



YOUR WEEKLY UPDATES

Week 52 of 2020

Happy Holidays

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THE RACE TO SAVE LIVES COMPARING VACCINE DEVELOPMENT TIMELINES

Length = Timeframe for vaccine development
Size = Number of deaths
Bubbles represent total deaths and are not indicative of timeframes for vaccine development

TIMEFRAME FOR VACCINE DEVELOPMENT



TOTAL DEATHS

Spanish flu 40-50 million deaths

Many vaccines were used during this pandemic but were unsuccessful. Researchers didn't discover that influenza was caused by a virus instead of bacterium until the 1930s.

Source: Influenza virus Net, Clinical Oncology

H2N2 Asian Flu 1.1 million deaths

Vaccines developed in the 1940s contributed to the rapid development of the 1957 flu vaccine.

Source: CDC, Scientific American

H3N2 Hong Kong Flu 1 million deaths

The U.S. began recommending annual flu vaccinations for high risk individuals around this time.

Source: Online Med Ed, CDC

Ebola 11,300 deaths

Ebola vaccine Ervebo was developed by Merck and approved by regulatory bodies in Europe and the U.S. towards the end of 2019, despite being in development for decades.

Sources: CDC, Statnews

AIDS 25-30 million deaths (ongoing)

HIV's rapid mutation and antibody evasion makes it difficult to develop a vaccine against. However, several promising vaccines are being trialed with results expected around 2023.

Source: CDC, The OC, Our World in Data, Aidmap

SARS 774 deaths (ongoing)

Although there is no vaccine for SARS, new technologies since the first reported outbreak have developed much quicker, allowing for RNA and DNA experimentation.

Source: CDC, UBC

H1N1 Swine Flu 151,700 - 575,400

Distribution of the H1N1 vaccine was delayed because 70-year-old egg-based vaccines were needed for manufacturing—the same method commonly used to develop seasonal flu vaccines.

Source: Healthline, CDC

MERS 858 deaths (ongoing)

Originating in the Middle East, the MERS virus was initially transferred to humans from infected camels. Despite its 35% mortality rate, no vaccine has been licensed yet.

Source: WHO

COVID-19 1.67 million deaths (ongoing)

Following promising results from clinical trials, Pfizer/BioNTech, Gamaleya, and Sinopharm have received emergency use approval to immunize millions of people against COVID-19 in certain countries. 15 other vaccines are in Phase 3 trials.

Source: Worldometer, COVID Vaccine Tracker
As of 4:00PM PST, Dec 18 2020

TYPICAL VACCINE DEVELOPMENT PHASES

- Exploratory stage**
This stage typically consists of basic lab research that lasts between 2 to 4 years.
- Pre-clinical stage**
This stage uses tissue-culture or cell-culture systems and animal testing to give researchers an idea of how humans might respond to the candidate vaccine.
- Clinical development**
Phase I
The candidate vaccine is given to a small group of between 20 and 80 adults to determine the type and extent of response that the candidate vaccine could provoke.
Phase II
The candidate vaccine is then given to a larger group of people—typically a few hundred—to study its safety, immunogenicity, proposed doses, schedule of immunizations, and method of delivery.
Phase III
The vaccine is given to thousands of people to test for efficacy and safety, which includes identifying rare side effects that might not be apparent in the smaller groups of subjects.
- Phase IV**
Pharmaceutical companies may continue to test for vaccine safety and efficacy but this stage is optional.
- Regulatory review and approval**
National Regulatory Authorities are responsible for the approval of vaccines in different countries. For example, the U.S. Food and Drug Administration's Center for Biologics Evaluation and Research (CBER) regulates all U.S. vaccines.
- Manufacturing**
Typically, it can take anywhere from 6 to 36 months to produce, package, and deliver high quality vaccines.
- Quality control**
Different batches of the vaccines are continuously tested by different authorities around the world to ensure its ongoing safety.

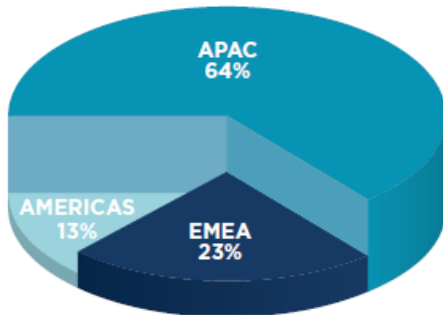
Source: CDC, History of Vaccines, Sanofi

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- Despite the severe economic and social impact of the COVID-19 pandemic felt across the globe, recent data in Asia illustrates a profound resilience in the region. In fact, growth expectations over the next decade are not only still intact, but the region's enviable pre-pandemic economic outlook, supported by massive demographic tailwinds and strong forecasts for regional corporate expansion plans, remain very much in play and will continue to propel the region forward to 2030.
- At the end of 2019, Asia Pacific's regional economy stood at USD \$31.3 trillion, accounting for 36 percent of the global total, making Asia Pacific the largest region in the world by total GDP. By the end of the decade, Asia Pacific's economy is expected to reach USD \$45.8 trillion and represent more than 40 percent of the global total. Not only is Asia Pacific the largest region, but it is also forecast to outgrow the rest of the world at 3.5 percent per annum, with EMEA forecast to grow at 1.6 percent per annum and the Americas at 2.1 percent per annum.
- The Chinese economy continues to grow at an impressive rate and is forecast to expand by USD \$9.2 trillion—equivalent to three French economies—by 2030. And India will ascend the rankings from seventh in 2019 to the fourth-largest economy in 2030. Asia Pacific expects to house three of the four largest economies in 2030 (plus Japan), with Australia, South Korea and Indonesia also included in the top 15.

Proportion of Global Middle Class 2020



Growth between 2020 - 2030

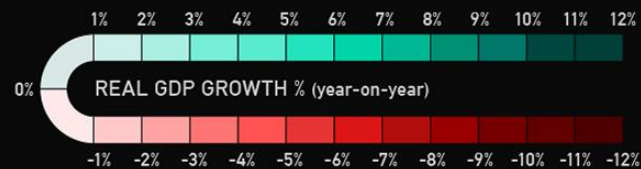
APAC	EMEA	AMERICAS
+1.5 BILLION (+73%)	+134 MILLION (+12%)	+42 MILLION (+6%)

GDP Growth
(USD Trillions)



The development of COVID-19 vaccines is allowing the world to see a brighter future ahead. After a sharp decline this year, the OECD projects global GDP will rise by 4.2% in 2021, and by a further 3.7% in 2022.

Which countries will recover the fastest, and which ones will see a slower rebound?



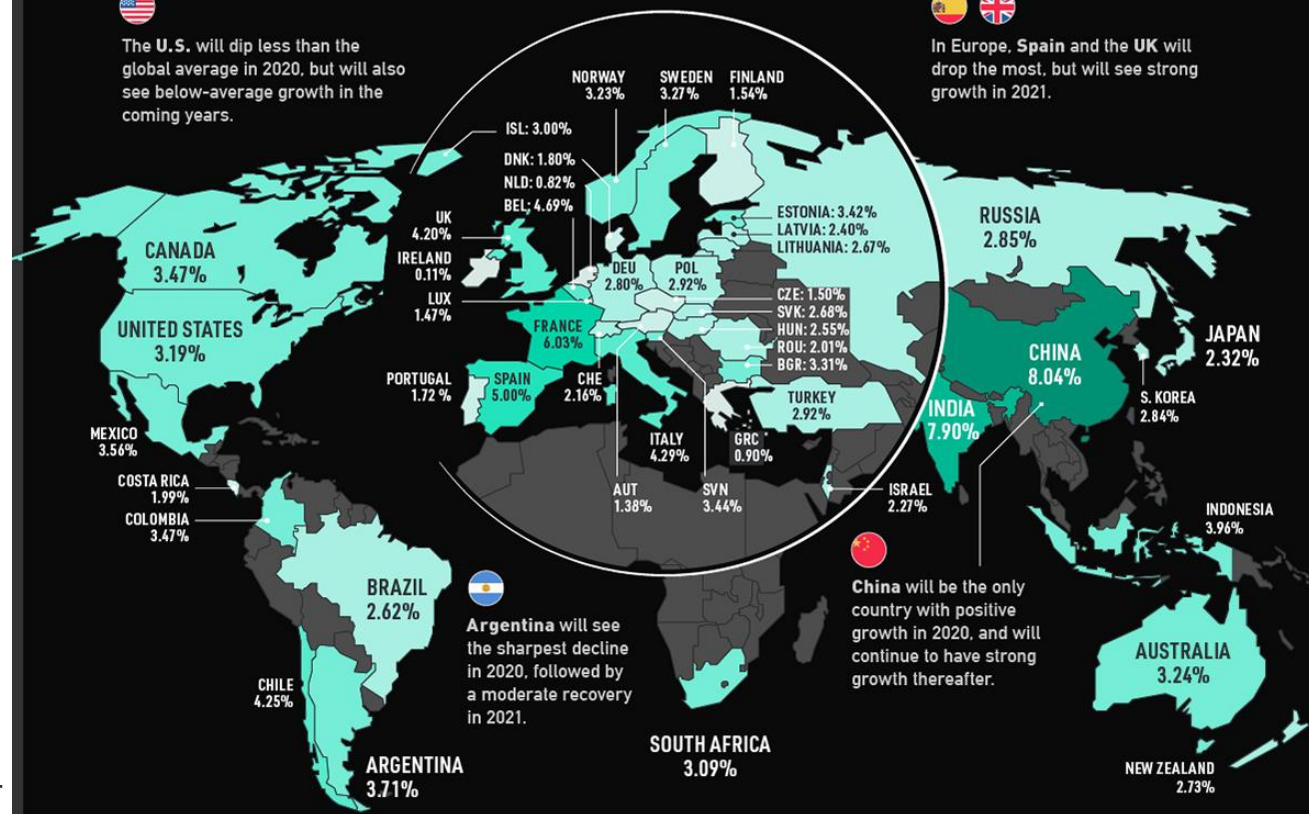
2021 PROJECTION



The U.S. will dip less than the global average in 2020, but will also see below-average growth in the coming years.



