





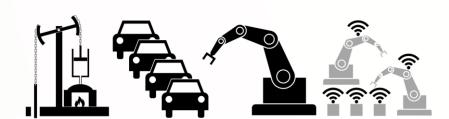
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YOUR WEEKLY UPDATES

Week 31 of 2020



Healthcare



Ports



Shipping

Rail



1st

Mass production, assembly line, electricity

1870

2nd

Computer and automation

1969

3rd

Cyber Physical Systems

today

4th

Road

Supply Chain





Beverages



Retail



C-Stores





In this week's update

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Supply chains are undergoing change

- But the view that COVID-19 will only accelerate retrenchment and de-globalization appears premature. The survey points to supply chains being reshaped, rather than re-shored.
- The importance of connectivity is evident. Businesses feel closer to their suppliers and have taken active steps to support partners. This collaboration facilitates the **control and transparency** businesses are seeking to become more

resilient. This appears particularly timely, given the elevated level of threat felt by

component's manufacturers and service companies.

67% of businesses seek greater emphasis on supplier resilience and are reconsidering the shape of their entire supply chain – variously pursuing diversification, digitization and vertical integration.

- Beyond control, companies are seeking transparency (44%). This enables sustainability and also resilience. Those that identify as sufficiently agile have greater transparency and digitization across their supply chain.
- Businesses have also supported the companies they work with:
 - 26% have *collaborated* to get products to customers
 - 25% have offered **better payment terms**
 - 26% have given advice to other companies

Changes to

customer

demand

Availability of

Availability of

25% have *shared information*

As well as helping each other, 32% of businesses have changed their products or services to support COVID-19 relief efforts.

Aspects of business that need a new solution 30% 31% 31% 34% 34% 37% 38% supply chain

Delivery/

shipment of

products/





Changes businesses need to make across primary suppliers in the next 1-2 years

28%

20%

Diversify our supply chain so w work with more suppliers

Make our supply chain more environmentally sustainable

29%

27%

Digitalise more of our supply chain

Increase intra-regional trade -





Access to

key trading

markets

Changes to

products/

Access to

finance

Changes to

production/

office

locations



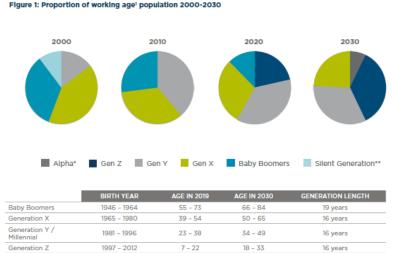


Demographic Shifts: The World In 2030

- We are entering a decade of seismic demographic change.
- The retirement of 693 million Baby Boomers and the debut of 1.3 billion Generation Z workers entering the labor force over the next 10 years has major implications for real estate occupiers, investors and policy-makers around the world.
- Over the next decade, the world will experience a series of seismic demographic shifts. More than 630 million Baby Boomers will reach retirement age, while 1.3 billion members of Generation Z will become old enough to enter the work force. The eldest of Generation X will reach 65 years of age, while the leading edge of Millennials seems very distant, yet it will become a reality in just 11 years.
- Such changes will produce profound impacts. Implications are diverse diverging trajectories of labor force growth, an increasing war for talent, geographic shifts in outsourcing, the need for new approaches to developing and changing workplace strategy, to name a few. Investors and occupiers will be simultaneously affected, requiring them to navigate these changes and what they mean for growth strategies into the future.
- There is considerate fluidity in how generations are defines and named, with little formal and agreed-upon guidance.

29% Malaysia 27% total population (2020) Chile 25% -Ukraine 23% Indonesi: 21% Hungary Milernial share of 19% Greece - Portugal 17% Americas 15% 10% 40% Growth in real GDP per Capita (2020-30)

Figure 3: Growth in real GDP per capita vs. Millennial share of total population by country



Source: United Nations, Oxford Economics, Cushman & Wakefield Underlying real GDP per capita figures are in purchasing power parity (PPP) terms

Size of dot relates to size of Millennial population



Source: Pew Research Center, Cushman & Wakefield







Efforts To Address Late B2B Payments Go Global

- Though the coronavirus pandemic has highlighted the impact of late B2B payments in the U.S. both due to U.S.
 - corporates paying their suppliers late, delayed payments the matter is,
- This week's late payments roundup their financial service providers to research that late B2B payments are

 with stories from the U.S., U.K.,
- Apparel brand Gap recently stated a vendors for canceled orders.



as well as U.S. vendors struggling with and always has been, a global one. finds new efforts from corporates and address the issue, while separately, adding extra pressure to SMB cash flows Australia and Malaysia.

reversal of its initial decision not to pay

- While the pandemic has introduced cash flow constraints for many industries like apparel and led to delayed vendor payments, supermarkets have emerged as a leader in on-time and even accelerated vendor payments amid the market volatility.
- New data from Pay.UK cited that top food companies, including Magners and United Biscuits, take more than 60 days to pay vendors, with at least 15 percent of their invoices being paid outside of agreed-upon terms.
- National Australia Bank issued a new report that warned late payments are piling up for the nation's small and
 medium-sized businesses. The bank also applauded recent regulatory efforts to curb late B2B payments to small
 suppliers under the Payments Time Reporting Bill 2020, which will require the largest corporates to report on their
 vendor payment practices. The publication also pointed to recent data from small business accounting platform
 MYOB, which found 38 percent of SMBs say they face financial stress as a result of late payments. Forty-two percent
 said they are concerned about cash flow because of late payments.
- In Malaysia, HSBC Bank Malaysia is implementing its HSBC Supply Chain Finance program for automotive company Proton Holdings, which is seeking the financing arrangement to accelerate vendor payments
- HSBC also noted that it is implementing a streamlined and digital vendor onboarding service to help suppliers be able to access capital at rates that can be more affordable than if they were to seek credit from their own financial institutions, thanks to Proton's stronger credit profile.



BJ's Wholesale expanding in New York CSA

BJ's Wholesale Club is opening two new locations in New York. The warehouse club operator announced that it is opening a club in Long Island City and one in Newburgh, marking the 220th and 221st locations for the company. Both locations are due to open in early 2021.

CVS Health, Target, Walmart look to reinvent plastic bags CLOSED poundation

The Center for the Circular Economy at Closed Loop Partners — with founding partners CVS Health, Target and Walmart — is aiming to reinvent the single-use plastic retail bag, with the goal of identifying, piloting and implementing innovative alternative designs for the current single-use retail bag.

REITs Becoming Retailers: Mall Owners Are Looking To Acquire Struggling Retailers & CNBC

- Dozens of retailers, the lifeblood of America's shopping malls, have filed for bankruptcy during the pandemic.
- America's biggest mall owners are increasingly looking to do deals to salvage them.
- "I think this is an opportunity for the Simons of the world," said Scott Stuart, CEO of the Turnaround Management Association. "They're acting like their own private-equity firms, on a lot of cash and testing the waters."
- Simon, which is the biggest U.S. mall owner by the number of malls it operates, has teamed up with the apparellicensing firm Authentic Brands Group to supply financing to carry Brooks Brothers through bankruptcy.
- Meantime, ABG and Simon have put up a stalking-horse bid of \$191 million for the bankrupt denim maker Lucky Brand's assets.
- And a trio of ABG, Simon and the mall owner Brookfield Properties have also explored acquiring department store chain Penney out of bankruptcy

Carrefour reports 100% food ecommerce growth in Q2 Edge Retail Insight

Carrefour reported sales growth of 6.3% on a like-for-like basis in Q2, buoyed by convenience stores, supermarkets and food e-commerce. Stronger growth in Brazil and Spain also helped to offset a weaker performance in France, with hypermarkets particularly impacted by the national lockdown.



