

*March 9, 2017*

## Business Cycle Index

The BCI at 216.3 is above last week's 215.7, and for this Business Cycle is at a new high indicated by the BCIP at 100. Also, the 6-month smoothed annualized growth BCIg at 12.7 is above last week's downward revised 12.3.

No recession is signaled.

---

*March 10, 2017*

### 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 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 indeterminate. Both the gold and silver Coppock models are invested, as is the the iM-Gold Timer.

### 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 11.11% (last week 10.08%) 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 up from 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<sub>g</sub> 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 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 was rising since September 2016 is seemingly halted for now with an indeterminate trend. A buy FLAT signal was generated on 2/8/2017. 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 Rev-1 generated a buy signal earlier this week, and thus the model is back in gold.

### **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: March, 2017* (next update April 7, 2017)

### **Unemployment**

The unemployment rate recession model (article link), has been updated with the February UER of 4.7%. 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 increased to -5.74% (previous at -6.09%) and EMA spread of the UER is -0.14% (previous at -0.15). Here is the link to [the full update](#).

### **The Dynamic Linearly Detrended Enhanced Aggregate Spread:**

On January 20, 2017, our long leading recession indicator [DAGS](#) signaled an oncoming recession near/after October 2017. Based on past history a recession could start at the earliest in 6 months, but not later than 28 months from now. The average lead time to previous recessions provided by DAGS was 15 months.

### **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](#).

### **CAPE-Cycle-ID**

Fig 9a depicts the CAPE-Cycle-ID and the year-on-year rate-of-change of the Shiller CAPE. A model using this indicator invests in the market when the Cycle-ID is +2 or 0, and when the Cycle-ID equals -2 the model is in cash. This indicator is described [here](#).

### **Trade Weighted USD**

The rise of the TW\$ value seems to be halted for now, the 6 month moving average is increasing.

### **TIAA Real Estate Account**

The 1-year rolling return for the end of last month is 4.92%. A sell signal is not imminent.

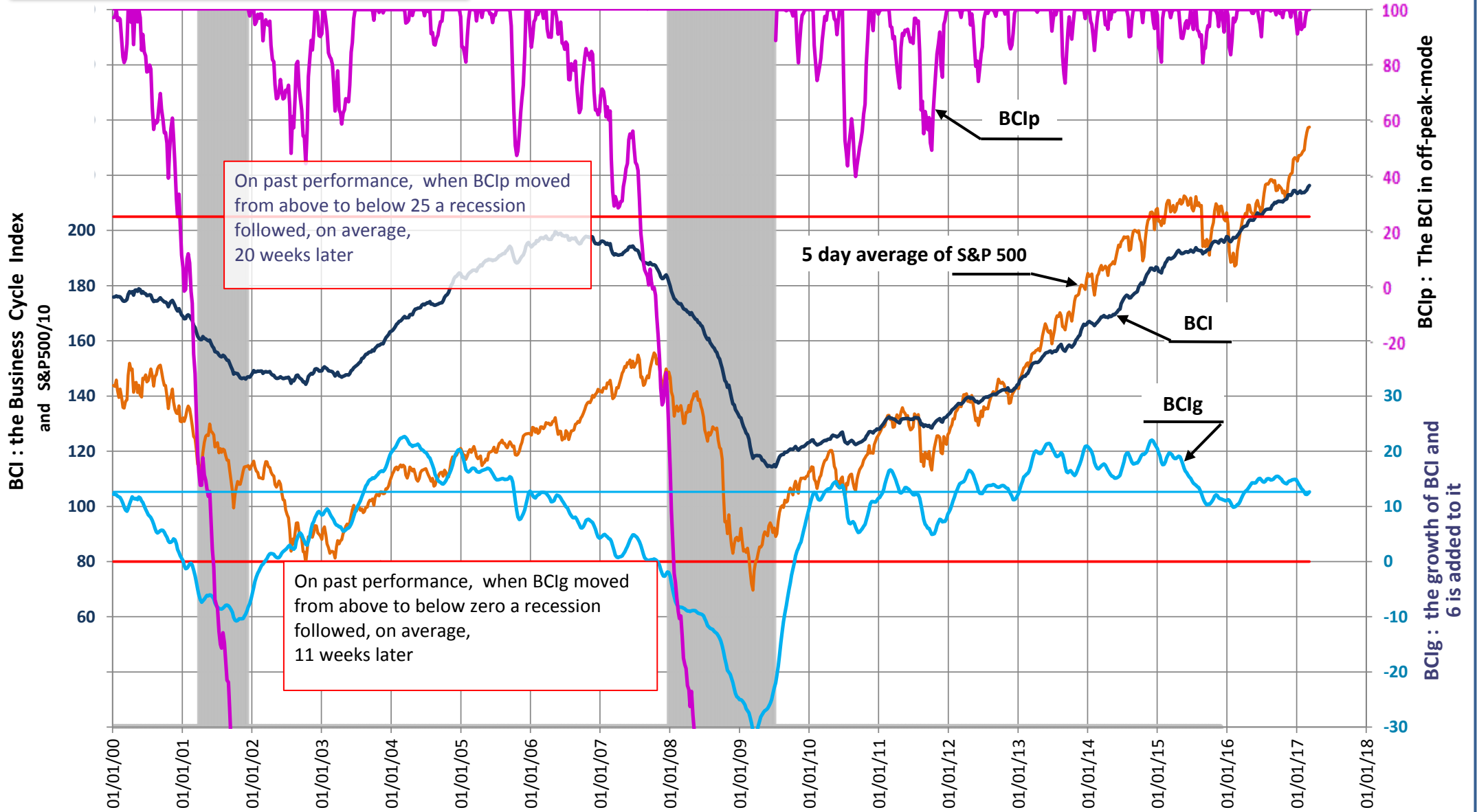
---

# iM's Business Cycle Index (BCI)

Date	02/09	02/16	02/23	03/02	03/09
BCIp	93.9	97.3	100.0	100.0	<b>100.0</b>
BCI	213.7	214.1	214.7	215.7	<b>216.3</b>
BCIg	12.6	12.2	12.2	12.3	<b>12.7</b>

BCIp, BCI and BCIG  
updated to March 09, 2017

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.

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

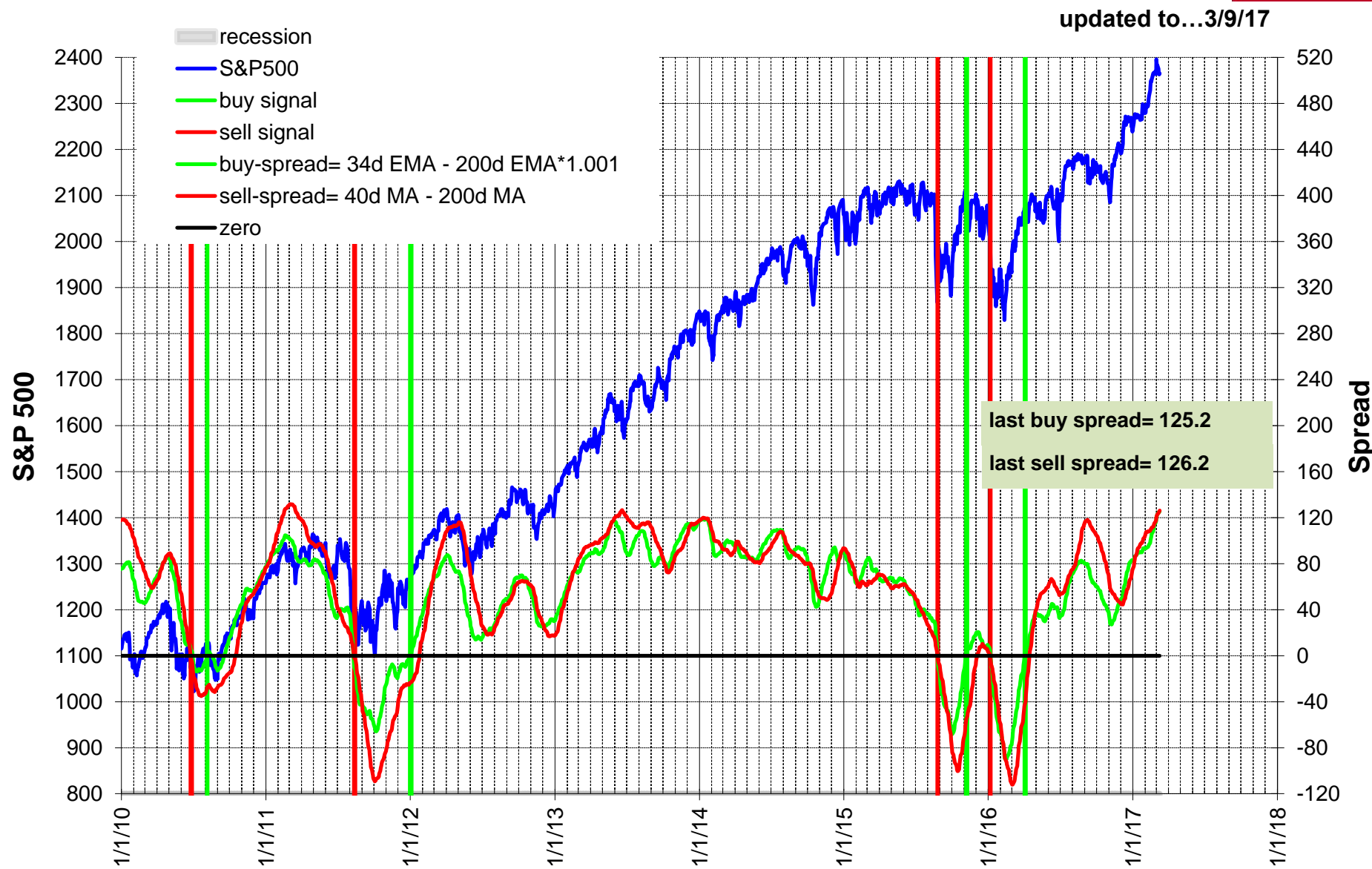


Fig 2.1: Buy and Sell signals for the Australia All Ordinaries Index from the MAC-AU System



