



YOUR WEEKLY UPDATES

Week 10 of 2021



- Slide 3 – Post-Brexit red tape
- Slide 4 – Cognitive Bias
- Slide 5 – 2021 Global Risks Outlook
- 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 – Money Does Buy Happiness After All
- Slide 35 – What's the Beer Price in Your Country?
- Slide 36 – The Carbon Footprint of Trucking



- DAP (delivered at place) incoterms are the “principal cause” of delays in the aftermath of Brexit, according to Europa Worldwide MD Andrew Baxter, who acknowledged the new EU-UK trading relationship had been “incredibly tough” for everyone, but said he remained convinced Europa had made the right call in adopting the delivered duty paid (DDP) model, as it mitigated many of the issues seen at borders.
- “While the implementation of this new product was more difficult than we expected, with a very challenging first six weeks, the product is now working very effectively,” he said.
- “Export consignments are being delayed in our hub by around 24 hours while anticipated declarations are submitted, but beyond that they are more or less moving as normal; we’ll be working over the next three weeks to remove the delays altogether.”
- Since the end of the transition period, logistics operators have noted border officials using an inconsistent approach in applying the new rules. Groupage loads have been particularly exposed to this problem, with food and drink shippers becoming increasingly wary of deliveries, for fear of one item within the load causing the entire shipment to be delayed, resulting in spoilage.
- Mr Baxter told The Loadstar: “Market disruption to groupage is principally caused by DAP shipping terms and the need for the receiving hub to contact the importer, establish a commercial relationship and get them to pay VAT, duty and customs fees prior to delivery. “This issue is creating massive backlogs in all groupage networks and is far and away the biggest issue.”
- Under DDP, sellers take full responsibility for export and import formalities, transport, duties and taxes, which Mr Baxter said made it “just as easy to buy from the UK” as before Brexit.
- The European Commission explained in January that Customs Procedure 42 (CP42) was “a simplification procedure that provides for a deferral of paying import VAT on goods cleared upon arrival into the EU ... It can be used when goods being imported from outside the EU (eg, from GB) into an EU member state are subsequently being sold on to a company in another EU member state (i.e. an ‘intra-community supply’). It added that “the application of the customs procedure 42 and its requirements may vary according to the member state of importation concerned ... Imports into Northern Ireland can still benefit from the CP42 procedure if followed by an intra-community supply”.

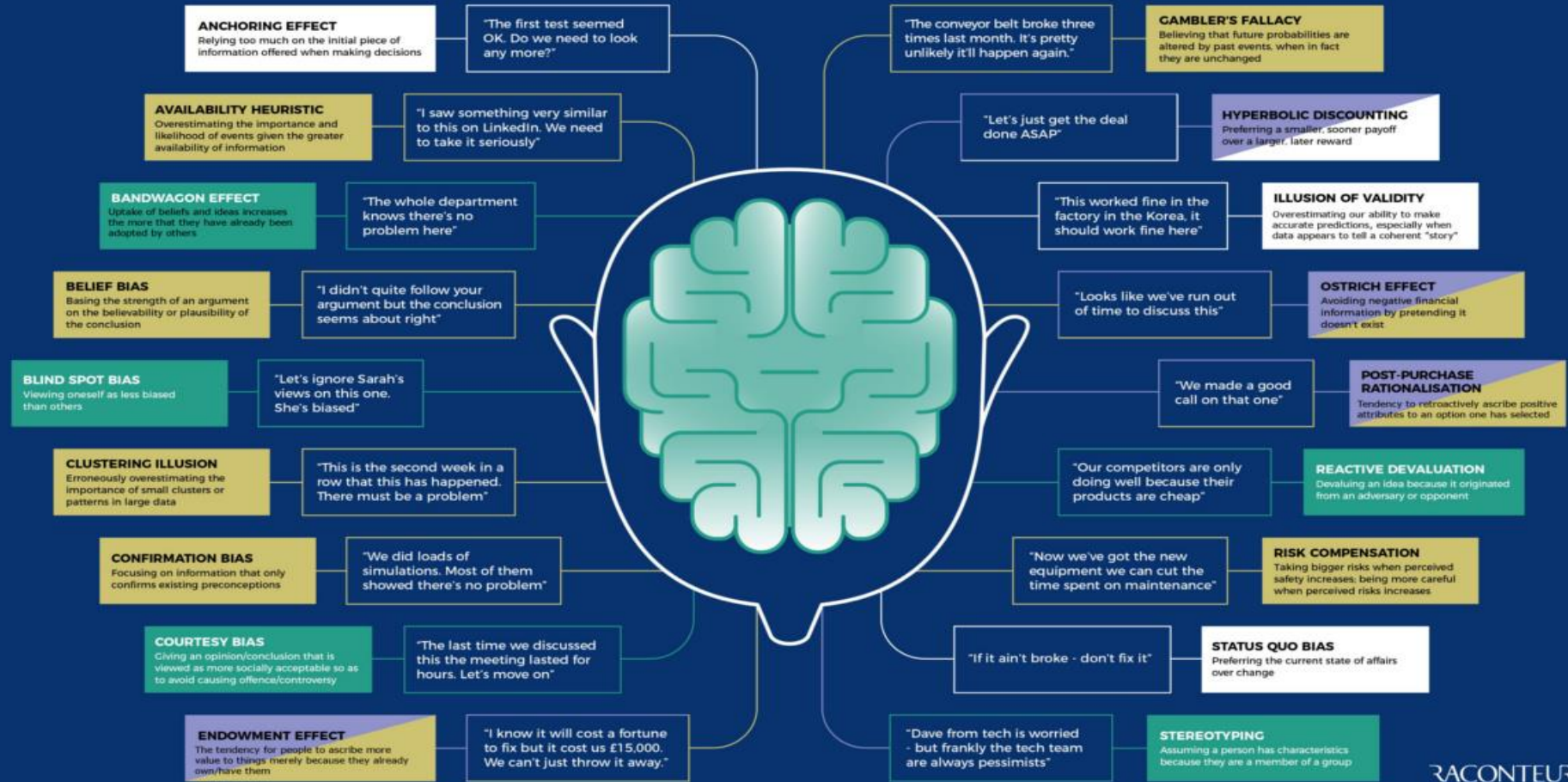
Cognitive bias

● Social ● Financial ● Failure to estimate ● Short-termism

When it comes to assessing risk, humans often fail to make rational decisions because our brains take mental shortcuts that prevent us making the correct choice. Since the 1960s behavioural scientists and psychologists have been researching these failings, and have identified and labelled dozens of them. Here are some that can cause havoc when it comes to assessing risks in business

ORIGIN

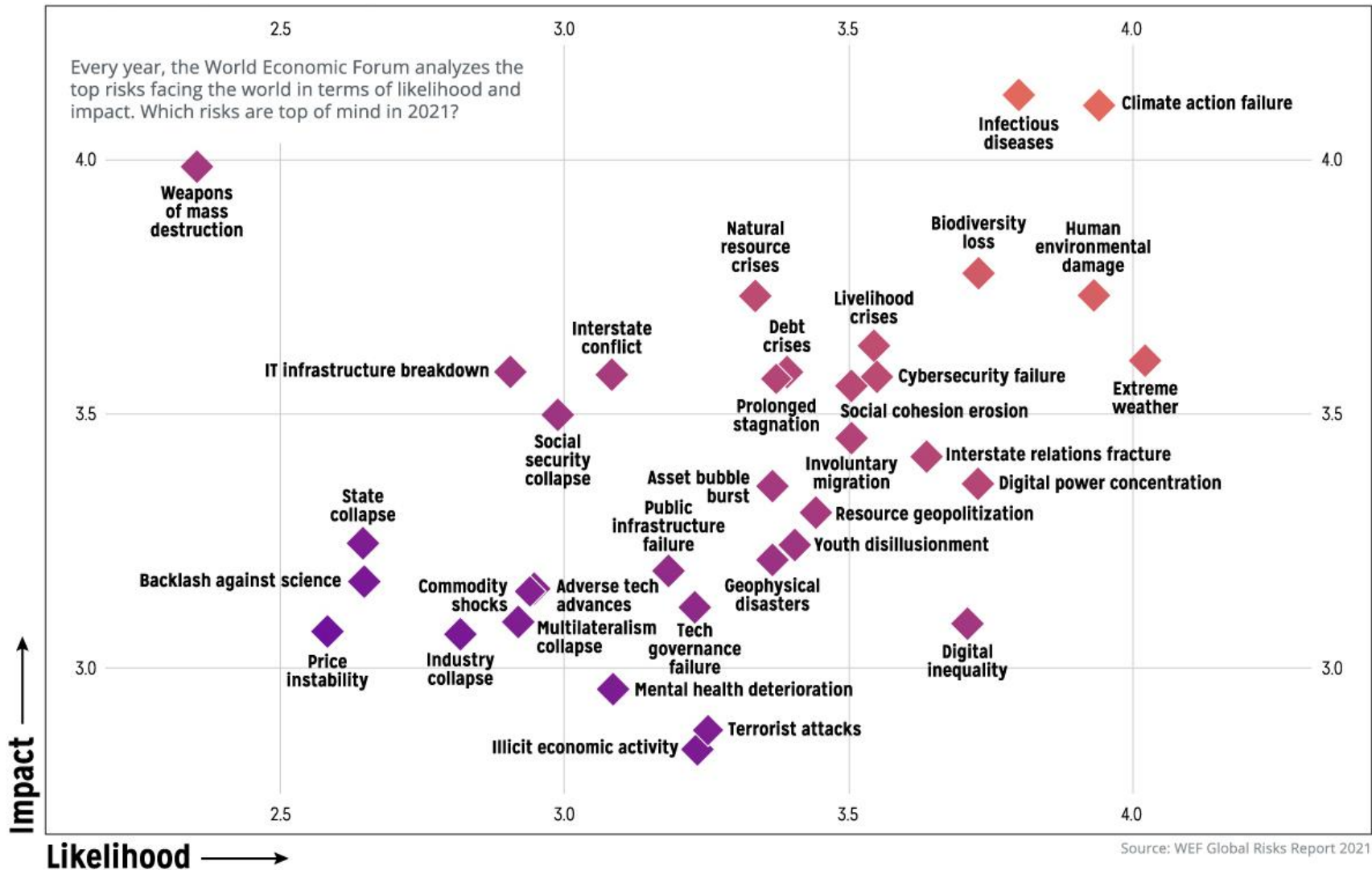
The notion of cognitive biases was first introduced by psychologists Amos Tversky and Daniel Kahneman in the early 1970s. Their research paper, 'Judgment Under Uncertainty: Heuristics and Biases', in the Science journal has provided the basis of almost all current theories of decision-making and heuristics. Professor Kahneman was awarded a Nobel Prize in 2002 after further developing the ideas and applying them to economics.