More Consumers Are Shopping Via Mobile amid the Pandemic App Annie

- The pandemic has pushed many consumers to shift their shopping behaviors, with many now turning to their mobile phone for their shopping needs.
- According to App Annie, shopping apps reached 14.4 million downloads in the US between March 29 and April 4, a 20% increase from January. A more recent study from the mobile app tracker found that 59% of US adults prefer to shop using their mobile phone.
- Younger consumers were more likely to feel this way compared with their older cohorts. Nine in 10 respondents ages 25 to 34 said they favored mcommerce,
 while 78% of 18- to 24-year-olds agreed. Less than one-third of 55- to 64-year-olds said they prefer to shop via mobile, and even fewer respondents (18%) ages 65 and older felt the same way.

Tractor Supply Co. Q2 sales soar; opening 75 to 80 stores; ups cap ex

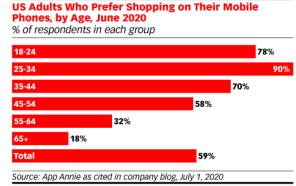
For fiscal 2020, the company expects to open 75 to 80 Tractor Supply stores and 10 Petsense locations compared to its previous outlook of 10 to 15 new stores. The timing of new store openings in some areas may be delayed as a result of the COVID-19 pandemic.

Google making it easier for retailers to sell on its platform Google

- Google continues to dive deeper into online shopping as it looks to compete more effectively against Amazon.
- It said it had debuted another initiative to make it easier for retailers to sell on its platform. Google said that it would waive sales commissions on Google Shopping and allow retailers to use third-party payment and order management services. (Currently, commissions on Google Shopping range from a 5% to 15% cut depending on the products.)

Ascena Retail Files for Bankruptcy The New York Times

Ascena Retail is the latest retailer to fall during the pandemic. The disappearance of 1,600 of its 2,800 stores is a fresh blow to shopping malls.





Tesco UK introduces flat grocery delivery fee Your Money.com

- Tesco is doing away with its cheap delivery slots as it brings in one standard fee of GBP4.50. But this also means prime time slots will be cheaper.
- Shoppers can book slots at different times of the day during the week and pay between £2 and £7, with cheaper slots at the least busy times while the premium fee is reserved for peak demand.
- However, from 3 August, Tesco is set to bring in a flat rate of £4.50 for deliveries (£5.50 for orders from its customer fulfilment centres).

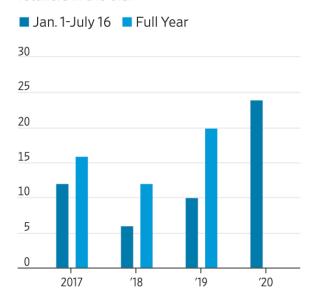
Retail carnage deepens as pandemic's impact exceeds forecasts



- Chapter 11 filings by major retailers in 2020 have already surpassed last year's total and show no sign of letting up.
- The financial pain for U.S. retailers is worsening beyond what retail executives and analysts anticipated when the coronavirus began to spread, foreshadowing an unrelenting pace of store closures and bankruptcies.
- With a resurgence of coronavirus cases across much of the country, some companies that were relatively healthy before the pandemic are showing signs of buckling. Bankruptcies in the sector are piling up, with more retailers seeking chapter 11 protection so far in 2020 than in all of last year.
- Two dozen public and large private retailers in the U.S. have filed for bankruptcy this year, according to BankruptcyData.com. The total for all of 2019 was 20 retailers.
- The bulk of the bankruptcy filings came after government restrictions in March forced most retailers to shut their doors, including storied names such as department-store chain J.C. Penney Co., luxury retailer Neiman Marcus Group Ltd. and apparel seller J.Crew Group Inc. All three filed for bankruptcy in May.

Retail Pileup

Bankruptcy filings of public and large private retailers in the U.S.



Source: BankruptcyData.com



Why the Pantry Loading Isn't Over GROCER

- Food retailers should be preparing their supply chains now for a new wave of pandemic pantry loaders heading into the fall and winters seasons. The latest research reports that many shoppers are making fewer trips to the grocery store, spending more on each trip and that stocking up continues.
- Three-quarters of shoppers are worried that a second wave could lead to another shutdown.
- Despite many non-essential businesses reopening, most consumers are not visiting them. Only 37% of shoppers have gone to retail shops, 30% to hair/nail salons and 27% to dine-in restaurants.
- Grocery shopping frequency has greatly declined since the start of the pandemic. Shopping once a week or more has declined 20%. Shopping less frequently has increased since the pandemic began, with 27% of shoppers now going to the grocery store two to three times a month and 26% going once a month or less.
- When shoppers do go to the store, they are stocking up and spending more.
- 37% of shoppers reported spending more on each grocery trip now vs. pre-COVID-19. When looking at total household spending, 50% of shoppers are spending more on groceries. Conversely, 66% of shoppers are spending less on eating out than they did pre-pandemic. Of shoppers spending more on groceries, 59% cited eating at home more as their reason, 52% cited higher prices and 50% cited stocking up more.

Stores Take Cautious Course in Perplexing B-t-s Season WWD

Retailers including Kohl's, Target and Abercrombie & Fitch are stressing flexibility in their back-to-school planning and keeping inventories lean amid ongoing uncertainty over whether students will return in person or online.

Delaying Amazon Prime Day could backfire as coronavirus cases rise. BUSINESS INSIDER

- Amazon told its third-party sellers to use October 5 as a placeholder date for Prime Day promotions.
- The delay may be for Amazon to shore up its fulfillment capabilities after the virus's early spread simultaneously caused a spike in demand and new operational challenges for retailers all over the country.
- But the number of coronavirus cases is rising in several US states, and if that continues until Prime Day, it could complicate Amazon's operations and fulfillment process all over again.



Kinks Linger in America's Food System With Pigs Still Piling Up **Bloomberg**

- The obvious obstacles in America's food-supply chain from shuttered meat plants to restocking delays and panic buying — have largely dissipated. But shock waves remain.
- There are millions of pigs that need to get processed fast, before their weights become too burdensome, or farmers will be forced to euthanize the animals. Meanwhile, food sellers like pizza maker Papa John's and Campbell Soup had to bulk up on extra ingredients to avoid further disruption. Kraft Heinz, the giant that makes ketchup and cream cheese, expanded its lists of suppliers for some items, while livestock-feed makers reformulated rations.
- Ethanol is mostly made from corn in the U.S. When production halted, farmers were left with few options but to stash their grain. Meanwhile, output of a key biofuel byproduct, distiller dried grains, slumped. Livestock producers use the product as an ingredient in rations for cattle and dairy cows.
- The U.S. food system wasn't developed by accident. It's a complex and interconnected web that thrives on huge economies of scale, allowing everything from dairy to meat to vegetables to be produced quickly and efficiently. The problem is the industry has become so intertwined that any hiccup can trigger a series of domino effects.
- The cascade of unexpected impacts forced the largest food companies to rethink their usual production methods.