updated to Mar-10-17  
last sell spread= 286.3

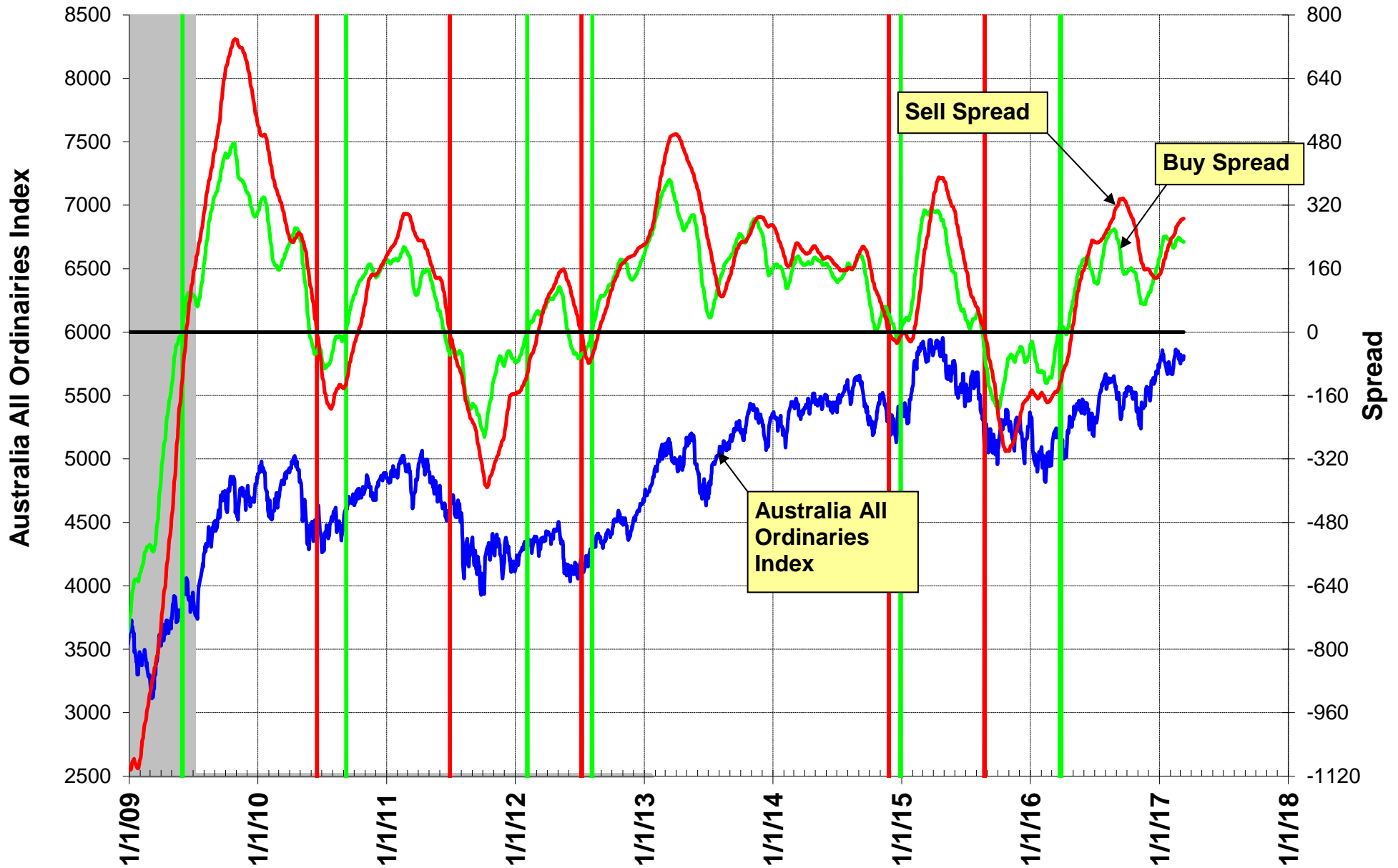
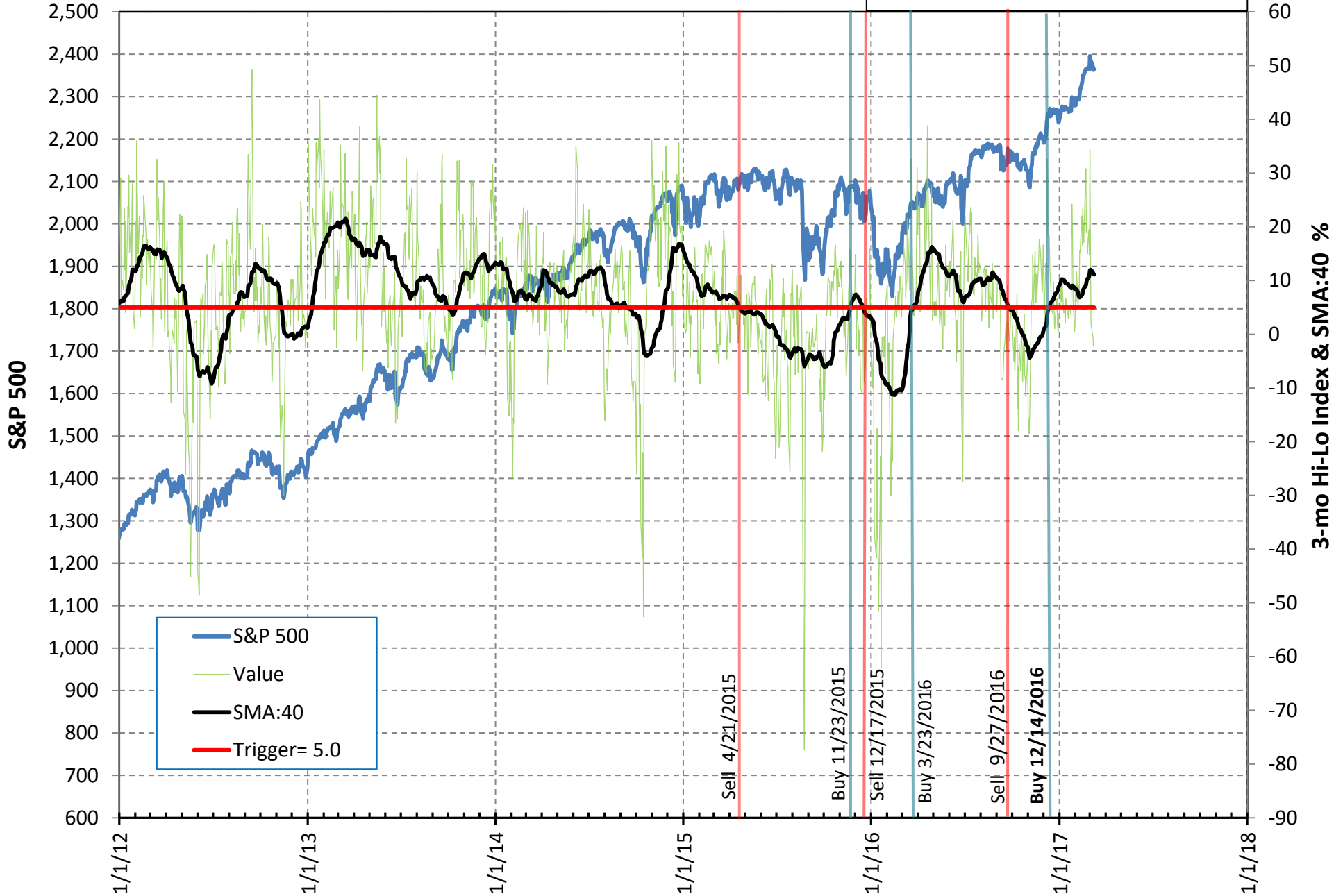


