

December 22, 2016

Business Cycle Index

The BCI at 214.1 is above last week's 214.0, a new high for this Business Cycle as indicated by the BCIP at 100. However, the 6-month smoothed annualized growth BCIG at 14.4 is below last week's 14.5. No recession is signaled.

December 23, 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 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 7.09% (last week 5.89%) 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 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-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 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 near 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

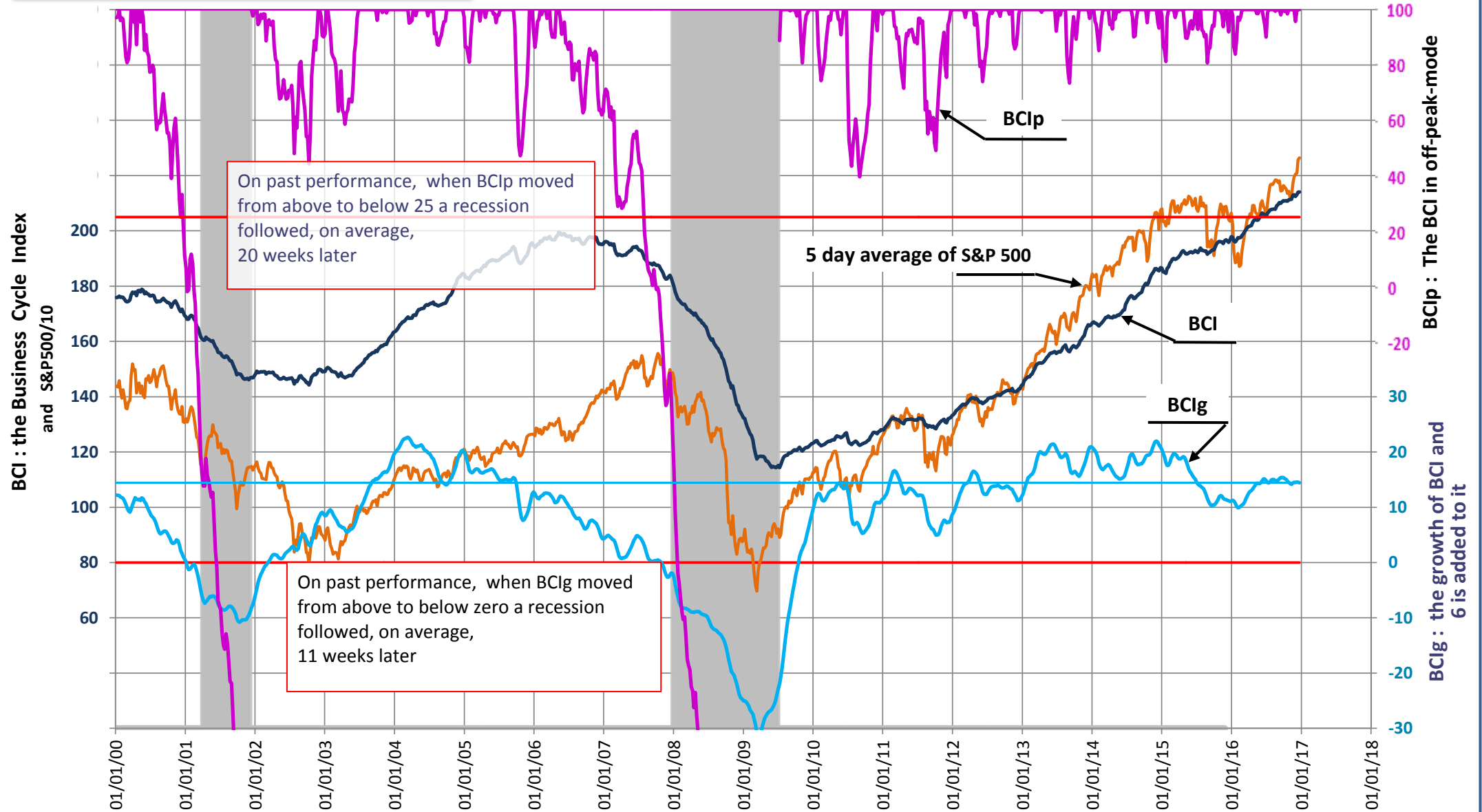
The 1-year rolling return for the end of last month is 4.82%. The Vanguard REIT Index Fund is at an all-time high; the good positive returns of TIAA Real Estate Account are expected to continue. A sell signal is not imminent.

iM's Business Cycle Index (BCI)

Date	11/24	12/01	12/08	12/15	12/22
BCIp	100.0	95.8	100.0	100.0	100.0
BCI	213.0	212.5	213.1	214.0	214.1
BCIg	14.5	14.5	14.6	14.5	14.4

