

ACC NEWS



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YOUR WEEKLY UPDATES

Week 39 of 2020



Healthcare







Ports







Shipping

1200 4 1104

C-Stores





Rail

Road





Supply Chain

Handling



Still So Much To Learn

COSCO

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How Has the Pandemic Affected Spending?

The US has seen plenty of recessions. But a recession during which consumers are largely confined to their homes for weeks on end and, when they do venture out, are afraid to set foot in stores? That's something new. And there's a mix of commonality and difference in the ways various income groups have responded to this weird set of circumstances.

Opportunity Insights said 3's of total decline in credit card spending for January through May "came from households in the top 25% of the income distribution." Primed by stimulus payments, spending by low-income consumers had recovered (temporarily, anyway) from its March–April plunge and was 1.1% higher in late August than in January.

Spending by upper-income consumers also recovered lost ground but was still 7.5% plus not make planned purchase, instead purchased or rented below January, while spending by middle-income households was down 1.9%.

Many consumers have shelved plans for major purchases, including people with

lots of money. CNBC's Q2 Millionaire Survey, which queries people with investable Source: Morning Consult, as cited on company blog, July 9, 2020 assets of at least \$1M, found many putting big purchases on hold. Real estate, new cars, and vacations topped the list they were delaying, "and many won't complete those purchases for a year." Looking across income lines, Morning Consult polling in June found many US adults deferring big purchases. Others

planned major purchase were outnumbered by those who proceeded with it (15% versus 21%).

Dollar stores have a constituency across income brackets. CivicScience polling in October 2019 through January 2020 asked whether respondents felt favorable, neutral, or unfavorable about shopping at dollar stores. While under-\$50,000s were the most likely to be favorable and least likely to be unfavorable (50% versus 11%), the \$50,000-\$100,000s were also more favorable than unfavorable (37% versus 20%). Those in the \$100,000-plus bracket were split about evenly (31% versus 30%).

went ahead and bought. That's especially true for the top income bracket, where respondents who decided against a

Purchase Decisions US Adults Have Made due to the Coronavirus Pandemic, by Income, June 2020 % of respondents in each group 20% 69 \$50K-\$100K \$100K+ Will not make a previously planned major purchase ■ Postponed a previously planned major purchase No change in purchase behavior, had no major purchases No change in purchasing habits, went ahead and made large purchase Note: numbers may not add up to 100% due to rounding

www.eMarketer.com



6 Strategies for a More Resilient Supply Chain

In the wake of COVID-19 and other disruptions, supply chain leaders have to balance resilience and efficiency to secure their networks. Brexit, the U.S.-China trade war, a general geopolitical trend toward nationalization — and lately the COVID-19 pandemic — have changed the priorities of many supply chain leaders. They now need to balance cost and operational efficiency with greater resilience.

Strategy No. 1: Inventory and capacity buffers

Buffer capacity is the most straightforward way to enhance resilience, whether in the form of underutilized production facilities or inventory in excess of safety stock requirements.

Strategy No. 2: Manufacturing network diversification

In response to the U.S.-China trade war, companies have begun to diversify their sourcing or manufacturing bases.

Strategy No. 3: Multi-sourcing

In 2011, major natural disasters in Japan and Thailand disrupted supply chains across the world and exposed companies' reliance on single sources of supply. In the automotive industry, nearly finished cars could not be shipped to customers because of missing, and often inexpensive, components.

Strategy No. 4: Nearshoring

Beyond multi-sourcing, some companies want to reduce geographic dependence in their global networks and shorten cycle times for finished products.

Strategy No. 5: Platform, product or plant harmonization

The more regionalized the network, the more harmonized plant technology has to be to allow products to move seamlessly across the network.

Strategy No. 6: Ecosystem partnerships

The COVID-19 crisis has shown the need to have a diversified approach to sourcing.

At the same time, however, collaboration with strategic raw material suppliers
and external service partners is also vital to ensure better preparedness and resilience for the future.

Six strategies for supply chain resilience



Gartner.



How is the pandemic reshaping the role of board members?

- The pandemic has exposed the vulnerabilities in our economic model.
- Board members across the world are rethinking their roles and long-term sustainability of their business models.
- A new survey of board members reveals the change in their attitudes. The COVID-19 pandemic has exposed significant financial and ethical vulnerabilities in an economic model we have come to rely on unthinkingly - and that has led board members across the world to reassess their roles in three distinct ways – (i) in the context of oversight and strategy; (ii) in terms of operational resilience and long-term

WØRLD ECONOMIC FORUM

60% of board members think the global coronavirus pandemic will lead to a change in the role and responsibilities of boards.

Board members believe they will become more involved in strategic and oversight issues. They recognise that they will require a greater level of knowledge and engagement to add value.







needs and the environment they're operating in

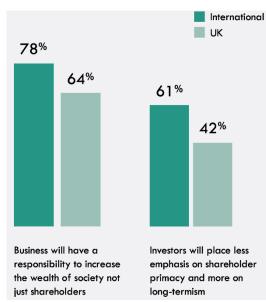
sustainability of business models; and (iii) how they can satisfy a broader set of stakeholders and build a more

inclusive economy, supporting the shift to stakeholder capitalism. Aside from the above vulnerabilities, many leaders acknowledge economic and

societal dependencies on under-valued social capital and resources. Board members feel the crisis is challenging the robustness of organizations' strategy, business models and the substance of contingency planning. At the same time, many recognize the gaps in boards' proximity to their business, level of engagement with stakeholders, and style of governance.



- Create co-ownership of purpose, values and role in society i.
- ii. Build critical agility as a core competence
- Ensure more robust strategy planning for long-term value protection iii.
- iv. Prioritize and invest in systematic management of risk and organizational impact
- Improve business continuity planning including testing interdependencies ٧.
- Leverage board experience, individually and as a cohesive group vi.





Amazon US to launch 1,000 suburban neighborhood warehouses EDGE

Amazon is planning to open 1,000 small delivery hubs in suburbs and towns across the US, with plans for an extended network of around 1,500 units in the longer term. The warehouses will provide a significant boost for Amazon's rapid delivery capabilities, after the retailer struggled to meet its delivery promises to customers amid surging online demand at the height of the pandemic disruption.

Apple tests Express store concept for click & collect

- Apple is pioneering a mini store in California, where customers can pick up their online orders or visit a 'Genius' by appointment. The store concept is primarily a solution for corona times.
- The concept can best be compared to a post office or bank counter: Apple has created a small space at the entrance of the store with two wooden counters to serve customers. The sober looking shop also has two racks with popular accessories that customers can buy on site, but there are no other products on display. Customers can only pick up their online orders there or at the second counter consult an Apple employee by appointment.
- To access the Express shop, customers must scan the QR code with their order confirmation at the entrance and show their identity card.

The rise of 'dark stores'—and how they could save struggling retail FAST@MPANY

- Whole Foods "opened" a new "store" that you can't walk into or shop at. Located in Brooklyn and slightly smaller than a typical Whole Foods, the store is dedicated solely to fulfilling online orders. It's the company's first purpose-built online-only store.
- But this is not just a pandemic-related reaction. Though six of its stores were temporarily converted to handle only online orders, this new dedicated online-only store had been in the works for more than a year, according to company officials. And it's not alone.
- More retailers are accommodating the shift from in-store to online shopping by turning their physical locations into so-called "dark stores"—miniature warehouse-like spaces where online orders can be packed for pickup or delivery. Retail experts say this is just the start of a major trend. Read my full story here.



The next wave of the global recovery could send commodity prices soaring sources.

- The next phase of the economic recovery is likely to be driven by commodity-intensive infrastructure investment, analysts have told CNBC, potentially setting the stage for further gains across the industrial space in coming months.
- The prediction comes at a time when market participants are closely monitoring the strength of the global economic recovery, as many countries grapple with an upsurge in the number of reported Covid-19 infections.
- "I'm watching things like iron ore very closely now because those sorts of industrial commodities are going to skyrocket if we do get this bounce-back driven by infrastructure and then that will filter into oil," Andy Critchlow, head of news in EMEA at S&P Global Platts, told CNBC.

