ICAP Technical Analysis

Walter J. Zimmermann Jr. wz@icap-ta.com Year 2018 Outlook - Energy

12th December 2017

The 2018 Outlook for Energy

Walter Zimmermann

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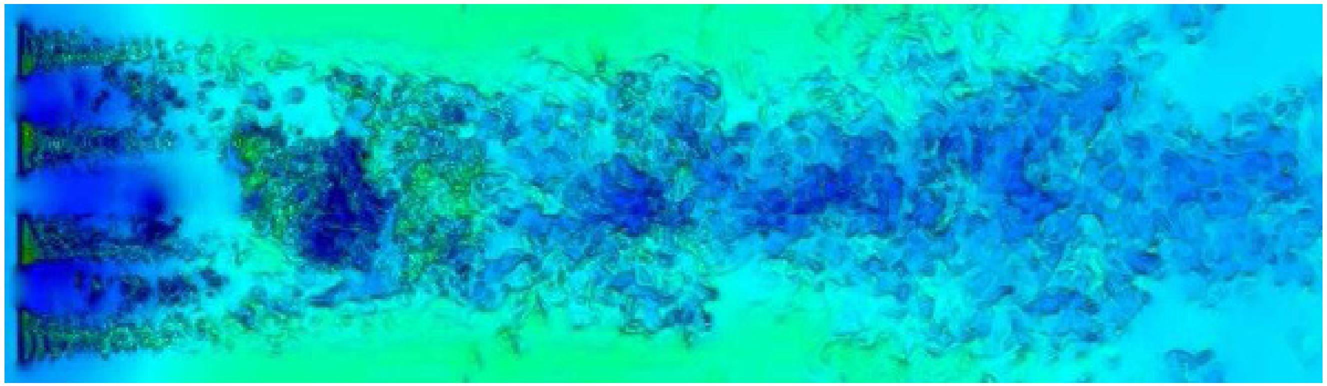

Fractal Generated Turbulent Flow Laizet and Vassilicos 2009 at the UK National Supercomputing Service

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What the flow of time is not

- It may well be impossible to precisely articulate the exact nature of the flow of time.
- However we can say with confidence what the flow of time is not.
- The flow of time is not a mechanical and deterministic transmission of event repercussions from the past into the future.
- The flow of time is complex, fractal, and non-linear.
- There are minor dis-continuities and outright phase transitions.
- Curiosities like 'Newton's Cradle' are definitely not useful models for how time flows.
- Things become even less mechanical when we introduce the flow of collective human behavior through time.
- However with regard to the messy nature of collective human behavior, there is a saving grace.
- Human nature never changes.
- So complex pattern repetition in the markets is to be expected.

Newton's Cradle

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Implusive	Wave Degree	Corrective
“I” “II”	Grand Supercycle	“A” “B”
I II	Supercycle	A B
<I> <II>	Cycle	<A> <B>
-I- -II-	Primary	-A- -B-
(I) (II)	Intermediate	(A) (B)
“1” “2”	Minor	“a” “b”
1 2	Minute	a b
-1- -2-	Minuette	-a- -b-
(1) (2)	Sub-minuette	(a) (b)
[1] [2]	Micro	[a] [b]

Financial Market Risks for Energy

There are two main sources of financial risk for the energy markets. There is the risk of adverse economic expectations. This risk is expressed as falling equity markets. As a big part of crude oil prices are economic expectations, energy traders always need to keep one eye on equity market trends. The other financial risk in energy are US Dollar trends. Given how easily Greenback trends can overshadow crude oil fundamentals, energy traders always need to keep one eye on US Dollar trends.

Crude Oil: is history about to repeat?

Viewed technically the Crude Oil market bears a striking resemblance to how it looked this time last year. The market is very bullish on OPEC. Net speculative length in Brent is at new all time highs. The weekly RSI in WTI is the most overbought since the 114.83 high of May 2011. RBOB sentiment is the most bullish since the 3.1520 high of June 2014. And ULSD sentiment is the most bullish since the 3.3300 high of April 2011. The bull trade in energy is a very crowded trade.

The Risk of an Equity Bubble

While the talking heads on Wall Street complain about how Bitcoin is a bubble, their whining is a bit like the pot calling the kettle black. The US equity markets are displaying all the hallmarks of an epic scale speculative bubble. In fact I would call the Bitcoin bubble an expression of the bullish mania that is driving equities higher.

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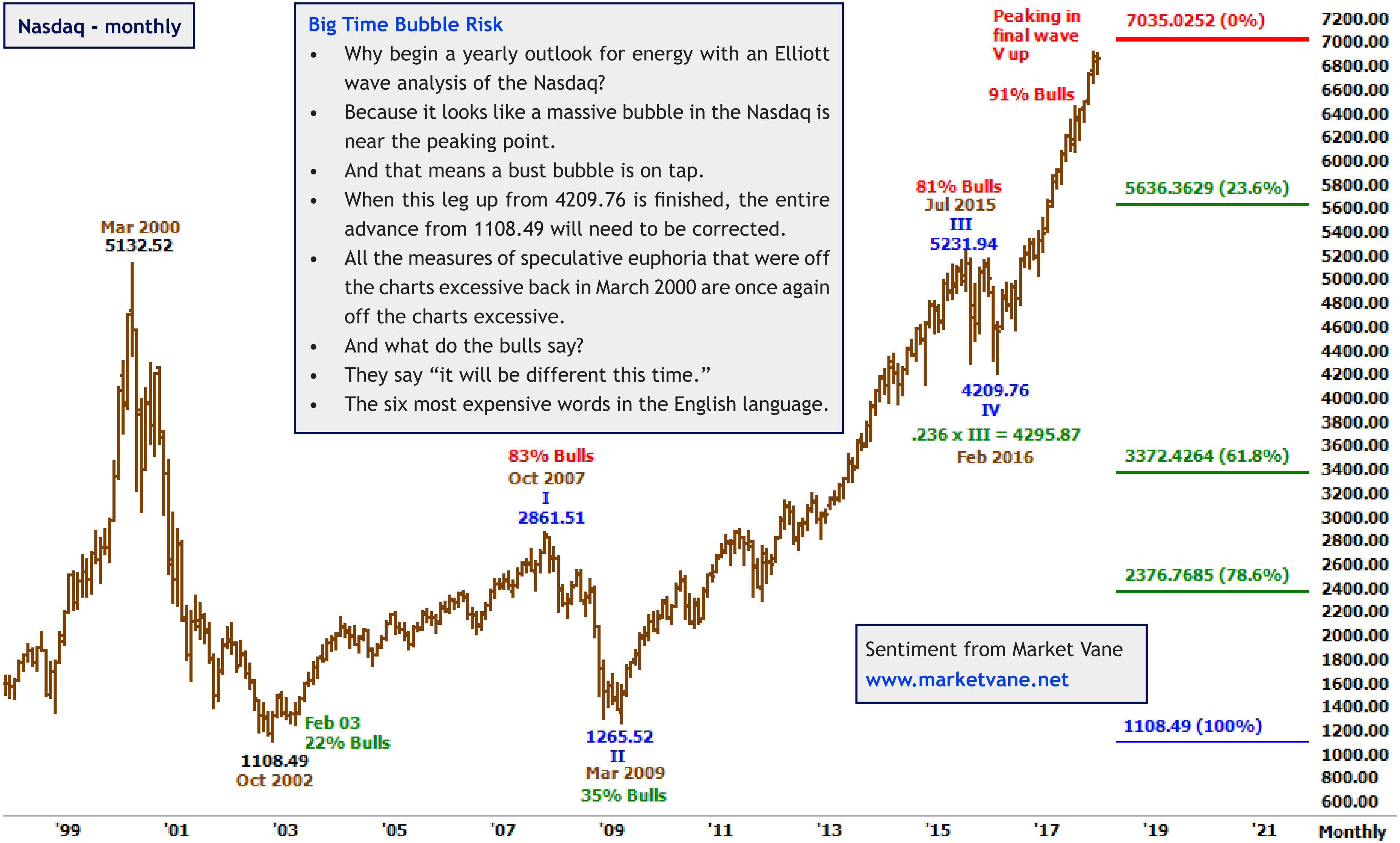
Nasdaq - monthly