RACONTEUR

"Keep your face to the sun and you cannot see the shadows." – Helen Keller

ACC



“Keep your face to the sun and you cannot see the shadows.” – Helen Keller



Walmart eliminates order minimum from Express Delivery

- Walmart is continuing its efforts to draw shoppers away from the Amazon Prime Now same-day delivery service.
- The discount giant has removed the \$35 minimum order requirement it previously required for its Express delivery service, which ships items to customer doors in less than two hours. Launched on a wide scale in May 2020, Express delivery allows customers to order items from Walmart's food, consumables and general merchandise assortment such as produce, pantry staples, everyday essentials, toys and electronics.

Publix sales jump to \$44.9 billion in 2020 amid COVID-19 spending

Driven by the coronavirus pandemic, Publix's sales in 2020 jumped to \$44.9 billion, the Lakeland-based grocery chain revealed Monday. The company reported that its sales for the fiscal year ending Dec. 26 were up \$6.8 billion, or 17.7%, from \$38.1 billion in 2019.

Target Q4 sales soar amid strong holiday season, stimulus checks

- Target Corp. ended an impressive year on a strong note, with sales and earnings that topped analysts' estimates as the discounter got a boost from holiday spending and \$600 stimulus checks.
- Target said 2020 revenue grew by more than \$15B — greater than its total sales growth during the prior 11 years. Total revenue for the fourth quarter (ended Jan. 30) rose 21.1% to \$28.34B, above estimates of \$27.41B. Total comparable sales increased 20.5%. Comp store-sales rose 6.9%, while digital comparable sales jumped 118%.
- Net income rose to \$1.38B, or \$2.73 a share, up from \$834m, or \$1.63 a share, in the year-ago period. Adjusted earnings per share was \$2.67 compared to \$1.69 last year, beating analysts' estimates of \$2.54.

All U.S. Apple Stores Now Open a Year After Closures Began

Apple's 270 U.S. retail stores are now open in some capacity for the first time since closures due to the Covid-19 pandemic began nearly a year ago, Apple confirmed. Apple's retail locations across the country have opened and closed multiple times as the spread of the pandemic fluctuated, and restrictive measures were implemented and lifted. On Monday, Apple re-opened its last remaining closed stores, which were at locations in Texas, leading to the milestone.



Leading Retailers

Ecommerce-focused retailers will see stronger growth rates over the next five years

The charts adjacent look at the leading 10 ecommerce (top) and store-based (bottom) retailers within the sector.

Pureplay marketplaces such as Alibaba, Amazon, JD.com and Pinduoduo are major players in the sector. They are set to grow at the fastest rates between now and 2025.

Store-based players will experience low to mid-digit growth, but will continue to account for the majority of Health, Beauty and Personal Care sales. Specialists such as Walgreens and CVS Health will maintain their position as leading category retailers in the next five years.

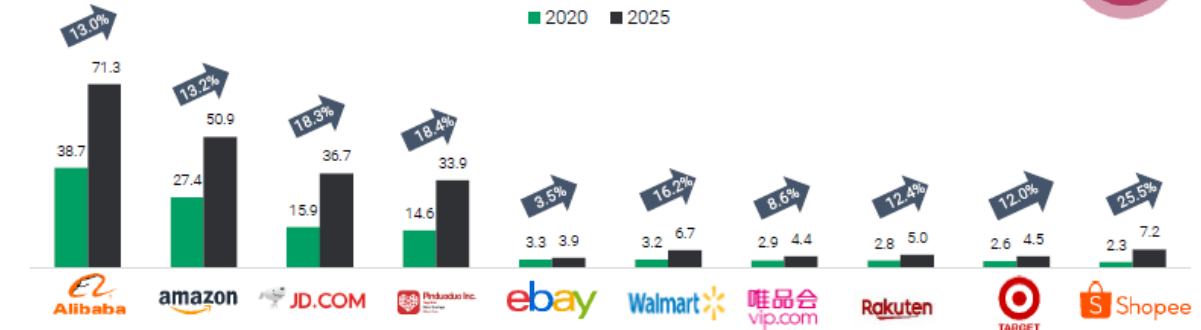
The fast growth of ecommerce, however, will encourage other players to rapidly build out their ecommerce offering. This is particularly notable, for example, in relation to Walmart, which will see online sales CAGR within the sector of 16.2% between 2020-2025, versus 1.8% in its stores.

SECTOR OVERVIEW

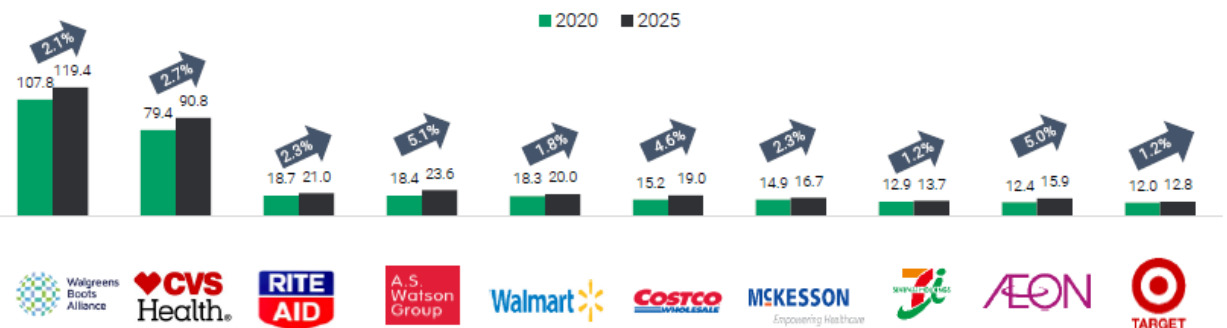


Top 10 Global Ecommerce Health, Beauty & Personal Care Retailers (USD bn) and CAGR, 2020 - 2025

Click into the Retail Market Monitor to drill into retailer rankings by category.



Top 10 Global Store-based Health, Beauty & Personal Care Retailers (USD bn) and CAGR, 2020 - 2025





Overview

Store of the Future initiatives in health, beauty and personal care

Retailers are continuing to focus on investments across many key Store of the Future characteristics, with notable initiatives arising in the areas of experiential and curated;

- **Experiential:** With an increased focus on in-store health provision, Walmart and Rite Aid made further commitments during the latest period. Collaboration was also a major theme, as large chains began partnerships with beauty retailers to create large scale 'store-within-a-store' initiatives.
- **Curated:** Heightened emphasis on product curation has seen L'Occitane introduce a sustainability concept, while Magnit has focused on a mini-store format.

The latest period has also seen retailers assess their store networks to consider the most efficient operational set-up, leading to reported store closures from Douglas and Dia.

STORE OF THE FUTURE

Rite Aid (US) – Nov 2020
Launches 'Store of the Future' pilot



Target (US) – Nov 2020
In-store collaboration with Ulta Beauty



L'Occitane (Hong Kong) – Jan 2021
Introduces MEGA (make earth great again) sustainability concept store



Kohl's (US) – Dec 2020
Sephora at Kohl's partnership to scale



Walmart (US) – Nov 2020
Health concept added to remodeled stores



Dia (Portugal) – Jan 2021
Clarel stores to close in Portugal



Carrefour (Spain) – Jan 2021
Extends private label cosmetics brand



Magnit (Russia) – Nov 2020
Tests mini-store format in Moscow



Target (US) – Nov 2020
In-store collaboration with Ulta Beauty





Retail Update

9

Target to invest \$4 billion annually on store expansion, remodels, online **CSA**

- Target Corp. will build on its record 2020 sales growth by making big annual investments to continue scaling capabilities across its online and brick-and-mortar retail platform.
- The discounter plans to invest approximately \$4 billion annually during the next several years to accelerate new store openings — opening up to 40 stores annually — and store remodels, enhance fulfillment services and strengthen its supply chain in an effort to provide shoppers with a safe, easy and convenient shopping experience.
- In addition to new stores and remodels, the investments will support the opening of four new distribution centers and five “sortation centers,” described as a new type of facility that will collect online orders from local stores multiple times a day and sorts the orders into efficient routes for carrier delivery.

Sephora to open 60-plus freestanding U.S. stores in 2021 **CSA**

- Sephora is embarking on the largest store expansion plan in its 21-year history in the United States.
- The beauty giant will open more than 60 freestanding “client-centric” stores and 200 locations in Kohl’s stores this year. Sephora will begin to open the standalone stores this month, with locations planned across the Pacific Northwest, Florida, Texas (Dallas, Austin and Houston), Los Angeles and Nashville. The new locations will feature a sleek architectural and visual design that focuses on the classic Sephora DNA, look and feel, along with new lighting enhancements for a better beauty experience.
- Sephora also this week began offering buy online, pick up in store service, which it says will be available in all Sephora freestanding stores by April 2021. Paris, France-based Sephora is owned by luxury conglomerate LVMH.



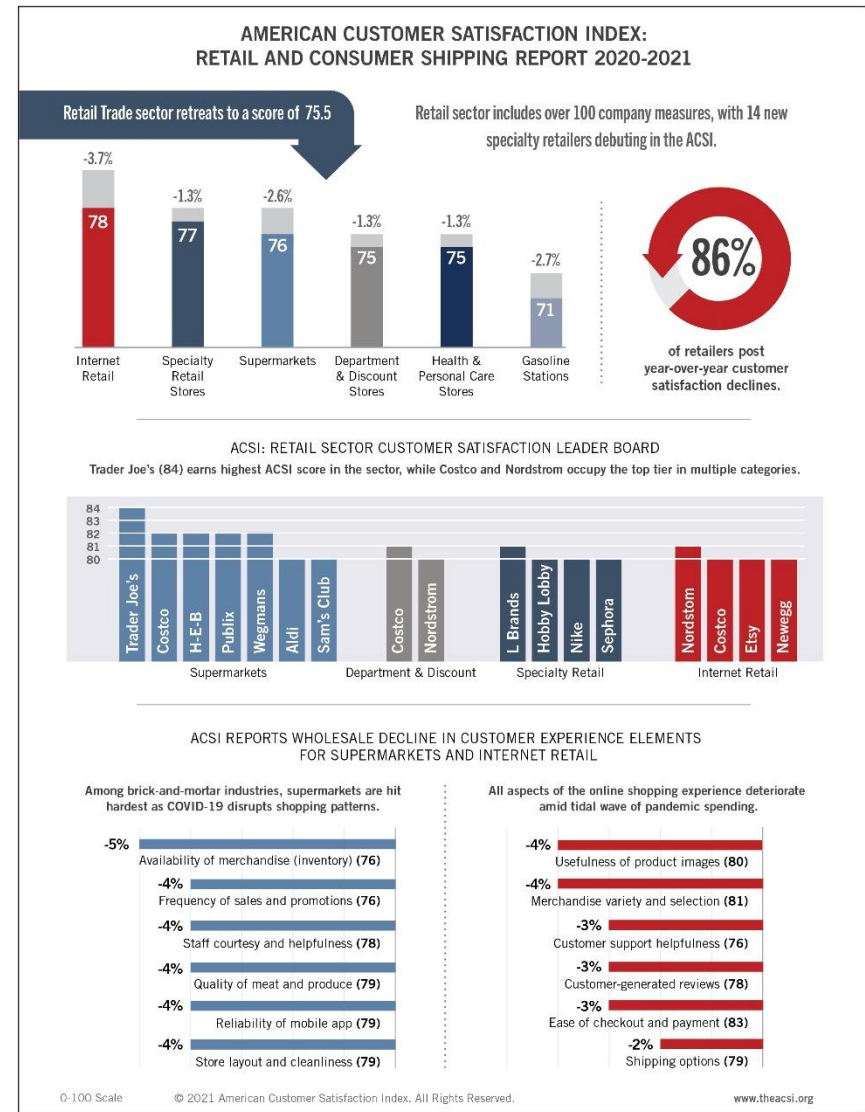
“Keep your face to the sun and you cannot see the shadows.” – Helen Keller

