

Coronavirus impact monitor – 19 March 2020

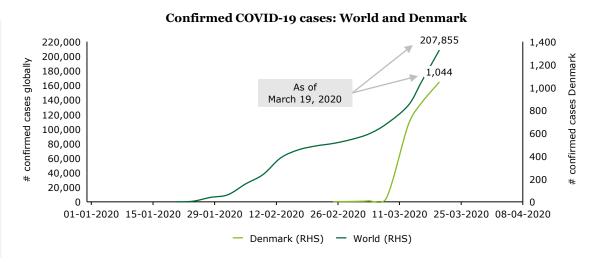
Deloitte Economics

2nd edition

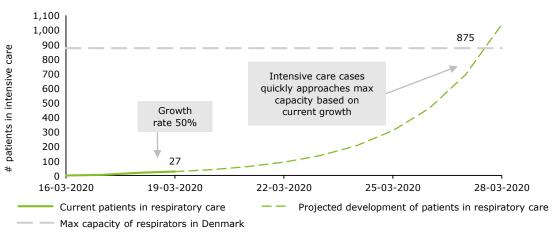
Rapid development in the number of intensive care cases could challenge capacity soon

- Between January 20, 2020 and today, March 19, 2020, the number of global confirmed COVID-19 cases rose from 7 to approx. 208k.
- In Denmark the number of confirmed cases rose rapidly within the past two weeks from only 8 on March 4, 2020 to 1,044 on March 19, 2020. However, COVID-19 testing in Denmark has been sharply reduced so the actual number of cases is likely underestimated

- The bottom chart displays the number of COVID-19 intensive care patients in respirator. This measure jumped to 27 as of 19 March 2020
- The government is monitoring this measure closely as it is committed to preventing a situation where there is not sufficient capacity for COVID-19 patients in need of a respirator
- The chart also shows a simple projection of COVID-19 patients in respirator based on an extrapolation of the 50% growth rate observed during the past days. It appears that respirator capacity will be exhausted on March 28 according to this projection



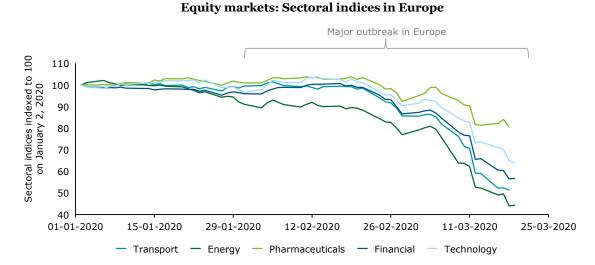
Intensive care patients and respirator capacity in Denmark



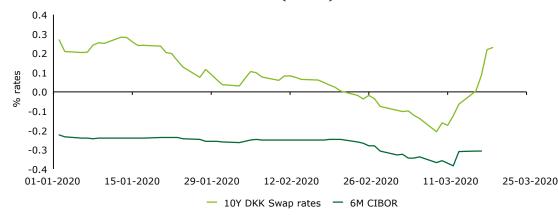
Impact on financial markets

European equity markets suffering major losses from the outbreak of COVID-19

- European equity indices have suffered material losses following the COVID-19 outbreak in Europe.
- Especially the transport industry, including airlines, was severely impacted by the spread of the virus and related travel bans. The Eurostoxx Transport index is down some 49% since end of January, driven by a material decline in volumes.
- The European energy sector, including oil and gas companies, has lost some 56% since end of January.
 Declining energy prices have applied downward pressure on energy equities.
- Financials, including banks, have also experienced value destruction. Market concerns about increased credit losses and funding squeeze are likely drivers.
- Other industries such as Pharmaceuticals and Technology have held up relatively well as the sectors are less exposed to a near-term contraction in consumer spending.
- The outlook of slower economic growth translates into lower interest rates. However, due to market sell-off and lack of liquidity rising interest rates are now seen in many markets
- Equity market volatility has spiked to levels not experienced since the global financial crisis (see Appendix).



