

May 23, 2019

### Business Cycle Index

The BCI at 257.7 is below last week's upward revised 258.8, and is below the previous high of this business cycle indicated by the BCIp of 89.8. Also, the 6-month smoothed annualized growth BCIg at 14.2 is below last week's 14.7. Both BCIp and BCIg are not signaling a recession.

May 24, 2019

### Market Signals Summary:

The MAC-US model, iM-Low Frequency Timer and the "3-mo Hi-Lo Index of the S&P500" are invested in the markets. Also, the S&P500 Coppock is in the markets since 5/9/2019. The MAC-AU is invested in the markets. The recession indicators COMP and iM-BCIg do not signal a recession. The bond market model avoids high beta (long) bonds, and the yield curve is steepening and a buy STPP signal being generated. The gold Coppock model generated a new buy signal on 3/28/2019 and remains invested in gold, however the silver model is in cash. The iM-Gold Timer is in cash. Stock-markets:

### MAC-US

The MAC-US model switched into the markets on 2/26/2019. The sell-spread (red line) is above last week's value needs to move below zero to generate a sell signal.

### 3-mo Hi-Lo Index

The 3-mo Hi-Lo Index of the S&P500 is below last week's level at 10.49% (last week 13.2 %), and is in the market since 2/27/2019.

### Coppock Indicator for the S&P500

The Coppock indicator for the S&P500 entered the market on 5/9/2019 and is invested.

### MAC-AU

The MAC-AU model is invested in the markets after signaling a buy on February 7, 2019. The sell-spread (red line) is above last week's value and needs to move below zero to generate a sell signal.

### Recession:

#### COMP

Figure 3 shows the COMP below last week's level. No recession is indicated.

#### iM-BCIg

Figure 3.1 shows the recession indicator iM-BCIg below last week's level. An imminent recession is not signaled

### Forward Rate Ratio

The Forward Rate Ratio between the 2-year and 10-year U.S. Treasury yields (FRR2-10) is near last week's level and is not signaling a recession. The FRR2-10 general trend is downwards.

## iM-Low Frequency Timer

The iM-Low Frequency Timer is back in the markets since 1/22/2019.

## 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 above 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) shows that the yield curve near last week's level, the trend is indeterminate. 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:

### Coppock Gold

The modified Coppock Gold indicator shown in Fig 6. This model generated a new buy signal end March 2019 and is invested in gold.

### iM GOLD-TIMER

The iM GOLD-TIMER Rev-1 sold gold on 12/31/2018 and the model is in cash

## Silver:

### Coppock Silver

The modified Coppock Silver indicator shown in Fig 7. This model generated a sell signal early August 2018 and is in cash.

## Monthly Updates

May 3, 2019 (next update June 7, 2019)

### Unemployment

The unemployment rate recession model (article link), has been updated with the April UER of 3.6%. The model does not signal a recession.

### The Dynamic Linearly Detrended Enhanced Aggregate Spread:

The updated level of this indicator, -212bps, below last months -199bps, confirms the January 20, 2017 signal. Based on past history a recession could have started as early as October 2017, but not later than January 2019. The average lead time to previous recessions provided by DAGS was 15 months which would indicate a recession start for April 2019. (Note: All our other recession indicators are far from signal a recession.)

### CAPE-Cycle-ID

Fig 9a depicts the CAPE-Cycle-ID and the year-on-year rate-of-change of the Shiller CAPE; the level moved from 0 to +2 end of April-2019.

To avoid the bear market, exit stocks when the spread between the 5-month and 25-month moving averages of S&P-real becomes negative and simultaneously the CAPE-Cycle-ID score is 0 or -2.

#### Estimated Forward 10-Year Returns

The estimated forward 10-year annualized real return are estimated at 5.9% with a 95% confidence interval : 4.5% to 7.3%, which are down 0.1% from last month.

#### iM-GT Timer

Fig-10.-2-1-2019The iM-GT Timer, based on Google Search Trends volume switched to cash on 11/1/2018 and remains out of the market.

#### Trade Weighted USD

The Trade Weighted \$ value is on a moderate rising trend

#### TIAA Real Estate Account

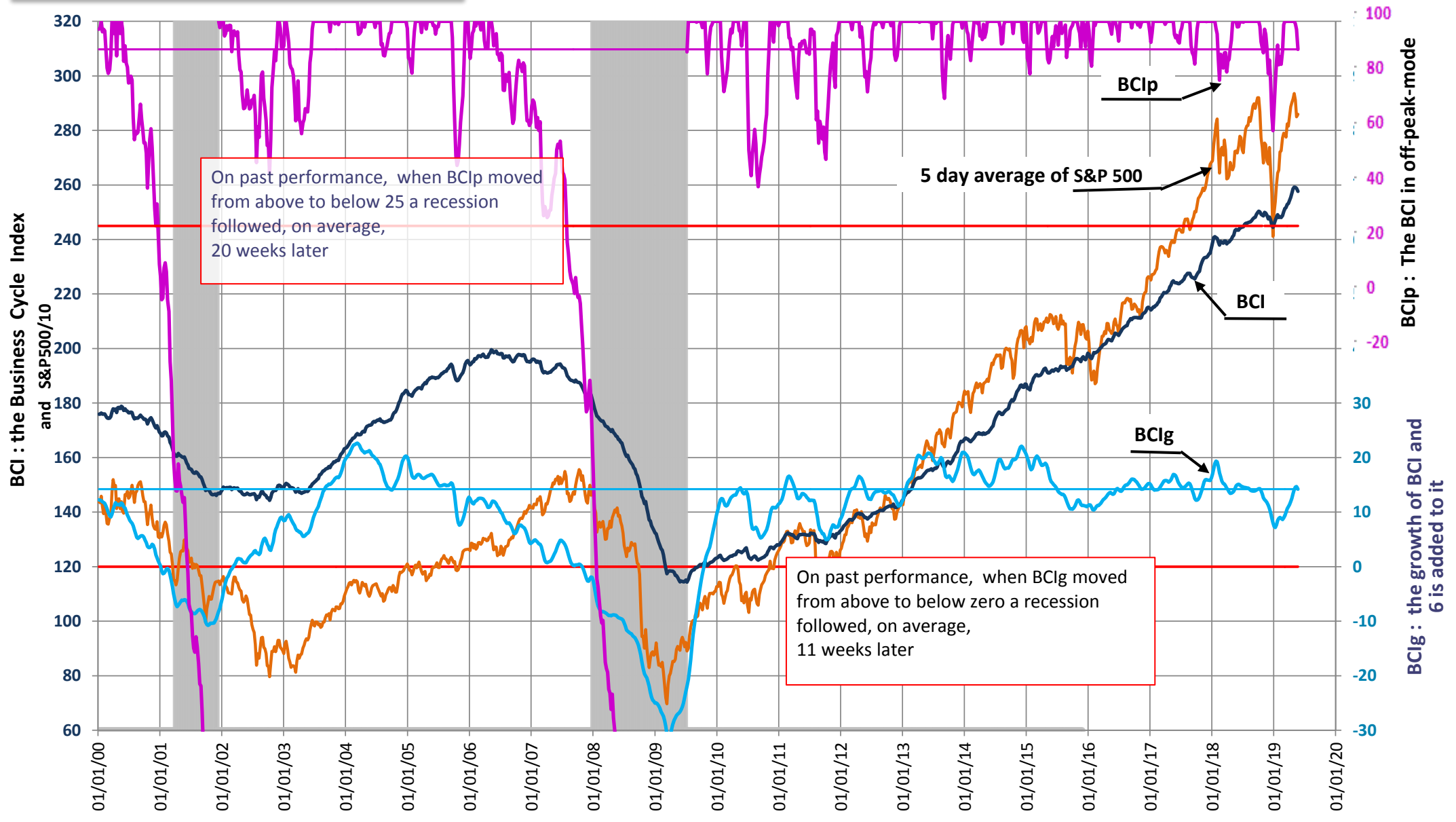
The 1-year rolling return for the end of last month is 5.58%. A sell signal is not imminent.

