



Green Transition Value in Japanese Chemicals, as Commodity Squeeze Intensifies

'I've added FB to the gaming basket, to replace long time holding Tencent, which having almost doubled at recent highs from pre-pandemic levels, is alongside Alibaba coming under relentless regulatory pressure on data privacy and market concentration issues. Tencent alongside Sony remains a core long-term global gaming exposure with its vertically integrated publishing/distribution model, but on a mid-40s multiple with near term visibility issues, faces headwinds. VR will have a tailwind from people having become accustomed to socializing in virtual spaces (and spending virtual currency) during the pandemic while faster consumer adoption incentivizes developers to release more engaging applications in the Quest store. Facebook introduced its App Lab last month, which provides a new way for developers to distribute apps directly to consumers via direct links as opposed to via the Quest Store that is curated by Facebook. The ambition is to achieve 10m daily average users in the next few years to sustain a profitable VR ecosystem.' - [Weekly Insight, 18th March 2021](#)

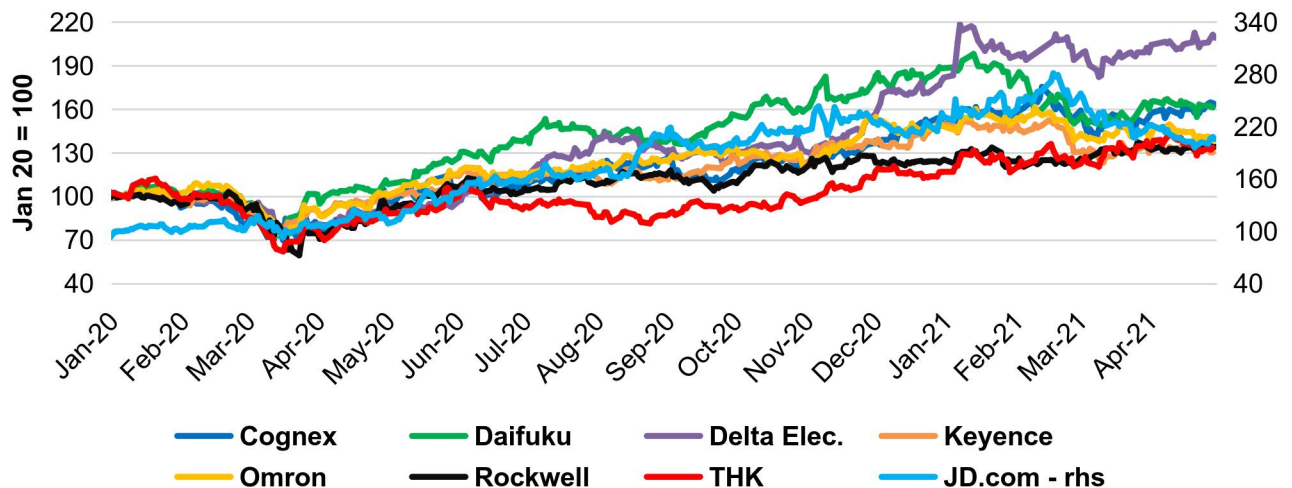
'On the most bullish scenario, if the EU's proposed tougher carbon pricing regulations are enacted and Biden wins and is able to push through his 'Green New Deal' (unlikely if the Senate stays Republican), that could reach 40-50% by the early 2030s or 40-45m units. Meanwhile, oil stocks are starting to look like the hated tobacco sector in the late 1990s, when investors overestimated the long-term revenue decline trajectory and a reset of expectations saw the sector soar over the next decade. Exxon is trading with a 10% dividend yield (compelling even pricing in its halving versus BBB credit at 4%) and at 4x EV/EBITDA on a normalized basis. On a WACC basis, at current funding versus (even halved) dividend costs, a leveraged buyout (4-5x on equity tranche) at a 50% plus premium would create value. With its ROCE having dropped to just 4% last year from 16% a decade earlier, it looks ripe for aggressive cost cutting – the 'long goodbye' scenario for fossil fuels over the next 20-25 years suggests significant current mispricing of their terminal valuation risks.' - [Weekly Insight, September 28th 2020](#)

