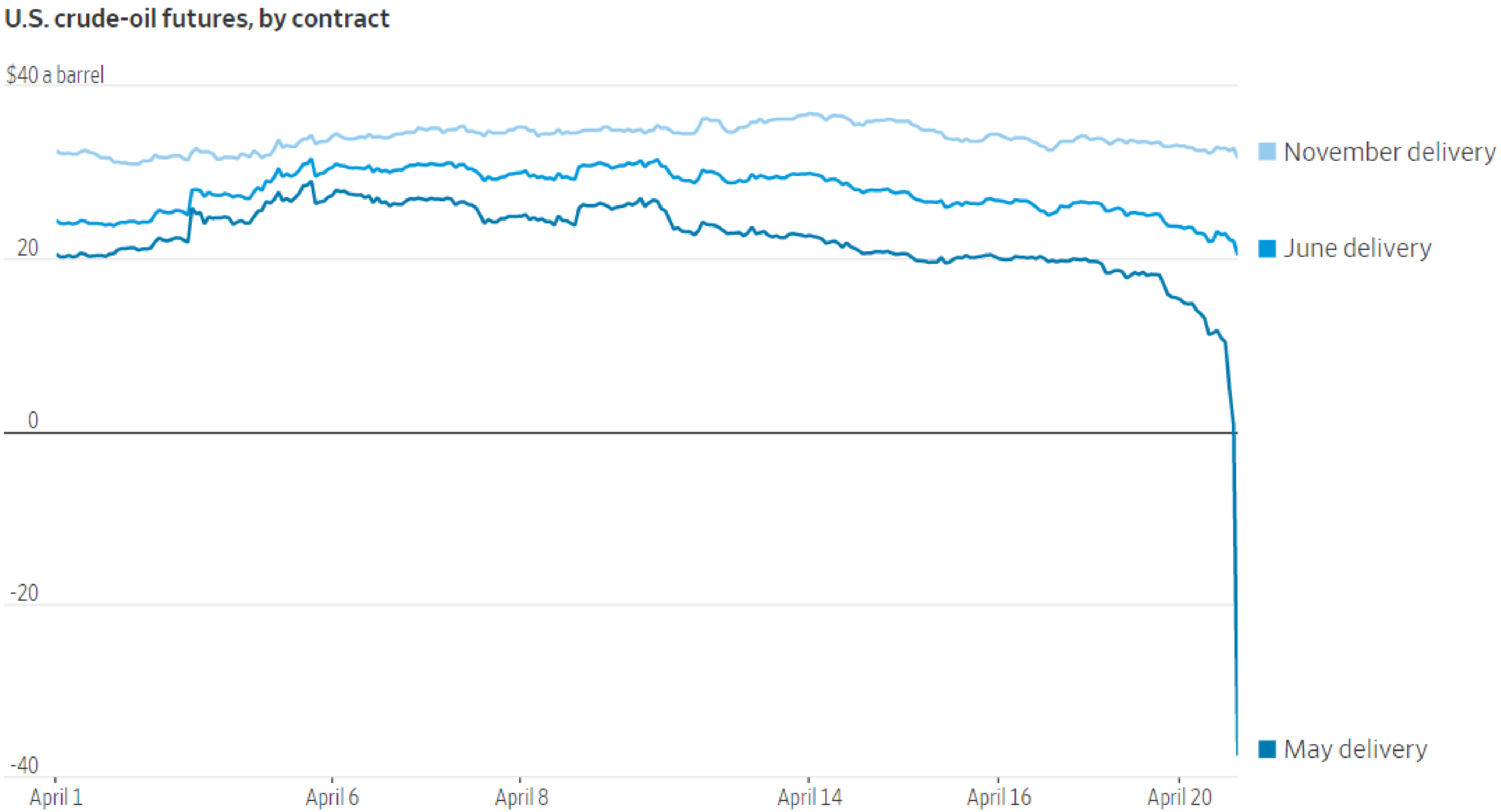
One of the Oddest Days in Oil Futures History

LUDWIG B. CHINCARINI – 04/21/20

2. WHAT HAPPENED TO OIL ON 04/20/20?

1. Option #1: Oil traders decided to smoke marjuana and ignore their trading desks?
2. Option #2: The world is going crazy and nothing makes sense?
3. Option #3: The CoronaVirus has disrupted the economy and the oil industry in a way never imagined.

1. OIL FUTURES TRADED AT NEGATIVE PRICES



2. WHAT HAPPENED TO OIL ON 04/20/20?

1. There is not one security called oil. Oil trades based on futures contracts for future delivery months. Thus, buying oil is the same as buying oil for a particular date in the future.