Interest rates: 10Y Interest rate (swap) and 6M interest rates (CIBOR)

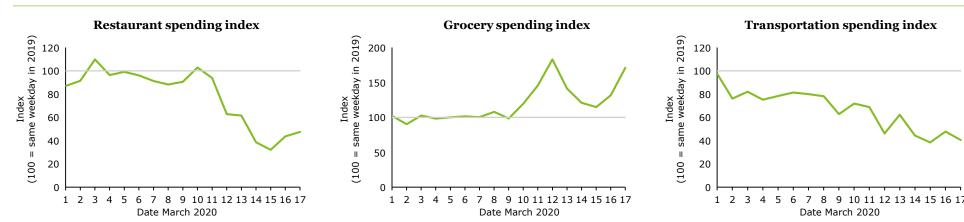


Real economic impact

Government introduces aid package of DKK 100bn

- This crisis has pushed the global and Danish economy into unchartered territory. The government is signalling that they are doing whatever it takes to prevent a situation where the capacity of the healthcare system is breached
- Right now, the challenge is not so much that consumers are <u>unwilling</u> to spend money: In many cases consumers are <u>unable</u> to spend money. For instance, spending at restaurants and on transportation is down some 60%. Grocery spending, in contrast, is up some 75%, likely reflecting stock building, see charts at the bottom
- In this situation, where consumers 'struggle' to spend money, a conventional expansion of fiscal policy is likely not effective. On this background, the Danish government today introduced an aid package to the tune of DKK 100bn. About DKK 50bn is directed at compensating employees and companies that suffer economic losses from the crisis. The other DKK 50bn is directed at underwriting loans. The think-tank Kraka and Deloitte had recommended a far larger compensation package of some DKK 300bn. The government has announced they are willing to provide more aid if required (up to DKK 287bn)
- Beyond, the short term, as the pandemic is hopefully waning, an economic contraction is on the horizon. At this point, a conventional expansionary fiscal policy is likely to become relevant

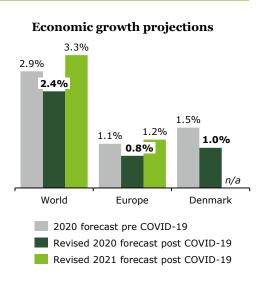
Dramatic changes in consumer spending patterns in Denmark



Notes: Based on transactions with cards and MobilePay, Danske Bank has compiled detailed consumer spending data. Sources: Danske Bank, Deloitte analysis

Severe slowdown of the world economy throughout 2020

- The disruption of the global supply and demand chain as well as financial markets translates into an adjustment of economic growth projections worldwide:
 - According to the OECD global economy in 2020 is expected to grow by 2.4% instead of the initially estimated to 2.9%, while European growth slows down from 1.1% to 0.8%
 - In Denmark bank estimates from Nordea Markets project a decrease of economic growth rates from 1.5% to 1.0% or even 0.5% in the worst-case scenario
- Nevertheless, projections for 2021 for global and European economic growth by the OECD remain optimistic and are subject to an upward adjustment to 3.3% and 1.2% respectively in response to the slowdown in 2020. However, do notice that OECD has not updated their projections since our last report as of 13 March
- Within the last week, however, the expectations to the timing of recovery of the world economy post COVID-19 has decreased significantly. For instance, responses from 2,000 participants on a Global Deloitte Economics webinar with colleagues and clients on March 19 now shows that about 40% expect the activity to rebound not until 2021 and beyond. Last week this was only the expectations among 23% of the participants (n=3,000)



38.6%

40.3%

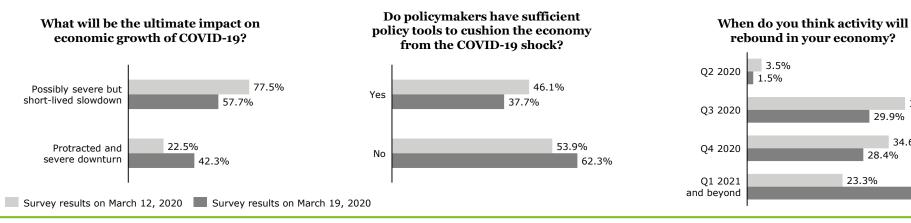
29.9%

28.4%

23.3%

34.6%

Results of Deloitte surveys



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Coronavirus heatmap

Deloitte Economic's view on the short-term outlook across selected sectors in Denmark

Transport

 High short-term impact due to limitations on travel and supply chain disruptions. Spending om transportation down 60%

Consumer

 With less consumers in stores and store lockdowns traditional retail sales of nonessential consumer goods have faced a significant sales decline (see appendix)

Financials

 Changes in regulations will likely have prepared the Financial Services Industry to withstand the economic shock created by COVID-19. Short to medium term impact on the industry will be significant (see appendix).