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Trader Joe's leads again in customer satisfaction

- Trader Joe's kept its customer satisfaction score steady during 2020, higher than other retailers.
- Trader Joe's topped the supermarket industry – and all retailers – with a stable score of 84, according to ACSI retail and consumer shipping report 2020-2021. The overall customer satisfaction score declined 2.3% to a score of 75.5 (out of 100), which is the lowest ACSI score posted for the retail sector since 2015.
- ACSI covers six retail industries – department and discount stores, specialty retail stores, health and personal care stores, supermarkets, Internet retail, and gas stations – as well as consumer shipping and the U.S. Postal Service.
- Among the non-gas station and shipping categories, not one escaped the trend of declining customer satisfaction in 2020. Following is a review of performance in each category.
- Customer satisfaction with consumer shipping slid 1.3% to an ACSI score of 76, representing an all-time industry low. FedEx remained in the lead despite declining 3% to 78. UPS faded for a third straight year, dipping 1% to 75. The U.S. Postal Service's (USPS) Express and Priority Mail rose one point to 73.

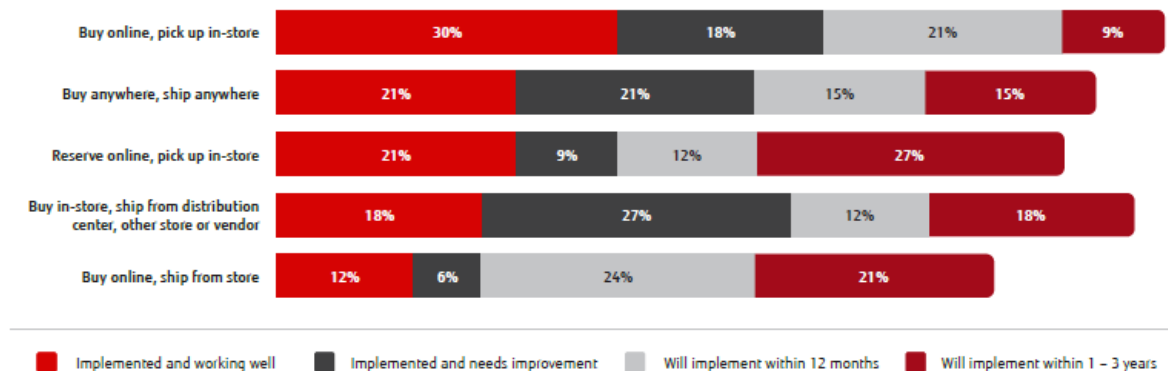




Optimize your retail supply chain

- Times of crises — whether it's a pandemic, a natural disaster, or something else — can bring uncertainty and disruption to an organization's supply chains. As a retailer or manufacturer, you can't control what happens in a crisis, but you can improve your supply chain to make it more responsive, enabling you to better manage the uncertainty.
- Additionally, in the last decade, North America has experienced rapid and enormous shifts in consumer behaviors and expectations around the shopping experience. To keep up, supply chains have to evolve as well.
- According to Nielsen Homescan data, about 40% of consumers overall have used buy online and pick up in-store services (BOPIS). Over one six-month period, 67% of U.S. shoppers say they have used BOPIS. Consumers are also now shifting to buying directly from manufacturers for everything from household items to shoes or eyeglasses. According to one study, 81% of consumers plan to shop direct to consumer (D2C) brands.
- Consumers use more channels than ever to interact, buy and pick up purchases — and supply chains must respond to these expectations. Twenty years ago, most consumers relied on two touchpoints when buying an item, and only 7% regularly used more than four.
- For retailers and manufacturers, meeting these expectations is critical. Companies with strong strategies for omnichannel customer engagement see an average of 89% for customer retention versus 33% for companies with weak omnichannel strategies. “A lot of times, we see that companies may have excellent products, but the customer experience may not match the product experience when they're interacting with a company,” said Fujitsu America. (Report attached)

North American Retailer Shipping Options Implementation 2017



“Keep your face to the sun and you cannot see the shadows.” – Helen Keller



US ECONOMY: Coronavirus Predictive Indicators for Economic Impact

preVedere

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

Last Refresh: 03-01-2021

Category	Indicator	Relationship	Next Update	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021
Business Investment	Average Weekly Hours - Retail	Procylic	03-08-2021	0.76%	1.42%	1.42%	1.43%	
	Small Business Sentiment	Procylic	03-13-2021	0.29%	0.16%	-2.74%	-6.22%	
	Weekly Economic Index	Procylic	03-05-2021	-3.82%	-2.73%	-1.94%	-1.85%	-2.23%
	Weekly Jobless Claims	Countercyclic	03-05-2021	273.44%	244.23%	268.88%	291.55%	289.75%
Transportation and Tourism	Google Search "Travel Cancellation"	Countercyclic	03-13-2021	-38.71%	-29.03%	-14.81%	-22.58%	
	ISM Services Index	Procylic	03-06-2021	4.64%	5.65%	4.10%	4.87%	
	Restaurant and Bar Sales	Procylic	03-22-2021	-14.58%	-14.97%	-17.50%	-18.66%	
	Sentiment: Vacation Travel Next 6 Months	Procylic	03-17-2021	-42.84%	-42.69%	-43.43%	-42.90%	-39.65%
Consumer Big Ticket Purchases	Auto Sales	Procylic	03-11-2021	-18.54%	-15.22%	-15.35%	-16.13%	
	Consumer Sentiment - Discretionary Spend	Procylic	03-17-2021	-11.32%	-12.31%	-14.07%	-14.68%	-13.36%
	Global Luxury Index	Procylic	03-18-2021	19.67%	22.38%	27.22%	35.33%	44.10%
	Home Building Permits Issued	Procylic	03-28-2021	3.49%	6.16%	9.24%	16.03%	
Logistics and Manufacturing	Economic Policy Uncertainty	Countercyclic	03-02-2021	171.74%	213.04%	89.68%	96.95%	32.45%
	Industrial Production	Procylic	03-22-2021	-5.71%	-5.16%	-4.17%	-3.24%	
	Overtime for Hourly Mfg Workers	Procylic	03-08-2021	-8.00%	-5.65%	-2.44%	0.00%	
	Purchasing Managers Index - Mfg	Procylic	04-01-2021	17.56%	19.42%	22.95%	20.37%	20.97%
Financial	Financial Stress Index	Countercyclic	03-06-2021	84.37%	89.35%	40.85%	38.21%	145.81%
	S&P 500	Procylic	03-02-2021	15.02%	14.63%	16.02%	15.47%	18.54%
	US High Yield Index Option - Adjusted Spread	Countercyclic	03-02-2021	23.63%	12.40%	10.00%	7.95%	-9.62%
	VIX Volatility Index	Countercyclic	03-02-2021	81.56%	99.24%	63.31%	84.84%	20.82%

NOTES

Values represent the percentage change from the previous year.

In February, 4 out of 11 indicators are signaling economic improvement from the previous year.

In January, 8 out of 20 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

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Automated Storage and Retrieval System (ASRS) Market worth \$10.7 billion by 2025, at a CAGR of 8.0%



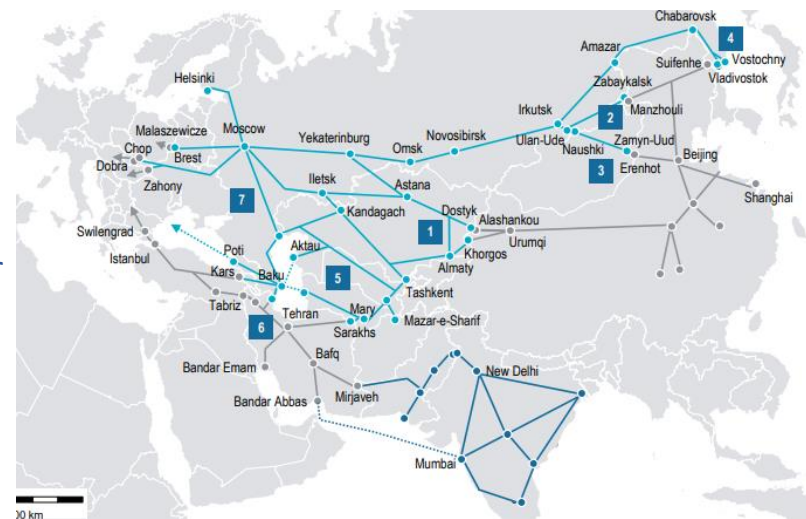
- According to the new market research report "Automated Storage and Retrieval System (ASRS) Market with COVID-19 Impact Analysis by Type (Unit Load, Mini Load, VLM, Carousel, Mid Load), Function (Storage, Order Picking, Assembly, Distribution, Kitting), Industry, and Region- Global Forecast to 2025", the ASRS market is likely to reach USD 10.7 billion by 2025 from USD 7.3 billion in 2020, at a CAGR of 8.0% from 2020 to 2025. The growth of this market can be attributed to the growing demand for ASRSs in e-commerce due to onset of COVID-19, increasing demand for ASRS in automotive industry, optimum utilization of space and rise in labor costs, and improved accuracy, productivity, and efficiency in supply chain, along with better inventory control.
- Major players in the market are:
 1. Daifuku (Japan),
 2. Kardex (Switzerland),
 3. Murata Machinery (Japan),
 4. SSI Schaefer (Germany),
 5. TGW Logistics (Austria),
 6. KION (Germany),
 7. KUKA (Germany),
 8. Toyota Industries (Japan),
 9. BEUMER (Germany),
 10. KNAPP (Austria),
 11. Mecalux (Spain),
 12. System Logistics (Italy)). among others
- Unit load is expected to hold the largest share of the overall market in 2020. Unit load ASRSs are used for storing large size articles. The market growth is supported by their wide range of applications in consumer goods, automotive, electronics, food & beverages, pharmaceuticals & medical supplies, and retail & apparel industries.
- Europe is expected to hold the largest market size for ASRS during the forecast period.

