
OKLAHOMA – WHERE OIL FUTURES GO TO DIE

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21 April 2020

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VW, VIX AND NOW OIL – WHAT WAS ONCE WILL BE AGAIN

Caveat Emptor is something students learn in "Legal Studies" in secondary school. "Buyer beware" speaks to the perils of pursuing a course of action that a buyer is contemplating. If things go pear-shaped, then it will have been the responsibility of the "buyer" to have thoroughly exhausted all risks pertaining to the possible outcome

eventualities of the “deal”. What we have seen with the CL00 futures is a combination of (i) yet another example of investors not understanding the instrument they were buying (ii) yet another second order effect of the Wuhan Virus.

The market remembers 2008, the Volkswagen AG Pref (“VOW3-DE”) short squeeze.

For a 5 point recap please go to this footnote ⁱ at the end of the document. It is delicious reading – particularly the bit where Ferdinand Piëch (Ferdinand Porsche’s grandson and CEO of VW) ends up having two children with his sister-in-law from the other side of the Porsche family. ⁱⁱ

Briefly, Porsche, wanting to takeover VW, had to exercise the derivatives (cash settled call options) on the open market, i.e. buy VW **ordinary shares with voting rights** at market prices, but in the end there were only 6% of VW ordinary shares available to buy on the open market. Lots of preference shares available, but no ordinaries. The short squeeze was on – VW’s **ordinary** share price rose +149% in one day.

The market remembers 2018, the implosion of the short VIX ETFs & ETNs (“XIV, SVXY, ZIV”).

Shorting the VIX had been a great trade for some time. This trade regularly printed money for retail investors who quit their day jobs to short the VIX full time. ⁱⁱⁱ Also, many hedge funds successfully employed the “picking up pennies in front of a steam roller” strategy (discovered & patented by LTCM ^{iv}) due to the nature of the front end future roll pricing, which meant that consistently shorting VIX futures had an *apparently* asymmetric payoff (until it didn’t). For these traders, it was like spending a fun Saturday afternoon on a trail bike playing chicken with a combine harvester. It’s great fun until it isn’t.

In February 2018, after 2 years of the VIX trading atypically low (~13) relative to its historical geometric mean of ~18 since 1991 (“average” – you can use an abacus or spreadsheet – it’s not complex), the VIX inevitably exploded upwards, kissing 50. This put some retail day traders & hedge funds out of business and collapsed a number of ETFs... all in the space of mere hours.

The market will remember 2020 for when the oil price went negative due to: (i) second order effects from the Wuhan Virus, i.e. the global demand collapse for oil, (ii) third order effects from the Wuhan Virus, i.e. a collapse of small to mid size companies in the US energy sector & their default on their corporate debt, and (iii) a repeat of

issues in USO that were very similar to the issues that caused the implosion of short VIX ETFs in 2018 i.e. regular, normal, common old rolling of positions in expiry-month futures into positions in next-month futures.

While the Saudis (MBS) and Putin caused the initial carnage with their own price-feud sliding into March this year, global oil demand shrinking by at least -30% due to the Wuhan Virus has done the rest of the job on oil. Billions of people world-wide are in lockdown not driving cars or consuming anything that requires trucks to transport the goods that they would have otherwise consumed. Every airport around the world is beginning to look like an Arizona airplane boneyard – except that all the planes are in perfectly good shape and were probably in the air and serving food & beverages in February.

OPEC and G20 production cuts will not arrive soon enough (May) to make an impact on current prices. Oil producers such as Chevron & ConocoPhillips are not turning off their wells fast enough - although that negative oil price print should help accelerate their decision-making process. Then obviously, the world is just plainly running out of places to store the stuff.

SO LONG, OIL FUTURES & USO ETF

Investors and/or speculators turned up to work on Monday to sell their very-soon-to-expire May contract and roll it into (buy) the June contract. The problem was... no one turned up to buy. Given that CL00 futures require physical delivery in Cushing, Oklahoma, the person left holding the contract at expiry has to actually be able to “come & collect” the physical oil. No one wants any physical oil at the moment, hence no buyers turned up. The storage facilities are effectively saying “Go away, we’re full”.

This is a very simple proposition for holders of long oil futures. If you held that May contract to expiry, you are in a tonne of trouble. For “share owners” of the ETF “USO”, the situation that they are facing is not about to get better anytime soon either. As per the Fund Description available on FactSet, **“USO holds near-month NYMEX futures contracts on WTI crude oil”** and **“USO holds front-month futures contracts on WTI, rolling into the next contract every month”**. Reasonable estimates place approximately 30% of open interest in the June futures contract as USO’s holdings. So this June series will now face the brunt of the ramification of collapsed global demand and no available storage at time of delivery as we head towards the 19th May 2020 expiry date. As of Friday 17th April, Cushing storage hub was 77% full ^v so with current stock-level builds, this would point towards full capacity by the first week of May. We’re still full, people.