Fig 2.2 3-mo Hi-Lo Index of the S&P500 & 40-day SMA of Index

updated to 3/9/2017

last SMA:40= 11.11%



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

updated to 3/06/2017

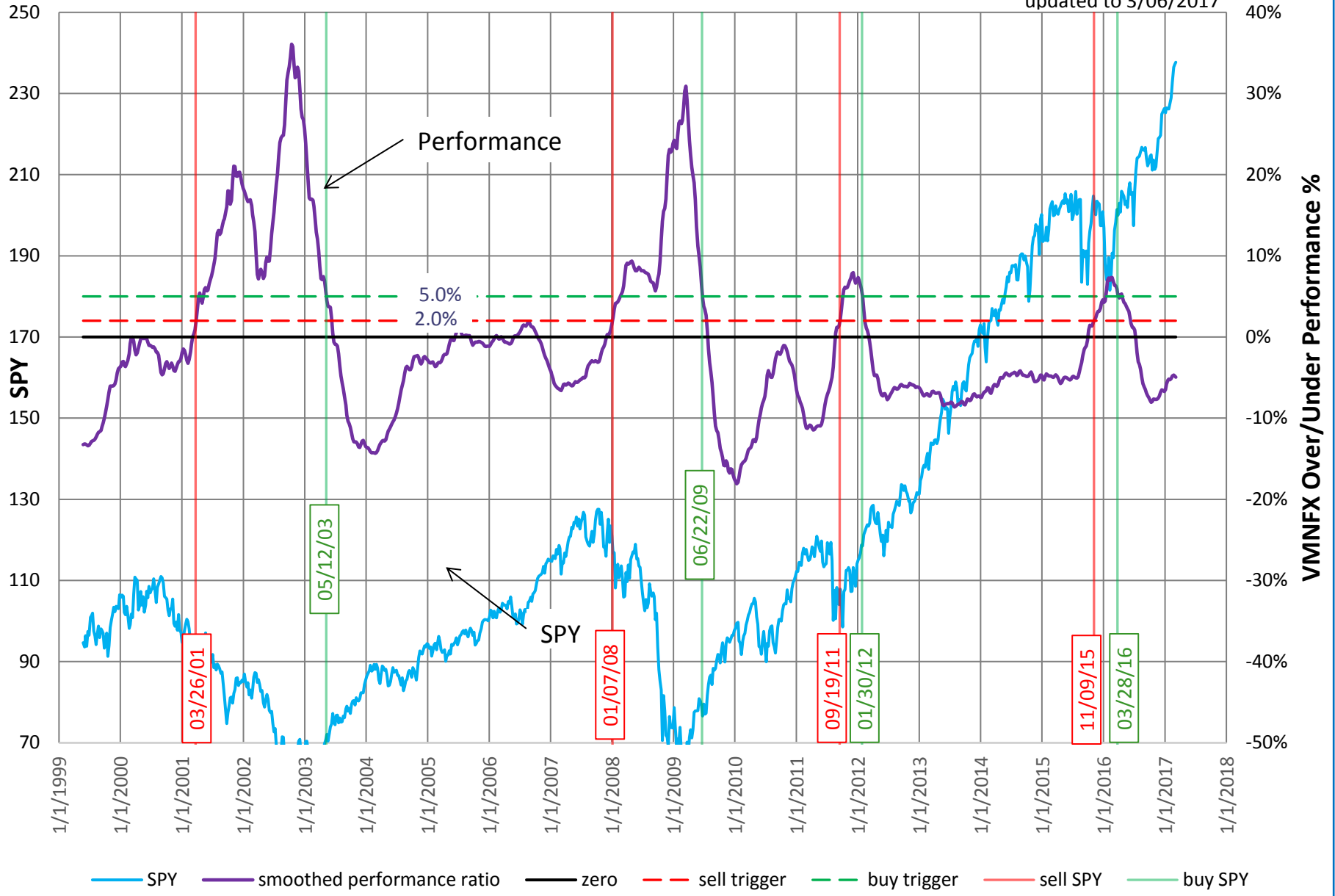
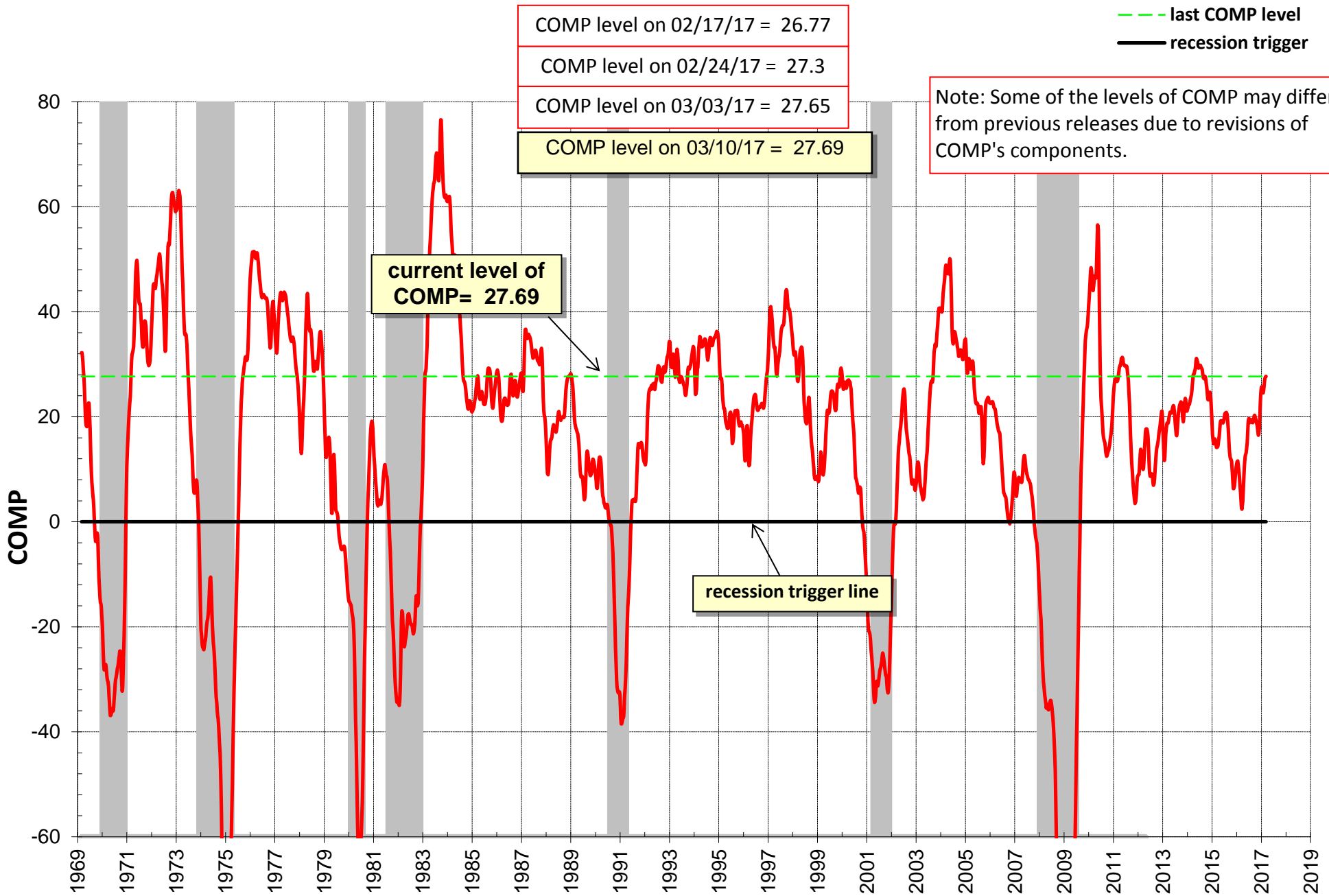


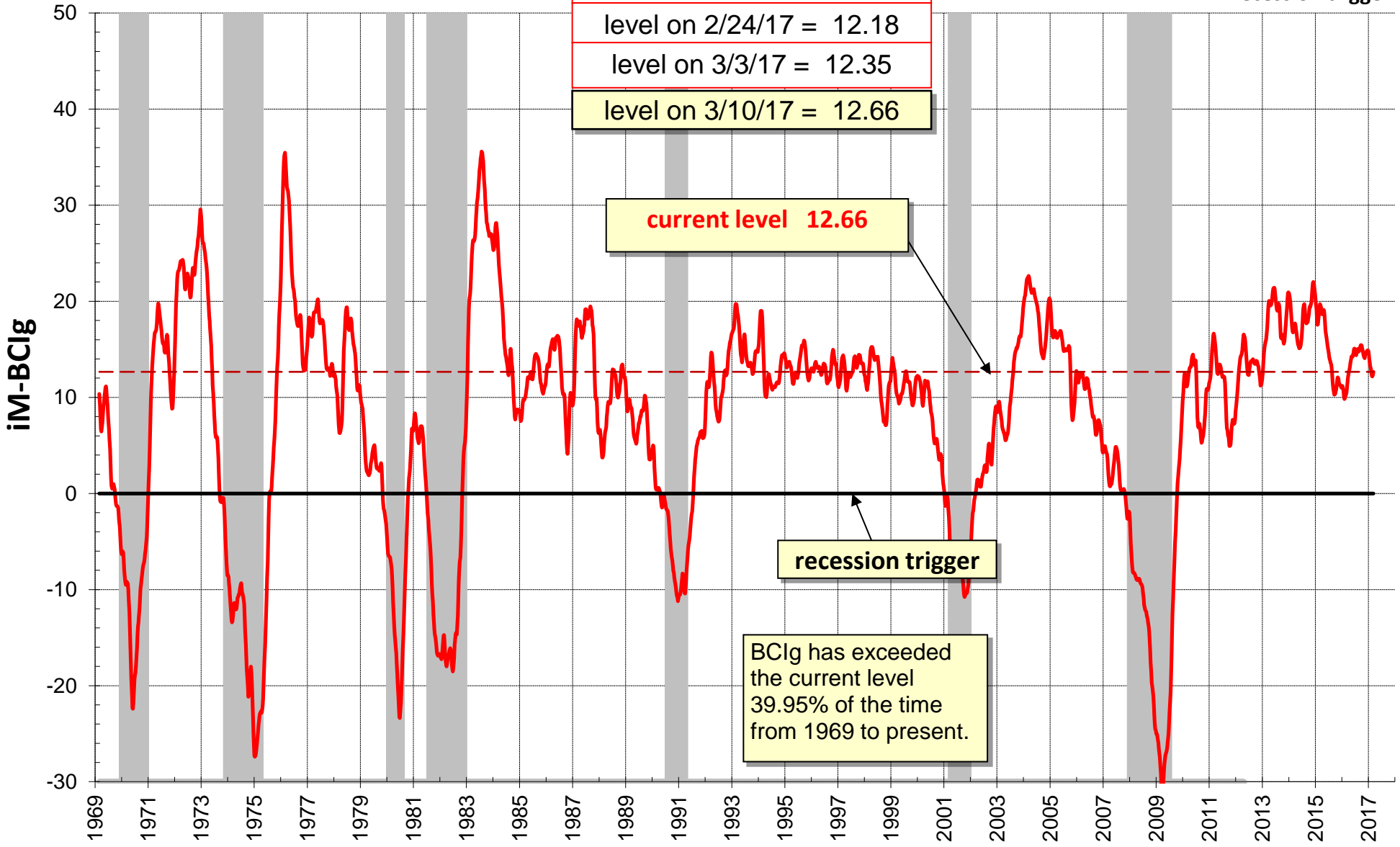
Fig. 3: COMP Leading Indicator of US Economy 1969-2016