Energy & resources

 Prices and demand for crude oil has decreased and Danish energy and utility companies are taking steps to ensure the security of supply on the Danish market (see appendix)

Technology, media and telco (TMT)

• TMT sectors have held up relatively well. Challenges due to supply chain disruptions for some companies (see appendix)

Real estate

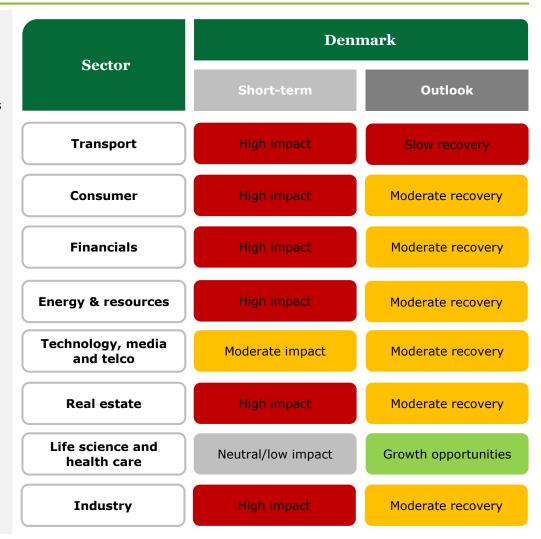
Sectors such as Retail, Leisure, Hospitality, and Transportation are especially hit by the COVID-19 outbreak. This will affect investors and their view on risks. However, demand for properties suited for logistics will increase (see appendix)

Life science and health care (LSHC)

 Limited impact so far. Potential upside in scenario with increased spending on vaccinations (see appendix)

Industry

 High short-term impact due to supply chain disruptions. Priority is to reduce operating costs and review spending (see appendix)



Sources: Deloitte analysis, Dansk Erhverv

Key messages

The global economic slowdown is set to hit the Danish economy, but strong public support and alignment with the private sector will ease the long lasting impact

- The number of confirmed COVID-19 cases rose rapidly within the past two weeks from only 8 on March 4, 2020 to 1,044 on March 19, 2020. However, the number of cases is underestimated as the COVID-19 testing has been reduced in the same period. If the development continues the respirator capacity will be exhausted on March 28 according to a simple projection
- COVID-19 has caused severe damages on the world economy. The equity markets have suffered major losses and equity market volatility has spiked to
 levels not experienced since the global financial crisis. Supply chain disruptions and negative demand shocks have spread from China to the rest of the
 World
- In Denmark, especially the transport sector and hotels and restaurants have experienced a major decrease in turnover. Spending on restaurant and transportation is down 60%. Grocery spending, in contrast, is up some 75%, likely reflecting stock building. As the Danish government enforces extraordinary measures to prevent a wider spread of COVID-19 across the population, companies across all sectors are expected to experience severe consequences of the COVID-19 pandemic
- According to a Global Deloitte Economics survey among 2,000 colleagues and clients from all over the world on March 19 the expectations are that the
 economic slowdown will be deep and last throughout 2020
- However, governments all over the World, including Denmark, are introducing major aid packages to help companies and employees through the health crisis. This is likely to ease the severe and long-lasting impact of COVID-19 on the world economy
- Deloitte Economics will continue monitoring the impact of the Coronavirus in Denmark and globally

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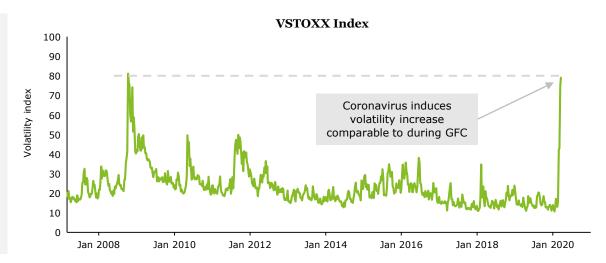
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Appendix