BCIp, BCI and BCIg
updated to December 22, 2016

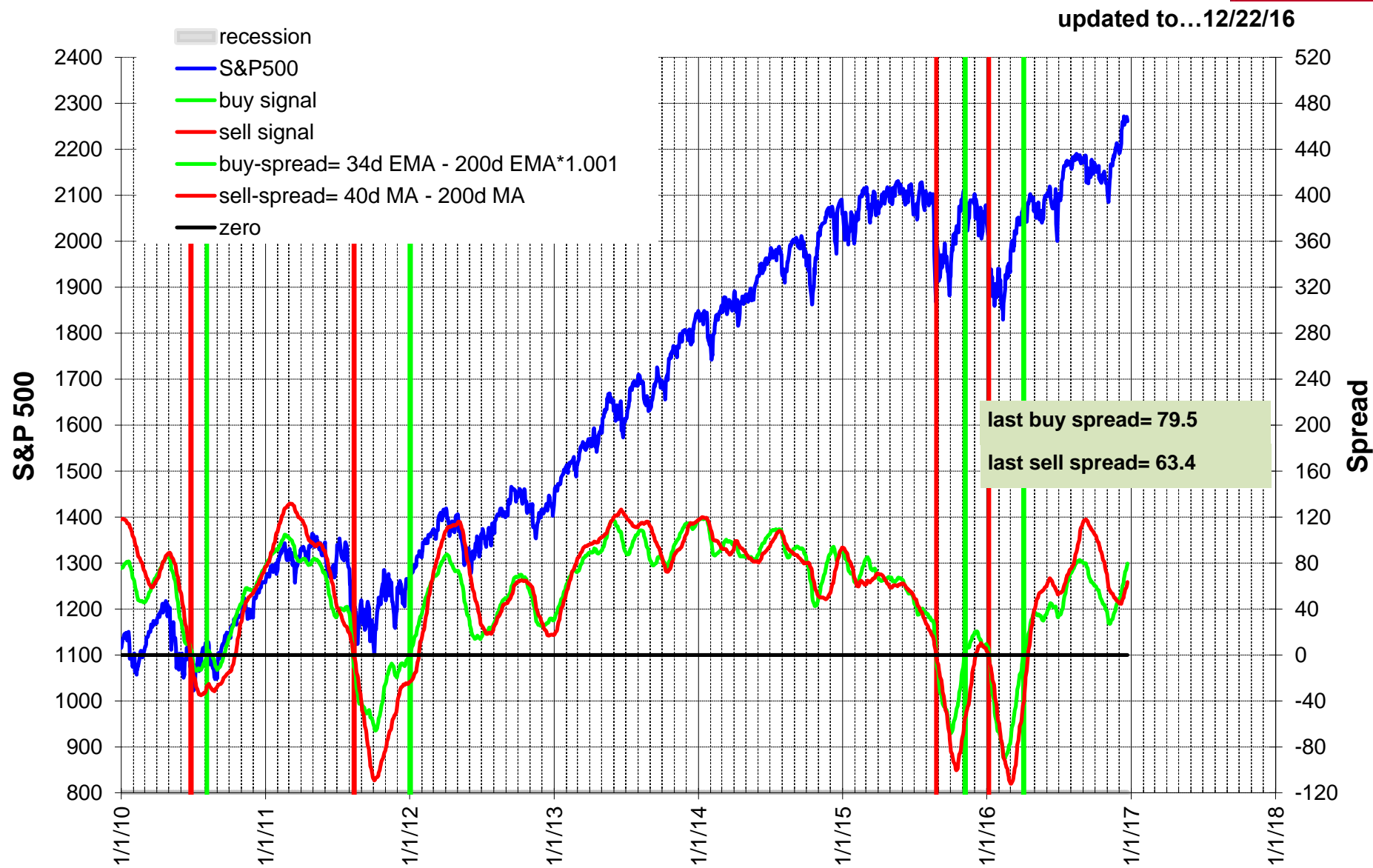
On past performance, BCIp = 100 can be interpreted as an average one year "time-to-live" to a recession.