# iM's Business Cycle Index (BCI)

Date	04/25	05/02	05/09	05/16	05/23
BCIp	100.0	100.0	99.1	97.0	<b>89.8</b>
BCI	258.5	259.2	259.1	258.8	<b>257.7</b>
BCIg	13.4	14.1	14.6	14.7	<b>14.2</b>

BCIp, BCI and BCIG  
updated to May 23, 2019

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 2010-18 from the modified golden-cross MAC-System



updated to...5/23/19

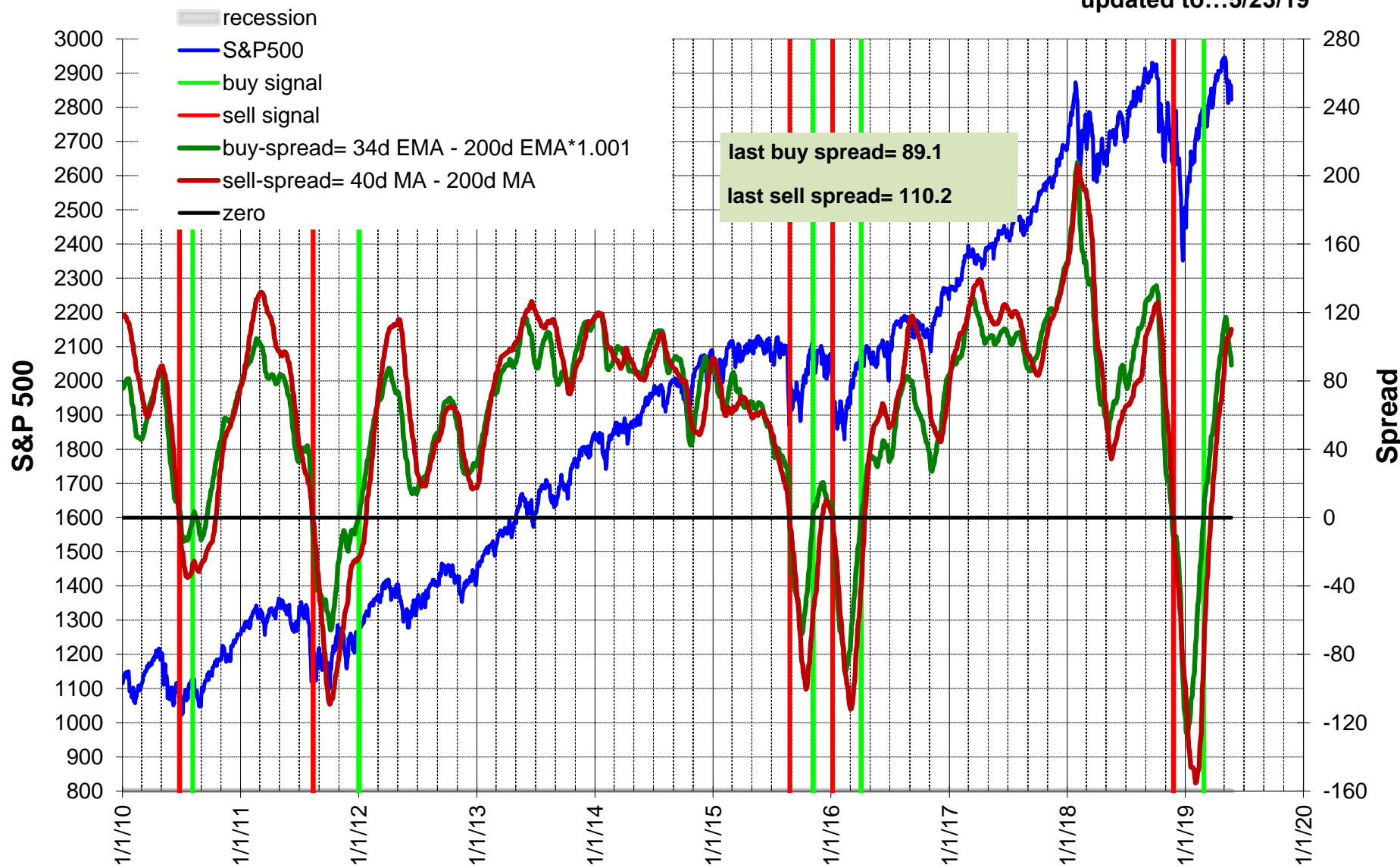


Fig 2.1: Buy and Sell signals for the Australia All Ordinaries Index from the MAC-AU System