"I think I believe it's clear that we are about to enter demand-led recovery. And I think the macro factor, both economic growth and what we are seeing, indicates that the oil demand recovery will reach 2019 levels by or before the end of 2022. In this context, I believe that we are ready and starting at, and during the second-half of this year, facing the beginning of demand-led recovery that will trigger multiyear recovery cycle and industry upcycle. In this context, if you look at the recent period of underinvestment, look at the structural constraints in North America due to capital discipline, I believe that this will create the condition to create a significant pull on international supply." - Schlumberger CEO

- I concluded in the last note that: **'JD.com back at levels seen last September looks among the net winners from the new merchant listing rules while for Alibaba and Tencent, the shift to the enterprise market as a growth driver via cloud services for logistics IoT, smart cities etc. (with Beijing's blessing) should increasingly become the investor focus. The selloff is looking excessive...'** The regulatory onslaught, partly to pre-empt systemic financial risks, is far from over – this week the leading names have been asked to delink their payment tools with some financial products; the 'buy now, pay later' instant credit boom in the US/Europe is clearly unwelcome in China.
- I've already got Baidu in the autonomous vehicle basket (and it just announced a promising \$7.7bn 'smart car' R&D program with Geely to leverage its Apollo self-driving program) and Netease in the gaming one, but **I've added JD.com to the automation basket**, which has an ecommerce tilt so despite being an ecommerce stock it's a good fit given its innovative use of logistics robotics (like Ocado in the UK), including drone delivery. The overall basket is up over 100%, with **Taiwanese power supply electronics play Delta having doubled since January last year taking the performance lead from Japanese conveyor systems name Daifuku**. The company has seen a relentless series of upgrades this year (and is an EV as much as automation secular tailwind story) and importantly hasn't been impacted by the chip and component shortages now roiling automakers.

- After lagging the crude price over the past few weeks on terminal valuation/peak demand fears, I added back some tactical oil exposure on the 22nd via the **XLE US focused ETF this time rather than IXC, which I took a 23% profit on back in February. The 'long goodbye' tobacco scenario sketched in that September note quoted above remains the base case** and the comments by the CEO of oil services giant Schlumberger endorse the view that we are going to have to see **much higher prices to elicit an adequate (high IRR) capex commitment and supply response from oil majors (true also across industrial metals, from lithium to copper).**

JD Added to Logistics Automation Basket



Source: Entext

- Amid generally well above consensus FANG+ results (Netflix excepted), **Facebook was probably the biggest consensus surprise - its push into seamlessly integrated e-commerce across its ecosystem is starting to gain serious traction** with home/small businesses who can micro target prospective consumers and generate a high marketing ROI. Facebook Marketplace, where individuals buy and sell anything from furniture to cars in an online classified ads model, now has a billion users and more than a million Shops, with more than 250m users interacting with those retailers each month. Facebook only launched the feature, which lets businesses create product catalogues on their pages, last year. To reiterate the point made in the last note, technology platforms are going to be bullish for EM trend growth post pandemic by generating new sources of hard currency income generating opportunities at the micro level, whether coders and graphic designers with a satellite broadband connection and Stripe API selling services or handicrafts makers with a Facebook page and the granular discovery tools to reach a niche, highly motivated audience.
- Facebook will soon allow business owners to buy Facebook ads that open directly in WhatsApp while Instagram plans to allow influencers to run their own shops on the app. So far, the Apple iOS privacy impact is muted although always likely to be more a Q2/3 issue - the company achieved just over \$26bn in revenue, up 48% y/y and grew its user base to almost 1.9bn daily active users, though growth in the US remained flat. Facebook's "other" revenue jumped almost 2.5x and I've highlighted the long-term potential of Facebook's Oculus and Portal devices – **Zuckerberg mentioned that Quest 2 is doing better than expected and the company remains a key play on the AR/VR computer interface trend I've been highlighting.**