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

iM imarketsignals.com

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 Dec-23-16

last sell spread= 136.9

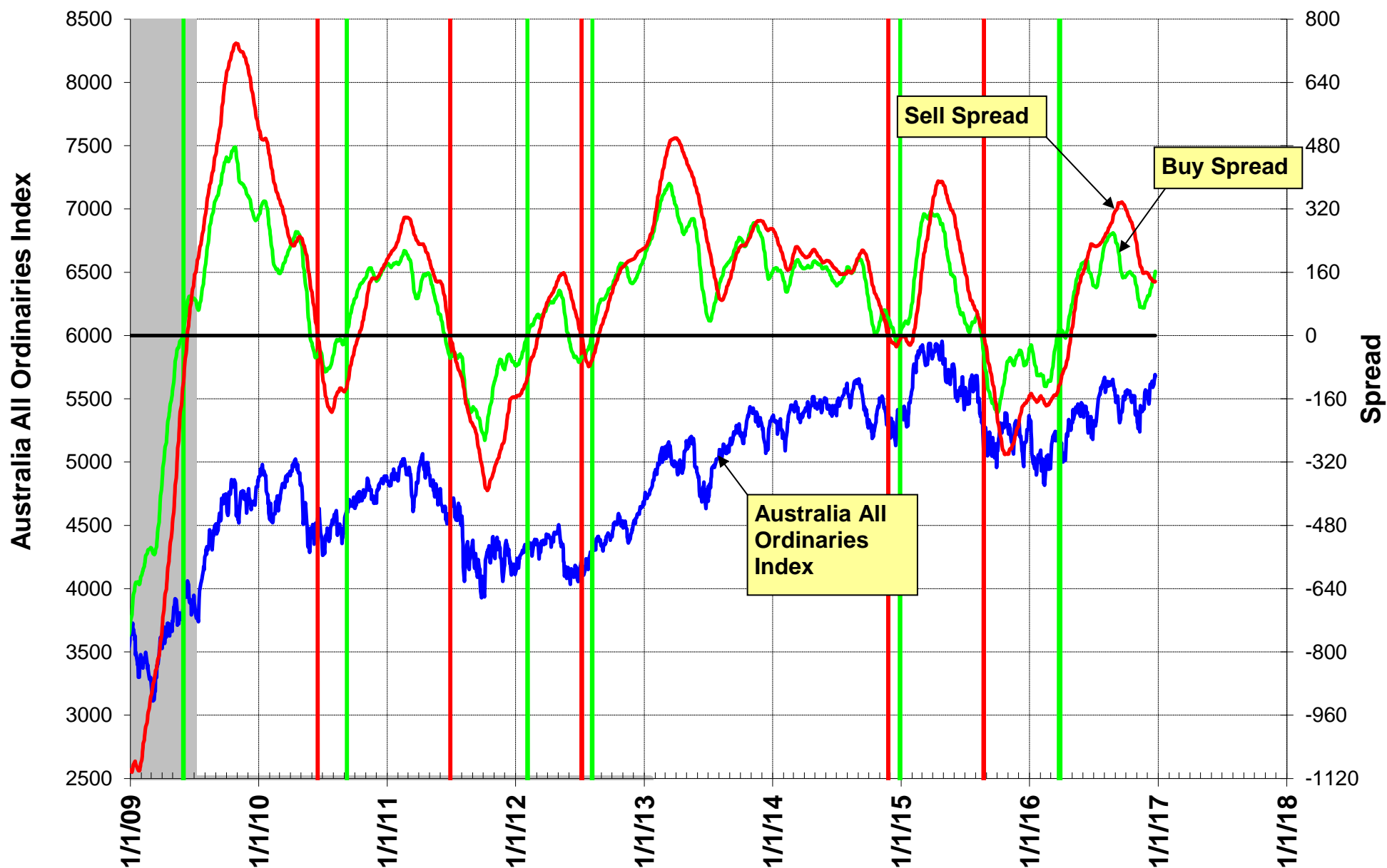
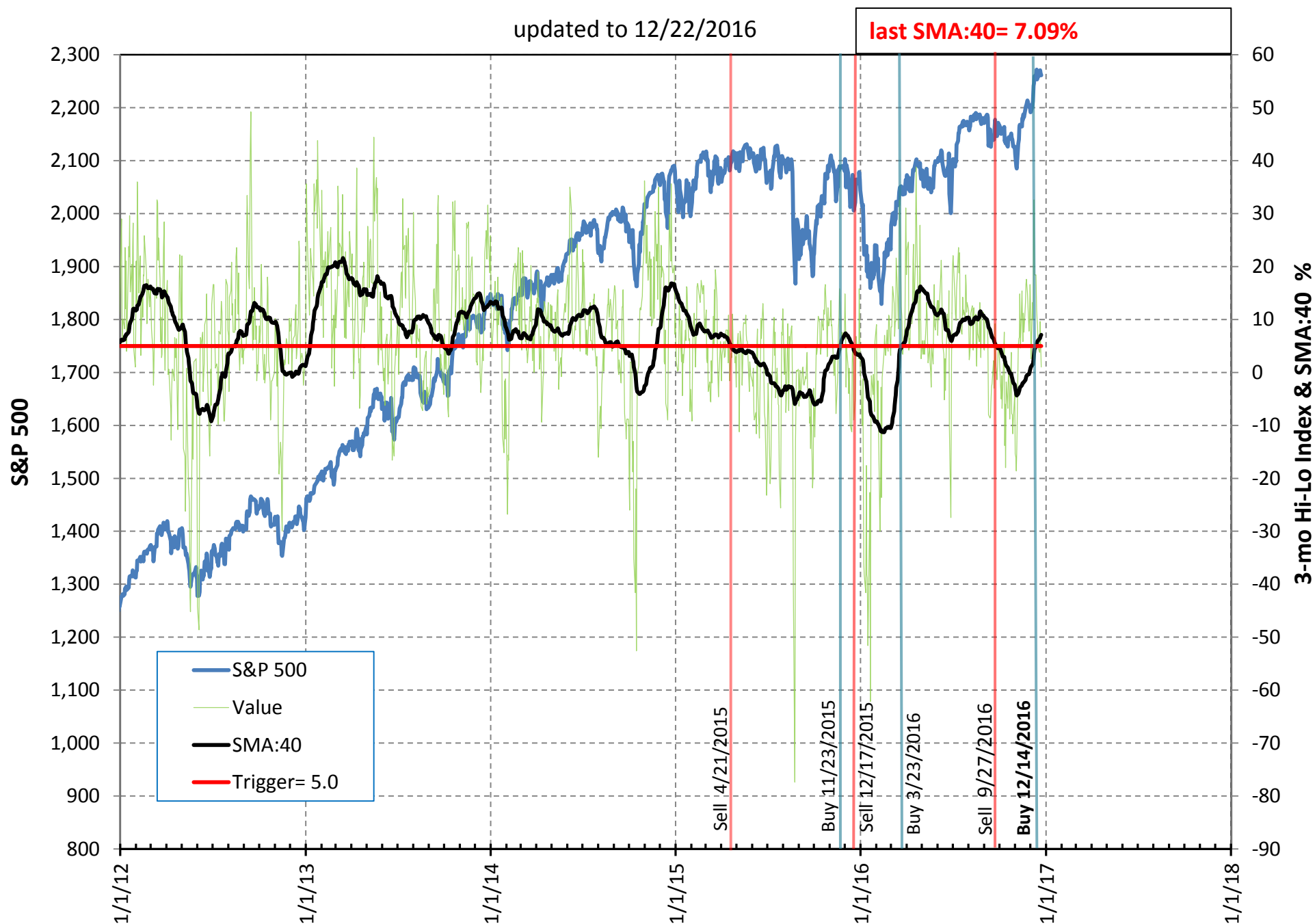