updated to May-24-19  
last sell spread= 320.0

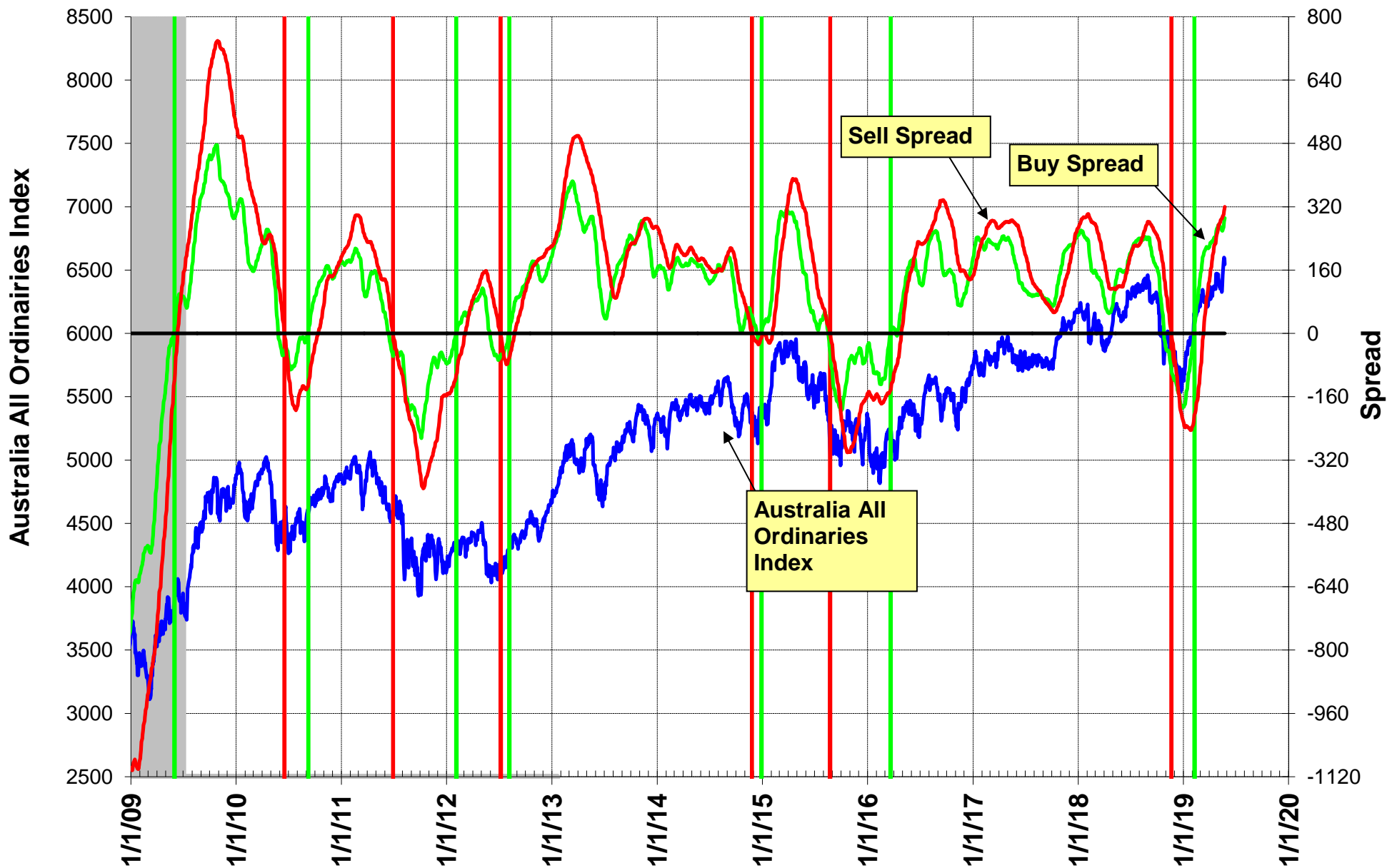
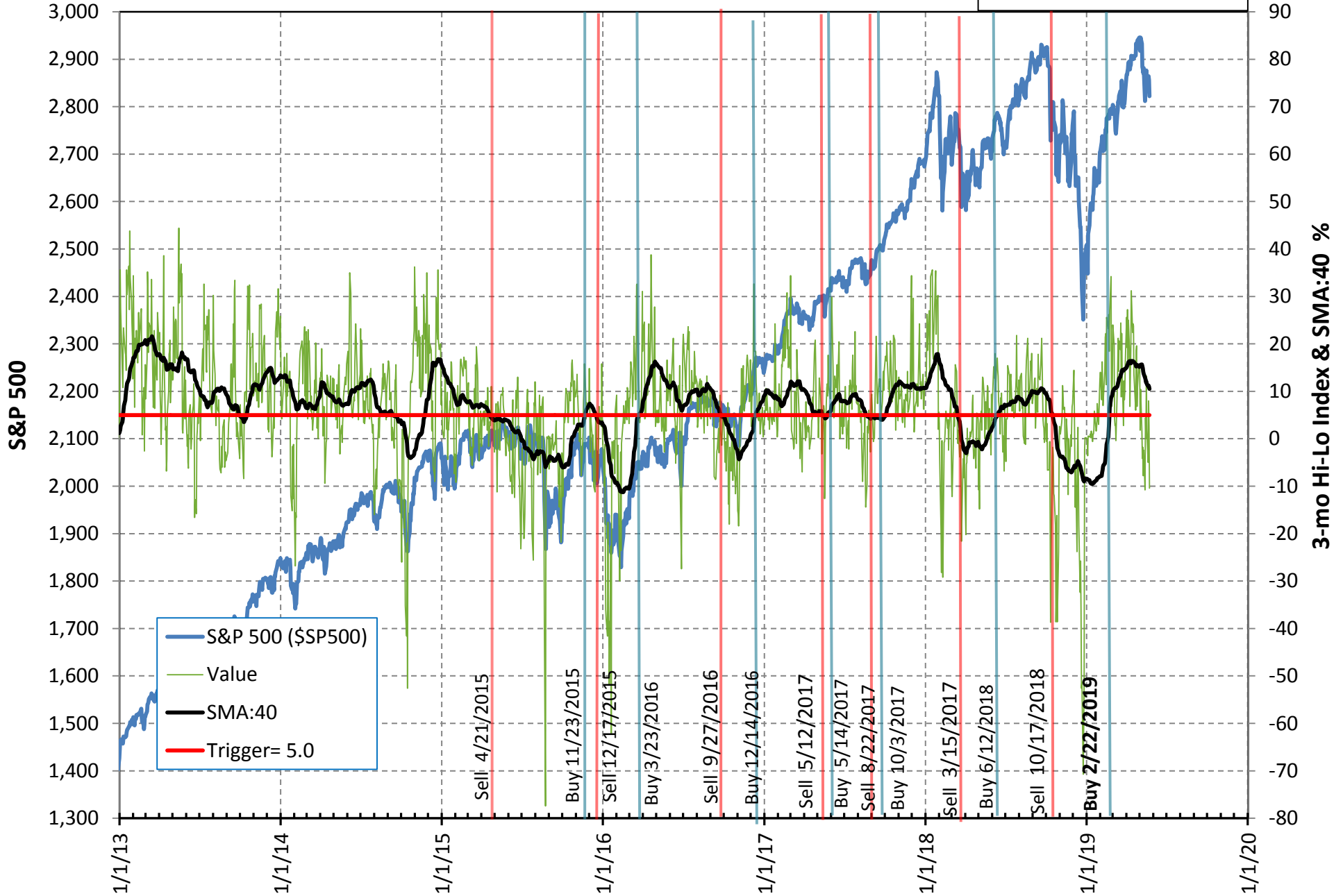