FactSet provides a Fund Profile of USO ^{vi} with their “Insight” section (we saved it on 21st April) detailing some salient points that **may not age well**, given the events of 20th April:

- ***“USO's huge asset base waves away any hint of closure risk, and its massive liquidity makes trading a snap”***
- ***“This method is particularly sensitive to short-term changes in spot prices, but can also result in heavy roll costs”***
- ***“That makes USO a great vehicle for riding short-term moves in crude prices”***
- ***“In all, USO does a great job of capturing the performance of the near-term oil futures market at a low all-in cost”***

The USO ETF may yet survive if the oil price stages a comeback, whereas the VIX ETFs and ETNs were disintegrated and relegated permanently into the dustbin of financial engineering wizardry (and magically disappeared billions of dollars with them).

SETTLEMENT OF OIL FUTURES IS NOT COMPLEX TO UNDERSTAND.

Two mouse clicks from the CME website homepage will get you to the “Crude Oil Futures Contract Specs” page, where things are laid out...pretty clearly. ^{vii}

Delivery shall be made free-on-board ("F.O.B.") at any pipeline or storage facility in Cushing, Oklahoma with pipeline access to Enterprise, Cushing storage or Enbridge, Cushing storage.

It is the short's obligation to ensure that its crude oil receipts, including each specific foreign crude oil stream, if applicable, are available to begin flowing ratably in Cushing, Oklahoma by the first day of the delivery month, in accord with generally accepted pipeline scheduling practices.

WHAT PRICE PRUDENCE?

Leaving it until the day before the futures contract expires is not a strategy that speculators should employ.

“Speculators”, in the sense of a person who engages in the buying or selling of futures who, at the time of entering into the futures contract (it is a delivery CONTRACT albeit an electronic one) did not have any intention of taking the physical oil at date of contract expiry and sending it into a physical pipeline or a physical oil storage facility. Both pipeline and storage facilities clearly require logistics and operational setup to be completed prior to the contract

expiry i.e. when the oil owner takes delivery of the physical oil. To speak plainly, if you own it, you have to take it and put it somewhere.

It is therefore imprudent for any speculator to hold a futures contract (not just oil – any commodity that requires physical delivery), until just “a few days” before expiry. 99% of the time in a speculator’s life, this will have zero impact. However, risk management and prudence tells us that this necessarily implies that there will be a 1% chance that this will occur, and 1% is not 0% i.e. **0% chance = “never”**.

Hence, the speculator needs to be able to differentiate between cash settled futures contracts and physically settled futures contracts. This may seem to be reiterating simple common sense, but if every market participant in the world possessed common sense, then we would not be in the position whereby no one wanted to take physical delivery of oil on 20th April 2020, causing oil to go negative.

Of course, if the world did not have the Wuhan Virus, then demand for oil would be different and storage facilities for oil would not be full. However, since the last global pandemic was in **1918** and it is now **2020**, we understand the above point of risk management and prudence that an event that shouldn't happen 99% of the time, mathematically implies that it will happen 1% of the time. $1\text{yr}/102\text{yrs}=0.9\%$ or thereabouts.

EXPLORING OIL'S FUTURE

Until global demand for anything (!!) recovers, the future of oil is circumspect. The question we are facing is that even if the world discovers a vaccine tomorrow, will people go out immediately and spend like crazy? Would a vaccine revert investor behaviour immediately to pre-Virus levels of consumption which would thereby necessitate – in the absence of an OPEC internal war – a return to circa \$50/bbl levels? To be objective, most developed countries are still employing “lockdown” methods of controlling the virus and even though China gave the world its first coronavirus SARS (Mk. I) back in **ancient 2003**, here in current day 2020 **there is still no vaccine** available for SARS. We hope and pray that the world’s scientists put all their efforts into finding one soon for 2020’s coronavirus.

Therefore, if global demand stays low thereby creating this negative feedback loop with the oil price level, oil production levels and oil storage availability, obvious fissures will appear at company level. It is reasonable to suggest that both oil explorers and oil producers who are currently highly leveraged, or require the price of oil to be an order of magnitude above both -\$37.63 and the cost of production, to begin to get into trouble.