Fig 2.2 3-mo Hi-Lo Index of the S&P500 & 40-day SMA of Index



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

updated to 12/19/2016

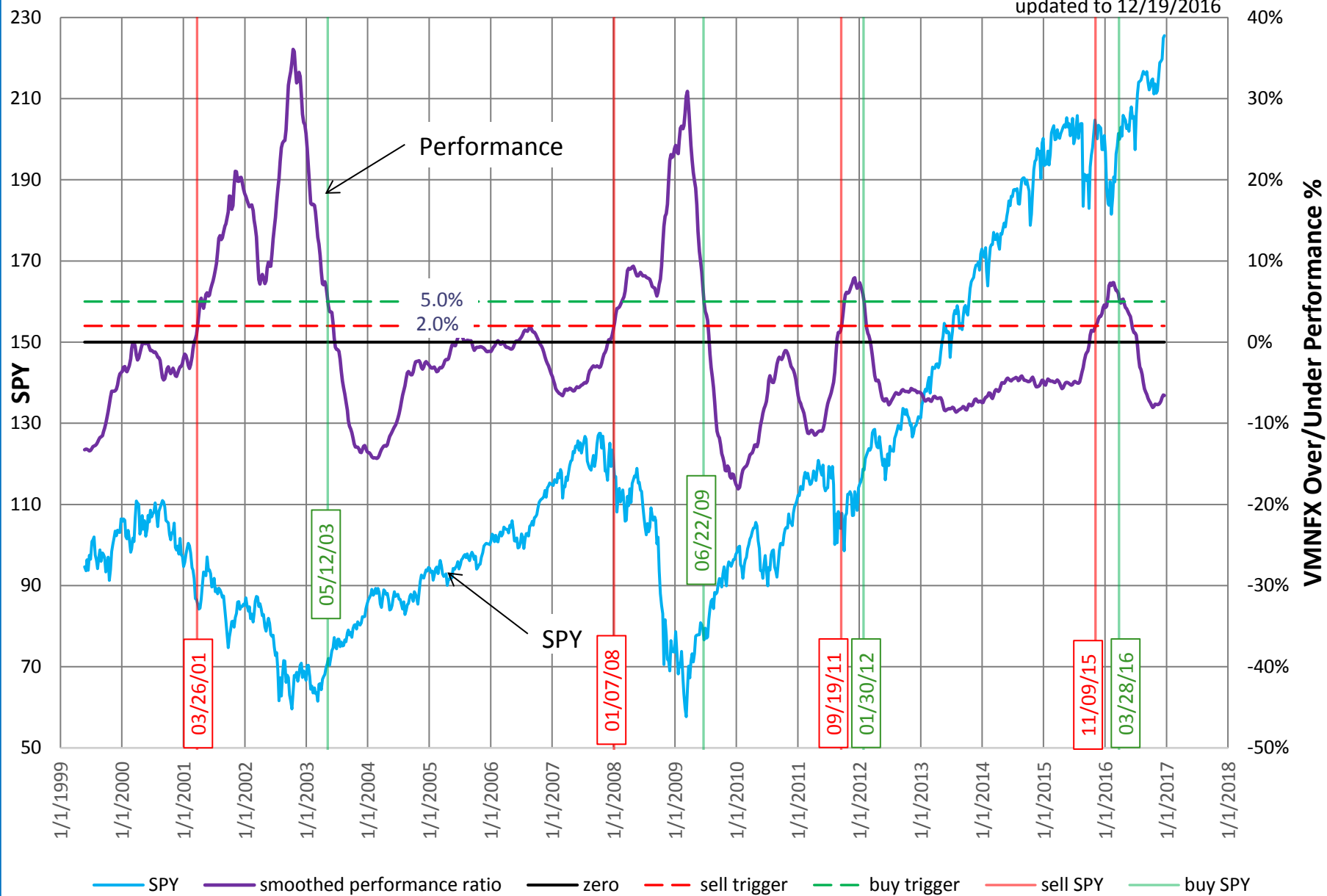


Fig. 3: COMP Leading Indicator of US Economy 1969-2016

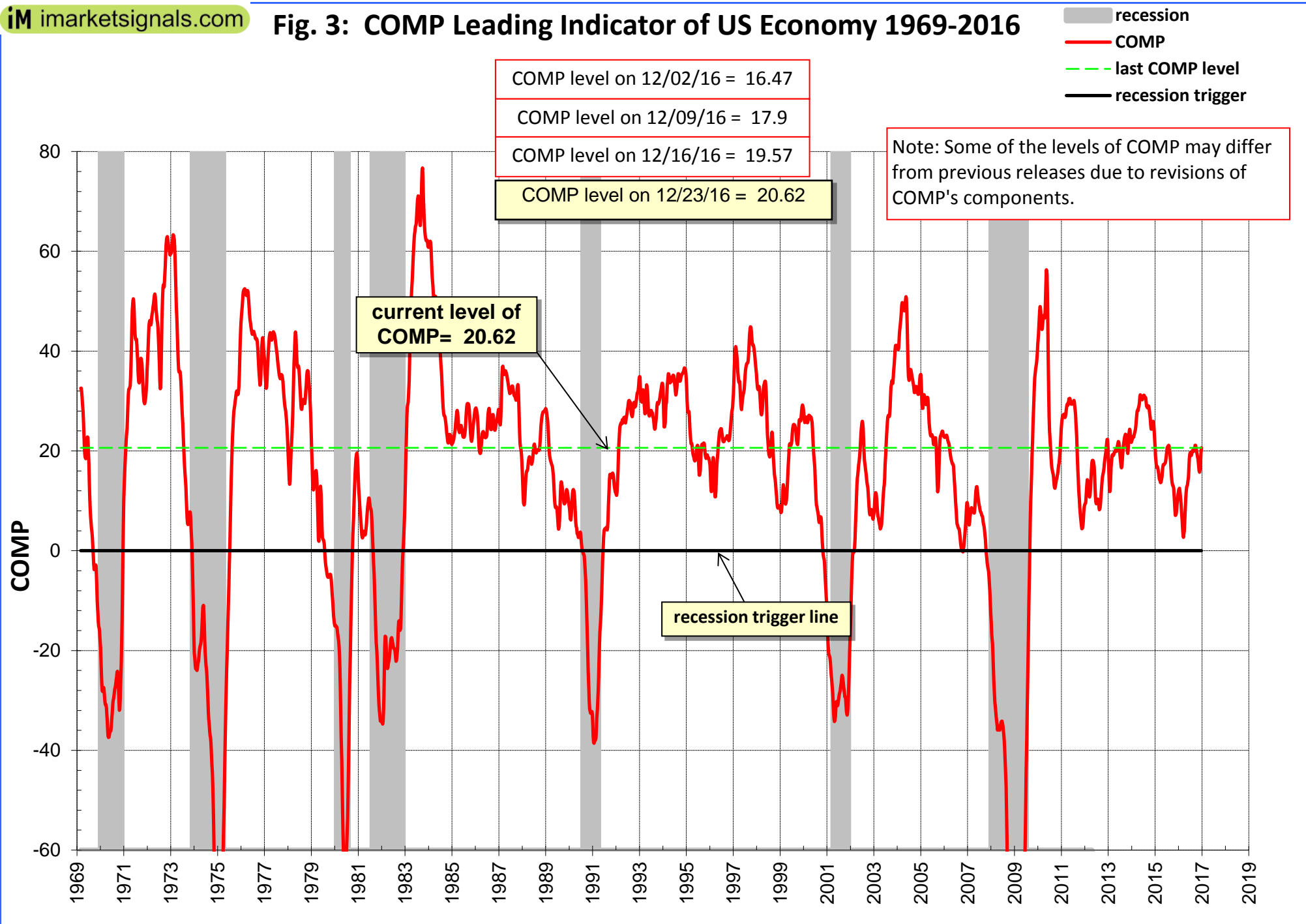