2. Therefore, there is an oil futures curve based on expiration or delivery date of the contract.

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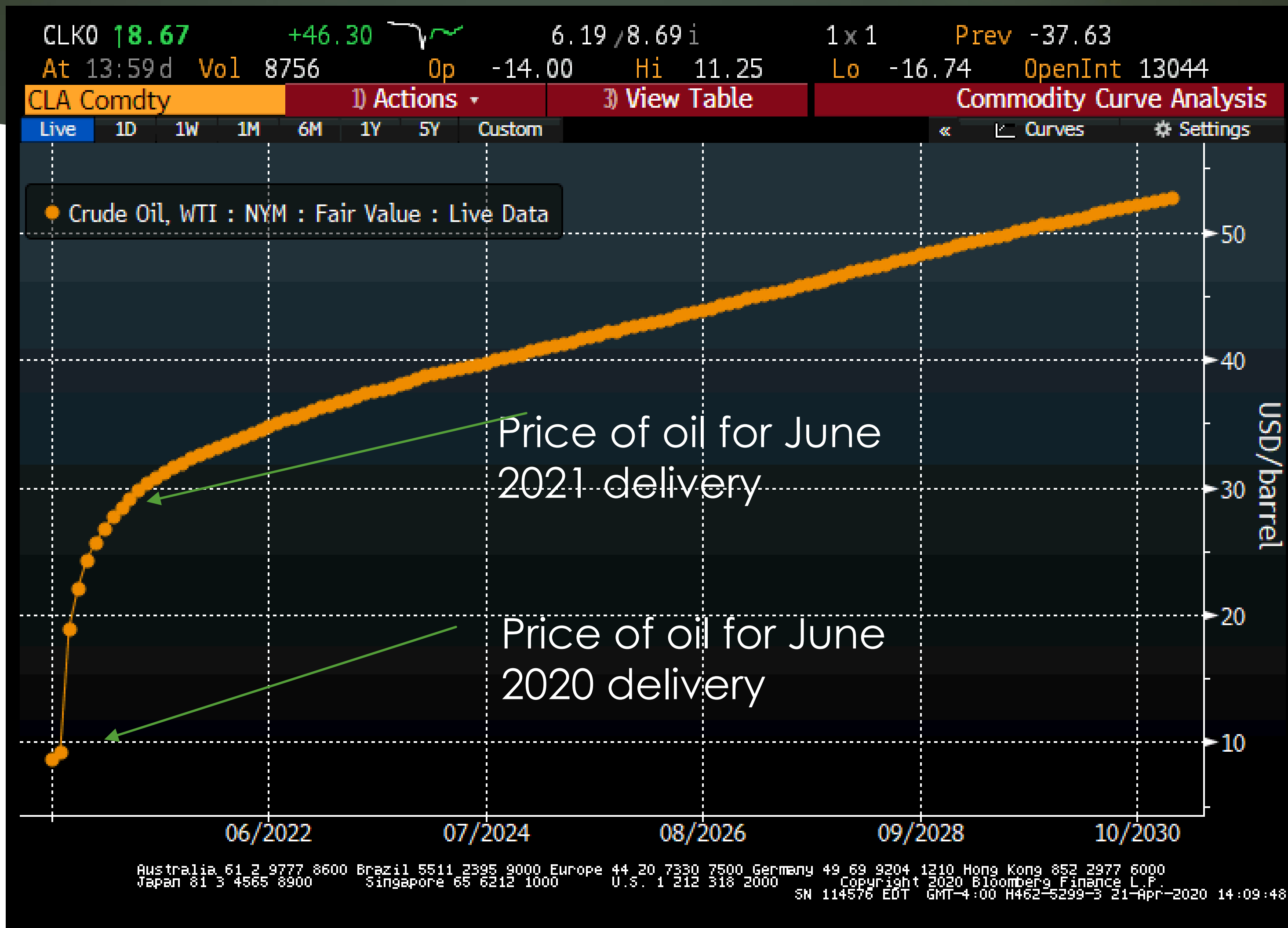

2. WHAT HAPPENED TO OIL ON 04/20/20?

1. In any given month, the front contract of oil will have it's last trading day and investors will roll to the next contract.
2. Monday was the 2nd to last trading day for the May contract and Tuesday (04/21/20) was the last trading day.
3. On Monday, May futures prices went negative. Never happened in history of trading. What happened?

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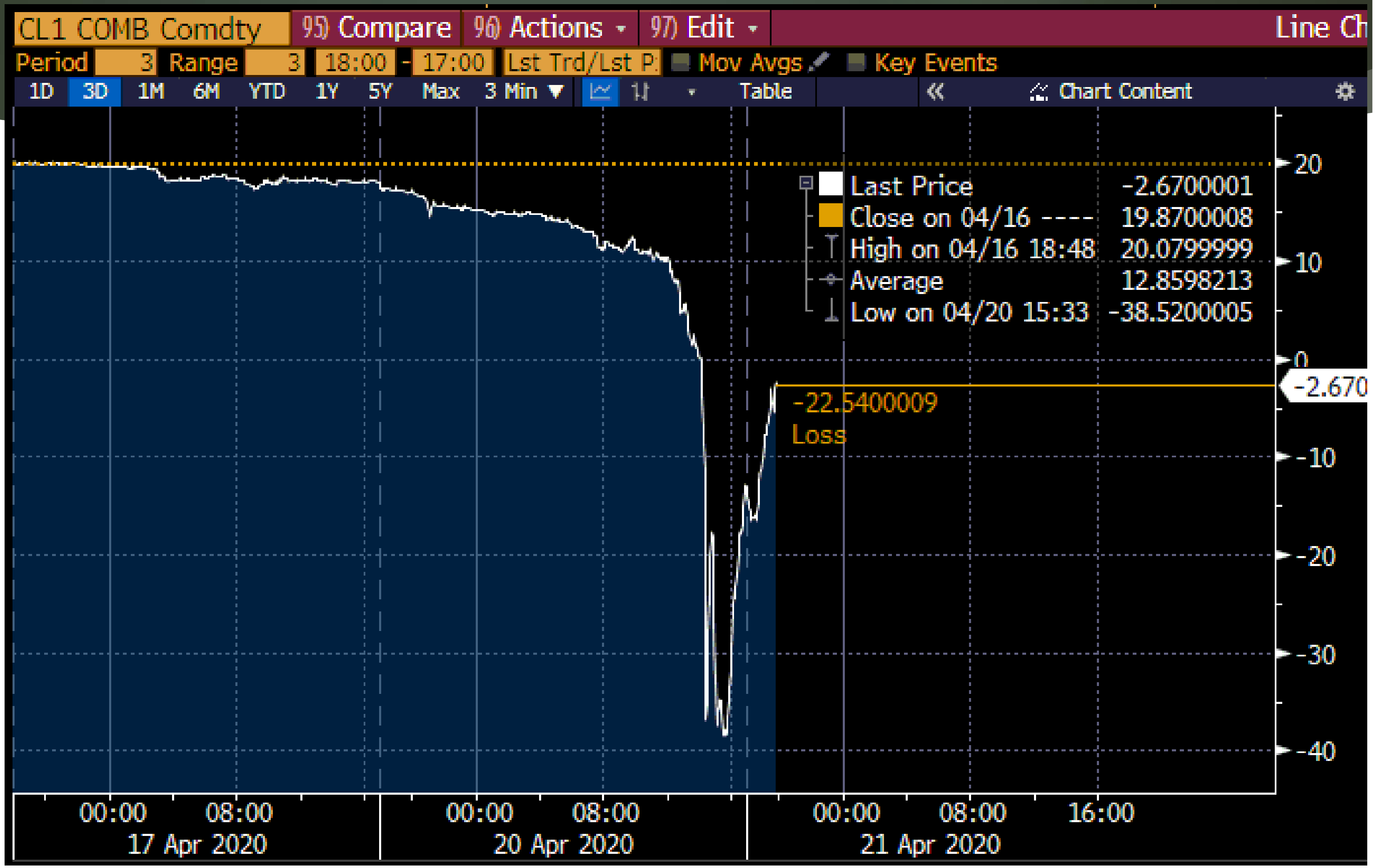