Walmart & Oracle to finalize TikTok deal following US government approval EDGE^

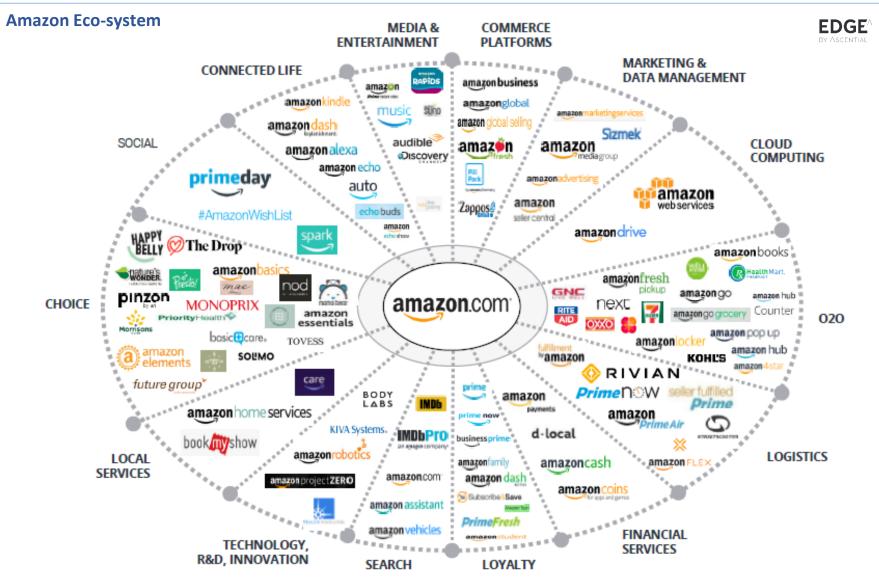
- Walmart has made a tentative agreement to purchase a 7.5% stake in short-form social video platform TikTok, in partnership with Oracle, which will gain a 12.5% stake. As part of the deal, TikTok is creating a new company called TikTok Global, which will work towards an initial public offering in the US over the next year.
- Walmart had previously teamed up with long-term strategic partner Microsoft on a bid which was rejected by
 TikTok's owner ByteDance. If approved by the relevant US government agencies, the new deal would see Walmart's
 CEO Doug McMillon gain a seat on the TikTok Global board, giving Walmart a strategic advantage in shopper
 engagement, data acquisition and emerging consumer trends, further strengthening its digital ecosystem.

Amazon finally delivering real profits SupplyChain Digest Vour First Stop for Supply Chain Information

- Amazon for years received much criticism for its consistent failure to really make any money, but that started to change in 2016 and really jumped in 2018, as can be seen in the chart below. Net income for 2019 was \$11.5 billion, up 11.5%, and reached 4.1% of sales, both those numbers easily setting company records.
- However, it's worth noting that 28% of its operating income came from its AWS web services unit.









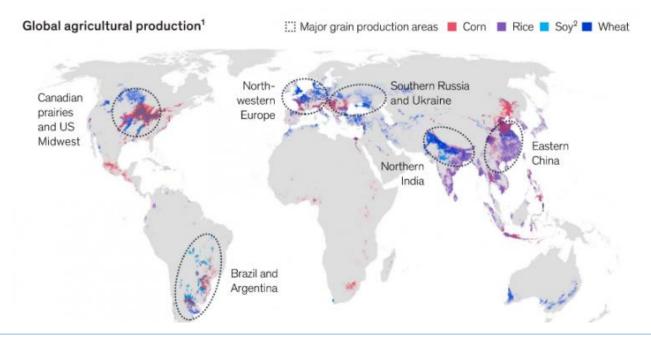




How vulnerable is the global food system to climate change? McKinsey&Company

A combination of factors makes the global food system more vulnerable to climate change. These include:

- **Dependence on a handful of grains:** The human diet is highly dependent on just four grains: rice, wheat, corn, and soy. They make up almost half of the calories of an average global diet, with rice and wheat contributing 19 percent and 18 percent, respectively.
- Geographic concentration of production: Sixty percent of global food production occurs in just five countries: China, the United States, India, Brazil, and Argentina (see below). Even within these countries, food production is highly concentrated in a few regions. For example, 88 percent of Indian wheat production comes from five states in the northern part of the country and in the United States, five Midwestern states account for 61 percent of corn production, according to the Department of Agriculture. This means extreme weather events in those regions could affect a large portion of global production.





Most Marketers Don't Believe In-Person Events Will Happen This Year American



- 71.2% of US ad and marketing executives think it's at least somewhat unlikely that Business Events Taking Place According to US Ad and in-person business events, including conferences and large industry shows, will take place by the end of 2020.
- In fact, just 8.8% of respondents said it's at least somewhat likely that live events will place this year, indicating that virtual events—which have increased amid the pandemic—will likely be a regular occurrence in the meantime.
- Most in-person events have been canceled, and as concerns around face-to-face meetings persist, companies will likely be pivoting to virtual gatherings—even for intimate dinners and cocktail hours with clients.
- Virtual events will likely be a regular occurrence post-pandemic, according to US marketing professionals polled by The 614 Group in May 2020—especially large gatherings, including those that

Coronavirus Impact: Likelihood of Live/In-Person **Marketing Executives, July 2020** % of respondents Very likely 3.4% Somewhat likely 5.4% Somewhat unlikely 10.7% Very unlikely Too soon to tell Don't know/no answer

Note: by the end of 2020; includes conferences and large industry shows Source: The 614 Group, "The Future of the 'In-Person' Business Economy: Summary of Wave 2 Findings," Aug 6, 2020

feature headliner speakers.

IKEA Canada predicts scarcity of office furniture



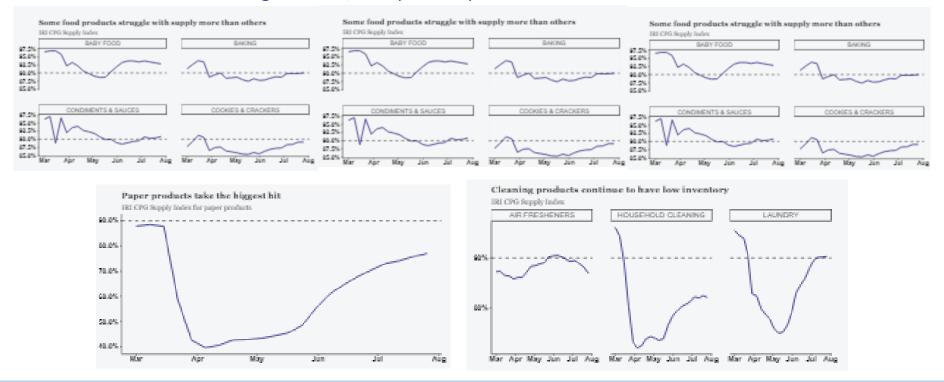
The demand for desks, chairs and other office furniture is outpacing the supply in Canada, meaning consumers could face shortages this fall as the pandemic keeps more people working and studying from home, according to IKEA Canada. The supply chain has also taken a hit, as international suppliers closed and are facing high demand as they reopen.



- Ocean rates continue to surge on the Transpacific route. They are up more than 50% YoY from China and East Asia to the North American East Coast and have more than doubled (up 145% YoY) from China and East Asia to the North American West Coast, according to numbers from Freightos.
- Container lines are seeing financial gains as rates surge past previous high watermarks. While volume declined across carriers in the second quarter, nearly all of them have higher rates YoY and had record earnings for the quarter, according to Sea-Intelligence.