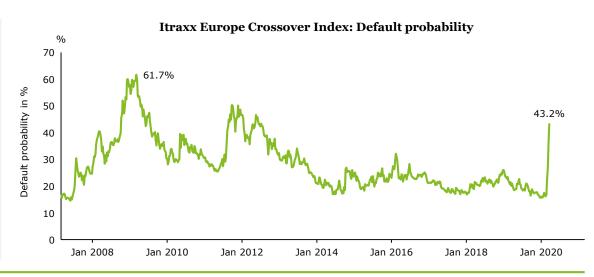
Impact on financial markets

Equity market volatility at highest level since financial crisis

- The VSTOXX index measures 30-day implied volatility of the Euro Stoxx 50 equity index and reflects investors' uncertainty around future equity market moves.
- As shown in the graph above the Coronavirus induced an increase in volatility to a level comparable to that experienced during the Great Financial Crisis in 2008 underlining investors' fear of a recession.



- The adjacent chart shows the development of the implied default probabilities based on the 5Y Itraxx European Crossover spread of Credit Default Swaps and an assumed recovery rate of 40%. It measures default probabilities on a portfolio of sub investment-grade corporate debt in Europe
- With a current default probability of approx. 43% we are on the highest level since the European debt crisis, but still below peak financial crisis levels.
- As the index reflects cost of debt, any refinancing will be costly for leveraged companies even though interest rates are close to record low



Notes: 1) VSTOXX as volatility index of Eurostoxx 2) Default probability calculated based on 5Y Itraxx European Crossover CDS and a recovery rate of 40% Sources: Thomson Reuters Eikon

Industry | Consumer

Industry impact

- Demand is the key issue with consumers avoiding public places like shopping malls, stores, stadiums etc. all over the world
- · With less consumers in stores and store lockdowns traditional retail sales of nonessential consumer goods have faced a significant sales decline
- Luxury retail heavily depends on Chinese consumers and is negatively affected by limited travelling and consumer confidence¹
- Consumers are moving their traditional retail purchases online with sales greatly correlated with movement restrictions

COVID-19 is changing the traditional retail to an e-commerce game



Increase focus on the online sales

- Evidence shows that movements restrictions naturally widening the sales performance gap between retail and online sales
- Leverage the current consumer behavioral change to drive digital transformation and be accessible to customers in a better and more convenient way



Comply with governmental initiatives

- Keep workplaces and shops as safe as possible for customer and staff health
- Comply with different levels of government restrictions



Prepare business for turbulent times

- Prepare the business for varying levels of sales declines
- Protect vendors financially and ensure value chain in the long run
- Delay of discretionary capital expenditures and sale and lease back of warehouses and stores to enhance liquidity

Economic outlook

- The long-term sales forecast is currently unpredictable due to the lacking visibility of COVID-19
- Consumer Confidence index hit 2 year low indicating consumers a more pessimistic towards the economic outlook and more prone to save money thereby harming the outlook

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How do retailers look at the future²

47%

Of retailers expect decreasing 2020 revenue

58%

Of retailers say it will impact the consumer confidence

22%Of retailers expects a significant impact

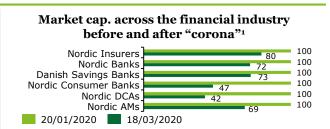
Note: 1) Consumer confidence measures how optimistic consumers are regarding their financial situation 2) According to a march 2020 survey of 304 retailers conducted by Digital e-commerce 360

Source: Deloitte Chief Executive retail review; OECD; Digital e-commerce 360

Industry | Financial Services (1/2)

Industry impact

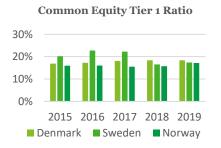
Since the Global Financial Crisis, Regulators have focused efforts on shoring up the solvency of financial institutions. In particular changes in Basel, Solvency and Accounting regulations will likely have prepared the Financial Services Industry to withstand the economic shock created by COVID-19. While the industry may be more resilient, the short to medium term impact on the industry will be significant. The immediate impact of the crisis on market capitalisation of FS segments is stark.