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World oil demand has been halted or reduced dramatically – we are not sure of the exact number, but some argue at least by 30%. The excess supply is being stored all around the world, on land and at sea. But storage capacity is diminishing.

NORMAL TIMES: Normally, in the final days of trading, the prices of the crude oil contract are buffered by speculators and natural buyers that will not let the price decline too much, even if fund managers, ETFs, or other participants are selling. The reason is that when the price is too low, they can profit by buying the contract and taking delivery of the oil and selling it the next month and/or keeping it a little longer and selling another futures contract. This natural arbitrage activity keeps the market balances even as oil futures contract is expiring.

2. WHAT HAPPENED TO OIL ON 04/20/20?

04/20/20: In this current market, even natural hedgers of oil (e.g. airlines) are not going to want to keep their contracts that they may have bought in advance. They don't need the oil, thus, they might sell oil at any price. The speculators are also not playing the typical game. But how can oil prices go to 0? Simple, when the crowd is all going one way (i.e. SELLING), there is nothing to stop the price from going to 0 (this is the danger of unbalanced sides in trading – the danger of crowding). In this particular circumstance, a speculator could do many things – however, they might not pan out for him. Choice #1: As oil dropped today, a speculator could buy at $1 per barrel. However, then the speculator would have to take delivery of oil in May and FIND A STORAGE FACILITY. If there is a facility, some estimate that oil storage costs have quintupled. Thus, it might cost him around $12 /barrel per month. But then if he turned around to sell it, guess what, no one might buy, since there is an oversupply of oil in the markets. The next thing he could do is sell the next futures contract (i.e. June contract) for $22. However, this would require him to store oil for another month and half or so. At $1, the profit would be something like $22-$1 – storage costs + interest = $11. Of course, if storage is actually more expensive or non-existent, then of course, there would not be profits, there would be losses of $1. Thus, as storage capacity becomes scare, all buyers will disappear and oil prices will collapse, even on last trading day. Currently, storage capacity is not entirely full in Cushing, OK, however, much of the extra space may ALREADY BE LEASED. Thus, no guarantees you'll find a corner to hide your oil. 😊

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Why negative prices? Suppose you are natural buyer (e.g. airline) that waited until the last minute to sell the previously bought contracts. But now "everyone's a seller". If oil is delivered and you don't need it (i.e. no flights), then the delivery is costly to you. Thus, you might even pay some amount to not have that delivery of oil.

That leaves the other interesting question: **WHO IS BUYING** at any of these prices? Is it natural consumers of oil that are happy to get it cheaply? Was there also price manipulation?