Nike Cutting Jobs & Shifting Leadership as Part of DTC Focus RIS



Nike is cutting jobs and making leadership changes as part of its focus on its direct-to-consumer strategy and digital transformation. The changes, which include jobs cuts across the company resulting in pre-tax costs of \$200 million to \$250 million, are intended to support Nike's Consumer Direct Acceleration (CDA) strategy.

Indochino CEO: The Three Things Retailers Must Do To Survive 2020's Big Digital Shift PYMTS.com

When Indochino launched in 2007, the company wasn't out to create a new template for the entire retail sector, just a better product with better prices and a better buying experience. The first is the simple fact that its stores basically don't carry inventory. Second, stores are appointment-based, which means Indochino can control the flow of traffic into its physical locations — a big advantage in the post-pandemic world. And lastly, the chain offers something Green said he thinks will be critical to all of retail in the pandemic era: a better-curated, personalized experience for consumers.



More Main Street SMBs Face Permanent Closures velocities

- According to new Q2 data for the Yelp Economic Average, 55% of businesses shut down during the pandemic don't plan to ever reopen.
- 26,160 eateries have closed due to the pandemic as of July 10. Some 60% permanent.
- When we first polled SMB owners in late March, 58.4% of respondents believed they were at risk of closing before the end of COVID-19 and its economic impact. That included 25.8% of respondents who were sure they wouldn't survive, as well as 32.6% who weren't sure whether they'd make it or not.

Should eBay Buy Overstock? PYMTS.com

- eBay is close to selling its classified ad business to Norway's Adevinta for \$9 billion. What should eBay do next as a company once the sale closes?
- Possible opportunities being: Overstock / Etsy / Mercari / eBid and Bonanza

Amazon UK offers free grocery delivery with Prime EDGE

Amazon in the UK is introducing unlimited free grocery delivery for Prime members and is launching in London on 28 July. It will then be expanded to millions of member households across the UK before the end of the year. The minimum order value has been lowered from GBP40 to GBP15, with free delivery available on orders over GBP40. Products will be delivered in two-hour windows, usually on a same-day basis.

Walmart to build Distribution Center worth USD 220 Mn at Dorchester County Seanews

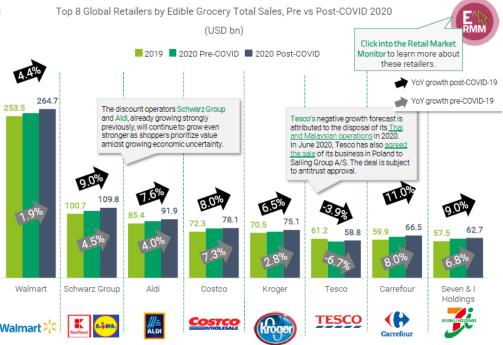
Walmart has announced plans to build a \$220 million distribution center in Dorchester County, near Ridgeville, South Carolina. The announcement was the culmination of an effort, supported by state, county and local officials, to strengthen Walmart's supply chain network while creating more than 1,000 local full-time jobs.

Once completed, the new storage and cross-dock facility will span nearly 3 million square feet. This direct import distribution center, which will take approximately 14 months to build, will supply several regional distribution centers, supporting approximately 850 Walmart stores and Sam's Clubs across South Carolina and beyond.



Leading specialists experience sales uplifts as a result of COVID-19 EDGE

- The ranking of leading grocery retailers will remain the same in 2020 after COVID-19, with all key players (with the exception of Tesco) experiencing an uplift in year-on-year growth for 2020.
- The largest retailer Walmart will reinforce its dominance as the leading grocer in 2020, with an uplift in total sales of USD6.5 billion to previously forecasted 2020 sales as a result of COVID-19, supported by its acceleration of online fulfillment capabilities in Q1, as well as its longer-term focus on digital transformation.
- The second and third largest grocers Schwarz Group and Aldi – will experience an additional boost in sales, as the slowdown of economic activity caused by the pandemic drives the growth of lower price-point channels. This contributes to a higher growth uptick compared



Source: Edge by Ascential Retail Insight. Data sourced on 14 July 2020, variations may occur on data sourced after this time.

to multichannel grocery operators like Walmart and Carrefour. Report attached

Ohio Tax Credit Authority Approves Kroger For 15-Year Tax Exemption The Shelby Report



Kroger says the Ohio Tax Credit Authority has approved a 75%, 15-year data center sales tax exemption for technology equipment purchased for Kroger's two data centers and a supporting technology facility respectively located in Blue Ash and Hamilton, Ohio. To qualify this tax exemption, companies must invest at least \$100 million in capital investments at the project site over three consecutive calendar years and pay annual compensation of \$1.5 million. The tax exemption covers equipment purchased for qualifying data center projects from Ohio sales tax.



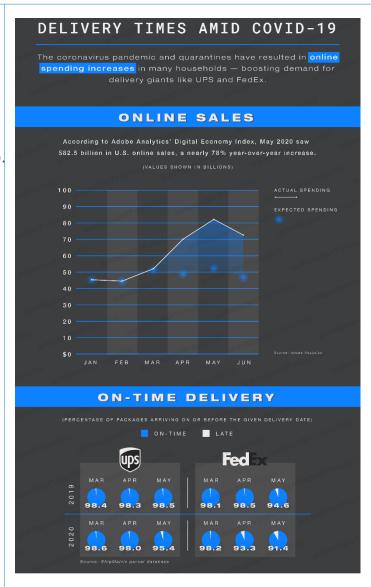
US rail volumes still under pressure

- U.S. weekly rail is down by over 20% since the same period in 2019.
- 449,092 carloads and IM units for the week ending July 11 is a 14.9% y-o-y decline. YTD rail was off by 12.9%, at 12.6M carloads and IM.

Amazon plans new facility in El Paso, brings 700 jobs American Shipper Amazon announced a new 625,000 square-foot fulfillment center in El Paso. **Comment by ACC** – In a meeting this week with a North American distributor of Asian products, he advised that Chinese manufacturers are planning to locate inventory in Mexico, which will see a boom in warehousing south of the border. Amazon will be aware of this with their dealings with the Chinese manufacturing base.

Nikola pilot plant to speed electric truck production FREIGHTWAVES

- Nikola will assemble electric trucks in a pilot plant on its 1M sf manufacturing site in AZ while plant construction proceeds in phases.
- A starting point for battery-electric and hydrogen-powered fuel cell truck production, the 430-acre facility will create 2,000 new jobs.
- The \$600 million plant will be phased after the pilot facility with Phase 1 ready in late 2021. Both the battery-electric Tre and the fuel cell Class 8 Two-day cab will be assembled there. Phase 2 comes 12 to 18 months later. Cab assembly and a paint shop will follow in the third phase if projected demand holds up.
- The Industry 4.0-designed facility will incorporate the latest technology to increase round-the-clock connectivity throughout the building and equipment to make the most of overall energy, productivity and quality.





U.S. Postal Service Gets \$10 Billion Coronavirus-Relief Loan Forbes

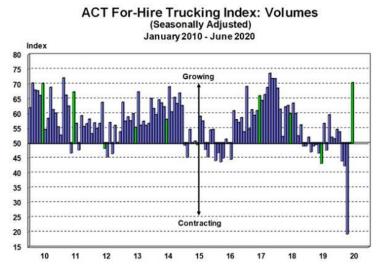
- The Treasury Department announced Wednesday it has reached an agreement to lend up to \$10 billion to the U.S. Postal Service under a provision of the coronavirus-relief package passed by Congress in March.
- In the USPS announcement Wednesday, Postmaster General Louis DeJoy said the loan will "delay the approaching liquidity crisis," adding that the Postal Service still "remains on an unstable path" and they will continue to work to put it on a "trajectory for long-term financial stability."

