



# ACC NEWS



[www.accgroupco.com](http://www.accgroupco.com)

## YOUR WEEKLY UPDATES

Week 5 of 2021



*Healthcare*



*Ports*



*Shipping*



*Rail*



*Supply Chain*



**Trans-Pacific Shipping Woes Continue**



*Beverages*



*Retail*



*C-Stores*



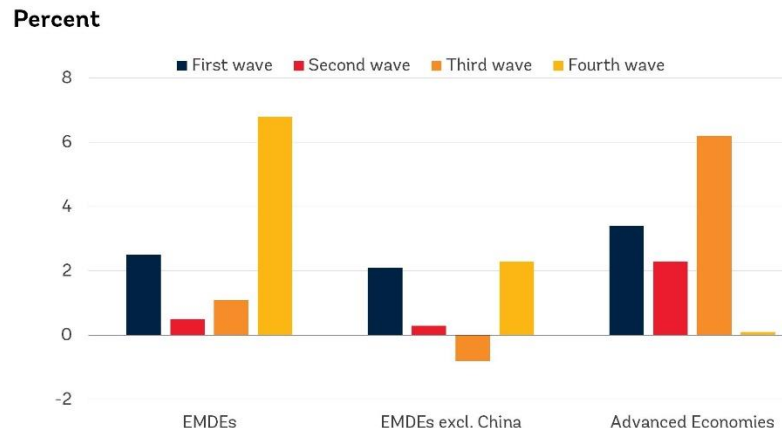
*Road*




*Handling*

- Slide 3 – Global debt comes in waves – we're in the middle of the biggest one yet
- Slide 4 – Global logistics market worth €5.725 trillion in 2020
- Slide 5 – Manufacturing and Services Sector Growth in 2021
- Slide 6 – Retail Update
- Slide 13 – Supply Chain Update
- Slide 21 – Shipping Update
- Slide 27 – Beverages, CBD & C-Stores
- Slide 28 – Healthcare Update
- Slide 31 – Cybersecurity Update
- Slide 32 – Alternate Energy Update
- Slide 34 – How COVID-19 Impacted Economies
- Slide 35 – How Big is Private Equity?
- Slide 36 – 2021 Global Risks Outlook

- Since 1970, three debt waves have ended in financial crises for emerging and developing economies, according to the World Bank.
- The fourth and current debt wave started in 2010 and was of serious concern even before COVID-19.
- Global public debt will be at around 100% of GDP until 2025, says the International Monetary Fund.
- Economic output is expected to recover as vaccines are rolled out, but the outlook for borrowing is harder to predict.
- The world is currently experiencing unprecedented levels of debt, as governments continue to battle the coronavirus. But this is not the first time global debt has spiked.
- There have been four waves of debt accumulation in the global economy since 1970, according to the World Bank. The fourth debt wave, which is still ongoing, started in 2010 and – even before the COVID crisis – looked like being the worst yet.
- In November 2020, the Institute of International Finance predicted that global debt would surge to \$277t by the end of that year, representing a debt-to-GDP ratio of 365%.
- Around \$12 trillion has been spent so far on unprecedented fiscal actions, including temporary tax cuts, loans and capital injections, the International Monetary Fund (IMF) found in its latest Fiscal Monitor.
- History shows it is not unusual that countries can keep borrowing even when default risk is high. Historical data is vital in predicting future potential trends and government indebtedness is a key guide to economic health.
- The IMF's DataMapper tool includes data on central government debt going back to the 1950s and has an interactive timeline showing how the world's debt map has changed over the decades. In the battle against COVID-19, forecasters expect economic output will recover as vaccines are rolled out but say the outlook for borrowing is harder to predict.
- Growing debts have been manageable thanks to an extended period of low interest rates and loose monetary policy, but whether or not this is sustainable remains to be seen.



- Ti's new Total Logistics market size data shows the global logistics industry was worth €5.275 trillion in 2020. Over the forecast period, recovery from the Covid-19 pandemic will be healthy at a 2020-2024 CAGR of 4.7% as forecast by Ti's analysts. Growth in 2021 is expected to be particularly strong as most logistics markets recover from contractions in 2020. 
- By now, one of the well-told stories of the pandemic is the boost it delivered to online retail. As many “non-essential” bricks-and-mortar stores were closed, consumers moved online to buy goods ranging from electronics and home office supplies to health and wellbeing equipment and more, creating a surge in demand for last mile delivery services. The result was a year of growing volumes for express providers, many of whom also saw higher revenue. DHL's preliminary results for 2020 show Express segment revenue rose 12% in 2020 to €19,120m, while EBIT grew 35% to €2,750m. The Express segment growth is predominantly related to online retail and reflects a growing share of B2C deliveries in DHL's premium TDI product. During Q4 2020, the B2C share of TDI grew to 45%. UPS, meanwhile, also saw a shift towards increased B2C volumes, which accounted for 61% of its US Domestic volumes in Q3 2020. While it will bring renewed challenges to express providers globally, the growth in e-commerce will power market expansion. Ti's new forecast data shows both domestic and international express are expected to see continued growth over the four years to 2024, expanding at CAGRs of 7.9% and 6.8% respectively.
- The Covid-19 pandemic has been similarly impactful in the forwarding market, although in very different ways. The reduction in both air and sea capacity early in 2020 significantly disrupted global supply chains. As demand from consumers and manufacturers returned more quickly than air and sea capacity though, rates shot up over the second half of the year. In sea freight, rate volatility has been no less extreme. **Data from Freightos shows the cost of transporting at TEU from China to the US West Coast in the week of January 22nd, 2021 was \$4,261, an increase of 103% compared to the \$2,102 the same TEU cost to transport during the same week in 2020.** While carrier capacity has returned to the market more steadily than in air, a shortage of container availability and port capacity is creating acute problems in supply chains that are likely to keep rates high through the first half of 2021 at least. Ti's new market forecasts for air and sea freight put CAGR expansions at 5.4% and 5.0% between 2020 and 2024 respectively.

- Coming off of 2020, with myriad ebbs and flows related to the ongoing COVID-19 pandemic, 2021 is **Logistics** expected to point to economic improvement, for manufacturing and services sectors, according to the new edition of the Institute for Supply Management's (ISM) Semiannual Economic Forecast, which was issued today.
- Data for this report is based on feedback from U.S.-based purchasing and supply chain executives in manufacturing and non-manufacturing sectors.
- For manufacturing, ISM is estimating a 6.9% annual increase in 2021 revenue, which trailed the 10.3% prediction made in May 2020 and topped the 1.3% annual decline for 2020. And 59% of the report's manufacturing survey respondents are calling for revenues to be up annually in 2021, with 15 of the 18 manufacturing sectors tracked by ISM pegged for revenue growth. The sector has been on an upswing going back to June 2020, and its December PMI, the reading used by ISM to measure growth, coming in at its highest level since August 2018.
- Manufacturing capex is expected to see a 2.4% annual increase, which would counter the 2.4% decline, from 2019 to 2020. The 2.4% 2020 capex decline was considerably better than the projected 19.1% decrease in the May 2020 edition of the report. And the 29% of respondents indicating capex will rise in 2021 pointed to an expected average increase of 26.4%, with the 16% expecting capex declines predicting an average decrease of 32.7%, and 55% expecting capex levels to remain the same from 2020 to 2021.
- Manufacturing capacity utilization, or operating rate, which came in at 85.7% of normal capacity, is up 9.8% compared to the 75.9% reading in May and also ahead of December 2019's 83.7% reading. Production capacity is pegged to see a 5.3% annual increase, which would outpace 2020's 0.5% annual increase. Raw material prices are expected to be up 2.9% in 2021, topping the May 2020 forecast of a 1.6% decline. Manufacturing employment is expected to be up 2.5 in 2021, ahead of the May 2020 projection of a 5.3% decline, for 2020.
- Services production capacity, or the capacity to produce products or provide services in this sector, eked out a 0.1% annual gain, from 2019 to 2020, and is expected to rise 3.2% in 2021. And services capex dropped 4%, from 2019 to 2020, with a major swing expected in 2021, in the form of a projected 12.7% increase, also well ahead of May 2020's projected 13.4% decline. Prices paid for raw materials in the services sector are expected to rise 3.5% for all of 2020, topping 2020's 2.3% tally.



## Mastercard Planning Higher Fees For UK EU Transactions

- U.K. shoppers could see higher prices for European Union purchases due to a planned increase in Mastercard fees.
- The fee hike won't benefit Mastercard but will go to British banks and other card issuers. If companies pass the higher fees onto consumers, shoppers will see prices go up accordingly. Following Brexit, buying and selling across the U.K. and EU changed, as did customs and VAT charges. Cross-channel card fees no longer fall under an EU cap on transaction fees.
- The change is expected to take effect starting in October and will increase credit card fees to 1.5 percent of the purchase, up from 0.3 percent. Debit card fees will increase from 0.2 to 1.15 percent. The new fees only affect online purchases and services provided by companies with EU-based operations.

## 2021 Loyalty Industry Data Study

- No one could have predicted that the marketing strategies presented in January 2020 would become obsolete in March as businesses executed a quick pivot to digital experiences due to COVID-19. Retailers had to quickly adapt to the accelerated trend of ecommerce that the pandemic brought on. Loyalty was no exception. Clarus Commerce surveyed 300 American marketing and loyalty professionals in October 2020. The respondents spanned a variety of retail categories and types of loyalty programs offered.
- **Key Findings**
  - 95% of respondents with traditional loyalty programs have discussed launching a premium loyalty program in 2021.
  - 90% of respondents say enhancing or expanding their loyalty programs is a priority for 2021.
  - 78% of respondents anticipate an increase in the number of premium loyalty programs due to COVID-19.
  - 57% of respondents cite lack of budget, internal resources or IT support as the main reasons for not launching loyalty programs.
  - 51% of respondents with premium loyalty programs consider program members to be at least 4x as valuable as non-members.