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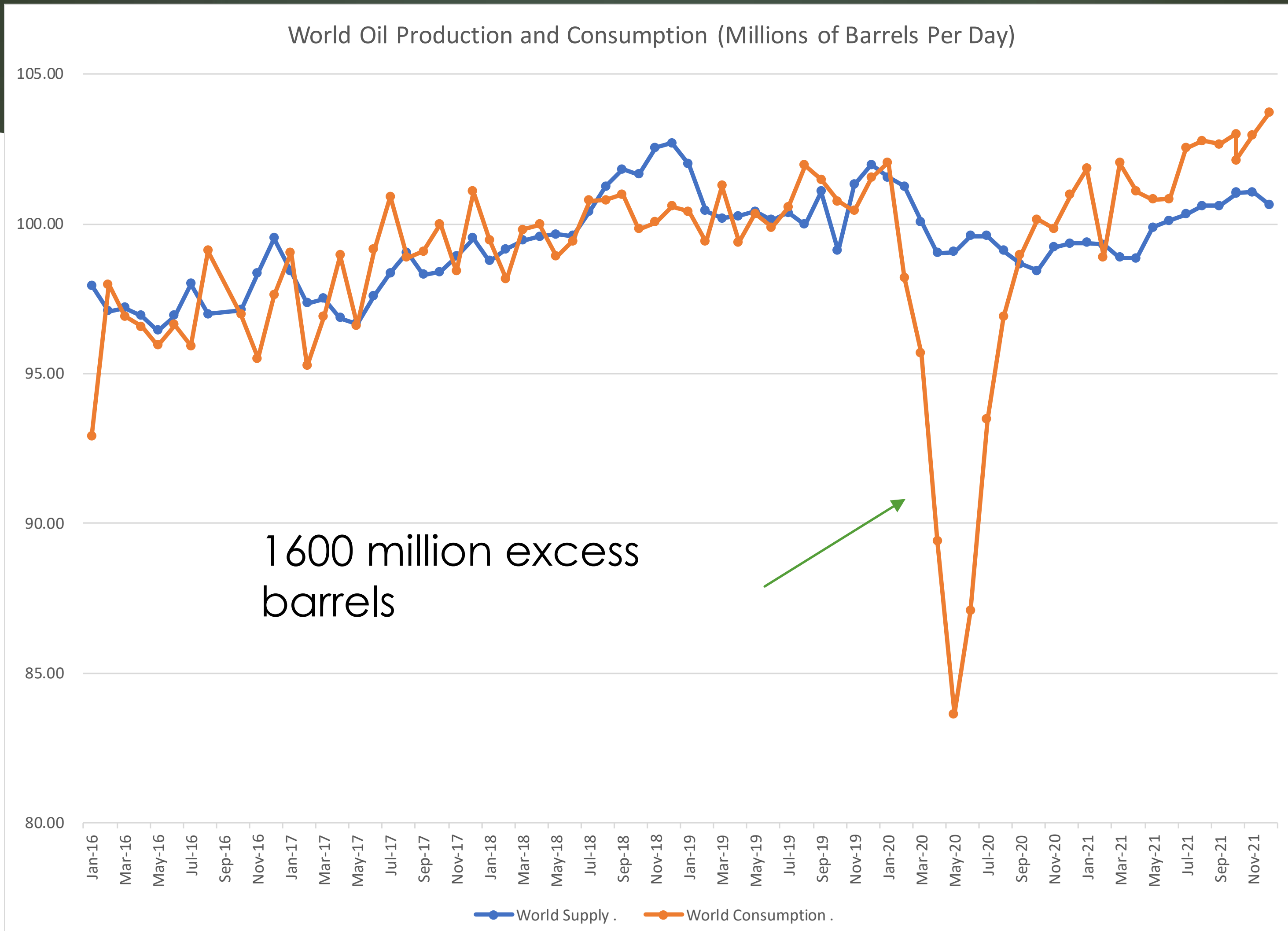

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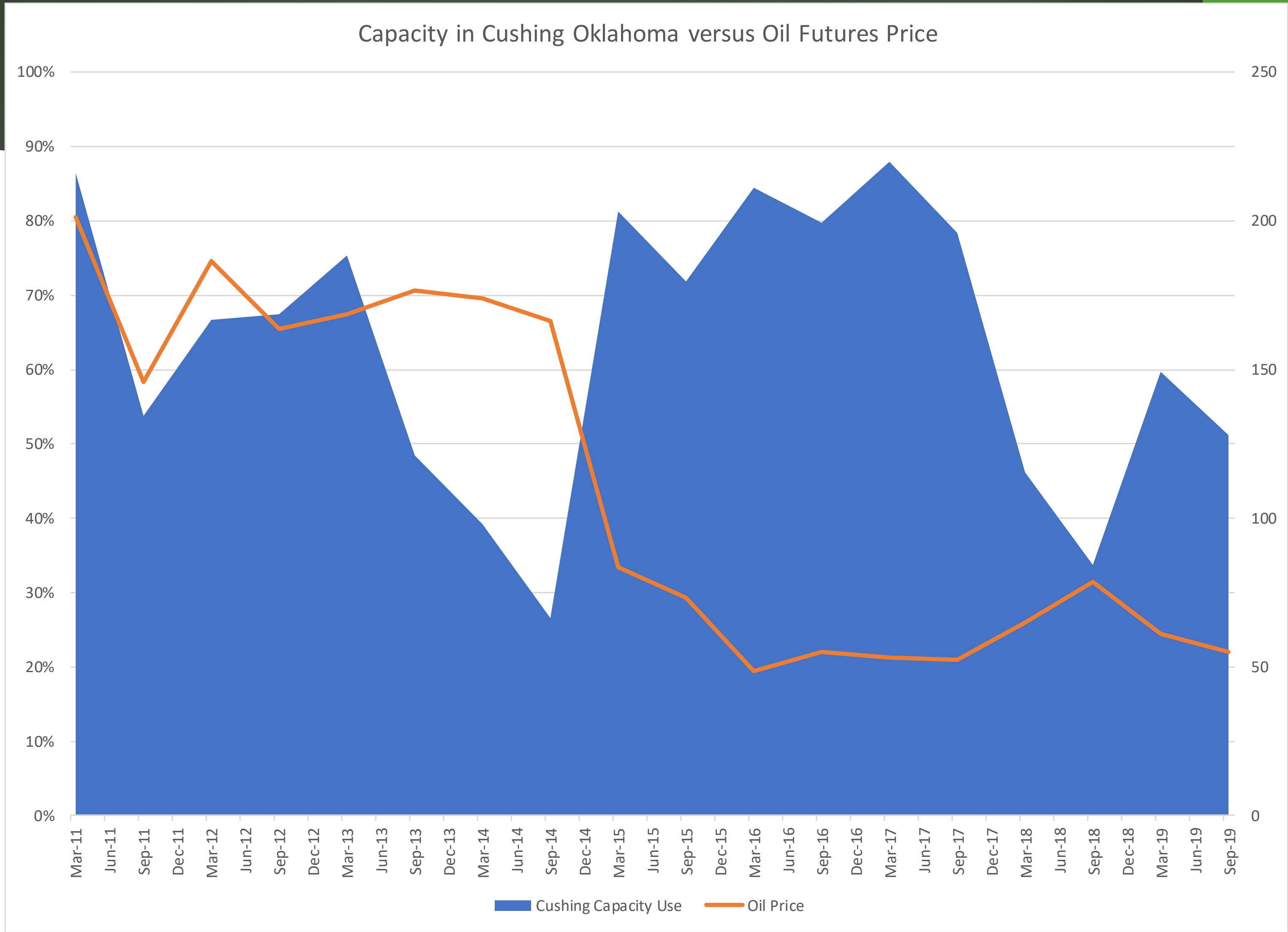