As we have been opining for some time now, corporate debt defaults are going to increase both in the US energy sector but also globally, for companies with lower rated debt which is due to mature in the near future. We expect that the large players will endure, as they enjoy far lower cost bases than the small to mid players, but to a negative oil price hammer, every oil company will look like a nail until things turn around.

FINAL WORDS OF WISDOM FROM THE SAGE OF OMAHA HIMSELF

As tombstones of oil ETF investors and inexperienced oil futures traders will be so inscribed in future days, "Here lies an investor who did not understand risk and what they were buying", we recall the immortal words of Warren Buffet. Uttered from Berkshire Hathaway's domicile in Omaha in his 2002 shareholder letter, speaking about derivatives:

*"In our view, however, **derivatives are financial weapons of mass destruction**, carrying dangers that, while now latent, are potentially lethal."*

The quote is firstly misrepresentative of Buffet's own investment strategies and secondly, the thrust of the quote is often taken out of context.

What Buffet really meant was that "you shouldn't invest in something you don't understand".

Buffet himself created and executed derivatives of colossal quantum during the GFC. He used these derivatives to build massive equity positions in companies such as Goldman Sachs; a derivatives deal of \$5 Billion worth of prefs which came with the bonus of warrants to the tune of an additional \$5 Billion of common shares. Berkshire's shareholders benefitted phenomenally from Buffet creating, trading and using derivatives!

However, in that same 2002 shareholder letter ^{viii} you will find the Sage's words:

"Indeed, at Berkshire, I sometimes engage in large-scale derivatives transactions in order to facilitate certain investment strategies." (Page 14)

This should not detract from the ethos of his words: derivatives can cause mass destruction and permanent loss of capital... in the hands of people who do not understand what can happen to their positions if things don't turn out blue sky and instead head deep south.

Disclosures: Our Arminius Capital ALPS Fund (+5.33% March YTD 2020) does not hold any WTI or Brent positions. We hold short positions in MRO-US, BTU-US, OMV-WBO, TLW-LON.

Q.E.D.

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ⁱ <https://ftalphaville.ft.com/2018/10/31/1540962002000/The-day-Volkswagen-briefly-conquered-the-world/>
<https://www.wsj.com/articles/SB122514645135973595?mod=searchresults&page=1&pos=15> Funds Fear Bankruptcy After Porsche Squeeze

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- There was a family fight going on between Porsche and Volkswagen; Ferdinand Porsche's grandson Ferdinand Piëch was **Chairman & CEO of VW** but **his family owned 50% of voting rights of Porsche stock**. His cousin Wolfgang Porsche was the "head" of the other Porsche family clan. Ferdinand had a "relationship" with his sister-in-law Marlene which, ah, resulted in two children. Tensions between the two families could not be described as "low".
- Investors (both retail and insto) believed that there was significant price dislocation between the "ordinary shares – with voting rights" (VOW) and "preference shares – no voting rights" (VOW3) shares i.e. the price gap was too large between the two classes of shares based on any number of "fair value" measures. People shorted the VOW stock.
- Porsche surprisingly announced that it wanted to take over VW, based on a series of complex and what had been to-date an unreported significant derivative position built up in VW. If derivatives were executed, Porsche would control 74.1% of the company. They needed 75% for control. To execute, Porsche had to exercise the derivatives (cash settled call options) on the open market i.e. buy VW **ordinary shares with voting rights** at market prices.
- Being a German company (Germany has one of the lowest level of individually-held shares of listed companies in the world) the limited amount of VW shares available to buy on the open market amounted to a mere 6% of all VW stock. Not quite enough daily liquidity for Porsche to lift its holding to 75% it needed to affect a takeover.
- The short squeeze commenced. VW's share price rose +149% in one day.

ⁱⁱⁱ Target employee quits job to day trade VIX:

<https://www.nytimes.com/2017/08/28/business/dealbook/vix-trading.html> <https://dealbreaker.com/2018/02/florida-man-who-raised-100-million-to-short-the-vix-likely-returning-to-old-job-at-target>

^{iv} Chincarini, Ludwig B., The Failure of Long-Term Capital Management (October 8, 1998). Bank for International Settlements, Basel, Switzerland. <https://ssrn.com/abstract=952512> or <http://dx.doi.org/10.2139/ssrn.952512>

^v Goldman Sachs Global Investment Research

^{vi} Available in the public domain to all FactSet workstation users/subscribers.

^{vii} https://www.cmegroup.com/trading/energy/crude-oil/light-sweet-crude_contract_specifications.html

^{viii} <https://www.berkshirehathaway.com/letters/2002pdf.pdf>