Echo beats on both revenue and earnings yahoo!

- In second-quarter 2020 financial and operational results released, Chicago-based third-party logistics provider Echo Global Logistics reported gross revenues fell by 7.1% on a year-over-year basis to \$514.7 million.
- That beat the consensus estimate of \$475 million, largely driven by decreases in less-than-truckload (LTL) volumes and revenue per shipment for both truckload (TL) and LTL. Margins were thinner and Echo posted net earnings of \$1 million, or 19 cents per share, compared to net earnings of \$5.1 million, or 42 cents per share, in the year-ago period, beating the consensus estimate of 12 cents per share.

ACT, ATA indices for June show significant upturn in trucking m

- Two recently released indices show that June continued the trucking market's climb from its low levels of April.
- The ACT For-Hire Trucking Index in June climbed to 70.4, up from 50.2 in May. In April, it was 19.3.
- Although the June number was more than three times that of April, that does not mean that volumes are three times that of April. Rather, ACT Research sets a base number of 50 and changes in the data are then expressed as an index, with 50 viewed as neutral to flat. For example, the capacity index for June was "steady" at 50, ACT said.



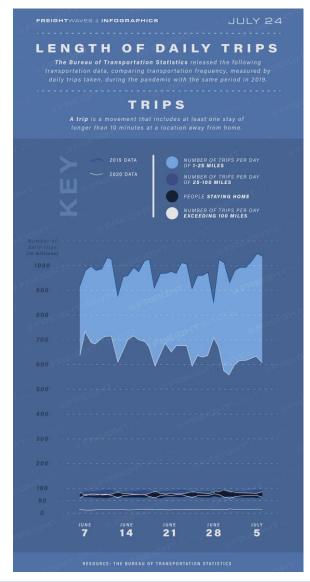


Amazon Air launches operations at new Florida hub FREIGHTWAVES

- Amazon inaugurated its new regional air hub near Tampa, Florida, with the arrival of the first freighter flight on Thursday, having invested more than \$100 million in the 285,000-square-foot air cargo complex, including ramp space for seven all-cargo planes, city officials stated last year.
- The 42-acre air terminal is at Lakeland Linder International Airport, a general aviation airport. Amazon operates a large fulfillment center in Lakeland, which is chock full of distribution centers.
- The first flight originated from Sacramento International Airport. Amazon said the package sort facility will receive several cargo flights per day operated by contractors for its in-house airline, Amazon Air.
- Amazon has been focused on expanding its network of airports the past couple of years to increase delivery speed for its Prime customers, who are promised one and two-day shipping options.
- It is scheduled to open a
 Western air hub in San
 Bernardino, California, early
 next year. Amazon's primary
 air hub at Cincinnati/Northern
 Kentucky International Airport



is also scheduled to be finished next year.





Blacklisting of Chinese firms rattles American supply chains

- The addition of 11 Chinese companies to a U.S. trade blacklist of entities Washington says are linked to human-rights abuses of the Uighur minority group in Xinjiang is entangling major brands and likely to further a reordering of supply chains that feed American consumers.
- U.S. authorities on Monday punished the suppliers—which include textile makers and component suppliers that sell products to major Western firms—by blocking them from buying U.S. technology without a license. Among those to have done business with the targeted manufacturers are Apple and clothing marquees Ralph Lauren and Tommy Hilfiger, according to a report this year by the Australian Strategic Policy Institute, a think tank based in Canberra.
- The blacklistings illustrate the growing risks to U.S. companies with extensive and often opaque supply chains in China. Beyond additional compliance burdens on American exporters and importers, analysts say reputational risks are likely to dissuade U.S. companies from doing business with firms tied to Xinjiang. That, in turn, may accelerate the decoupling of supply-chain links between the two countries

App makes vehicles brake for pedestrians dusiness

An app called !important, which can tell smart vehicles where pedestrians are and can even trigger braking to avoid hitting them, is in a Michigan accelerator program as the startup behind it works with the University of Michigan. The app is free on the Apple and Android app stores, and its CEO says it should help reduce pedestrian deaths related to visual obstructions, bad weather and unpredictable pedestrian behavior, which account for "65% of death cases."

Union Pacific improves service metrics despite 20% volume drop SUPPLYCHAINDIVE

- UP improved its service metrics despite a double-digit drop in volume in the second quarter. Total volume declined 20% year over year for the quarter, with automotive freight seeing the largest drop.
- Intermodal trip plan compliance was up 13% year over year for the railroad in Q2, coupled with four fewer hours of dwell time per car. The railroad's redesign of its Chicago intermodal operations will be complete by the end of 2020.
- UP is forecasting a 10% year-over-year drop in total volume for the whole of 2020, "assuming we maintain a consistent volume trend and we do not experience the second wave of shutdowns," CFO Jennifer Hamann said.





Trucker's victory in Supreme Court case paves way for \$28M settlement with fleet **Distribute**

- It's the one that in 2018 made it all the way to the U.S. Supreme Court, with the nation's high court ruling in early 2019 in favor of Oliveira and owner-operators like him those who want to sue their fleet over an employment dispute but are locked into arbitration clauses.
- The Supreme Court ruled, in short, that those arbitration clauses between fleets and owner-operators aren't valid, meaning owner-operators can pursue legal claims against carriers via the court system, rather than having matters decided via third-party arbiters.
- That wasn't the end of Oliveira's dispute, however. That Supreme Court decision only decided that procedural matter whether Oliveira can sue in court or whether his case would be forced into arbitration.
- Oliveira's original underlying case, the one that prompted his fleet, Prime Inc., to appeal the case to the Supreme Court, was sent back to lower courts to be heard. Now, that dispute appears to be nearing an end.
- Prime has agreed to settle the case with Oliveira and a class of drivers who claim they were misclassified as independent contractors and thus denied certain wages and benefits. Likewise, the fleet is looking to combine another similar lawsuit, Haworth v. New Prime, into the settlement.

400,000 Airline Jobs Are Lost SUPPLYCHAINBRAIN

About 400,000 airline workers have been fired, furloughed or told they may lose their jobs due to the coronavirus, according to Bloomberg calculations. British Airways, Deutsche Lufthansa AG, Emirates Airline and Qantas Airways Ltd. are among the carriers announcing thousands of dismissals and unpaid leave programs.

Transport faces \$30B profit loss in 2020 Deloitte. Insights

- Up to 45% of the transportation industry's operating profits could be eroded by the end of 2020, according to Deloitte estimates. That would amount to \$30 billion.
- In the mid-March early days of the pandemic-driven downturn, "\$160 billion of US-based transportation companies' market value had been destroyed," according to a company report. Deloitte estimates almost 25% of transportation companies are working urgently to maintain liquidity to withstand the pandemic.