Full report is available at <http://www.claruscommerce.com>





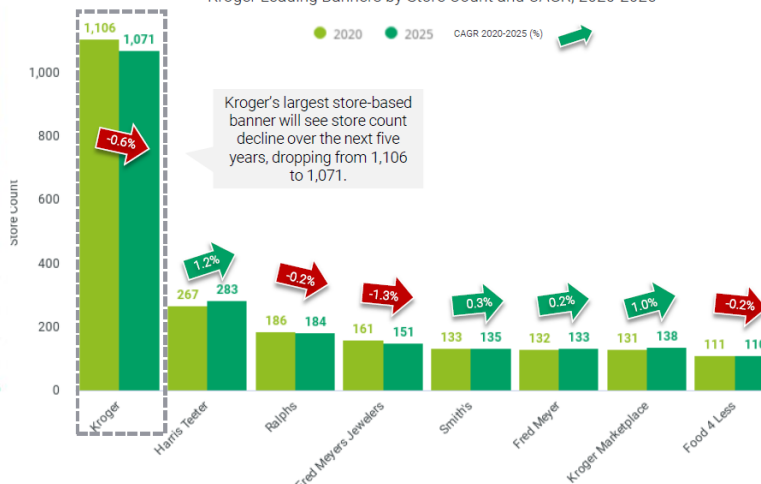
# Retail Update

7

Kroger at a glance



Kroger Total Sales (USD bn) and Stores 2020		Kroger Ecommerce Sales (USD bn) 2020 and 2025		Kroger Top Banners by Net Sales (2020)	
USD 138.9 bn (Ranked #6 globally)	2,988	2020 USD 8.8 bn	2025 USD 18.2 bn	Banner	Net Sales (USD bn)
				Kroger	48.9
				Fred Meyer	16.4
				Smith's	11.9



Kroger: Top 5 US Competitors by Net Sales\* (USD bn), 2020-2025

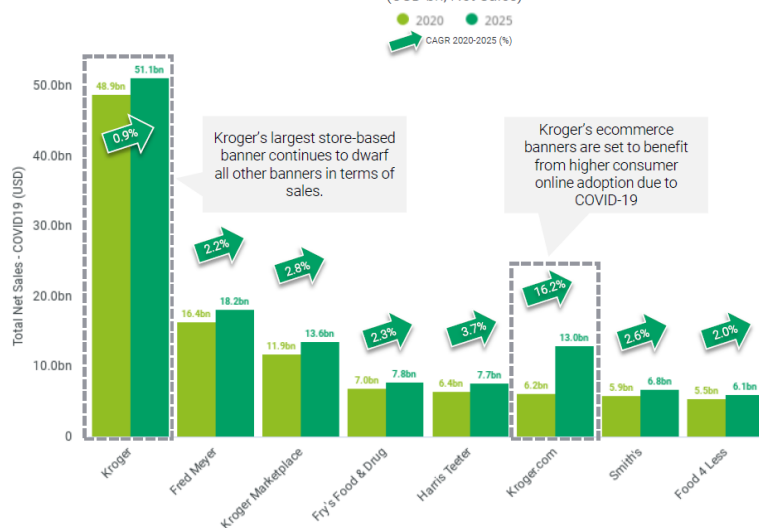


\*Sales from retailers Hyper-Stores and Supermarket & Neighbourhood Stores channel operations only. Retailers shown are the largest Hyper-Stores and Supermarket & Neighbourhood Stores operators in the US.

## Kroger Profile

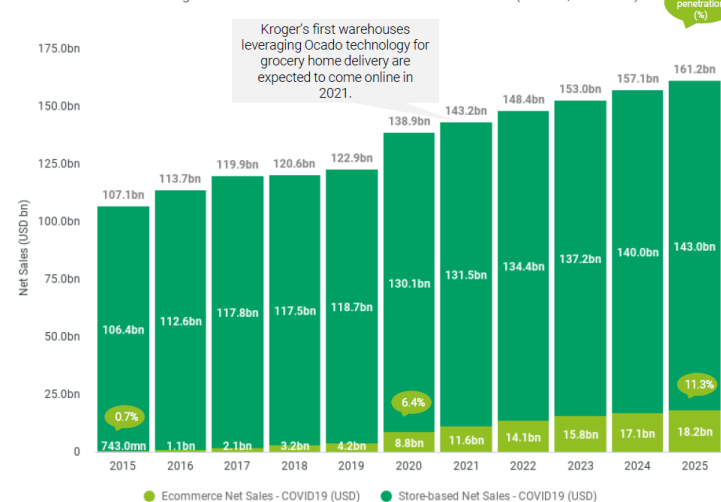
EDGE<sup>^</sup>  
BY ASCENTIAL

Kroger Leading Banners by Sales and CAGR, 2020-2025 (USD bn, Net Sales)



## Kroger is rapidly embracing ecommerce, although stores remain critical

Kroger Ecommerce vs Store-based Sales - 2015 - 2025 (USD bn, Net Sales)



Keep Safe

ACC



## Global Ecommerce Update 2021 eMarketer

- Despite a challenging year for retail in 2020, we estimate that worldwide retail ecommerce sales grew 27.6% for the year, for a total of \$4.280 trillion. This represents a substantial uptick from the mid-pandemic assessment of 16.5% growth. However, total worldwide retail sales declined by 3.0%, to \$23.839 trillion.
- All 32 national markets we cover ended up with at least double-digit ecommerce growth in 2020. Latin America saw abnormally standout growth (36.7%), despite suffering worse-than-average declines in overall retail sales (3.4% drop). Argentina's retail ecommerce grew by an astounding 79.0% last year, a figure approached only by Singapore's 71.1%.
- China will continue to lead the world in digital buyers in 2021 with 792.5m (33.3% of the global total); it will produce \$2.779t in ecommerce sales (56.8% of the global total); and it will become the first country in history to transact more than half of its retail sales digitally (52.1% of retail will be ecommerce).

### Retail Ecommerce Sales Growth Worldwide, by Region, 2020 % change

Latin America	36.7%
North America	31.8%
Central & Eastern Europe	29.1%
Asia-Pacific	26.4%
Western Europe	26.3%
Middle East & Africa	19.8%
Worldwide	27.6%

*Note: includes products or services ordered using the internet, regardless of the method of payment or fulfillment; excludes travel and event tickets, payments such as bill pay, taxes or money transfers, food services and drinking place sales, gambling and other vice goods sales*  
Source: eMarketer, Dec 2, 2020

261647

eMarketer | InsiderIntelligence.com

## ShopRite Closing 62 Pharmacies

- ShopRite has revealed that it's closing pharmacies at 62 of its stores across Connecticut, Delaware, Maryland, New Jersey and New York over the next month. Pharmacy customers at those locations will have their prescriptions filled instead at nearby CVS pharmacies, to whom ShopRite has sold some of its pharmacy business.
- As for why ShopRite was shuttering the pharmacies, ShopRite explained that the pharmacy industry is highly competitive, and we were unable to sustain sufficient sales despite our marketing efforts.
- Representatives for both ShopRite and CVS insisted that the closures and prescription transfers wouldn't affect their respective plans to administer COVID-19 vaccines.





# Retail Update

9

## US ECONOMY: Coronavirus Predictive Indicators for Economic Impact

prevvedere

All Categories: Look at these indicators to understand how they are placing upward or downward pressure on the economy.

Last Refresh: 01-25-2021

Category	Indicator	Relationship	Next Update	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021
Business Investment	Average Weekly Hours - Retail	Procyclic	02-09-2021	0.32%	0.76%	1.42%	1.42%	
	Small Business Sentiment	Procyclic	02-13-2021	-2.13%	0.29%	0.16%	-2.74%	
	Weekly Economic Index	Procyclic	01-30-2021	-5.22%	-3.82%	-2.73%	-1.95%	-1.84%
	Weekly Jobless Claims	Countercyclic	01-30-2021	316.38%	273.44%	244.23%	268.88%	288.21%
Transportation and Tourism	Google Search "Travel Cancellation"	Countercyclic	02-06-2021	-15.62%	-37.50%	-27.59%	-14.81%	
	ISM Services Index	Procyclic	02-07-2021	6.21%	4.64%	5.65%	3.79%	
	Restaurant and Bar Sales	Procyclic	02-16-2021	-16.39%	-14.58%	-14.96%	-17.45%	
	Sentiment: Vacation Travel Next 6 Months	Procyclic	02-18-2021	-40.80%	-42.84%	-42.69%	-43.43%	-42.90%
Consumer Big Ticket Purchases	Auto Sales	Procyclic	01-28-2021	-22.65%	-18.42%	-15.17%		
	Consumer Sentiment - Discretionary Spend	Procyclic	02-17-2021	-11.68%	-11.32%	-12.31%	-14.07%	-14.68%
	Global Luxury Index	Procyclic	02-25-2021	17.59%	19.67%	22.38%	27.22%	36.94%
	Home Building Permits Issued	Procyclic	02-23-2021	5.38%	3.49%	6.16%	9.35%	
Logistics and Manufacturing	Economic Policy Uncertainty	Countercyclic	01-26-2021	113.91%	171.74%	213.04%	86.80%	110.26%
	Industrial Production	Procyclic	02-16-2021	-6.47%	-5.94%	-5.55%	-4.65%	
	Overtime for Hourly Mfg Workers	Procyclic	02-09-2021	-11.11%	-8.80%	-5.65%	-2.44%	
	Purchasing Managers Index - Mfg	Procyclic	02-05-2021	11.82%	17.56%	19.42%	23.09%	
Financial	Financial Stress Index	Countercyclic	01-29-2021	-41.40%	82.57%	88.78%	40.24%	46.82%
	S&P 500	Procyclic	01-26-2021	13.19%	15.02%	14.63%	16.02%	15.42%
	US High Yield Index Option - Adjusted Spread	Countercyclic	01-26-2021	32.37%	23.63%	12.40%	10.00%	7.98%
	VIX Volatility Index	Countercyclic	01-26-2021	78.65%	81.56%	99.24%	63.31%	75.37%

### NOTES

Values represent the percentage change from the previous year.

