SPECIAL DIGITAL ISSUE

2022 Top Freight Transportation & Services Providers

2022 Top Freight Transportation & Services Providers

contents

welcome

Dynamic partners needed

AS WE CONTINUE to manage through disruptions, logistics professionals must solidify carrier and logistics service provider partnerships to find the capacity and service levels they need to stay ahead of the game. To do this, shippers are searching for dynamic partners that maintain a broader breadth of services, solid financial performance as well as the proper staffing necessary to offer consistent, risk-free service.

In this Special Digital Issue, the editorial staff of *Logistics Management* has collected its annual lists of top carriers and service providers broken down by financial performance and freight volume to help today's shippers better understand who's leading the pack in terms of investment and service offerings.

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Top 50 Trucking: PEDAL — TO THE — METAL

Leading carrier executives say a key strategy for staying on top is creating a company culture that "sets the tone for everything and everybody." Investing in new equipment, driver training and salaries doesn't hurt either.

BY **JOHN D. SCHULZ**, CONTRIBUTING EDITOR

In the mid-1990s, a trucking entrepreneur named Bob Robertson, then ascending to the top ranks of the industry as chief of Con-way Inc., turned some heads with a statement that every trucking executive should have memorized. When asked about his company's success, Robertson thought a minute and then recited a line made famous by management guru Peter Drucker: "Culture eats strategy for breakfast seven days a week."

Con-way is long gone—now a part of XPO Logistics—and Robertson has retired to Florida. But the quote still works. When considering what keeps the Top 50 carriers atop *Logistics Management*'s annual listing during the uneven freight

years since the COVID-19 pandemic upended nearly everything, betting on a company's culture is still relevant today.

"Culture is first and foremost," says Greg Orr, president of CFI and executive vice president for U.S. truckload for TFI, the 17th-largest TL carrier. "It sets the tone for everything and everybody."

The secret to a great company's culture, Orr explains, "is having the right players with you who are as good or better than you. Having a committed group who know where we need to improve and are able to tie everything to that. Then they have ownership and take accountability to drive you to the results that you need."

TOP 25 LESS-THAN-TRUCKLOAD CARRIERS: 2021 REVENUES

(Including fuel surcharges)

Rank	Carrier name	2020 Revenue ($ million)	2021 Revenue ($ million)	YoY % Change 2020-2021
1	FedEx Freight*	$7,115	$8,594	20.8%
2	Old Dominion Freight Line*	$3,961	$5,177	30.7%
3	Yellow Corp*	$4,488	$5,078	13.1%
4	XPO Logistics*	$3,575	$4,192	17.3%
5	Estes Express Lines	$3,068	$3,783	23.3%
6	TFI International (US Only)*	$2,898	$3,179	9.7%
7	ABF Freight System*	$2,036	$2,518	23.7%
8	R+L Carriers	$1,973	$2,427	23.0%
9	Saia Motor Freight Line*	$1,822	$2,289	25.6%
10	Southeastern Freight Lines	$1,256	$1,476	17.5%
11	Averitt Express	$831	$1,093	31.5%
12	Central Transport Int'l	$871	$1,046	20.1%
13	Dayton Freight Lines	$669	$863	29.0%
14	Forward Air*	$626	$831	32.7%
15	Pitt Ohio Transportation Group	$653	$780	19.4%
16	AAA Cooper Transportation	$592	$653	10.3%
17	A. Duie Pyle	$380	$481	26.6%
18	Roadrunner Transportation	$430	$430	0.0%
19	Daylight Transport	$270	$380	40.7%
20	Oak Harbor Freight Lines	$237	$284	19.8%
21	Central Freight Lines	$256	$262	2.3%
22	Ward Trucking Corporation	$183	$230	25.7%
23	Midwest Motor Express	$120	$137	14.2%
24	Magnum LTL	$74	$118	59.5%
25	Dependable Highway Express	$87	$117	34.5%
TOTAL TOP 25 LTL CARRIERS		**$38,482**	**$46,418**	**20.6%**
ALL OTHER CARRIERS		**$3,623**	**$4,284**	**18.2%**
TOTAL LTL MARKET		**$42,105**	**$50,702**	**20.4%**

*Publicly Traded Company
Note 1: Revenue for U.S. LTL operations primarily, and includes revenue from fuel surcharge and shipments weighing over 10,000 pounds
Note 2: Shipment volume increased by 7.1% and tonnage by 7.7% in 2021 over 2020
Note 3: Fuel surcharge represented 2.9% increase in revenue in 2021 over 2020
Note 4: With 2021 having 1 to 2 fewer operating days than 2020, revenue per day was even higher than listed above.
Source: Companies and SJ Consulting Group estimates
Prepared by SJ Consulting Group, Inc.