Owners of Westfield Transport indicted on charges of falsifying FREIGHTWAVES

- The owners of defunct Westfield Transport Inc. of West Springfield, Massachusetts, were indicted on federal charges of falsifying driving logs, on Friday. One of its former drivers, Volodymyr Zhukovskyy, 24, of West Springfield, is accused of killing seven motorcyclists and injuring seven others in Randolph, New Hampshire, on June 21, 2019.
- Dunyadar (Damien) Gasanov, 36, was indicted on one count of falsification of records, one count of conspiracy to falsify and one count of making a false statement to a federal investigator. He is still wanted by investigators. According to records from the Massachusetts Secretary of State's Office, he is listed as the supervisor of Westfield Transport. His brother, Dartanayan Gasanov, 35, who was arrested Friday, was charged with one count of falsification of records. He is listed as the president, treasurer, secretary and director of the shuttered company, according to Westfield Transport's business filings with the state agency.
- According to the indictment, from May 3, 2019 to June 23, 2019, the owners of Westfield Transport falsified driving logs "in order to evade federal regulations designed to ensure the safety of roadways and drivers."

Maersk launches first-ever Japan-UK block train service PORT TECHNOLOGY

- Maersk has pioneered the first-ever block train from Japan to UK via the Trans-Siberian railway.
- In a statement, Maersk said its container consignment arrived at the Port of Felixstowe on 2 March after it departed from Yokohama, Japan, and crossed Russia by land and sea.
- This first-ever product – operated together with railway provider Modul- is part of Maersk's AE19 service which has connected Asia and Europe via the Trans-Siberian railway and the ports of Vostochniy and St. Petersburg since 2019.
- "Transit from Asia to Europe via Russia is becoming a more and more attractive alternative to shipping goods via the Suez Canal, even for such sea-borne routes as Japan to the UK.





Smaller E-Tailers Weigh Pros and Cons of Fulfillment by Amazon SUPPLYCHAINBRAIN

- Amazon.com, Inc.'s nationwide network of giant fulfillment centers offers sellers an unmatched resource for processing and shipping e-commerce orders to buyers. But it's not the only game in town.
- Fulfillment by Amazon (FBA) draws on the e-tailing giant's network of more than 110 fulfillment centers in the U.S. alone, totaling some 180 million square feet of storage and processing space. On half of its customers, many of them small to medium-sized sellers, Amazon picks, packs, ships and handles customer service and returns. Orders are eligible for free and two-day shipping to Amazon Prime members. While the arrangement seems a boon to e-commerce companies too small or inexperienced to handle their own orders, it also gives Amazon tight control over what gets stored and shipped, in addition to how much play the merchandise is given on Amazon.com.
- Which poses a conundrum to smaller e-tailers: Leverage Amazon's prowess in reaching buyers quickly and efficiently, even if that means sacrificing a direct relationship with customers? Who, in the end, controls the brand?
- The first consideration, of course, is one of cost. FBA charges for every imaginable service it provides, including inventory storage, long-term storage, inventory removal, order fulfillment, returns processing, and "unplanned" services, such as when inventory arrives at the fulfillment center without proper labeling or preparation. Then there's Amazon's Inventory Performance Index, grading customers on how good a job they're doing in balancing inventory levels and sales. A low score results in Amazon placing limits on storage of the poor performer's goods.
- Then there is the challenge of critical mass in delivery. For a small vendor this can be crucial as they lack the volume base to negotiate advantageous delivery times and rates with UPS, FedEx and other delivery companies. This in turn dramatically affects dwell time in the system, where Amazon can leverage overnight or next day delivery, the small vendor may take a week or longer and in today's market, that is not good enough.
- Also crucial is the marketing aspect where using Amazon gives the small vendor access to the Amazon virtual platform and advertising this allows. The overwhelming majority of e-comm shoppers start with the Amazon website before moving to other portals. When your goods are listed and recommended by Amazon.com you have a much better chance of making sales.
- But of course, all of this comes at a cost, as mentioned above.

Figure 5: Freight market key metrics trailing four quarters

Daily Averages					
Metric	Q1 2020	Q2 2020	Q3 2020	Q4 2020	
Tendered Load Volumes Index (OTVLUSA) y/y	6.6%	6.8%	39.0%	54.5%	
Accepted Load Volumes Index (Adj. for Rejections) y/y	5.9%	3.9%	14.2%	22.5%	
Tender Rejection Rate (OTRIUSA) y/y	7.4%	52.8%	359.8%	270.5%	
Truckstop.com National Average Spot Rates (TSTOPVRPM.USA) y/y	-1.4%	-12.9%	28.8%	28.5%	

*y/y is year-over-year **Inclusive of Fuel

Daily Averages					
Metric	Q1 2020	Q2 2020	Q3 2020	Q4 2020	
Tendered Load Volumes Index (OTVLUSA) y/y	10,187.99	10,515.06	14,081.49	14,839.92	
Accepted Load Volumes Index (Adj. for Rejections) y/y	9,318.95	9,729.59	11,018.77	10,931.09	
Tender Rejection Rate (OTRIUSA) y/y	8.53%	7.47%	21.75%	26.34%	
Truckstop.com National Average Spot Rates (TSTOPVRPM.USA) y/y	\$2.07	\$1.83	\$2.64	\$2.93	

*Absolute values **Inclusive of Fuel

Figure 6: Outbound Tender Volume Index (2020-2021: blue; 2019-2020: green; 2018-2019: orange)

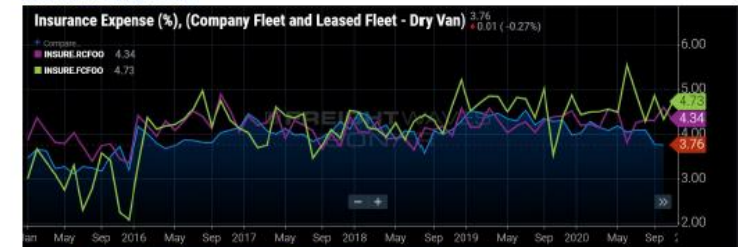


Figure 10: New Class 8 truck orders in the U.S. — monthly absolute values (2014-2020)

Class 8 Net Truck Orders									
	2014	2015	2016	2017	2018	2019	2020	Y/Y	M/M
Jan	34,584	35,283	18,297	22,188	49,136	16,105	17,204	6.8%	-14.3%
Feb	29,225	31,158	18,078	23,245	40,271	16,854	14,040	-16.7%	-18.4%
Mar	27,487	25,293	16,233	23,215	46,593	15,783	7,632	-51.6%	-45.6%
Apr	24,831	22,458	13,676	24,007	34,735	14,859	4,251	-71.4%	-44.3%
May	26,115	20,533	14,224	16,940	35,721	10,886	6,690	-38.5%	57.4%
Jun	26,729	20,229	12,955	18,104	42,213	12,979	16,010	23.4%	139.3%
Jul	30,073	24,557	10,358	18,726	52,618	10,298	20,359	97.7%	27.2%
Aug	25,354	19,971	14,194	21,213	53,040	11,119	19,389	74.4%	-4.8%
Sep	24,851	19,421	13,880	22,573	42,781	12,692	30,768	142.4%	58.7%
Oct	45,956	25,925	13,907	36,092	43,526	21,864	39,089	78.8%	27.0%
Nov	40,925	16,772	19,440	32,637	28,114	17,483	52,104	198.0%	33.3%
Dec	44,037	28,145	21,386	37,569	21,381	20,073	50,900	153.6%	-2.3%
Year Total	380,167	289,745	186,628	296,509	490,129	180,995	278,436		
Y/Y Change	42%	-24%	-36%	59%	65%	-63%	54%		
Monthly Avg	31,681	24,145	15,552	24,709	40,844	15,083	23,203		
Annualized	380,167	289,745	186,628	296,509	490,129	180,995	278,436		
Repl Rate	275,000	275,000	275,000	275,000	275,000	275,000	275,000		
Monthly R.R.	22,917	22,917	22,917	22,917	22,917	22,917	22,917		
Shortfall/Overcapacity	-5%	-1%	4%	-1%	-9%	4%	0%		

Source: ACT Research, FreightWaves

Figure 13: Insurance expense (as a % of revenue) for dry van (blue), reefer (purple) and flatbed (green)



“Keep your face to the sun and you cannot see the shadows.” – Helen Keller

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2021 Consumer Outlook and Implications for Truckload FREIGHTWAVES

- Consumer spending in 2021 is likely to be a tale of two halves (though strong throughout)
- Consumer spending carried the truckload bull market single-handedly in 2020 so it is important to gauge the forward outlook. The first half of 2021 is likely to look a lot like the second half of 2020 in our opinion from a consumer spending perspective.
- The second half of 2021, on the other hand, is likely to be characterized by a bonanza of demand for consumer services unlike any we have seen in decades. Consumers, after being locked down at home for approximately one and a half years, are likely to spend eye-popping amounts on services in the second half of 2021 and in 2022 once they are vaccinated in sufficiently large numbers.
- That is what we mean by a tale of two halves. In the first half of 2021, consumers are likely to prioritize spending on durable goods and e-commerce just as they did in the second half of 2020, while services spending of all kinds (from travel, leisure, entertainment, hotels, restaurants, bars, etc.) is likely to remain weak and depressed until widespread vaccinations are commonplace in the United States (likely in Q2 or Q3 of 2020).
- Also, the second half of 2020 is an apt comparison for 1H 2021 because it was similarly characterized by generous government stimulus, high unemployment, high COVID-19 case counts, and the total shutdown or partial closing of many services businesses, weighing on their ability to generate anywhere close to normalized revenue.
- Looking back, 2020 was a wild year with high volatility in terms of quarter-to-quarter performance of key economic metrics, with the second quarter of 2020 marking the trough in economic activity, followed by a sharp rebound through the end of the year. The exit rate of growth in the fourth quarter ended on a strong note.
- The wild card here is that the overall economy should grow at a much brisker and accelerated pace in 2021, particularly as a \$2 trillion stimulus package may be in the cards with Democrat control of the White House and Congress and as the labor market recovers, the overall population is vaccinated and demand for services explodes. In other words, while the mix of goods relative to overall consumer spending is likely to fall in 2021, the question is whether goods spending can still muster to achieve a flat to modestly up level of year-over-year growth because the U.S. economy is forecast to grow by about 5%.

Overview

Supply Chain & Fulfillment initiatives in health, beauty and personal care

Recent supply chain and fulfillment initiatives within the health & beauty sector have focused heavily on the last mile, as retailers seek to enhance the speed and convenience of their fulfillment options against a backdrop of shifting sales online. Key themes emerging in the latest quarter include:

- Intermediary partnerships – retailers such as The Body Shop, AS Watson and Sam's Club have partnered with delivery intermediaries to rollout on-demand health and beauty delivery services.
- Investment in automation – retailers are turning to more automated solutions to drive supply chain efficiencies, with McKesson and Walgreens Boots Alliance forming partnerships related to pharmacy and delivery automation this quarter, and Falabella rolling out automated collection points in its stores.