Big Time Bubble Risk

- Why begin a yearly outlook for energy with an Elliott wave analysis of the Nasdaq?
- Because it looks like a massive bubble in the Nasdaq is near the peaking point.
- And that means a bust bubble is on tap.
- When this leg up from 4209.76 is finished, the entire advance from 1108.49 will need to be corrected.
- All the measures of speculative euphoria that were off the charts excessive back in March 2000 are once again off the charts excessive.
- And what do the bulls say?
- They say “it will be different this time.”
- The six most expensive words in the English language.



Sentiment from Market Vane
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The Wave Count from 4209.75

- Peg the rally from 6177.19 as the final wave <V> up of the expected five wave advance from 4209.76
- So a completed five wave rally from 6177.19 will also signal a completed five wave rally from .
- And by implication a completed five wave rally from 1108.49
- See next page.

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The Wave Count from 6177.19

- Based on the most recent price action the textbook, final top tick target is the 7035.00 area.
- If instead the Nasdaq keels over from here I get a major sell signal if 6695.00 is decisively broken.
- This market has all the hallmarks of a major, world class bubble.
- Suggest new length place protective sell stops.

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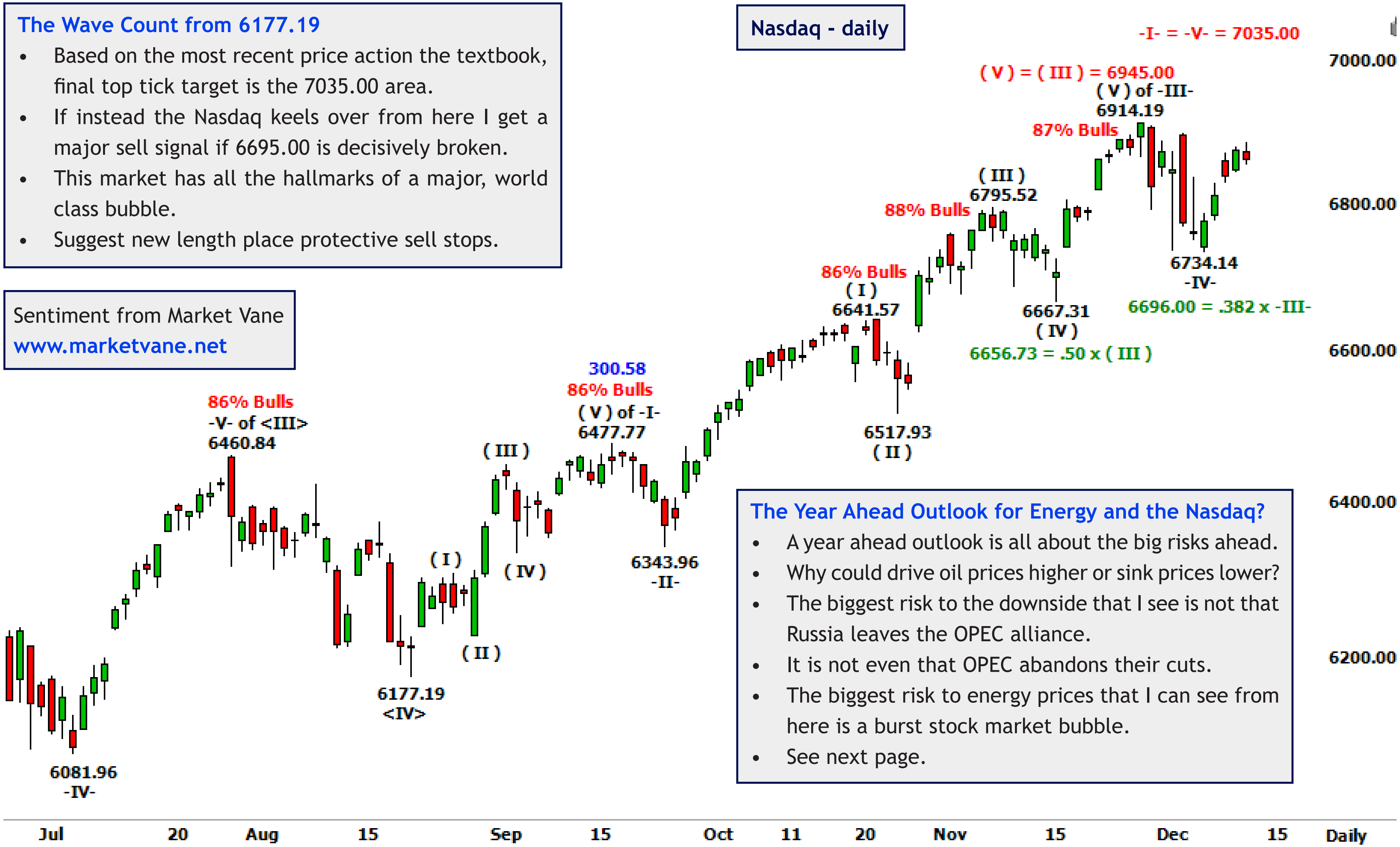

The Year Ahead Outlook for Energy and the Nasdaq?