In Europe, Spain and the UK will drop the most, but will see strong growth in 2021.





Bed Bath & Beyond in deal to sell Cost Plus World Market

- Bed Bath & Beyond has found a buyer for its last remaining non-core banner.
- The home good retailer has entered into an agreement to sell Cost Plus World Market to Kingswood Capital Management, a Los Angeles-based private equity firm. The financial terms of the deal were not disclosed.
- The agreement includes 243 stores, the Cost Plus digital business, two distribution facilities and a corporate office located in Alameda, Calif. It is expected that Cost Plus will continue to operate as a stand-alone retail brand.

FTC probes data practices of nine social media giants

- The Federal Trade Commission (FTC) is studying how leading social media and video streaming companies, including Facebook, YouTube, and TikTok parent ByteDance, collect and use consumer data.
- The FTC is issuing orders to those four companies, as well as Twitter, Snap, Reddit, WhatsApp, and Discord, requiring them to provide data on how they collect, use, and present personal information, their advertising and user engagement practices, and how their practices affect children and teens. The orders are being sent under Section 6(b) of the FTC Act, which authorizes the FTC to conduct wide-ranging studies that do not have a specific law enforcement purpose.
- The FTC has been actively investigating tech giants, particularly Amazon, Apple, Facebook, and YouTube parent Google, for the past few years. On Dec. 9, the agency filed a lawsuit against Facebook accusing it of maintaining an illegal monopoly. The FTC is also now scrutinizing the parent company of Chinese short video platform TikTok following a federal court's rejection of a U.S. Commerce Department request to ban it in the U.S.

Walmart to debut livestream shopping on TikTok in U.S.

- Walmart is moving ahead with e-commerce on the TikTok short video platform in a big way.
- The discount giant will run a shoppable livestream Friday, Dec. 18 at 8 p.m. EST on its profile page on TikTok. Ten TikTok creators will participate in the one-hour event, called the “Holiday Shop-Along Spectacular,” revealing their favorite fashion products available at Walmart. Viewers will be able to tap on a product when they see a fashion item they like during the event, add it to their cart and check out.



Happy Holidays



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Survey: Consumers stockpiling again, but still shopping in stores **CSA**

- Increasing numbers of COVID cases and the return of state restrictions do not seem to be stopping U.S. consumers from heading in-store for essentials.
- 92% of consumers reported that someone in their household is still purchasing essential items from physical stores, according to a survey by shopping rewards app Shopkick. As for where consumers are shopping, big-box retailers came out on top (88%), followed by grocery stores (80%), drug stores (61%), dollar stores (54%), club stores (43%), and convenience stores (30%).
- The survey also found that 48% of Americans are more concerned about the pandemic now than just a month ago, leading shoppers to stockpile essentials at higher rates than at the start of the pandemic.
- Other findings from the survey are below.
 - Although most consumers are still shopping in-store, 36% feel less comfortable doing so now than a month ago. Baby Boomers (47%) say they are taking fewer store trips per week than one month ago, compared to Gen X (43%), millennials (38%) and Gen Z (38%).
 - 61% percent of consumers say they are stocking up on essentials like toilet paper (87%), food items and water (85%), cleaning supplies (67%), hand sanitizer (61%), medicine and medical items (48%), and pet supplies (37%). This is a noticeable jump from the first wave of COVID in March, when a Shopkick survey found that less than half of consumers (47%) were stocking their pantries.
 - 76% of consumers have noticed that essential items that were in-stock a month ago, like toilet paper and cleaning supplies, are now less available at their local store.
 - While similar across the board, Millennials are the segment stocking up the most (65%), followed by Gen X (62%), Gen Z (59%) and Baby Boomers (57%).
- “These findings should serve as a huge wake-up call for retailers and brands,” said Dave Fisch, GM of Shopkick. “The same issues that severely impacted supply chains during the first wave of COVID have returned as consumers revert to stocking up and panic buying. Retailers and brands must act immediately to implement strategies that will help keep store shelves well-stocked in order to maintain sales and consumer loyalty during this time.”



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U.S. remains biggest retail market; widens lead against China despite COVID-19 **CSA**

- The U.S. has retained its standing as the biggest retail market in the world thanks to the government stimulus and the resilience of the American consumer.
- Retail sales in the U.S. will, “incredibly,” increase 0.8% this year, reaching \$5.506 trillion, according to eMarketer, up 11.2% from an April forecast of a 10.5% decline. The increase represents \$612.20 billion more in sales than eMarketer had expected (and a \$41.20 billion increase over 2019).
- In April, eMarketer had projected that China would “back-door” its way into the No. 1 global ranking for overall retail sales by the end of 2020 because of the more precipitous spending decline in the U.S. However, this has not played out as anticipated. China’s retail market is now forecast to fall by 2.9% (compared with a previous forecast for a 4.0% decline). China’s retail sales in 2020 are expected to reach \$5.130 trillion in 2020, down from \$5.283 trillion in 2019.
- “While China’s performance will turn out to be relatively close to eMarketer’s prediction, the U.S. has done an almost unbelievable about-face when it comes to consumer spending,” wrote eMarketer’s Cramer-Flood. “... against all odds, the U.S. will widen its lead on China this year, rather than lose it.” According to Cramer-Flood, the results reflect the “fundamental structural differences” between how the U.S. and China run their respective economies.
- “In China, the economic development model is oriented around investment, construction, manufacturing, infrastructure build-outs, real estate development, and giant state-owned (or state-directed) enterprises that undertake projects in service of these goals,” he wrote. “Therefore, in times of economic stress, China’s best bet is generally to juice investment activity by major corporate players by implementing policies that help energize these constituencies.” As a result, China’s recovery and stimulus packages centered on supporting strained businesses rather than struggling households or individuals. Household spending languished and did not bounce back nearly as quickly as the rest of the economy.
- In contrast, the U.S. economy is overwhelming consumer-centric, Cramer-Flood stated, as evidenced by the stimulus, which gave a boost to consumer spending. Sales also got a big boost as consumers, largely stuck at home and unable to travel and visit entertainment and other service providers, went online and spent their money on retail goods.



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Amazon and Alibaba represent the most sophisticated global ecosystems

EDGE[^]
BY ASCENTIAL



Amazon's origins as an online retailer has evolved to include industry-redefining services, including the Prime membership program, its Fulfillment by Amazon logistics network, and a sophisticated advertising platform. It has also built considerable revenue outside of retail, including through Amazon Web Services and its entertainment services, Prime Video and Prime Music.

Alibaba has built its ecosystem around C2C and B2C commerce sites, Taobao, Tmall, and AliExpress, among others. Its financial service arm, Alipay, is used by more than 1 billion users online and in physical stores. It also owns social networks, search engines, logistics services and more, all connected through a unified user ID that lets Alibaba monetize users.



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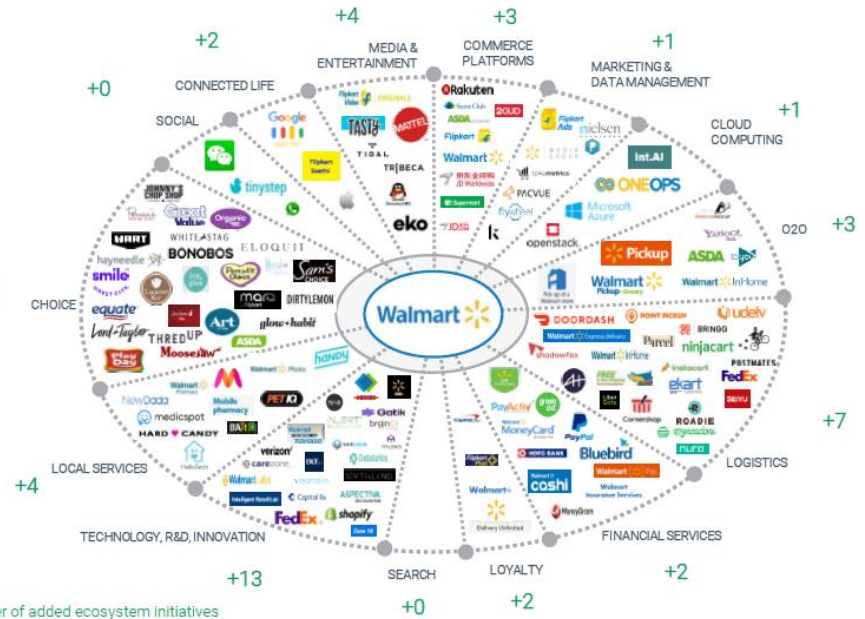
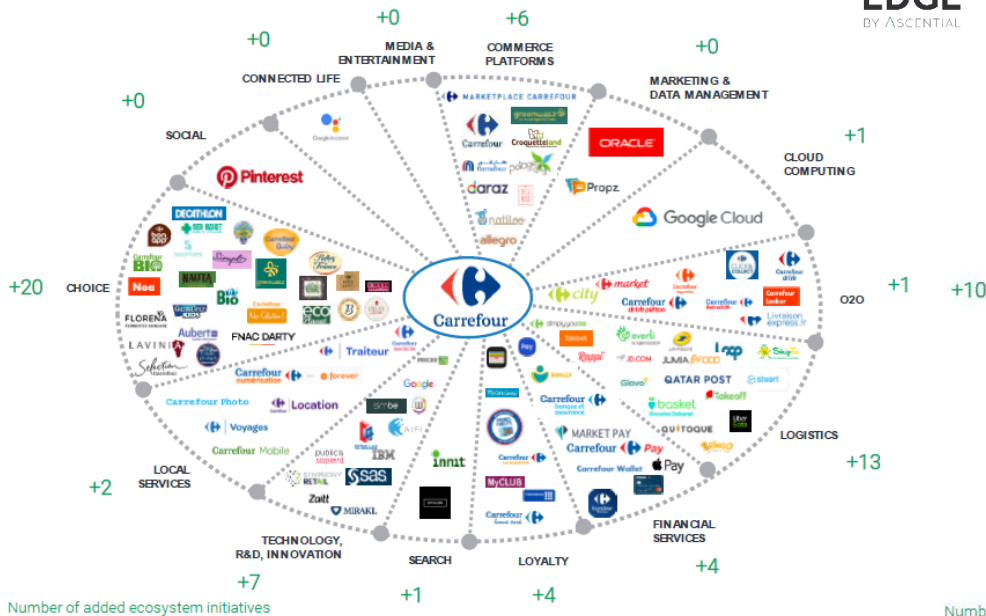
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Carrefour added 59 new initiatives in 2020