Highlights from the industry

Banking

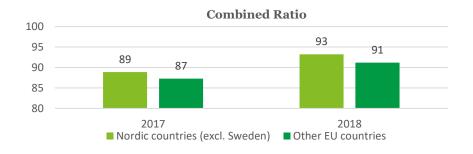
- The continued low base rate environment and continuing increases in cost base has left some smaller players with limited headroom to withstand a vast increase in loan losses.
- The release of the countercyclical buffer alongside any government support will be helpful in withstanding the anticipated increase in nonperforming loan stock. In addition, there may be an increase demand for unsecured credit in the medium term.
- Underwriting policies for new loans will be important, however, there is a risk that a number of smaller players may not have a long term future.





Insurance

- Claim rates for both Life and P&C insurers will likely increase significantly
 placing strain on: 1) claims handling resources; and 2) technical
 reserves. The decline in equity markets will adversely impact pension
 providers who continue to pay out on guaranteed pension products.
- The medium term customer implication being an increase in premiums paid for coverage.
- Based on recent combined ratios, any under-reserved insurers may find trading difficult.



Notes: 1) Index 100 = 20 January 2020

Source: Annual reports from the largest banks in Denmark, Sweden, and Norway; OEDC Global Insurance Statistics (data for 2019 is not yet available

Industry | Financial Services (2/2)

Highlights from the industry

Asset Management

- The industry will suffer an immediate top line shock as a result of the decline in equity markets. In addition, investor sentiment may lead to a reallocation of funds to "safer" asset classes may further impact some market participants
- Market perception of both fee levels and relative "safety" will be important in the short term as will be solid investment strategies.
- Pension funds in Denmark saw accumulated negative return of -4% as of February 2020.
- Asset managers who has performed relatively well in 2020 are those managing passive portfolios, with real estate and infrastructure investments, has shown smaller losses. Thus, asset class diversification has mitigated risk to some extend. The MSCI World index has, however, dropped by 22% in March 2020 alone.
- Given the high stock market price levels, average market return between 2017 and 2020 were positive.

Source: Pension funds, MSCI

Debt collection platforms

- Debt collector income is likely to be impacted by a) a slowdown of collections; and b) the downward revaluation of owned debt portfolios. In addition, current funding structures and relevant bank covenant are likely to be placed under pressure.
- However, there is a potential opportunity as a result of the anticipated increase in non-performing loans from other financial services players alongside consumer facing corporates.

Economic outlook

The longevity of the COVID 19 crisis is unknown, as such there are a range of eventual implications on the industry, including both market consolidation and corporate failures. Regardless, it is likely financial services players will need to reshape their cost base and strategy due to the impact of a decrease in top line revenue and the implication of the crisis on the underwriting of both insurers and lenders.

Industry | Energy & Resources

Industry impact

- Like all other industries the effects of the COVID-19 crisis are showing in the energy sector. Prices and demand for crude oil has decreased and Danish energy and utility companies are taking steps to ensure the security of supply on the Danish market. Prices for Nordic electricity futures have declined across maturities, however we see the largest declines in **short-term** prices indicating **robustness on the longer term**.
- Gas and coal prices continues the downward trend from the peak in 2018 pressuring power prices, and prices for European electricity certificates have decreased significantly in March, which have led to larger decreases in power price futures

Highlights from the industry Nordic electricity futures (EUR / MWh) -43.1% -35.1% -69.3% 36 32 32 29 29 29 27 29 27 28 26 27 27 26 24 21 17 14 13 14 13 10 Nordic power Q2-20 future Nordic power Q3-20 future Nordic power Q4-20 future Nordic power FY-21 future Nordic power FY-24 future End-Dec-19 Mid-Jan-20 End-Jan-20 Mid-Feb-20 End-Feb-20 Mid-Mar-20 Other commodity futures (EUR / MWh)1 Coal and gas futures are continuing -10.9% downward trend from Oct 18 -38.0% 50 50 -39.0% 24 24 24 24 24 25 25 24 EUA futures Mar-20 EUA futures Mar-21 Coal Mar-20 (USD / tonnes)2 Gas Apr-20 (USDth / MMBtu)² Mid-Jan-20 End-Jan-20 Mid-Feb-20 End-Feb-20 Mid-Mar-20