- A year ahead outlook is all about the big risks ahead.
- Why could drive oil prices higher or sink prices lower?
- The biggest risk to the downside that I see is not that Russia leaves the OPEC alliance.
- It is not even that OPEC abandons their cuts.
- The biggest risk to energy prices that I can see from here is a burst stock market bubble.
- See next page.

Crude Oil and the Bursting of the Dot-Com Bubble

- By any measure of valuation the peak of the Dot-Com bubble in the Nasdaq marked the most over-bought, euphoric bullish extreme since the 1929 peak.
- It was an extremely crowded bull trade.
- During the 2000 to 2002 bursting of the dot-com bubble all boats were lowered.
- The Nasdaq fell from 5132.52 to 1108.49
- WTI crude fell from 37.80 to 16.70
- The Nasdaq lost 78% of its value
- WTI lost 56% of its value.

Crude Oil and the Bursting of the Credit Bubble

- On Wall Street they are fond of saying that a rising tide lifts all boats.
- What they never talk about on Wall Street is how an ebb tide lowers all boats.
- During the 2007 to 2009 bursting of the credit bubble all boats were lowered.
- The Nasdaq fell from 2861.51 to 1293.85
- WTI crude fell from 145.29 to 32.40
- The Nasdaq lost 55% of its value
- WTI lost 78% of its value.

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Peak into Pivotal Resistance?

- My pivotal resistance was 17.97
- Is 17.27 a major peak?

High Tech versus Petroleum

- From 2008 the rally in equities left the commodity sector in the dust.
- This ratio gives some idea of how expensive equities have become compared to petroleum.
- This technical analysis suggests that equities are unsustainably expensive compared to commodities, especially the energy sector.

The S&P GSCI

- At 56.25% the S&P GSCI has the highest percentage of energy of any commodity index.
- No other index else even comes close.

Energy in the GSCI

- WTI 22.80%
- ULSD 4.06%
- RBOB 4.67%
- Brent 16.49%
- GasOil 4.91%
- NatGas 3.32%
- Total 56.25%

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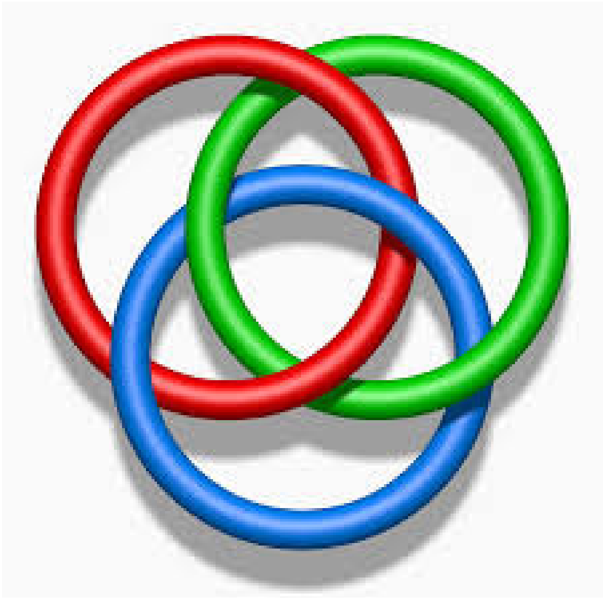
Big Picture Refresh

- To review, peg 103.82 the 16 year cycle high.
- My most bullish case candidate for the next cycle low is 78.000
- Expect any upside from here will be limited to the 99.000 - 101.00 zone.
- So I would much rather scale up sell into any rebound than try to buy a dip.
- At least for the next few years.

Mediated Influences, Not Direct Linkage

- When the US Dollar sinks crude oil rallies.
- Unless the stock market implodes, implying bearish economic expectations, and thereby lower demand for crude oil.
- When the stock market rallies crude oil follows.
- Unless the US Dollar roars higher, thereby making crude oil cheaper.
- When crude oil prices roar higher it is generally not good news for equities.
- Unless the US Dollar sinks thereby aiding US exports.
- For a fundamental analyst all this can be rather maddening.
- For every "If...Then" there is an "Unless."
- There is a mathematical structure that describes this complex three ring circus of Equities, Crude Oil, and the Greenback.
- It is called the Borromean Rings.



- The ***Borromean Rings*** are a mathematcial structure in which three topological circles (i.e. rings) are linked to form a ***Brunnian Link***.
- In a Brunnian link the removal of any one ring leaves behind two unlinked rings.
- In this structure no two of the three rings are linked with each other, yet all three are connected.
- So for example, delete the blue ring and the red and green rings are now unlinked.

