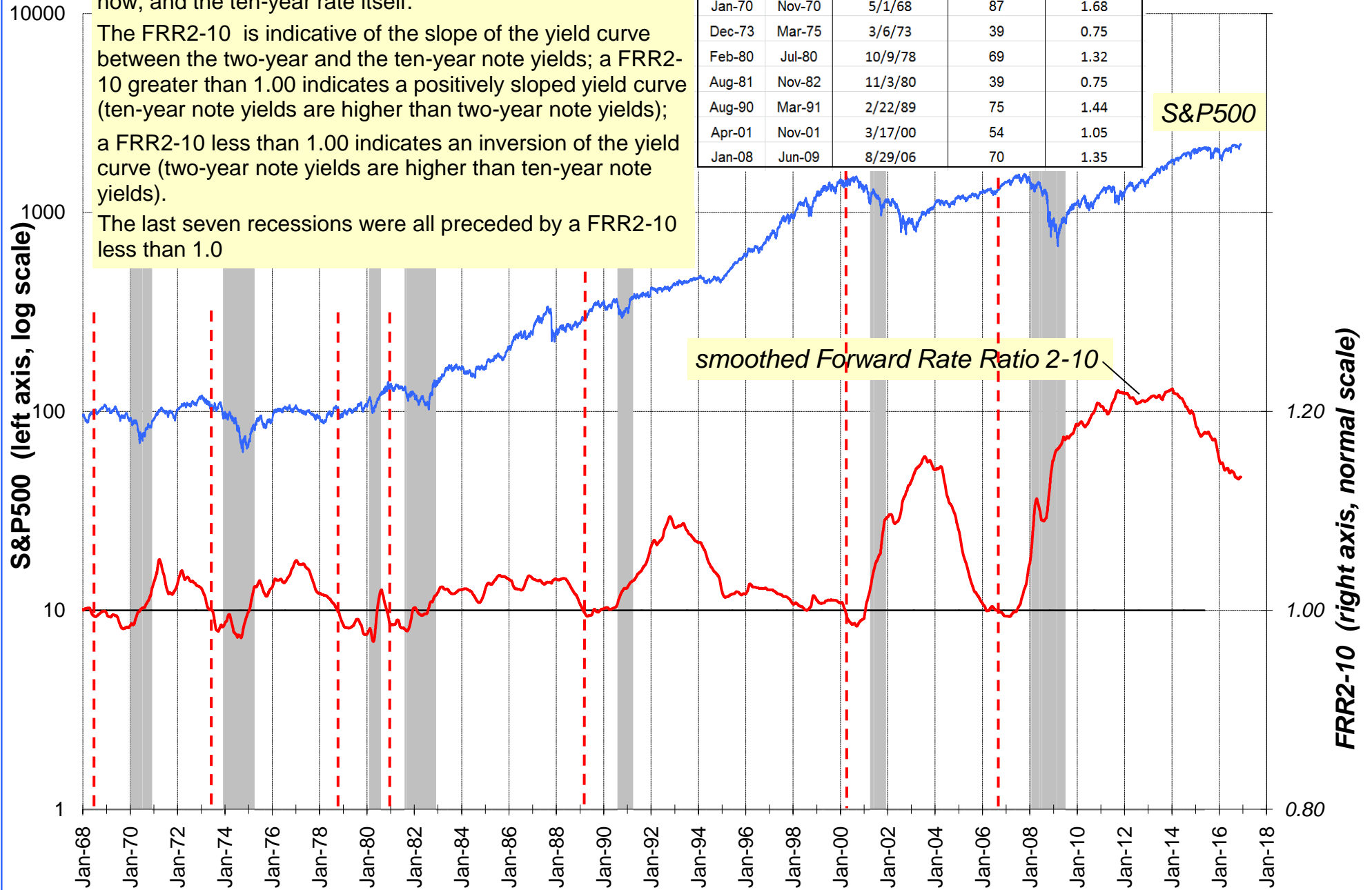


Figure 4: Bond Value Ratio (BVR) from 2005 to 2016

Model updated to: 9/26/2016 BVR = 5.942