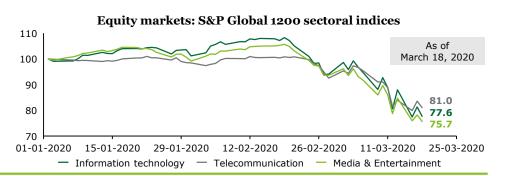
Note: 1) In EUR / MWh unless otherwise stated; 2) For delivery in the Netherlands

Source: Nasdaq Commodities, CME Group, Deloitte

Industry | Technology, Media & Telco (TMT)

Industry impact

- The technology, media and telecommunications (TMT) sectors have held up relatively well as they are less exposed to a near-term contraction in consumer spending
- However, the TMT sector is still facing severe challenges, with many companies being affected by supply chain disruption (especially in Asia), manufacturing and demand issues



Highlights from the industry

Challenged sectors

- Sector: IT Consulting and Services
- <u>Trend</u>: Impact on existing projects due to travel restrictions, challenging the time and materials model, and impact on future sales
- <u>Examples</u>: DXC Technology Company, Capgemini, Atos, Cognizant Technology Solutions Corporation
- Other challenged sectors: Media & Entertainment, Semiconductors & Equipment

Neutral/uncertain sectors

- Sector: Enterprise software
- Trend: Demand for new solutions to weaken as businesses are disrupted, however companies are likely to stick with current solution to recover and grow
- <u>Examples</u>: SAP, Oracle Corporation, Microsoft, Salesforce.com
- Other sub-sectors: Technology Hardware, Entertainment production (e.g. movies)

Potential winning sectors

- Sector: Communication software & infra.
- <u>Trend</u>: Societal shift to online channels as social distancing have increased, creating new forms of communications
- <u>Examples</u>: Zoom Video Communications, Microsoft (Teams), Slack Technologies
- Other sub-sectors: Cyber security, Cloud infrastructure, Home Entertainment, Video Games

Economic outlook

- Forrester has revised its IT spending forecast downward with a best case scenario the global tech market growth slowing to ~2% in 2020 and if a full-fledged recession hits, there is a 50% probability that global tech markets will decline by 2% or more in 2020
- Software spending is the subsector expected to show highest growth, while computer equipment as well as IT consulting and systems integration services spending are expected to show weaker growth (potentially slight decline)

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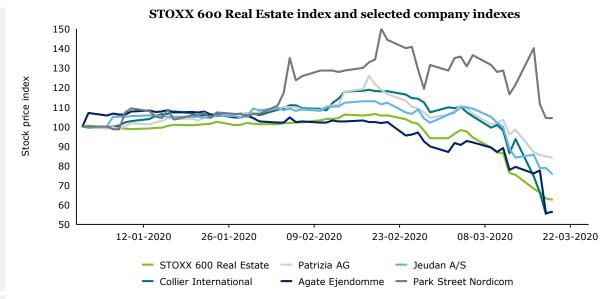
Industry | Real Estate does not look like safe haven for COVID-19 scared investors

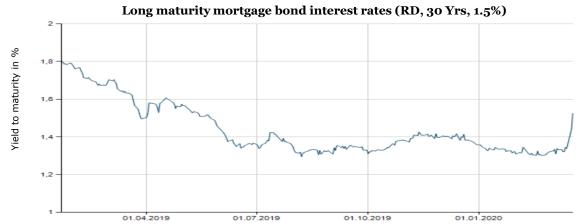
Industry impact

- Sectors such as Retail, Leisure, Hospitality, and Transportation are especially hit by the COVID-19 outbreak. This will of course affect investors and their view on risks. However, demand for properties suited for logistics will increase, as online trading will be boosted by the crisis
- Less appetite from mortgage bond investors leads to increasing effective interest rates for lenders
- Slowdown of trades with residential and commercial properties (no data yet but interview-based)
- Ongoing development projects will continue, but can the relevant public authorities still handle the cases when working from home?