- recession
- COMP
- last COMP level
- recession trigger



### Fig 3.1: iM-BCI<sub>g</sub> 1969-2016

- recession
- iM-BCI<sub>g</sub>
- end level
- recession trigger



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

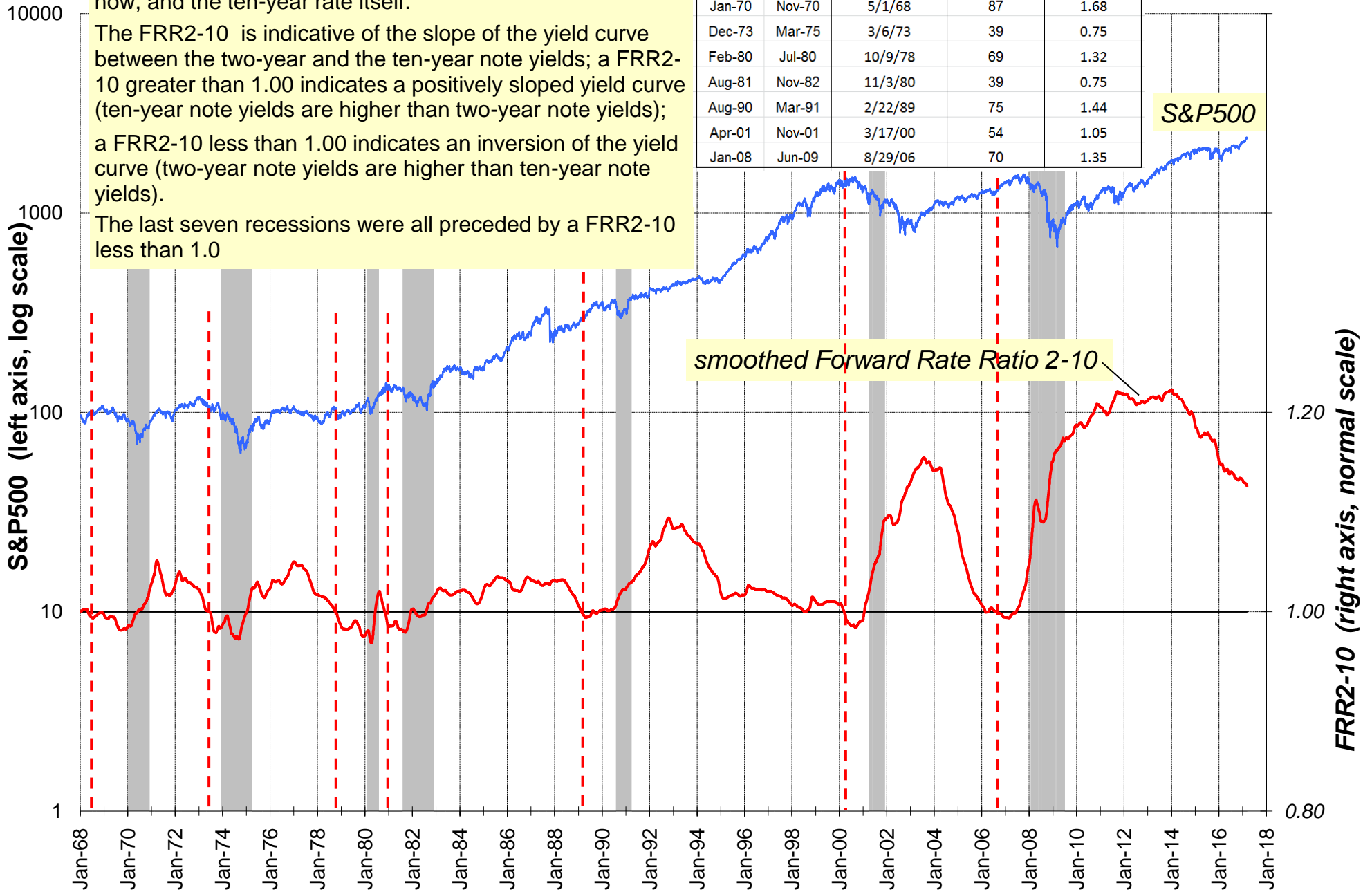
updated to 03/09/2017  
EMA of FRR2-10 = 1.13

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

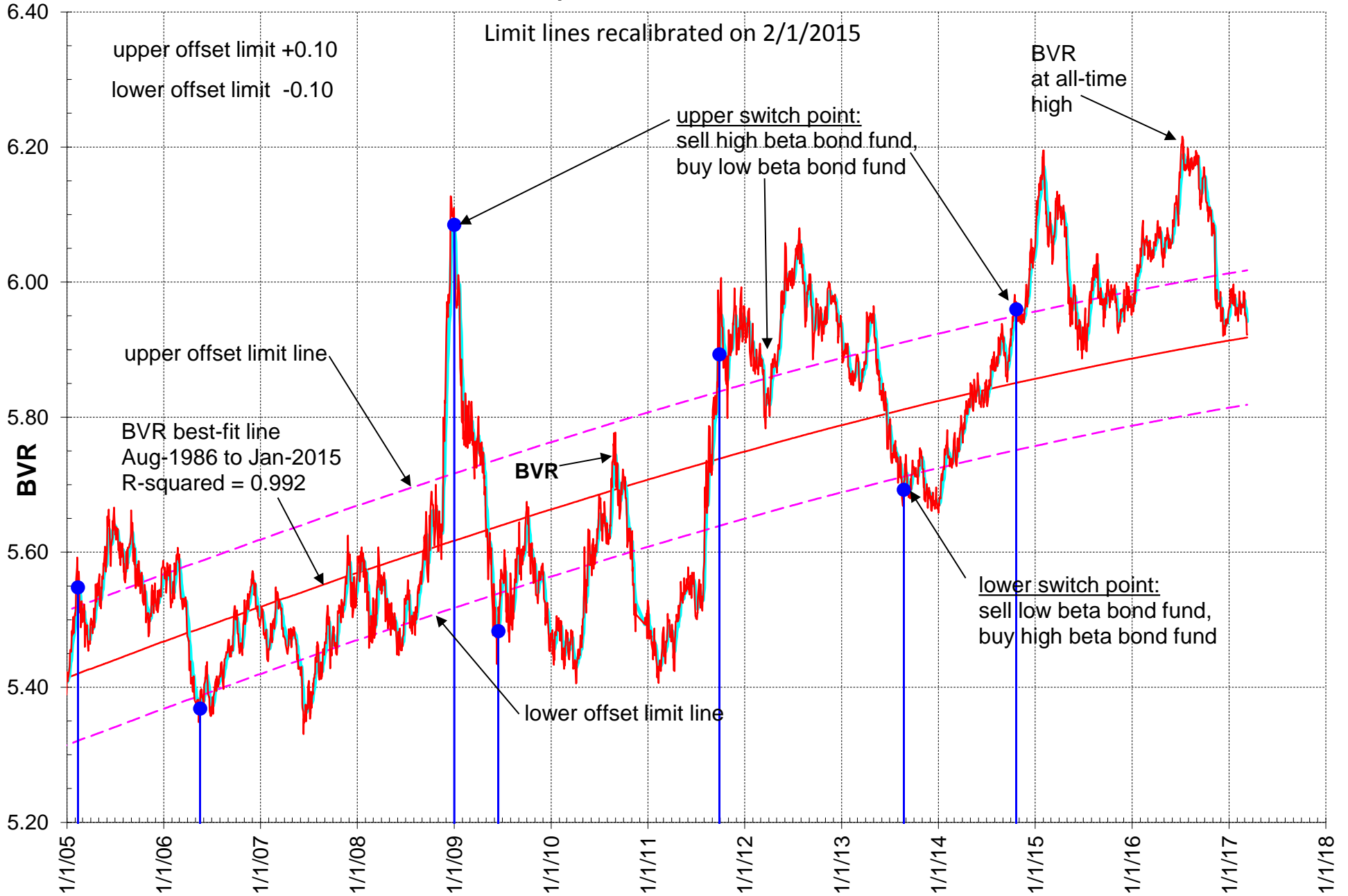
Recessions start	Recessions end	Date when EMA of FRR2-10 less than 1.0	Lead to Ression start (weeks)	Lead to Ression start (years)
Jan-70	Nov-70	5/1/68	87	1.68
Dec-73	Mar-75	3/6/73	39	0.75
Feb-80	Jul-80	10/9/78	69	1.32
Aug-81	Nov-82	11/3/80	39	0.75
Aug-90	Mar-91	2/22/89	75	1.44
Apr-01	Nov-01	3/17/00	54	1.05
Jan-08	Jun-09	8/29/06	70	1.35