EDGE[^]
BY ASCENTIAL

Walmart added 52 new ecosystem initiatives in 2020



Carrefour is complementing its core store business with new digital experiences

Carrefour's industry-leading ecosystem expansion has been multifaceted, focused on relatively simple initiatives like assortment expansion (choice) alongside sophisticated and capital-intensive investments like logistics, technology and R&D. It has expanded its private and exclusive brand portfolio around the world in food and non-food categories, largely focused on sustainability and eco-friendliness, local products, and healthy eating trends.

Walmart is consolidating its global footprint to excel in core and high-growth markets

As it exits markets including the UK, Japan, and Argentina, Walmart is reshaping its US stores and becoming a global ecommerce leader in scale and capability. It has invested considerably in technology and innovation, testing a variety of new store concepts, automation, and last-mile initiatives. It continues to refine and strengthen its ecommerce proposition, integrating Jet.com into the core Walmart.com site and utilizing Shopify sellers to expand its 3P assortment.



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Amazon arrived to the wearables game—but it might be too late **INSIDER**

Tech behemoth Amazon's Halo fitness wearable is now available to anyone to purchase for \$99.99. The Halo band and accompanying app—which measures health factors like body fat percentage, activity, sleep, and tone of voice—first launched in August on an invitation-only basis. The tech giant reports that it took feedback from invite-only users to debut a new feature, insights, which enables users to Quashes view patterns—such as “peak periods of positivity and energy” per CNBC.

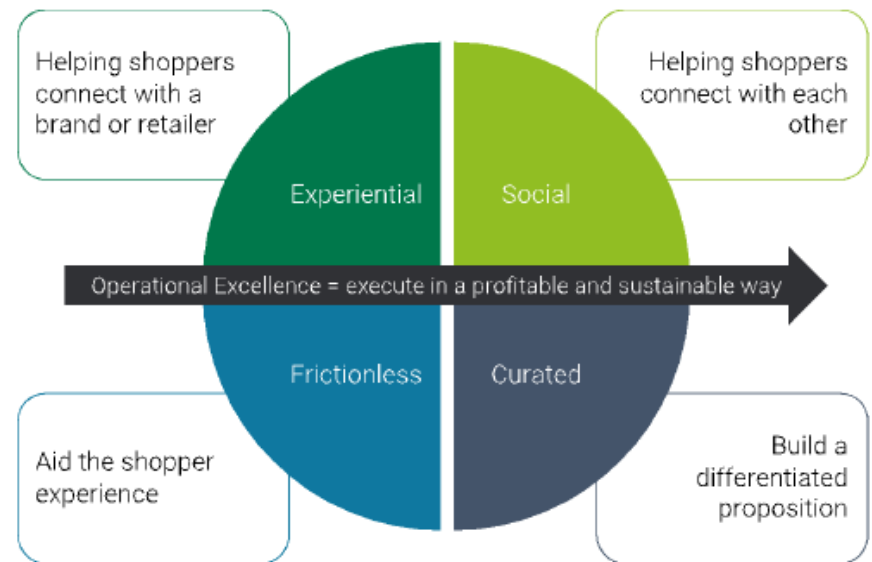
Brick-and-mortar stores still Costco's foundation, CEO says **CNBC**

Costco CEO Craig Jelinek said while e-commerce will no doubt play a key role in the wholesaler's future, the company is still committed to its brick-and-mortar stores and the in-person shopping experience that Costco is famous for. "It's still important to get people physically in the stores," Jelinek said.

Store of the Future Trends for 2021

Our five 'Store of the Future' forecasts for the year ahead;

- 1 **Experiential** - Collaboration inspires innovation in-store
- 2 **Social** - Food solutions flex for in-store and at home
- 3 **Curated** - Plastic reduction strategies take center-stage
- 4 **Frictionless** - Smartphone-influenced in-store experiences scale
- 5 **Operational Excellence** - The unmanned model builds momentum



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Amazon startup targets Waymo with new electric robotaxi

- Autonomous vehicle provider Zoox is challenging Google in the automated ride-hailing niche.
- Zoox, which was purchased by Amazon for a reported \$1.2 billion-plus USD in June 2020, is revealing a fully functional, electric, autonomous vehicle that is designed for dense, urban environments.
- The new robotaxi is capable of operating up to 75 miles per hour and will directly compete with the Waymo self-driving tax service Google is currently piloting in the Phoenix market. Other major players in the burgeoning automated ride-hailing space include the Uber Advanced Technologies Group (ATG), recently acquired by Pittsburgh-based self-driving technology company Aurora. Uber ATG had been running pilots of self-driving cars in Dallas, Pittsburgh, San Francisco, Toronto, and Washington, D.C.



Carriers will drive prices into new year

Outbound tender rejections have decreased. Trucking capacity has become easier to secure. And yet, spot rates continue to rise. What's the cause? Freightwaves believes volume driven by slower, more prolonged holiday sales is the culprit. And as drivers get picky about lanes next week for the holidays, rejections will surely go up. Shippers expect high rates and lack of capacity to continue into the new year.

Reducing risk across the supply chain

- 90% of a company's potential disruption hot spots are hidden somewhere in its supply chain. This was evident throughout 2020. And for most logistics teams, major problems stemmed from a lack of communications and data from their suppliers. Moving forward, businesses are transforming supplier sustainability to better project and address disruptions, while also providing beneficial data to their suppliers.
- As companies plan their way forward after the events of 2020, supply chain and procurement professionals have developed a newfound respect for supplier relationships. With automation and digital adoption on the rise, many business leaders have advanced initiatives that rely on supplier data to benchmark performance and calculate risk.

Spot market rates hit record highs as truckers see hot freight demand, DAT says *DC Velocity*

- Capacity will stay tight as grocery stores stock up for second Covid-19 wave and retailers fill shelves for holiday peak, firm forecasts.
- Spot market rates for van and refrigerated freight soared to all-time highs in September as the market continues to see historically tight capacity conditions even as the nation hustles to make up for lost time during coronavirus lockdowns and prepare for a looming winter holiday peak season, according to online truckload freight marketplace DAT Freight & Analytics.
- The third major trucking mode, flatbed, showed spot rates that were up from August as well, but fell shy of their high-water mark during the middle of 2018, Portland, Oregon-based DAT said.

DAT Spot Market Van Volumes & Rates



CN announces partnership for new Alabama logistics park *Progressive RAILROADING*

- CN, in collaboration with Alabama Export Railroad and Ray-Mont Logistics, is launching the first phase of a new high-tech logistics park in Mobile, Alabama. The park is expected to open in late 2021.
- The project's first phase will entail a facility for bagging and containerizing plastic pellets. The terminal will include two bagging lines with an annual capacity of 25,000 20-foot equivalent units, CN officials said in a press release.
- The facility will provide shippers with export capacity to access Asian, Latin American and European markets without warehousing costs or requiring double-handling, they said.

Short-term fix to curing driver shortage



Drivers are getting a wage increase. This is the 4th carrier to make a major announcement on increased incentives for drivers in the last few weeks. And while it's certainly a good short-term, will it be enough to fix the driver shortage? Our guess is no. Drivers left not only because of pay... but because of poor working conditions. The real question lies in what major carriers are doing to improve the quality of work.



Logistics was a key vertical as retailers invested in fulfillment capabilities in response to COVID-19

EDGE[^]
BY ASCENTIAL

- Retailers invested significantly in logistics capabilities over the past year – in part in response to the COVID-19 pandemic and heightened demand for grocery home delivery.
- To plug any gaps in fulfillment capacity, retailers have actively sought partnerships with intermediaries, while also enhancing their own logistics infrastructure.

For example, Seven & I's US 7-Eleven business has partnered with DoorDash and Postmates on home delivery, building on the success of its own 7Now rapid delivery service.