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Of course, performing the "nuts and bolts" of trucking—doing the job safely and efficiently for all customers at fair rates—is tantamount to success.

"When I think of the top carriers, it's safety and service," says Darren Hawkins, CEO of Yellow Corp., which controls 10% of the less-than-truckload (LTL) market as the 3rd-largest LTL carrier. "That was the case when I began in this industry 30 years ago, and it's still the case today."

Analysts say that the best, most profitable trucking companies are that way because they price their services—all of them, including accessorials such as inside delivery or specialized handling—correctly and accurately. Such accessorials used to be about 5% of revenue in the $46 billion LTL sector. They're now close to 10%, a sign of overall health of the LTL sector which collectively posted an 85 operating ratio (OR) last year.

"They have discipline in charging for the services they're providing," says Satish Jindel, principal of SJ Consulting, which closely tracks the profitability of the industry. "The best carriers don't let shippers allow drivers to wait for hours at their docks. They charge for detention and special services."

Let's take a deeper dive into what's keeping the best carriers in the *Logistics Management* Top 50. They're producing some of their best incomes during a period when the pandemic ruined long-term planning, inflation is wreaking havoc with budgets and qualified drivers are in short supply. Let's better understand why this is happening.

Residual COVID effects on costs

The pandemic has upended everyone's plans. New truck orders are being cut by a third or more because of the worldwide shortage of microchips. And if this past year has convinced trucking executives of anything, it's that those shortages of certain goods and gadgets can occur at any time.

Chuck Hammel, president of Pittsburgh-based Pitt Ohio, the 15th-largest LTL carrier, says that buying new Class 8 trucks is like playing roulette. Sometimes your number comes up, sometimes it doesn't.

Hammel related a quick story of a big truck manufacturer telling him that 15 of his new trucks were being delayed because of lack of sideview mirrors. He was incredulous. "That's a piece of equipment that probably costs $15," he says. "But it held up our order for four months."

Experts who watch this market closely say get used to it. Supply chain disruptions have become our new normal, and everyone should expect them in the foreseeable future. Then, there's cost. New Class 8 trucks exceed $150,000 these days, but used truck valuations have soared as well.

"Availability of equipment is a big factor," says Avery Vise, trucking analyst for research firm FTR. "A three-year-old used truck costs as much as a new one."

It's the same on the truckload side. "The strategy seems to change daily nowadays," says CFI's Orr. "With the pandemic, supply chain disruptions and the driver shortage, inflationary pressures are on everything."

The hunt for drivers

It would be great if we could report trucking companies have solved their decades-old driver shortage—but that would be overly optimistic.

In fact, most trucking execs say it's worse than it's ever been. The American Trucking Associations estimates that we're currently short about 80,000 qualified drivers. What's even harder to believe is the projection that the industry will need 1 million new drivers over the next decade.

Yellow Corp. has decided to take recruiting in-house. It recently added two new driving academies to its stable of 14 schools to prepare the next generation of professional truck

TOP 25 TRUCKLOAD CARRIERS: 2021 REVENUES

(Including fuel surcharges)

Rank	Carrier name	2020 Revenue ($ million)	2021 Revenue ($ million)	YoY % Change 2020-2021
1	Knight-Swift Transportation*	$3,786	$4,098	8.2%
2	J.B. Hunt Transport*	$2,659	$3,374	26.9%
3	Landstar System*	$2,033	$2,932	44.2%
4	Prime	$2,088	$2,207	5.7%
5	Schneider National*	$2,066	$2,201	6.5%
6	Werner Enterprises*	$1,826	$2,023	10.8%
7	Penske Logistics	$1,101	$1,851	68.1%
8	CRST International	$1,388	$1,586	14.3%
9	U.S. Xpress Enterprises*	$1,513	$1,568	3.6%
10	Ryder Dedicated Solutions*	$1,229	$1,457	18.6%
11	Crete Carrier Corp.	$1,171	$1,304	11.4%
12	Daseke*	$1,182	$1,249	5.6%
13	PS Logistics	$832	$982	18.1%
14	Western Express	$722	$977	35.4%
15	Ruan Transportation	$812	$875	7.8%
16	CR England	$888	$861	-3.0%
17	TFI International*	$714	$856	19.9%
18	NFI Industries	$756	$855	13.1%
19	Marten Transport*	$689	$726	5.4%
20	Stevens Transport	$638	$702	10.1%
21	Anderson Trucking Service	$600	$665	10.9%
22	Cardinal Logistics	$620	$658	6.2%
23	Covenant Transportation *	$591	$623	5.5%
24	Heartland Express*	$645	$607	-5.9%
25	Mercer Transportation	$480	$602	25.4%
TOTAL TOP 25 TRUCKLOAD CARRIERS		**$31,029**	**$35,839**	**15.3%**