- Panic-shopping-induced inventory challenges and supplier disruptions resulted in stockouts and procurement issues for retailers in the early days of the pandemic. But the recovery from the early days in March has not been the same across product categories.
- Toilet paper, flour and other staples have started to return to the aisles, as shoppers adopt more normal behavior and as the grocery supply chain adapts to the new normal.
- "Our operational and commercial teams have positively responded to the extraordinary demand caused by the pandemic, driven by a major shift in consumer behavior toward eating at home with a resurgence of cooking simple meals and increased snacking occasions," Campbell Soup CEO Mark Clouse said earlier this month





Alibaba Debuts Cloud Computer, Delivery Robots at Cloud Computing Conference **EDGE**

- Alibaba Cloud, the digital technologies and intelligence backbone of Alibaba Group, today unveiled a series of innovative products at its 12th annual Apsara Conference, highlighting the technology pioneer's commitment in helping people adapt to the more digitized world and accelerate customers' digital transformation during and after the pandemic.
- Alibaba Cloud also unveiled its autonomous logistics robot for last-mile deliveries.

 Developed by the Alibaba DAMO Academy, the global research initiative by
 Alibaba Group, the delivery robot can carry 50 packages at one time and cover
 62 miles (or 100 kilometres) on a single charge. It is estimated the mobile robot should be able to deliver as many as 500 packages a day to one designated community or campus, meeting the rising demand for speedy last-mile delivery in China. Online shopping is booming there, with 200 million packages delivered daily and expectations that will rise to 1 billion packages per day in the coming years.

Safety groups, Teamsters challenge HOS final rule in federal court FREIGHTWAVES

- 3 safety groups and the International Brotherhood of Teamsters are suing the FMCSA in federal court in an effort to rollback changes made to driver hours-of-service rules scheduled to go into effect on Sept. 29.
- Advocates for Highway and Auto Safety, Parents Against Tired Truckers, Citizens for Reliable and Safe Highways, and the Teamsters filed the petition Wednesday with the U.S. Court of Appeals for the District of Columbia Circuit. The petition notes that the FMCSA in August denied the group's petition for reconsideration.
- The filing will not prevent the HOS rule changes from going into effect, according to Adina Rosenbaum, a lawyer with Public Citizen, "Instead, when the case is over and if we succeed in our challenge, we'll be asking the court to set aside the rule. At that point it would no longer be in effect," Rosenbaum told FreightWaves.
- The changes to HOS rules, which were finalized by FMCSA on June 1, "will further exacerbate the already well-known threat of fatigue among commercial motor vehicle (CMV) drivers by significantly weakening current HOS rules," the petitioners asserted in a press statement.







10 key trends set to impact on global supply chain growth:



- 1) Trade
- 2) Reduction in off-shoring
- 3) Impact of re-shoring on global logistics
- 4) Re-focus on supply chain risk
- 5) 'China+' strategies
- 6) US-China trade war
- 7) China Belt & Road
- 8) Weaponizing high tech
- 9) Circular supply chains
- 10) Automation & 3D printing

FMCSA Extends COVID HOS Exemption Until 2021 REPORT

- The Federal Motor Carrier Safety Administration (FMCSA) has announced that they will be extending truck drivers' HOS exemption for emergency relief supplies until at least the end of the calendar year.
- Following the COVID-19 pandemic's arrival in the U.S., FMCSA suspended hours of service regulations as part of an
 expanded emergency declaration. To help combat the national emergency declared by the president, truck drivers
 hauling supplies related to recovery efforts would be exempted from all HOS requirements for the duration of their
 qualifying load.
- This is common following natural disasters and other emergencies, but this exemption covers a lot more than normal. Medical supplies, personal protective equipment (ppe), food, groceries, and precursor materials for all of the above.
- The exemption has also lasted for much longer than normal. So far it has been extended only one month at a time. Apparently, the FMCSA has finally admitted that the circumstances aren't going to change any time soon, and have now extended the HOS exemption through the end of the year. It is still worded in a way that it will end earlier if the president declares an end to the national emergency.

points



Supply Chain Update

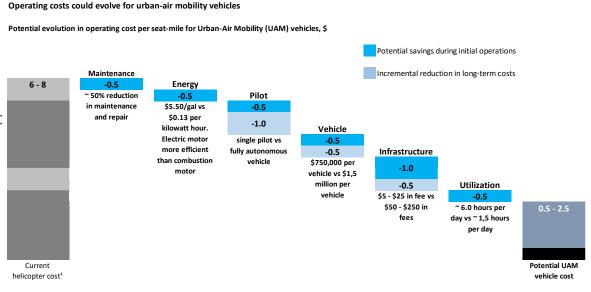
To go from science fiction to reality, urban flying vehicles need to be cheaper than helicopter shuttles McKinsey&Company

For congested cities, urban-air-mobility vehicles could be a promising alternative to ground transportation. But to be successful, these vehicles need to cost 80 percent less to operate than helicopters do.

The dream of using new technologies to rise above the ever-increasing urban-road congestion. has gained significant momentum. With more than 250 businesses planning to build, operate, or manufacture urban-air-mobility (UAM) vehicles, all at different stages of development, a growing assortment of industry players is working across the value to make this dream a reality. Enabled by vertical-takeoff and -landing (VTOL) systems, electric propulsion, and advanced flight-control capabilities, these vehicles could eventually reach price rivaling today's taxi services.

The resulting flying vehicles will be energy efficient, quiet, environmentally friendly, and eventually pilotless.

For UAM to be truly successful, trip costs must fall around 80% from current helicopter levels for UAM to compete with ground travel (see Table). In addition to physical infrastructure places that vehicles take off and land success will require a variety of infrastructure to support unmanned air-traffic control, aircraft charging and/or refueling and connectivity.



To offer sustainable service, flying vehicles need places to take off, land, receive maintenance, charge batteries/ refuel their tanks, and park. Complicating this, traffic flows are typically unevenly distributed and highly directional.

¹Current cost may depend on various factors, including number of passengers and helipcopter type



Germany Is Re-Engineering Europe's Most Important River SupplyChainBrain

- Not all businesses reliant on the Rhine have a wily river oracle at their side, so Germany is pushing to secure commerce on this critical artery. The multi-pronged effort involves an elaborate model of the trickiest stretch, re-engineering boats and even mulling once-taboo new locks. After low waters forced shipping on stretches to all but cease two years ago, there's an urgency.
- "2018 was a wake-up call," said Jelle Vreeman, a shipbroker at the Rhine's mouth in Rotterdam. "It will happen again. The German authorities don't have a choice but to do something about it for the long term."
- Dotted with medieval fortresses and enshrined in German legend, the Rhine is an intrinsic part of the country's mystique and a key part of its modern-day competitiveness. Around 30% of Germany's coal, iron ore and natural gas is transported along the river, where factories are set up to take deliveries for just-intime manufacturing. The disruption in 2018 contributed to a contraction in the German economy.



German truckload broker acquires Uber Freight's Europe business 🔊 JOC.com

German digital broker Sennder has scooped up Uber Freight's European operations for an undisclosed amount, consolidating its position in a market defined by small carriers with employee drivers, not independent owner-operators.

DSupplyChain DIVE

Amazon Logistics' planned 2020 growth exceeds previous 3 years combined

Amazon's delivery stations, the facilities closest to the consumer, are growing the most as the e-tailer expands its logistics footprint. "In 2019, Amazon had partnered with 800 companies with 75,000 drivers who picked up items across Amazon's then 150 Delivery Stations," RBC wrote of the growth. "Now, Amazon partners with 1,300 companies that employ 85,000 workers, across what we think are currently approximately 400 Delivery Stations in the U.S."