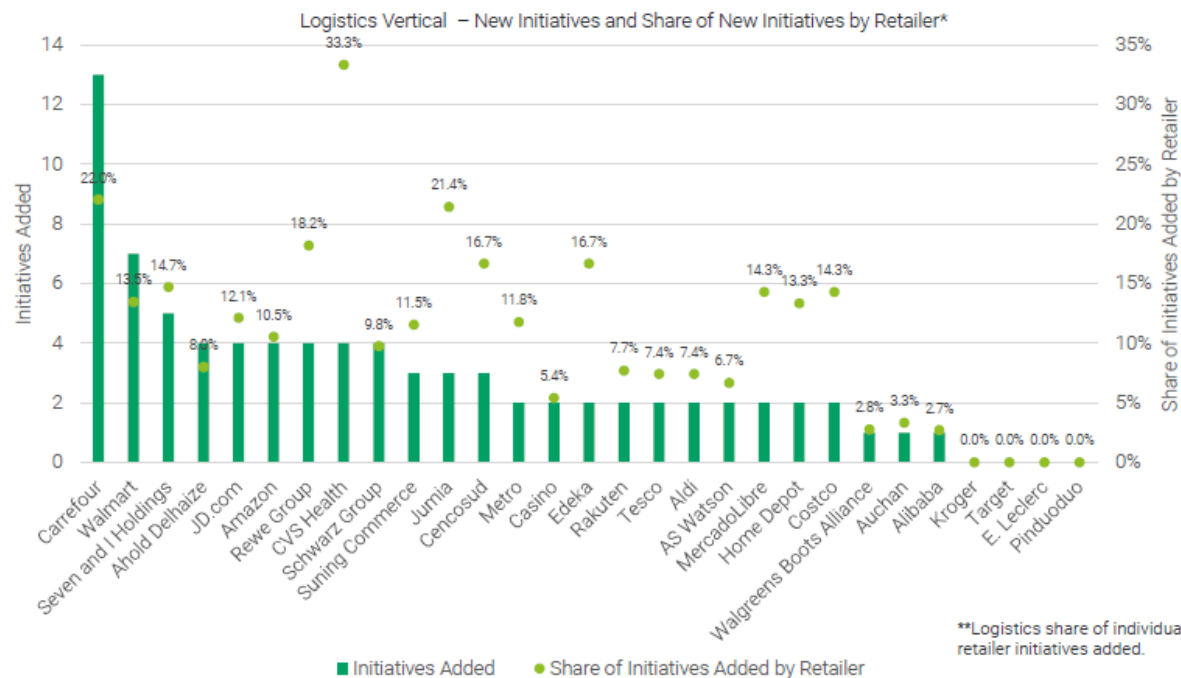
- Carrefour has been highly active in this space – partnering with numerous intermediaries in Europe and Latin America – while also trialing innovative fulfillment models such as crowdsourced delivery in France.
- Meanwhile, Walmart has been investing in fulfillment speed, launching a new 2-hour express delivery service in the US.
- 7-Eleven in the US has partnered with Postmates, which has launched Convenience and Essentials as new categories to its app and website.



81 new ecosystem initiatives in the Logistics vertical were tracked in 2020.*

Logistics Vertical – Top 3 Retailers*

Rank	Retailer	New Initiatives	Share of New Initiatives**
1	Carrefour	13	22.0%
2	Walmart	7	13.5%
3	7-Eleven	5	14.7%



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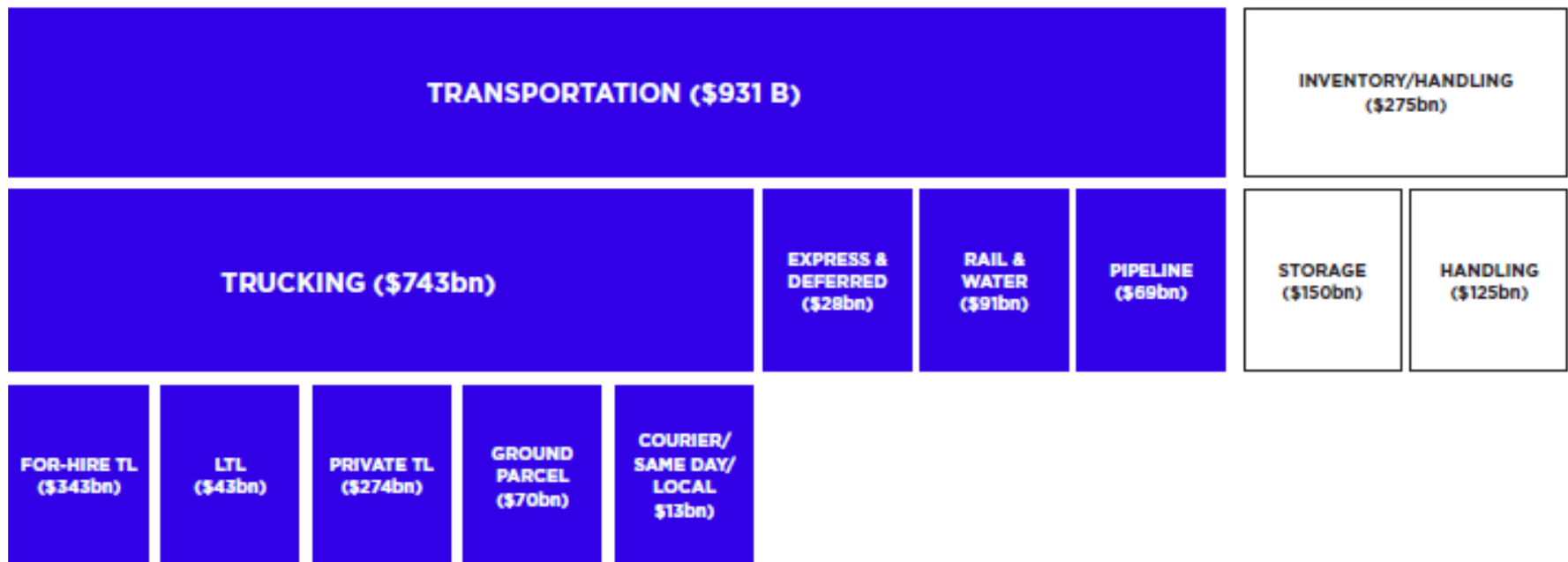
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Carriers add boxes, but no swift end to equipment shortage JOC.com

There will be no rapid resolution to the container equipment shortages disrupting global supply chains, with the benefits of an expanding box fleet offset by widespread port congestion.

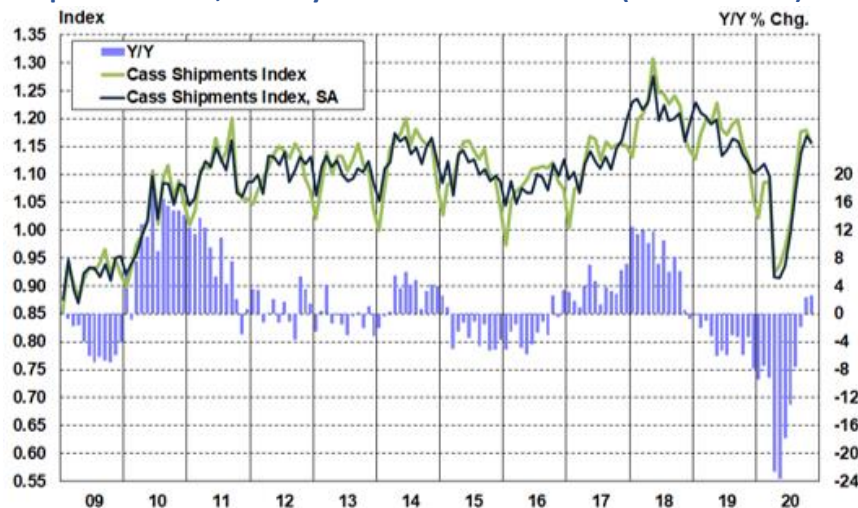
NORTH AMERICAN LOGISTICS (\$1.2TN)



Source: Goldman Sachs; SJ Consulting

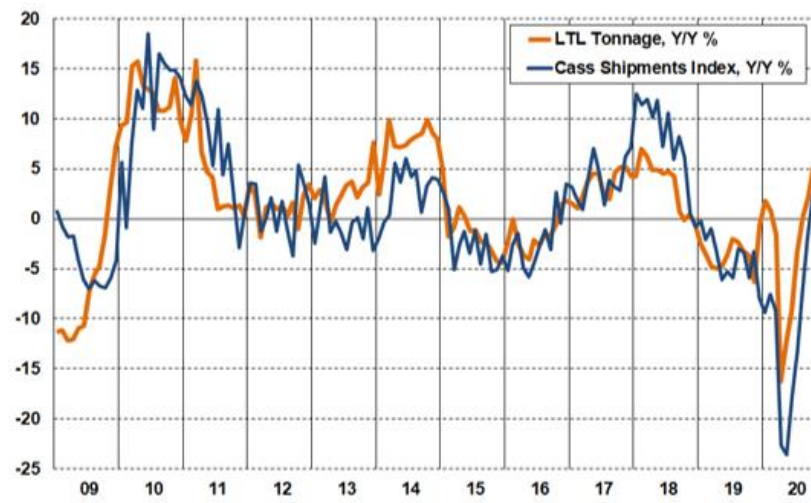


Shipments Index, January 2009 – November 2020 (01'1990=1.00)



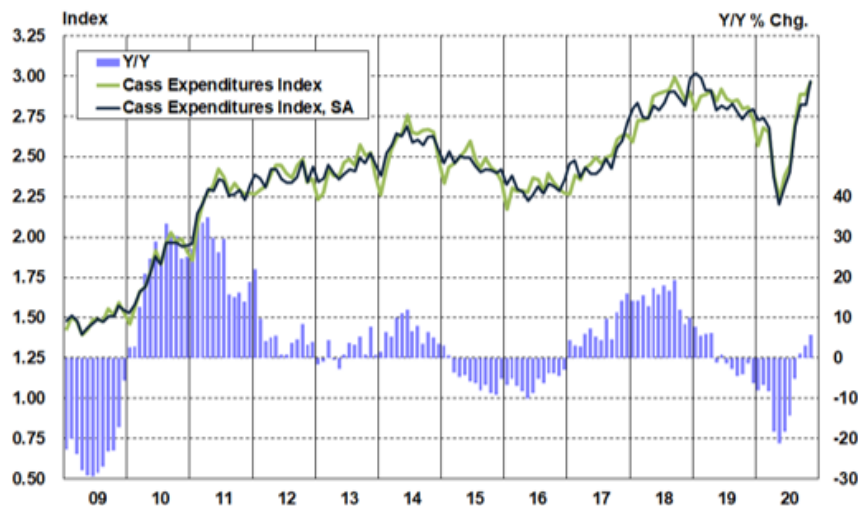
Source: Cass Information Systems, ACT Research Co., LLC. Copyright 2020

