OECD warns on recession, further downside risk

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Executive Summary

Volatility has returned with a vengeance to global markets. Oil prices have crashed from $50/bbl at the start of the month to below $30/bbl today, whilst 5% moves on the S&P 500 have become common. As chart 1 suggests, consensus opinion is pretending, as in 2008, that "nobody could have seen this coming". But as we suggested last month, it seems likely historians will see today's coronavirus pandemic as simply the catalyst for the bursting of the financial asset bubbles created by a decade of central bank stimulus.

Chart 1: Previous wishful thinking is being challenged by the impact of coronavirus

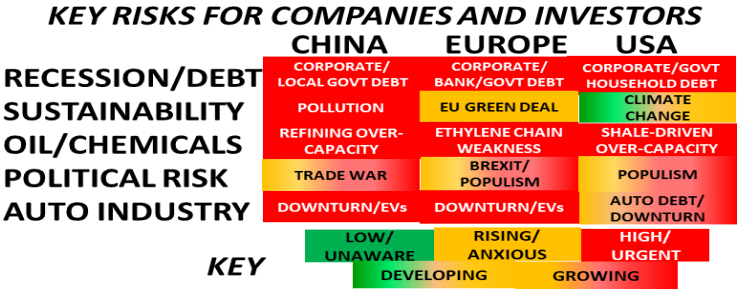
This month's Report continues to update on the critical questions that we highlighted in January. We particularly focus on trying to identify the potential impact of the second and third-order effects that are likely to arise as 4 of our key questions (highlighted below), start to be answered. We believe that a focus on contingency planning is critical, in order to identify potential risks in advance and to aid the identification of mitigation strategies:

- **Economic Outlook:** Will there be a recession in 2020?
- **Financial Markets:** Do they face a Minsky Moment due to the BBB debt overhang?
- **Chemicals:** Will growing shale gas-based polyethylene over-capacity lead to major dislocation in the main petchem value chains?
- **Oil markets:** Will oil prices remain range-bound in 2020?

The answer to the first 3 questions seems increasingly likely to be 'yes', whilst 'no' is the answer to the oil market question. It is also becoming clear that the pandemic is not just a medical emergency, but has the potential to plunge the world into a depression as Martin Wolf highlights in the Financial Times. Wolf also focuses, like us, on the risks associated with the dramatic rise in corporate debt since 2008. China's unprecedented 13.5% fall in industrial production in January-February acts as a stark warning of the wider risks to the global economy as the pandemic develops.

Some 2nd order impacts such as in autos, construction, electronics, travel and leisure are likely to be common across countries. Others will be more region specific as we note in the Brexit section - where we assume the UK will now have to agree a extension to the 31 December exit deadline, despite its previous reluctance.

Volatility has returned with a vengeance to global markets



Editor:
Paul Hodges
+44
(0)7785 354809
phodges@
thephreport.com

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GLOBAL ECONOMIC OUTLOOK

The pandemic is acting as the catalyst for recession

1. OECD warns on "domino scenario" risk in 2020

Once again, global chemicals Capacity Utilisation data (CU%) has proved a reliable leading indicator for the wider economy. As chart 2 confirms, January saw a very muted seasonal upturn, which left the index at just 81.3% versus its peak of 86.5% in December 2017. February and March will be lower as China's CU% will have inevitably cratered as the lockdowns were imposed, whilst major declines are clearly ongoing in the rest of NE Asia/ Europe, and starting in N America. Second order impacts are also becoming obvious, with global supply chains interrupted and end-user demand in key industries such as autos, electronics and construction under major pressure.

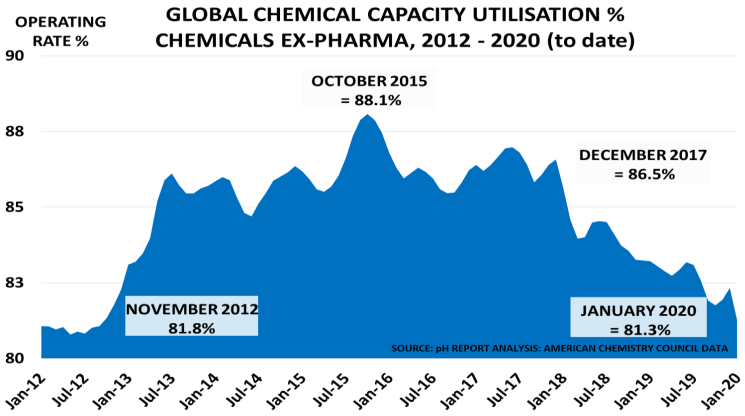

Chart 2: Chemicals CU% has done its job of warning of the downturn

We are still a few weeks away from the IMF's revised GDP forecast, due in April, but the OECD has already published its emergency update, shown in chart 3. This confirms our concern last month that the pandemic would act as the catalyst for recession:

- It suggests GDP will fall below the 2.5% level normally seen as the dividing line between growth and recession on a global basis
- It also warns that a downside scenario of just 1.5% growth is possible, if the *"Intensity of China's impact is repeated in the northern advanced countries severely hitting confidence, travel and spending".*

We are therefore moving rapidly away from a world of 'business as usual' and into one where we will all have to learn or relearn how to plan for uncertainty.