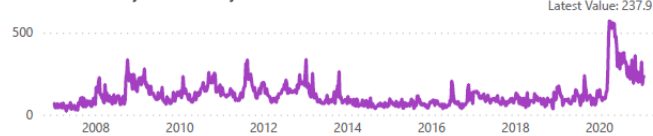
In January, 2 out of 10 indicators are signaling economic improvement from the previous year.

In December, 7 out of 19 indicators are signaling economic improvement from the previous year.

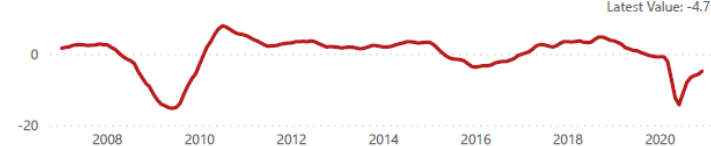
Look to subsequent pages for monthly trend analysis.

■ Upward pressure on economy  
■ Downward pressure on economy

Economic Policy Uncertainty



Industrial Production



Keep Safe

ACC



## Kroger Expands Grocery Fulfillment Network Progressive GROCER

- With grocery e-commerce on the upswing, The Kroger Co. said it is building a new customer fulfillment center (CFC) in Phoenix, Arizona. The food retailer is partnering with Ocado on the project, which was previously announced, though without location details.
- This new 200,000-square-foot CFC will accelerate Kroger's ability to expand its products to a larger footprint. The CFC is expected to become operational 24 months after the site breaks ground and will support customers across Arizona.



## Rexall Partners With Uber Eats to Deliver Essential Items Healthcare CANADIAN Technology

- Rexall Drugstores has teamed up with on-demand food delivery app Uber Eats to bring health and personal care product deliveries to Canadian customers.
- The direct-to-consumer partnership with Uber Eats will be available at 200 Rexall locations in British Columbia, Alberta, Saskatchewan, Manitoba and Ontario.

## PPP Round Two: SBA Approves \$35 Billion In New Loans PYMNTS.com

- The U.S. Small Business Administration has approved 400,000 more pandemic relief loans worth \$35b, saying it is trying to repair operational problems in the program brought up by lenders, Reuters reported.
- The SBA launched the newest round of the Paycheck Protection Program (PPP) earlier this month. However, the drastic changes to the rules, processes and technology platform have led to issues that ended up making the loan approvals slower, according to Reuters. Small- to medium-sized businesses were running into issues trying to apply for the loans, according to the American Bankers Association, per Reuters. Lenders, in addition, received new levels of “incorrect error messages” after submitting loan applications.
- According to the SBA, on Tuesday (Jan. 26), there were about 4.7 percent of first-time loans that had anomalies, including data mismatches and eligibility concerns, Reuters reported.



## BofA CEO Bullish On Consumer Spending **Bloomberg**

- Bank of America CEO Brian Moynihan said the U.S. economy is on better footing than earlier in the pandemic, but more stimulus aid will be needed, Bloomberg reported.
- Consumer spending is on the rise, improving 9 percent so far this year, Moynihan said, per Bloomberg. And the stimulus checks sent out in late December for \$600 have helped consumers boost their savings.
- But while there's some sign of client demand, Moynihan said the fight isn't over yet. He said there is still a need for more stimulus, citing the millions of workers unemployed in fields such as travel, leisure, entertainment and more. He said state and local governments also need more help to fix the issues in their budgets, Bloomberg reported.

## Reopening the Doors of Retail and Restaurants

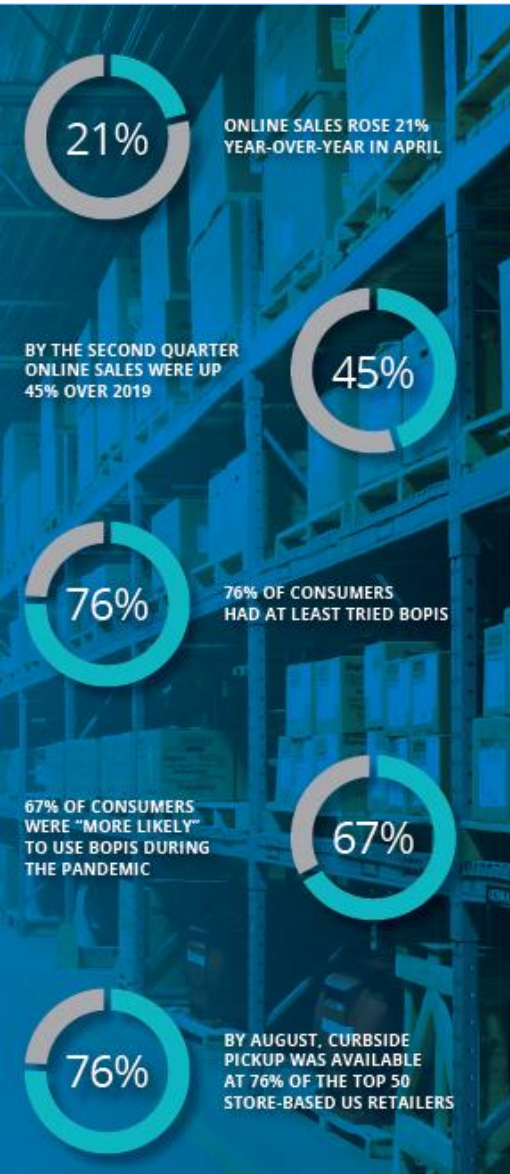
- Over 8 million jobs were lost in retail and hospitality in April 2020 alone, and it's projected that over \$52 billion was lost in sales at restaurants in the second quarter of 2020.
- Operations have significantly changed this past year. One thing is clear, retailers and restaurateurs must adapt in order to stay in business. We have spoken to industry operators and experts about the strategies they recommend for retail and hospitality to rebound – and we're here to share their insight and advice. Read more about the new expectations and new priorities as the world of retail and hospitality re-awakens. **Report attached.**

## Pet Supplies Plus Finds a Buyer for \$700M **RIS**

Private equity firm Sentinel Capital Partners plans to sell Pet Supplies Plus, the third largest pet specialty chain in the U.S., to Franchise Group, Inc. in an all-cash transaction valued at approximately \$700 million.

## Godiva Selling or Closing all North American Stores **RIS**

- Godiva plans to exit its North American brick-and-mortar retail business by the end of March. The chocolatier announced it will close or sell its 128 locations in North America amid weak in-store visits during the pandemic.
- The iconic retailer was founded in Brussels in 1926 by Belgian Chocolatier, Pierre Draps, and started in the family kitchen.



## Retail supply chains take on pandemic-era challenges Radial

- One retailer needs to set up curbside pickup in a day. Another is doing ship-from-store but needs real-time data on the number of units of specific items at each store. Others are deciding whether to keep merchandise at shuttered stores or send them back to distribution centers. Those are among the challenges retailers are facing during the unprecedented COVID-19 pandemic. They are not easy to face alone.
- When all stores not deemed “essential” closed in most states, retailers’ worries shifted from obtaining goods to how to sell merchandise already on hand.
- The answer was eCommerce — the channel many brick-and-mortar merchants once saw as a threat. Retailers with robust eCommerce operations found customers were staying home but still shopping — online. Retailers who had previously dabbled in online quickly ramped up, and those who weren’t online got there as fast as possible. Online sales rose 21% y-o-y in April, and by the second quarter they were up 45% over 2019, according to the Census Bureau.
- With the shift to online shopping, supply chains faced different challenges — having goods in the right place at the right time and getting them to customers.
- As retailers enter 2021, they need to be ready for both in-store and online shopping, but uncertainties abound, and adaptability is key. The ability to quickly adopt supply chain innovations is paramount to success, if not survival.
- In a report on the “Nimble New Future,” Deloitte predicted supply “chains” will trade efficiency for resiliency and give way to supply “networks” less susceptible to failure from a single broken link. Local and regional suppliers will attract more interest, digitization will be critical for peak operation, and automation will both control costs and improve efficiency.



## Supply-demand imbalance continues to vex air cargo shippers **American Shipper**

- The new year is off to a hot start for the air cargo market with no sign of cooling off. International transport activity typically softens following the holiday peak season, but demand and rates remain elevated because of unusual shipping patterns and a severe shortage of airlift triggered by the coronavirus pandemic.
- And logistics companies don't expect air cargo volumes to subside before the Chinese New Year as manufacturers plan to continue operating without a traditional break.
- The latest consolidated statistics from World ACD and CLIVE Data Services for December showed air cargo volumes only contracted 3.7% to 5%, respectively, compared to 2019. The figures show how far the air cargo industry has recovered since hitting bottom last May, when demand fell nearly 40%.
- The thirst for air transport is heavily driven by continued inventory replenishment, with inventory-to-sales ratios near record lows for consumer goods, and a saturated ocean container market. Port and rail congestion as well as a shortage of empty containers continue to drive up ocean prices and cause significant delays, especially on trunk routes from Asia, pushing more incremental demand to air, according to analysts and logistics providers. Container vessels are stacked up outside the Los Angeles-Long Beach port complex, and the situation could get worse as a major COVID outbreak among dockworkers reduces productivity and turn times.