Fig 2.2 3-mo Hi-Lo Index of the S&P500 & 40-day SMA of Index

updated to 5/23/2019

last SMA:40= 10.49%



### Fig-2.3 Modified Coppock Indicator for S&P500 2005-2019

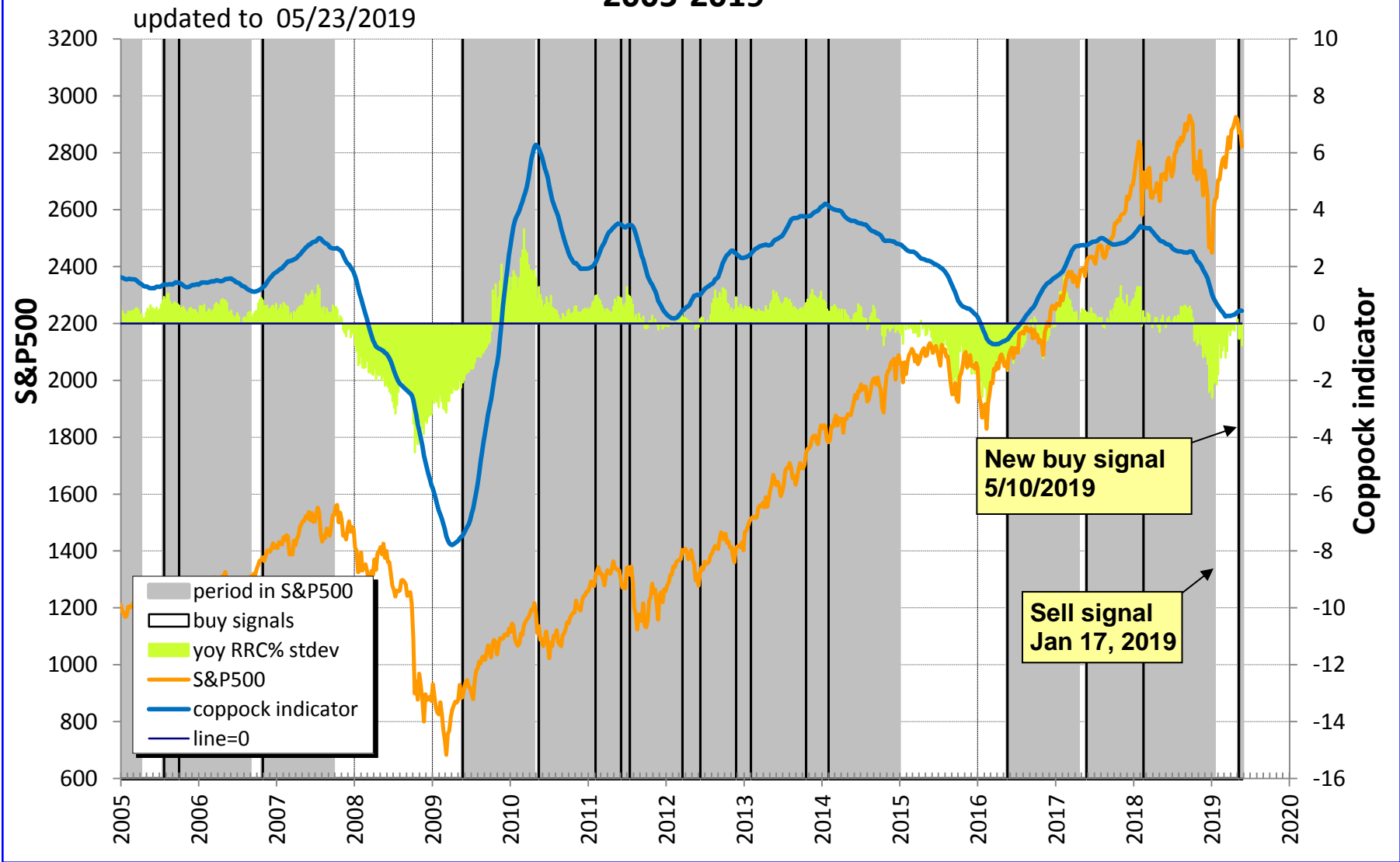
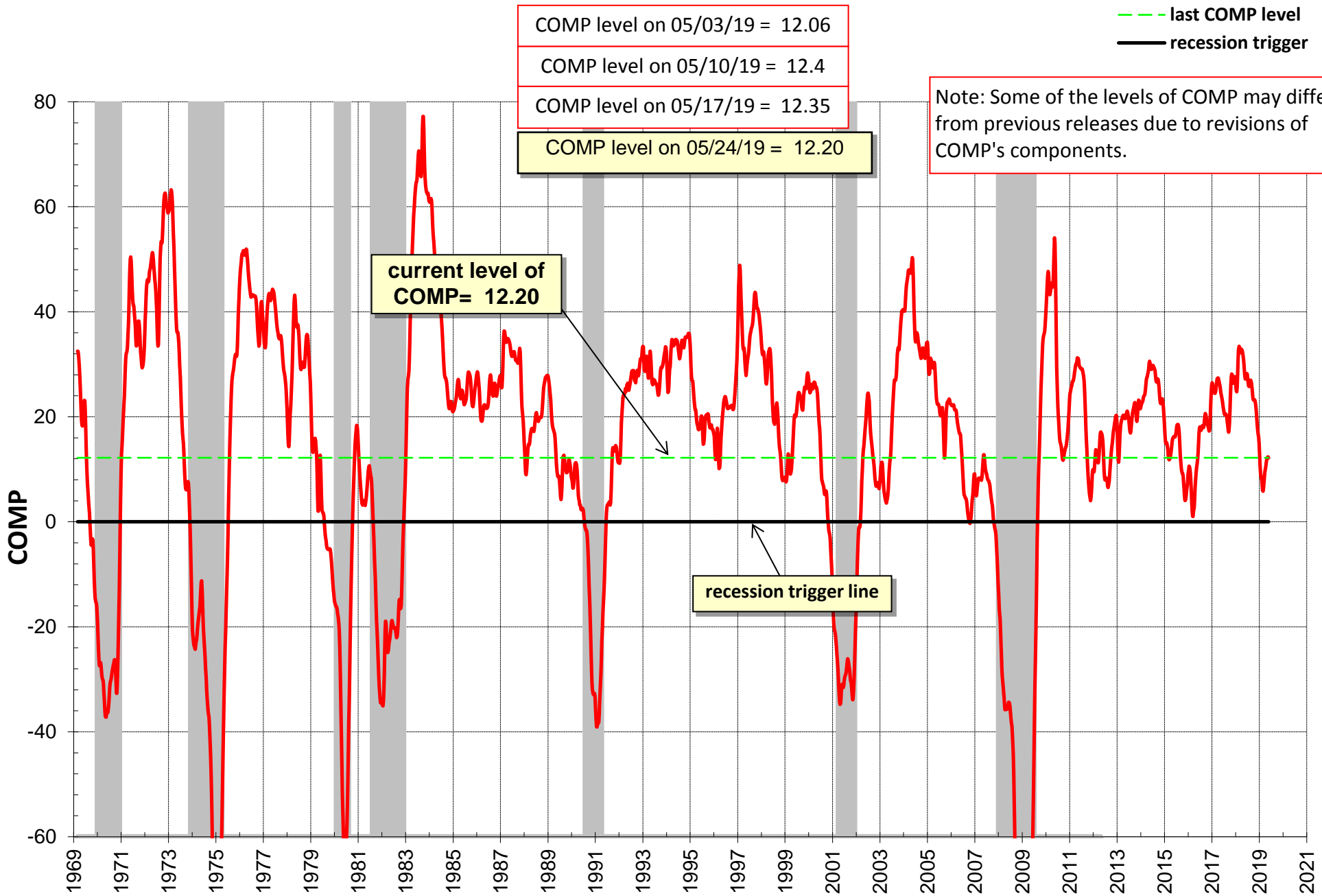