OECD Interim Economic Outlook projections

Real GDP growth

%, year-on-year. Arrows indicate the direction of revisions since the November 2019 Economic Outlook

	2019	2020	2021		2019	2020	2021
World	2.9	2.4	3.3	G20	3.1	2.7	3.5
Australia	1.7	1.8	2.6	Argentina	-2.7	-2.0	0.7
Canada	1.6	1.3	1.9	Brazil	1.1	1.7	1.8
Euro area	1.2	0.8	1.2	China	6.1	4.9	6.4
Germany	0.6	0.3	0.9	India[1]	4.9	5.1	5.6
France	1.3	0.9	1.4	Indonesia	5.0	4.8	5.1
Italy	0.2	0.0	0.5	Mexico	-0.1	0.7	1.4
Japan	0.7	0.2	0.7	Russia	1.0	1.2	1.3
Korea	2.0	2.0	2.3	Saudi Arabia	0.0	1.4	1.9
United Kingdom	1.4	0.8	0.8	South Africa	0.3	0.6	1.0
United States	2.3	1.9	2.1	Turkey	0.9	2.7	3.3

downward by 0.3 pp and more | downward by less than 0.3 pp | no change | upward by less than 0.3 pp | upward by 0.3 pp and more

Chart 3: The OECD is now warning of recession in 2020

Clearly some major industries including travel and leisure are already in a major downturn. The airline industry alone has warned of a potential $113bn hit to profits in 2020, with President Trump's decision to ban US flights from Europe likely to exacerbate the problems. Wall Street's earlier optimism over a likely V-shaped recovery has already been relegated to the category of wishful thinking. Companies are moving into crisis management mode, with a number of key areas requiring immediate attention:

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We need to prepare for paradigm shifts and recession

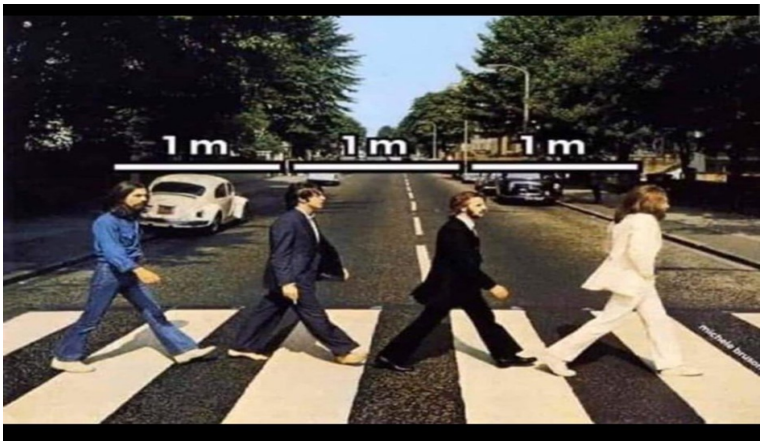

Chart 4: The Beatles' Abbey Road cover was prescient on social distancing for coronavirus

- **Employee health and safety** is clearly the top priority. Governments are slowly waking up to the risks and are starting to provide expert advice. In the meantime, of course, many companies have already taken steps to reduce all unnecessary travel and to encourage home-working wherever possible. It would be prudent to assume these measures will last for longer than initially expected, as nobody will want to take the risk of problems arising as a result of precautions being relaxed – especially in litigious countries such as the USA
- **Value chain risks** are clearly a key area of concern for the business itself. Upstream, the oil price collapse means that the new US shale gas expansions have lost their hoped-for feedstock advantage versus European and Asian producers. Downstream, China's auto sales fell 80% in February, whilst smartphone sales were down 55%. We must assume that other affected countries will also see major declines, although hopefully not on the same scale
- **Supply chain risks** are another major area for review. Anyone who has tried to map a modern supply chain knows that the exercise quickly reveals a number of 'black holes' where nobody really understands all the inter-dependencies. For example, did anyone really expect freight volumes in Los Angeles to fall 25% last month - even given its role as the largest gateway for seaborne China imports? And even if China does now return to normal, it will still take weeks for new shipments to arrive given the disruption that has occurred to freight and logistic operations
- **Credit risks** also have the potential to surprise the unwary. The lure of cheap money from the central banks, and investor pressure to maximise earnings, has unfortunately led many companies to over-leverage their balance sheets. Even a relatively small profit downturn will therefore put their financial viability at risk. And as we know, whilst banks are happy to lend when the outlook is sunny, they are very quick to withdraw when storms appear on the horizon
- **Paradigm shifts** add to the complexity. Today's population growth is largely due to a major post-War rise in life expectancy, rather than a new babyboom. But older people already own most of what they need, creating a 'demographic deficit' in terms of demand growth. Used car sales, for example, are already cannibalising new car sales in China and elsewhere. Similarly, analysts see the used smartphone market growing by 50% over the next 3 years from the current 207 million sales.

All of these factors tend to confirm our core forecast, that companies and investors need to prepare for major paradigm shifts as well as recession. The end of the recession, whenever it comes, will not mark a return to 'business as usual'. Those who have recognised, for example, that sustainability is replacing globalisation as a driver for business, are therefore most likely to see an enduring recovery in revenue and profits.

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CHINA

Coronavirus is only now starting to impact outside Asia

2. Recovery will take months, not weeks

The good news is that the expert assumptions we reported last month regarding the duration of the coronavirus pandemic in China itself seem, for the moment at least, to be proving correct. The virus appears to be now under control even in Hubei province, and vigorous measures seem to be producing results in S Korea and Japan.

The bad news is that the economic damage is now only starting to become fully apparent, and it is clear this will probably take until at least the end of 2020 to repair. Singapore's Foreign Minister warned last week that he does not expect the virus to "disappear in the summer months", and noted that the economic impact of SARS continued for another 6 months after the initial pandemic was over.

Outside Asia, of course, as chart 5 shows, the virus is only now starting to impact. Italy is sadly "in the lead" for the moment, but most western countries are now following.

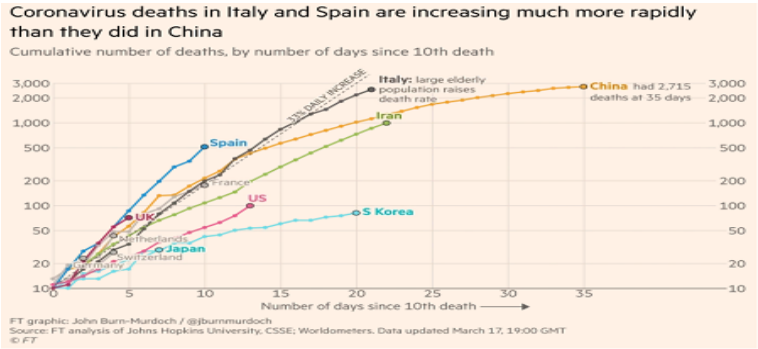

Chart 5: Western countries are only now being impacted by the virus

It therefore seems sensible to assume that the economic impact will be wide-ranging. As Chinese business paper Caixin reported:

"China's capital might be officially back to work, but it would be hard to tell from walking around the normally congested city. Tourist sites and other popular destinations remain unusually free of sightseers, customers or pedestrians."