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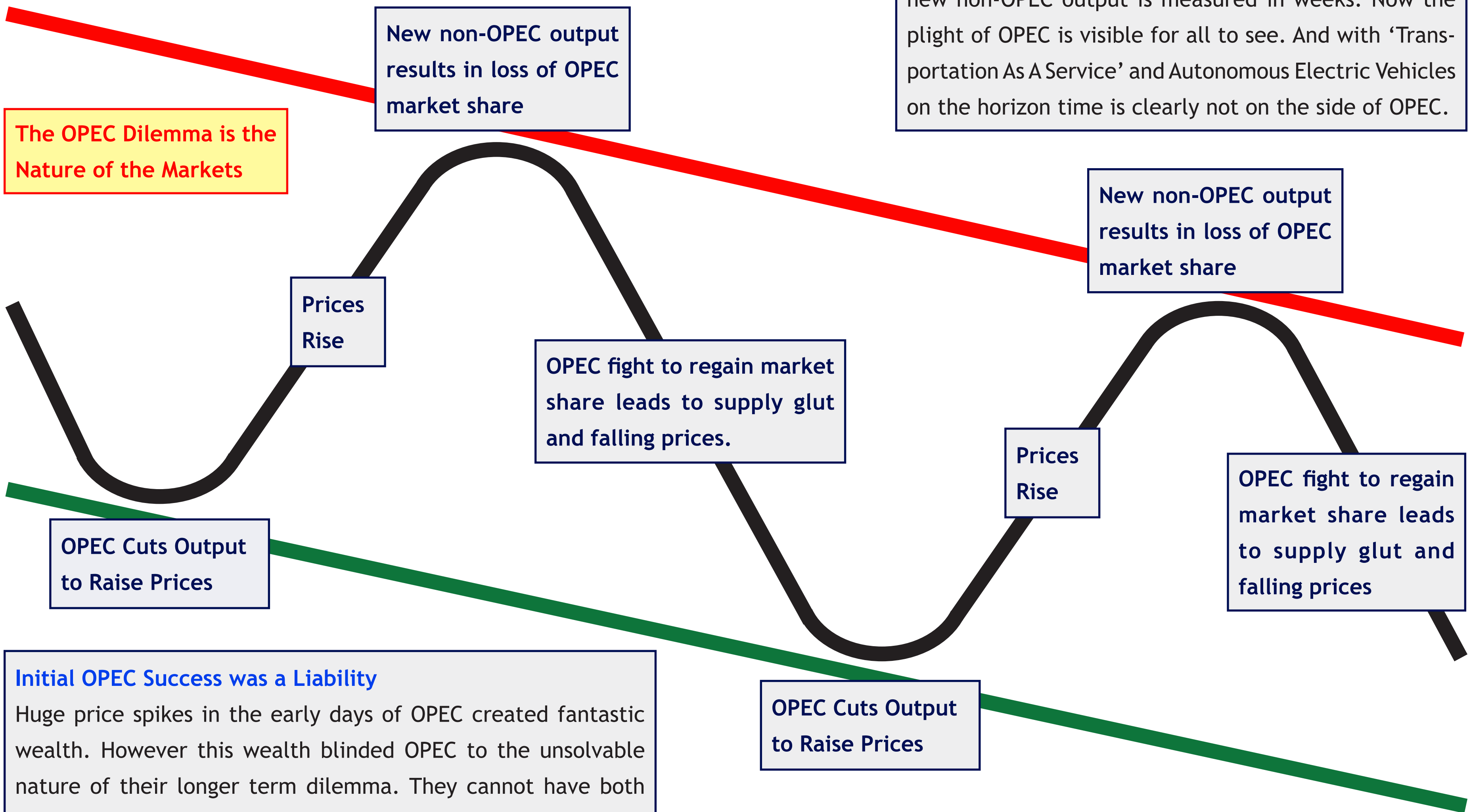
The OPEC Predicament

In the old days there was a multi-year lag between an OPEC engineered rise in crude oil prices and a surge of new non-OPEC output. But now with thousands of DUCs in North America that lag time between a price hike and new non-OPEC output is measured in weeks. Now the plight of OPEC is visible for all to see. And with ‘Transportation As A Service’ and Autonomous Electric Vehicles on the horizon time is clearly not on the side of OPEC.



Initial OPEC Success was a Liability

Huge price spikes in the early days of OPEC created fantastic wealth. However this wealth blinded OPEC to the unsolvable nature of their longer term dilemma. They cannot have both market share and high prices. The markets do not work that way.

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Is History Repeating Itself ?

A year ago as most were bullish on OPEC, the WTI was peaking into the $55.00 pivotal Elliott wave resistance. Now, with most bullish on OPEC, WTI may be peaking into the pivotal $60.00 Elliott wave resistance.

WTI - weekly

The First Alarm

The first alarm would be a break below 55.00 from here.

55.24 Versus 59.05

WTI feels very much like it did last year at this time, only even more vulnerable.

- Sentiment at 55.24 was 38% Bulls
- Sentiment at 59.05 was 50% Bulls
- Weekly RSI at 55.24 was 63.69%
- Weekly RSI at 59.05 was 70.52%
- Stochastic at 55.24 was 90.40
- Stochastic at 59.05 was 99.26

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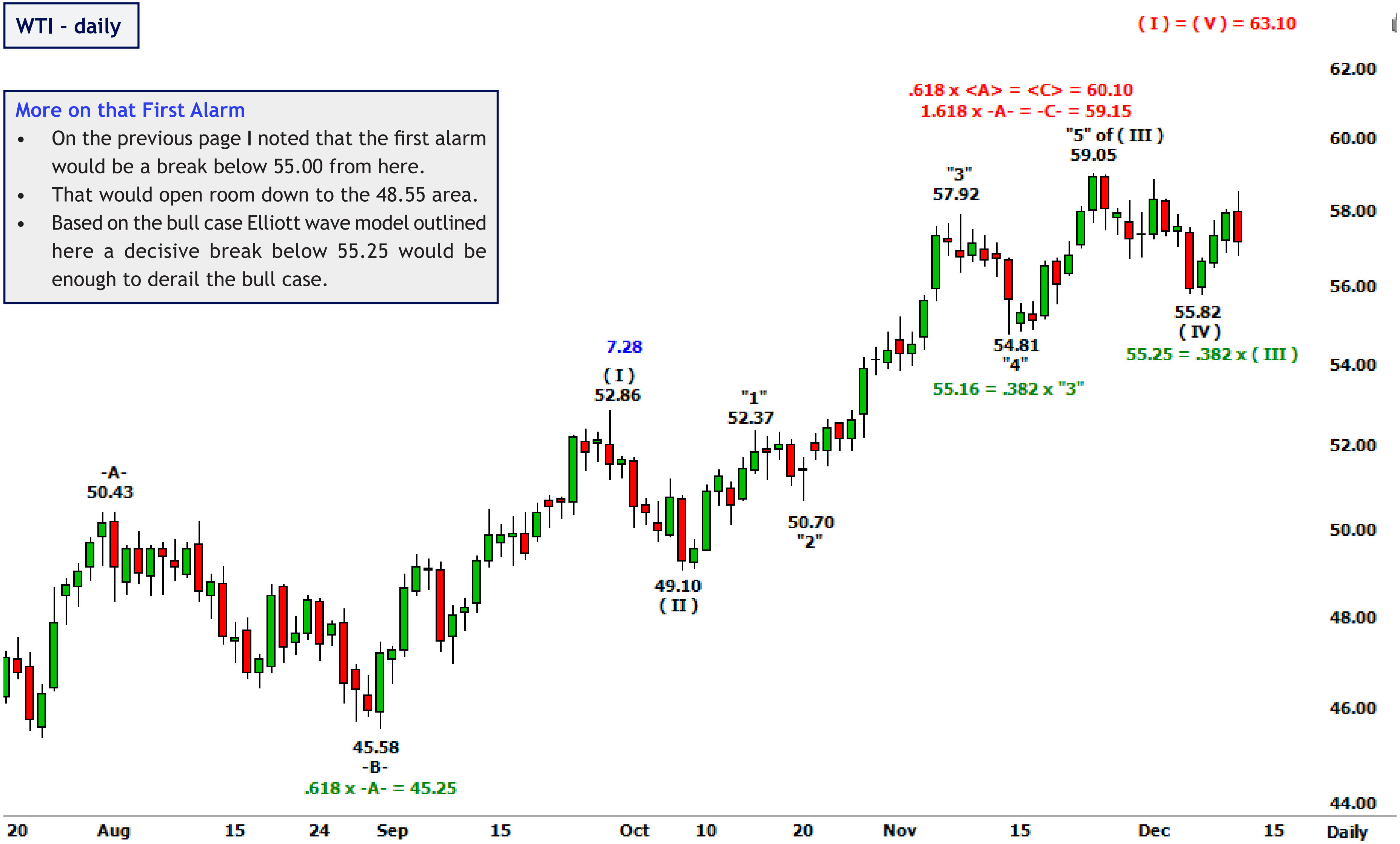
More on that First Alarm