LTL Tonnage and Cass Shipments, January 2009 - November 2020

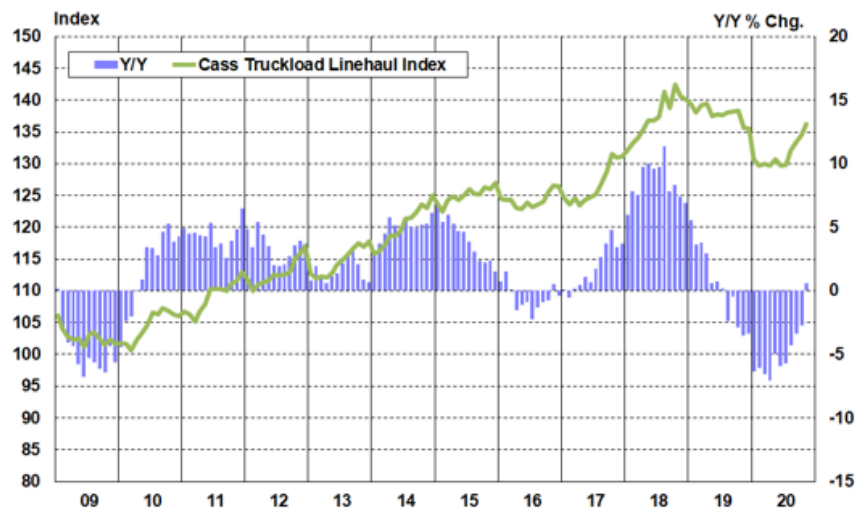


Source: Cass Information Systems, Inc., Company reports, ACT Research Co., LLC. Copyright 2020

Expenditures Index, January 2009 – November 2020 (01'1990=1.00)



Truckload Linehaul Index®, January 2009 – November 2020 (01'1990=1.00)



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Port congestion, delays disrupting global intermodal networks FREIGHTWAVES

- Container restrictions from the railroads due to high levels of congestion at the ports are causing disruption to service for intermodal providers across the globe.
- Supply chain companies earlier this week issued service advisories extending through December as rail, road and intermodal partners like BNSF Railway and Norfolk Southern unwind the glut of boxes and trailers backed up in the key intermodal markets of Los Angeles and Chicago.
- “Severe ramp congestion is impacting the intermodal network in Chicago and Southern California, delaying both inbound and outbound loads,” according to the statement. Both railroads have implemented “gate restrictions and closures for standard service level shipments” in efforts to “expedite the recovery.”
- BNSF has limited the number of shipments that can be ingated for all destinations at terminals in Los Angeles and San Bernardino, California. Chicago gate restrictions include most destinations west and south, including Seattle, Portland, Oregon, Denver, Phoenix, Houston and Mexico.
- Norfolk Southern has closed two-way service at its 63rd Street terminal in Chicago to and from Pittsburgh, Toledo, Ohio, and Buffalo, New York.
- This has caused severe disruption further upstream as ramps and central rail parks around the U.S. are experiencing the knock-on effects of port congestion.
- Coupled to these factors is the blanking of sea route schedules by steamship lines during the dramatically low volume periods due to COVID-19 impacts.
- Global container balances have been upended with empty units accumulating across the world – but in the wrong locations as demand and supply reach disequilibrium. Manufacturers are sitting on stockpiles of inventory, unable to obtain empty containers to load to create a vacuum for following production batches.
- This is driving rates to record highs across the global supply chain, with ocean rates spiking and exorbitant “securing” fees being charged in China by agents tracking containers for use by U.S. importers.
- It is expected that this situation will continue well into 2021 after which a new “supply chain balance” will more than likely manifest.



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19 Vaccine Transportation: “We are in a ‘perfect storm’ scenario”



- Currently, 58 vaccines are in clinical trials on humans, one of them is already approved for use in the United Kingdom and a few are already showing promising results. Pfizer, Moderna, and the University of Oxford vaccines proved to be up to 95% effective with the right dosage. While the trials are promising and the chances of returning to our normal lives are exciting, vaccine transportation might prove to be an overwhelming challenge.
- We are now in the ‘peak period’, where traditionally large volumes are flown from predominantly Asia to Europe and the United States, additionally, half of the Worlds AN124 (world’s largest freight aircraft) fleet grounded for maintenance, taking a large capacity away from the market, so the potential of an urgent need for Covid-19 vaccine transportation puts air freight industry in a difficult position.
- Vaccines, that currently show the most potential, have to be transported in a controlled environment, low temperatures. The most challenging to the industry would be the transportation of Pfizer vaccine that requires shipments to be transported in near minus 70 degrees Celsius (-94°F) temperature, while Moderna requirements are less stringent – ‘only’ -20°C (-4°F). The University of Oxford vaccines would be the easiest to transport as it can be stored in regular fridge temperatures of 2 to 8°C (35.6 to 46.4°F).

Melbourne Metro Tunnel cost rises by \$A 2.7bn

The cost of Melbourne’s 9km Metro Tunnel project has increased by \$A 2.7bn (\$US 2.04bn) following an agreement reached by the state of Victoria and the contractor following a near year-long stand-off. The total cost of the project, which will add five new stations in the central business district and create a new cross-city line from Sunbury to Cranbourne/Pakenham, is now nearly \$A 14bn.

China plans 10,000km of new lines in three key regions

China’s National Development and Reform Commission (NDRC) has published plans to start construction of 10,000km of new inter-city and urban rail lines in the Beijing-Tianjin-Hebei, Yangtze River Delta, and Guangdong-Hong Kong-Macao Greater Bay areas in the next five years. ***Comment – I have ridden these trains and they are blindingly fast.***



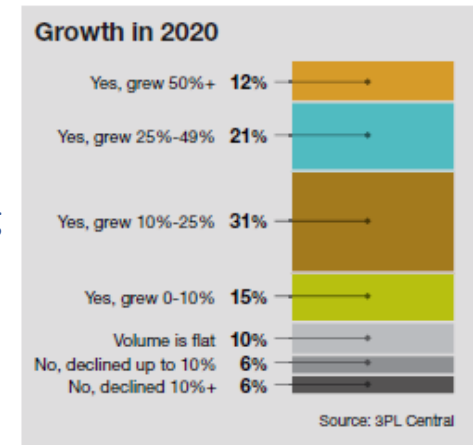


Railroads take stake in autonomous trucking **Trains**

The Union Pacific and Canadian National railroads were among the investors in the latest round of funding for driverless trucking startup TuSimple. Earlier in the year the San Diego-based carrier launched a program for national delivery of freight using Level 4 automation starting in southern states.

Benchmark report: Nearly 80% of 3PLs grew in 2020 **MODERN MATERIALS HANDLING**

The warehouse operations of many third-party logistics (3PL) providers were in growth mode for 2020, according to a new benchmark report from 3PL Central. Most significantly, the report found that 79% of 3PL warehouses experienced growth in 2020 and expressed continued optimism for 2021. The report also found that 8% of 3PL warehouses use Big Data analytics and 14% use predictive analytics, but 36% say they plan to expand reporting analytics functionality in the coming year. Other key points from the report, released in November, include: 50% of respondents report running above recommended warehouse capacity, leaving limited room for expansion; and 47% of participating warehouses cited difficulty finding qualified workers, while also experiencing increasing labor costs (58%)



Drone Footage Gives New View of ONE Apus Damage

- Some new drone footage shot as the ONE Apus was arriving in Japan last week gives us the first aerial view of the extent of damage on the deck of the ship after its historic cargo loss in the Pacific Ocean.
- It can be seen that there are 22 bays on deck of which 16 have collapsed to both port and starboard, leaving only 6 intact / partially intact. With 20 rows of containers per bay and with stack heights of between 6 and 8 containers, we anticipate that approximately 2,250 containers have been lost or damaged, equating to approximately 4,500 TEU



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Liner capacity control and the future of container shipping **American Shipper**

- The world's container liner business is now so consolidated that it can deftly match vessel capacity to cargo demand. This change — courtesy of mergers and alliances — is structural, not cyclical. If there's a single thesis for container shipping in 2020, that is it.
- Assuming it's true, there could be major future implications for the cargo shippers, yards, box-equipment owners and ship lessors who do business with liners.
- If liners can indefinitely calibrate capacity to cargo demand, the future newbuilding orderbook should be far less of a threat to liner profits and far less of a savior for shippers.
- If liners can keep managing capacity like they did this year, they may not need to lease as many containers or ships as they do now. Over the long term, it's cheaper to own than rent.
- In the second quarter, liners used "blanked" (canceled) sailings to support rates. In the second half, they used "extra loaders" (unscheduled voyages) to increase revenues — until they ran out of ships to lease.
- The world of container shipping changed in 2020, not because of the coronavirus but because of the response to the coronavirus. Carriers have now succeeded in what they've been trying to build for years: the ability to tailor supply to demand on a tactical level.
- Ownership consolidation reduced the number of players. This allowed alliances to have fewer members, rendering decision-making far easier. Alliance-member executives can implement those decisions more rapidly thanks to better technology and more efficient alliances structures.
- Given surging consumer demand, the world is short of containers. It is boom times for container-equipment lessors. Since April 1, stocks of Triton, CAI and Textainer are up 88%, 125% and 148% respectively.
- Beyond collapsing cargo demand, liner capacity discipline faces at least two other future risks. One is China. At some point in the future, some market participants see a possibility that Chinese shipping could go its own way. State-owned companies could place massive orders at Chinese yards and go for market share.
- The other risk is that regulators in China, the U.S., the EU and/or Korea might intervene.
- If you control your pricing through capacity management, that only works until the point of sovereign intervention.