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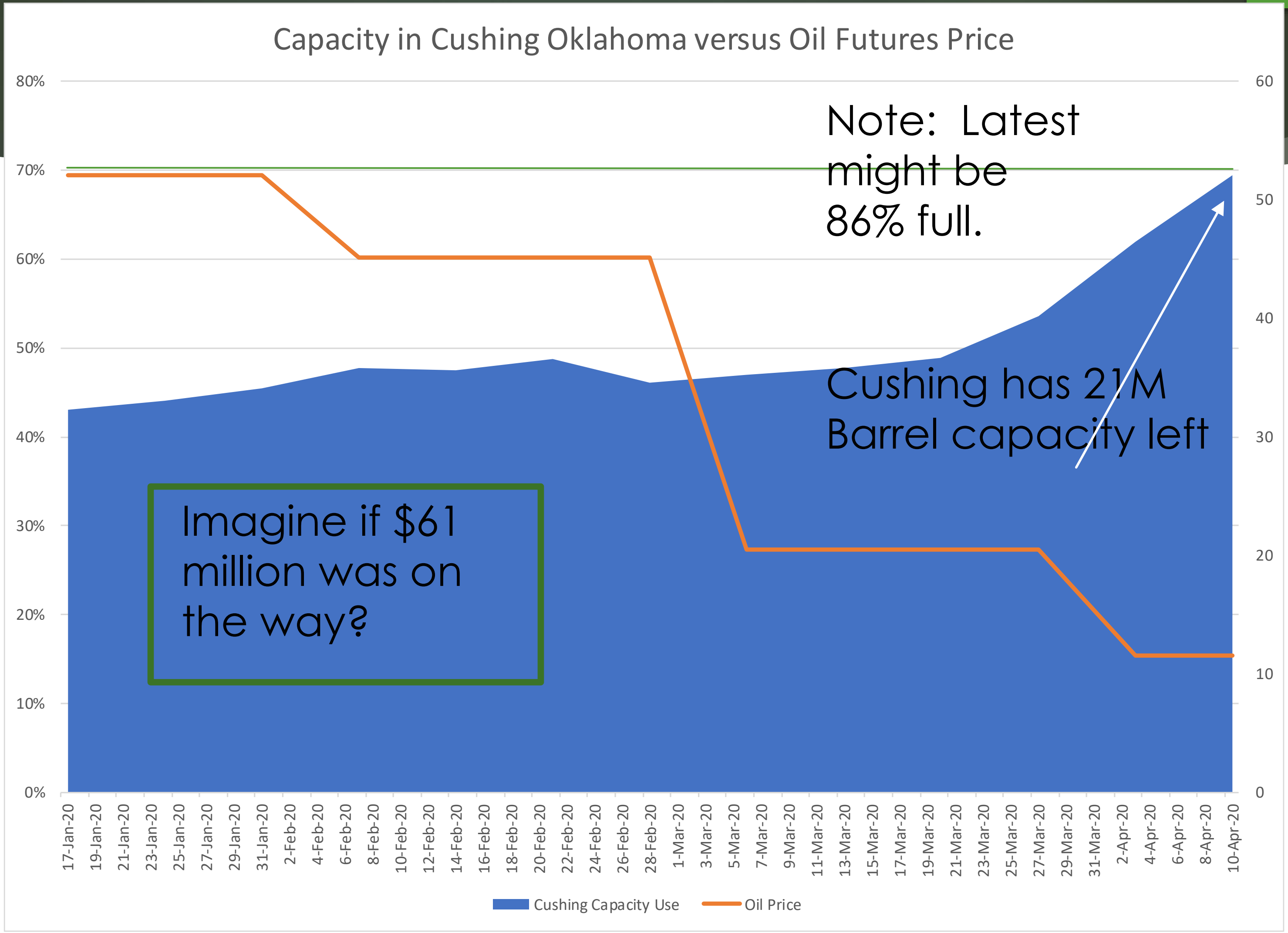

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Now imagine the scenario of 04/20/20. On that day, June contract moved relatively little. However, once traders digest the information, wouldn't it be very possible that June would have the same problems given storage facilities, etc?

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4. HOW TO INVEST?

What do you do?

1. Today – short oil ETF companies and CL2.
2. Long-Term? Can't buy oil, because contango is severe and will hurt you (not to mention other issues)
3. Hard to buy options – very expensive
4. If you can get a good understanding of storage capacity and costs (not easy), then you could opportunistically short and go long. However, not in SMF (no margin).
5. You could play the futures curve, but not in SMF (short front, long back).
6. Look for companies that will prosper when oil gets back on track – need to think very carefully to find the right ones and the ones that don't go bankrupt.