Still So Much To Learn





Carriers impose restrictions as container shortages in Asian ports get worse in Joc.com

- All the major carriers are experiencing equipment shortages at Asian ports with popular 40ft high cubes in particular short supply at Chinese depots.
- Anecdotal reports to The Loadstar suggest CMA CGM currently has a shortage of equipment at all of the main Chinese ports, while other carriers are advising of shortages at some docks and "near normal" availability at others.
- However, one Chinese forwarding source said equipment availability was more about "what you are prepared to pay", with some lines introducing a "box priority fee", payable at the time of booking.
- And many carriers have introduced restrictions on the release of empty containers prior to the intended shipment.
- For example, Hapag-Lloyd will now only release empty containers from its mainland China depots a maximum of eight days prior to the estimated arrival of the intended sailing.

US government to fund five intermodal projects PORT through BUILD



- The US DOT has included several intermodal ports and terminals, and related infrastructure initiatives, in its \$1B project to improve the supply chain.
- The Port of Cates, America's Central Port, the Dundalk Marine Terminal and the Port of Everett are all included in the Better Utilizing Investments to Leverage Development (BUILD) project, as are other initiatives to improve the flow of goods across the country.
- The DOT said BUILD funding supported roads, bridges, transit, rail, ports and intermodal transportation, and that it had invested approximately \$4 billion since 2017.
- The rural economy, which the DOT said had been "historically neglected", received 50% of the fund.

			E, SCP, Procureme	ent) Total	Software	Revenue	9	
No.	Supplier	2018 Revenue	2019 Revenue	SCP	WMS	TMS	Procurement	Website
1	SAP	\$3,789.8	\$4,122.1	x	x	x	x	sap.com
2	0racle	\$1,716.7	\$1,734.9	x	x	x	х	oracle.com
3	Blue Yonder (previously JDA Software)	\$781.1	\$835.8	x	x	x		jda.com
4	Coupa	\$226.4	\$334.8				х	coupa.com
5	Infor Global Solutions	\$322.3	\$333.1	x	x	x	x	infor.com
6	e2open	\$168.5	\$287.2	x		x	x	e2open.com
7	Descartes Systems Group	\$240.2	\$282.3			x		descartes.com
8	WiseTech Global	\$199.9	\$261.1		x	x		wisetechglobal.con
9	Jaggaer	\$225.5	\$260.7				x	jaggaer.com
10	Manhattan Associates	\$215.5	\$244.9	x	x	x		manh.com
	Top 10 total	\$7,886.0	\$8,697.0					

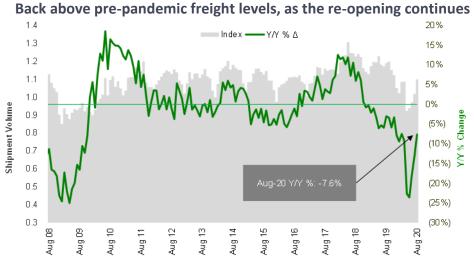
\$6,088.1

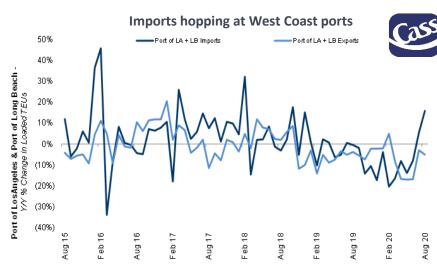
\$13,974.1

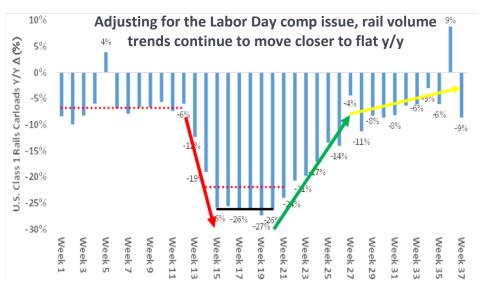
\$15,175.7

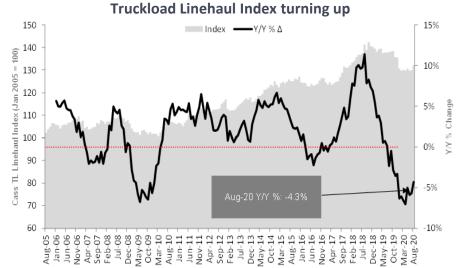
Top 10 supply chain management software suppliers



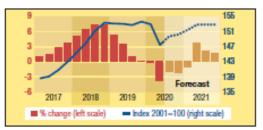












% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
General freight - local	-0.1	-11.7	-10.7
TL	4.8	-2.4	-2.7
LTL	3.0	-1.6	1.4
Tanker & other specialized freigh	ht 0.2	-1.5	-2.0



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
Air freight on scheduled flights	3.3	3.3	4.2
Air freight on chartered flights	5.6	3.8	3.8
Domestic air courier	0.9	-3.8	1.3
International air courier	0.9	-33	0.3



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
Rail freight	-0.2	-2.4	-1.7
Intermodal	0.7	-6.9	-7.0
Carload	-0.4	-1.4	-0.6

TRUCKING

As COVID-19 lockdowns lifted, the accelerating monthly declines in trucking prices slowed with a mild 0.9% price decline in June. Compared to a year ago, however, average industry prices were still down 6.4%. All told, in the second quarter, despite a recovery in demand for long-haul service and booming e-commerce sales, truckload prices fell 6.8% from the same quarter a year ago and local general freight trucking tags plunged 6.6%. At the same time, LTL reported its first decline in five years as tags dipped 1%. The quarterly rate-of-change graphs are striking: TL and local trucking prices dropped straight down beginning in April. The forecast shows industry prices falling 1.9% in the third quarter and down another 2.2% in the fourth.

AIR

Transaction prices for flying freight in the belly of U.S. owned

planes remain strikingly stable. Even as overall U.S. airliner prices (passenger and freight) dropped 12.2% in the second quarter, scheduled airfreight prices inched up only 0.4% following a 0.6% increase in the first quarter. Air courier prices have been a bit more volatile. Domestic air courier prices had clawed their way back up to a 6.9% inflation rate in the three months ending February, but then declined 0.3% by end of the second quarter. International air courier prices likewise were up 4.1% and then down 1.6% over the same time periods. Even with the coronavirus clouds, our latest forecast sees U.S. airfreight prices (scheduled flights) up 1.9% in 2020 and up 2.2% in 2021.

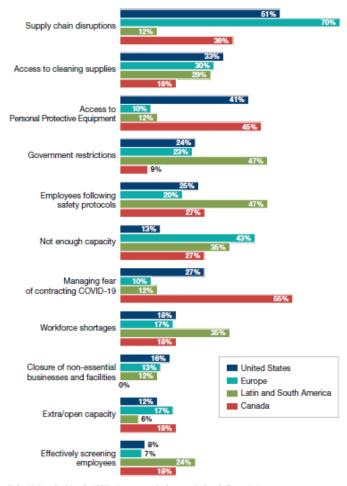
RAIL

Monitoring the three-month-moving-average price trends, we saw the rall industry's inflation rate peak in October 2018 at 6.7%. By December 2019, rall inflation appeared to have stalled at a piateau of 1.6%. Then the pandemic crisis pushed rall price trends back on the downward track. With fewer cargo ships offloading at U.S. ports, intermodal rall, more than carload, has been the disinflation driver. In fact, intermodal rall prices have fallen for six consecutive months. By the second quarter of 2020, intermodal tags were down 6.7% from yearago levels. Carload prices, meanwhile, increased 0.6%. Economic conditions to induce price hikes shead are nowhere to be seen yet.

Regional results:

What are the top three challenges facing your business as a result of the current COVID-19 pandemic?