Outside China, parts arriving in the West today came from factories that were still open before Lunar New Year. But now, supply chain problems are about to become evident:

- Port calls in China fell 30% last month, as ship-owners worried about quarantine
- Volumes fell 25% in Los Angeles – the main US gateway for seaborne China imports
- Shipping times of 4 – 6 weeks mean new supplies are reducing

Caixin's Manufacturing PMI fell to 40.3 in February, its lowest-ever level, and the Services PMI halved to 26.5, whilst China's exports fell 17.2% in the first 2 months of the year. China is the world's largest market for smartphones and autos, accounting for ~30% of global sales. Its smartphone sales fell 55% in February whilst car sales fell 82%, as stores and showrooms remained closed. Ratings agency Fitch also warns that:

"It will be weeks, maybe months before the industry returns to normal production levels. Automakers say the pace depends on how fast suppliers can resume delivering components. Reviving the industry could take longer than previously expected due to labor and materials supply shortages."

China will see very low or negative GDP growth in Q1, and will find it difficult to make a full recovery in Q2 - and therefore to buy agreed amounts under the US trade agreement. We also expect the impact on other Asian economies to become more obvious:

- India's pharma industry cannot get critical APIs from China for its generic drug manufacturing – and China/India account for 90% of generic drugs used in the US
- Clothing producers in Vietnam /SE Asia are now idle, due to lack of textile supply from China and this will now impact fast fashion brands such as Zara and H&M
- In the services sector, tourist income in SE Asia, Mongolia and S Korea is being hit, as Chinese tourists accounted for >25% of all arrivals in 2018. Tourism accounts for >30% of Cambodia's GDP, and >20% for the Philippines and Thailand.

There are also growing fears that the Olympics in Japan will have to be postponed.

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Second order impacts are now starting to appear from China's lockdowns

China's lockdown now creating 2nd order impacts

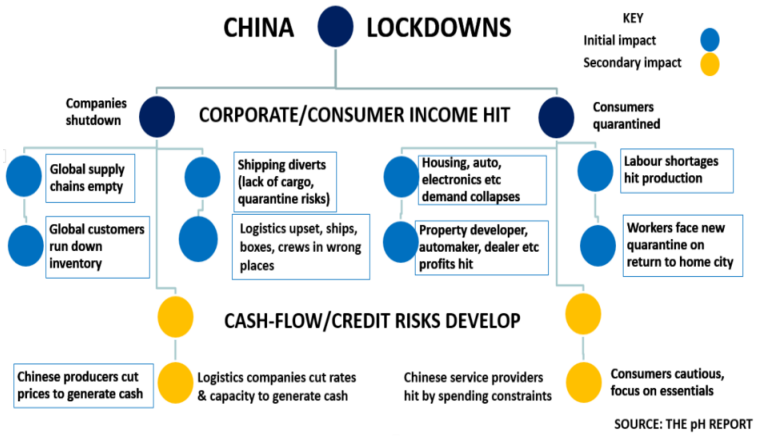

Chart 6: Second order impacts are starting to appear from the lockdowns

The modern world has never seen a situation like today's, and it is therefore very hard to understand the scale of the potential problems that are emerging. Chart 6 describes the current situation with China, and the second order effects that are already apparent:

- The economic impact of the initial lockdowns was focused on two areas - companies and consumers. Companies were shut down, and consumers were quarantined
- In turn, this led to a number of key impacts within and outside China
- Within China, demand disappeared for a wide range of products as consumers were unable to leave their homes; supply also disappeared as companies shut down
- Outside China, however, life appeared to continue as normal, because companies had already added to their normal inventory in advance of Lunar New Year
- They, and policymakers, were very slow to recognise that a V-shaped recovery was going to be almost impossible, because of the scale of the crisis
- Out of sight, critical logistic arrangements were being completely up-ended by quarantine measures, and the need to prioritise essential food/medical supplies

Today, however, the scale of these second-order problems is starting to become clear.

We can probably assume that truck drivers are slowly being released from emergency duties and from quarantine (if they travelled from infected areas across provincial borders). But we have no idea if basic equipment - containers, specialist materials etc - is in its normal place. We do know, however, from the shipping industry that its activity has been severely disrupted - ships are not in their normal places, and many have been idled due to lack of work; containers and crew are also disrupted.

It is probably also safe to assume that most Chinese companies and consumers are short of cash. We know, after all, that the government is cutting interest rates and already providing $14.3bn of liquidity into the economy, with no doubt much more to come. But this is likely to prove an haphazard process as neither central nor local government are set up to administer such programmes. Turning words into action will be difficult.

So we must assume that consumers will cut back on all but essential spending, further depressing demand, and that probably a large number of companies will prove unable to pay their bills - particularly the interest/capital repayments on corporate borrowings. In turn, this will lead to investor losses - risking the opening up of the 'Ring of Fire' that we discussed in August's Special Report, as western pension funds find that their pursuit of a better return *on* capital has left them facing a world where there is no return *of* capital.

Related second order risks are also starting to appear outside China as a result of the collapse of oil demand. This has already led to a price war between Russia and Saudi Arabia, and is now about to hit the US shale industry, which vastly over-leveraged itself on the basis of wishful thinking about energy prices as we discuss in the Oil section.

We also know that outside China, third order impacts are starting to appear. European auto companies are starting to close as demand tumbles and supply chains are disrupted, whilst the global airline industry has warned that it will be bankrupt within 2 months.