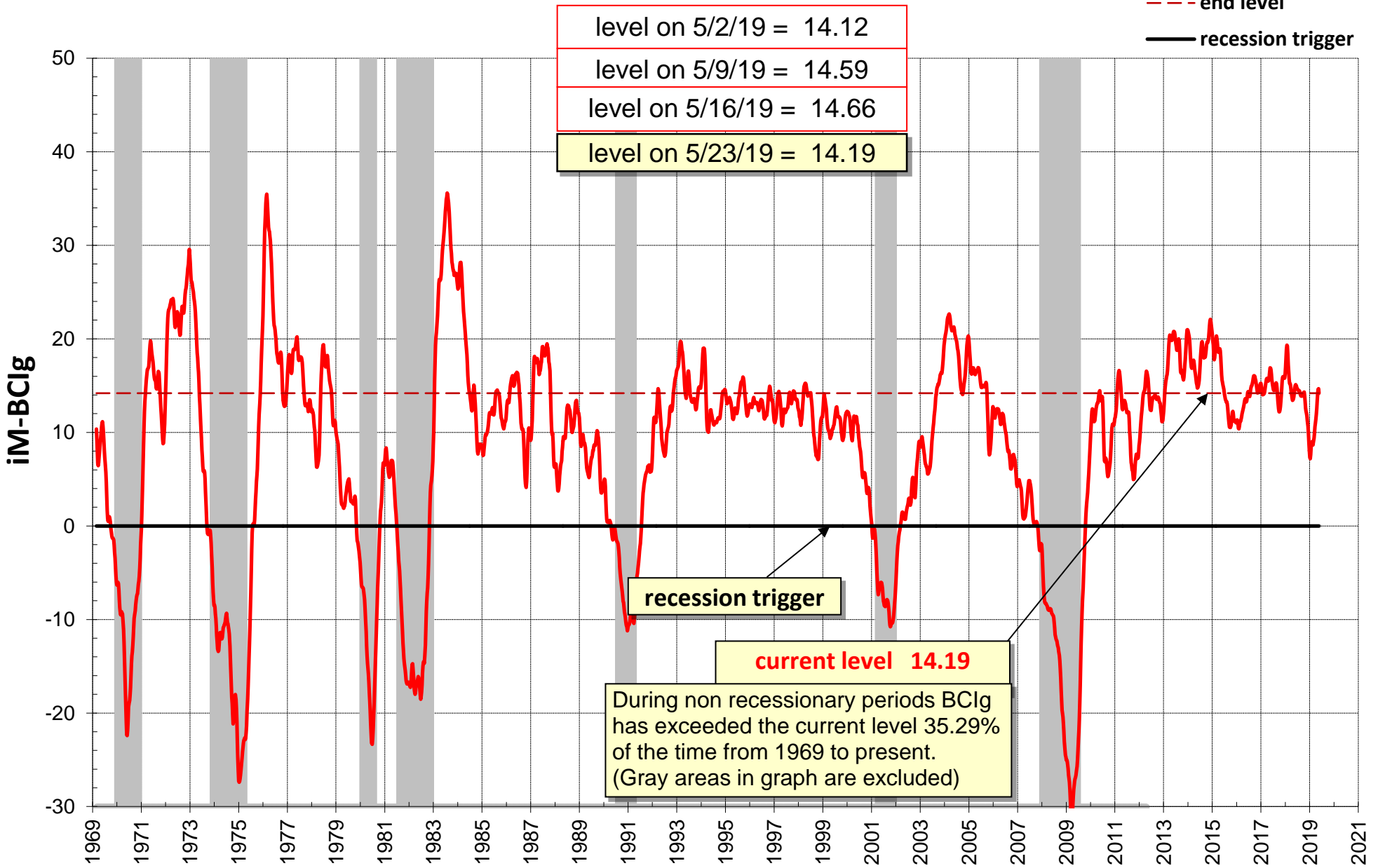
Fig. 3: COMP Leading Indicator of US Economy 1969-2019