- On the previous page I noted that the first alarm would be a break below 55.00 from here.
- That would open room down to the 48.55 area.
- Based on the bull case Elliott wave model outlined here a decisive break below 55.25 would be enough to derail the bull case.



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In Search of Cyclical Resistance

In time cycle terms WTI is seeking out the upper edge of a trading range that should persist into 2030 plus or minus a couple years.

Candidates for the Cyclical Trading Range

- In the bull case outlined here cyclical trading range resistance is the 65.55 to 71.25 zone.
- From a 65.55 area trading range peak the candidate for cyclical trading range support becomes the 41.00 to 35.00 zone.

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Cyclical Precedent

The message of the 15 and 30 year time cycles in crude oil has been very clear. The precedent to the post 2016 price action in crude oil is the post 1986 price action in crude oil. This has been my contention since 2015. Here we revisit this precedent.

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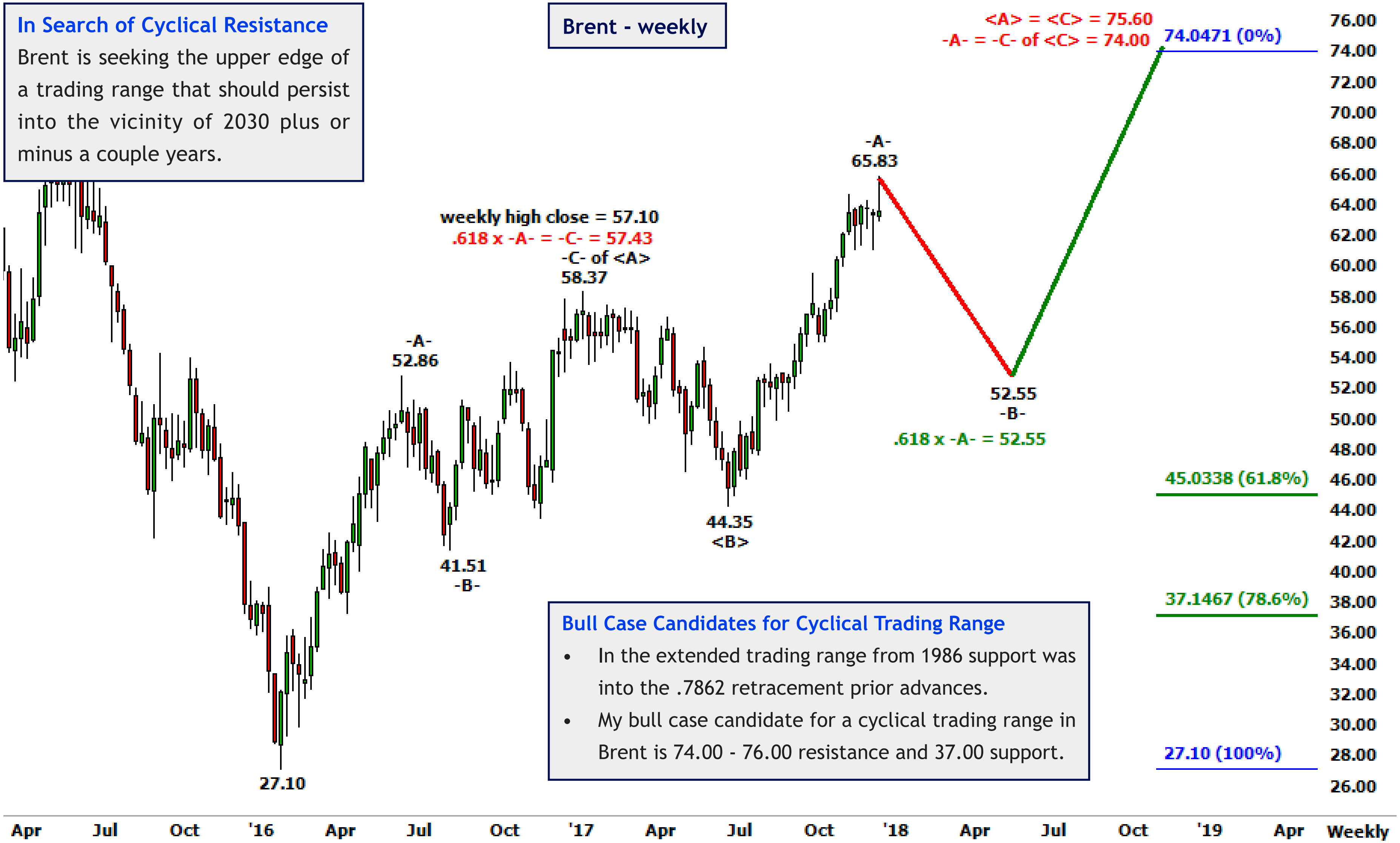
In Search of Cyclical Resistance

Brent is seeking the upper edge of a trading range that should persist into the vicinity of 2030 plus or minus a couple years.