% selected



Note: % do not add up to 100% given respondents can select up to three choices

Source: Global Cold Chain Allance, May 2020



Technological method for procuring transportation services

Percent of respondents App-based												
	Contracted services/ rates with carriers		Truck broker (e.g.CH Robinson)		Truck broker with limited technology		Loadboard (e.g. DAT, Truckstop.com, etc.)		Broadcast tendering		truck brokerage (e.g. Uber Freight, Convoy, Loadsmart)	
Expect usage to stop	1.1%	0.0%	4.4%	2.8%	6.7%	6.3%	2.2%	2.1%	3.3%	2.1%	4.4%	3.5%
Usage wi significantly decreas	A 1 CONTRACT OF THE RESIDENCE OF THE RES	0.0%	2.2%	1.4%	11.1%	10.4%	3.4%	4.2%	3.3%	0.0%	0.0%	2.8%
Usage will decrease	9.3%	9.5%	5.6%	6.3%	16.7%	15.3%	9.0%	3.5%	4.4%	3.6%	4.4%	2.8%
Going down	6.6%	3.5%	12.2%	10.5%	34.5%	32.0%	14.6%	9.8%	11.0%	5.7%	8.8%	9.1%
Expect no change	42.2%	52.8%	50.0%	56.3%	37.8%	54.9%	59.6%	69.7%	63.7%	69.3%	62.6%	58.5%
Will start to us	6.7%	2.5%	8.9%	1.3%	8.9%	4.9%	5.6%	8.5%	8.8%	10.7%	13.2%	19.0%
Usage will increase	36.7%	24.3%	18.9%	17.6%	14.4%	5.6%	15.7%	9.2%	11.0%	10.0%	13.2%	9.9%
Usage wi significantly increas		6.9%	10.0%	4.2%	4.4%	2.8%	4.5%	4.9%	5.5%	4.3%	2.2%	3.5%
Going up	51.2%	33.7%	37.8%	23.1%	27.7%	13.3%	25.8%	22.6%	25.3%	25.0%	28.6%	32.4%
						2019	202	0				

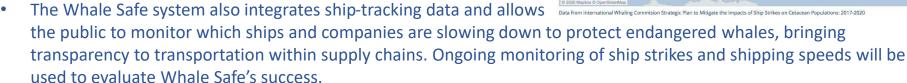
Source: 29th Annual Study of Logistics and Transportation Trends



WØRLD ECONOMIC

This new technology can save whales from ship collisions

- Whale-ship collisions are occurring at an increasing rate around the world. A newly developed tool uses AI, a mobile app and big data to help mariners avoid whale strikes. The first Whale Safe system has now been deployed off the coast of California.
- A team of leading ocean scientists from the Benioff Ocean Initiative, University of California, Woods Hole Oceanographic Institution, Texas A&M University at Galveston, the University of Washington, and National Oceanographic and Atmospheric Administration have developed Whale Safe, a new whale-detection system that will empower mariners with the data they need to reduce the risk of whale-ship collisions.



Contact Anctic Ocean Anctic

Container Shipping Rates Continue to Deliver 'Positive Surprises', BIMCO says Professional

- As the year 2020 continues to deliver positive surprises for the container shipping sector, the gap between short and long-term contract freight rates on the Trans-Pacific trade lane has never been wider, according to BIMCO.
- On September 17, for containers shipped from the Far East into the US west coast, short term freight rates stand at \$3,921 per FEU and long-term freight rates at \$1,521 per FEU a record difference of \$2,400 per FEU.
- "Now it is the carriers' market. Carriers have successfully pushed through eight consecutive general freight rate increases in just five and a half months. The coming weeks and month are likely to see higher long-term freight rates when contracts are up for negotiations and renewal with cargo owners and shippers," Sand concluded.



East Coast ports welcome largest vessel American Shipper

- Ports of Halifax and New York/New Jersey salute the CMA CGM Brazil while Virginia and Charleston ready for arrival.
- The CMA CGM Brazil became the largest vessel to call a U.S. East Coast port when the container ship, with a capacity of 15,072 TEUs, arrived at the Port of New York and New Jersey on Saturday.
- The 1,200-foot-long CMA CGM Brazil berthed at APM Terminals at the Elizabeth Port Authority Terminal.
- The CMA CGM Brazil operates on a service connecting the U.S. East Coast and Southeast Asia via the Suez Canal. The Port of Virginia tweeted that it was "ready to handle the largest vessels calling our coast, meet the growing needs of our customers, provide people with the goods they need and drive business to and through the



commonwealth." Also ready to welcome the CMA CGM Brazil is the Port of Charleston, which will mark its largest ship to call on Sunday.

Red-hot ocean rates could spark government intervention American Shipper

- Could regulators throw a monkey wrench into carrier capacity management?
- Record-high trans-Pacific spot rates and container-equipment shortfalls in Asia have now caught the eye of powerful
 government regulators. The China Ministry of Transportation and Communication questioned liner reps in a special
 meeting last Friday.
- In the aftermath of that sit-down, concerns have been raised about carriers' ability to implement general rate increases and "blank" sailings while averting future government backlash.
- "The meeting in Shanghai was not something anybody was expecting," said Sea-Intelligence, in an interview with FreightWaves. "A lot of people had plans for the weekend that got canceled. Nobody was ready for that.
- "I think the carriers are now mulling how best to address this," he continued. "The carriers are not going to blindly ignore the Chinese authorities. You can't do that."



COSCO container ship crew rescues sailors in Gulf of Mexico JOC.com



- The captain and crew of the COSCO Malaysia are credited with rescuing a sailboat crew in distress in the Gulf of Mexico on Sunday.
- The Hong Kong-flagged container ship, with a capacity of 8,500 twenty-foot equivalent units, was en route from Mobile, Alabama, to Port Tampa Bay in Florida when it received a distress call from the sailboat at 8:22 a.m.

2M restores transpacific capacity and pleads for return of empty containers THELOADSTAR

- The 2M is the latest container shipping alliance to return more capacity to the transpacific trades.
- 2M partners Maersk and MSC said they "continued to see strong demand and volumes with imports into the US".
- Maersk told customers today the TP8/Orient and TP11/Elephant services, which had been "structurally blanked in the second quarter", had been reinstated and that the number of blanked sailings during China's Golden Week holiday would be lower than normal this year.
- However, it warned shippers there were still a number of threats to container supply chains between Asia and North America, largely stemming from the unexpected demand, and urged customers to "add more buffer to supply chain schedules to allow for potential disruptions/delays".

Union backs off until November at Sydney, but port delays and congestion run on m

- Port operations resumed unhindered at DP World's Sydney terminal over the weekend, after the Maritime Union of Australia agreed to halt its industrial action.
- However, liner body Shipping Australia warned that shippers and freight forwarders could still expect substantial disruption to container supply chains. It said: "The union has given a written undertaking to the Fair Work Commission that no further notice of industrial action at Port Botany will be given before 1 November.
- "Unless DP World Australia and the employer enter into a binding workplace agreement (known as an enterprise agreement), the union will have the power to re-start industrial action in November.
- "Meanwhile, industrial action is still possible at Hutchison in Brisbane and Sydney and at Patrick Terminals in Brisbane, Sydney and Melbourne. There is also the possibility of industrial action at the towage operator, Svitzer.

Still So Much To Learn





US Customs targets Chinese e-commerce with bid to reduce tax threshold THELOADSTAR

- US importers of Chinese goods valued below \$800 may lose their exemption from tariffs, if a proposal from the US Customs & Border Protection agency (CBP) moves forward.
- On 2 September, CBP asked the US Office of Management & Budget for regulatory review of a proposal entitled Excepting Merchandise Subject to Section 301 Duties from the Customs De Minimis Exemption [of \$800].
- "I think the biggest impact would be on AliExpress imports, including Wish, one of the largest marketplaces in the US, which could have a meaningful impact on e-commerce," said Mike Scheschuk, CMO of Jungle Scout, which provides a platform for selling on Amazon.
- China's e-commerce exports have soared, and according to one prediction, will climb beyond \$199bn by 2022, up from \$100.2bn in 2017, and the government is doing its bit to foster international growth through its cross-border e-commerce (CBEC) project. There would likely also be repercussions on transit times, said US Airfowarders Association, adding that clearance of goods in transit would still be possible, "but we should probably expect more CBP examinations to assure compliance with the increased duties."
- The cost increases would come on top of higher transport costs in the wake of the new fee structure of the US Postal Service (USPS) for delivery of parcels mailed from China. According to Seko Logistics, these have soared up to 150% since the new USPS charges on 1 July.