*Publicly Traded Company
Note 1: Revenues primarily for TL operations and may include a small percent of non-truckload services
Note 2: During 2021, revenue gains came on the heels of loads increasing by 5.3 percent and loaded miles decreasing by 3 percent
Source: Company Reports and SJ Consulting Group estimates

drivers for careers in transportation. They're tuition-free and designed to help ease the driver shortage.

"I don't think that any trucking company has all the drivers it needs," says Yellow's Hawkins. "But playing musical chairs is not the answer." Still, the best companies have persevered through internal recruitment and training of new drivers rather than "poaching" drivers from rivals.

"It's not easy, but we've added 1,800 drivers in the past year," says Kevin "Marty" Freeman, executive vice president and COO of Old Dominion Freight Lines. "About 600 have graduated from our internal driving school. It hasn't been easy, but we feel we've kept up with the influx of freight."

Partially to appease drivers and to keep its fleet young, CFI is acquiring 770 Kenworth T-680 Next Generation tractors. They're equipped with safety technologies and driver conveniences most in demand by today's drivers. It's also buying 250 new 53-foot trailers, including 100 dry-van general freight trailers and 150 refrigerated trailers supporting the growth of its reefer unit.

However, with that comes higher costs. CFI's 3,000 drivers recently received a two-cents-a-mile pay hike that Orr says probably won't be the last raise of 2022. "I've been here four years and we've had no less than one pay increase a year," he says. "There's probably another one coming this year. We're trying to boost our pay to stay competitive, but we also have competitors out there doing pretty astronomical things."

Carrier executives count four specific spikes or changes in the COVID variant that has disrupted supply chains, and they've had to find new ways to communicate with customers, employees and their original equipment manufacturers. "A big piece to me is trying to figure out how to do business in a different manner since we weren't sitting in front of customers and drivers face to face," says Orr. "We're used to having that open culture where everybody is accessible, and it's been hard."

"It's a wonderful time to be in trucking, especially LTL…I don't see any end to this for the next two or three years."

—Satish Jindel, SJ Consulting

Facing new challenges

Carrier executives agree that there were several challenges in both global and U.S. supply chains that they'll all have to face together this year.

"There are no easy fixes to the challenges that shippers may experience in the LTL marketplace or within any other segment of the supply chain this year," says Kent Williams, executive vice president of sale and marketing for Averitt Express. "Carriers are helping shippers navigate these unique times."

For instance, Averitt is encouraging customers to take advantage of cross-docking at its facilities located near seaports. This allows them to invest in staging safety stock within distribution and fulfillment centers and to consider using inland ports such as the Appalachian Regional Port or Inland Port Greer in South Carolina.

These are a few ways carriers and shippers can work together to bypass some of the congestion, and to also avoid potentially expensive *per diem* and demurrage fees, carrier executives said. "Simply put, it's going to take a bit of time for LTL capacity and demand to reach an equilibrium," predicts Williams.

The rate situation

Everything in trucking works like a pendulum. Supply-and-demand equations swing back and forth. But there's no doubt that in 2022, carriers have the upper hand.

In fact, nothing blares recovery more than Yellow's balance sheet for last year. While its LTL tonnage declined 3.3%, its revenue per hundredweight rose a whopping 16.4% year over year. Excluding the fuel surcharge, it was up 12.5%.

ABF Freight System, the nation's 7^{th}-largest LTL carrier, achieved an 89.9 operating ratio for last year. As a result of the Teamsters' profit-sharing plan with ABF, that kicked in a 3% bonus for all covered ABF employees on top of their yearly earnings, estimated to be at least $70,000. ABF parent ArcBest Corp. had a net income last year of $213.5 million, up from $71.1 million in 2020.