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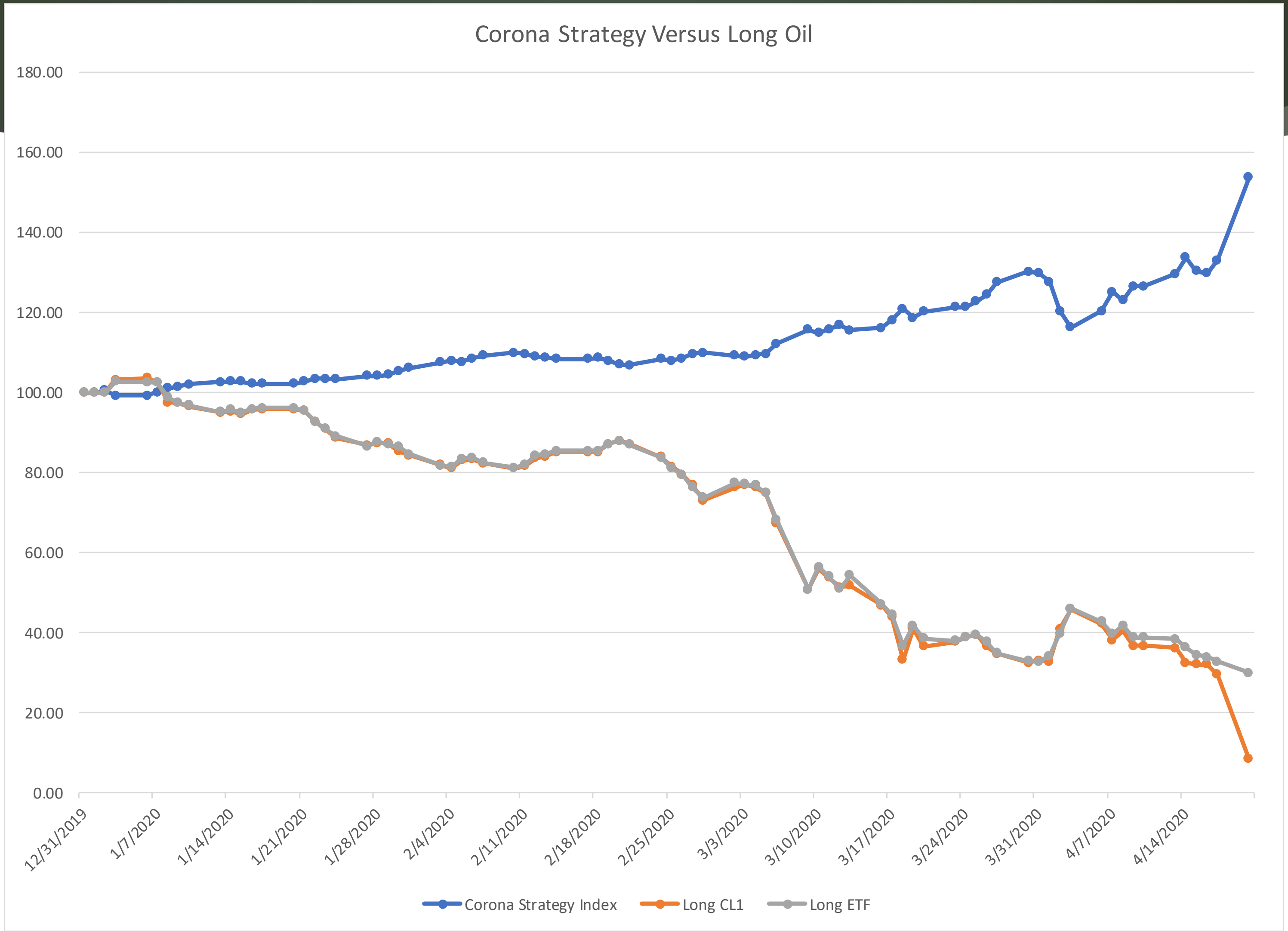