## Airlines absorb \$391 billion revenue shortfall in 2020 **American Shipper**

- The damage to the airline industry from the coronavirus pandemic last year totaled \$391 billion in lower revenue as 60% fewer passengers took to the skies, according to a tally by the International Civil Aviation Organization.
- The financial hardship has continued into 2021 as airlines try to cope with a double-dip recession. Experts are maintaining their outlook for a prolonged depression in passenger demand at a diminished size for several years.
- ICAO estimated the airline sector's first-half reduction in gross revenue will be between \$163 billion and \$19B. But there is optimism in many circles that business will start to improve as new COVID vaccines reach more people.
- The airline sector's revenue shortfall was less than the \$510 billion estimated in November by the International Air Transport Association (IATA). The trade group said at the time airlines would lose a combined \$118 billion in net profits. It revised its estimates downward two times last year as the crisis worsened.



## The “new never normal” requires smart NextGen supply network solutions



Emerging from the pandemic’s global disruption are some serious outcomes and lessons.

They are as follows:

- awareness of supply chain management’s value and contributions increased to the point of being a household word;
- supply chain management is clearly a C-Level strategic competitive lever;
- problem-solving intended actions in an ecosystem can produce unintended consequences that exceed the consequences of the initial problem; and
- retire “chain” thinking and accept the fact that we operate in a supply network operating in a network of networks engaged in “ecosystem commerce.”

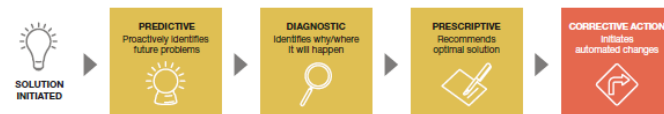
### Current state: “High touch” processes and systems

Very dependent upon human input and interactions with systems



### Future vision: Increased insights, decision support and process automation

More dependent upon intelligent systems, human oversight only



## Canada approves CN's proposed Milton Logistics Hub project Progressive RAILROADING

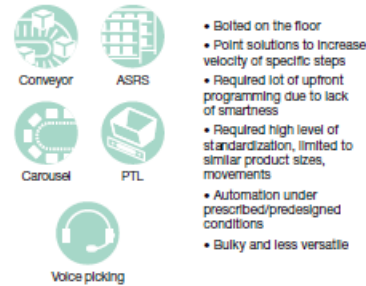
- Canadian government officials announced last week they've approved CN's proposed Milton Logistics Hub project in Milton, Ontario, subject to 325 conditions.
- The project, which would include a railway with more than 12 miles of track, is expected to reduce overall regional emissions for certain pollutants, including greenhouse gas emissions, by transitioning freight from trucks to train shipment.
- Many of the conditions go beyond those initially proposed by the independent joint review panel and 40 of which address air quality specifically, Transport Canada officials said in a press release.
- Truck traffic is to be limited to 800 vehicles entering per day, averaged over a month. The Impact Assessment of Canada will enforce the conditions before construction, during construction and throughout the project.





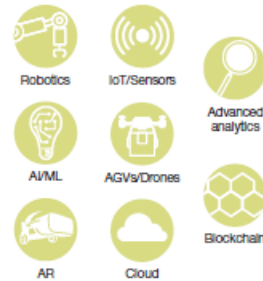
## Traditional technologies vs. digital technologies

### TRADITIONAL TECHNOLOGIES



### DIGITAL TECHNOLOGIES

- Convergence of physical and digital
- Realtime and connected technologies
- Smart orchestration of operational workflows
- Adaptive to warehouse environment
- Work with humans
- Lot more flexible, configurable, modular, scalable



Source: Tata Consultancy Services (TCS)

## Trends affecting warehouse operations



### GROWTH OF E-COMMERCE

- Omni-channel fulfillment challenge isn't limited to just the retail
- Frequent last-minute orders of smaller quantities
- Diminishing full pallet shipping and growing unit shipping



### CUSTOMER EXPECTATIONS

- Delivery expectations growing to next day delivery
- Product personalization and value added services putting additional pressures on cycle times
- SKU proliferation



### DYNAMIC GLOBAL MARKETS

- Dynamic business environments driven by global expansion, M&A, trade wars
- Constantly evolving distribution network with insourcing and nearshoring
- Changes to customer profiles, product profiles, channels and partners



### ENVIRONMENT CONCERNS

- Government regulations or internal policies
- Environment impact, sustainable process
- Carbon footprint, emissions, renewable energy, recycling of material, health and safety



### HIGHER LABOR COSTS AND SKILL LEVEL

- Labor costs and availability challenges
- Technologies, VAS and process variety requiring higher skill level

Source: Tata Consultancy Services (TCS)

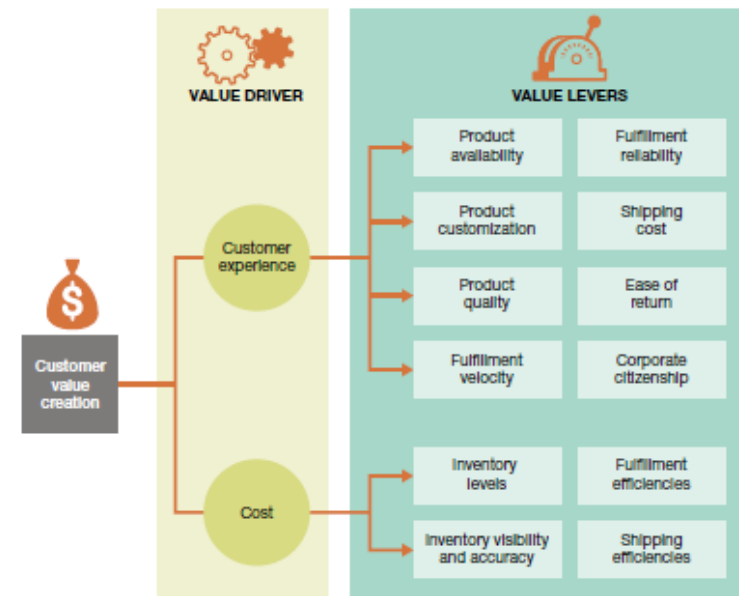
## Digital warehouse key characteristics



Source: Tata Consultancy Services (TCS)

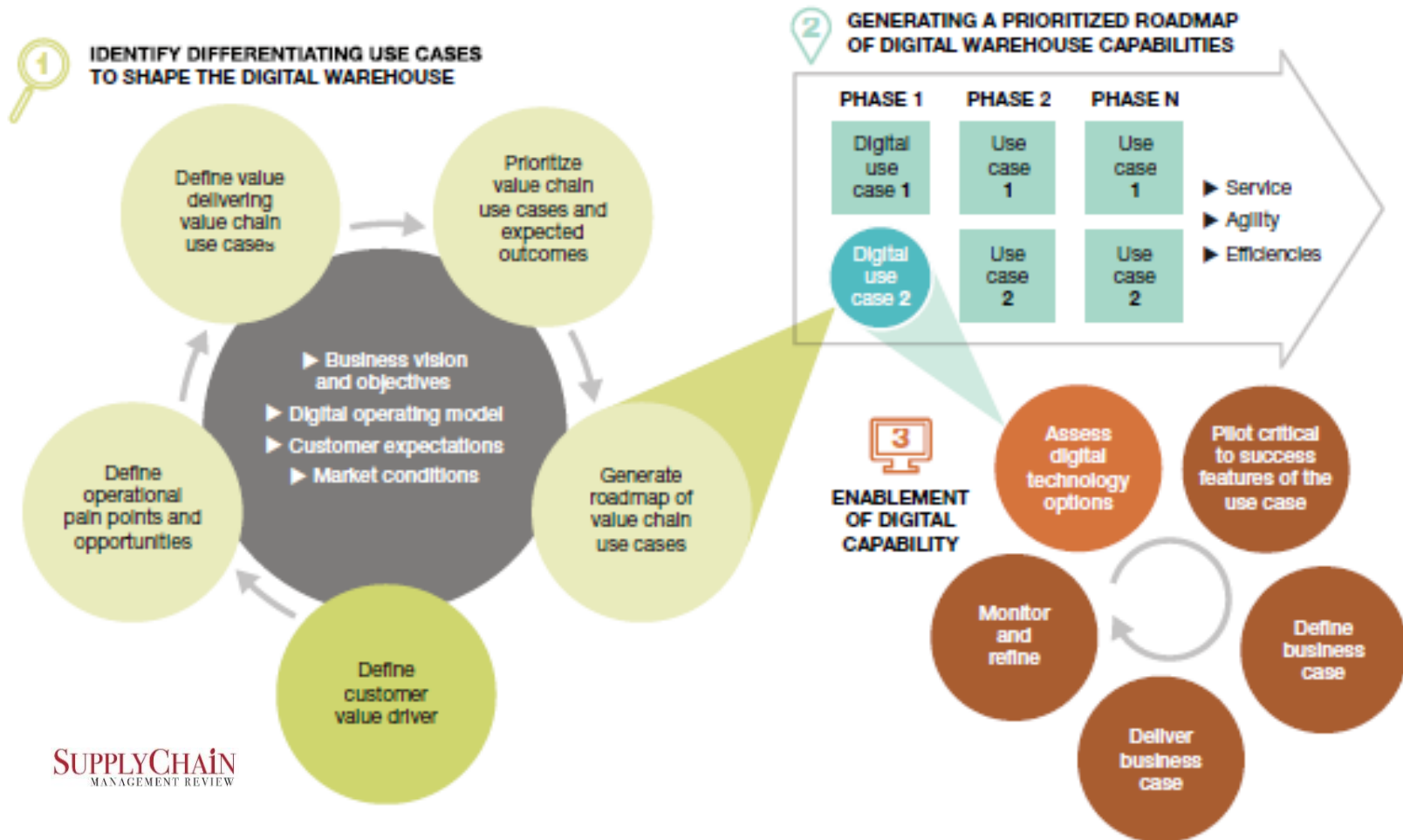
**SUPPLYCHAIN**  
MANAGEMENT REVIEW

## Warehouse levers to pull in order to create customer value



Source: Tata Consultancy Services (TCS)