Fig 3.1: iM-BCIg 1969-2016

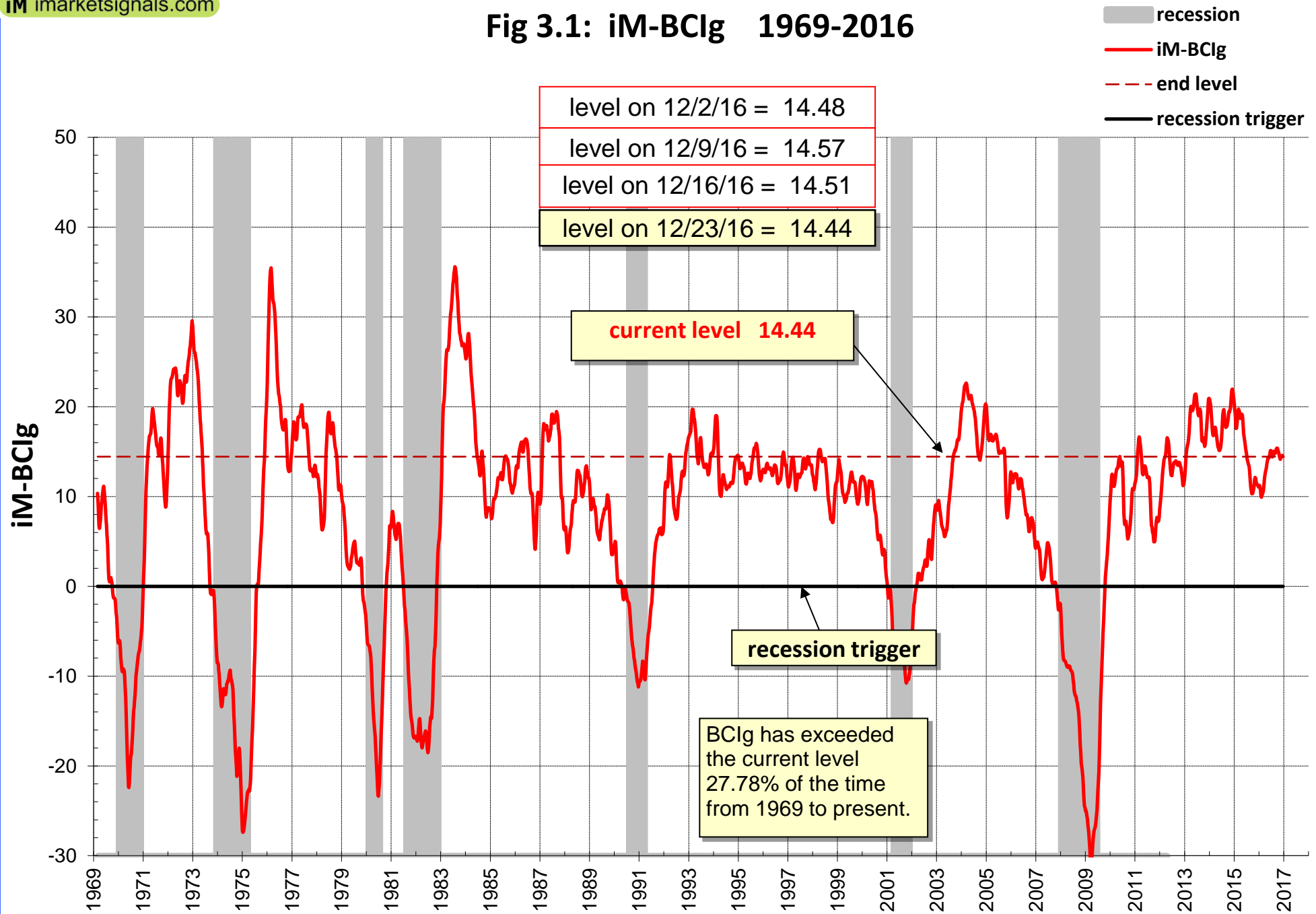


Figure 3.2: Forward Rate Ratio FRR2-10 - leads to Recessions

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 Recession start (weeks)	Lead to Recession 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 12/22/2016