Bull Case Candidates for Cyclical Trading Range

- In the extended trading range from 1986 support was into the .7862 retracement prior advances.
- My bull case candidate for a cyclical trading range in Brent is 74.00 - 76.00 resistance and 37.00 support.

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Floundering into the Up trend Support Line

- The word 'floundering' is not derived from the fish.
- Flounder is likely derived from 'founder' which means to sink, to fail, or to collapse. And founder comes from the French 'fondrer' meaning to submerge, to send to the bottom.
- So floundering means to be in the act of sinking.
- This spread has been struggling to hold the support line.
- The risk is clear.
- There is serious downside risk if the up trend support line fails.
- And even if the support line somehow holds, there is still the even longer term resistance line from the 2003 peak.

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The Bigger Picture Risk

- As I noted at the time, the whopping 68% bulls into the 1.8402 high was the most bullish sentiment extreme in RBOB since the 3.1520 high of June 2014.
- This bullish euphoria is consistent with the case for .8975 to 2.1705 as a completed advance that must now be corrected.

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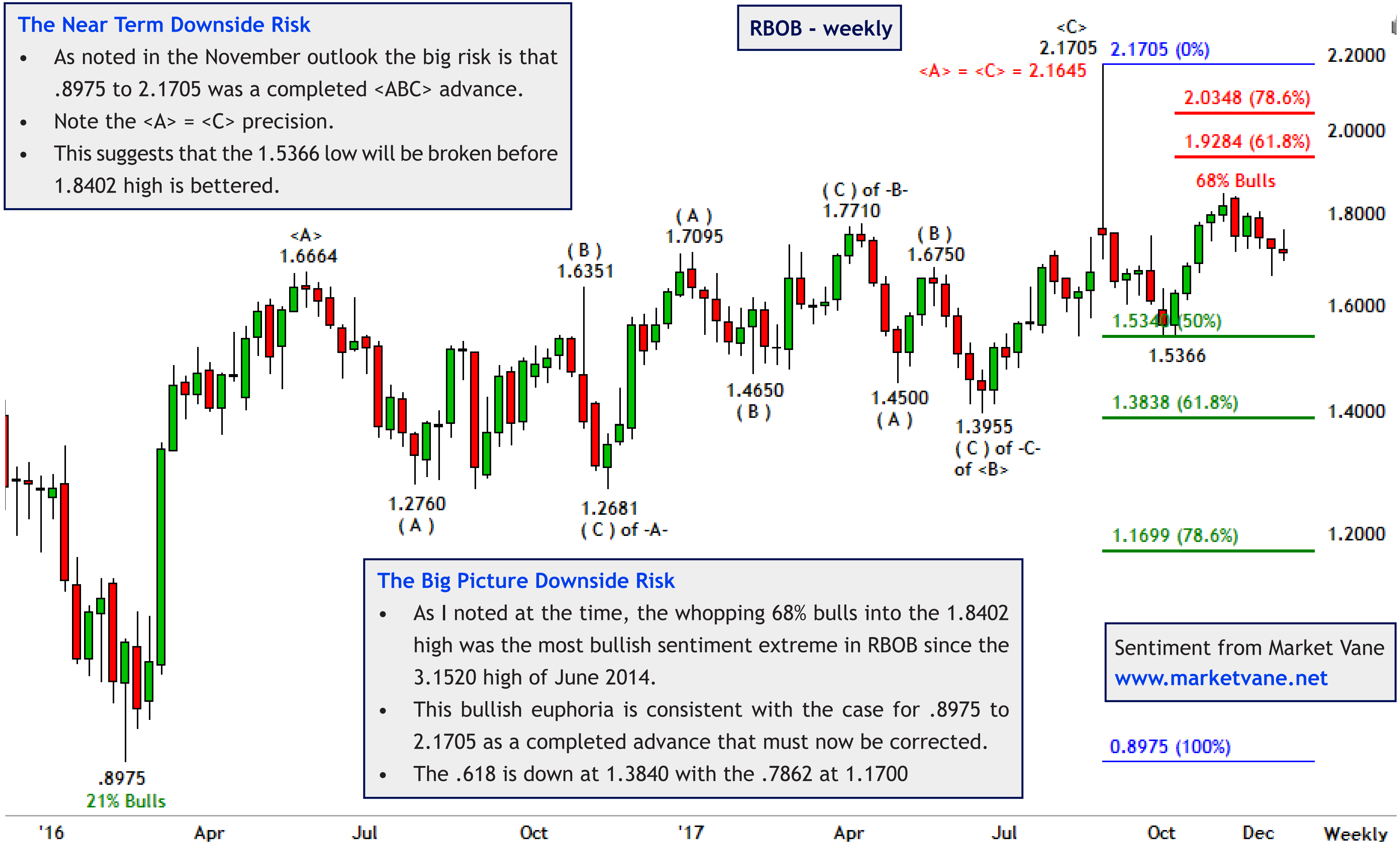
The Near Term Downside Risk

- As noted in the November outlook the big risk is that .8975 to 2.1705 was a completed <ABC> advance.
- Note the <A> = <C> precision.
- This suggests that the 1.5366 low will be broken before 1.8402 high is bettered.



The Big Picture Downside Risk

- As I noted at the time, the whopping 68% bulls into the 1.8402 high was the most bullish sentiment extreme in RBOB since the 3.1520 high of June 2014.
- This bullish euphoria is consistent with the case for .8975 to 2.1705 as a completed advance that must now be corrected.
- The .618 is down at 1.3840 with the .7862 at 1.1700