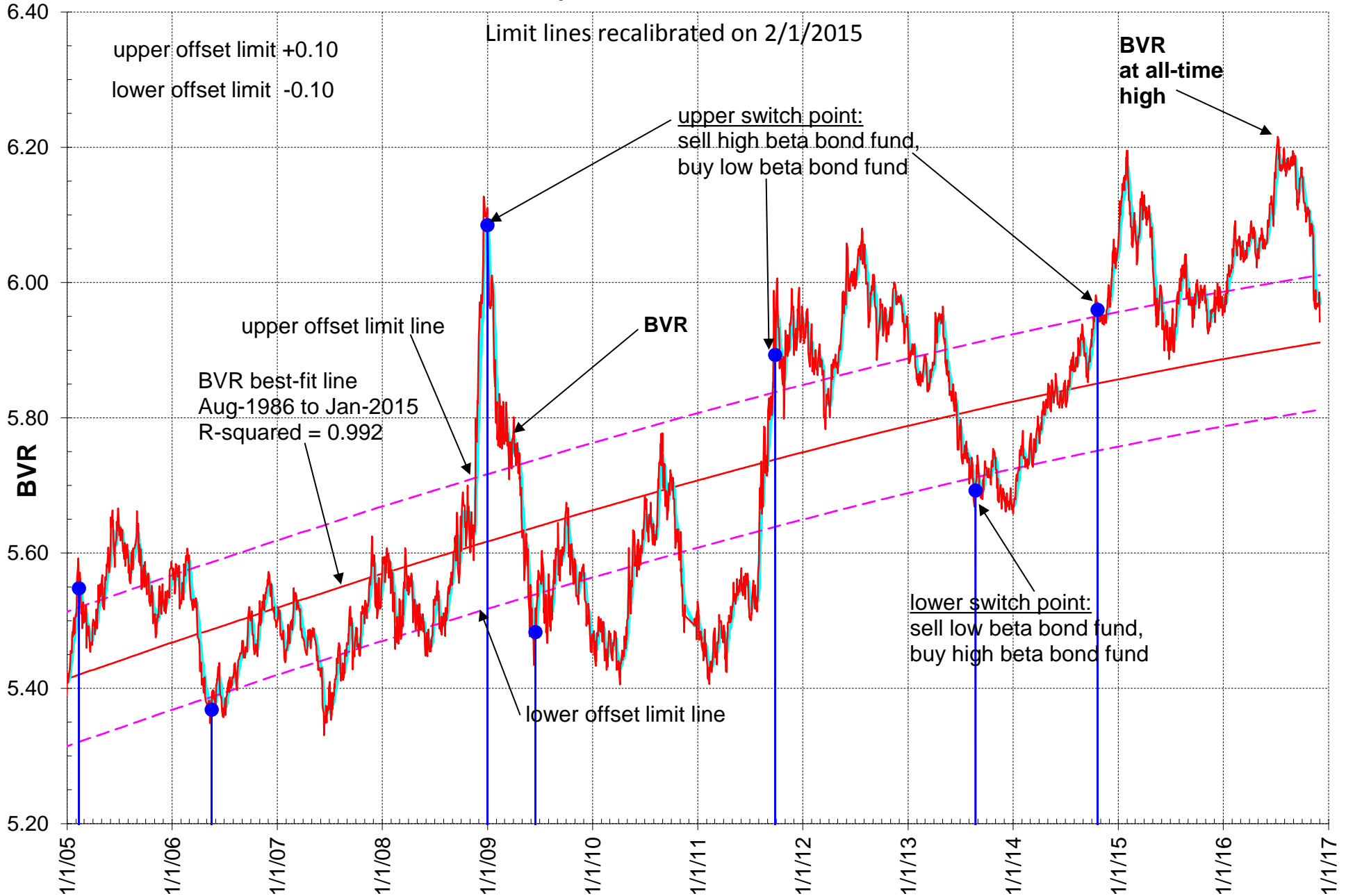


Figure 5: i10 - i2 Updated to.....12/1/16

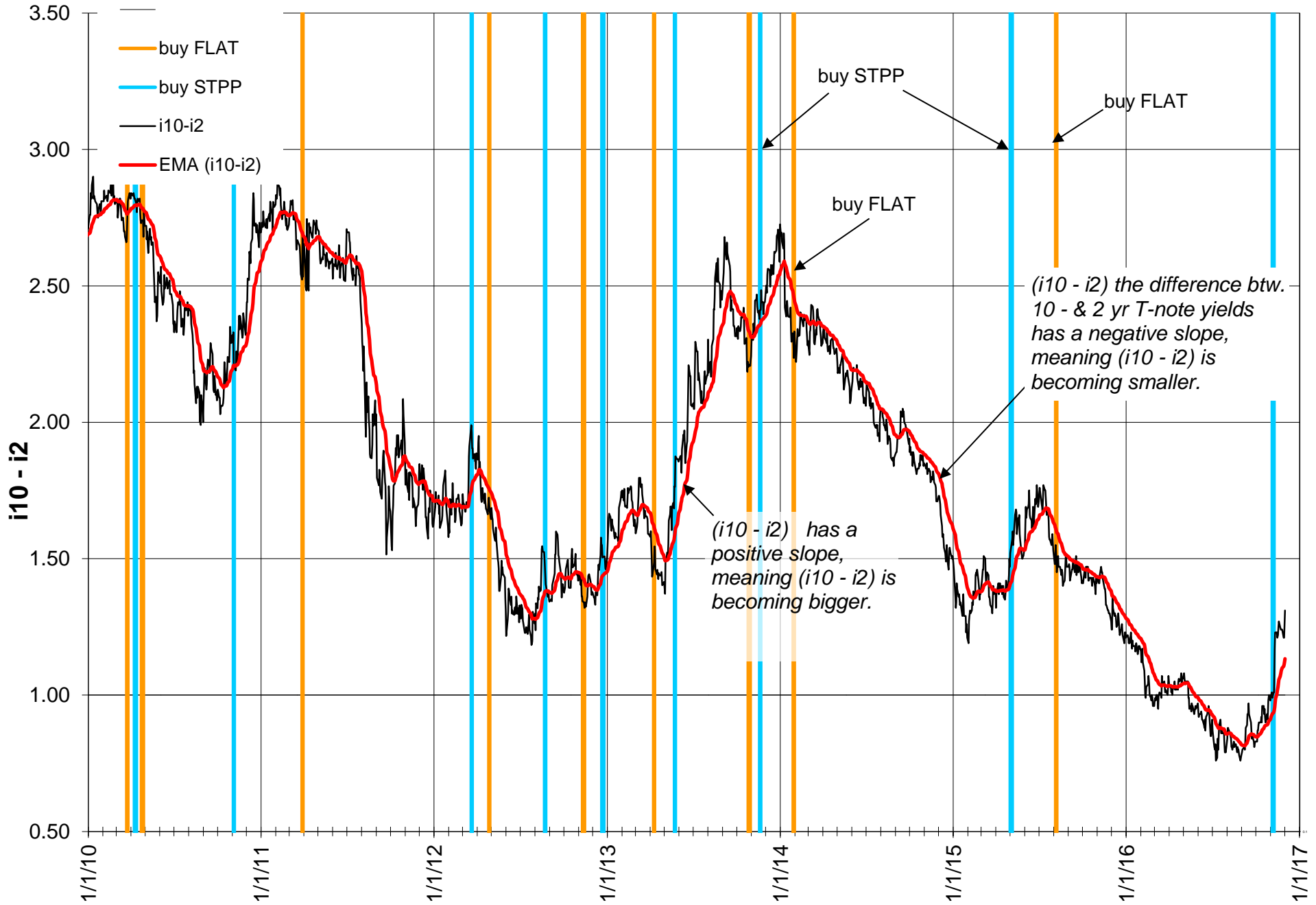