EMA of FRR2-10 = 1.13

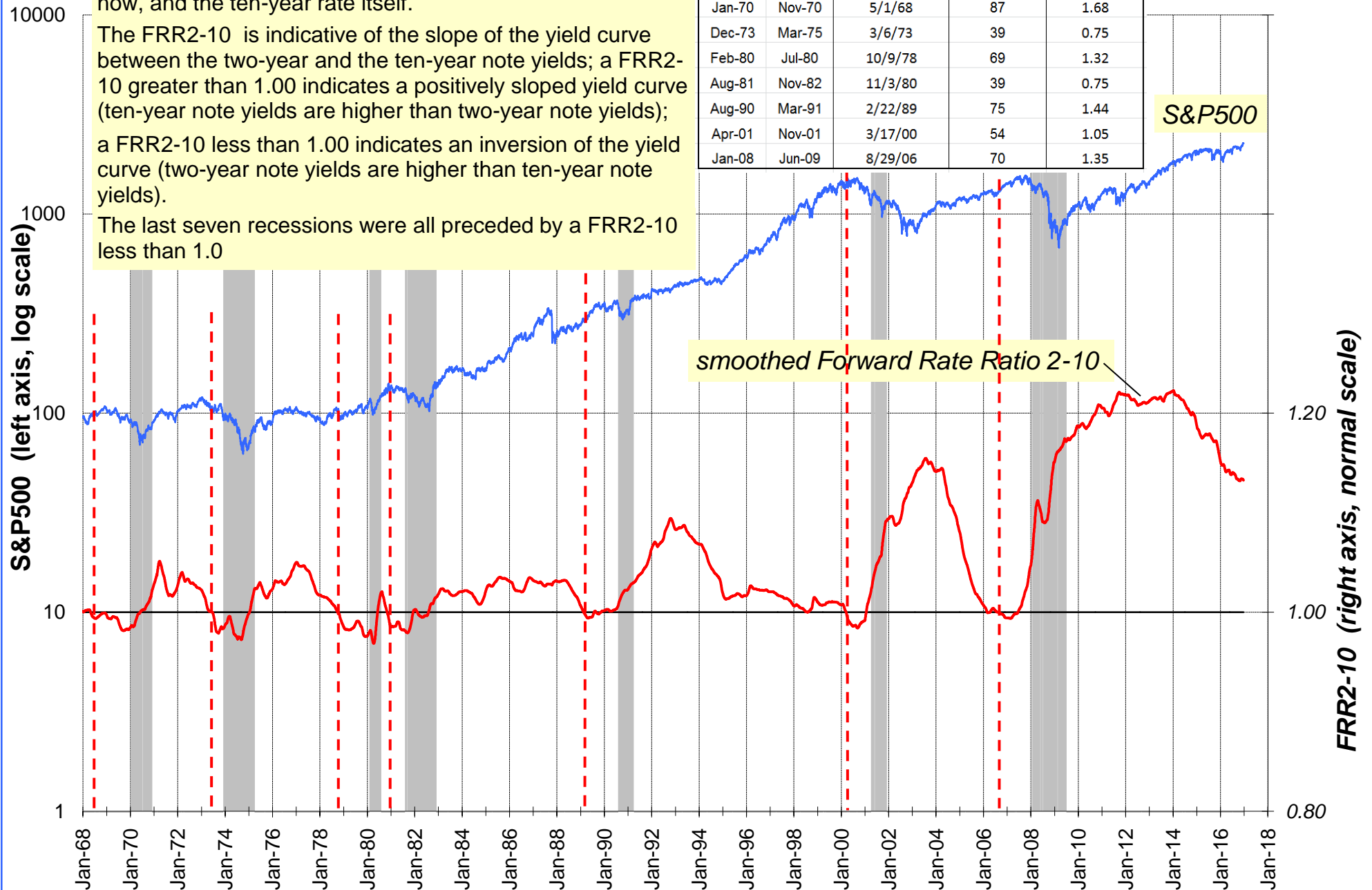


Figure 4: Bond Value Ratio (BVR) from 2005 to 2016

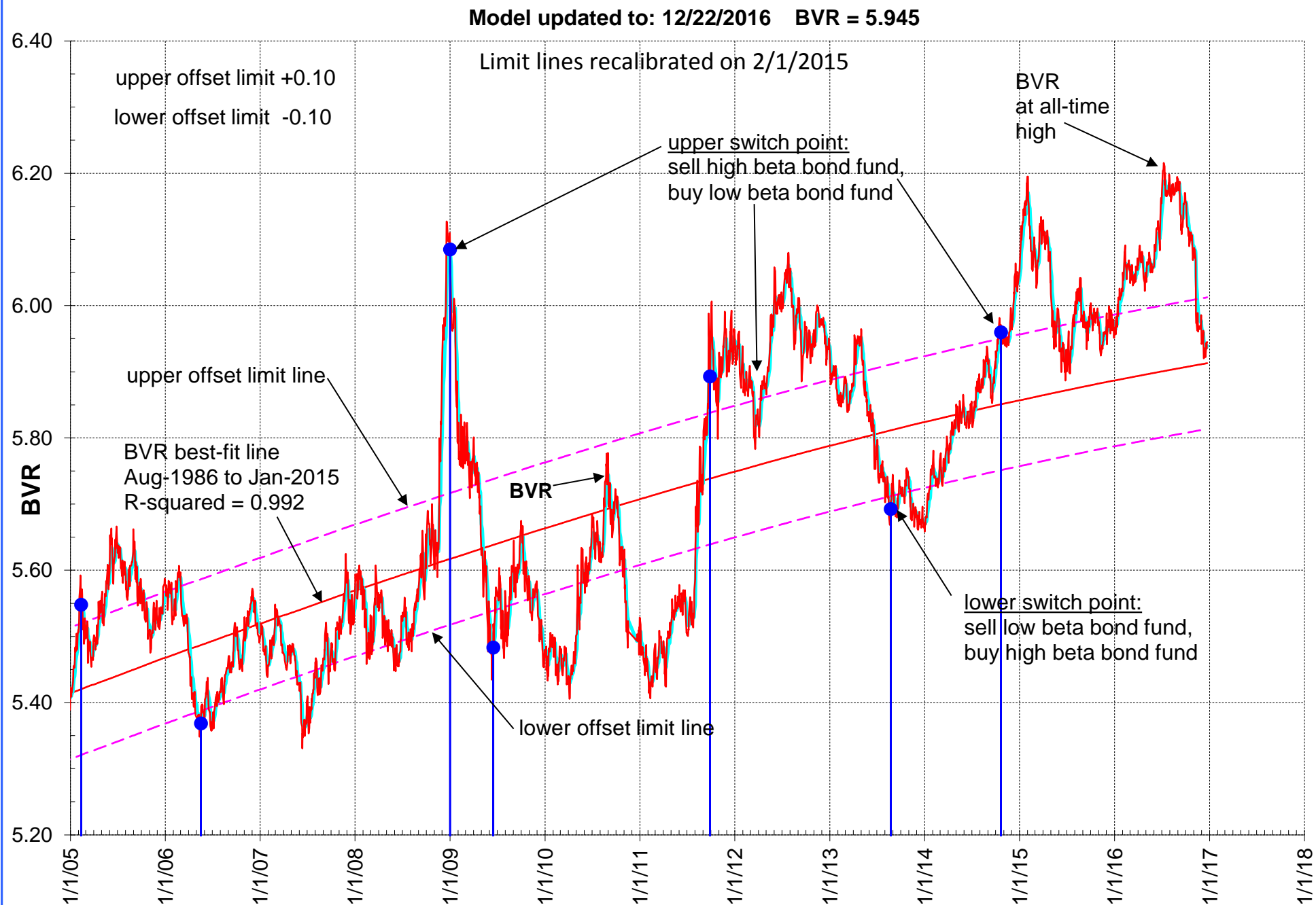