SUPPLY CHAIN & FULFILLMENT

McKesson (US) – Jan 2021
Partners with GeniusRx to automate home delivery service



Douglas (Germany) – Dec 2020
Expands online logistics capacity



Magnit (Russia) – Dec 2020
Launches express cosmetics delivery



The Body Shop (US) – Dec 2020
Partners with Uber Eats on same-day delivery



Sam's Club (US) – Oct 2020
Offers same-day prescription delivery with DoorDash



Walgreens Boots Alliance (US) – Jan 2021
Invests in pharmacy automation provider iA



AS Watson (SE Asia) – Jan 2021
Forms delivery partnership with Grab



Falabella (Peru) – Jan 2021
Rolls out automated online order collection points



JD.com (China) – Dec 2020
Partners with Innisfree on one-hour delivery service





1st Ahold Delhaize USA Facility Transitions to Self-Distribution **Progressive GROCER**

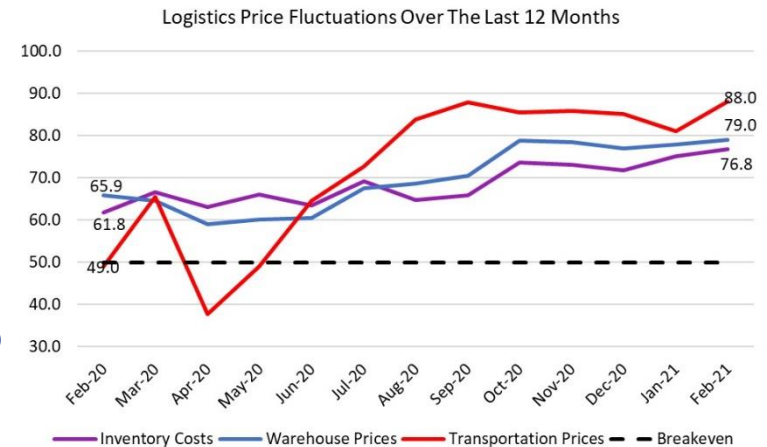
Ahold Delhaize USA has revealed that one of its distribution centers, Freetown Grocery in Massachusetts, became the first to transition procurement from a third-party vendor to the company's self-managed network, resulting in direct control of inventory and replenishment at the facility.

DP World to fast-track London Gateway warehouse to meet demand boom **PORT TECHNOLOGY**

- DP World will fast-track a project to build a 146,000sq ft green warehouse at London Gateway before the end of 2021 as it looks to meet the growing demand for premium capacity in the South East of England.
- London Gateway has almost 10 million sq ft of land with planning consent. Tapping into the rapidly expanding demand for warehousing to support e-commerce, DP World can work with customers on their building requirements of up to 1.2 million sq ft and deliver bespoke solutions via a unique 28-day planning agreement with the local council. The new facility will be completed and ready for occupation in December.

Transportation capacity sees 'accelerated contraction' in February **FREIGHTWAVES**

- The Logistics Managers' Index, a reading on changes in several areas of the supply chain, increased 4.2 percentage points during February to 71.4%. The reading was notably higher than the historical average of 62.7% and well above the February 2020 level of 52.6%.
- "The combination of tight capacity and high prices are the primary drivers behind the increasing rate of growth detected in this month's LMI," the report read. A couple of categories — transportation prices (88%), warehousing prices (79%) and inventory costs (76.8%) — hit their highest levels in more than two years.
- Roughly 60 container ships remain anchored off the West Coast awaiting a berth to unload, and railroad intermodal networks continue to struggle to right service woes.





Future of Supply Chain — Crisis Shapes the Profession **Gartner**

- COVID-19 disrupted supply chains and boosted their advancement in a rapidly changing world. The supply chain is undergoing dramatic and fundamental change as arising out of COVID-19 and its aftermath.
 - Supply chains will be required to operate in a **portfolio of operating models** that are designed at the onset to reduce corporate risk and deliver segmented customer service at the most optimal cost.
 - Organizations are becoming **increasingly purpose-driven**, requiring supply chains to reevaluate goals and decision making to consider more than just “what we make,” but also “how we make it” and “who it impacts.”
 - Supply chains of tomorrow will be guided by the greater purpose of their top leadership, with a **focus on relationships, leadership and an expanded definition of business success**.
 - **Digitalization** is the key enabler of business opportunities over the next decade, requiring a multiyear, integrated digital supply chain strategy and roadmap.
 - Over the next 10 years, **hyperautomation** will support the creation of an autonomous supply chain that will augment — but not replace — human activity.
- The COVID-19 pandemic has brought with it an unprecedented level of disruption, impacting both the supply and demand sides of supply chain operations. Given the unique scale and scope of the pandemic around the world, improving supply chains’ resilience and agility in meeting customer needs in the face of disruption is now a top priority for many companies. At the same time, the pressure to contain costs is not going away as customers continue to demand competitive pricing.
- While supply chain executives accept the need to invest in resilience and agility to protect their businesses, many are not ready to abandon the operating models and practices used in the past to design low-cost and efficient supply chains.
- At the same time, the data suggests that the majority of firms are unlikely to adjust their supply chain strategies specifically to favor national interests, unless they are compelled to do so by government legislation.

Read the full report at <https://www.gartner.com/doc/reprints?id>



Shipping lines are once again skipping Port of Cape Town

- Shipping lines are once again choosing to bypass the Port of Cape Town because of the impact of wind-related disruption to schedule integrity.
- Terry Gale, chairperson of the Exporters' Club Western Cape, says Maersk is one of the ocean carriers that is bypassing the port and heading straight for the Port of Ngqura on account of automotive industry dynamics in the Gqeberha (Port Elizabeth) region.
- “Maersk looks at weather predictions for the Port of Cape Town and plans ahead,” Gale said. “It means that they often sail past Cape Town because it helps them to maintain schedule integrity down our coast.”
- Gale added that it was usually on the southbound leg, but that it affected imports and exports on the whole. “No one benefits from the impact of a line like Maersk not calling at Cape Town when it’s supposed to. It affects everyone in the freight sector.”
- As a result, efforts are under way to seek solutions for Cape Town’s stormy seas through forming a task team that will involve public and private sector stakeholders.

Comment – strange as Port Elizabeth in the Eastern Cape of South Africa is rated as the 2nd windiest port in the world.

U.S. Retailers See Millions in Sales Delays Amid Shipping Logjam

- Overwhelmed U.S. ports, elevated freight costs and accidents that sent goods plunging to the bottom of the ocean are causing headaches for U.S. retailers already reeling from the pandemic.
- From appliance makers to shoe brands and fitness equipment manufacturers, corporations of all sizes are reporting logistics struggles, especially on trans-Pacific trade routes. Although they haven’t yet translated into widespread sticker shock for consumers, the ongoing shipping issues threaten to disrupt inventories if they persist much longer.
- All those inbound products are clogging the nation’s biggest ports, from Savannah, Georgia, on the East Coast to Los Angeles — the biggest gateway for trade with Asia. The number of container ships waiting to enter the neighboring ports of L.A. and Long Beach stood at 27 late Thursday, with an average wait of more than a week. Parked in San Francisco Bay were about a dozen container vessels waiting to berth at the Port of Oakland, according to satellite tracking.



Anatomy of a shipping container



- The shipping or freight container came into being in 1956 and changed global trade forever.. From then there has been no turning back for this CTU (Cargo Transport Unit).
- The container which comes in various sizes/types is made up of various structural components that all work together to form a rigid rectangular structure capable of handling various types of cargo.
- The main structural components are :
 - Roof
 - Side Walls
 - Floor
 - Cross Members
 - Top/Bottom Rails, and
 - Corner Posts
- All these components transfer weight and racking forces when a box is loaded, or empty be it at sea or on a trailer at the back of a truck being transported around.
- Repairs to a container which are part and parcel in the life of a container play an important role in the condition of a container.
- For example, an “Improper Repair” on say 3 cross members whereby the cross members have been cut through the full profile of the cross member has actually weakened the structure of the cross member.
- Containers are governed by laws, regulations, conventions and standards on both an international and national basis. Many of the international conventions have been established under the umbrella of the United Nations and its sponsored organizations. National laws and regulations have been developed to apply the international conventions and national requirements.