Figure 6: Modified Coppock Indicator for Gold 2009-2016

updated to 12/02/2016

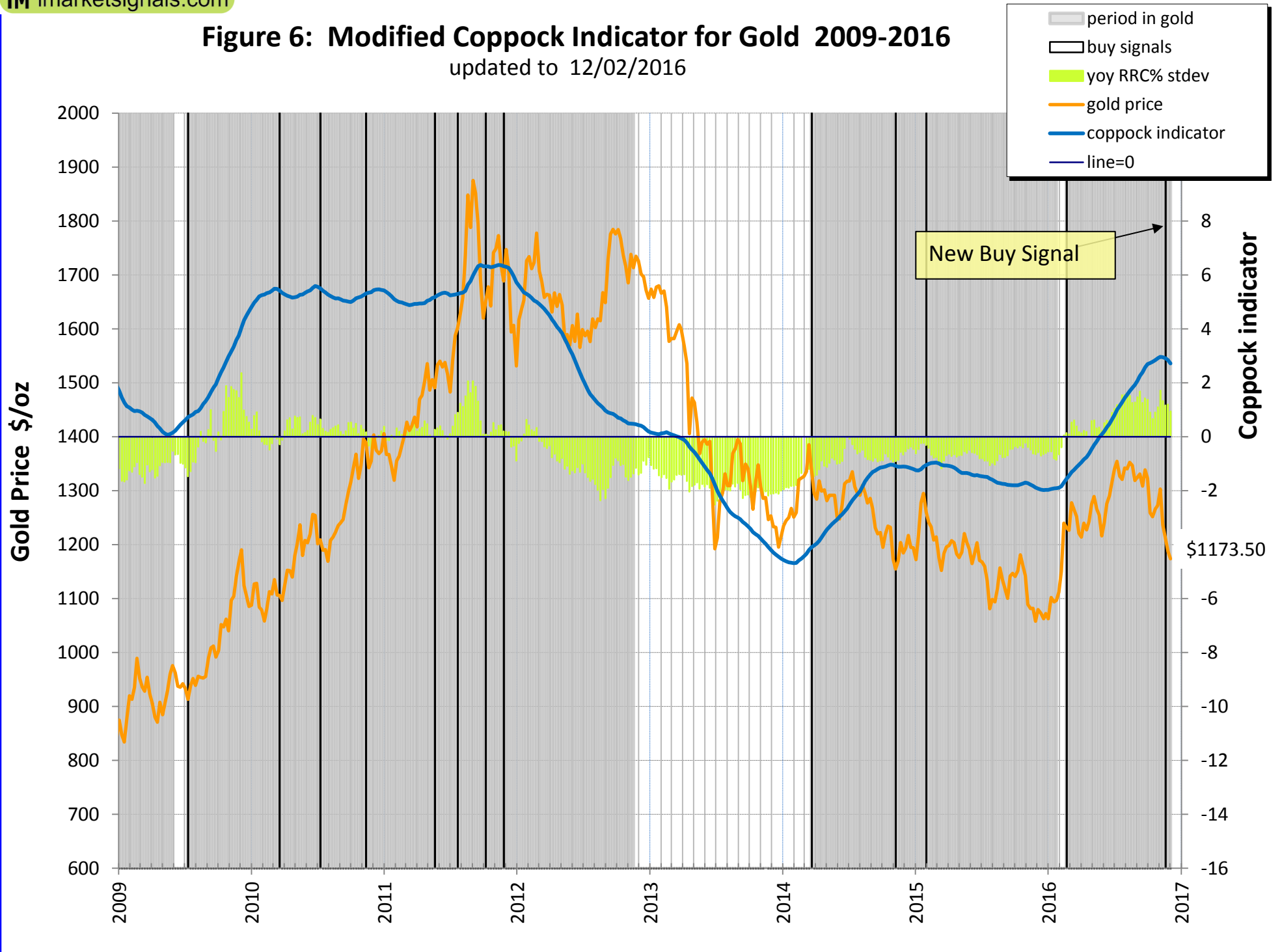