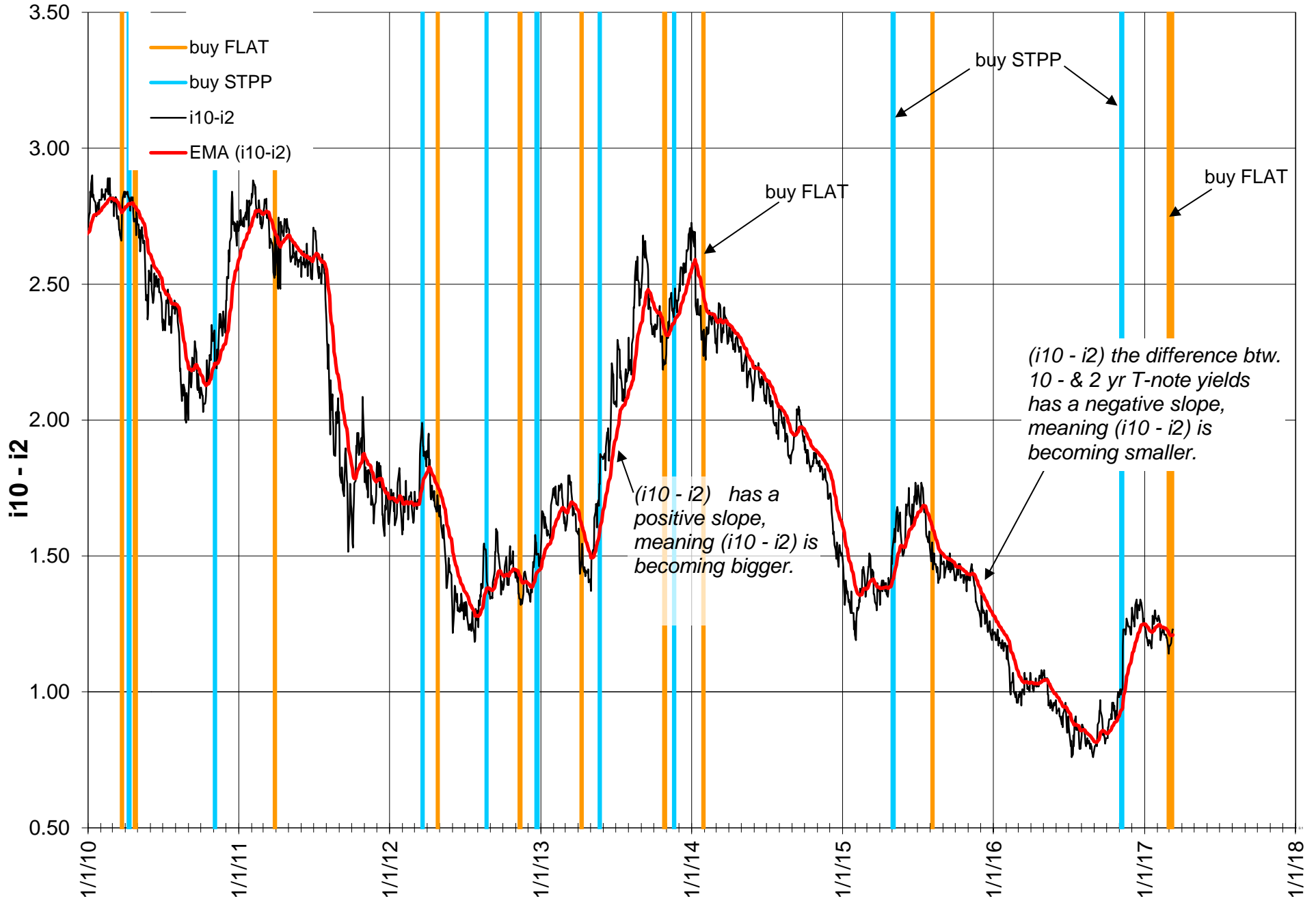
### Figure 4: Bond Value Ratio (BVR) from 2005 to 2017

Model updated to: 3/10/2017 BVR = 5.922

Limit lines recalibrated on 2/1/2015



**Figure 5: i10 - i2** Updated to.....3/10/17



# Figure 6: Modified Coppock Indicator for Gold 2009-2017

updated to 03/10/2017

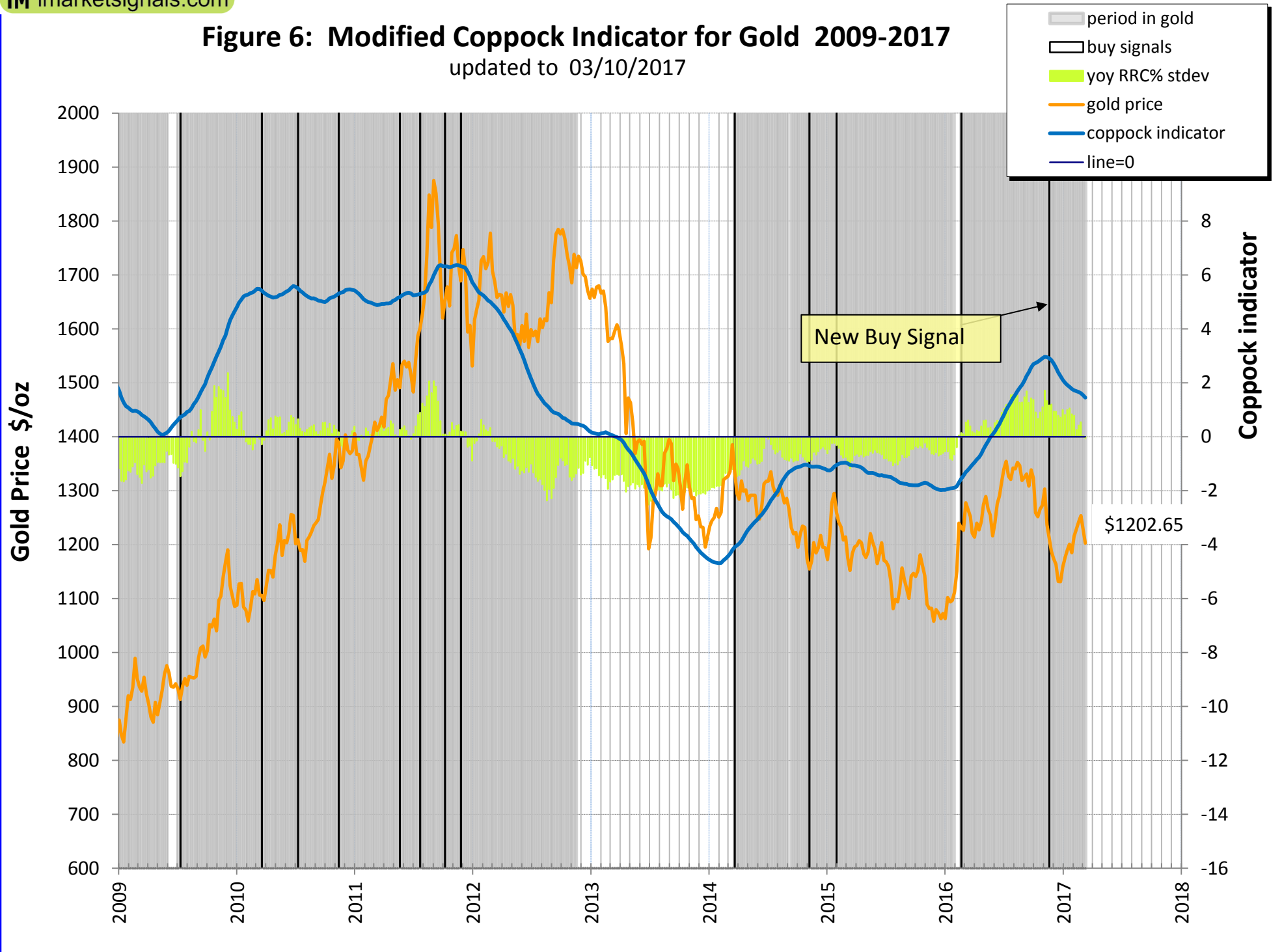
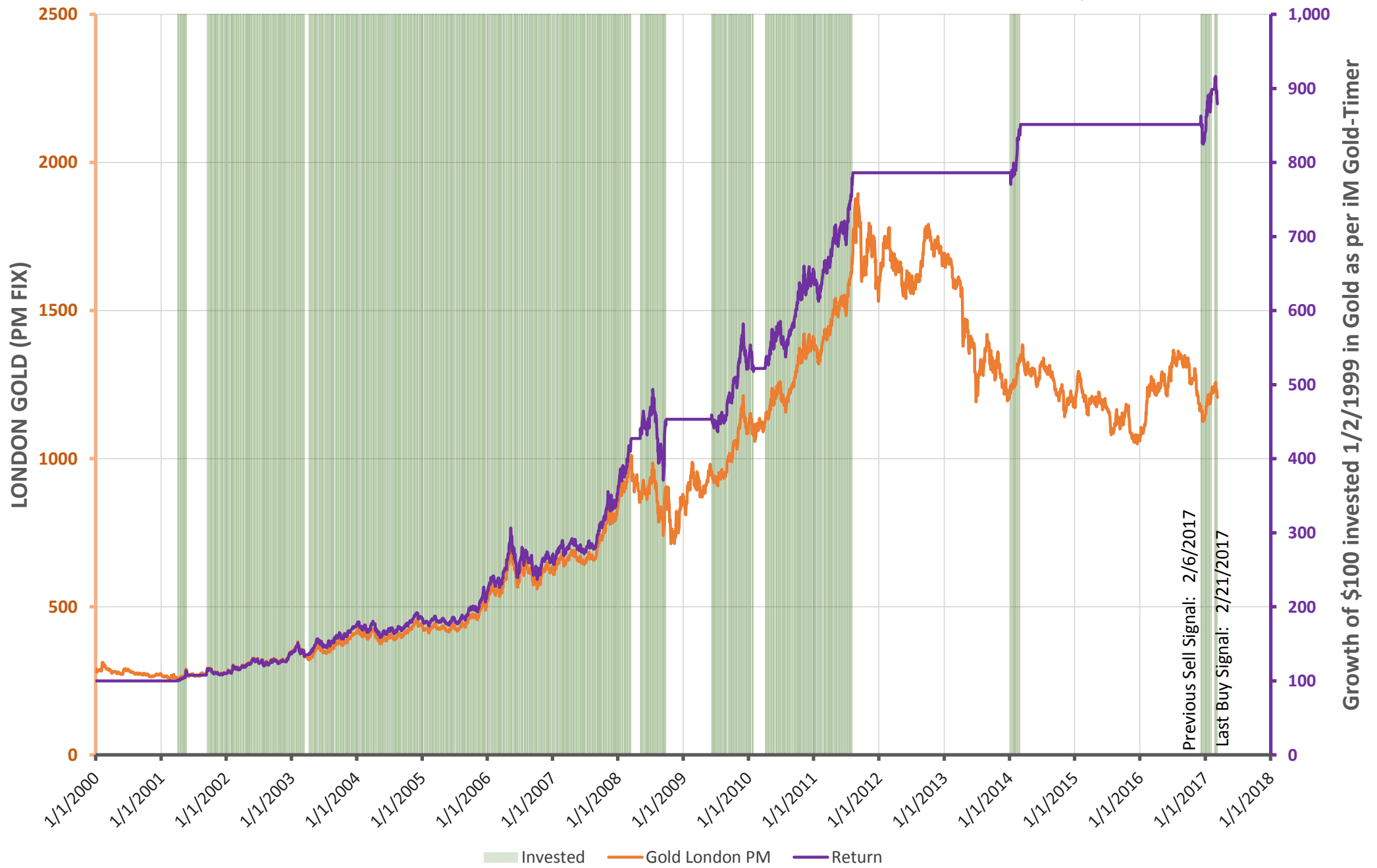