- recession
- COMP
- last COMP level
- recession trigger



### Fig 3.1: iM-BCI<sub>g</sub> 1969-2019

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



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

updated to 05/23/2019

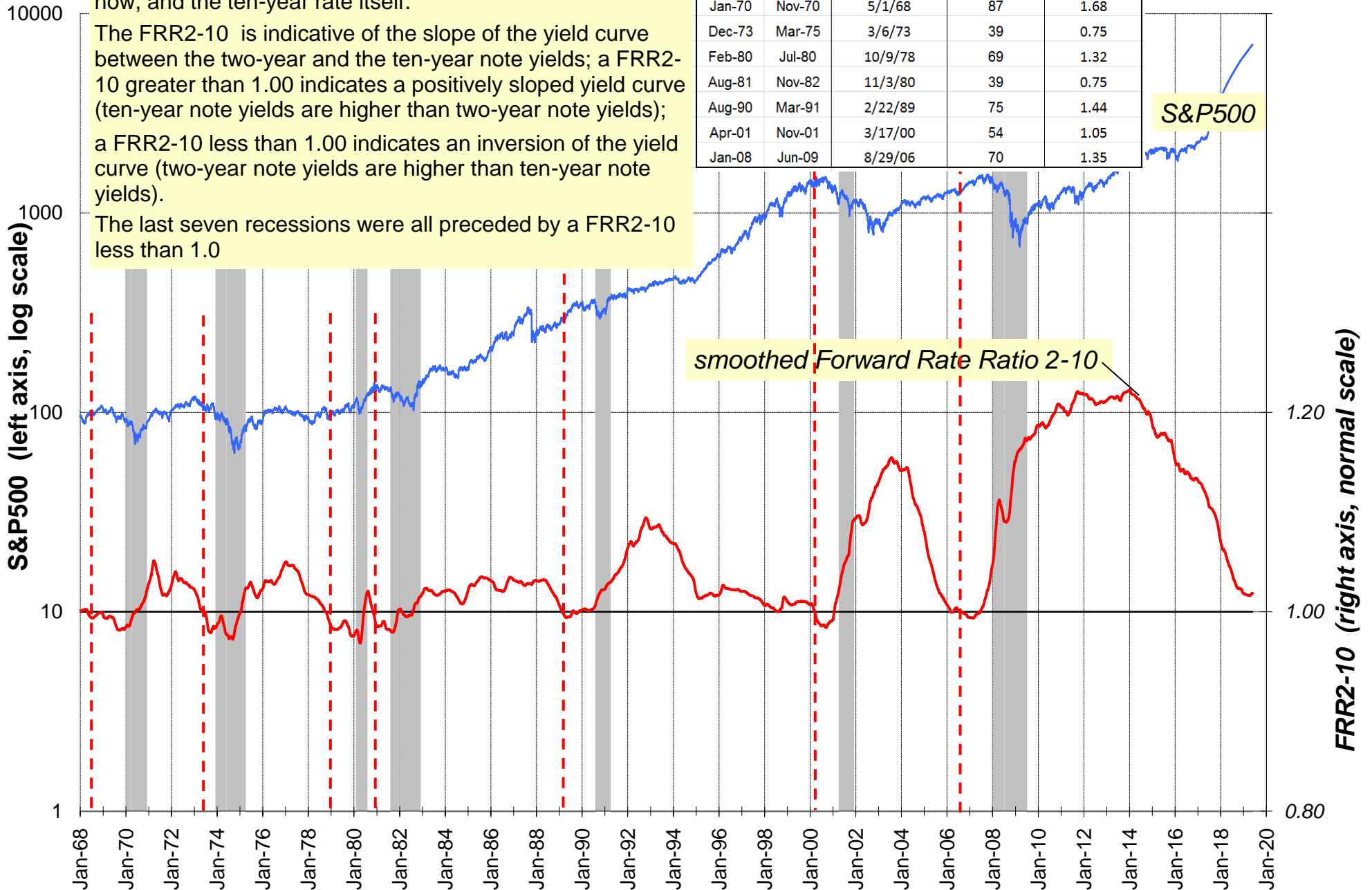
EMA of FRR2-10 = 1.019

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).

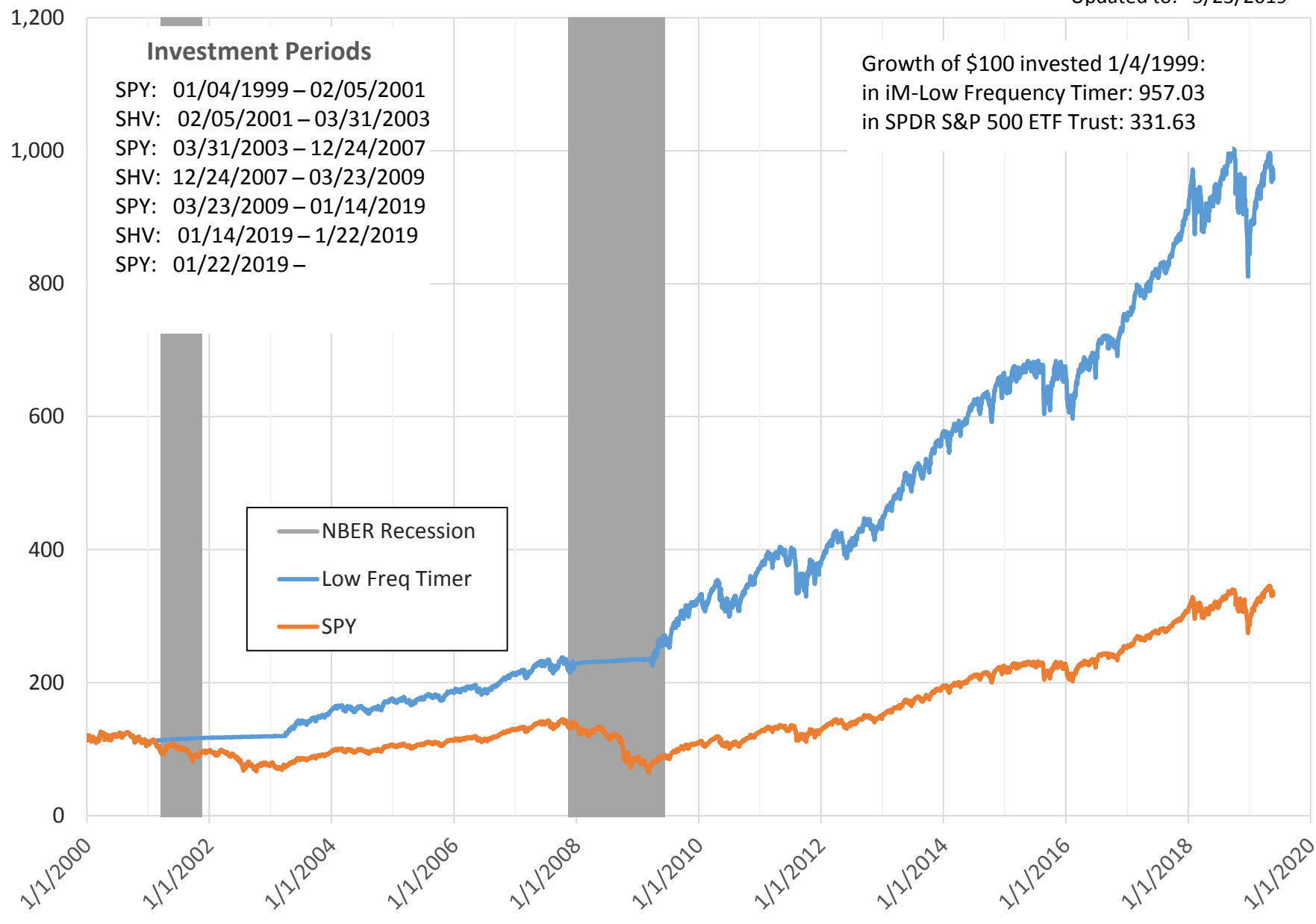
The last seven recessions were all preceded by a FRR2-10 less than 1.0