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FINANCIAL MARKETS

Price discovery is starting to return to financial markets

3. Earthquake tremors hit financial markets

Financial markets lost their prime role of price discovery over the past decade, as central banks' stimulus programmes aimed to keep them moving higher in line with then Fed Chairman Ben Bernanke's concept that:

"Higher stock prices will boost consumer wealth and help increase confidence".

But now it appears that coronavirus is acting as the catalyst for markets to slowly rediscover their true role. This is also happening in oil markets following OPEC's loss of control. Chart 7 suggests, however, that we have to buckle up for a bumpy journey:

- **Central banks, as we have already seen, are unlikely to give up easily, and we fully expect them to deliver 'helicopter money' sometime this year, in a desperate effort to reaffirm their belief they can control the economic fortunes of 7.8bn people**
- **A whole generation has grown up with the belief that the key to investment success is anticipation of central bank moves. This is likely to prove difficult to unlearn, particularly as many players will also need to learn the fundamentals of investment**

Chart 7: The S&P 500 has finally fallen out of the tramlines created by Federal Reserve support

Volatility is therefore likely to continue to increase as the journey continues, and confirm once again that the largest market rallies take place during bear markets. Over time, however, we expect to see the fundamentals of revenue and earnings replace the dominance of stimulus and stock buy-back programmes. Unfortunately, however, this is likely to push markets much lower before they eventually bottom.

Financial markets have relied on the Fed to cover their backs since the start of the Greenspan 'put' in the late 1990s, which led investors to 'buy-on-the-dips' in the belief that central banks would never allow markets to fall. Even if this were still true, the rosy scenario ignores two key issues:

- Central banks did eventually stabilise markets in March 2009, but this was 6 months after the collapse of Lehman Bros, and a year after the Bear Stearns collapse – and after a lot of pain for many players
- In 2008, countries worked together as the nature of the problem was clear, as noted by the UK's Finance Minister during the crisis, Lord Darling. But he has now warned "*there is a striking lack of global cooperation in dealing with coronavirus*"

The threat of a Minsky Moment in the corporate bond market is our key concern as chart 8 from Gluskin Sieff confirms, with US corporate debt to GDP at a new all-time high:

- The 10% of European firms and >15% of US companies described as "zombies" by the BIS due to "*their reliance on rolling over loans as their interest bill exceeds their EBIT. They are most likely to fail as liquidity dries up*"
- The $3.2bn of US corporate bonds currently trading just one layer about junk status at BBB rating, the lack of transparency in the $709bn holdings of leveraged loans in the Collateralised Loan Obligation market, and the ominous rise in activity in the Credit Default Swap market which provides insurance against corporate default
- We also expect rising concern over China's property developers, due to their extensive borrowings in the offshore dollar market from US and other pension funds. Evergrande have already cut apartment prices by 25% due to the drop in cash-flow since January from deposits on new homes and construction activity
- Almost unnoticed, very sharp movements are taking place in currency markets as

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Governments are showing a worrying lack of imagination in failing to realise the threat to the economy from a shutdown of major businesses

- investors re-evaluate their risk tolerance. The UK pound fell 6% between Monday - Friday last week, from $1.31 to $1.23. Government borrowing costs would easily start to surge as a result, creating the risk of capital controls having to be imposed
- In addition, it is already clear that many otherwise well-funded businesses will need major government funding as the pandemic develops in the west. voters' concerns over the 2008 bailouts may, however, lead nationalisation to move up the agenda.

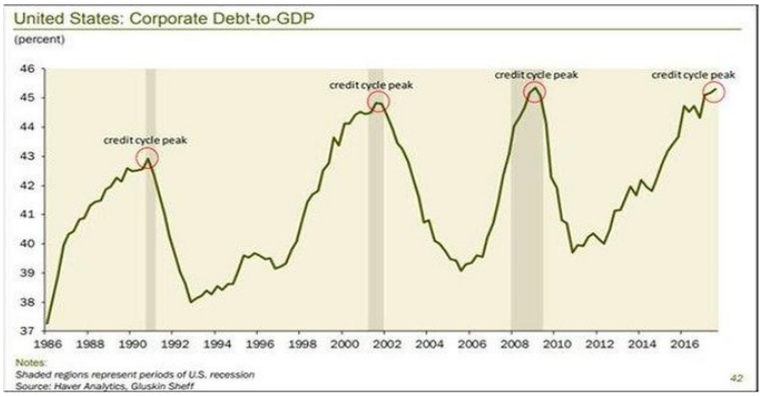

Chart 8: US corporate debt to GDP has hit a new record

The pandemic is at different stages in different countries, and governments will rightly want to target support to areas that are being most hit within their borders. But governments are also showing a worrying lack of imagination in failing to understand, even today, the major threat to the economy from a prolonged shutdown of key industries, such as airlines. They are also being very slow to provide rapid support to small businesses and the self-employed. In the UK, for example, 10m households have no savings whatsoever.

Developments in the US Government bond market are also worrying, with the Fed now preparing to add >$1Tn of liquidity into the financial system to support Treasury markets. These are the benchmark for the global economy. We worry that the Fed is still failing to understand the underlying causes of the rise in volatility in these critical markets, just as they have been behind the curve on the problems in the repo market since these first emerged in September.

Companies need to ignore the siren calls that suggest everything will be back to "normal" in a few days, or at worst, weeks. Equity market prices have been at the 90th+ percentile in terms of valuation for a long time, and reversion to the mean will provide a major shock for those whose memory only stretched back a couple of decades. Investors are likely to suffer similar shocks as dividends begin to be cut or cancelled.

Markets are likely to have an unpleasant surprise as we approach the Q1 results season, with widespread and substantial profit warnings appearing. We also believe companies and investors should develop contingency plans based on the idea that recovery will be slow, patchy and uncertain. Think of years, rather than months.