FMC fires 'collusion' warning shot across the bows of transpacific carriers MARINELINK



- US ocean regulator the Federal Maritime Commission (FMC) has fired a warning shot across the bows of container shipping lines, saying it will head to the courts if there is evidence of collusion on the transpacific trades.
- Freight rates between Asia and the east and west coast of the US have reached record highs in recent months and, following a closed meeting of FMC commissioners yesterday, the regulator said it was looking into possible infringements of competition law.
- "If there is any indication of carrier behaviour that might violate the competition standards in section 6(g) of the Shipping Act, the commission will immediately seek to address these concerns with the carriers.



Australia Bans Fourth Ship for Underpaying Crew Wages & gCaptain

- The Australian Maritime Safety Authority (AMSA) banned yet another vessel for deliberately underpaying crew wages, which in this case the operator attempted to conceal from the authorities.
- The AMSA on Friday announced a 12-month ban for the Panama-flagged bulk carrier AC Sesoda, which is operated by Sincere Industrial Corporation of Taiwan.
- AMSA boarded the ship at Mourilyan in Queensland on September 10 to investigate allegations of underpayment.
 During AMSA's investigation, evidence was collected which confirmed that a number of crew had only been paid half of their wages since October 2019.

International Lenders Back \$9.5 Billion Financing for Russia's Arctic LNG 2 REUTERS

International lenders have lined up about \$9.5 billion in financial support for a Russian Arctic liquefied natural gas (LNG) project, a document seen by Reuters showed, even as such projects come under greater scrutiny over climate concerns. The \$21 billion project, which received final investment approval a year ago, is expected to be launched in 2023 and to reach its full capacity of almost 20 million tonnes per year in 2026.

U.S. Seeks Stricter Funding Rules for Abandoned Offshore Oil Wells Yahoo!

The U.S. is looking to tighten requirements on bonds issued by a growing number of bankrupt oil producers to deal with abandoned offshore wells that could eventually become environmental disasters.

High-yield trans-Pacific siphoning available containers: forwarders **JOC.**com

As rates hit record levels on the trans-Pacific, the trade is an irresistible magnet for carriers, leaving forwarders in Asia struggling to find boxes as all equipment flows towards China's export hubs.

Maersk no longer taking empties at Felixstowe as congestion grows Joc.com

The UK's busiest container port is being overwhelmed by peak season volume, staff shortages, and problems with its truck booking system, with forwarders feeling the effects of a ban on empty container drop-offs.





Carriers impose restrictions as container shortages in Asian ports get worse

- All the major carriers are experiencing equipment shortages at Asian ports with popular 40ft high cubes in particular short supply at Chinese depots.
- Anecdotal reports to The Loadstar suggest CMA CGM currently has a shortage of equipment at all main Chinese ports, while other carriers are advising of shortages at some docks and "near normal" availability at others.
- However, one Chinese forwarding source said equipment availability was more about "what you are prepared to pay", with some lines introducing a "box priority fee", payable at the time of booking.
- And many carriers have introduced restrictions on the release of empty containers prior to the intended shipment.
- Hapag-Lloyd will now only release empty containers a maximum of 8 days prior to the estimated arrival of sailing

Port of Long Beach has upgrade budget approved PORT



- The Port of Long Beach will invest approximately \$379 million after the Long Beach City Council approved the budget for the Harbour Department and coastline development.
- In a statement the Port said the \$379 million accounts for 58% of the total City budget, amounts to \$650 million and is 4% lower than last year. It will include capital projects to construct and upgrade facilities.
- Over the next 10 years it plans \$1.7 billion in capital expenditures to enhance marine terminal productivity, deliver greater efficiency to customers and improve safety and sustainability of operations.

Port Houston sees improvement in container volumes **PORT**



In August 2020 the Port handled 248,630 TEUs which it said was only 4% less than 2019 levels when a total of 259,110 TEUs was handled. This also reflects a 5.9% gain over July 2020, when Port Houston handled 234,737 TEUs.

Egypt to build 543km Suez – Mediterranean line RAILWAYAGE

An Egyptian/Chinese consortium has reportedly won a \$US 9bn contract to construct a 543km, 250km/h railway from Ain Sokhna on the coast of Suez to the new Administrative Capital east of Cairo and El-Alamein on Egypt's Mediterranean coast. The line will also pass through the cities of Sixth of October, Alexandria, and Burj al-Arab



Beverages, CBD & C-Stores

Hemp Industry Asks DC Circ. To Stop DEA Rule LAW369

A hemp trade group and a CBD retailer filed a petition before the D.C. Circuit on Friday asking the court to throw out the U.S. Drug Enforcement Administration's interim final rule on hemp, arguing the agency's regulations ignore the boundaries set by the 2018 Farm Bill.

QuikTrip's Network Reaches 850 C-stores Convenience Co

- QuikTrip Corp. hit a milestone when it welcomed customers at four new locations on Sept. 17.
- With the four-play, the convenience retailer grew its portfolio to 850 stores. Two QuikTrip locations opened in San Antonio, one in Austin, Texas, and one in Marana, Ariz., just outside of Tucson. Forty-eight more stores are under construction nationwide, company spokeswoman Aisha Jefferson-Smith told the Tulsa World.

Couche-Tard to Bring Electric Vehicle Charging Strategy to North America Bloomberg

- After rolling out electric vehicle (EV) charging stations at locations in Europe, Alimentation Couche-Tard Inc. is bringing the initiative to the United States and Canada.
- President and CEO Brian Hannasch said the company plans to install charging stations at convenience stores in North America in the short term. Longer term, Couche-Tard wants to make a push into at-home EV charging, according to Bloomberg.
- "We'll have chargers deploying in the next 12 months in Canada and in the U.S.," he said. "Our goal will be to follow the path we're on in Norway."

Hemp farmers eligible for new USDA coronavirus relief funds Hemp Daily

- Despite missing out on earlier funding, hemp farmers are included in a new \$14B coronavirus relief that will
 provide additional direct assistance for agricultural producers who continue to face market disruptions and
 associated costs.
- Hemp is categorized under the Flat-rate Crops group for payments, which according to USDA are crops that either do not meet the 5% price decline trigger or do not have data available to calculate a price change.



Beverages, CBD & C-Stores

Research on CBD: 7 top health benefits of CBD HIGH GRADE HEMP SEED

CBD research studies are revealing a growing list of potential health benefits. The width and breath of these benefits likely has to do with how CBD interacts with the body's endocannabinoid system.

- **CBD and pain research** Many CBD advocates swear that CBD makes their aches and pains disappear, but what does the science actually say on this matter? The available research does seem to support the fact that CBD can offer pain-relieving properties.
- CBD and anxiety research With a third of Americans now showing signs of clinical anxiety or depression, it's more important than ever to understand what treatment options are available, especially for people who prefer natural remedies. In some cases, CBD may be the answer.
- CBD and Epilepsy In a landmark double-blind study published in the New England Journal of Medicine, researchers found that an oral solution of CBD was able to lower seizures in children with Dravet syndrome.
- CBD and Multiple Sclerosis A study that used Sativex on a group of 276 people with MS found that nearly 75% of the research subjects reported less muscle spasticity, offering needed relief and increased quality of life.
- CBD and heart health One promising study points to the fact that CBD may help lower blood pressure. High blood pressure is an indicator of heart disease and can lead to strokes and heart attacks. This small CBD case study recruited nine healthy men to take a single 600 mg. dose of CBD oil. Even after just one dose, the men showed a lower resting blood pressure when compared to the placebo group. The men who took the CBD oil also showed a lower increase in blood pressure when put under a stress test.
- **CBD and cancer treatment symptoms** A small, double-blind study published in the British Journal of Clinical Pharmacology recruited patients undergoing chemotherapy treatment and gave them a combination of THC and CBD. Patients who received the THC and CBD reported fewer side effects from the chemotherapy than the placebo group.
- Other exciting potential CBD health benefits Many of the most exciting CBD research is still in the early stages. While these avenues of research have a ways to go, results are still worth mentioning. Studies are highlighting CBD benefits on (i) acne, (ii) cancer, (iii) diabetes and (iv) substance abuse.