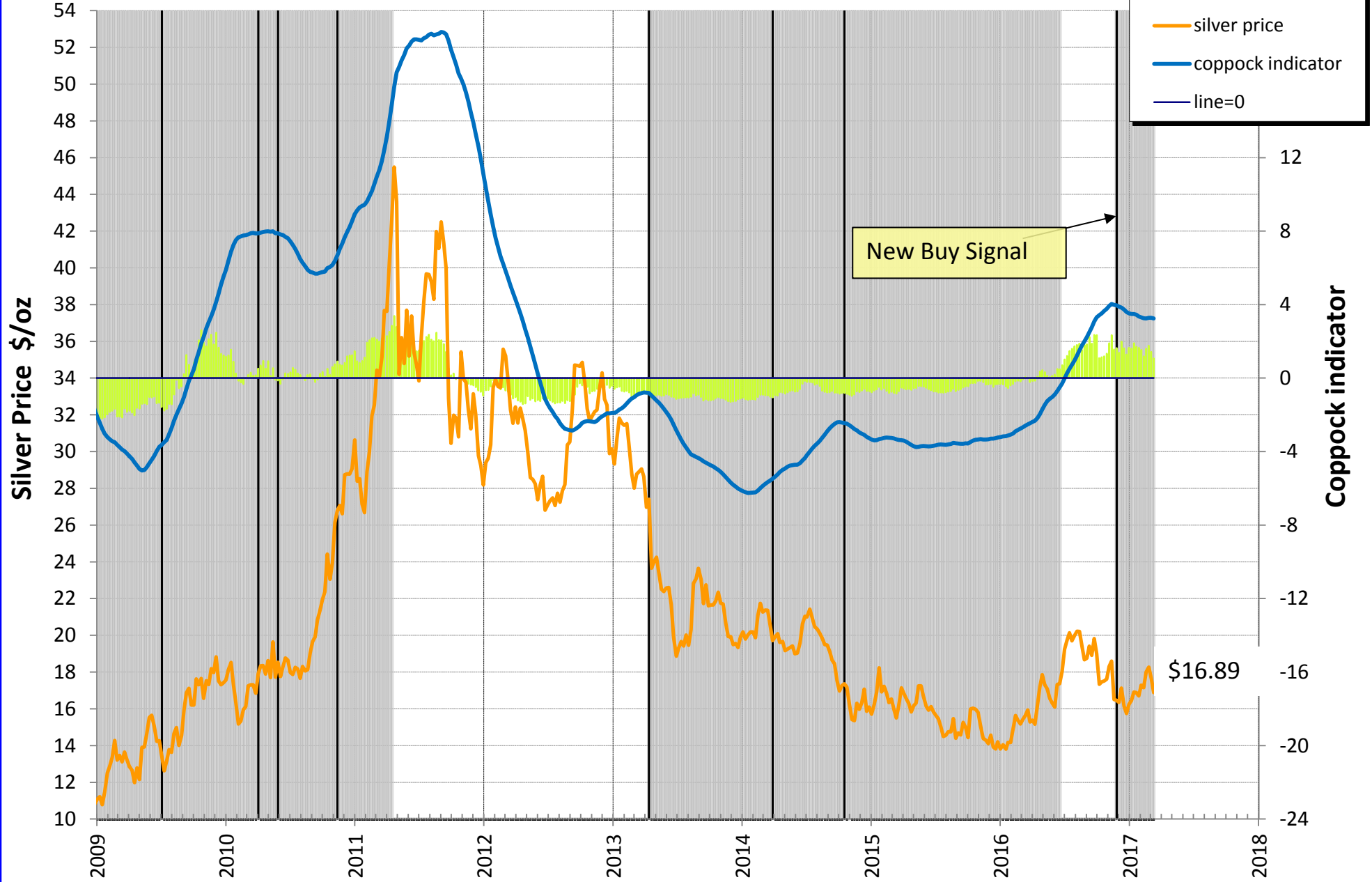
Fig. 6.1a iM GOLD-TIMER - Rev 1

Updated to: 3/9/2017



### Figure 7: Modified Coppock Indicator for Silver 2009-2017

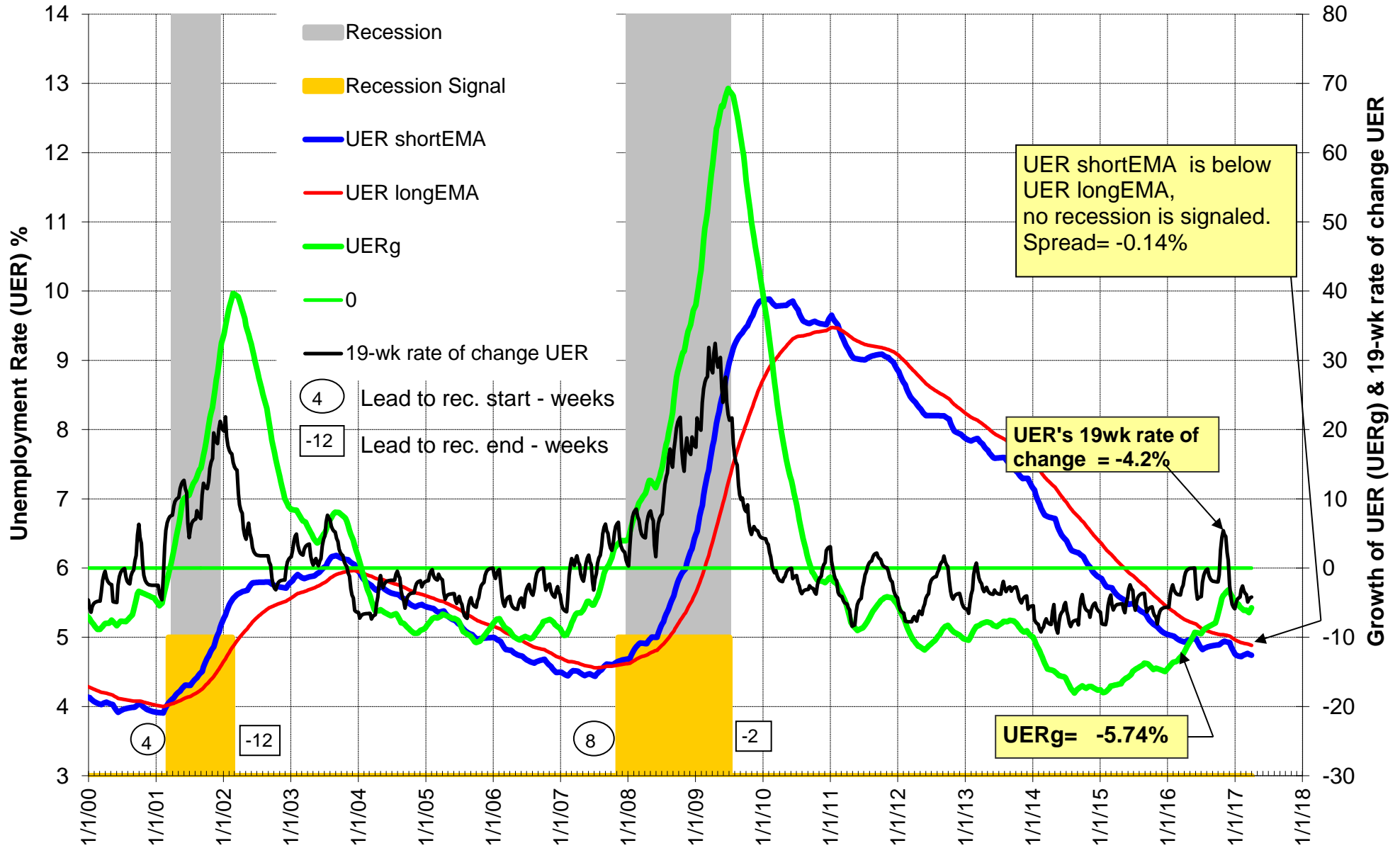
updated to 03/10/2017



### 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 3-31-2017 with February UER= 4.7%



### Long Leading Recession Indicator DAGS: shifted forward in time by 40 weeks