These figures do not include taxes or transpo	rtation costs.				
USA	06/29/20	07/06/20	07/13/20	07/20/20	07/27/20
DOE AVERAGE	2.430	2.437	2.438	2.433	2.427
RETAIL TO WHOLESALE FUEL SPREAD*	1.101	1.013	1.019	1.055	1.005
RACK PRICE*	1.245	1.331	1.329	1.295	1.348
DIESEL TRUCK STOP ACTUAL PRICE PER GALLON	2.347	2.344	2.348	2.351	2.354

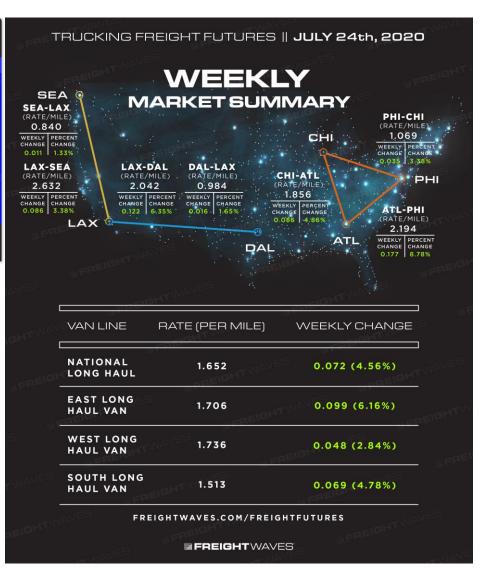
Amazon expands autonomous 'Scout' test. CA

 Amazon's six-wheel, fully-electric delivery device has headed south.

Amazon Scout debuted in January 2019, delivering packages to a neighborhood in Snohomish County, WA. The online giant later

expanded the test to Irvine, Calif. Most recently, Amazon Scout started delivering packages to select customers in Atlanta, Georgia and Franklin, Tennessee.

- Delivery options available including free same-day, oneday, and two-day shipping for Prime members.
- The devices autonomously follow their delivery route





Record China flooding impacts ppe supply chain to U.S. REUTERS

- Residents of Wuhan, China stayed indoors last week not because of another lockdown posed by a reemerging coronavirus threat, but because the worst flooding in decades has threatened their city.
- The flooding is impacting US supply chains for personal protective equipment, crucial to fighting the pandemic.
- West of Wuhan in Xiantao, sits China's largest manufacturer of nonwoven fabrics used in the production of PPE.

BrewDog starts using drones for beer deliveries **EDGE**^

The Basics

- Scottish craft brewer BrewDog is using drones to make socially distanced beer deliveries. The trial, which began in July, involves Brewdog using drones to make beer deliveries to various locations on its 42-acre Columbus, Ohio campus.
- It is also exploring how it can use drones as part of its BrewDog Now delivery in the UK, which already uses its bar network as hubs to get fresh draught beer and food to customers' homes in an hour. BrewDog is also looking at the potential of drone deliveries of beer in Dublin and Brisbane.

Supplier ROI

- Brands that proactively test autonomous vehicle delivery by partnering with autonomous vehicle specialists, will position themselves to maximize the technology once regulatory barriers start to ease.
- CPG suppliers that are able to leverage drone technologies will also be well positioned to meet increasing consumer expectations around faster fulfillment

FBI warns trucking of potential ELD hackers FREIGHTWAVES

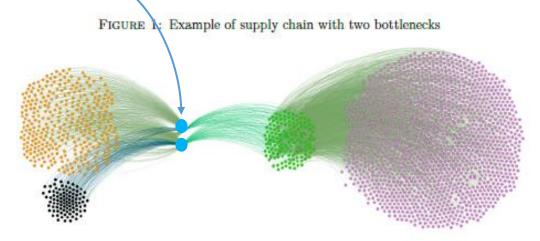
The Federal Bureau of Investigation (FBI) has issued an advisory on cyber risks associated with electronic logging devices (ELDs) after determining the devices "did little or nothing" to ensure against data breaches, according to media reports.





Supply Chain Bottlenecks in a Pandemic CAMBRIDGE

- Figure 1 graphs an international supply-chain, showing that over 2,000 firms depend on 2 essential firms (blue nodes). Goods flow from raw material producers (orange and black), to the manufacturers (blue), to the distributors (green) and finally to retailers (purple), enabling successful production. If either of the manufacturers can't produce, the other manufacturer cannot take up the slack in the short-run; these flows are necessarily diminished and output drops. In this case, the manufacturers (blue nodes) are both bottlenecks.
- The complexity of the problem is highlighted in Figure 2, which shows for this market scenario all firms and their connections. Identifying particular bottlenecks in this complex web of 40,000 firms and 90,000 firm-to-firm connections requires a tractable algorithm.
- These show the immense difficulties in unwinding a complex global supply chain environ.



2 factories (blue) buy inputs from 340 suppliers (orange) sell to 135 firms (green) sell to 1548 firms (purple) and import from 96 foreign suppliers (black)

Source: Carvalho, Elliott and Spray (In Progress)

FIGURE 2: All firm-to-firm connections in



Notes: Each node on the graph represents a firm, while edges represent transactions (between 2010 and 2015). The location of nodes is determined by forceatlas2 which is run on software Gephi. Source: Carvalho, Elliott and Spray (In Progress)



US box imports slide 10% in June, better performance by west coast ports shippingazette.com

- Unlike the trend of the past year, US west coast ports fared better in comparison with their east and Gulf coast gateway rivals last month, recording a smaller decline in container imports.
- The latest monthly statistics compiled by New York-based consultancy Blue Alpha Capital show that container imports into the top ten US ports declined by 10.2 per cent in June, compared with the same month of last year, to 1.5 million TEU.

Tianjin Port inks deal with Cosco to become regional port hub **m**

- The port of Tianjin in north east China is set to boost its volumes following an agreement with Cosco to create a regional port hub.
- Under the terms of the agreement, Cosco Shipping Lines will help to boost Tianjin's container volumes by developing new routes in order to realize Tianjin's goal of being the hub port of Northeast Asia.
- Both sides pledged to deepen their cooperation in green and smart port construction, governance, overseas project investments and international talent development to enable Tianjin to fulfil its role in the Belt and Road initiative.

Yang Ming to boost fleet with three new 11,500 TEU vessels **Splash**

- Taiwan-based Yang Ming is to expand its fleet with three 11,500 TEU ships being built by Japan's largest shipyard.
- Brokers report that Shoei Kisen has tapped sister company Imabari Shipbuilding, Japan's largest shipyard, to construct three containerships for 2022 delivery. The vessels will go on charter to Yang Ming, reports Singapore's Splash 247.

China-Africa trade down 20%, hit from coronavirus in first half shippingazette.com

- Two-way trade between China and Africa fell 19.3 per cent in the first half of the year to US\$82.37 billion as coronavirus ravaged economies and cut demand for commodities.
- South Africa, one of China's key markets for goods and a source for raw materials, saw trade fall by 27.6%.





Watch: Cruise Ship MS Monarch Arrives at Turkish Breakers & gCaptain

- In what is a sure sign of the times amid the COVID-19 pandemic, the 1991-built MS Monarch has arrived at a Turkish shipbreaking yard for dismantling.
- With cruises around the world suspended due to the pandemic, the former Royal Caribbean ship was sold for scrap along with the MS Sovereign and MS Horizon. All three were part of the fleet of Pullmantur Cruises, a Royal Caribbean subsidiary.



The MS Monarch was built in 1991 as Monarch of the Seas. It sailed up until earlier this year when the COVID-19 pandemic hit, halting cruises across the globe.

Maritime Cyber Attacks Increase by 900 percent Ajor?

Cyber-attacks on the maritime industry's operational technology (OT) systems have increased by 900% over the last three years with the number of reported incidents set to reach record volumes by year end.



The recent cargo surge in Los Angeles-Long Beach has resulted in another bout of chassis shortages and dislocations, but truckers and terminal operators expect the problem to correct itself if volumes return to normal next month.