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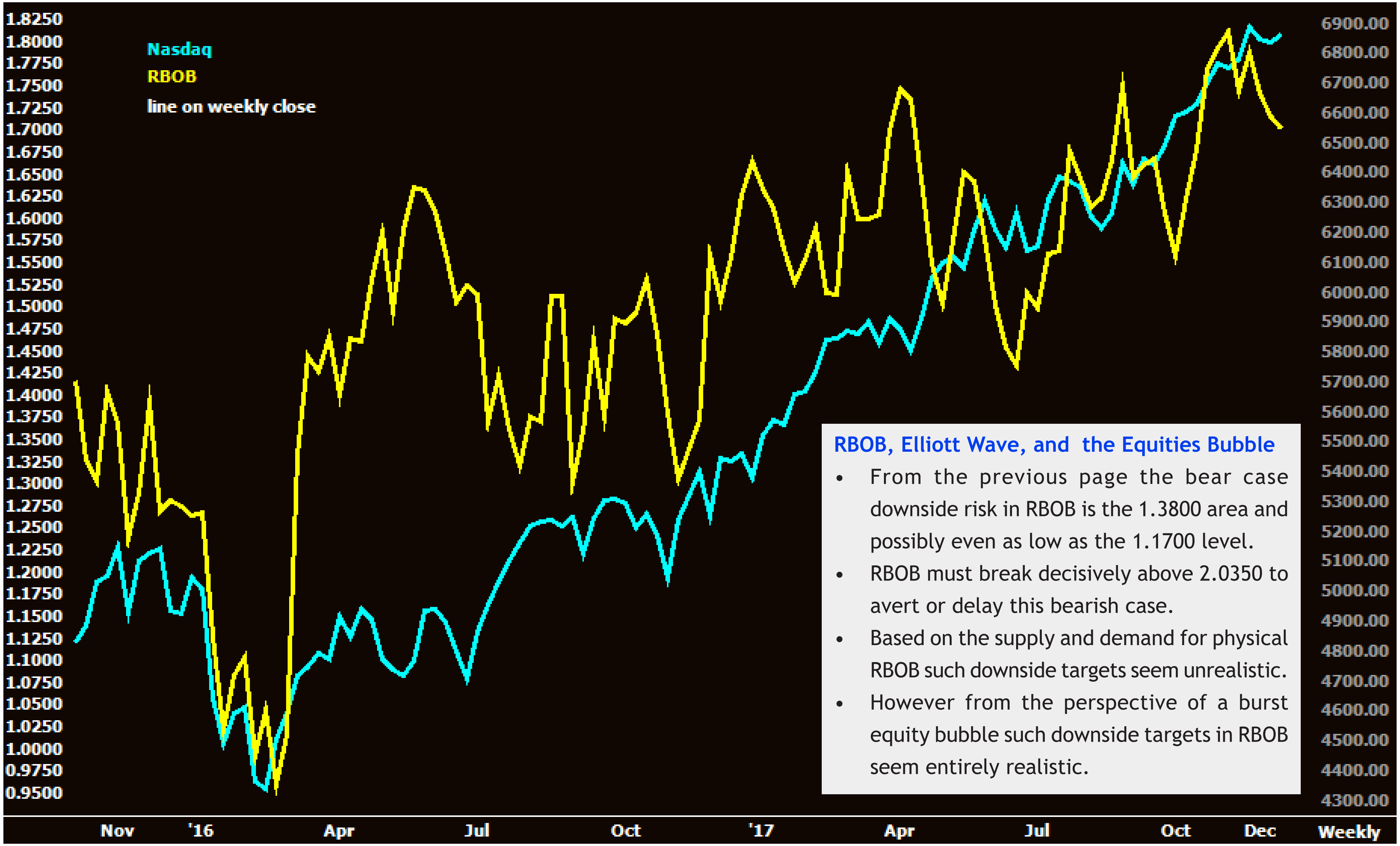

RBOB, Elliott Wave, and the Equities Bubble

- From the previous page the bear case downside risk in RBOB is the 1.3800 area and possibly even as low as the 1.1700 level.
- RBOB must break decisively above 2.0350 to avert or delay this bearish case.
- Based on the supply and demand for physical RBOB such downside targets seem unrealistic.
- However from the perspective of a burst equity bubble such downside targets in RBOB seem entirely realistic.

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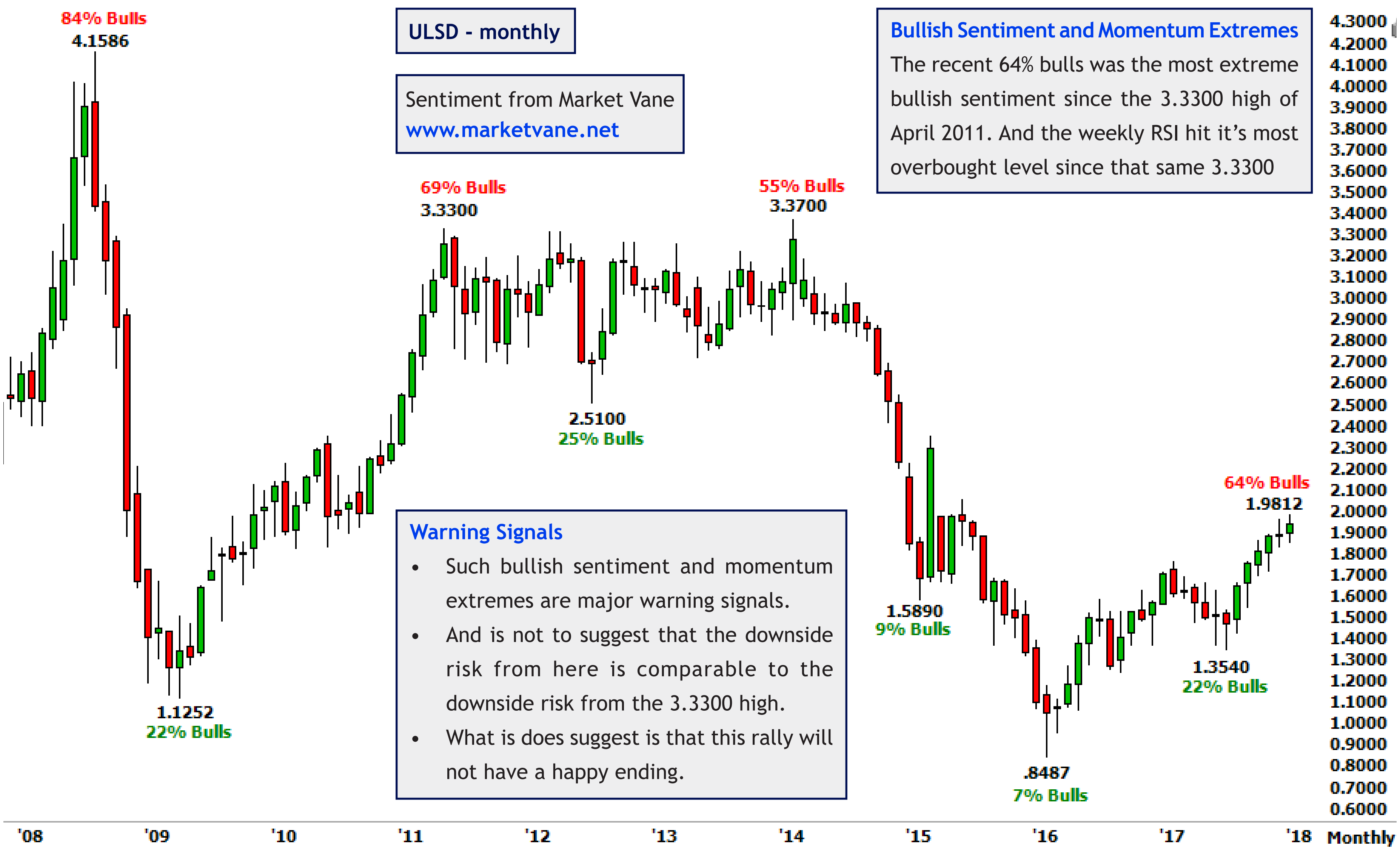