Happy Holidays



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Anchored container ships weigh down Port of LA's volume

- November container volume at the Port of Los Angeles was up 22% year-over-year to more than 889,000 twenty-foot equivalent units (TEUs).
- That number could have been closer to 990,000, according to Executive Director Gene Seroka.
- "It's worth noting that there were 12 ships at anchor on November 30 awaiting berthing rights here in Los Angeles with an estimated 100,000 TEUs on board. Those vessels were delayed by about two days and thus shifted into our December data," Seroka reported during a virtual press conference Tuesday.
- Seroka said 88 container vessels called the Port of LA in November. There were nine "extra loaders," added calls because of high demand in Asia, and there were no canceled sailings.
- "After 11 months of year-on-year cargo declines, we've now stitched together four consecutive months — August through November — of year-on-year growth. During this period, the monthly TEU average was almost 930,000 units, an indicator of the powerful import surge and its duration," he said.
- Seroka said the pattern of heavy warehouse and distribution center inventory replenishment continued in November, and holiday orders still are moving across the docks, later than in years past.
- "It is unusual to see this kind of import volume so late in the year, he said.
- Seroka said every part of the logistics supply chain at big ports around the world continues to be stretched. There were 15 container ships at berth at the Port of LA on Tuesday, but 23 more anchored in San Pedro Bay. Of those, 14 were bound for LA and nine for the Port of Long Beach.
- "Container dwell time on terminals remains at about five days — double what it was before the import surge during the summer. Street dwell time — waiting for warehouse or store space — is now at 6.3 days compared to 7.1 just last month, an improvement over October," he said.
- "Anchorage remains a true concern for all of us. Many vessels are stopping first in a holding pattern before coming to berth," Seroka continued. "In November, 50 of the 88 vessels coming to Los Angeles first went to anchor and averaged two and a half days there. So far in the month of December, about 80% of arriving vessels are going to anchor first. The wait time now is increased to four days."



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Port of Long Beach goes on the record with another No. 1 **American Shipper**

- The Port of Long Beach on Wednesday joined the lengthening list of record setters by announcing it had marked its best November ever.
- The Georgia and South Carolina ports authorities earlier this week separately announced they both had celebrated record-setting months.
- The Port of Long Beach said in a press release that its best November on record was the result of “the holiday retail rush and a surge in personal protective equipment deliveries amid the latest nationwide wave of COVID-19 cases.”
- The California port moved 783,523 twenty-foot equivalent units (TEUs) in November, a 30.6% leap from the same month last year. The story in Long Beach is all about imports, which were up 30.5% to 382,677 TEUs. Exports were down 5.2% to 117,283 TEUs. But the figure that sticks out is empty containers shipped back to Asia for refilling. They jumped 55% to 283,563 TEUs.



Drewry: Blanked Sailings Contributed to Container Shortage **Drewry**

- The global shortage of shipping containers has become one of the most hotly discussed issues in the shipping industry as 2020 draws to a close. There have been reports that exporters have not been able to ship their goods while carriers have been struggling to get containers where they need them. One shipping executive quipped on a media call that he would pay a reward if anyone could tell him where to find 20,000 boxes.
- Drewry is out with a new report that says the problem is not a shortage of supply but rather a logistics problem. They suggest the problem is being driven not by underinvestment but repositioning issues, exacerbated in part by the carriers having blanked so many sailings in the first part of the year.
- According to Drewry’s Container Equipment Forecaster, the global supply of ocean-borne containers is expected to have declined by just over one percent in 2020 to end the year at 39.9 million TEU. They compare that with a projected decline of over three percent in 2020 global container port handling. “This suggests,” Drewry writes, “that the former has more than kept pace with the latter.”



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UK Retailers Call for Inquiry into Port Delays and Shipping Costs The Maritime Executive

- With daily reports of delays and disruptions at UK ports as the year-end and Brexit deadline looms, the associations for retailers and food manufacturers are once again weighing into the politically charged environment warning of the impact of the current port situation. Citing rising costs and the challenges to build inventory, they are calling for a parliamentary investigation into the ports and shipping market.
- The British Retail Consortium (BRC) and the Food and Drink Federation (FDF) wrote to Lilian Greenwood, Chair of the British Parliament's Commons Transport Select Committee, and Angus Brendan MacNeil Chair of the Commons International Trade Committee, to request an urgent inquiry. A month ago, the BRC also wrote to the Secretary of State for Transport with a similar call for action. The BRC cites the government's actions relaxing rules on EU drivers' hours as temporary relief after the first letter.
- In their new letter, the BRC requests that the two parliamentary committees hold a joint hearing into port disruption and the functioning of the shipping market. The letter says that the inquiry would give affected businesses the opportunity to set out how the disruption has impacted their operations and could help support planning and troubleshooting for this crucial issue.
- The letter highlights that "container spot rates have jumped considerably – in one instance, by 170 percent from this time last year. Others have noted week-on-week cost rises of 25 percent. In addition, congestion charges are being levied by carriers for imports into Felixstowe and Southampton."
- The associations had previously warned of the potential of food price increases without post-Brexit trade agreements. The food manufacturers said they are being affected badly by the current port delays. "Food manufacturers now face additional cost to source key inputs elsewhere, whilst also losing sales due to missed retail promotions in the run up to a key seasonal period – one company has lost over £1 million in sales due to the delays."

Nation's Busiest Port, Buried in Imports, Plucks Out Toys to Load Santa's Sleigh

Workers at the busiest U.S. seaport are plucking containers of toys off ships and out of massive stacks of cargo swamping docks at the Southern California trade gateway to get holiday gifts under trees in time for Christmas. The surge in volume has created congestion limiting trucks and trains from whisking containers away from the busiest U.S. gateway.



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Shipping and the UK Ports – a tale of dire straits?

- Stories are gathering pace of UK ports being in trouble with landside capacity being completely full of containers and vessels simply refusing to call. A meeting of the Chartered Institute of Logistics and Transport's Freight and Logistics Policy Group discussed what has been happening and the implications for future trading patterns.
- Normally the international shipping peak for Christmas is October, allowing time for the goods to be cleared and get to the shops. Delays in placing orders and resuming production in China and the East following the pandemic together with a backlog of orders when the pandemic struck has pushed the peak back. This late peak has encountered a surplus of containers holding PPE being held at the ports because the health logistics system warehouses are full; indeed, it is not just PPE but other 'stuff' for Christmas and Brexit stockpiling. It is reported by the UK Warehousing Association that all warehouses are full. As a result, managers in the supply chain have delayed clearing their containers from the port facilities; to do so would have involved a double handling and extra cost with a big risk that they would lose track of what is where.
- With the ports struggling to clear containers their capacity becomes severely compromised, slowing the rate at which vessels can be unloaded and loaded. The automated vehicles that zip around the port moving containers have to go further to find a place to drop off a container, if they can find a space at all. And then the return journey through the port carrying a container for export, or an empty for re-positioning, may be equally compromised. This extending of the docking period for the vessel damages the economics of the shipping line and blocks the berth for the next ship to arrive.
- The loss of capacity in UK ports and the diversion of containers to road movements across the straits of Dover and the English Channel has brought unexpected consequences. Before the pandemic, the Straits crossing carried 5,000 vehicles each day, each way. At present, due to these unplanned diversions together with pre-Brexit stockpiling, it is carrying 7,000! This 40% uplift is exceptional, stressing the capacity on that route as well.
- But this is not just about The Channel. Our meeting learnt that it is an international problem. There is not a single container ship that remains unchartered around the world due to the delays and lack of capacity; charter rates have trebled, and container shipping rates are as much as 4 times those before the pandemic.



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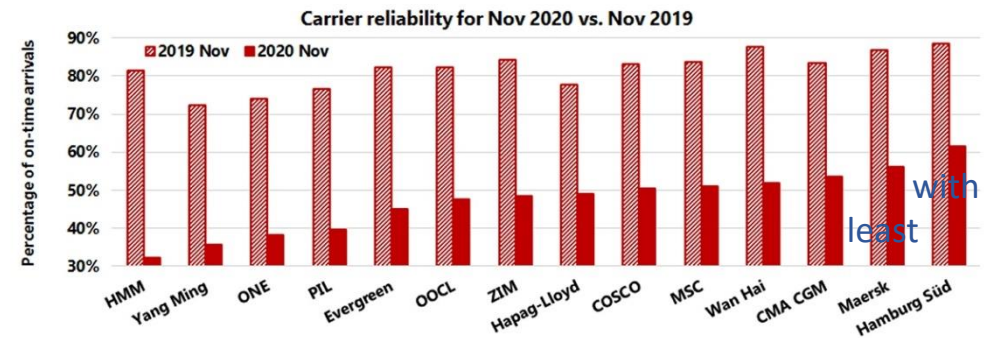
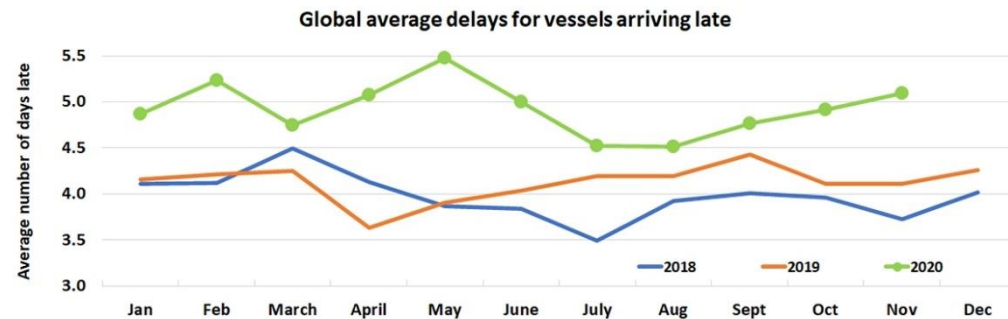
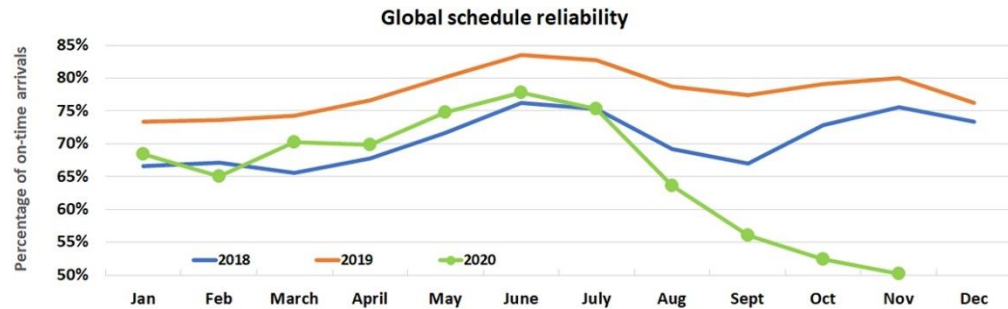
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Container ships suffer record delays as demand spikes