## Roadmap to the core warehouse digitization approach

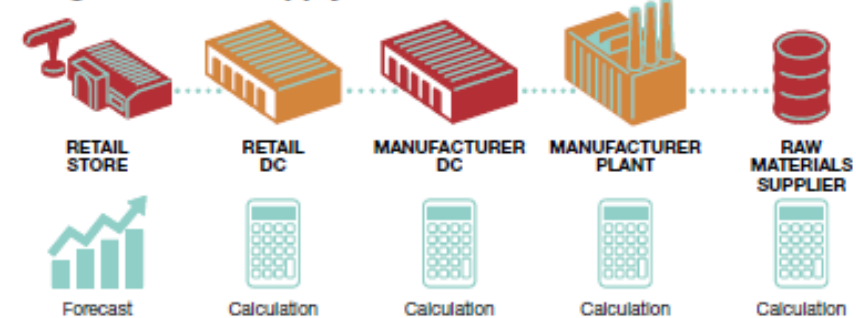


Source: Tata Consultancy Services (TCS)

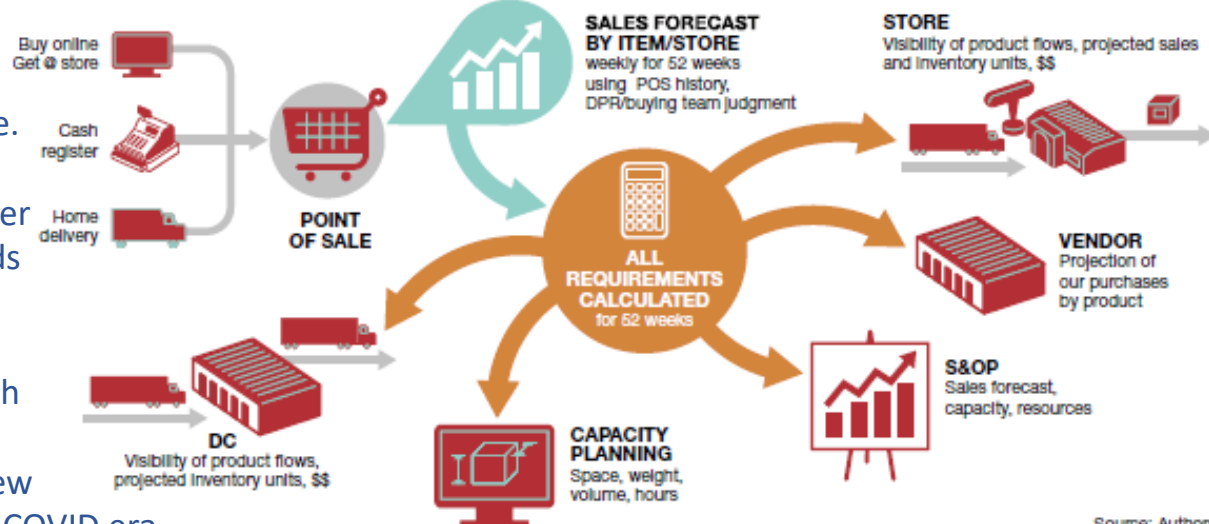
## The New Planning Process SUPPLYCHAIN MANAGEMENT REVIEW

- There is a great deal of agreement that digitization of supply chain and the warehouse function isn't just a buzz word.
- The typical challenge with the digital warehouse originates from the fact that the business needs, strategy and the potential use cases are unique to each organization. They aren't a recreation of cookie-cutter templates. A warehouse digitization initiative requires a variety of skills such as warehouse domain functional analysts, digital technology specialists, data scientists, agile coaches and change leaders. The skill gap, or availability of technical skills, is a typical challenge for most organizations. A qualified external partner can be crucial in guiding the overall initiative and bridging the skill gap.
- Another typical area of challenge is the existence of functional silos with conflicting objectives impeding collaboration and resistance to change. A qualified external partner can help here as well by bringing a fresh outsider perspective, unbiased steering towards the overall organizational victory and facilitating the change.
- In conclusion, it is an exciting time with a wide range of digital opportunities awaiting to propel warehouses to a new beginning looking to excel in the post-COVID era.

### Single forecast supply chain



### The new planning process



Source: Authors



## TFI to acquire UPS Freight for \$800M FREIGHTWAVES

- TFI International has agreed to acquire UPS Freight for about \$800 million, the Canadian trucking and logistics company and UPS said Monday, in a deal that will transform it into a North American less-than-truckload juggernaut.
- The deal, expected to close in the second quarter, will represent TFI's largest acquisition to date in sheer dollars, dwarfing the \$558 million it spent to buy CFI from XPO in 2016. It will bring TFI a comprehensive U.S. LTL network and a dedicated truckload business, which brought in over \$3 billion in revenue in 2019.

## NYK to move cars from Japan by rail through Central Asia to Europe

- Japanese newspaper Nikkei reports that NYK is to "deliver cars to Europe by train" and is an important milestone in the growth of China-Europe rail and road transport.
- Nikkei says that NYK aims to ship 5,000 "units" a year in 2021 but aims to increase this to "30,000 to 50,000". The costs will be the same as moving the vehicles by sea and NYK is claiming that carbon emissions can be reduced by half.
- Although this is not the first time that cars have been moved on the China-Europe rail network through Central Asia, it is remarkable that the world's largest car-carrier shipping operator is doing it. German car manufacturers have been utilizing the service to a modest extent in order to access production from plants in western China but in the case of the NYK service the cars will be Japanese production.

## CN posts higher profit, lower operating ratio in Q4

- CN yesterday reported higher revenue, operating income and earnings per share for fourth-quarter 2020 compared with the same period a year ago.
- The Class I reported fourth-quarter revenue increased 2% to CA\$3.7 billion; operating income rose 16% (13% on an adjusted basis) to CA\$1.4 billion; and diluted earnings per share climbed 17% (14% on an adjusted basis) to CA\$1.43, CN officials said in a press release.
- The company posted an operating ratio in the quarter of 61.4%, a decrease of 4.6 points (3.8 points on an adjusted basis) compared with the same quarter in 2019.



## Snapshot of the logistics industry & pandemic impacts in 2020

- The Coronavirus pandemic has caused unprecedented disruption to the logistics industry, some aspects look to change the landscape for good. Over 2020 each market experienced the pandemic differently.
- The impact on the **freight forwarding** industry has been quite distinct. While the air freight market needed to tackle diminished capacity due to restricted passenger travel, the sea freight market had to navigate volatile demand and a deforming of supply.
- The **sea freight** market experienced whiplash effects due to demand volatility, capacity shortages, and at various times, over-supply. Following a wave of consolidation over the last seven years, shipping lines were in a much better position to ride out the storm than they would have been a few years ago.
- The **global contract logistics** market did not escape the deep impact of COVID-19 either. This after a year of significant disruption with manufacturing capacity offline and retail sectors across the world effectively shut down.
- The Coronavirus crisis placed stress on **supply chains** as never before. Whilst most of the attention was focused on the response of the transport industry and the difficulties it has faced in moving product on an international and domestic basis, the **warehouse sector** has also experienced enormous challenges such as volatility and unpredictability caused by erratic customer behaviour, cargo pile-ups and unsynchronized supply and demand as the pandemic took hold in different locations at different times.
- The **European road freight market** was primarily damaged in early 2020 by the outbreak, due to national lockdowns and government-imposed restrictions on everyday life.
- The success of the **express market** was significant as e-commerce arguably catapulted the retail industry into 2030. While other sectors scrambled to assess the decline in volumes and revenue, the express sector bucked the trend of experiencing a bumper year.
- The pandemic is set to change the behaviors of consumers permanently regarding online shopping, creating capacity concern for logistics providers on the back of increasing demand. Express companies made significant investments as well as imposing surcharges over 2020 to help alleviate the strain.
- The outbreak of COVID-19 was the defining feature of 2020.

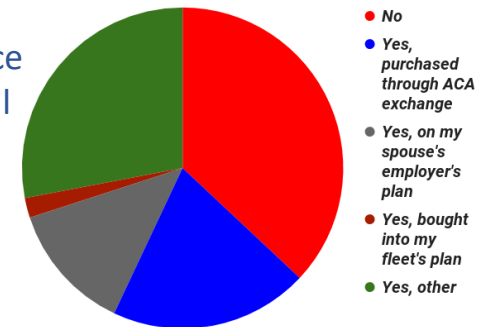


## Will Walmart gain an unrivaled edge by automating its local grocery fulfillment? **RetailWire.**

- Walmart knows that its stores work. The chain, which has increasingly emphasized local fulfillment is, in its characteristic manner, continually searching for ways to do the work more efficiently in order to keep prices down and grow its market share. That's where local fulfillment centers (LFCs) come in.
- Tom Ward, SVP of customer product, Walmart U.S., writes on the company's blog that LFCs are "compact modular" warehouses that are built within or as an addition to the chain's stores. The facilities can store thousands of products, from groceries to categories like consumer electronics.
- Unlike stores where associates walk aisles to retrieve items, LFCs are manned by automated bots that pick orders and bring them to stations where associates assemble them.
- Walmart is planning to add automated pickup points at some stores where customers can drive up, scan a code at a kiosk, grab their orders and quickly get back on the road.

## Health-share plans prove to be attractive insurance alternative for owner-ops, small fleets **Overdrive**

- With most owner-operators bringing in income at levels too high to qualify for health insurance premium subsidies under the Affordable Care Act, reducing health insurance costs has been a bear over the last decade. Meanwhile, small fleet employers' general interest in providing health options to both employees and contractors hasn't abated -- in fact, by many measures, it's increased. Both conditions have driven a rise in health insurance alternatives.
- Those rough thirds Ballard described are not far off, if recent Overdrive polling is any indication. Almost 40% of readers reported being without health insurance entirely, while 20% reported having purchased plans through the ACA exchanges. A variety of avenues toward insurance accounted for the remaining rough 40%, including spouses' employers (14%) and fleet plans (2%) noted. One commenter worked through an insurance broker "who finds me the best deal out there for my situation." One trucker's spouse noted her hauling husband found affordable insurance only upon reaching Medicare-eligible age "January 1st, at \$148.50 monthly. Fantastic."