Old Dominion Freight Line reported net income rising 53.8% to a record $1.03 billion profit in 2021. As for rates, Old Dominion's Freeman says that "with inflation we're experiencing rising prices on everything from steel to aluminum. We feel we have to raise our prices to keep our value proposition and maintain profitability. As long as we keep our service levels where they are, I think our customers understand."

The long-beleaguered LTL industry, once seen as moribund, led all trucking sectors with a collective 85 OR last year, outperforming both truckload and parcel, according to SJ Consulting.

"It's a wonderful time to be in trucking, especially LTL," adds SJ analyst Jindel. "I don't see any end to this for the next two or three years." •

John D. Schulz is a contributing editor for Logistics Management

TOP 50: 3PLs face big challenges and huge rewards

Just like last year, 3PLs continue to face a host of critical and pressing issues that challenge their skills at managing a client's supply chain. And while company financials for 2021 were staggering, the state of the market in 2022 depends on the pace of global recovery—which currently seems to be slowing.

BY **KAREN THUERMER**, CONTRIBUTING EDITOR

Just when the world's third-party logistics (3PL) providers thought they had seen the worst of the supply chain chaos, Russia invaded Ukraine and China implemented lockdown measures in Shanghai.

"The year 2021 was an interesting for both ocean and air," reflects Tim Scharwath, CEO of DHL Global Forwarding. "But within the first two-and-half months of 2022, things became worse. We are, in a way, back to square one—back to the year 2021."

Just like last year, 3PLs continue to face a host of critical and pressing issues that challenge their skills at managing a client's supply chain.

"The biggest challenges facing us right now are very much like those facing shippers," says Sri Laxmana, vice president of global forwarding for C.H. Robinson. "The include ongoing capacity constraints, shipping delays, port congestion, labor and equipment shortages, and continued disruption due to myriad factors, and most recently, the Russia-Ukraine war, COVID-19 outbreaks and local travel restrictions."

Armstrong & Associates Top 50 U.S. 3PLs

(Largest U.S. 3PLs Ranked by 2021 Logistics Gross Revenue/Turnover)

2021 Rank	Third-party Logistics Provider (3PL)	2021 Gross Logistics Revenue (USD Millions)*
1	C.H. Robinson	22,355
2	Expeditors	16,524
3	UPS Supply Chain Solutions	14,639
4	Kuehne + Nagel (Americas)	12,980
5	J.B. Hunt	11,412
6	XPO Logistics	8,907
7	DSV (North America)	7,957
8	GXO Logistics	7,940
9	Total Quality Logistics	7,857
10	Uber Freight	6,440
11	Transportation Insight Holding Company	5,800
12	DHL Supply Chain (North America)	5,010
13	Ryder Supply Chain Solutions	4,612
14	Worldwide Express	4,600
15	Burris Logistics	4,300
16	Hub Group	4,232
17	Lineage Logistics	4,000
18	Landstar	3,838
19	Schneider	3,770
20	DB Schenker (North America)	3,750
21	Echo Global Logistics	3,745
22	Penske Logistics	3,700
23	CEVA Logistics (North America)	3,650
24	MODE Global	3,400
25	NFI	3,122
26	GEODIS (North America)	2,760
27	Americold	2,715
28	AIT Worldwide Logistics	2,292
29	SEKO Logistics	2,018
30	FedEx Logistics	1,920
31	Knight-Swift Transportation	1,900
32	Kerry Logistics (Americas)	1,860
33	Werner Logistics	1,837
34	ArcBest	1,810
35	Omni Logistics	1,798
36	Capstone Logistics	1,780
37	Maersk Logistics (Americas)	1,700
38	TFI International (North America)	1,662
39	Arrive Logistics	1,632
40	Ascent	1,600
40	Crane Worldwide Logistics	1,600
41	BDP International	1,552
42	Universal Logistics Holdings	1,502
43	Pilot Freight Services	1,350
44	Kintetsu World Express (North America)	1,327
45	syncreon	1,275
46	Allen Lund	1,225
47	Ruan	1,223
48	Radial	1,200
49	Odyssey Logistics & Technology	1,167

**Revenues cover all four 3PL Segments (DTM, ITM, DCC and VAWD), are company reported or A&A estimates, and have been converted to US$ using the annual average exchange rate, as of April 2022.