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

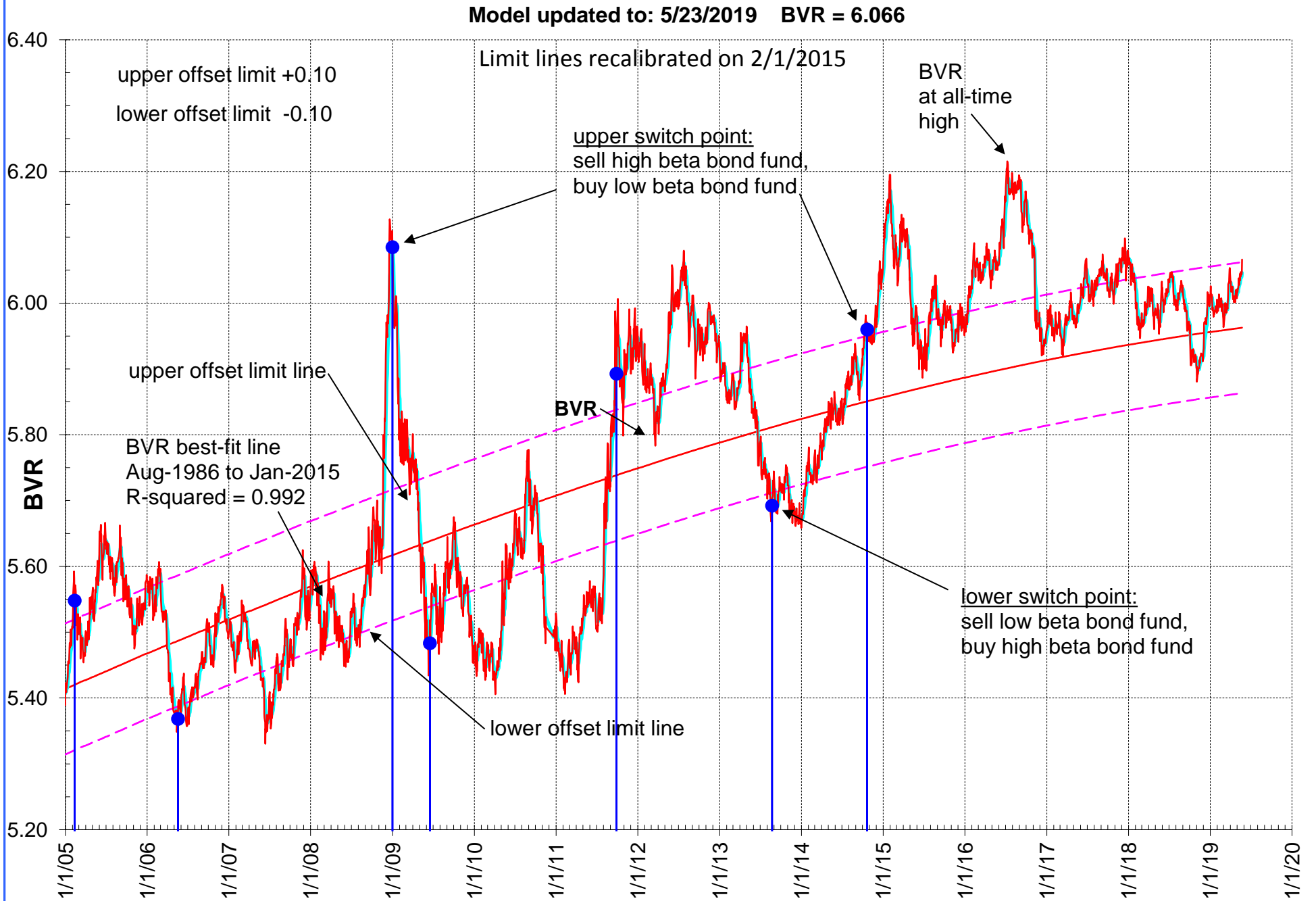


### Fig.3.3 iM-Low Frequency Timer

Updated to: 5/23/2019



### Figure 4: Bond Value Ratio (BVR) from 2005 to 2018



**Figure 5: i10 - i2 Updated to.....5/23/2019**

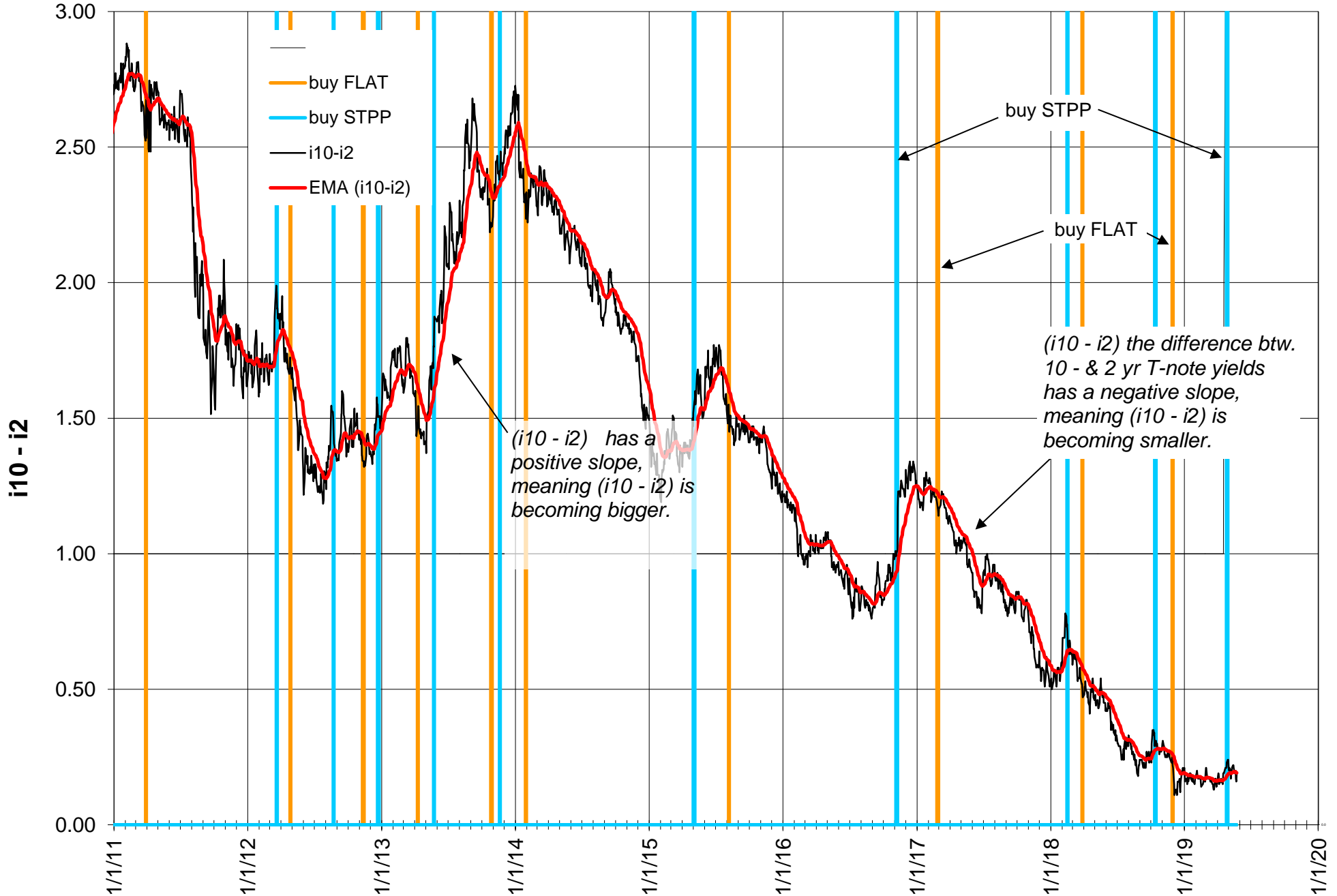
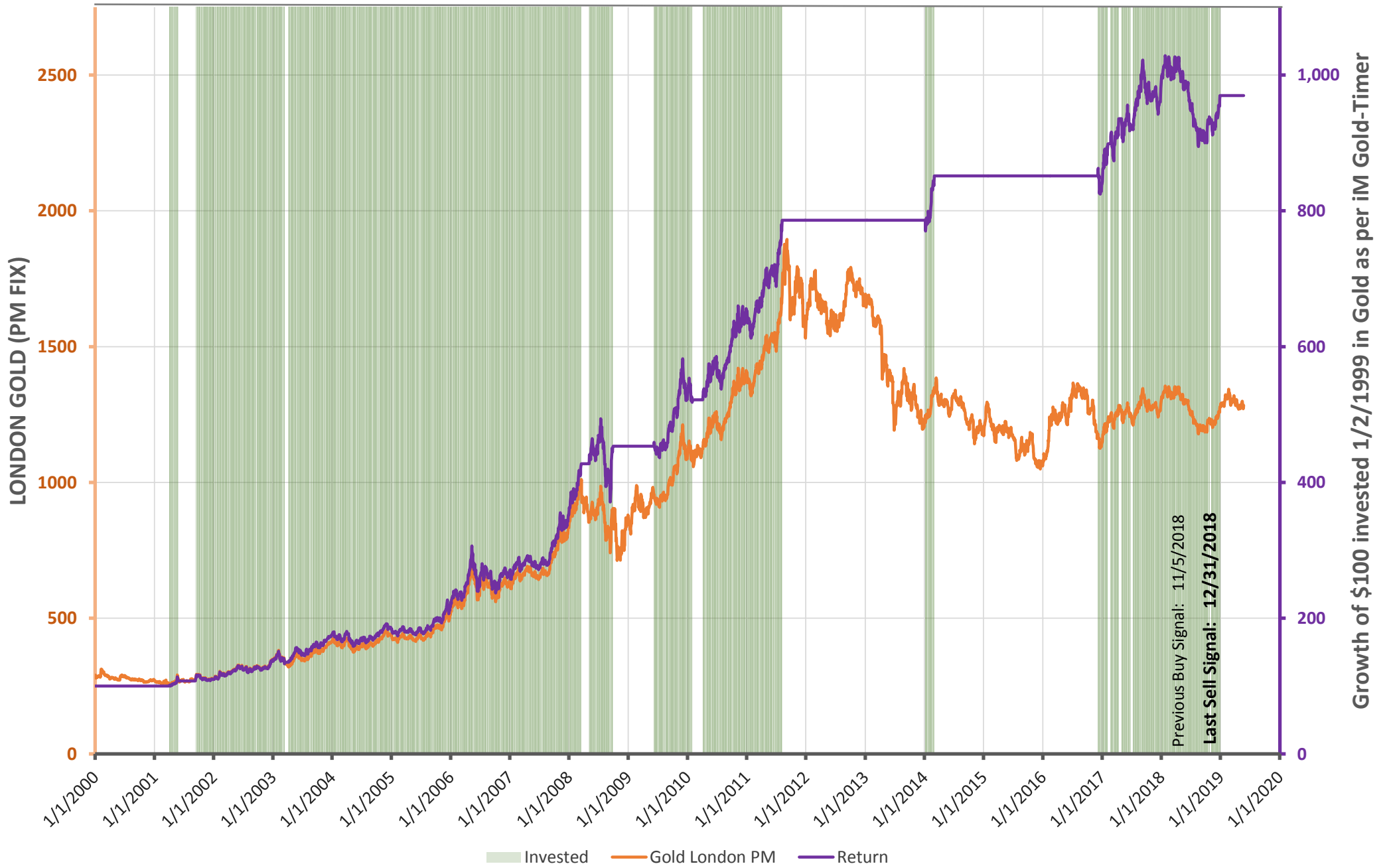