<http://imarketsignals.com/2016/the-dynamic-linearly-detrended-aggregate-spread-a-long-leading-recession-indicator/>

- recession
- DAGS
- recession trigger line
- last level of DAGS

possible recession signaled near/after October 2017

updated on March-10-2017, last level of DAGS = -42 bps

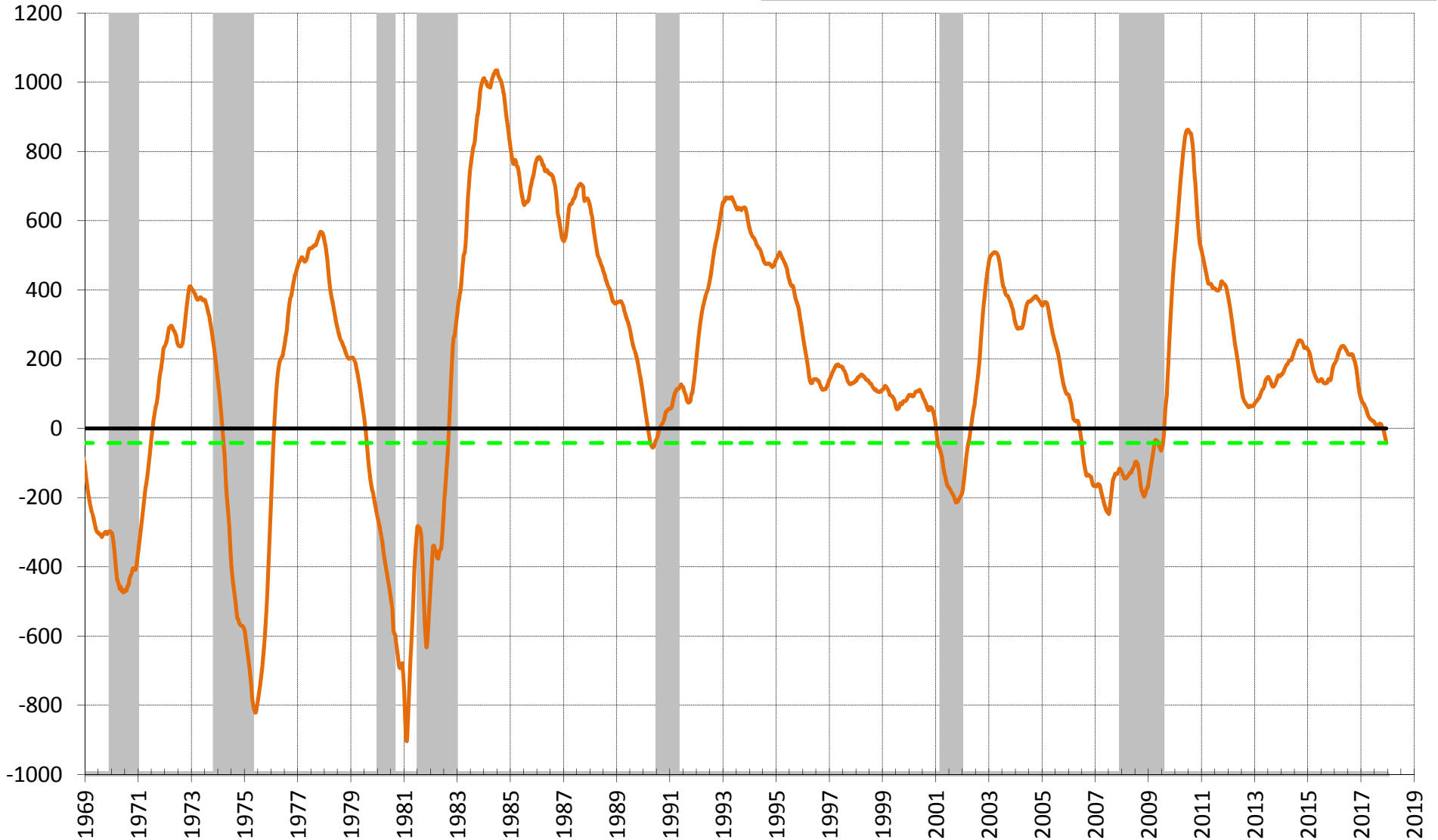
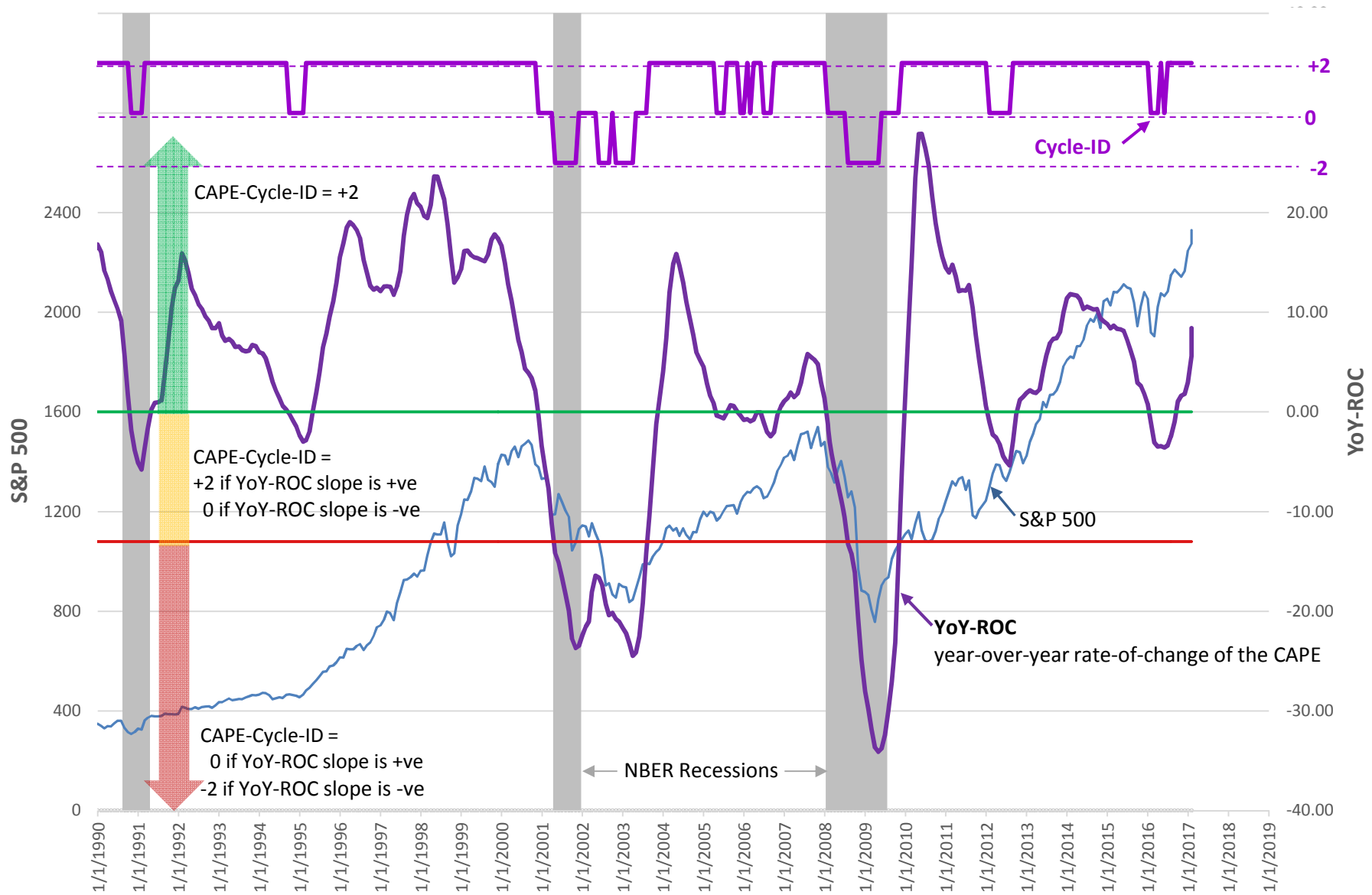
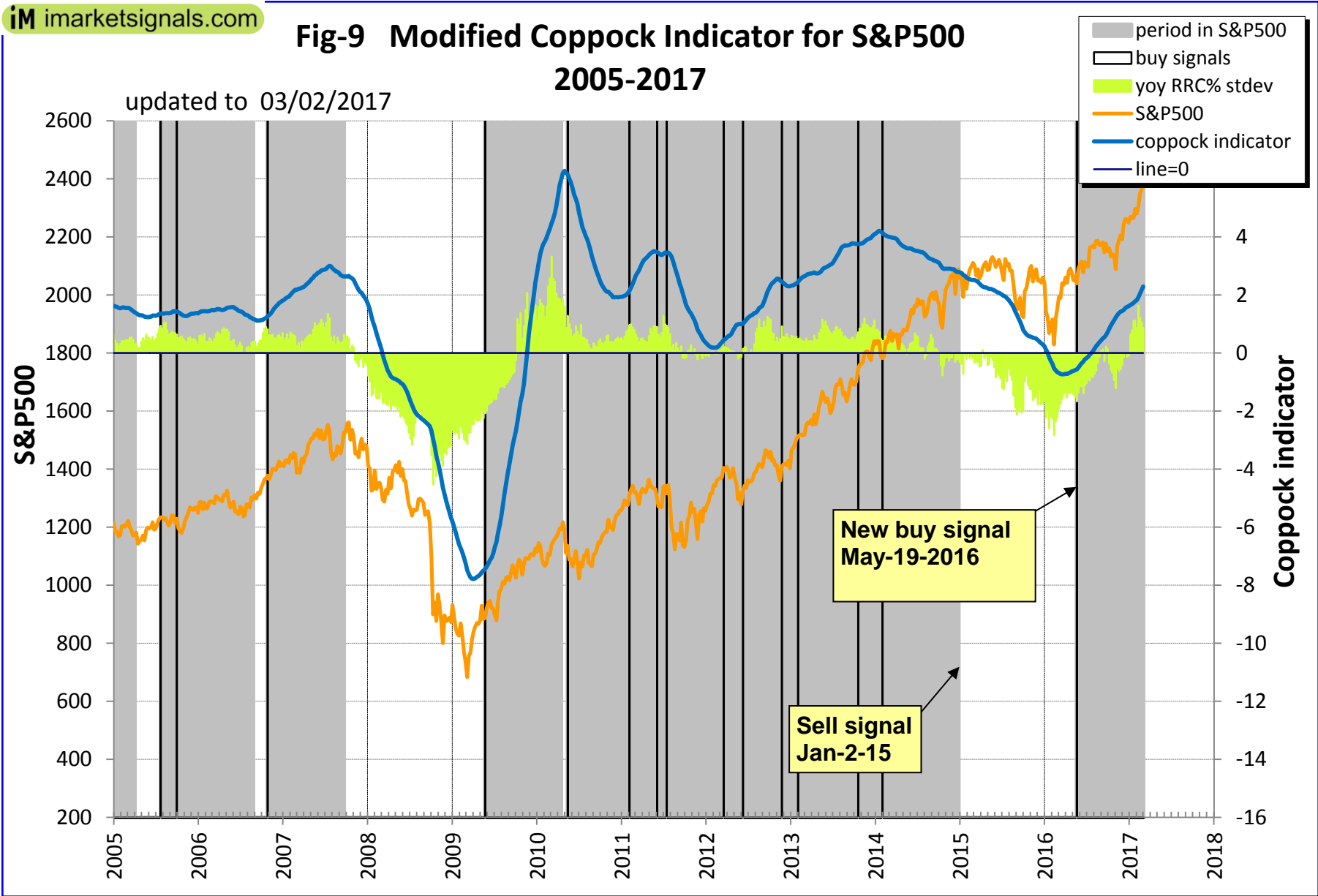