Figure 5: $i_{10} - i_2$ Updated to.....12/22/16

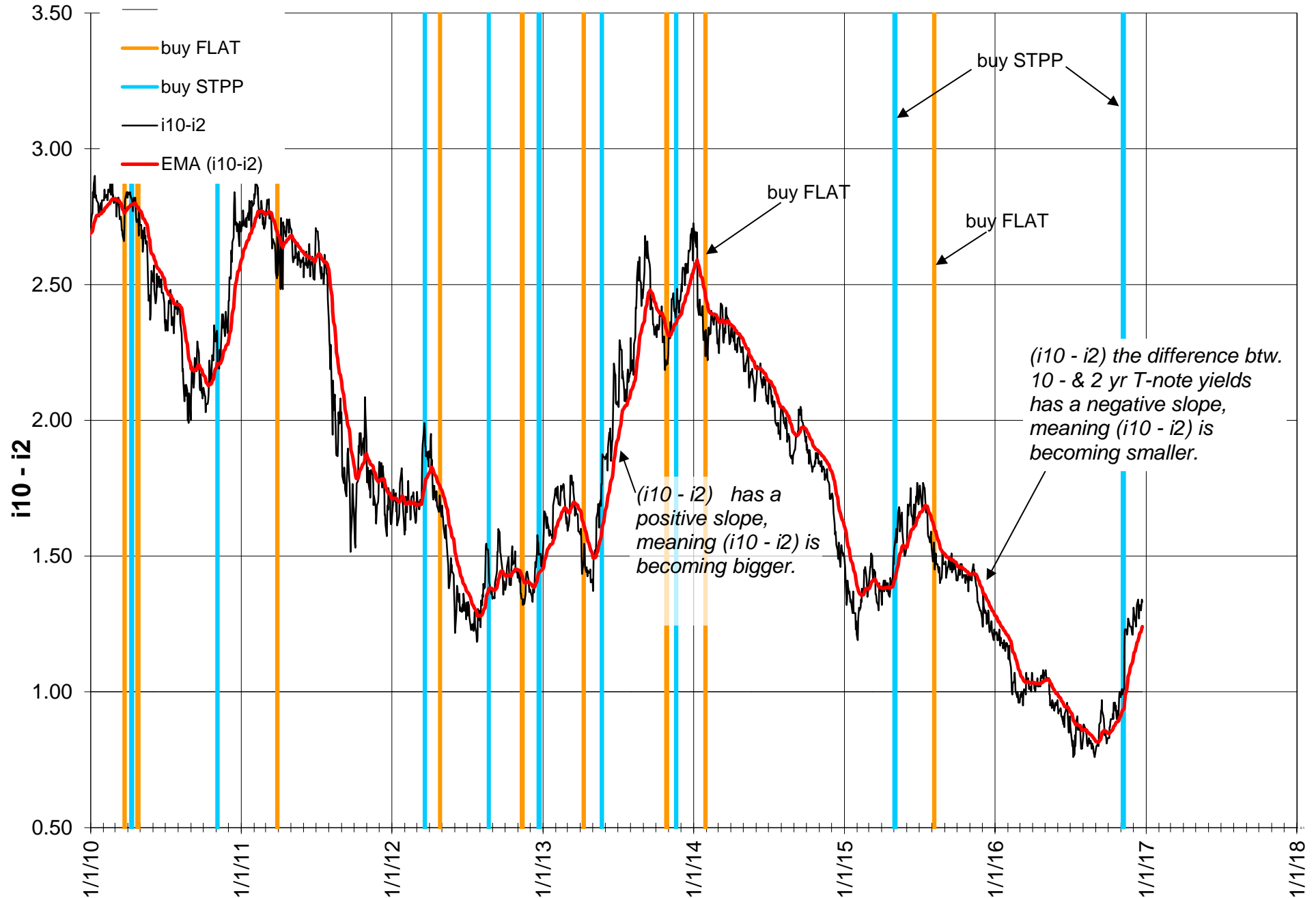


Figure 6: Modified Coppock Indicator for Gold 2009-2016

updated to 12/23/2016

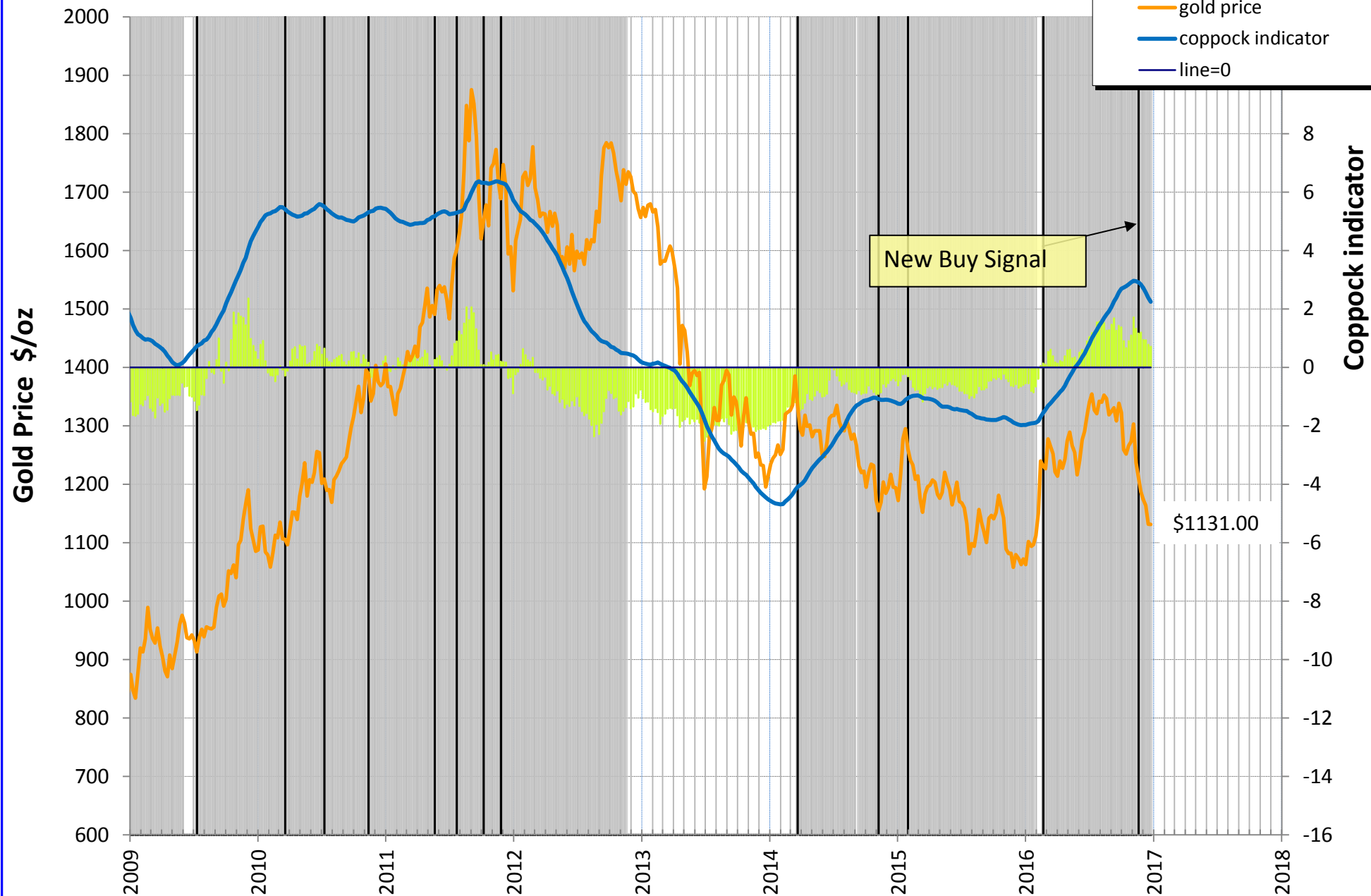