## Port of Savannah and inland traffic accelerate Georgia TEU growth



- The Georgia Ports Authority moved more than 4.68m TEU in 2020, an increase of 1.8% year-on-year, after the Port of Savannah achieved its best December results on record and Appalachian Regional Port's traffic grew by 73%.
- The Port of Savannah moved 447,525 TEU, an increase of 24%, or 86,700, compared to December 2019.
- Total cargo crossing all docks reached 3.33m tons last month, up 12.5%. Rail volumes for the month grew 16.4%, or approximately 10,900 TEU, for a total of 77,230. Intermodal cargo represented 17.4% of December container volumes.

## Peel Ports puts Liverpool at the centre of a resilient UK supply chain



- Peel Ports has said it is investing in the Port of Liverpool to build a more resilient UK supply chain in the wake of Brexit and the COVID-19 pandemic.
- This comes following the arrival of five ZPMC cantilever rail-mounted cranes (CRMG) at its deep-water container terminal, Liverpool2.
- Speaking to Port Technology International, the port operator said the effects of the pandemic have not deterred it from pursuing its investment strategy and that it has been able to take advantage of supply chain shifts and support the free flow of goods.

## COVID outbreak could cripple California container ports **American Shipper**



- Los Angeles County is at the epicenter of the current COVID surge. That county's Los Angeles/Long Beach port complex is simultaneously at the epicenter of America's import surge. These two spikes are now converging as hundreds of California dockworkers catch COVID.
- The doomsday scenario — COVID-induced terminal closures in California at the very height of the import boom — is generally considered unlikely. But it's being openly talked about.
- "If the catastrophic infection rates continue, there may be a need to close the San Pedro Bay Port Complex to protect the health and safety of the workforce," executives of the ILWU dockworkers union warned in a letter Monday to the Pacific Maritime Association (PMA), which represents employers.



## Five Crewmembers Missing After Tug and Containership Collide

- Searches are continuing for a fourth day in the Java Sea looking for five missing crew members from a tugboat that was involved in a collision near Surabaya. A total of five crew members were rescued after the accident, but the authorities now fear the missing crew was trapped in the tugboat which capsized after the accident.
- The Indonesian-flagged tugboat the Mirta Jaya XIX was operating in the Java Sea towing a barge inter-island loaded with palm oil. There were eight crew aboard the tug and two aboard the barge.

## Frozen Fish Pileup in China Ripples Across Global Supply Chain

- Hundreds of containers are being held up in Dalian, a major port for seafood imports, as local authorities test the fish for the coronavirus before allowing them to clear customs, according to several freight forwarders, consultants and shipping companies. That's leading to scant availability of electric outlets to keep refrigerated containers, known as reefers, cold.
- The shortage of plug points and dwindling space at the port has prompted shipping liners to cancel new reefer bookings into Dalian, and the congestion is spreading to other refrigerated items like fruit and dumplings. It also means frozen containers are being diverted to other ports in China, leading to bottlenecks in Shanghai and **Qingdao**.
- The scenes playing out in Dalian echo the start of the disruptions the world saw when the coronavirus snared global trade flows early last year. Back then, lockdowns in countries including China meant ports were closed and ships couldn't unload cargoes, causing a dearth of vessels across the world with the ripple effect lasting for months.

## Record Asia–Europe container rates squeeze lower-value cargoes

Importers of higher-value cargo from Asia have been better able to withstand higher spot rates, forcing some shippers of lower-value cargo out of the market completely.

## Trans-Pacific dysfunction can seed carrier-shipper collaboration

Shippers can complain, but pricing power — at least for now — has shifted away from shippers due to carrier consolidation and growing capacity discipline seen most dramatically in the swift spring withdrawals following the onset of the COVID-19 pandemic. That puts pressure on shipper to engage more with carriers, not less.



## Carriers Announce Asia-Europe Blankings for Chinese New Year

- Ocean carriers are to cancel several headhaul sailings to North Europe around the Chinese New Year holiday next month. It is a blow for beleaguered shippers that have managed, at great expense, to secure space on sailings that won't happen.
- 2M partners Maersk and MSC intend to blank three advertised sailings from Asia to North Europe in weeks 5-7, including one vessel that will be allowed to 'slide' into the following week, maintaining existing bookings.
- And Ocean Alliance member CMA CGM will also skip three loops during the same period.
- MSC said the blankings were necessary "due to the slowdown in demand during CNY" as well as the "challenging congestion across the supply chain".
- Maersk advised its customers that the blankings were needed to "improve schedule reliability", to "free up these services for schedule recovery measures" in response to "severe port congestion and equipment limitations".

## New 'marine highway' service connects Houston, Everglades with Puerto Rico

National Shipping of America (NSA) made its inaugural call to Port Everglades last week after the US Maritime Administration (MARAD) designated the South Florida port as part of the country's so-called Marine Highway system on Jan. 8.

## JAXPORT completes latest phases of berth upgrade and expansion

- Jacksonville Port Authority (JAXPORT) contractors have completed the latest phase of its \$104 million berth upgrade and expansion at the existing SSA Jacksonville Container Terminal at Blount Island.
- The latest phase has added an additional 700 linear feet of newly rebuilt deepwater berthing space.
- The final phase of the project, another 700 linear feet, is anticipated to be finished by the end of 2021.
- The berths are electrified to handle a total of six state-of-the-art environmentally friendly electric-powered 100-gauge container cranes, including three currently in use.
- Phased yard improvements are underway to enable SSA Jacksonville Container Terminal to accommodate up to 700,000 TEUs (twenty-foot equivalent units) annually.



## Container trade 'madness' driving more Asia cargo to other modes

- The “madness” of ex-Asia container rates is driving more un-boxing of containerized cargo.
- And the resulting bounce back for breakbulk is providing a boon for secondary ports and shortsea shipping, according to chartering specialist Ahlers.
- “New opportunities are arising for breakbulk, MPVs [multipurpose vessels] and ro-ro carriers,” the company said.
- We believe the container market situation will normalize again, but at the moment it is uncertain when that will happen. In the meantime, we will continue to see more and more ‘traditional container’ cargo moving to alternative modes of transport, including breakbulk.”

## CMA CGM axes SEA-X – prelude to the end of transpacific premium products?

- CMA CGM appears to be set to close its transpacific express container shipping service, after worsening congestion at Los Angeles port impacted delivery guarantees.
- According to Alphaliner, the French carrier has closed its transpacific premium SEA-X service and is set to launch a new route between China and rival west coast ports of Oakland and Seattle.
- The SEA-X service offered shippers a money-back if containers were not ready to pick up at its Los Angeles terminal by an agreed date.
- “It is obvious that severe port congestion at Los Angeles has made it very tricky for CMA CGM, indeed for almost all carriers, to guarantee such on-time deliveries,” Alphaliner noted today.

## Carriers reject US agricultural exports for empty boxes to China

The argument over the apparent refusal of many container lines to accept US agricultural export bookings in preference to returning empty containers back to China in recent months shows no sign of going away. Analysis published by CNBC, has established that container shipping lines rejected some **177,938 TEU of US export shipments** in October and November, which is likely to lead to renewed calls for greater Federal Maritime Commission enforcement of the country’s Shipping Act. “This data and the impact on our economy is potentially very troubling, but unfortunately not altogether surprising,” FMC commissioner Carl Bentzel told CNBC.



## Hapag-Lloyd has a good year

- Hapag-Lloyd has confirmed it has had a good year. On January 27, the Hamburg based shipping line released preliminary full-year results that showed operating profits had increased by around a third, with EBITDA “increased to more than \$3bn” compared to the \$2.2bn in 2019. Earnings Before Interest and Tax saw an even greater rise, up by \$600m to \$1.5bn.
- Revenues, however, were nearly flat, up just \$500m at \$14.6m. So, Hapag-Lloyd’s progress has been overwhelmingly focused on improving margins.
- Part of the explanation for these trends is seen by looking at Hapag-Lloyd’s operational numbers. Volumes of containers may have fallen by 200,000 TEU to a total of 11.8m TEU, but average freight-rates increased by \$43 per container to \$1,115 per TEU. This is a useful but not an enormous increase and does not wholly explain the leap in profits. Indeed, bearing in mind the state of the market such an average rate increase is rather moderate, suggesting that Hapag-Lloyd has less exposure to the spot market, rather relying on the larger and more stable contract segment. Hardly unexpected.

## Maersk Boxship Reaches Port of Refuge After Pacific Container Loss

- Maersk’s containership the Maersk Essen, which suffered a significant container loss in the Pacific, has arrived off her port of refuge in Mexico although few details are being released.
- AIS data confirms that the ship went into the anchorage at the Lazaro Cardenas port on January 26 and that she remains offshore awaiting terminal space. Maersk's vessel tracking system is showing that the vessel will not move onto the terminal until January 30. It projects a departure from Mexico on February 16 with the Maersk Essen reaching its original destination of Los Angeles on March 1.