As we highlighted last month, Boeing's woes typify the problems that have been created by the focus on financial engineering. Its share price has fallen from $450 to $125 over the past year, wiping out the supposed boost from its $43bn in buybacks between 2013 – Q1 2019, and the associated annual 20% - 50% dividend increases. And it is now being forced to draw down a $13.8bn loan, as it is burning $1bn every 4 weeks.

This highlights the potential for seismic events in financial markets as investors are forced to confront the seemingly unthinkable. One example we expect to see in Q2 is dividend cuts by companies such as the oil majors, whose stock is primarily held for the yield. This would come as a major shock after so many years when the consequences of poor corporate investment decisions were camouflaged by share buybacks. As the FT warns:

"The equity price falls are striking. But investors are even more unnerved by the fact that the plumbing behind markets started to creak this week. In particular, the most important market in the world — US government bonds — appeared to be short-circuiting. Every experienced trader will tell you that Treasuries "should" be rallying while stock markets slide, providing a hedge to those who want one. But they are not, in part because of banks' unwillingness to act as go-betweens."

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OIL MARKETS
The last real long-lasting recession was in the early 1980s

4. Oil markets start to realise lack of demand matters

Coronavirus has proved the trigger that finally forces oil markets to realise that it is demand that matters, not supply. Drastic reductions in manufacturing industry across the globe and massive loss of transport-related energy demand will last well into the year. Even the bullish IEA sees oil demand falling by up to 730,000 bbl/day in 2020.

The response of the 2 major players highlights the gulf between their objectives:

- Saudi Arabia needs a price of ~$80/bbl to balance its budget
- By comparison, Russia can manage with a price around $30/bbl if necessary

US shale producers, of course, have no such strategic concerns. They simply want to make as much money as possible, as quickly as possible. And they will run for cash, if necessary, in order to pay the interest bills. As with any capital intensive business, the brutal fact is that once capex is spent, operating cost is the key factor for pricing.

Saudi Arabia had the right idea in 2016 with its Vision 2030 strategy:

"*Within 20 years, we will be an economy that doesn't depend mainly on oil*".

But momentum has since stalled, leaving the Kingdom trying to somehow balance the need to ramp up volume whilst raising prices. Now, with the OPEC+ cartel having failed to deliver this objective, Aramco has instead been ordered to ramp production up to 12.3mbd and to increase capacity to 13mbd. Three questions therefore present themselves:

1. Where will prices go?
2. How will supply and demand rebalance?
3. What are the longer-term implications?

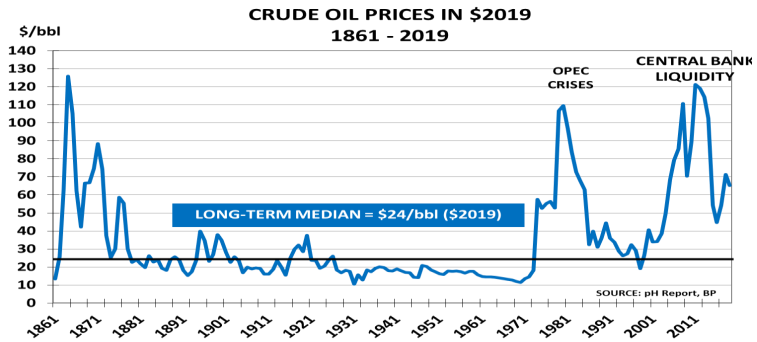

Chart 89 The median oil price has been $24/bbl since 1861

As chart 9 confirms, the median oil price since production began has been $24/bbl in $2019. Prices have already hit our forecast level of $30/bbl, and we would not be surprised if they go much lower, say to $10/bbl as the supply surplus intensifies. With the airline industry in crisis, there is little demand for jet fuel, whilst gasoline and diesel demand is being badly hit by people's fear of travelling.

Saudi Arabia is no doubt hoping that low prices will kill US shale production. But although some producers will likely go bankrupt, it will be their investors who pay the price, with the assets being fire-saled for pennies on the dollar and restarted. More prudent smaller producers will have hedged their production at much higher numbers, whilst the majors have already brought their own cost savings to these assets and have the financial resources to withstand the downturn in the short-term.

And in the longer-term, it is worth remembering that the US oil production was governed by the Texas Railroad Commission from the 1930s until President Reagan abolished its control over the energy industry and decontrolled WTI pricing in 1981. If prices do stay as low as we expect, it would therefore not be difficult to revive its system of "prorating" - where it set prices and production levels in order to balance the market.

So if demand remains low and shale continues to produce, will OPEC back down and re-impose production constraints? We view this as unlikely until extreme pain has been borne. Saudi Crown Prince Mohammed bin Salman is notoriously stubborn. Having set off down this path, it is unlikely that he will want to lose face by re-imposing production cuts. But like the war in Yemen and the blockade of Qatar, he may find it is more difficult than he expected to get the results he wants.

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'Reversion to the Mean' is once again proving itself as the best forecasting tool

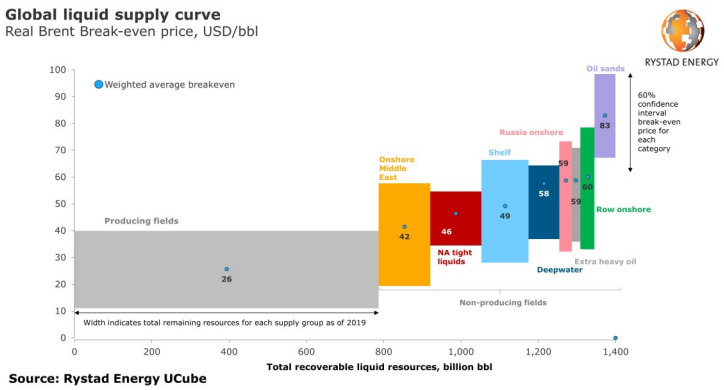

Chart 10: The average break-even cost of producing fields is $26/bbl

Rebalancing the market therefore will have to come from commercially-driven reductions by the highest cost non-OPEC producers. As chart 10 from Rystad Energy confirms, the average break-even cost of producing fields is around $26/bbl and all potential new fields have at least some production available at around $30-35/bbl (with the exception of oil sands). We therefore expect it to be some time before significant production cuts occur, with the exception of oil-sands (currently producing around 3mbd).