Fig. 6.1 iM GOLD-TIMER

Updated to: 12/1/2016

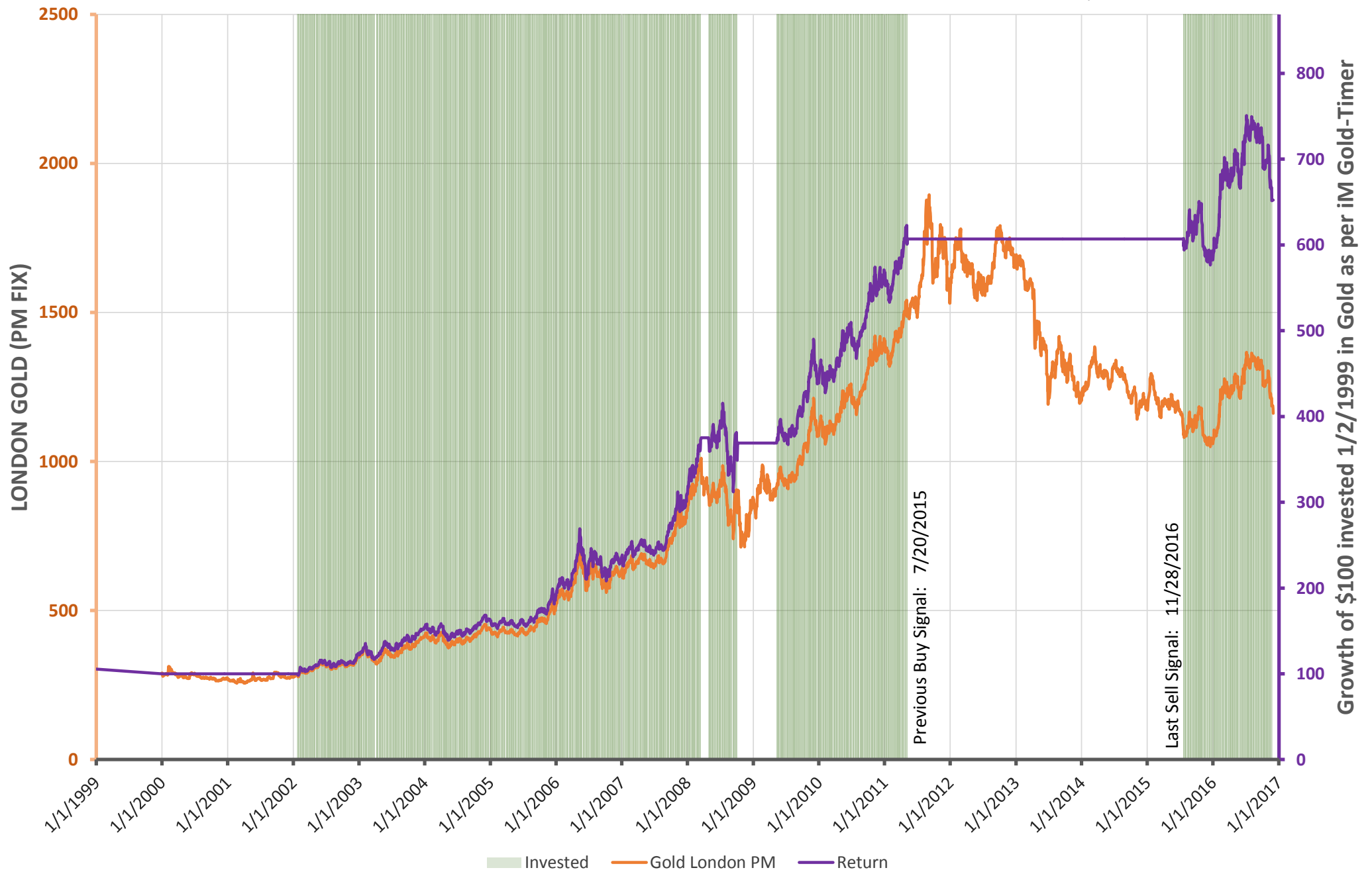


Figure 7: Modified Coppock Indicator