Fig. 9a CAPE-Cycle-ID and the YoY-ROC from 1990

updated to 2/27/2017



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

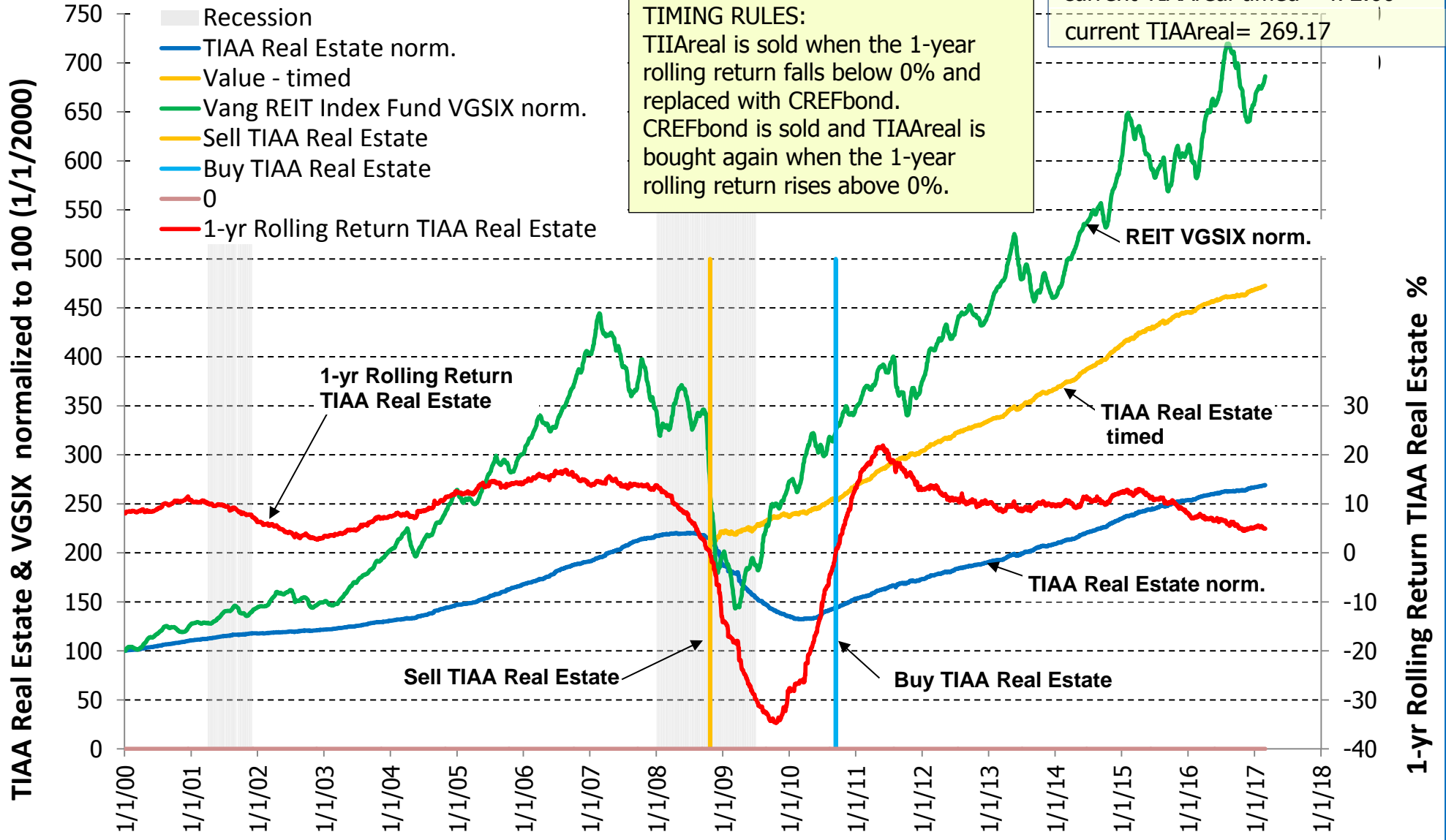


## TIAA Real Estate Account vs. Vanguard REIT Index Fund (VGSIX) 2000 - 2016

updated to 2/28/17, TIAAreal current 1-year rolling return= 4.92%

current TIAAreal-timed= 472.60

current TIAAreal= 269.17



Updated to Feb 23, 2017

# Trade Weighted US Dollar and Interest Rates