The oil market is therefore confirming once again that 'reversion to the mean" is the best investment strategy. The "problem" today, is simply that the collective memory of most politicians, traders and industry players only goes back 10-20 years, which were actually exceptional on an historical basis. We see the following implications:

- Low prices will slow the adoption of renewables, but not by much. Technology cost curves will continue to fall and drive wind, solar and battery adoption.
- IOCs will cut capex and postpone new output investments. Probably, much of this oil will end up staying in the ground as demand growth fails to appear
- This scenario highlights the potential for temporary oil-price spikes due to geo-political disruption as the world moves to a more regional market structure

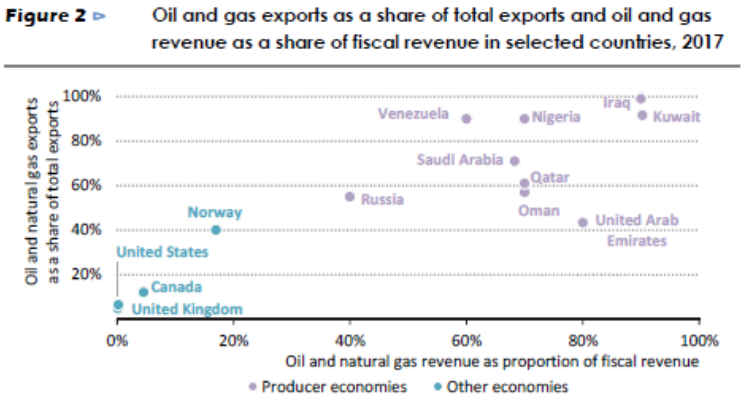

Chart 11: OPEC countries have a dangerously high dependence on oil revenue

Oil-dependent economies may well be an early focus for such disruption. As chart 11 from the IEA confirms, oil revenue is critical to economies in the Middle East, Nigeria, Venezuela and Russia. Efforts to diversify these economies will be made more difficult by austerity in the face of low oil prices. Public discontent will rise, and could lead to serious social breakdown and potentially to mass migration.

We do not expect the adjustment process back to historically 'normal' levels of oil and energy prices to be easy. The energy industry has operated for too long on the "build it, and they will come" principle set out in the famous baseball movie, 'Field of Dreams'. Many managers have never had to develop an investment proposal that was supported by signed customer contracts, and backed by 'first-class banks' - and it will take some years before this becomes routine again.

In the meantime, contingency planning based on the idea that 'business as usual' no longer applies will be critical to future profit and revenue growth.

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POLYETHYLENE

Our January 2018 list of potential Losers still seems valid today

5. US shale PE investments lose their advantage

We have consistently warned that the output from the US shale gas-based investments "will prove difficult to sell". But our warnings were largely ignored in favour of the positive spin being given by Wall Street. As one CEO with a major producer responded when asked in 2017 about our analysis:

"It may be true, but every time I mention shale, the stock price goes up $5"

As chart 10 confirms, managements and investors chose not to use the long-term median oil price as the basis for their investments. As we noted in our February 2017 analysis:

"The problem is that the new capacity was planned back in 2011-14 on the basis of 3 false assumptions, all generated by the misplaced faith in stimulus programmes:

- *Oil prices would always be $100/bbl, meaning US ethane-based capacity would have a major cost advantage*
- *China would always be growing at double-digit rates, and would have a major long-term need for imports*
- *Globalisation would continue to drive trade patterns, making it possible to supply customers around the world from the US Gulf"*

The US Gulf hurricanes in 2017 delayed the reckoning for producers, as construction was significantly delayed. The Sasol cracker due online in H2 2018, for example, was delayed until H2 2019, and was then plagued by difficulties in reaching on-spec production, causing it to run at reduced rates - whilst their 420kt LDPE plant has still to come online.

But since then, concerns over single-use plastics have added to the problems, given that more than half of PE output goes into this application. This month, in what seems likely to be the first of many such moves, the UK government announced a £200/t tax on plastic packing with less than 30% recycled content.

Unfortunately, therefore, our list of potential Losers in January 2018 seems to have borne the test of time as chart 11 confirms. And, of course, Wall Street has now turned with a vengeance on its former favourites as profits are hit by the start of what may well prove to be increasingly intense battles for market share:

"Losers

*"A. **Ethylene/PE producers in Europe and Asia (outside China)** are at most risk, if they are not internally integrated into secure long-term contracts for their feedstock:*

- *Internally integrated producers have an almost infinite ability to spread the pain of any losses on ethylene/PE across their upstream business*
- *US producers can do this to maintain ethane extraction to monetise shale gas*
- *European and NE/SE Asia producers can do this to keep moving naphtha into their petrochemicals business to maintain profitable refinery operations*
- *A non-integrated player will not normally have this option, unless they have water-tight contracts with their ethane or naphtha feedstock suppliers*

*"B. **European and Asian companies down the major value chains** of ethylene, propylene, butadiene and benzene are also at risk, due to their high levels of integration - where one company's by-product becomes a valuable raw material for another company. They could be quickly impacted if crackers reduce operating rates in order to minimise their losses from aggressive US pricing in core markets. There is also a medium-term risk, given the potential for an integrated N American producer to introduce a "scrap and build" policy by closing older European capacity, to optimise production on their new, lower-cost US units.*

*"C. **Non-integrated producers in the US** may also come under increasing pressure, as the integrated players seek to increase their domestic market share. Reportedly some of the new capacity has no rail linkages, and therefore cannot move domestically. But companies can always swap material around if necessary. It is always easier to attack local markets than export, as customers and local conditions are well understood."*

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SUSTAINABILITY
The new Industrial Strategy will target resource-intensive industries such as plastics

6. EU's Green Deal outlines climate neutrality aim

The developing crisis in financial markets, alongside the impact of the coronavirus pandemic, has naturally moved EU Green Deal discussion off the front pages. But given the political imperatives behind the Deal, it is no surprise that the Commission is continuing to move forward on the agreed timescale. As Commission President Ursula von der Leyen noted in December:

"I am convinced that the old growth-model that is based on fossil-fuels and pollution is out of date, and it is out of touch with our planet. The European Green Deal is our new growth strategy – it is a strategy for growth that gives more back than it takes away. And we want to really make things different. We want to be the frontrunners in climate friendly industries, in clean technologies, in green financing."