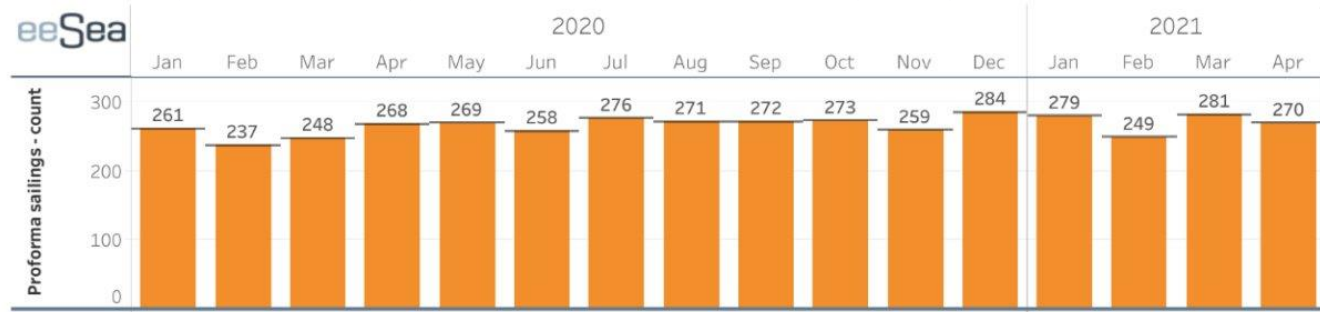
## BPA Says British Ports Are Hopeful But See Challenges in Year Ahead

The British Ports Association released the results of a survey of UK ports that shows after a difficult year in 2020, the ports expect another difficult year in 2021. However, there is also appearing an increased level of confidence for the year ahead.



## Trans-Pacific trade crashes into max-capacity ceiling **American Shipper**

- It's official: Container volumes in the Asia-U.S. trans-Pacific trade have hit their limit. Massive port congestion in the ports of Los Angeles and Long Beach is forcing ocean carriers to take extreme measures. Sailings are now being blanked not because of lack of demand, but because of lack of tonnage as ships are stuck awaiting berths.
- When ships fall behind schedule due to long waits in port, carriers normally add "recovery vessels" to take their place and keep weekly services going. There are no recovery vessels left. According to Hapag-Lloyd, "as our fleets are fully deployed and stretched beyond capacity, this is regretfully currently not an option."
- The eeSea platform provides complimentary access to real-time blank sailing data. The data as of Wednesday reveals an 11% dip in Asia-U.S. sailings in February versus January. This is despite continued high cargo demand.
- At any given time since the beginning of this year, there have been around 30 container ships stuck waiting at anchorages in San Pedro Bay offshore of the ports of Los Angeles and Long Beach.
- The situation has not improved at all. According to the Marine Exchange of Southern California, there were 33 container ships at anchorages and 26 at berths on Wednesday. Including all ship types, there were 55 vessels at anchorages — a new record, with all Los Angeles/Long Beach anchorages full and all contingency anchorages off Huntington also full.
- On Monday, many of those vessels had to leave anchorage and go to sea due to extreme storm conditions. Winds gusted to 55 mph and swells reached 15 feet.







## Survey: 26% of consumers currently comfortable dining indoors



- A new report from HealthCare Insider finds that 21% of consumers see life returning to normal in the summer, while 18% believe normalcy will return in the fall and 20% believe it will be 2022 or later. Just 13% believe things will never be normal again. The survey gauges normalcy through 10 activities, including not wearing a mask in public, family gatherings and dining indoors.
- 26% of respondents said they're already comfortable dining indoors, while 7% say they are most looking forward to dining indoors again.
- Comfort levels around dining indoors vary by demographic. Men are 40% more likely than women to feel comfortable dining indoors by the spring, while millennials are nearly 30% more likely than Baby Boomers to feel comfortable doing so. Consumers in the Midwest (29%) and South (27%) are more likely than people in the Northeast (25%) or West (22%) to say they already feel comfortable dining indoors.

## Walmart and Coca-Cola team up on promotion with drone delivery



- Walmart has extended its use of drone delivery in a promotional partnership with Coca-Cola. To promote the nationwide rollout of Coca-Cola with Coffee products. Coca-Cola and Walmart are making drone-based deliveries over a two-day period to selected customers in Coffee County, Georgia. Utilizing the drone services provider DroneUp, deliveries are being made during daylight hours to single family homes within a one-mile radius of a Walmart supercenter.
- Walmart has recently been very active in drone program development. In September 2020, alongside DroneUp, it piloted the delivery of at-home COVID-19 kits. Walmart has also launched a drone delivery pilot with Flytrex, offering select grocery and household essential items from stores in Fayetteville, North Carolina. Other leading retailers have also been pushing quickly into this air delivery space, with Amazon, Tesco and CVS Health all recently active with test programs.





## **New strain of virus found in Germany** **CNBC**

Germany identified a new coronavirus mutation in 35 patients at a hospital in Bavaria, reports CNBC. The variant is different from the ones found in the U.K. and South Africa, officials said.

## **Data Suggest Virus Variant Found In UK Is Deadlier Than Earlier Versions** **KHN** KAISER HEALTH NEWS

- The CDC is reviewing a British report that indicates the B.1.1.7 strain may be 30% more lethal. NIH Director Francis Collins and Dr. Anthony Fauci say more information is needed to know if its more lethal and contagious.
- Michael Osterholm, an epidemiologist and member of President Joe Biden's coronavirus transition team, said he has reviewed the UK report, as well as other data that has not been publicly released, and he is "convinced" that the new variant is deadlier. "The data is mounting -- and some of it I can't share -- that clearly supports that B.1.1.7 is causing more severe illness and increased death," said Osterholm, director of the Center for Infectious Disease Research and Policy at the University of Minnesota. "Already we know this variant has increased transmission, and so this is more very bad news."

## **Merck ends COVID vaccine program, cites inferior immune responses** **UNION LEADER**

- Drug maker Merck & Co said it will end development of its two COVID-19 vaccines, and will focus pandemic research on treatments, with initial efficacy data on an experimental oral antiviral expected by the end of March.
- Merck said in a statement it will record a pretax discontinuation charge in the fourth quarter for vaccine candidate V591, which it acquired with the purchase of Austrian vaccine maker Themis Bioscience, and V590, developed with nonprofit research organization IAVI.
- In early trials, both vaccines generated immune responses that were inferior to those seen in people who had recovered from COVID-19 as well as those reported for other COVID-19 vaccines, the company said.
- Merck was late to join the race to develop a vaccine to protect against the coronavirus, which has so far killed more than 2 million people and continues to surge in many parts of the world including the United States.
- Merck said it will focus COVID-19 research and manufacturing efforts on two investigational medicines: MK-7110 and MK-4482, which it now calls molnupiravir.



## Minnesota Case Marks 1st Detection Of Brazil Variant In US



A new Brazilian variant of the coronavirus has made its first known appearance in the United States in a person who recently returned to Minnesota after traveling to Brazil, state health officials announced Monday. The Brazil P.1 variant was found in a specimen from a patient who lives in the Minneapolis-St. Paul area who became ill in the first week of January, the Minnesota Department of Health said in a statement. Epidemiologists are interviewing the person to obtain more details about their illness, travel and contacts. There was no immediate indication that the variant was spreading in Minnesota.

## Moderna Working On Booster Shots For South African Strain



Moderna said Monday it's accelerating work on a Covid-19 booster shot to guard against the recently discovered variant in South Africa. The company's researchers said its current coronavirus vaccine appears to work against the two highly transmissible strains found in the U.K. and South Africa, although it looks like it may be less effective against the latter.

## COVID-19: Breakthrough treatment claims to stop 100% of symptomatic infections **sky news**

Makers say early tests of the experimental drug indicate it may "break the chain" of rising coronavirus infections.

- The makers of an experimental drug, now being trialed by the NHS, say it is 100% effective in protecting against symptomatic cases of the virus.
- US-based Regeneron Pharmaceuticals says its two-antibody cocktail called REGEN-COV also reduces overall coronavirus infection rates by about 50%.
- The claims are based on interim results and the "confirmatory stage" of the trial will not be complete until the second quarter of this year, but the company has said it is hopeful it may "break the chain" of rising infections.
- The REGEN-COV antibody cocktail may be able to help break this chain by providing immediate passive immunity to those at high risk of infection, in contrast to active vaccines which take weeks to provide protection.
- Hundreds of thousands are still infected daily who were then actively spreading the virus to their close contacts.
- Regeneron analyzed 400 participants in its trial, all of whom had a household member with COVID-19.



## FDA issues import alert for alcohol-based hand sanitizers from Mexico

BECKER'S  
**HOSPITAL REVIEW**

- The FDA placed all alcohol-based hand sanitizers from Mexico on import alert until it can fully review the products' safety, the agency announced Jan. 26.
- During the pandemic, there has been a significant increase in hand sanitizer products imported from Mexico labeled to contain ethanol, according to the FDA. However, many of these products have tested positive for methanol contamination.
- Methanol, or wood alcohol, can be toxic when absorbed through the skin, and ingestion can be fatal.
- In its analyses of alcohol-based hand sanitizers imported from Mexico, the agency found 84 percent of the samples it analyzed from April through December did not comply with FDA regulations, and more than half of the samples contained toxic ingredients.
- Under the import alert, alcohol-based hand sanitizers imported from Mexico are subject to "heightened FDA scrutiny," and the agency may detain shipments.

## Johnson & Johnson's Single-Dose Shot Is 66% Effective

**KHN**  
KAISER HEALTH NEWS

- The vaccine was 72% effective against moderate to severe illness in the US but only 66% effective in Latin America and 57% effective in South Africa. The news likely will have worldwide implications, especially for nations having difficulty procuring or distributing the Pfizer and Moderna vaccines.
- A global study of nearly 44,000 found that the COVID-19 vaccine made by Johnson & Johnson is 66% effective in preventing moderate to severe disease. The study was conducted in the U.S., Latin America and South Africa. The vaccine did better at preventing disease in this country – 72% percent — and less well in South Africa – 57% efficacy. The efficacy seen in Latin America was 66%. The South African results are troubling because the coronavirus spreading there and that has now been detected in the U.S. raising concerns that the vaccines developed so far might not work as well against it.
- A single-shot coronavirus vaccine from pharmaceutical giant Johnson & Johnson was 66 percent effective at preventing moderate and severe illness in a massive global trial, findings released Friday show.