Healthcare Update

World's largest medical glove maker sees strong growth ahead as pandemic sparks global surge in demand Necrose

- Malaysia's Top Glove still expects "very strong" growth ahead, following its blockbuster earnings report, the firm's managing director Lee Kim Meow told CNBC on Friday.
- Top Glove on Thursday reported that its fiscal 2020 post-tax profit spiked 417% from last year. The company said the "tremendous growth stemmed from a global surge in demand for gloves on the back of the COVID-19 pandemic."
- Lee also discussed the firm's plans for a third listing in Hong Kong, on top of its current presence in the Singapore and Malaysian markets.



One Year in, Walmart Health is Delivering Affordable Healthcare – And Expanding Walmart 💢

Walmart currently has six Walmart Health locations open with five in Georgia, including the opening in Cartersville yesterday, and one in Arkansas. They plan to open seven more locations in Georgia by end of the fiscal year and two in the Chicago area this fall and also planning 7 Walmart Health locations in the Jacksonville market in 2021, with at least one opening in early 2021, Other plans include conversations in the Orlando and Tampa markets.

Pharma supply chains start planning for Covid-19 vaccine surge CSCMP COUNCIL OF Supply Chain



- Air cargo industry group The International Air Transport Association (IATA) is urging governments to begin planning now with industry stakeholders to create supply chains capable of distributing a future Covid-19 vaccine, warning of "potentially severe" capacity constraints in transporting vaccines by air.
- According to IATA's calculations, providing a single vaccine dose to the world's 7.8 billion people would fill 8,000 747 cargo aircraft.
- "Delivering billions of doses of vaccine to the entire world efficiently will involve hugely complex logistical and programmatic obstacles all the way along the supply chain," Seth Berkley, CEO of Gavi, the Vaccine Alliance, said in a release.



Healthcare Update

Strategic National Stockpile not built for this pandemic, experts say HOSPITAL REVIEW

- A shortage of critical medical supplies continues and may be worse because the Strategic National Stockpile isn't designed to handle a pandemic of the scale of COVID-19, three supply chain experts wrote Sept. 17 in Harvard Business Review.
- All three are part of the federal government's Supply Chain Task Force formed in April by HHS and the Federal Emergency Management Agency to address the limited supply of critical protective equipment during the COVID-19 pandemic.
- The authors identified three major systemic issues with the stockpile:
 - *i.* Its profile is too low. Funding for replenishing the stockpile has been repeatedly cut and has too small a small team within HHS, the authors wrote. It needs a higher profile and greater influence and should be guided by a board of governors representing departments that include the US DoD and the FDA.
 - ii. Its information is inadequate. The stockpile needs planning, including analyzing markets to assess global availability of supplies to be able to make quick and efficient decisions in a crisis. To do so, it needs real-time, dependable data from a broad array of sectors, the authors said. But its inventory management systems haven't been upgraded since the agency was founded in 2004, meaning it has very little ability to "see" into its stockpiles. The authors also said hospitals have been reluctant to share any type of information on their stocks out of fear their supplies would be taken away and sent to other hospitals. The stockpile needs legislation and policy changes to give it access to the information it needs, the authors said.
 - *iii.* It lacks crucial expertise. While employees have been doing their best in the COVID-19 crisis, the authors said they found key gaps in expertise at the stockpile. There's a shortage of people capable of understanding the current state of play in the supply chain. The agency needs sourcing analysts for each major category of material to learn where shortages and surpluses are, the authors wrote. They recommended the assembling of a pandemic planning team to hold monthly inventory reviews and forecast various risk events.
- "Getting control of the supply chain for emergency materials is absolutely critical to the nation's short-term health and its long-term resistance," the authors concluded.



Healthcare Update

No more cheap meds across the border? US lawmakers worry Mexico is opening back door to Big Pharma WGNO®

- "Evergreening" occurs when pharmaceuticals tinker with their products or change method of delivery to extend the life of patents that are about to expire and will no longer be cash-cows for them.
- What Mexico does with its drug prices affects thousands of uninsured or underinsured Americans who regularly cross the border to buy medications, said U.S. Rep. Veronica Escobar, D-Texas, who represents El Paso, just across the border from Juarez, Mexico.
- 4 U.S. Representatives recently sought the help of a Mexican senator to keep "secondary patents" out of legislation to implement the U.S.-Mexico-Canada Agreement.
- Mexican Sen. Gustavo Madero Muñoz, said motions were made to modify the laws dealing with pharmaceutical aspects of the USMCA, but they failed.
- One of the US Representatives says El Paso residents see doctors and buy medicines in Mexico to save money, but that Mexico extending exclusivity for drugs to 10 years from the current five "will skyrocket drug costs in Mexico and lead to devastating effects for Mexicans and Americans alike."
- Apparently not satisfied with the Mexican response, the four Representatives penned an opinion piece blasting the U.S. Trade Representative for not alerting lawmakers to the changes in Mexico they say favor Big Pharma.

US Air Force could deploy freighters to fly truckloads of vaccine American Shipper

- Planners study whether C-5 and C-17 airlifters are needed to supplement commercial cargo carriers, source says.
- U.S. military aircraft will play a major role in emergency distribution of a COVID-19 vaccine because there aren't enough private-sector cargo jets to handle the surge of millions of doses that must be maintained at subfreezing temperatures, according to a logistics expert with close ties to the government.
- On Wednesday, federal health officials released their COVID-19 vaccine distribution strategy and said they plan to start shipping supplies within 24 hours after the Food and Drug Administration approves a vaccine's use. The Department of Defense, which is already heavily involved in planning logistics strategy for getting a vaccine to the entire population as part of Operation Warp Speed, said it doesn't anticipate any significant deployment of military assets to supplement commercial freight transportation providers.



Alternative Energy Update

World's First LNG-powered Very Large Containership Delivered Maritime Logistics Professional

 Hyundai Samho Heavy Industries has delivered the world's first very large containership powered by LNG to Singapore's Eastern Pacific Shipping, the South Korean shipbuilder announced.

- The LNG-powered, 14,800 TEU capacity CMA CGM Tenere is one of six containerships in a series being built for EPS by Hyundai Samho.
- The 366-meter-long vessels were ordered by EPS in April 2018 and will be delivered by Q3 of 2022. They will be chartered by French container shipping company CMA CGM.
- CMA CGM will soon take delivery of even larger LNG-powered containerships, stating with the 400-meter-long, 23,000-TEU capacity CMA CGM Jacques Saadé from Shanghai Jiangnan-Changxing Shipyard. The Chinese shipyard is building nine vessels in the series for CMA CGM, who aims to operate at least 20 LNG-fueled containerships by 2022.