As a result, the detailed Proposal for a European Climate Law was published earlier this month, and the new Industrial Strategy is about to be published as chart 12 confirms.

Industrial strategy for a clean and circular economy	
EU Industrial strategy	March 2020
Circular Economy Action Plan, including a sustainable products initiative and particular focus on resource intense sectors such as textiles, construction, electronics and plastics	March 2020

Chart 12: The EU Green Deal Industrial Strategy will target resource-intensive sectors

Essentially, the Strategy aims to transform resource-intensive industries as part of the creation of a climate neutral economy by 2050. As the Commission notes:

"In November 2019, the High Level Group on Energy Intensive Industries published the masterplan on the transformation of EU energy intensive industries to enable a climate neutral, circular economy by 2050. The masterplan presents an integrated policy framework with recommendations to ensure that these industries can contribute to Europe's 2050 climate-neutrality ambitions, while staying competitive.

"The masterplan focuses on:

- *the creation of markets for climate-neutral, circular economy products*
- *developing climate-neutral solutions and financing their uptake*
- *resources and deployment*

"It also focuses on the need to ensure a just transition and considers the need to equip workers with new skills and help communities dependent on these industries to manage the transition. Essentially, therefore, the aim of the masterplan is to feed into the Commission's work on the European Green Deal and new EU industrial strategy."

Table 1: Overview of low-CO_2 technology potential for energy-intensive sectors (table i from the Institute for European Studies report, 2018)

	Electrification (heat and mechanical)	Electrification (processes: electrolysis/ Electrochemistry excl. H_2)	Hydrogen (heat and/ or process)	CCU	Biomass (heat and feedstock)/biofuels	CCS	*Other (including process integration)*
Chemicals fertilizers	xxx	xxx	xxx	xxx	xxx	xxx(*)	Use of waste streams (chemical recycling): xxx
		xxx: high potential	*(*) in particular for ammonia and ethylene oxide*				

Chart 13: R&D and the role of chemical recycling are key elements in the Strategy

Unsurprisingly, R&D and the role of chemical recycling are seen as critical elements within the strategy, as chart 13 confirms. We will comment in more detail next month, when the Strategy and Circular Economy Action Plan have been published.

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BREXIT
Coronavirus may prompt a rethink amongst the older generation who voted for Brexit

7. Pressure grows for Brexit delay

We first analysed Brexit in early 2016, ahead of the referendum. And we have always assumed till now that it would go ahead, with No Deal as the logical end-point. It took a long time before our concerns were widely shared but today, those who follow the debate are increasingly warning that the UK government indeed seems set upon No Deal.

Having promised an end to Brussels bureaucracy, it will now employ 50,000 new Customs officers to process the millions of Declarations required. And it has rejected chemical industry requests to stay with REACH, as this would continue to involve the European Court of Justice. These developments seem to confirm our April 2016 judgement:

"Brexit, of course, creates another major risk for economic stability."

Chart 14: Voters are now refocusing on safety and security

It may seem odd, therefore, that having been in a small minority of commentators prepared to face likely reality, we are now wondering whether - at this last moment - we may see a volte face. But the experience of the UK's 3-Day Week in 1974 shows that public opinion can turn very quickly if the government seems to be losing control. 2 factors are therefore starting to weigh on our mind:

- The first is practical. As premier Macmillan famously warned, "a week is a long time in politics". And after last week, it is clear that coronavirus and the accompanying economic crisis is going to take up every waking hour of the government's time, and that of the EU27. In these circumstances, even the most hardened Brexiter may soon start to accept that the transition period will have to be extended - the precedent of postponing May's local elections is a marker for the decision
- The second is that voters' concerns are shifting as a result of the pandemic, in line with Maslow's famous Hierarchy of Needs in chart 14. People are now fearful and worried about their personal safety. They are also well aware that borders provide no security against viruses. Coronavirus would have arrived in the UK whether or not it had "regained its sovereignty". Older people, the main supporters of Brexit, are realising the potential risk to food supplies if the UK had already left

None of this might matter if the Labour Party were still being led by the incompetent Momentum group. But it seems highly likely that Sir Keir Starmer is going to win the leadership ballot, and win it with a large majority.

We got to know Keir through Ready for Brexit, and because he was our local MP in the St Pancras constituency. He is sharp, honest, and personally committed to remaining in the EU if at all possible - as he told us at one meeting, he had a personal response:

"As the referendum result came through as I realised that my 2 children would not have the opportunities that I have had as a result of EU membership."

If the Transition Period does indeed have to be extended beyond December, then we will seriously start to consider whether No Deal is still quite as inevitable as we had believed.

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VOLUME PROXY

The Index has seen a major downturn in recent days

8. Demand plunges with crude and coronavirus

Unsurprisingly, the Index has seen a major downturn in recent days, responding to the sudden falls in oil prices, as chart 15 confirms. From already weak levels, the Index has entered a region usually associated with substantial demand dislocation.