Economic outlook

- M&A volumes will face a short-term decrease as physical visits are challenging, higher financing costs, and increasing uncertainty about the financial situation of tenants
- Future of work: Focus is on ways to work remotely in uncertain times. "Higher" risk applicable to multi-tenant office space going forward
- Investors: Short-term (and perhaps long-term effect) switch of investor focus from commercial properties to residential





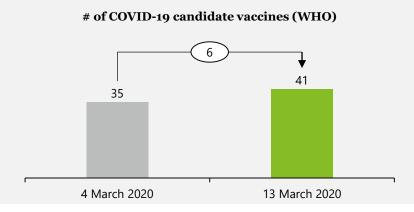
Sources: RealkreditDanmark, Thomson Reuters Eikon, Capital IQ

Industry | Life Science and Healthcare (LSHC)

Industry impact

- The LSHC industry is directly impacted by the COVID-19 outbreak for example in respect of treatment of the ill and development of a COVID-19 vaccine while still continue the everyday manufacturing and medical services
- Multiple companies are already deploying a significant amount of resources in the development of a COVID-19 vaccine (see more below)
- The global supply chain of medical products including active pharmaceutical ingredients (API) to be impacted by closed factories in e.g. China
- Surging demand for certain medical equipment and products such as respirators, diagnostics products, medical masks and other personal protective equipment
- The STOXX® Europe 600 Health Care share index is down approx. 20% as of 19 March 2020 vs. 19 February 2020 (YTD highest)

The LSHC industry is currently investing heavily in getting a COVID-19 vaccine to the market



- 41 COVID-19 candidate vaccines are currently being developed by pharmaceutical and biotechnology companies and institutes as of 13 March 2020
- 40 of the candidate vaccines are in the pre-clinical phase, while one is in phase 1
- Companies currently working on a COVID-19 vaccine include:
 - Pharmaceutical companies: Sanofi, Johnson & Johnson, GSK
 - Biotechnology companies: Inovio, Moderna, Novavax
 - **Institutes**: University of Oxford, Imperial College London, University of Pittsburgh
- Experts hope it will take as little as 12 to 18 months for a vaccine to be available

Economic outlook

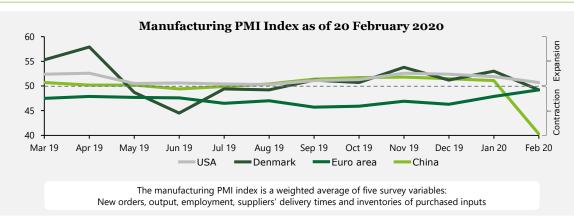
- The player(s) that succeed in bringing a COVID-19 vaccine to the market to benefit financially in the future
- The global supply chain of medical products will be positively impacted from re-opening of factories in e.g. China

Industry | Industrials

Industry impact

- Global manufacturing contracted during February as COVID-19 disrupted supply chains and hit demand
- Coronavirus continues to be a critical supply chain risk for many European companies as closed factories and transport restrictions increase average delivery times
- Factory jobs have been cut globally at the fastest rate since August 2009 as companies scale back production capacity in line with falling demand and reduced supply
- Chinese factories are currently reopening and gradually restoring production levels

Efforts to contain COVID-19 impact short-term manufacturing output and demand



- The Chinese Manufacturing PMI declined at record pace with a drop of 10.8 points in February as factories shut down in effort to contain COVID-19
- With factories currently reopening, China's supply is getting closer to restoring demanded production levels
- Several Danish companies, including Danfoss, Vestas and Rockwool, have reopened their Chinese factories
- March PMI figures are expected to reflect the more recent global spread of COVID-19 and the national shutdowns outside China

Economic outlook

- · Top priorities for industrials are to reduce operating cost, review spend, ensure that financing remains viable and secure a continued supply
- Supply from China is gradually increasing with production facilities coming back on-line minimising the supply chain risks for European companies
- Many European factories will remain shut down or running on less capacity until the COVID-19 spread in Europe has stabilised

Source: IHS Markit, Caixin, DILF

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