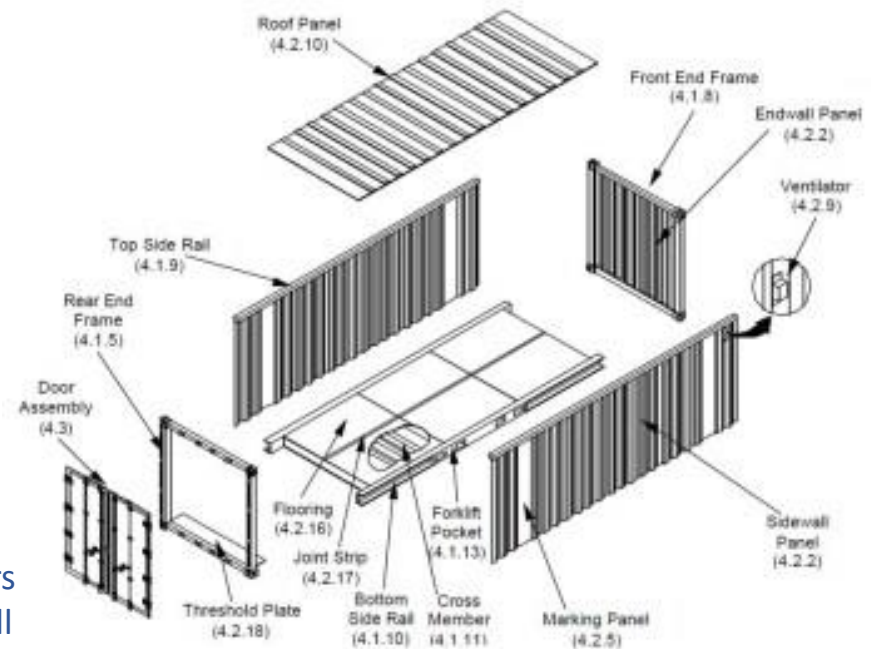


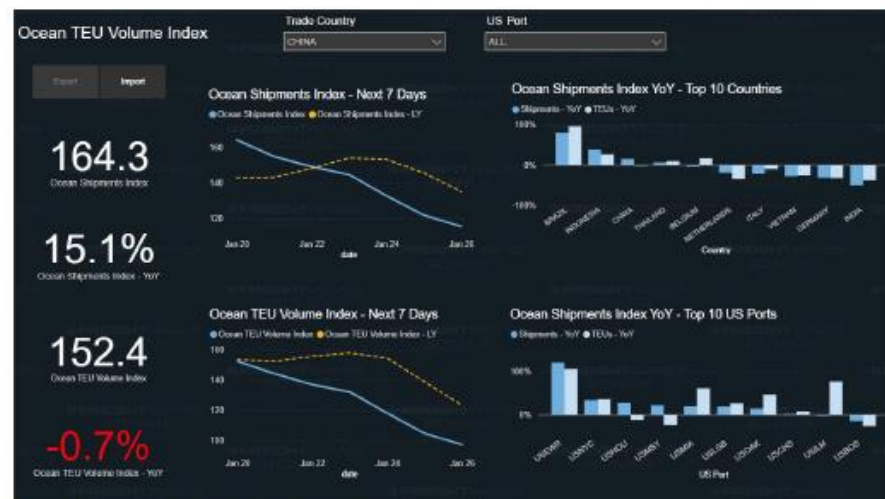


Exhibit 14: Top 10 US ports loaded volumes

Top 10 U.S. Ports	2020 TEU's	2020 YTD Chg %	Oct-20 Y-O-Y %	Nov-20 Y-O-Y %	Nov-20 TEU's
Los Angeles (19% of total US)	5,777,316	-3%	22%	17%	595,736
Long Beach (16%)	4,935,787	3%	10%	20%	499,900
Total LA/LB (35% of total)	10,713,103	-8%	17%	18%	1,095,636
New York (16%) (Till October)	4,277,839	-3%	12%	n/a	-
Savannah (12%)	3,391,072	0%	7%	19%	347,940
Houston (8%)	2,291,304	0%	6%	8%	225,230
Norfolk (7%)	2,051,772	-5%	4%	19%	214,246
Seaport Alliance (6%)	1,858,122	-12%	-5%	13%	189,897
Charleston (6%)	1,641,007	-5%	-3%	8%	157,816
Oakland (6%)	1,758,230	0%	5%	-1%	157,712
Everglades (1%)	-	n/a	n/a	n/a	n/a
Total Top Ten (90% of N.A total)	27,982,449	-1%	9%	15%	2,388,537
Vancouver	2,340,503	-2%	27%	n/a	-
Prince Rupert	759,315	-4%	16%	-13%	64,221

Note: Everglades only reported data Feb-May 2018 and Apr-Aug 2019

Source: Ports of Los Angeles, Long Beach, New York, Savannah, Norfolk, Oakland, Houston, Charleston, Vancouver, and BofA Global Research estimates.



SONAR: Ocean TEU Volume Index

No sympathy for carriers from shippers who must foot the bill for bunker hikes



- Higher fuel costs are triggering increases in ocean carrier bunker surcharges, adding more misery for shippers already struggling with record high freight rates and additional fees.
- A quick straw poll by The Loadstar today found that shippers were 'unsympathetic' towards the increased costs being incurred by carriers, particularly their fuel increase mechanism roll-outs. "I think they are really taking the biscuit now, demanding higher BAFs when our 40ft rates are now five times higher than we were paying a year ago," complained one UK forwarder. "They can no longer fob us off with excuses that their freight rates might fall back, as we are seeing and hearing daily about their very strong results a feeder contact told The Loadstar.

"Keep your face to the sun and you cannot see the shadows." – Helen Keller



Maersk Essen nears LA more than 6 weeks after container loss American Shipper

- The Maersk Essen, which lost 750 containers in mid-January in the North Pacific, is now anchored in Southern California's San Pedro Bay waiting to berth at APM Terminals Pier 400 at the Port of Los Angeles.
- A Maersk spokesman said Monday the container ship, which has a capacity of 13,100 TEUs, is expected to berth Thursday or Friday. The Essen sailed from the Port of Lazaro Cardenas on Feb. 22. The vessel had been at the Mexican port since diverting from its route to the Port of LA following the Jan. 16 incident in which it experienced a "rough sea encounter," according to Maersk, the world's largest shipping line.
- As a result of that encounter, 750 containers went overboard and an additional 79 on deck were reportedly damaged.

Wallenius Wilhelmsen to Reactivate More Ships Amid Improving Market Conditions

Wallenius Wilhelmsen will return three more ships from cold lay-up as it continues to reactivate its fleet amid improving market conditions. The privately-held Norwegian/Swedish Ro-Ro shipping company last spring initiated the cold lay-up of 15 vessels in response to the COVID-19 pandemic. In early January, it announced it would begin the process returning nine of them to service, and it now says it will add an additional three "to keep pace with changing market conditions."

Increasing vaccinations will eventually ease US port congestion JOC.com

Backups at US ports will diminish gradually over several months only as COVID-19 vaccines are distributed and infection rates slow, IHS Markit's chief economist told JOC's virtual TPM21.

SC Ports welcomes two more STS cranes as part of Wando Welch Terminal upgrade

In a statement, SC Ports said the cranes are part of a plan to modernize operations and infrastructure to handle more cargo and bigger ships at Charleston. The ZPMC-built new cranes have 155 feet of lift height above the wharf deck and 212 feet of boom outreach, enabling them to service containerhips up to 24 containers wide. They arrived on 24 February aboard the Zhen Hua 27 after a two-month journey from Shanghai.



More blank sailings 'a harbinger' of soaring rates on the transatlantic



- Container spot rates on the transatlantic headhaul North Europe to North America east coast tradelane have recovered to pre-pandemic levels but have so far not seen the hyper-inflation impacting other routes.
- According to Friday's Freightos Baltic Index (FBX) reading, the price for a 40ft container on the route stood at \$2,026, which is on par with the rate in April last year and compares with a low of \$1,622 in September.
- But the lull could end soon, according to one leading analyst, as carriers focus on maximizing returns from relatively underperforming parts of their networks.

Teesside, Solent, Thames Gateway amongst Freeport status winners



- The Thames (including London Gateway Port and the Port of Tilbury), Liverpool City Region, East Midlands, Freeport East (Felixstowe and Harwich), Plymouth & South Devon, and the Humber region were the remaining awardees of Freeport status following the Budget announcement on 3 March by Chancellor Rishi Sunak.
- PD Ports, operator and owner of Teesport and winner of Freeport status to Tees Valley, said Freeport status “marks the new beginning of a new chapter” in Tees Valley’s renaissance.
- “Freeport status will enable us at PD Ports to build on our successful track record of attracting investment and delivering real, sustainable jobs across the region for the region,” commented PD Ports Hopkinson.
- UK freeports are specifically designated areas where tariffs on imports are either substantially cut or waved in a bid to stimulate economic growth, encourage investment in the port and port community, and collaborate with the wider shipping supply chain to bring efficiencies to supply chain stakeholders.

Port of Antwerp breaks depth record with near 16m draft



- The Port of Antwerp has broken its depth record as part of its draft expansion on the Western Scheldt.
- The first trial run on 28 Feb saw the MSC Regulus enter from the Port of Rotterdam with a draft of 15.7m – a record.
- The current max draft for container ships sailing to the Port is 15.5m. The trial is the first in a series of six where the draft will be increased to 16m, capable of accommodating the largest container ships in the future. (**Comment** – the Panama Canal has a draft of 15 meters, the larger container ships using EU ports cannot fit NA ports).



Regulators weigh in on fight between tankers and container ships American Shipper

- A Texas law that has largely pitted the energy and container trades against each other at the Port of Houston has sparked interest from the Federal Maritime Commission.
- In a letter sent Tuesday addressed to the Port of Houston Authority Port Commission and the Houston channel pilots board, Federal Maritime Commissioners Carl Bentzel and Louis Sola warned that the law, which is meant to promote safety in the Houston Ship Channel (HSC), “could severely hamper” the competitiveness not only of the port but of the entire Gulf of Mexico container trade.
- The law in question, SB 2223, which went into force in September 2019, banned access of any vessel larger than 1,100 feet to the HSC absent approval by the newly authorized Board of Pilot Commissioners. The law was in response to recent shutdowns of two-way traffic in the channel to allow newer, larger container ships to pass. The shutdowns caused delays to smaller vessels, namely oil and product tankers prevalent in the channel that were also incurring demurrage costs due to the delays.

Government approves new Montreal container terminal plan PORT TECHNOLOGY

- The Port of Montreal Authority’s plan to build a new container terminal near Contrecoeur has been approved by the Ministry of Environment and Climate Change Canada after a five-year consultation period.
- In a statement, the Port Authority welcomed the decision and said it will now look to obtain all the necessary permits and ensure the new terminal meets the conditions set by the Ministry.
- Located in the main pool of consumers and importers in Quebec and Eastern Canada, close to major rail and road routes, the Port of Montreal’s Contrecoeur expansion will consolidate local strengths to effectively meet future needs.
- This project will strengthen the Port’s world-class logistics hub in the heart of the St. Lawrence Valley, it said.

DHL’s von Orelli tells US importers to lock in contracts early JOC.com

Sustained demand will keep volume high deep into 2021 and fill all available ocean capacity, so delaying contract talks with carriers could leave shippers stuck on the volatile spot markets.



First light-up OLED tattoos could monitor health, reduce food waste, or just look cool **ADVANCED ELECTRONIC MATERIALS**

- Scientists in Europe have leveraged cutting-edge OLED technology to produce a first-of-a-kind tattoo that could be used to monitor different metrics of physical human performance, or even the freshness of food. The device is billed as the first light-emitting tattoo and can be applied much like temporary tattoos using water transfer, before being washed away with soap once its job is done.
- A team from the University College London (UCL) and Italian Institute of Technology sought to take this technology into new terrain with the help of light-emitting technology used in today's TVs and smartphones. It started with an electroluminescent polymer measuring just 76 nanometers thick that emits light when subjected to an electric field. This sits in between a pair of electrodes protected by an insulating layer, with the device then applied to commercial tattoo paper.
- The resulting tattoo is just 2.3 micrometers thick and can be applied with the help of water and pressure just like a regular temporary tattoo. The team demonstrated this by applying a green OLED tattoo to a pane of glass, a plastic bottle, an orange and some paper packaging.
- “The tattooable OLEDs that we have demonstrated for the first time can be made at scale and very cheaply,” says UCL’s Professor Franco Cacialli, senior author of the paper.
- Other possibilities include alerting a user when they've had too much sun or applying the tattoos to fruit to signal when it is past its expiry date. These kinds of applications are still a long way down the track, but the scientists believe the potential is very much there. Among the challenges they'll now look to overcome are integrating a power source into the design, such as a tiny battery or supercapacitor, and encapsulating the OLEDs more effectively so they don't degrade as quickly when exposed to air.