Japanese Niche Materials Science/Chemistry IP Remains Undervalued

'Japanese parts makers such as Murata, Sony, Nidec, TDK and Taiyo Yuden and Taiwanese names such as Win Semiconductor, MediaTek and of course TSMC have all been in the sweet spot. This year's diplomatic rift between Japan and Korea has also highlighted the global niche dominance Japanese suppliers have in key specialist

semi manufacturing processing materials and components, from photoresists and hydrogen fluoride to fluorinated polyimides. **Furuya Metal for example supplies 90% of the world's iridium compounds**, a basis for phosphorescent materials that wind up in the OLED displays of BOE, Samsung and LG. **Tokuyama controls 75% of the global market for high-purity aluminium nitride, an essential ingredient in heat-dissipating materials** that prevent chips from overheating, whether in data centre servers or phones. The company is boosting capacity by 40% by next April to meet demand - **increased data consumption implies greater demand for semis and hence for these obscure but crucial coating materials. Again, like Nidec, the focus on reducing carbon footprint via more efficient energy use is an additional secular tailwind for materials specialists that can reduce cooling demand.** As I often repeat, Japan is chock full of these remarkably obsessive companies that totally dominate their markets and have accumulated huge and undervalued IP/process knowledge.' - [Weekly Insight, December 12th 2019](#)

'Energy storage will be a huge investment theme over the next decade, possibly as big as data analytics has been in the last. **Without a breakthrough in battery density/cost per kWh, the growth of grid renewables will fall far short of levels needed to meet even the most modest climate goals. Hydrogen fuel cells have been around for decades without reaching an adoption tipping point, but look like one high potential prospect, alongside solid-state lithium-ion batteries.** After decades of investment, water electrolysis has improved markedly in recent years, with lower capital costs, higher electrical efficiency, more compact designs, and improving safety. In principle, these systems at scale can make virtually unlimited quantities of 'green hydrogen' i.e. hydrogen made in a zero-carbon way. **Green hydrogen in turn creates new chemical synthesis opportunities including fuels, intermediate substrates, and polymers...the ability to flexibly create storable products from hydrogen will enable more effective use of hydrogen made from renewables, until we achieve a breakthrough in say nanomaterials to allow solid state storage.**' - [Weekly Insight, January 16th 2020](#)

'However, as the hydrogen economy becomes increasingly centre stage, so iridium and ruthenium (together with platinum) will help to catalyse the low carbon future and avert global warming. The use of iridium in some electrolyzers and ruthenium in some fuel cells represents entirely new markets for these metals. Of course, loadings are still high at the moment, but there are extensive R&D efforts underway to thrift the metal content, from modifying the porosity of the substrate to improving the dispersion of the metal particles. **The long-term growth in demand for platinum in electrolyzers and fuel cells will, to some extent, offset the decline in demand from autocatalysts. Fuel cells are already building a head of steam in the rail industry and making waves in the maritime sector, thereby adding demand for platinum, ruthenium and iridium in markets with no substantial previous PGM footprint.** In addition, Anglo American Platinum is working to develop an FCEV mining haul truck. The vehicle will be the largest hydrogen-powered mine truck to date. These are completely new markets for ruthenium and iridium form an exciting part of the supply and demand map going forward. Designing for recyclability of the PGMs is also key to the sustainability of these technologies... From an [excellent overview produced by Heraeus](#), the leading German PGM company

- If the last decade was all about having the best computer scientists and statisticians to apply Bayesian and Gaussian probability techniques to AI inference, the next will be as much about having the best chemists and material scientists to make carbon ambitions a practical reality – Japan never had many of the former, but probably has the world's greatest concentration of the latter. Something **investors are still overlooking is the growing competition over the next few years between consumer electronics and clean energy not only for semiconductors (notably via EVs), but also for key niche raw materials** going into batteries, electrolyzers etc. Zeon, another relatively obscure but remarkably cheap Japanese materials name added to the alternative energy basket in late January this year, has been testing new highs.

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