Fig. 6.1 iM GOLD-TIMER

Updated to: 12/22/2016

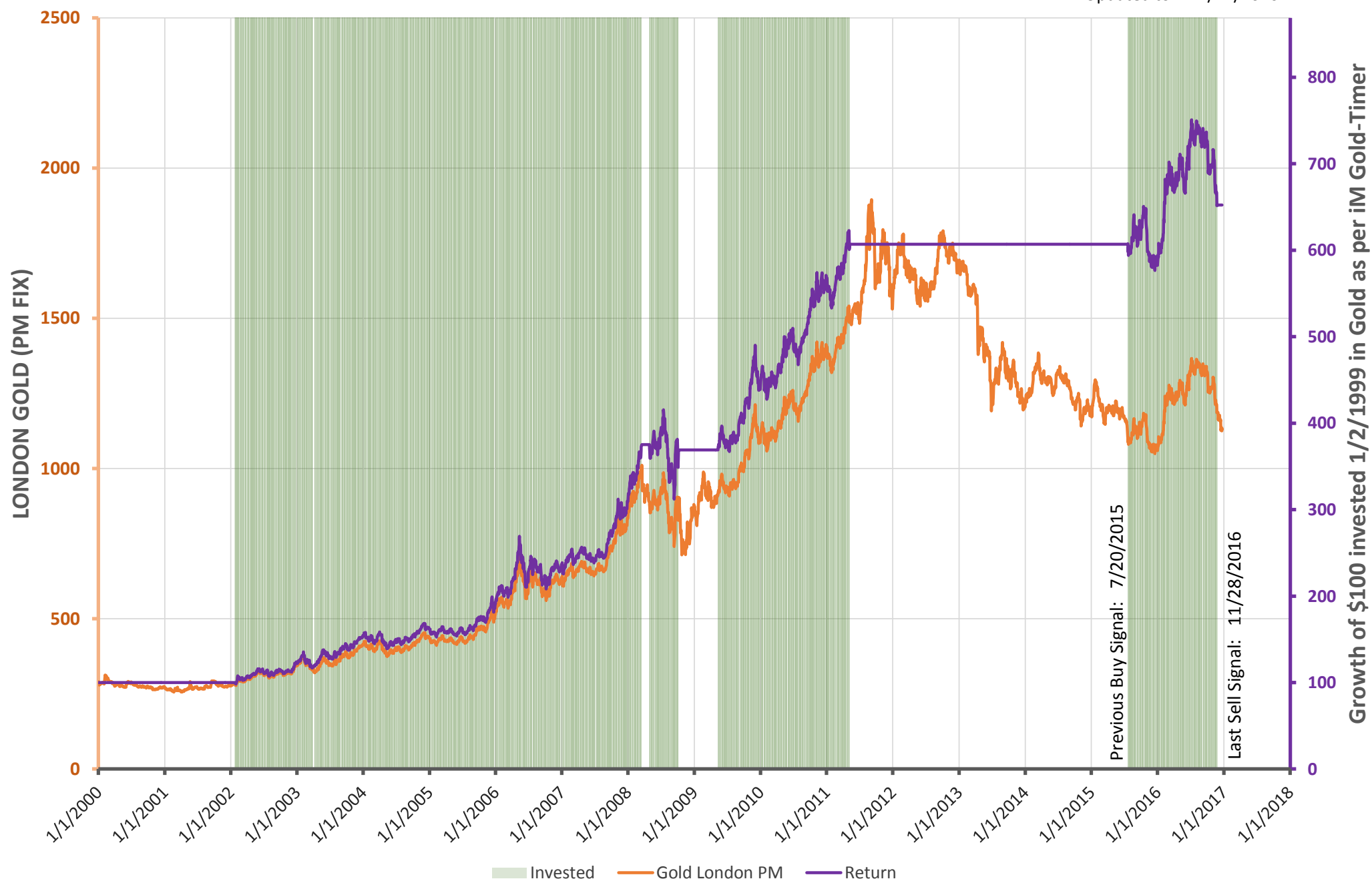


Figure 7: Modified Coppock Indicator for Silver 2009-2016

updated to 12/23/2016