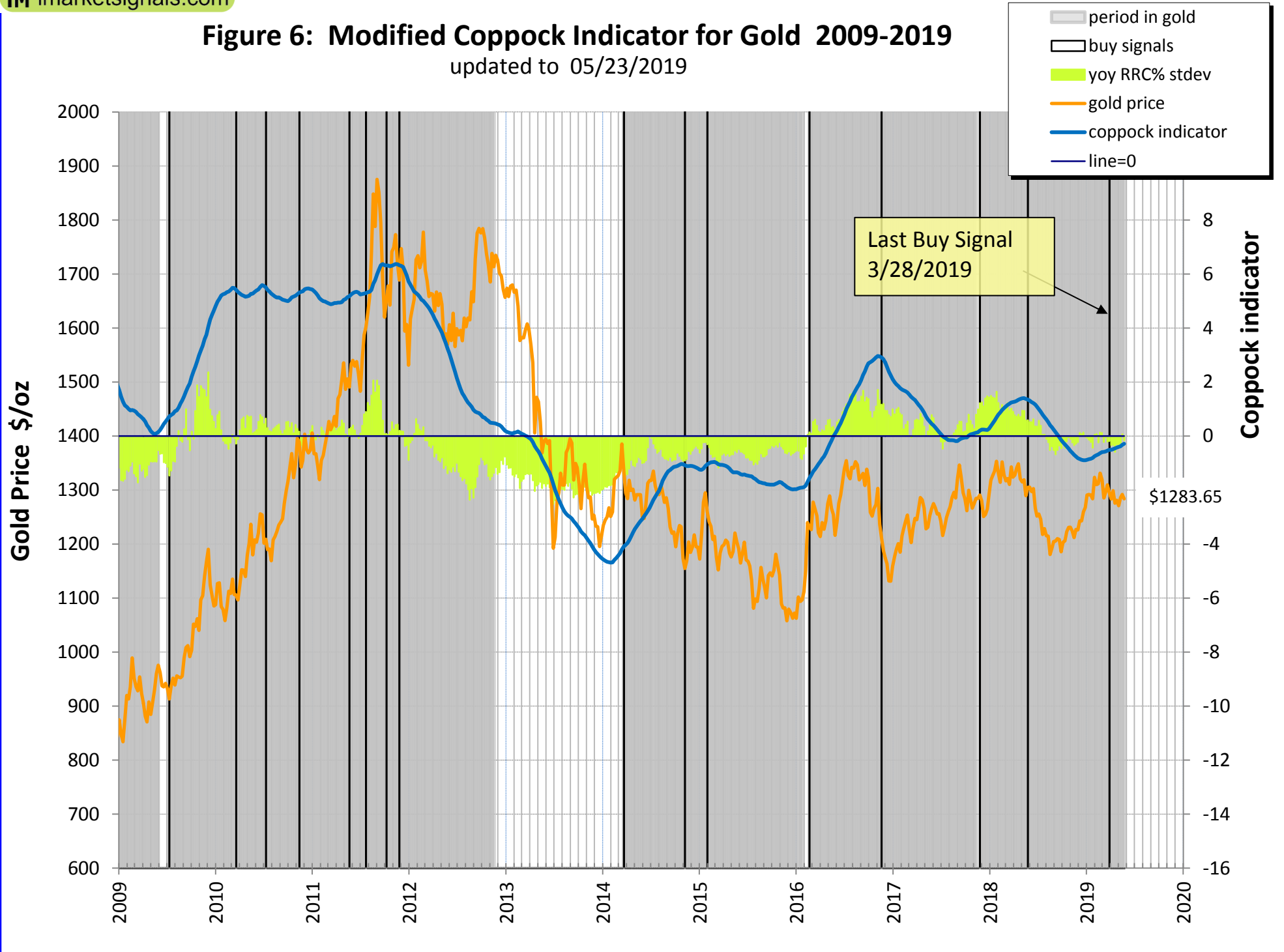
Fig. 6.1a iM GOLD-TIMER - Rev 1

Updated to: 5/23/2019



# Figure 6: Modified Coppock Indicator for Gold 2009-2019

updated to 05/23/2019



### Figure 7: Modified Coppock Indicator for Silver 2009-2018

updated to 05/23/2019