Port of Rotterdam feels impact of COVID-19 on cargo volumes



The Dutch Port of Rotterdam, Europe's largest seaport, saw a 9.1% decrease in its throughput in the first half of 2020 as a result of the economic impact of the COVID-19 pandemic. Total throughput stood at 218.9 million tonnes in H1 2020, compared to 240.9 million tonnes seen in the previous year.

MSC boxship released from detention after container loss

The boxship operated by MSC was released from the Indian Ocean Port of Nggurha.



Retail Shipping Volumes on the Rise fourkites

- U.S. retail shipping volumes rose 9% in June, and 20% when April and May are added to the calculation, according to the latest research from FourKites.
- While the numbers varied by state, with the highest increases in Texas, Florida, California, Michigan and New York, the overall trend was generally the same across the country.
- Shipment volumes correlated to a spike in retail sales, which rose 17% in May, versus a 16.4% drop in March and April. However, the data doesn't fully reflect the resurgence of COVID-19 cases in some states over the past several weeks, which has led to a pause or reversal of the reopening of many businesses.

Strong demand sees carriers pile back capacity into east – west trades ∈∈Sea

- Due to continued increased demand, THE Alliance is extending its Asia North Europe 'extra loader' programme with an additional five weekly sailings through to the end of September.
- Earlier this month THEA members advised shippers that they would introduce the weekly loop commencing this week, lasting for a "limited period of four weeks" and deploying vessels of between 6,000 teu 10,000 teu.

- Georgia Ports not sweating the small stuff during COVID-19 pandemic
- A small dip can be a big win during a pandemic, when global supply chain disruptions have taken huge bites out of volumes at U.S. ports. So the Georgia Ports Authority announcement that fiscal-year volume at Savannah was down by less than 1% compared to the previous year wasn't bad news.
- The Port handled 4.44 million TEUs in fiscal year 2020, which ended June 30.
- It said that despite coronavirus-caused supply chain disruptions, total tons crossing all its docks reached a record 37.77 million, up 0.6% or 223,000 tons compared to fiscal year 2019. Container tons grew 2% or 56,440 tons to hit another record with 33.5 million tons.
- The GPA operates the deepwater ports of Savannah and Brunswick as well as inland terminals in Chatsworth, Bainbridge and Columbus, Georgia.



DP World Says Outlook Uncertain as Volumes Fall & gCaptain

- Global port operator DP World recorded a fall of 8.8% in second quarter container volumes, warning on Monday the outlook remained uncertain.
- The coronavirus pandemic shut cities and factories worldwide for months, disrupting shipments and global supply chains, while some cities are now reintroducing curbs after a recent rise in infections.

ILWU's anti-automation plea to California hints at contract flashpoint TILL INTERNATIONAL COMBINED TRANSPORT OPERATOR



The International Longshore and Warehouse Union's letter to California Governor Gavin Newsom compounds worries that have been mounting for over a year surrounding the issue of allowing West Coast terminals to install labor-saving cargo handling equipment.

IMCs say space issues persist on LA intermodal rail services is JOC.com



Union Pacific Railroad blames volatile swings in volume for congestion in Los Angeles in June, but intermodal marketing companies say it remains difficult to find space on trains because of a surge in e-commerce business.

North America container imports from Europe slow as capacity tightens (Fresh Plaza



Shippers on the Europe-North America trade are reluctant to commit to large scale inventory replenishment, and service providers are expecting weak volume growth in the second half.

Latest Montreal strike longer and impacts all container handling Maritime

- The 2nd strike action in less than two months at the second-largest Canadian container port bodes poorly for longshore workers and employers agreeing to a new contract soon.
- Dock workers at the Port launched a 4-day strike as prolonged negotiations with the Maritime Employers Association to renew a collective agreement which expired on December 31, 2018, remained deadlocked. The strike is scheduled to end Friday. Working schedules are reported to be a key outstanding issue.
- It was the second job action of limited duration in recent weeks as a tactical pressure by the 1,100 members of CUPE Local 375.



Wind propulsion makes headway in Marine Transport Maritime

- Booster propulsion for merchant ships constitutes a solid avenue for shipowners engaged in reducing carbon emissions. Ecological virtue is not the only motivation of the International Windships Association, set up in 2014. The reduction of fuel costs is an essential component of the approach, especially as new IMO standards force ships to switch to more expensive diesel fuel than the heavy fuel oil of the past.
- German company SkySails, based in Hamburg, has developed a 400 m2 kyte sail that
 automatically deploys and flattens in 15 minutes. The system was designed to adapt
 to existing vessels. It consists of a mast that is usually installed on the deck at the
 front of the ship. Between the cable that connects the kite to the ship and the sails,



- a device adjusts the tension of the various sheets in order to adapt to the force and direction of the wind. Everything is controlled automatically from the gateway. The fuel savings generated vary from 10% to 20%.
- French AirSeas have also adopted this concept which they are in the process of developing for a ship belonging to Airbus. The French wing will develop an area of 1000 m2.
- The Dutch of Jan Van Dam Shipping instead turned to a turbine system. The Ventifoil was produced by the eConowind company through a competition from the University of Delft. The principle is based on the suction effect which turns a fan inside the masts. The Ventifoils can automatically rotate to find the optimum angles to the apparent wind. The force generated is transferred directly to the deck and thus contributes as a boost to the propulsion of the ship.
- The Norwegians of Stena Bulk took the concept a step further with masts covered with photovoltaic cells to generate even more energy (photo).
- The French firm of Vincent Lauriost-Prévot and Marc Van Pethegem VPLP Design, well known to offshore racers, has worked on adapting the rigid wings of America's Cup catamarans to merchant cargo ships. The textile membrane constituting the velic profiles can be raised and lowered automatically. The concept has been successfully tested on the experimental catamaran Energy Observer.



Port of Rotterdam feels impact of COVID-19 on cargo volumes



- The saw a 9.1% decrease in its throughput in the first half of 2020 due to the impact of the pandemic.
- Total throughput stood at 218.9m tonnes in H1 2020, compared to 240.9m tonnes y-o-y.

Hyundai Mipo Dockyard wins LR approval for ammonia-powered ship m

- Hyundai Mipo Dockyard, a shipbuilding unit of Korea Shipbuilding & Offshore Engineering Co., has secured an Approval in Principle (AiP) from Lloyd's Register for its ammonia-powered design of a 50,000 dwt MR tanker.
- The AIP is a step in the right direction for the South Korean shipbuilder, which aims to commercialize ammoniapowered ships by 2025. Ammonia has been identified as one of the likely zero-emission fuels of the future in line with the IMO's 2050 decarbonization objectives, as it has great potential to power large transoceanic ships.

Yang Ming to Add Two 11,000 TEU Vessels, "YM Triumph" and "YM Truth" Seanews

Yang Ming will add two new 11,000 TEU container vessels. Both vessels will join THE Alliance's Trans-Pacific routes with comprehensive coverage and efficient service by August. In order to strengthen the company's mid- to long-term operational efficiency, Yang Ming had ordered a total of fourteen 11,000 TEU new ships through long-term charter agreements with ship owners. YM Triumph and YM Truth are the first two ships from the series. This type of vessels has a nominal capacity of 12,690 TEU and is equipped with 1,000 plugs for reefer containers. With a length of 332.2 meters, a width of 48.2 meters, a draft of 16 meters, these vessels are designed to cruise at a speed up to 23 knots.