EDEKA promotes sustainable logistics with green hydrogen



- Experts agree that the use of green hydrogen plays an important role in energy conversion. The EDEKA Association is making progress and today the signatories in Neumünster, together with seven regional partners, declared their intention to launch a field trial. The aim is to establish the use of green hydrogen and thus a CO2-neutral fuel in heavy-duty logistics. The Neumünster site is a transport hub in Schleswig-Holstein and during the project, a service station for beta drinks of trucks with green hydrogen will be set up here.
- Greener hydrogen is produced by electrolysis of water, whereby only electricity from renewable energies such as wind power is used for electrolysis. This makes it climate-friendly and suitable for long-term reduction of CO2 emissions.
- This ensures the establishment of a comprehensive value chain covering hydrogen production, logistics, distribution and use in a total of 20 self-equipped vehicles. In this way, around 1.5 million can be used in the future. kilograms of CO2 per year.



Alternative Energy Update

How to interpret Tesla's Battery Day lingo REUTERS



Here is a simple guide to the jargon likely to be tossed around at Tesla's Battery Day on Sept. 22.

Cells and packs

- A Tesla Model 3 uses a single lithium-ion battery pack that houses four smaller modules. Each module contains 700 to 1,000 individual cylindrical cells, shaped much like the ones in a flashlight.
- Cells come in different shapes and sizes, but have three key elements: Electrodes, electrolyte and separator.
- Electrodes store the lithium. The electrolyte carries the lithium ions between electrodes. The separator keeps the positive electrode from coming in contact with the negative electrode.

Power talk

- In electric vehicles, power is expressed in kilowatts (kW) while energy is expressed in kilowatt-hours (kWh).
- "To have great acceleration in an EV, you'd want high power density. To have long range, you'd want high energy density," said electrochemist Leah Ellis, co-founder of Sublime Systems.

Range and life

- o Tesla vehicles currently can drive up to 400 miles between charges with NCA cells and nearly 300 miles with LFP cells. Tesla has said the new Cybertruck will get up to 500 miles.
- Tesla's next generation of batteries is expected to have much longer life: The equivalent of 1 million miles or more, compared with about 500,000 miles today.

Measures of cost

- The cost of battery cells and packs is coming down rapidly. Measured in dollars per kilowatt-hour (\$/kWh), experts have pegged \$100/kWh at the cell level as the point where electric cars will begin to approach the cost of vehicles powered by combustion engines and fossil fuel.
- A lithium ion battery cell that costs \$100/kWh to produce means a battery pack, with its additional battery management system, cooling system and other materials, could cost \$125-\$130/kWh or more.
- Today's battery packs cost around \$10,000-\$12,000, depending on their capacity. Tesla is aiming to reduce the cost of future packs to less than \$6,000, which would put the cell cost at well under \$100/kWh.



Top Five Challenges for Automakers Looking to Mitigate Supply-Chain Risk

This year has reminded us that we live in a VUCA (volatile, uncertain, complex and ambiguous) world. SupplyChainBrain

The vulnerability of supply chains to major global events has become the subject of daily mainstream news reports. While the automotive manufacturing and after-market supply chain isn't as high-profile as those involved in food or toilet paper, there's no doubt the industry is under enormous pressure to respond to a rapidly evolving new normal.

Here are the top five challenges that digital solutions help companies to address.

- 1. The growing complexity of the supply chain means digitally-enabled, centrally managed visibility is a must-have.

 A typical major auto manufacturer has somewhere between 5,000 and 7,000 suppliers. On the inbound side,

 OEMs need to know when materials will arrive; suppliers need to know which volumes are needed and when, and
 forwarders and 3PLs need to know when freight is ready to be moved. Without a single point of collecting and
 disseminating all that information, there's no way of keeping it all flowing smoothly
- 2. Customer habits and demands are changing rapidly.
 Companies will want to keep a close eye on how their cars are used, so they can better adapt to customer needs.
- 3. **Disruptions ripple through the supply chain fast; your distribution network must be able to compensate.**Competitors are disrupting markets with automation and online sales with the promise of super-fast delivery.
 That puts a strain on the traditional, lower-cost distribution model based on centralized points of distribution.
- 4. **You need a smarter backup plan.**Building up safety stocks across the supply chain is no longer a feasible strategy. Companies need to analyze the consequences of each decision on a case-by-case basis. Your best bet is to start small, focusing on a single factory, group of buyers, or geographical region, then expand into a universe of what-ifs.
- Focusing purely on cost isn't going to work anymore.

 Risk mitigation often comes with added costs, but it's important to keep your eye on the prize: a healthy, profitable business. Automotive companies need to learn how to identify and test alternative supply-chain strategies and tactics. They must become experts in using advanced supply-chain management technology to run what-if scenarios, not just for cost reduction but also to keep pace with fast-changing market demands.



The Hierarchy of Financial Needs

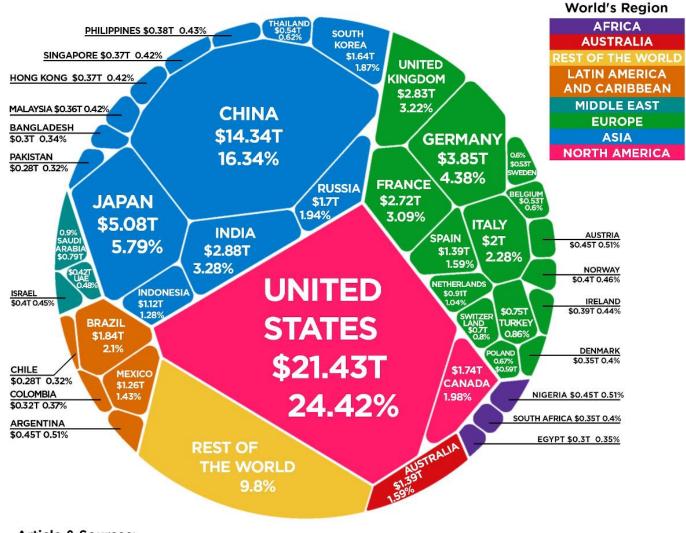








The \$88 Trillion World Economy in One Chart



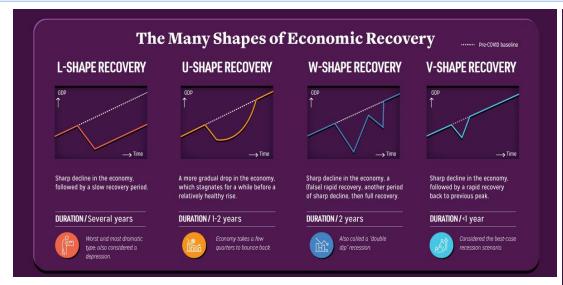
Article & Sources:

https://howmuch.net/articles/the-world-economy-2019 https://databank.worldbank.org





Shapes of Recovery



Is the glass half full, or half empty?

- Whenever the economy is put through the ringer, levels of optimism and pessimism about its potential recovery can vary greatly. The current state mid-pandemic is no exception.
- This graphic first details the various shapes that economic recovery can take, and what they mean. We then dive into which of the four scenarios are perceived the most likely to occur, based on predictions made by CEOs from around the
- The Conference Board, a think tank that analyzes economic trends, surveyed 600 CEOs worldwide on which recovery shape they see as being more likely. **U-SHAPE** W-SHAPE The average CEO feels that REGIONAL CEO economic recovery will follow a U-shaped trajectory **GLOBAL** oming out of Q3 2020 23% of U.S. and Japanese CEOs both think that the 26% Region CEOs feel the REGION 1 in 5 surveyed Chinese Will we bounce back quickly from this crisis, or are we in store for one of the worst-ever recessions? With many still grappling with effects of the global economy's disruption, only time will tell the true trajectory of a post-pandemic recovery CAPITALIST 🕇 🕞 Avisualcapitalist 🕑 💽 divisualcap 🕟 visualcap
- Another scenario not covered here is the Z-shape, defined by a boom after pent-up demand. However, it doesn't quite make the cut for the present pandemic situation, as it's considered even more optimistic than a V-shaped recovery.
- Depending on who you ask, the sentiments about a post-pandemic recovery differ greatly. So which of these potential scenarios are we really dealing with?