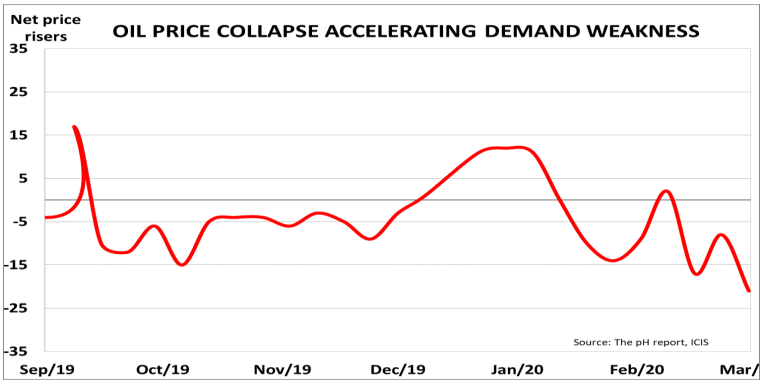

Chart 15: The Index is moving close to crisis levels

Regionally, both Asia and the US have weakened significantly as chart 16 shows. Interestingly, the US seen a significant decline in recent days, and has actually dropped below the already weak level in Europe.

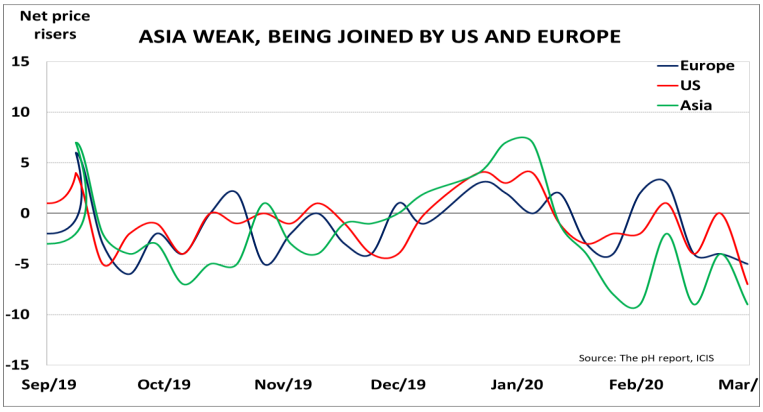

Chart 16: The main Regions are all negative and declining

In the Products area, as chart 17 shows, Aromatics has immediately reacted to the lower oil price, with Olefins following. We would normally expect 'apparent' demand to fall as companies destock down the value chain in response to the lower oil price. But Aromatics' severe weakness clearly reflects a downturn is actual levels of demand, as does the weakness in Polymers (nearest to the end-user). We cannot therefore rule out a further fall in the Polymers area, which would take the Index to crisis levels.

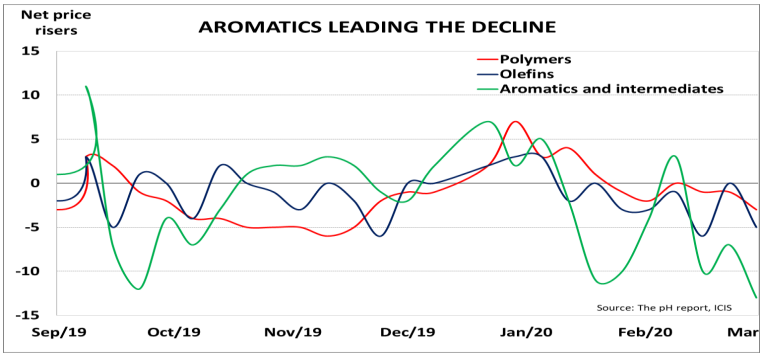

Chart 17: Aromatics leads the decline, but weakness is spreading through the value chain

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About The pH Report and IeC

The pH Report is published by IeC, a London-based strategy consultancy advising Fortune 500 and FTSE 100 companies, investment banks and fund managers.

Paul Hodges phodges@thephreport.com

Is a trusted adviser to major companies and the investment community, and has a proven track record of accurately identifying key trends in global marketplaces. He has been widely recognised for correctly forewarning of the 2008 global financial crisis. His analysis of the key role of demographics in driving the global economy is now attracting increasing interest from senior policymakers and executives.

Paul is Chairman of International eChem (IeC), non-executive Chairman of NiTech Solutions and Ready for Brexit, and senior adviser to I.C.I.S. and Recycling Technologies. Prior to launching IeC in 1995, Paul spent 17 years with Imperial Chemical Industries (ICI), both in England and the USA, where he held senior executive positions in petrochemicals and chloralkali, and was Executive Director of a $1bn ICI business. Paul serves as a Global Expert with the World Economic Forum and is a Freeman of the City of London. He is a graduate of the University of York, and studied with IMD business school.

Daniël de Blocq van Scheltinga daniel.dbvs@thephreport.com

Was the first foreigner to be granted permission to run the finance company of a top-tier Chinese State Owned Enterprise, when establishing and managing ChemChina Finance Company. Previously, Daniël held a variety of senior positions in corporate and investment banking, including as Asia Pacific Head of Chemicals and Asia Head Asset Based Finance for ABN AMRO.

He moved to Hong Kong in 2001, and continues to spend much of his time in China, advising international and Chinese firms, as well as leaders in the public and private sectors. Daniël is a graduate of Leiden University, the Netherlands, with a Master of Law degree with a specialty of International law.

David Hughes dhughes@thephreport.com

Is an expert on the Middle East, having lived and worked in Riyadh, Saudi Arabia for 5 years after leading SABIC's global business redesign programme in 2009. He has held a range of senior executive positions with SABIC, Huntsman and ICI, where he led a range of global $1bn+ businesses based in the Middle East, Europe and the USA. He also served on a number of industry bodies, including as Vice-Chairman of the Board of Petrochemicals Europe, the Asian Clean Fuels Association and the Methanol Institute.

Paul Satchell psatchell@thephreport.com

Has worked in the chemical industry as an equity analyst with some of the world's leading investment banks, and directly with chemical companies. For 21 years to 2017, he covered the global chemical industry for banks including ING, Merrill Lynch and Investec, making market recommendations and undertaking advisory work in M&A and lending. He was particularly well known for his development of the Chemicals Volume Proxy, a unique real-time monitor of chemicals demand. Before this, he spent 16 years in the industry itself, mainly with BP/BP Chemicals. He is Honorary Treasurer of the Royal Society of Chemistry and previously chaired its Investment Committee.

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