Maersk Flow launched to help control flood of information American Shipper

- The Maersk Flow digital platform has been unleashed to provide small and midsize shippers with everything they need to take control of their supply chains from factory to market.
- Maersk launched the platform Tuesday saying it strengthens its position as a global integrator of container logistics.
- Beginning Sept. 1, Maersk will charge customers in the United States and Canada for changing bookings or making documentation amendments via email, phone or chat. A \$50 fee will be applied for each manual booking amendment and \$75 for a bill-of-lading amendment.



Beverages, CBD & C-Stores

National Gas Demand Holds Steady Over the Last Four Weeks Convenience Note

- The national gas price average held steady on the week at \$2.19 as one-third of states saw gas prices decrease and only 10 states saw gas prices increase by 2 to 4 cents. State averages saw minimal fluctuation as demand roughly held steady over the last four weeks, AAA reported.
- According to AAA, the top states with the largest changes are Indiana, Michigan and Ohio; each saw prices decrease by 6 cents for the past week. The nation's top least expensive markets are Mississippi (\$1.83), Louisiana (\$1.86) and Arkansas (\$1.88).



Clint Eastwood sues CBD companies, alleging they falsely claimed he endorsed their products Clint Eastwood, an American actor, film director and producer, is suing three CBD companies, alleging they created articles and emails that falsely claimed he was endorsing their products and that he had his own CBD line.

Why America is running out of aluminum cans **WBUSINESS**

- A shortage of one of the most mundane items in daily life -- the humble aluminum can -- means beer fans are likely to find that some of their favorite brews are out of stock right now.
- "Everyone who makes anything that goes into a 12-ounce can is being challenged to some respect," Adam Collins,
 Molson Coors' spokesperson, told CNN Business.
- One major factor is the coronavirus and changing habits related to it. Beer that would have ended up in kegs at restaurants and bars has shifted, along with other kinds of alcohol, to being sold in retail stores and through online channels and consumed at home -- often in cans. The boom in pantry loading in the spring has compounded the problem by throwing brewer supply chains out of whack.
- Another factor: the White Claw-driven hard seltzer trend. The fervor for those drinks has spurred shortages in the tall, slim varietals of the 12-ounce can, which has become a popular format for alcoholic sparkling seltzers, light beer and some craft brands.



Beverages, CBD & C-Stores

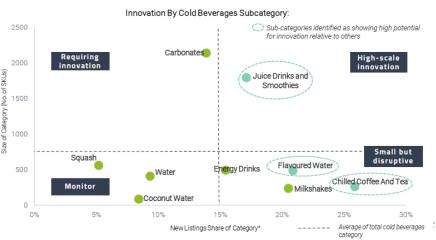
House OKs Military Hemp Use LAW369

The U.S. House has approved a measure to allow members of the armed forces to use hemp and hemp-derived products as part of a larger package of defense spending amendments. The one-page measure from Rep. Tulsi Gabbard, D-Hawaii, was part of an amendment package to the National Defense Authorization Act that passed the House on July 20 in a bipartisan vote of 336-71. The amendment says the defense secretary can't prohibit service members from possessing, using or consuming products that contain hemp or its derivatives, so long as it is in compliance with federal, state and local laws.

Despite overall range rationalization, innovation remains crucial to the category's evolution EDGE

- The Cold Beverages category remains highly innovative, with almost 1,000 new lines listed over the last year.
 The vast majority of these (94%) were branded lines, highlighting the continued opportunity for manufacturer here.
- The chart adjacent looks at changes in the beverage category's assortment over the last year, to identify where product innovation is happening at the greatest scale and help manufacturers plan for future product development.
- Key Takeaways:
 - The Juice Drinks & Smoothies category is operating at the highest scale of innovation, as a result of its overall size, as well as the higher than average share of new launches (17.1%) this year.
 - While smaller in size, Chilled Coffee & Tea and Flatheir entire assortment coming from brand new listings this year.



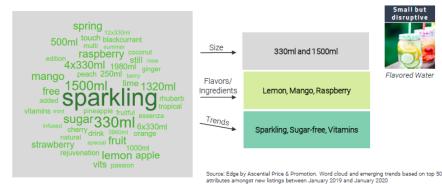




Beverages, CBD & C-Stores

Flavored Water: Sparkling formats a growing trend EDGE^ An analysis of the product names of the new Flavored Water listings over the last year indicate some key trends gaining traction, notably:

- Premium sparkling formats almost one third of new listings had "sparkling" in their product name, highlighting the shift towards more premium formats, in line with the trend towards hard seltzers in the alcoholic beverages sector;
- Exotic fruits, with flavours including mango, passionfruit, coconut and pineapple popular amongst new launches this year;
- *Vitamins*, with 11% of new listings specifically referencing vitamins in the product name, a trend which is unlikely to fade following COVID-19.







Source: Edge by Ascential Price & Promotion, 2020 34

CBD-infused treats are trending. Shoping

- Few products have experienced as much rapid growth as CBD oil.
- In 2018, the global CBD market was valued at \$4.6 billion USD and is expected to grow 22.2% annually until 20251. A market that big presents a huge opportunity for entrepreneurs.
- CBD can be infused with all kinds of products. It's added to shampoos, moisturizers, soaps, cosmetics, and a whole host of food products. For creative entrepreneurs, the possibilities are endless.

Delaware Court Denies Medical Pot Coverage Over Work Injury LAW369

A Delaware state court has upheld a decision denying coverage for medical marijuana used by a man who suffered a back injury, saying the board wasn't wrong to rely on a doctor's opinion that the man shouldn't be using marijuana.



Healthcare Update

US, Pfizer Strike Vaccine Deal: \$2 Billion For Possible 100 Million Dose KHN



- The Trump administration announced its largest purchase yet as the federal government commits huge sums to another drug maker to secure access to its potential COVID-19 vaccine.
- Pharmaceutical giant Pfizer and German biotechnology firm BioNTech will supply the federal government with 100 million doses of their coronavirus vaccine under a \$1.95 billion deal announced Wednesday, the administration's largest investment yet in a vaccine that has not been proved effective. The government also has an option to acquire an additional 500 million doses of BNT162, as the vaccine candidate is called. It still must secure regulatory approval or authorization that Pfizer projects it may seek as early as October.

Walmart Health picks Florida for next planned expansion News News

- After opening four health centers in GA and AR, Walmart confirmed that it will expand to Florida next year.
- On the heels of opening two new health centers in Arkansas, Walmart announced it will look to Florida next. For the past two years, the retailer has been testing a new model: one that involves a full-sized clinic attached to its stores, with primary care, dental, labs, counseling and other services.
- Now it plans to build on that model, starting with the Jacksonville area.



US still has 'a ways to go' to have enough PPE, FEMA chief says HOSPITAL REVIEW

- Peter Gaynor, head of the FEMA, told Congress that the U.S. still has "a ways to go" to have enough personal protective equipment for healthcare workers fighting COVID-19, The Hill reported.
- Mr. Gaynor said the U.S. is in a better place than it was 60 days ago when it comes to PPE and that many states are now reporting that they have stockpiles of equipment that could last 60 to 90 days.
- But, he said, "We have a ways to go on making sure we have enough PPE. This is not as simple as just throwing a light switch and we just magically make more."