for Silver 2009-2016

updated to 12/02/2016

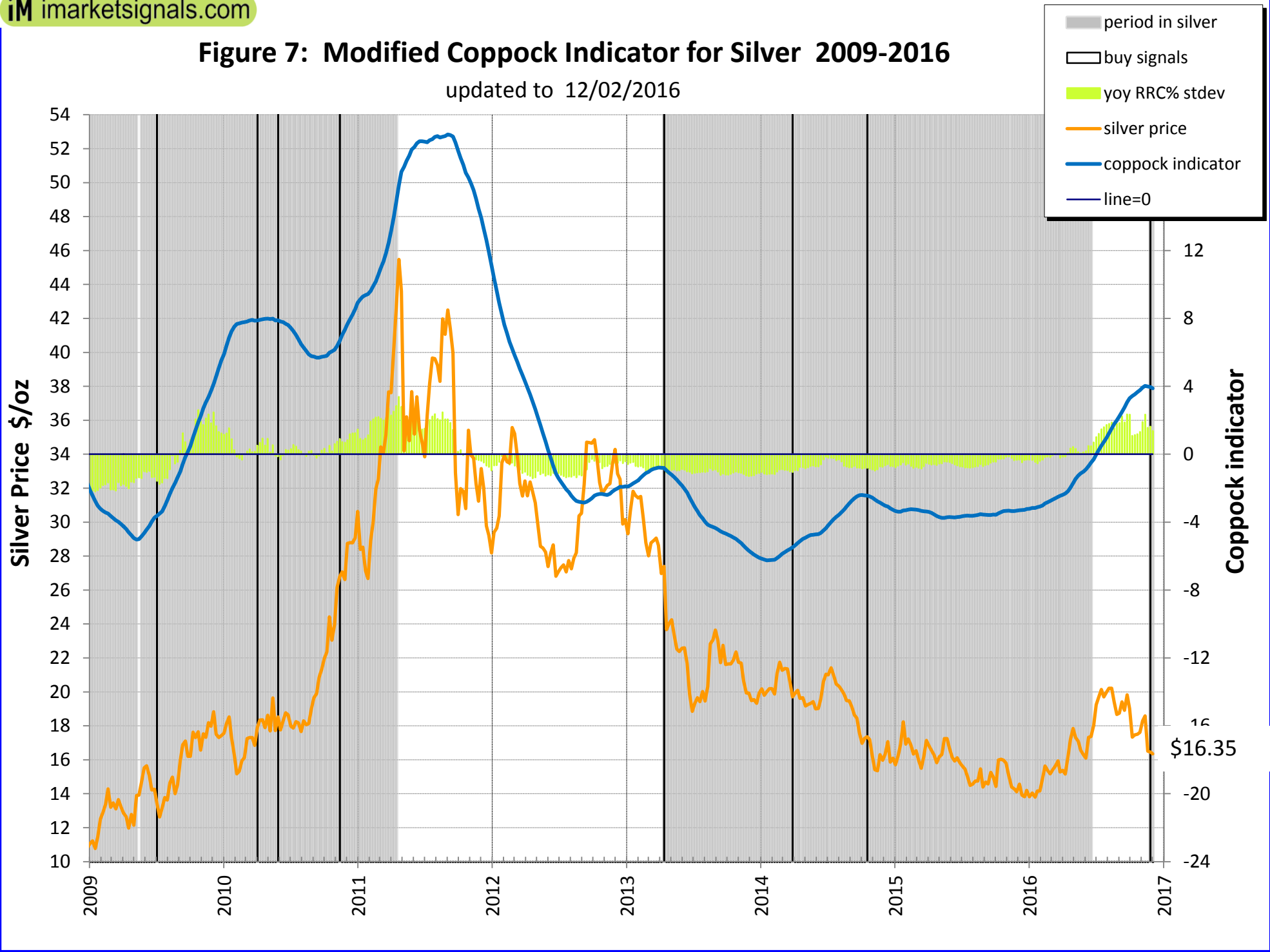
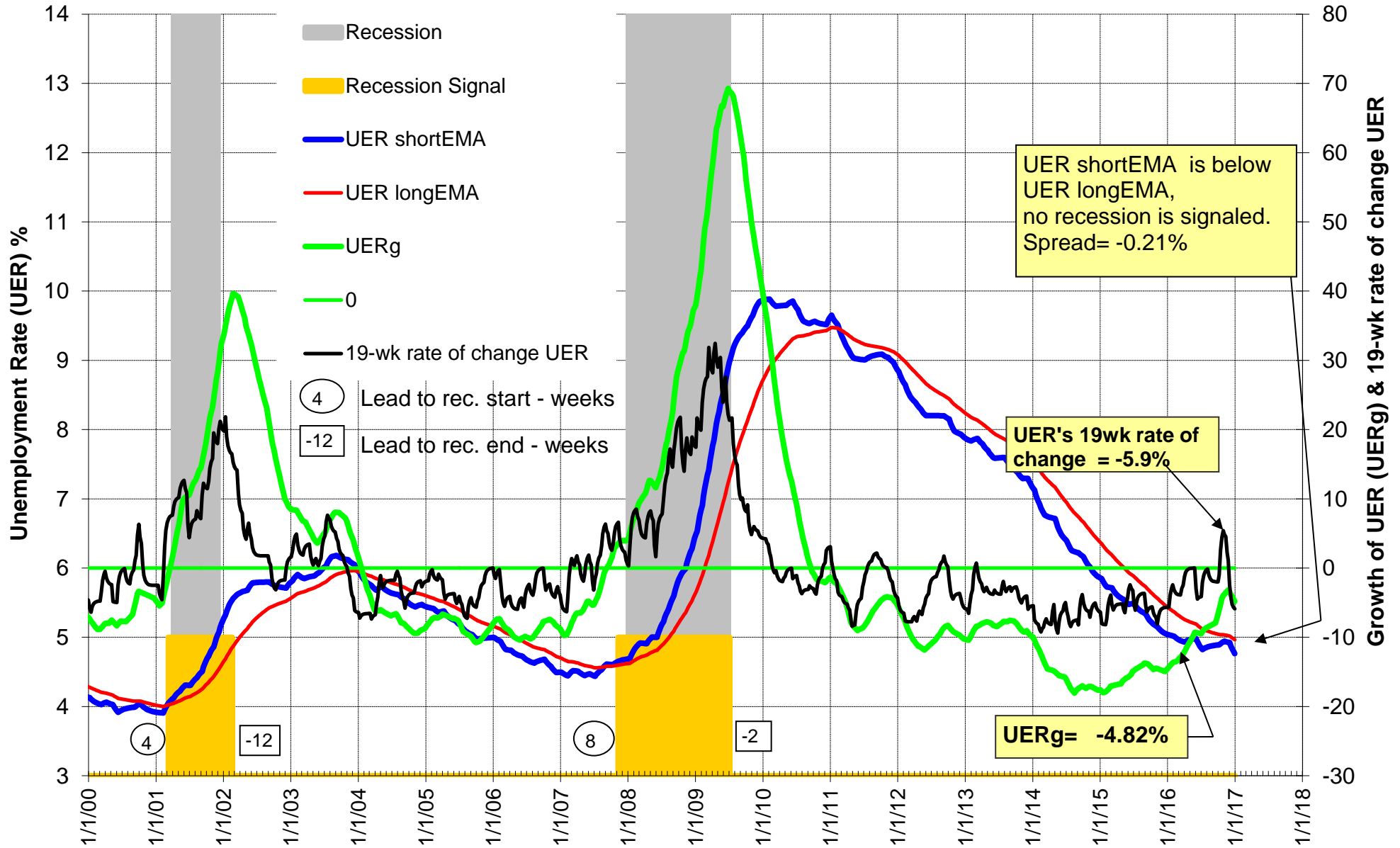