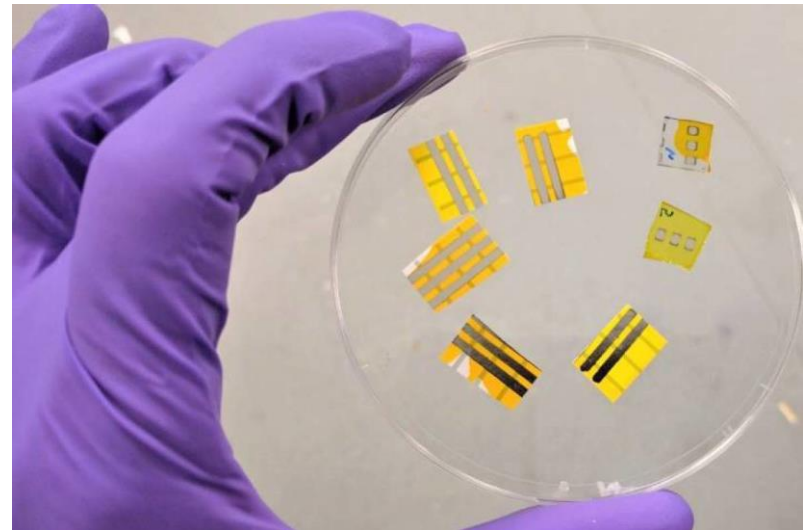
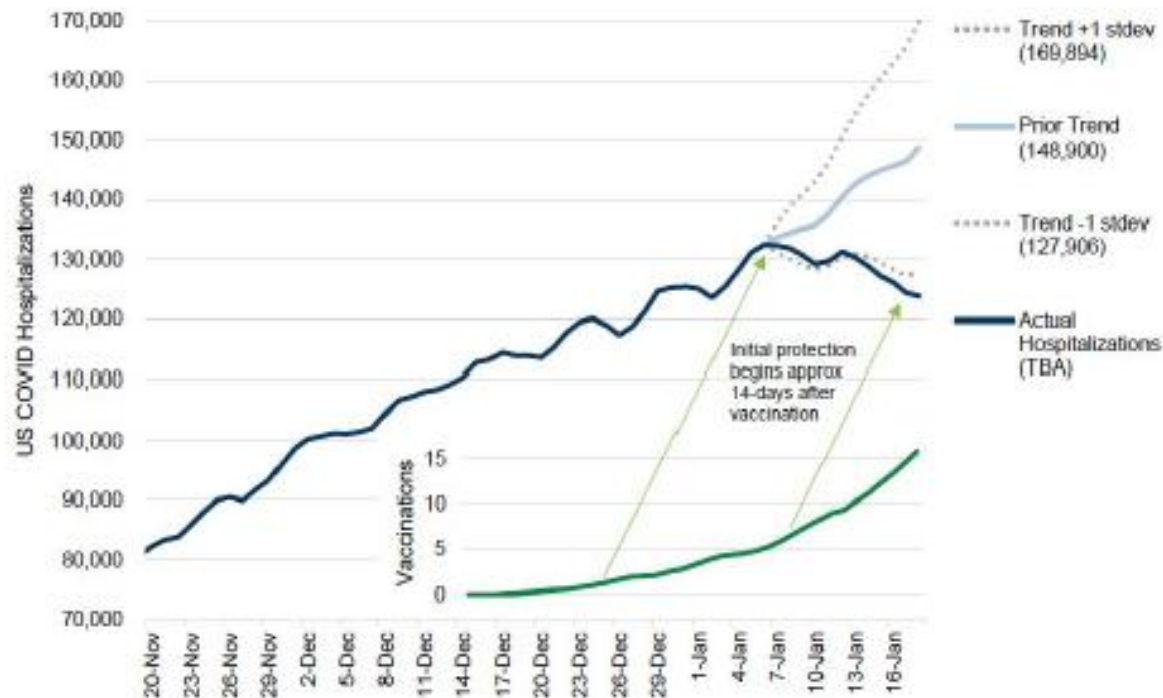




Figure 3: Vaccine inoculation is already showing green shoots for hospitalizations in infancy stage; we think this foretells a major shift to services spending in 2H 2021 and in 2022

Exhibit 1: US Hospitalizations show a significant change in trend following initial targeted vaccinations
US COVID-19 related hospitalizations and vaccinations (millions) by day



Source: Goldman Sachs Global Investment Research, Covidtracking.com

“Keep your face to the sun and you cannot see the shadows.” – Helen Keller



Amazon Care, Intermountain, Ascension launch hospital-at-home healthcare alliance

BECKER'S
HEALTH IT

- Intermountain Healthcare, Ascension and Amazon Care are founding members of a new healthcare coalition aimed at expanding home-based clinical care.
- The group, dubbed Moving Health Home, will support and update healthcare policy changes to designate the home as a site of clinical service, according to a March 3 news release.
- Amazon Care, launched in 2019 to provide telemedicine and in-person primary care services to its employees, and the other Moving Health Home founders cited tech advancements including telehealth, remote monitoring, digital therapeutics and medical records sharing as contributing factors in making home care equivalent to some services offered in facilities.
- Additional founding members of the coalition include Signify Health, Landmark Health, Dispatch Health, Elara Caring and Home Instead.
- Intermountain Healthcare is based in Salt Lake City; Ascension is based in St. Louis.

Firefighters — ‘Health Care Providers on a Truck’ — Signal Pandemic Burnout

KHN
KAISER HEALTH NEWS

- Missouri, like many other states, had adapted guidelines from the Centers for Disease Control and Prevention, which put firefighters in the second phase. When the state moved into that round in mid-January, state officials encouraged firefighters to sign up. And now, most members of the KCFD have been offered the shots.
- But firefighters in multiple states said the vaccine prioritizations and the pandemic overall exposed a startling misunderstanding of — or lack of concern for — their role in the medical system.
- “They don’t really understand what we went through and what we do,” said Dupin, a fire captain in Missouri
- Of the country’s more than 29,705 fire departments, 45% provided basic life support services, while an additional 17% provided advanced life support services, according to a 2018 report from the National Fire Protection Association. Firefighters respond to car crashes, hazardous materials spills, mass trauma incidents, rescues and far more medical calls than fire calls. In 2018, fire departments received more than 36.7 million calls, according to the association’s data. Less than 2 million were for fires, while more than 23.5 million were for medical aid.
- “We are the tip of the spear,” said Gary Ludwig, fire chief in Champaign, Illinois.



New evidence shows coronavirus can infect and kill heart muscle cells **NEW ATLAS**

- A robust new study has demonstrated how SARS-CoV-2, the coronavirus that causes COVID-19, can infect and directly damage heart tissue. The research suggests previously reported cases of heart damage in COVID-19 patients are not due to inflammation in response to an infection but the virus itself interfering with heart muscles.
- Although COVID-19 was initially deemed a respiratory illness, consistent reports in 2020 indicated patients suffered from notable cardiovascular complications. The common early consensus was the heart problems associated with COVID-19 were a secondary result of widespread inflammation that accompanies the disease.
- “Early on in the pandemic, we had evidence that this coronavirus can cause heart failure or cardiac injury in generally healthy people, which was alarming to the cardiology community,” explains Kory Lavine, senior author on the new study. “Even some college athletes who had been cleared to go back to competitive athletics after COVID-19 infection later showed scarring in the heart. There has been debate over whether this is due to direct infection of the heart or due to a systemic inflammatory response that occurs because of the lung infection.”
- To better understand how SARS-CoV-2 interacts with human heart tissue, the new research engineered heart muscle models using stem cells. These in vitro models allowed the researchers to definitively demonstrate how the virus specifically infects heart muscle cells.
- The modeling also revealed the virus directly destroys the heart cells responsible for muscle contraction, called cardiomyocytes. This particular heart cell damage can occur in the absence of any inflammation or be amplified by any resultant inflammation.
- “Inflammation can be a second hit on top of damage caused by the virus, but the inflammation itself is not the initial cause of the heart injury,” adds Lavine.
- Lavine suggests SARS-CoV-2 seems to influence the heart in an unusual way, unlike other viruses. Whereas other viruses such as influenza are known to affect the heart, this one attracts a different kind of immune cell which could help explain why heart damage can linger for months in COVID-19 survivors.
- Enduring heart problems are increasingly being recognized in recovered COVID-19 patients. A study tracking hospitalized COVID-19 patients in the months after discharge discovered 50% suffered continuing heart damage.



Accellion Cyber attacks explode as criminals exploit multiple FTA vulnerabilities



- Beginning in December with hacks of the Office of the Washington State Auditor and the Reserve Bank of New Zealand (among several other targets), reports began to circulate that Accellion's 20-year-old file transfer system FTA was wide open to cyber attacks. It didn't take long for opportunistic hackers to pounce on the remaining organizations still using the outdated software.
- A new report from cybersecurity firm Mandiant, a subsidiary of FireEye, has mapped out recent cyber attacks against FTA and finds it is likely that more organizations have been compromised than Accellion initially estimated. Among the bigger names suffering data breaches due to FTA are United States grocery giant Kroger, Singapore telecom industry leader Singtel, the Australian Securities and Investments Commission (ASIC), and the University of Colorado. Organizations in at least five countries are believed to have been compromised by this spree of cyber attacks, and a pattern of ransomware attempts points to several different threat actors with ties to the Clop ransomware gang.
- FTA is scheduled for end-of-life soon, but the US Cybersecurity & Infrastructure Security Agency (CISA) has issued a joint advisory with cybersecurity authorities of Australia, New Zealand, Singapore and the UK warning anyone who has yet to move away from it as to the scope of the threat.
- FireEye has linked that initial December cyber attack, along with more recent attacks, to an unknown threat actor it is calling UNC2546. The group's hallmark is the use of a new web shell called DEWMODE that it installs via a SQL injection vulnerability and uses to execute remote commands, download files and deliver ransomware. The identity of the attackers is unknown, but there are ties to the Clop group in the use of their ransomware and the doxxing (publicly revealing information) of some victim organizations that failed to pay a ransom on the "CLOP^_- LEAKS" dark web site. There may be ties to another unknown group identified by FireEye as FIN11, which was active from 2018 to 2020 targeting a wide variety of banking, retail and hospitality organizations; both groups used CLOP^_- LEAKS to shame targets that won't pay up, and they have shared certain IP addresses and email accounts. These groups are not believed to be state-sponsored given the long history of being financially motivated.
- Accellion has about 300 clients that still use FTA. When the first reports of cyber attacks came out in January, it initially estimated that fewer than 50 of these clients were impacted.