## Why Zero Trust, Why Now?



- The concept of a Zero Trust cybersecurity architecture has been around for more than a decade, but adoption didn't really begin to take hold until the past couple of years. As with many technology innovations, it hasn't always been clear just what Zero Trust is all about and, more important, how to implement it easily and cost effectively.
- The principles of Zero Trust are simple: Never trust; always verify. In practice, that means each user must be verified before access is granted to any resource. Every request from every user, inside or outside of your perimeter, must be authenticated, authorized and encrypted in real time.
- This protects your organization in ways other models can't. It stops malware from entering your network; gives remote workers more protection without affecting productivity; simplifies management of security operations centers with enhanced automation; and extends visibility into potential threats to improve proactive remediation and response.
- Whether your organization is already deploying Zero Trust or the term is completely new to you, it is important to understand just what Zero Trust is all about, how it can protect your organization and how to implement it most effectively.
- Overall, Zero Trust changes the concept of perimeter from one based on location to one based on identity and access. This is a much more relevant security model in today's era of cloud computing, remote work and digital transformation.
- Zero Trust is a game changer in helping to reduce complexity, lower costs, decrease the number of cybersecurity tools and address the growing shortage in skilled cybersecurity personnel.
- According to a Deloitte press release, nearly 40% of organizations adopting Zero Trust have accelerated their efforts because of the pandemic. Their primary reasons have been to reduce the risk of remote work and insider threats, mitigate third-party risk and manage cloud risk.



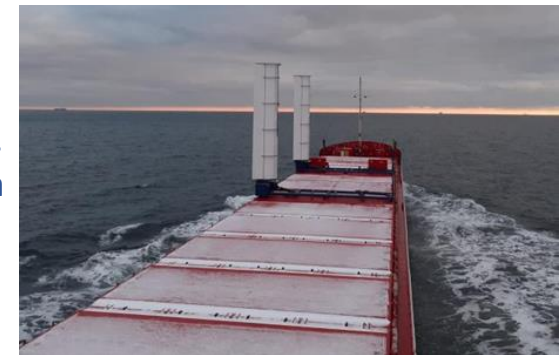


## Amazon Invests in Cleaner Fuel for Shipping The Maritime Executive

- Amazon's climate pledge fund has joined Mitsubishi Heavy Industries and three venture-capital partners in a funding round for Infinium Holdings, a startup focused on making synthetic hydrocarbon fuels from industrial CO2 sources and green hydrogen.
- Like other electrofuel ventures, Infinium seeks to produce high-energy-density products that are compatible with existing diesel engines and jet turbines. Its process takes a captured stream of CO2 from an industrial source - which today would be emitted directly into the atmosphere - and recombines it with green hydrogen in a chemical reaction to produce a liquid hydrocarbon fuel. This product could be burned in the same way as any standard refined petroleum product, like bunker fuel or over-the-road diesel, generating energy and releasing the captured CO2.

## Dutch Cargo Ship Sails with New Wind-Assisted Technology The Maritime Executive

- Wind assisted propulsion is continuing forward as one of the technologies being explored to improve operating efficiency and the environmental performance of the shipping industry. In the latest example, a Dutch flagged general cargo ship began testing a new installation of two new compact fixed-wing units that can be easily moved into position or stowed.
- The Frisian Sea, a 6,477dwt general cargo vessel. Made its maiden voyage to Vasteras, Sweden with the VentiFoil in operation. Owned by Boomsma Shipping, the eight-year-old vessel, which measures 388 feet in length, was retrofitted with the wind technology as part of a pilot program with eConowind. The installation was completed during a port call in Harlingen.
- During the first voyage the VentiFoil were deployed and they also stowed them during the loading of the vessel. Start-up tests commenced on the systems and in the coming months they will be training the crew while optimizing the system and operations.







## Major manufacturer drops hydrogen trucks in favor of battery-electrics **NEW ATLAS**

- Sweden's Scania, the world's tenth-largest trucking company, having already launched both battery and fuel cell trucks, has announced it's committing to batteries, citing hydrogen's wastefully inefficient use of renewable energy, as well as additional system complexity, cost, safety and ongoing maintenance factors.
- "Repair and maintenance also need to be considered," it continues. "The cost for a hydrogen vehicle will be higher than for a battery electric vehicle as its systems are more complex, such as an extensive air- and cooling system. Furthermore, hydrogen is a volatile gas which requires more maintenance to ensure safety."

## ABB to power South Korea's 1st domestic fully electric ferry



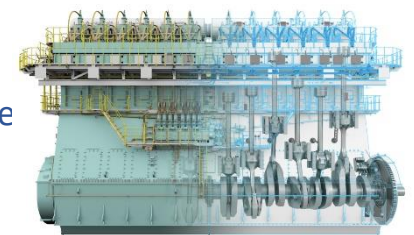
- Technology company ABB has been selected to deliver an end-to-end electric power and propulsion solution for South Korea's first domestic zero-emission ferry.
- The twin-hulled ferry represents the first commitment by South Korean authorities to a plan which will see 140 state-owned conventionally powered vessels replaced with those operating on cleaner alternatives by 2030, in line with environmental legislation. Slated for delivery in 2022, the 40-meter catamaran ferry will have the capacity to carry up to 100 passengers and five crewmembers.



## WinGD's biggest X-DF dual-fuel engine wins Guinness World Records power title



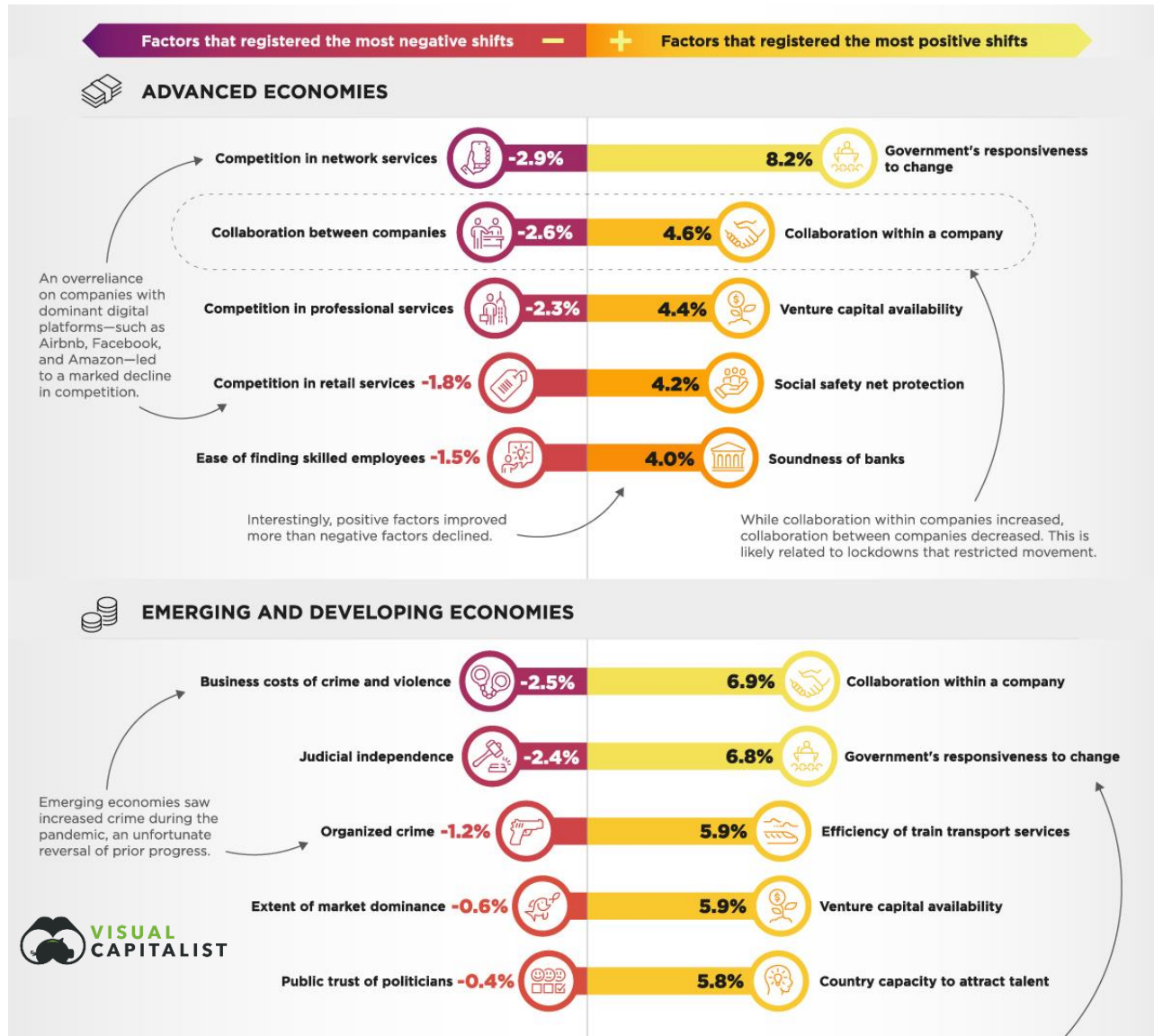
- WinGD's 12X92DF engine has been awarded the Guinness World Records for the most powerful Otto-cycle engine ever built. In tests carried out at engine builder CSSC-MES Diesel Co (CSSC-CMD) and verified by Guinness World Records, for the official record title 'Most powerful marine internal combustion engine (otto cycle) commercially available', the 2,140-tonne engine demonstrated a power of 63,840 kW at a speed of 80 rpm.
- The super-sized engines fueled from 18,600 cbm tanks, containing enough liquefied natural gas (LNG) to sail complete Asia to Europe round trip, will propel nine 23,000 TEU containerships operated by French shipping and logistics company CMA CGM.





# How COVID-19 Impacted Economies

34



Keep Safe

ACC