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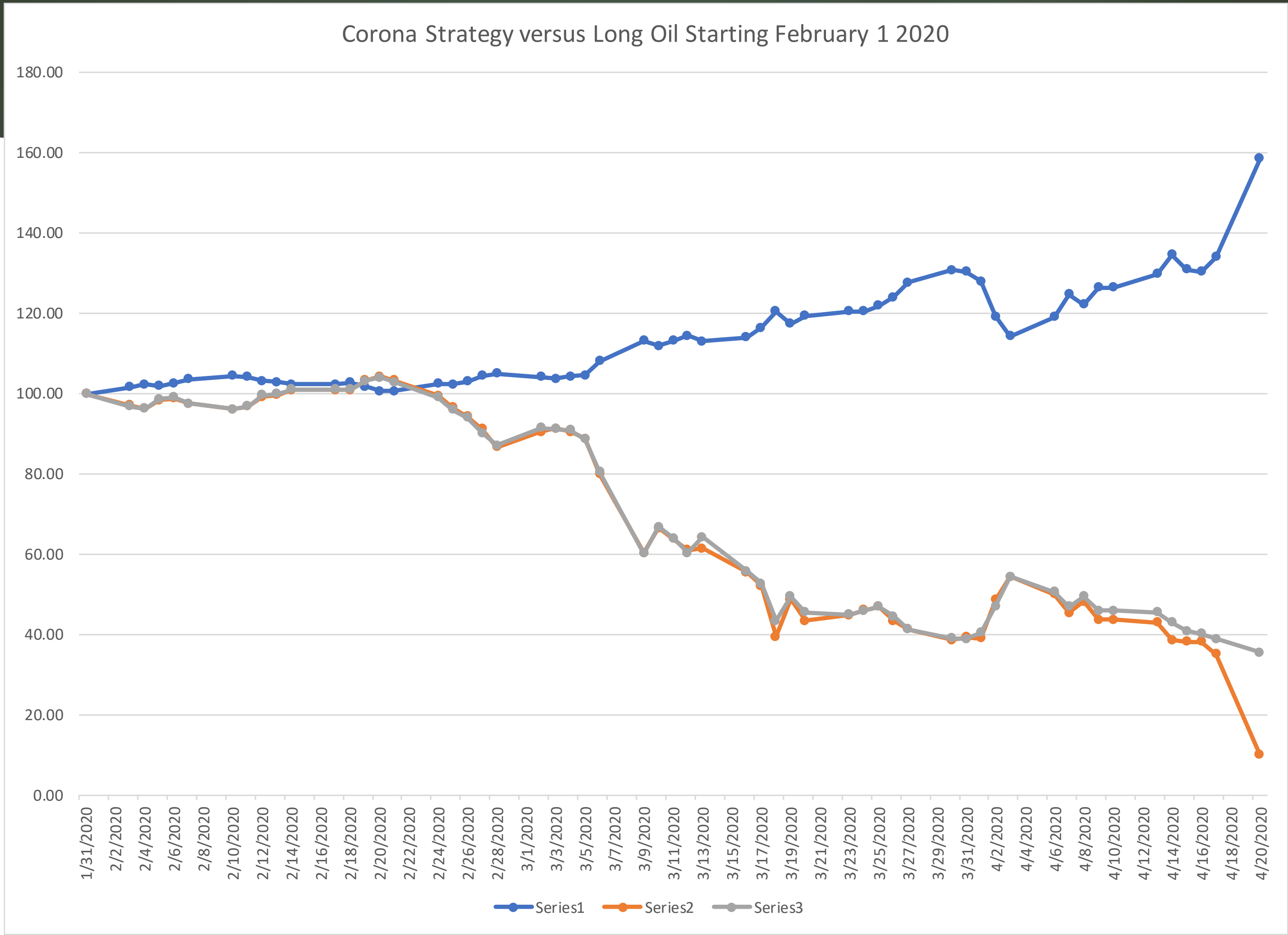

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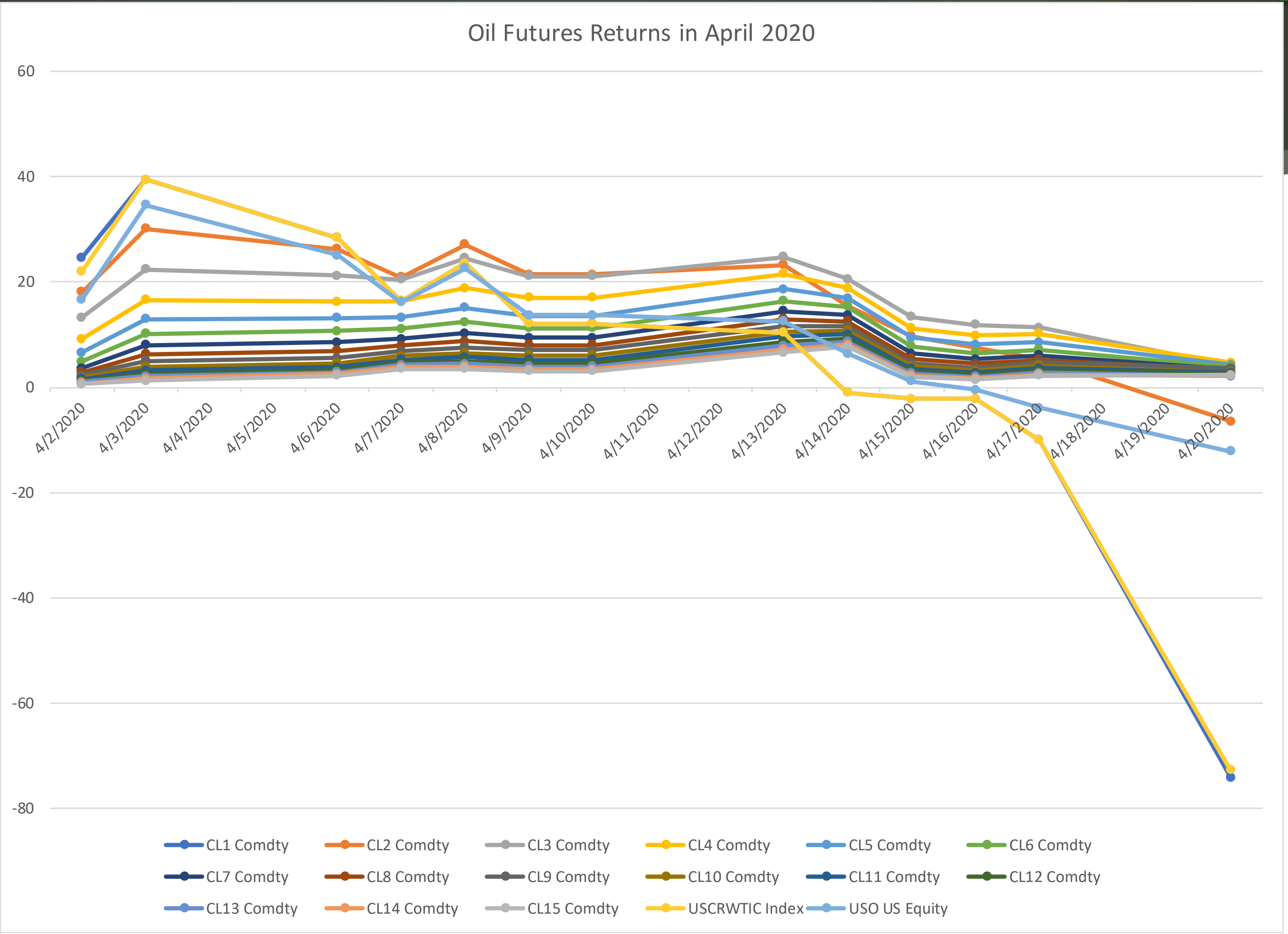
5. SUMMARY