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Bullish Sentiment and Momentum Extremes

The recent 64% bulls was the most extreme bullish sentiment since the 3.3300 high of April 2011. And the weekly RSI hit it's most overbought level since that same 3.3300

Warning Signals

- Such bullish sentiment and momentum extremes are major warning signals.
- And is not to suggest that the downside risk from here is comparable to the downside risk from the 3.3300 high.
- What is does suggest is that this rally will not have a happy ending.

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The Bull Case Outlook

- My bull case outlook from here is for a bull market correction of the leg up from the 1.3540 low to the 1.9812 high.
- The .618 retraqcement of that advance would take ULSD down to the 1.5935 area.

Cyclical Support and Resistance

- Peg the 2.2200 - 2.2700 zone cyclical resistance
- Peg the 1.3900 to 1.1500 range cyclical support.

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Cyclical Resistance and Support

- My bull case cyclical resistance is the 638.00 to 672.00 zone.
- From there my cyclical support becomes the 408.00 to 337.00 range.

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Up Trend Channel Support Not Holding

Things are not looking so good for the bulls in this spread. The up trend channel support line is not holding.

The Downside Risk

The downside risk is a decisive weekly close below the -.2650 level. Such a close would open room down to the -.4500 area. If such a drop occurs quickly enough we could have a very nice Q1 to Q2 pre-season rally in this spread.

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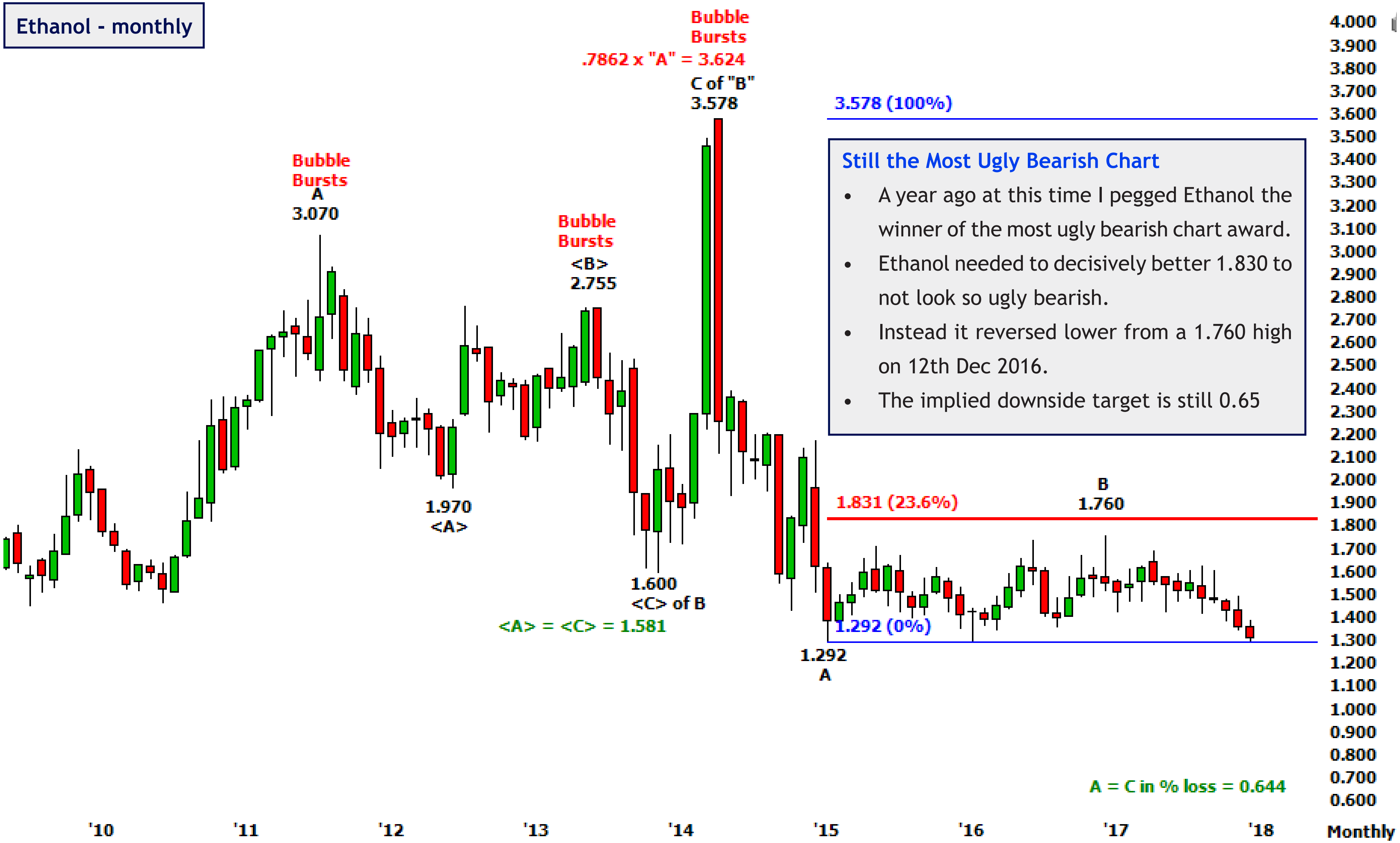

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Natgas - monthly

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The Downside Risk

- The downside risk is that 2.520 breaks
- That would open room down to 2.120 - 1.960
- Expect Natgas will be a stellar buy opportunity into that zone.
- See next page.

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Natgas - weekly