Fig-8 Unemployment Rate and Recessions (real-time) 2000-2016

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

updated to 12-30-2016 with November UER= 4.6%



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 September 2017

updated on December-2-2016, last level of DAGS = 11

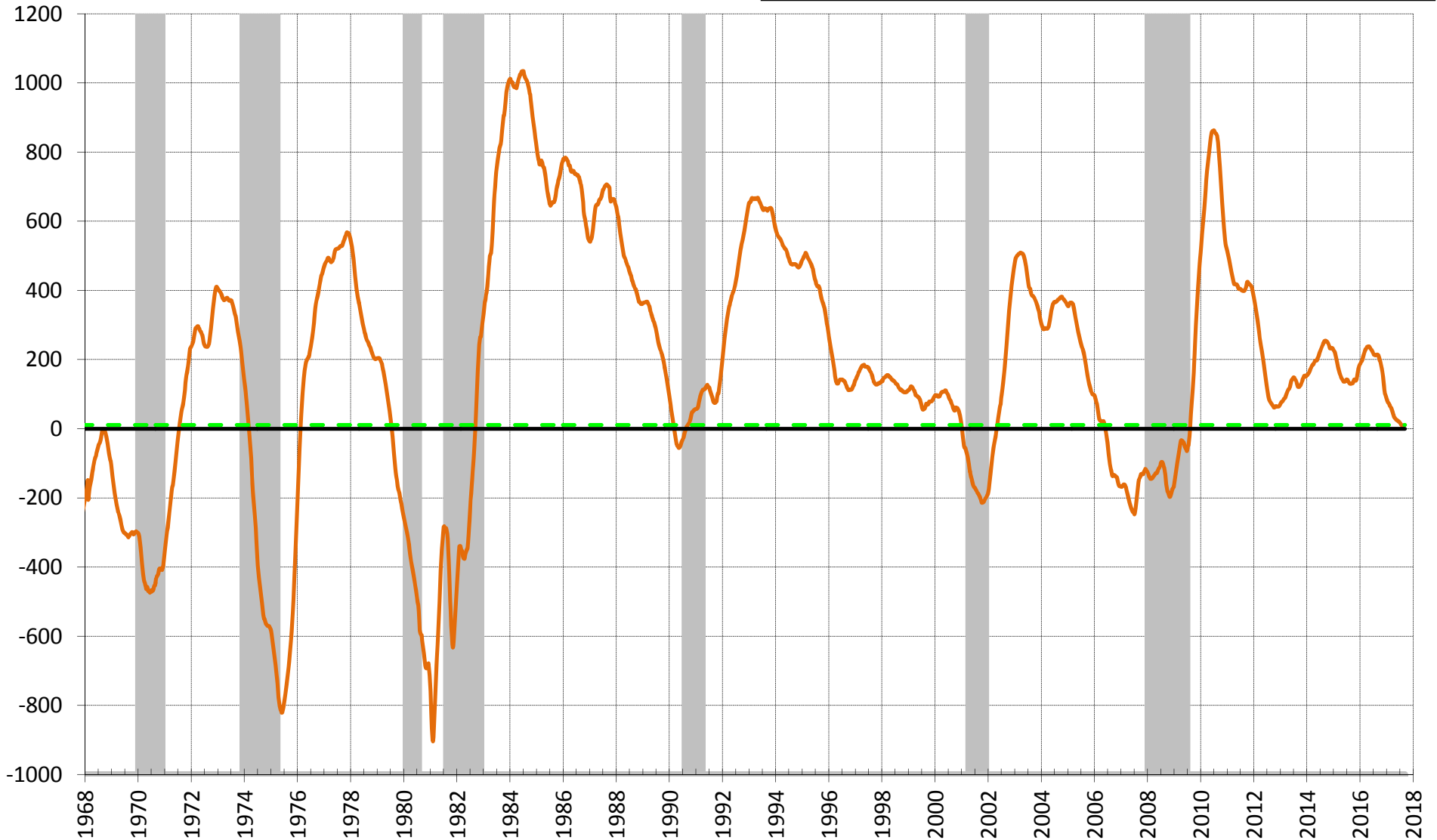
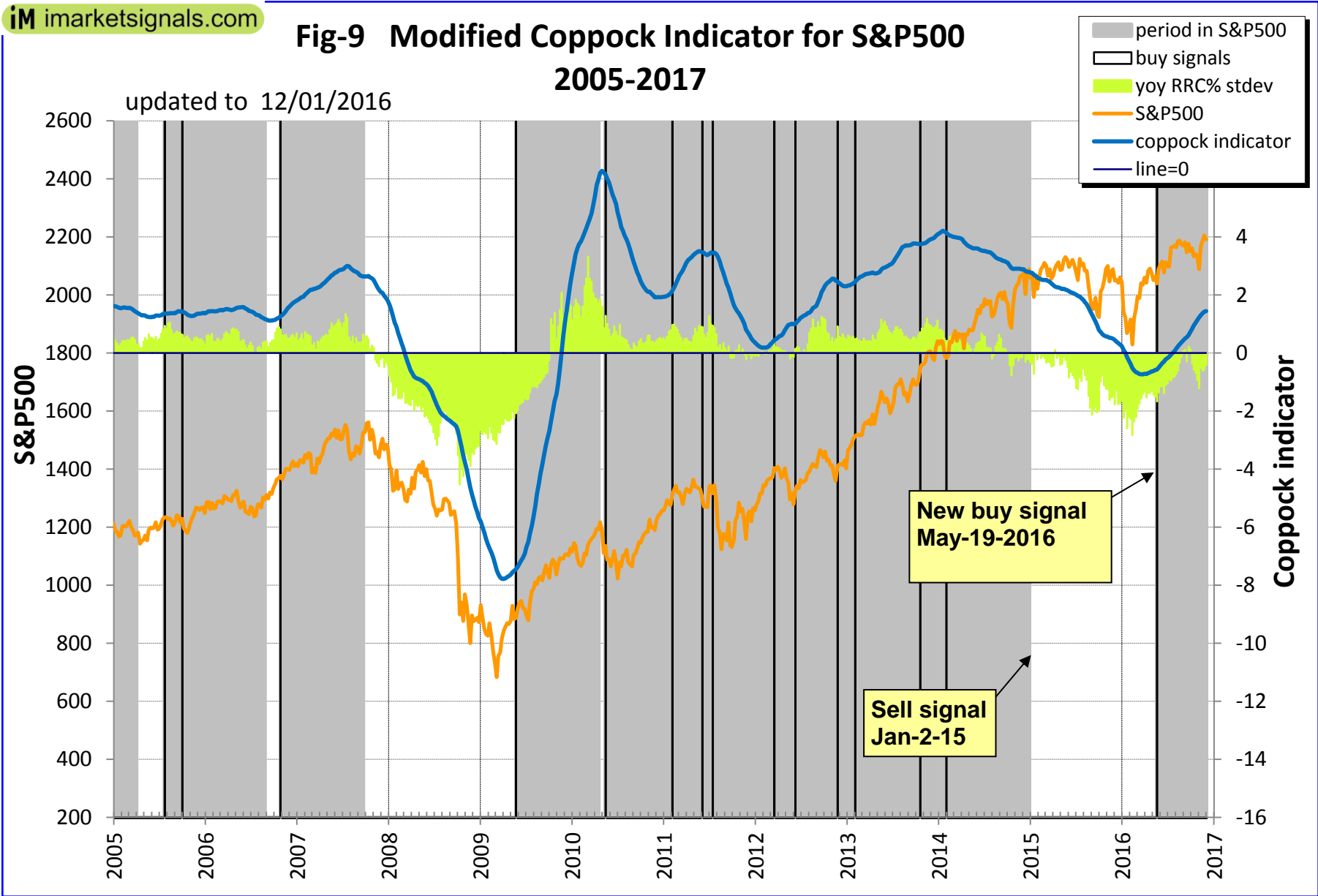