- When one side of a trade is crowded relative to the other, entire markets break-down.
- Hard to make money from oil with only long positions.
- Could make money with spread trades – but very active.
- Fascinating time for you guys to understand/learn about markets. Events that have never happened are happening.

6. REFERENCES

- https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2797704
- https://www.amazon.com/Crisis-Crowding-Copycats-Models-Normal/dp/1118250028
- I was interviewed by Peter Coy for his Bloomberg print story on this.

7. APPENDIX – OIL CURVE RETURNS APRIL 2020



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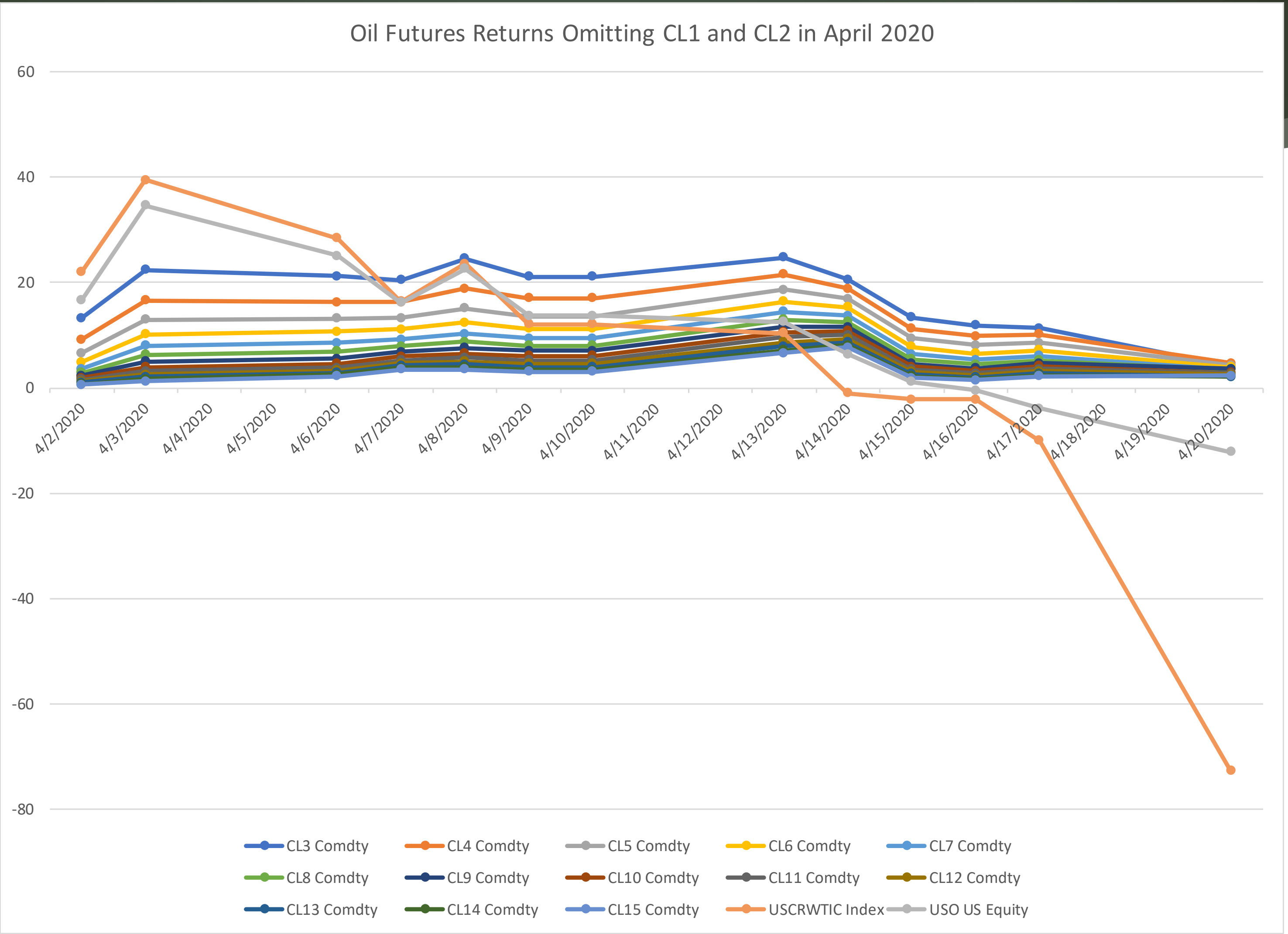

8. APPENDIX – HOW DID OIL ETFS SURVIVE? (ADDED ON 04/23/2020)

OIL has shutdown it's long standing oil ETF.

USO cleverly moved it's contracts forward with an 8K SEC filing. Moving from 100% front contract (i.e. June 2020) to 20% June, 50% July, 20% August, and 10% September (as of 04/22/20)