- On Thursday, Copenhagen-based Sea-Intelligence released its Global Liner Performance Report for November. It found that average global carrier schedule reliability across 34 trade lines fell to just 50.1% last month.
- It is the worst global score recorded since Sea-Intelligence introduced its reliability measure in 2011. The second- and third-worst scores were recorded in September and October.
- The year-on-year decline has been precipitous. In November 2018 and 2019, carrier services were far more reliable, averaging 75.5% and 80% reliability, respectively.
- The news for shippers gets even worse. It's not just that delays are becoming more frequent. It's that delays are getting longer.
- Sea-Intelligence calculated that the average delay for late vessels had risen to 5.1 days in November. That's an 11% increase from average delays of 4.51 days in August.
- With news of widespread port congestion, and carriers not letting off capacity-wise until at Chinese New Year, shipping might not see improving schedule reliability until Q2 2020.

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QuickChek to be acquired for \$645 million

- Murphy USA is expanding its reach.
- The gas station and convenience store company, which has 1,500 locations across the Southwest, Southeast and Midwest, has agreed to acquire QuickChek in a \$645 million all-cash transaction. Founded in 1967, QuickChek operates 157 stores throughout central and northern New Jersey and the New York metro area.
- Murphy will finance the deal using cash on hand, existing credit facilities and new debt. The purchase price includes \$20 million in expected tax benefits.

Burger King teams up with Google to add online ordering

- Burger King will roll out its first Google integration on Monday, which will allow customers to search for the nearest location, order and pay, according to Nation's Restaurant News.
- More than 5,000 restaurants nationwide will provide the service, which will be on Google Search, Maps and Pay. Guests will also be able to use an offer in Google Pay to receive 20% cash back on an order of \$10 or more.
- Over the last few years, Google has expanded its services and partnerships with restaurants, most recently partnering with Panera in August to allow customers to search for and order food for curbside or delivery through Google Search, Maps and Assistant.

New York to provide restaurants a free digital ordering platform through April



- New York Gov. Andrew Cuomo outlined on Friday the second phase of New York's Empire State Digital Initiative, aimed at supporting the state's restaurants and foodservice industry affected by the COVID-19 pandemic. As part of this phase, the state will offer Ritual's commission-free digital ordering platform, Ritual One, to restaurants at no cost for pickup and delivery. The offer is in place through April.
- Restaurants that join Ritual through the initiative will be able to accept contactless payments through PayPal and Venmo apps. Ritual, which will waive setup, monthly subscription and credit card processing fees as part of the program, can customize platforms to match branding. The feature can also be integrated directly with restaurants' point-of-sale systems, as well as with Instagram, Facebook and Google Ordering. Businesses can opt out at any time.



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Chicago's Mercy Hospital can't close, Illinois regulators say BECKER'S **HOSPITAL REVIEW**

- Illinois regulators unanimously rejected a plan for Mercy Hospital & Medical Center in Chicago to close.
- The 292-bed hospital on the South Side announced plans in July to close in 2021, pending state approval. The hospital said the decision was made because it suffers monthly operating losses of \$4 million.
- Mercy also cited a failed \$1.1 billion merger in its closure decision. It sought to join forces with three other South Side Chicago hospitals — Advocate Trinity, South Shore and St. Bernard — to create an independent health system.
- Mercy Hospital's parent organization, Livonia, Mich.-based Trinity Health, said in lieu of operating the South Side hospital, it would open an outpatient clinic with an urgent care center.

Amazon is on track to bulldoze primary care **INSIDER**

Amazon may be gearing up to make its virtual care platform, Amazon Care, available to employees at companies beyond Amazon for both primary and in-person care, according to early reports by Business Insider. This builds on a year of scaling the pilot program, and if Amazon scales Amazon Care to the public, it may leave smaller and newer telehealth companies struggling to catch up.

South Africa identifies new coronavirus strain causing surge in cases **yahoo!** news

- South Africa has identified a new variant of the coronavirus that is driving a second wave of infections, the health minister said on Friday, days after Britain said it had also found a new variant of the virus boosting cases.
- "We have convened this public briefing today to announce that a variant of the SARS-COV-2 Virus - currently termed 501.V2 Variant - has been identified by our genomics scientists here in South Africa," Minister of Health Zweli Mkhize tweeted.
- "The evidence that has been collated, therefore, strongly suggests that the current second wave we are experiencing is being driven by this new variant," Mkhize added.
- South African health authorities said the new variant seemed to spread faster than the previous iteration, but that it was too early to tell its severity and whether current vaccines would work against it.
- The WHO said on Friday it was in touch with the South African researchers who identified the new variant.



Happy Holidays





Medical staff urges California nurses not to strike BECKER'S **HOSPITAL REVIEW**

Medical staff at HCA Healthcare's Riverside (Calif.) Community Hospital are calling on nurses at their facility not to strike. While they respect nurses' right to strike, it is not in the best interest of patients, the medical staff said in an unsigned memo to nursing staff, which was shared with Becker's Hospital Review Dec. 16.

FDA Approves Another At-Home COVID Test **USATODAY**

- The test from Abbott produces results in 15 minutes. In an ongoing study, the test accurately produced positive results about 92% of the time and correctly returned negative tests 100% of the time, the company said.
- A day after the U.S. Food and Drug Administration authorized the nation's first home COVID-19 test, the agency on Wednesday cleared a second home test made by Abbott Laboratories. Abbott said the rapid BinaxNow home test will cost \$25 and be available through a telehealth provider, eMed, which will determine whether a person is eligible. Only people with COVID-19 symptoms can get the home test.

The Next Major Pharmaceutical Acquisition Is Here Seeking Alpha^α

- AstraZeneca has announced it's acquiring Alexion at a fairly substantial 45% premium. It's a mixed stock - cash offer.
- The synergies will cover most of the ~\$900 million in annual dividend / interest costs with significant growth potential. AstraZeneca is working to position itself for substantial long-term growth for shareholders.
- AstraZeneca has a broad franchise of drugs and it's building a leading emerging market presence. The company has a number of major Phase 3 medicines and it's working on its pipeline for the long run. The company is especially focused on expanding its early and mid-stage pipelines. It has a number of potential blockbuster medicines and sees sustainable growth.
- The acquisition should generate significant value for shareholders of both companies and will significantly expand AstraZeneca's R&D development programs as the company continues to focus on both science and innovation.
- The risks of the acquisition are fairly significant. Traditionally, large acquisitions, especially those that come with a substantial premium don't pan out. This is an incredibly high potential acquisition with the ability to drive significant rewards.



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HHS to give hospitals extra \$4.5B in relief payments BECKER'S **HOSPITAL REVIEW**

- HHS is allocating another \$4.5 billion to hospitals and provider groups affected by the COVID-19 pandemic, the agency said Dec. 16.
- In October, HHS announced it would give providers \$20 billion from the Provider Relief Fund in its phase three general distribution. Now, the agency will offer \$24.5 billion to help hospitals and providers offset revenue losses and increased expenses.
- HHS said the funding will help each eligible provider recover up to 88 percent of their reported losses attributed to the pandemic.
- The agency will begin distributing the \$24.5 billion in relief funding Dec. 16 and continue through January 2021. HHS said the funds will be distributed to more than 70,000 providers.

New COVID-19 variant that is 70% more transmissible threatens UK. U.S. News

- Prime Minister Boris Johnson announced that London and parts of the South East and East of England will be entering into 'Tier 4' lockdown restrictions from Sunday morning.
- The tougher restrictions, announced at short notice, are in response to the sudden emergence of a fast-spreading variant of COVID-19. The new variant of the virus is currently believed to be up to 70% more transmissible than the original strain.
- It does not, however, appear to be more lethal or resistant to existing vaccines.
- While much is unknown about the new variant, Johnson explained that action is immediately required. "We already know more than enough to be sure that we must act now," he said.

The EU is plagued with divisions. Covid-19 vaccines are a golden chance to redeem the European project **CNN**

European Union regulators edge closer to approving two of those vaccines, the commission is asking its 27 nations to get ready to work together to roll them out. If it all goes to plan, the EU's vaccine program could go down as one of the greatest achievements in the history of the European project. The EU has suffered a sustained battering in recent years, fueled by the UK's departure, a surge in nationalist parties, and Euroskeptic attitudes across the continent.