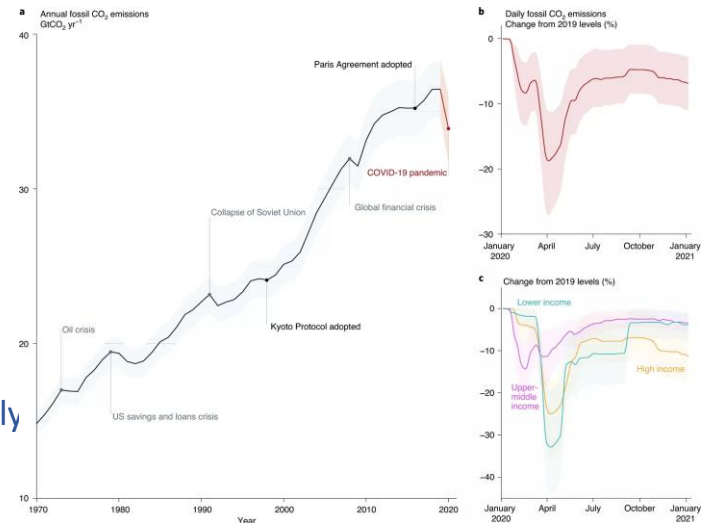


Deployment of World's First Hydrogen Tanker Delayed

- Kawasaki Heavy Industries Ltd expects shipment of its first cargo of liquefied hydrogen from Australia to Japan could be delayed until the summer due to the pandemic, a company spokesman said on Wednesday.
- A A\$500 million (\$391 million) pilot project, led by Kawasaki Heavy and backed by the Japanese and Australian governments, planned to ship its first cargo of hydrogen extracted from brown coal in Australia's Victoria state this month or spring.
- The shipment would be on the world's first dedicated hydrogen carrier, Kawasaki Heavy's Suiso Frontier.
- "Suiso Frontier uses some foreign companies' equipment and their engineers need to come to Japan to check whether the equipment is properly installed. But they have not been able to travel due to the pandemic," the spokesman said.
- "We can't say how long the demonstration trip will be delayed due to uncertainty over the pandemic," he said, adding that the departure of the carrier from Japan for Australia could happen in or after the spring.
- There is no other technical problem, he said.

COVID-19 Reduced Emissions; Can We Keep Them Down?

The economic crisis caused by the pandemic is different from past downturns because many young and poor people lost their jobs and homes, but many others just stayed home and stopped spending. Since it is assumed that the economy will recover sharply as the vaccines are rolled out, there will be a lot of spending going on, both from pent-up demand from the people who have been saving their money, and from more government intervention to help the people and businesses most affected by the crisis. The report authors recommend that this be carefully directed, noting that "economic stimuli on national levels could soon change the course of global emissions if investments towards green infrastructure are enhanced while investments encouraging the use of fossil energy are reduced."





GM is developing a flying car concept called Cadillac Halo to act as a futuristic taxi providing personal air travel.

- From Blade Runner to Back to the Future II, science fiction films help us imagine incredible futuristic cities with new technologies. One of the most iconic examples of these innovations is the flying car. Whether it's a futuristic hovercraft or an updated DeLorean, films and television shows have been predicting that hoverboards and floating cars should be a reality by now. Despite these innovative concepts, we are a quarter of the way through the 21st century and our wheels have remained firmly on the ground. As a result, you may believe that flying cars are only a dream of science fiction—or at least a long way off—but General Motors (GM) is closer to developing a real-life flying car than you might expect.
- GM's eVOL concept was developed under the Cadillac Halo portfolio and features two vehicles. The first is less of a flying car and more of a passenger drone that provides personal air travel like a sky taxi or Uber. It is considered a VTOL (vertical take-off and landing) flying car that lifts up straight into the air. The second vehicle is a self-driving shuttle that will help passengers complete the last leg of their journey.
- Though maybe not as radical as a flying car, GM's accompanying shuttle is a self-driving car with no steering wheel, pedals, or driver. Instead of traditional seats, the interior is equipped with a luxurious couch that demonstrates how the passengers can focus on their guests instead of worrying about reaching their destination.
- Whether you are a big car person or a fan of science fiction, it is hard not to get excited about these futuristic vehicle concepts—even if they are only concepts for now.





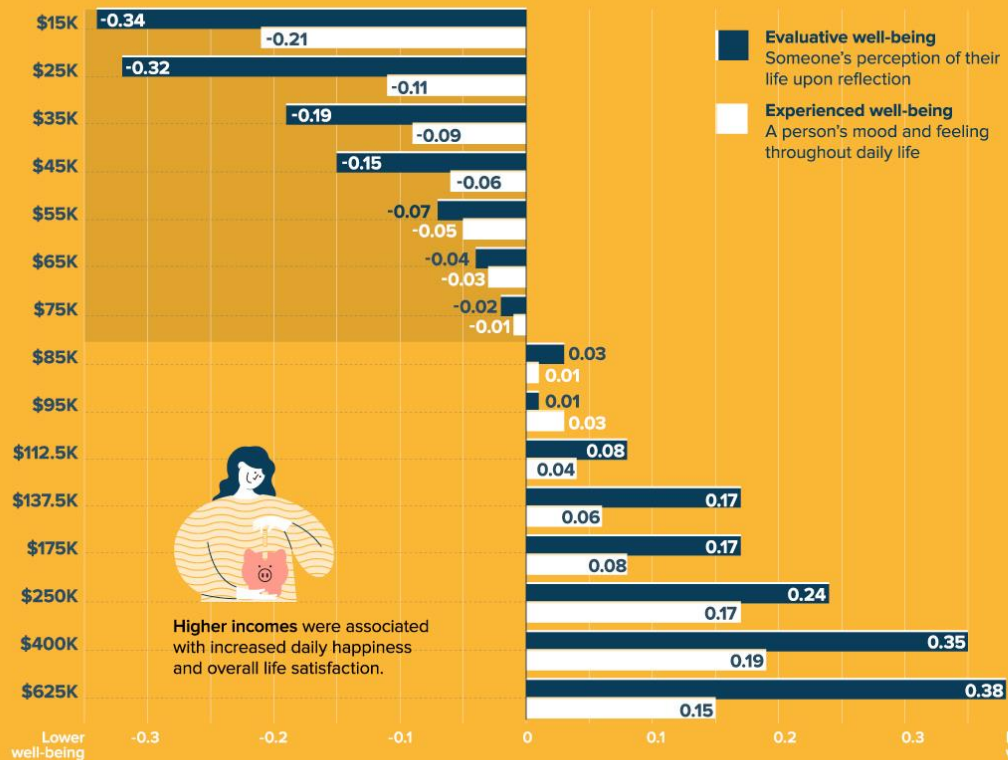
MONEY DOES BUY HAPPINESS AFTER ALL

Does money really buy happiness? New research suggests yes, it does.

And apparently, it doesn't plateau at **\$75,000/year**, as previous studies have indicated.



ANNUAL INCOME SURVEY OF WELL-BEING IN THE U.S. (Standard deviations from mean response)



Source: Proceedings of the National Academy of Sciences

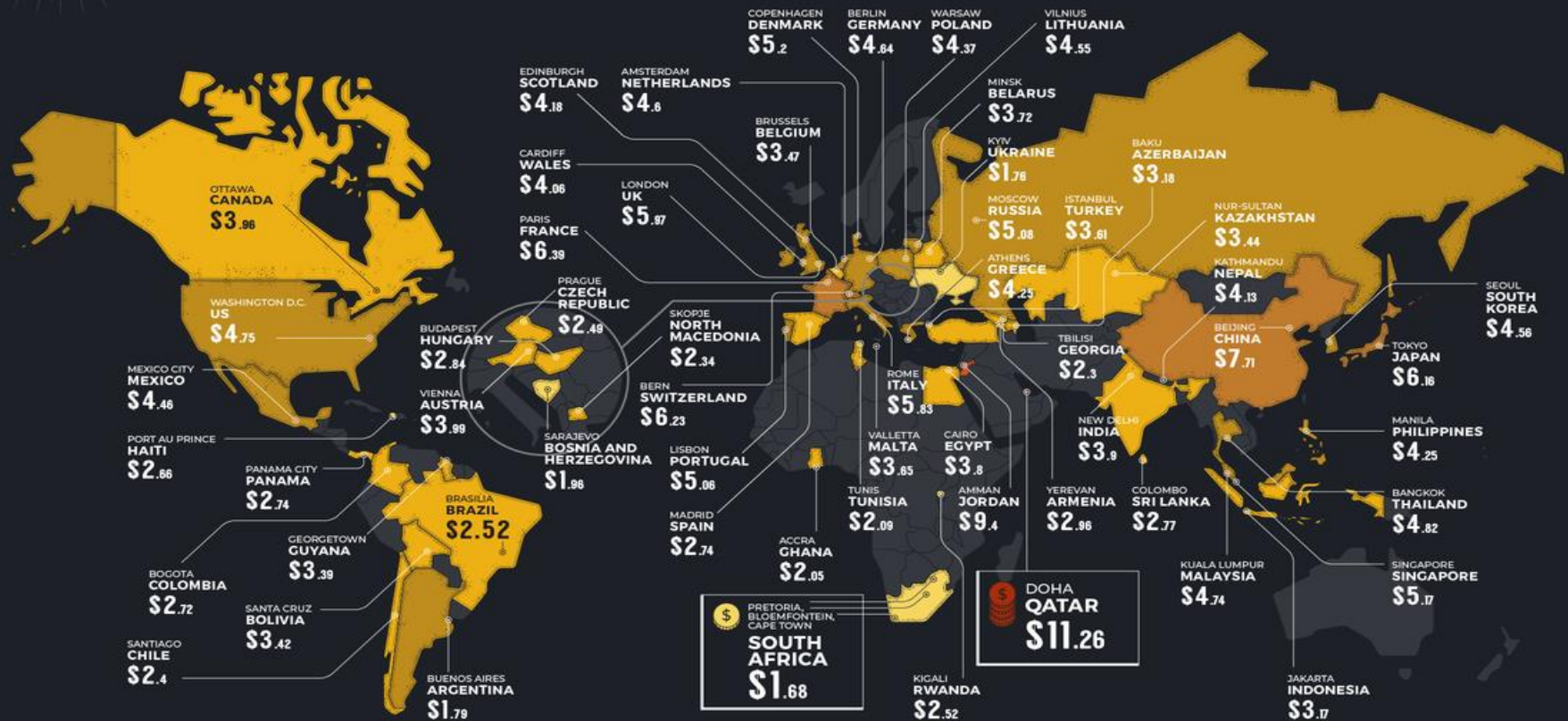


"Keep your face to the sun and you cannot see the shadows." – Helen Keller

THE PRICE OF A BEER AROUND THE WORLD

Qatar has the highest average beer prices at \$11.26. To find the cheapest beers you have to go to **South Africa, Ukraine** or **Argentina**, all coming in below \$2.

**AVERAGE PRICE
OF 330ML BOTTLE
(USD)**



METHODOLOGY: WE COLLECTED 330ML BEER PRICES FROM LOCAL SUPERMARKETS AND HOTEL LOBBY BARS AROUND THE WORLD TO CREATE AN AVERAGE. THEN WE USED **WORLD HEALTH ORGANISATION** STATISTICS TO FIND OUT ANNUAL ALCOHOL CONSUMPTION PER CAPITA.

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Expensivity

“Keep your face to the sun and you cannot see the shadows.” – Helen Keller

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