Fig-9 Modified Coppock Indicator for S&P500 2005-2017

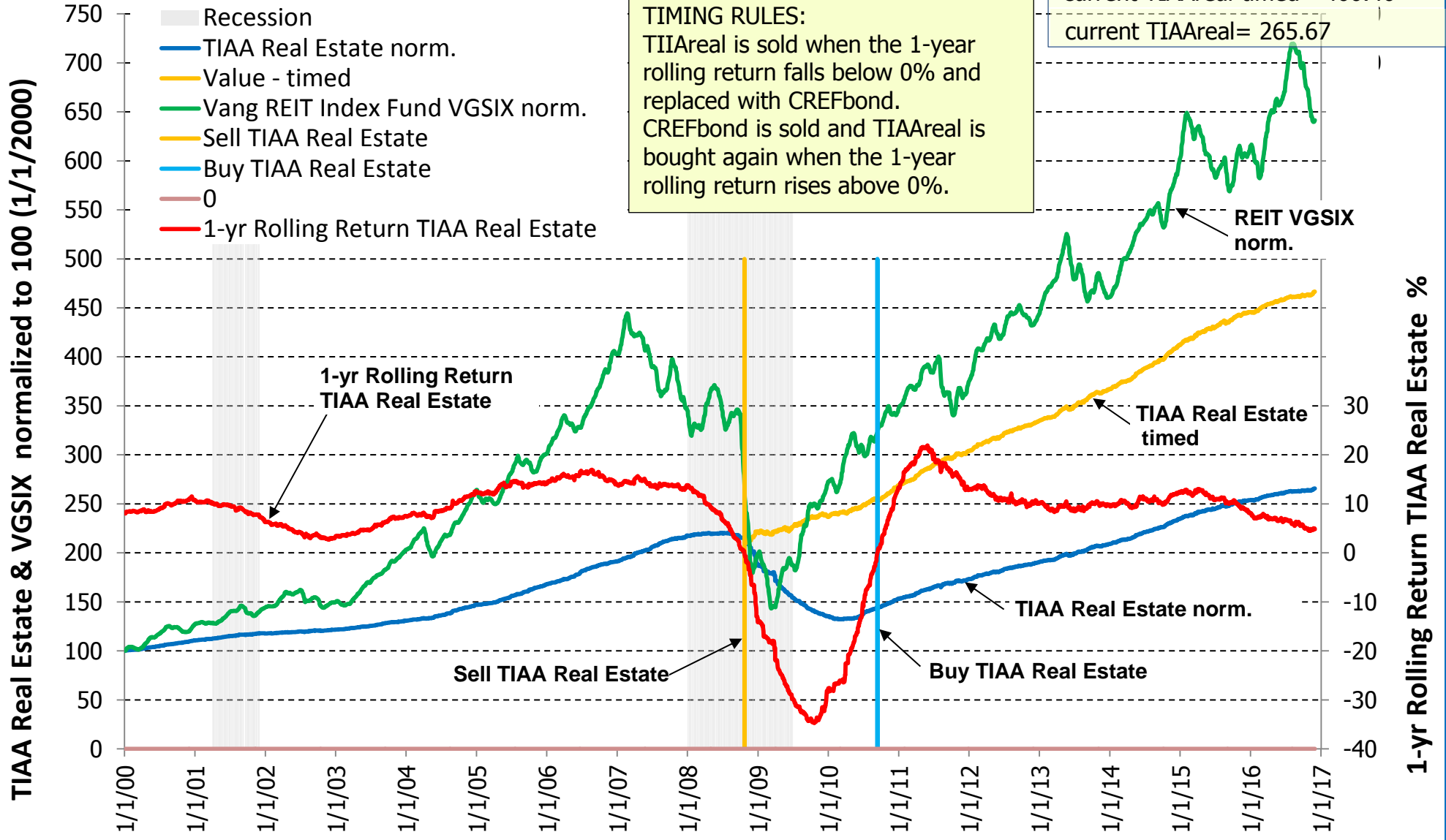


TIAA Real Estate Account vs. Vanguard REIT Index Fund (VGSIX) 2000 - 2016

updated to 11/30/16, TIAAreal current 1-year rolling return= 4.82%

current TIAAreal-timed= 466.46

current TIAAreal= 265.67



Updated to Nov 24, 2016

Trade Weighted US Dollar and Interest Rates