Healthcare Update

U.K. Funds Mass Vaccine-Making Center REUTERS

The U.K. government announced an additional 100 million pounds for a facility to scale up production of any successful COVID-19 vaccine. The Cell and Gene Therapy Catapult Manufacturing Centre, which will be based in Essex, will be able to produce millions of doses a month when it opens in December 2021. Another site west of the capital is already under construction. Officials say it will be able to produce enough doses for the whole U.K. population by next year.

N95 Face Mask Makers Ramp Up U.S. Production WSJ

3M, Honeywell and Prestige Ameritech Ltd. are expanding to produce masks in the U.S. for hospitals and governments seeking a guaranteed domestic supply for several years, according to The WSJ. The reinvented supply chain means that producers of the machines and materials required to assemble N95 masks are ramping up U.S. production too.

To Avoid Pandemics, Our Whole Economy Needs to Change FOREIGN AFFAIRS

- Historically, zoonotic microbes have made only slow incursions into the human body. For an animal microbe to
 move from its wild host to a human, the two species must come into intimate, prolonged contact. Further, to
 cause a pandemic, that microbe must reach sufficient numbers of susceptible human hosts, often by being ferried
 into large and distant populations. In the preindustrial world, such opportunities were scarce. Just a few hundred
 years ago, the world was dominated by forests and wetlands. Urban centers were few, and transport between
 them was slow and uncertain. A 2010 study estimates that most of the planet's surface was wild or semi-wild in
 1700. These conditions offered relatively few opportunities for animal microbes to turn into human pathogens and
 cause pandemics.
- But a wide range of potentially more effective and lasting interventions becomes possible when pandemics are understood in a different light: not as arbitrary calamities but instead as probabilistic events, made more likely by human agency. This means that humans can do more to avert pandemics, reducing the risk that pathogens erupt in our bodies in the first place and minimizing the probability that they will spread. But doing so will require a fundamental restructuring of the global economy and the current way of life, which rests upon the accelerating consumption of natural resources. *Paper attached*



5 Ways Technology is Transforming the Healthcare Industry (2) 32

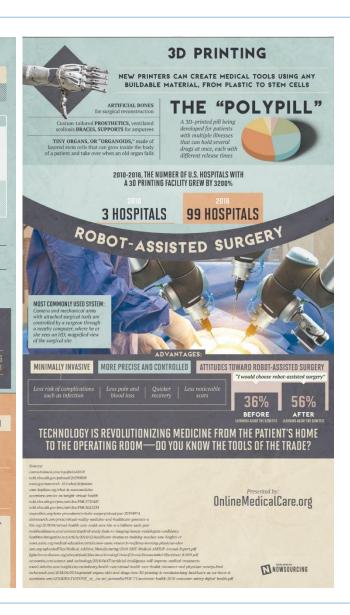
CLOSEST DOCTOR IS

FAR FROM HOME

OR WORK







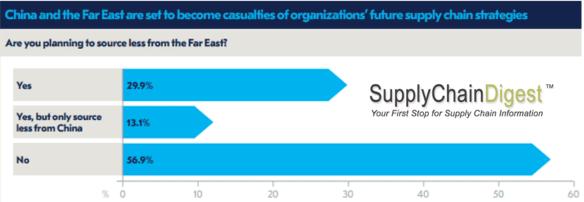




Some Companies will Leave China, Survey Finds, but Majority will Not

- There exists is a general sense that the virus-induced global pandemic will cause companies to pull at least some sourcing out of China and move back to US or close by countries such as Mexico, or wherever "local" is for any particular country.
- A new report released this week by a group called Business Continuity Institute and another named Resilience360 (a unit of DHL) tried to quantify that trend, based on survey responses from 350+ supply chain professionals across the globe.
- As can be seen, about 35% say they will either move a considerable number of supply sources or at least some from China or other far away sources to more local vendors.
- About one-third plan no changes.
- About 43% plan to source less from Asia generally or China specifically, while 57% plan on keeping Far East sources "as is".





- Of course, many companies today saying they will make changes in sourcing strategies in fact will not, due to the many challenges of leaving China, including often higher costs.
- So while we may see some movement, this data suggests it will not be a tsunami of sourcing defections from China.







The PPE crisis





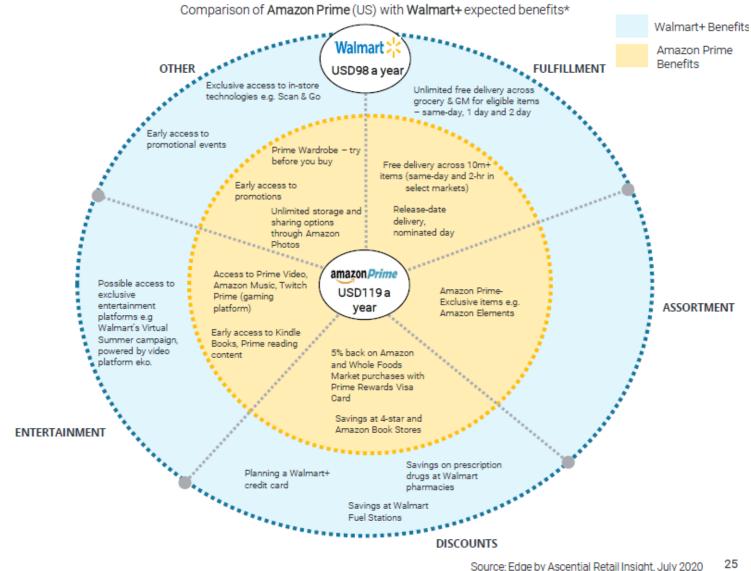


Why Silicon Valley is investing billions in India

- Since the start of 2020, the biggest names in US tech have invested around \$17 billion in India Amazon \$1 billion, Facebook nearly \$6 billion and Google \$10 billion. They're part of a wave of investment into India's tech industry this year that's now well over \$20 billion, with most of it coming from the United States.
- What is driving these new investments when just recently India was giving the US industry the cold shoulder?
 - Coronavirus
 - Hong Kong
 - India's diplomatic spat with China
 - o India's massively growing digital economy with more than 700M Internet users with a half billion to come
 - US distrust of Chinese tech continues to grow
- Silicon Valley has been largely shut out of China for years, due to the "Great Firewall", and a new national security law just imposed in Hong Kong could push them further away.
- Ravi Chaturvedi, of Tufts University's Fletcher School, and other experts point out that India and the US have had a longstanding tech relationship, with thousands of Indian engineers working across Silicon Valley and Indians currently at the helm of Google, Microsoft, and several other US companies.
- Indian billionaire Mukesh Ambani, Asia's wealthiest man, has appeared to position himself as a willing gatekeeper through Jio Platforms, the digital subsidiary of Ambani's Indian conglomerate, Reliance.
- "US tech hasn't been able to penetrate the 'Great Firewall of China' but it has been easier for it to enter the 'Great Paywall of India' created by Jio; all it had to do was pay Reliance the toll fees to enter," said Chaturvedi.
- As one of India's biggest companies run by the country's richest man, Reliance has an enormous amount of local influence and is unencumbered by many of the regulations on data storage and e-commerce that have previously been roadblocks for Facebook, Google, and Amazon.
- "No global entrant could have managed this as successfully and as quickly on their own as Reliance has" Chaturvedi said. "Much of the ecommerce regulation and data localization laws have been influenced by Reliance."
- As the Trump administration increasingly closes the US economy off from the rest of the world, Silicon Valley will look afield to expand its reach, according to Lemley. And India is ripe for the picking.



Amazon and Walmart Comparison



25