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Hackers' broad attack sets cyber experts worldwide scrambling to defend networks REUTERS

- Suspected Russian hackers who broke into U.S. government agencies also spied on less high-profile organizations, including groups in Britain, a U.S. internet provider and a county government in Arizona, according to web records and a security source.
- More details were revealed on Friday of the cyber espionage campaign that has computer network security teams worldwide scrambling to limit the damage as a senior official in the outgoing administration of U.S. President Donald Trump explicitly acknowledged Russia's role in the hack for the first time.
- Secretary of State Mike Pompeo said on the Mark Levin radio show "I think it's the case that now we can say pretty clearly that it was the Russians that engaged in this activity."
- Networking gear maker Cisco Systems Inc said a limited number of machines in some of its labs had been found with malicious software on them, without saying if anything had been taken. A person familiar with the company's ongoing probe said fewer than 50 were compromised.
- Hackers accessed systems at the National Nuclear Security Administration, which maintains the U.S. nuclear weapons stockpile.
- In Britain, a small number of organizations were compromised and not in the public sector, a security source said.
- SolarWinds, which disclosed its unwitting role at the center of the global hack on Monday, has said that up to 18,000 users of its Orion software downloaded a compromised update containing malicious code planted by the attackers. The attack was believed to be the work of an "outside nation state," SolarWinds said in a regulatory disclosure.
- Microsoft, one of the thousands of companies to receive the malicious update, said it had notified more than 40 customers whose networks were further infiltrated by the hackers.
- Around 30 of those customers were in the United States, Microsoft said, with the remaining victims found in Canada, Mexico, Belgium, Spain, Britain, Israel and the United Arab Emirates. Most worked with information technology companies, some think tanks and government organizations.
- Foreign hackers got caught after successfully logging in to FireEye, a top cybersecurity firm, tipping the company off to a broader hacking campaign targeting the U.S. government, according to FireEye and congressional aides briefed on the issue.





7-Eleven Switching to 100% Renewable Power

- 7-Eleven Inc. is switching its operations to 100% renewable power through a new energy commitment.
- Parent company Seven & i Holdings Co. has joined RE100, a global initiative led by international nonprofit the Climate Group in partnership with CDP.
- RE100's member organizations include leading businesses committed to the 100 percent goal, including some of the biggest, most influential companies in the world, with a combined electricity demand higher than that of Australia. They are set to spend more than \$98 billion to reach their goals, according to the announcement.

Canadian Pacific to develop hydrogen-powered locomotive

- CP's Hydrogen Locomotive Program will retrofit a line-haul locomotive with hydrogen fuel cells and battery technology to drive the locomotive's electric traction motors. Once operational, CP will conduct service trials and qualification testing to evaluate the technology's readiness for the freight-rail sector, CP officials said.
- The work will build on the railroad's prior experience with testing low-emitting locomotive technologies, including biofuels, compressed natural gas and battery-powered solutions. Nearly the entire freight locomotive fleet of all railway operators in North America consists of diesel-powered units, representing the industry's most significant source of greenhouse gas emissions, according to CP.

BC Ferries' 4th electric-hybrid ferry hits the water

- Damen Shipyards Galati in Romania has launched the fourth Island Class battery-powered ferry for the Canadian ferry operator BC Ferries.
- Work will continue on the new ship until scheduled sea trials in April. Following successful sea trials, the vessel will make its way to Point Hope Maritime in Victoria in fall 2021 for final preparations.
- The yet-to-be named ship is the fourth in a series of six Island Class vessels joining the BC Ferries fleet, and the second assigned to the Campbell River – Quadra Island (Quathiaski Cove) route.



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Canoo MPDV revealed as a futuristic electric work van coming in 2022

The electric Canoo van is here, and it's bringing a completely new aesthetic to the delivery van scene. Unlike the electric vans from Ford, Mercedes and others, the Canoo Multi-Purpose Delivery Vehicle (MPDV) is challenging design norms for what a commercial van should look like. It's slab-sided with flat panels everywhere, and it looks distinctly futuristic in a Cyberpunk sort of way. Its massive greenhouse in front should make it super easy to see out of, and the stubby front end looks conducive to easy placement in tight urban spaces.



Hydrogen cars - expelling nothing but clean water



- There's little outward sign of \$40 million in government funding being poured into the efforts of Hiringa Energy to develop a way to replace fossil fuels like diesel and coal as the main drivers of heavy transport and industrial processing.
- The money is being spent on research and the development of the means of making hydrogen commercially in New Zealand – the core technologies long ago invented overseas - and applying it to the government's decision to phase out fossil fuels as quickly as possible.
- The trucking behemoths that bring many of our consumer goods to Taranaki (and most everywhere) are one of the first targets of this controversial strategy, and Hiringa is well advanced towards setting up the crucial parts to make it work – refueling stations, electrolysis plants to make the hydrogen, and cost-effective ways to obtain “clean” electricity to power up those plants.



Lloyd's of London steps back from coal in first climate change policy



Lloyd's has released its 1st sustainability report in a bid to build a more sustainable future. The company's ESG (environmental, social and governance) strategy aims to reduce its exposure to non-renewable energy. Lloyd's have also set a target for its members to derive 2% of their premium income from sustainable insurance products by 2022.



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Airlines: One question is whether a Biden administration would be more hostile to additional consolidation, especially if airlines' finances worsen and creditors seek structural changes.

Automakers: Plan to renew and fund more tax credits for consumers who buy electric vehicles to help manufacturers.

Manufacturers: Major watch items include perennial concerns such as taxes and regulation, as well as trade — especially whether Biden will seek to improve global ties after four years of tensions stoked by Trump.

Restaurants: Biden's goal to raise the federal minimum wage to \$15 an hour from \$7.25 could reduce profit and lead to some job cuts, even as it otherwise improves workers' living standards.

Retailers: Retailers, particularly those deemed nonessential such as department stores, could be at higher risk of more COVID-19-related closings under Biden.

Health Insurers: Biden's win will mean new efforts to bolster the Affordable Care Act — and expand insurance coverage and subsidies to help more people afford it.

Medical Technology: Biden plans investing in next-generation technology and creating a board to shepherd the production and distribution of tens of millions of tests nationwide.

Pharmaceuticals: Biden would seek to strengthen and cement the Affordable Care Act, expanding access to health insurance to even more Americans and helping them afford their medications.

Amazon.com Inc.: Democratic control over the White House and Congress could mean ramped-up antitrust scrutiny of the retail giant.

Apple Inc.: Biden has pledged to offer more H-1B visas to foreign engineers Apple and other technology companies want to hire.

Chipmakers: For the \$400b chip industry, Biden probably will ratchet down a trade war between the U.S. and China.

Agriculture: A Biden rollback of tariffs on Chinese goods clears the way for shipments of U.S. farm products to Asia.

Energy: Biden's victory could end up reshaping the U.S. energy sector in years to come, although the president-elect may have limited room to maneuver if Republicans retain control of the Senate.

Steel and Aluminum: These industries were a top priority for Trump's tariffs and trade policies, and tariffs probably won't go away any time soon under Biden, who hasn't placed trade at the top of his first-actions list.

SUPPLYCHAINBRAIN



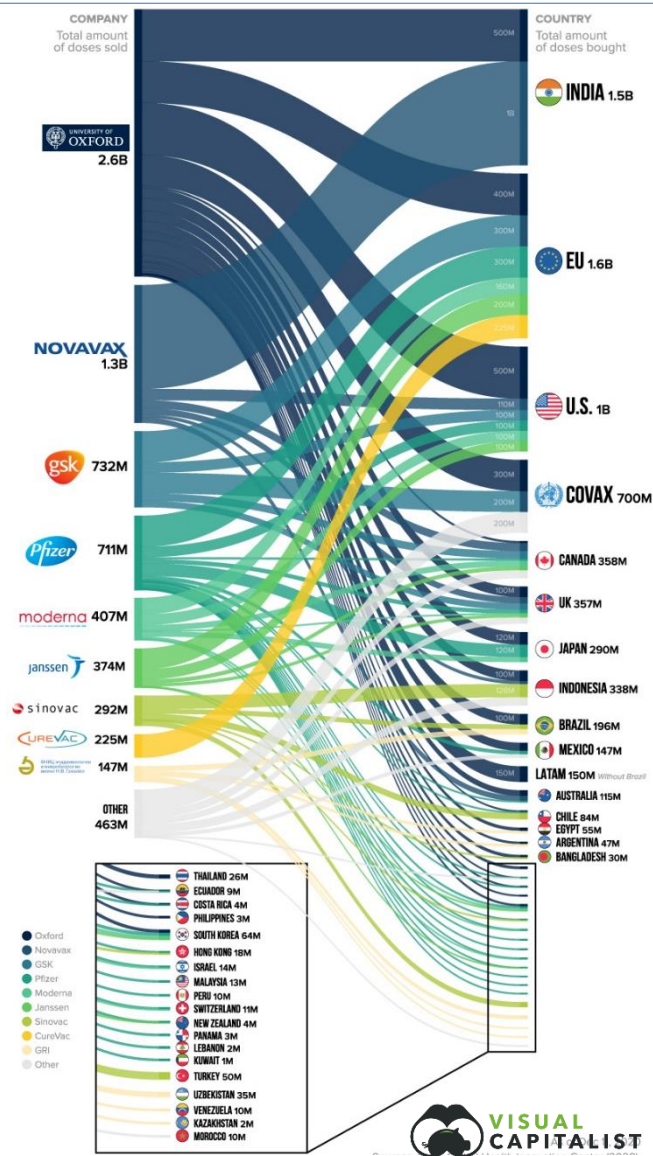
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How Many COVID-19 Vaccines Has Each Manufacturer Sold?





How Many COVID-19 Vaccines Has Each Country Bought?