Reuters recently cited a study by the Royal Bank of Canada that neatly encapsulates the problem. It states that one-fifth of the global container fleet is currently stuck due to congestion at various major ports. In early May, ships awaiting berth at the Port of Shanghai tallied 344—a 34% increase over April total.

"It will take a very long to dig out of this," says Lars Jensen, CEO of Vespucci Maritime. "There's no buffer capacity in the system, and it will take very little to go to an even worse situation." As an analogy, he compares vessels delays in February being akin to sinking the entire fleet of CMA CGM to the bottom of the ocean. "That is the real situation we're still in."

Adding fuel to the fire are rising rates and costs. "Shipping costs have been rising sharply across the supply chain, and have reached historically high rates globally," says Nia Hudson, research analyst at London-based Transport Intelligence (Ti). "This is the case particularly on shipping routes from Asia to North America and Europe."

Ti's ocean freight tracker shows that in February 2022, rates on lanes from China/East Asia to the U.S. West Coast were up 175.6% year-on-year, while rates on the backhaul were up 30.2% year-on-year. Industry experts predict that shippers won't see much rate relief until at least the third quarter of 2022. "Both DSV and Maersk have warned that freight costs are likely to remain high well into the year," remarks Hudson.

Other affecting factors are rising oil prices, continued consumer demand, container shortages, and limited ocean and airfreight capacity, not to mention workforce shortages that have left 3PL providers facing high labor costs and fewer people to address volumes.

Critical cooperation

Nearly everyone in the industry concurs that these issues are unlikely to be resolved in the near term. However, 3PLs and shippers are continuing to work together to find creative ways to overcome challenges and keep goods moving. In fact, all parties involved in supply chain logistics are finding creative solutions to work together.

"We feel everyone, especially the ocean carrier community, is trying hard to help support our customers to find the right solutions to make everything that can be available, available," says Scharwath. "Everything that can swim is on the waters these days."

Laxmana points out how C.H. Robinson is helping shippers manage ocean shipping delays by shifting some of their freight from full-container-load (FCL) to less-than-container load (LCL) shipping, including expedited LCL. "This provides cost and time savings, and more ability to make last-minute changes amid longer wait times at the ports," he says.

At the same time, J.B. Hunt Transport Services Inc. and BNSF are launching a joint effort to substantially improve capacity in the inland intermodal marketplace, while also meeting the expanding needs of current customers.

Armstrong & Associates Top 50 Global 3PLs

(Largest U.S. 3PLs Ranked by 2021 Logistics Gross Revenue/Turnover)

2021 Rank	Third-party Logistics Provider (3PL)	2021 Gross Logistics Revenue (USD Millions)*
1	Kuehne + Nagel	40,838
2	DHL Supply Chain & Global Forwarding	37,707
3	DSV	28,974
4	DB Schenker	27,648
5	C.H. Robinson	22,355
6	Sinotrans	19,097
7	Nippon Express	18,612
8	Expeditors	16,524
9	UPS Supply Chain Solutions	14,639
10	CEVA Logistics	12,000
11	GEODIS	11,900
12	J.B. Hunt	11,412
13	Kerry Logistics	10,516
14	Maersk Logistics	9,830
15	XPO Logistics	8,907
16	DACHSER	8,333
17	GXO Logistics	7,940
18	Total Quality Logistics	7,857
19	CJ Logistics	7,700
20	Toll Group	7,260
21	LX Pantos	6,541
22	Uber Freight	6,440
23	Hitachi Transport System	5,995
24	Transportation Insight Holding Company	5,800
25	Bolloré Logistics	5,701
26	Kintetsu World Express	5,501
27	GEFCO	5,200
28	Yusen Logistics	5,000
29	Ryder Supply Chain Solutions	4,612
30	Worldwide Express	4,600
31	Burris Logistics	4,300
32	Hub Group	4,232
33	SAIC Anji Logistics**	4,183
34	AWOT Global Logistics Group	4,058
35	Lineage Logistics	4,000
36	JD Logistics	3,946
37	Landstar	3,838
38	Schneider	3,770
39	Echo Global Logistics	3,745
40	Penske Logistics	3,700
41	Savino Del Bene	3,538
42	MODE Global	3,400
43	NFI	3,122
44	Culina Group	2,985
45	Hellmann Worldwide Logistics	2,972
46	C&D Logistics Group	2,967
47	Americold	2,715
48	EFL	2,680
49	Mainfreight	2,467
50	Sankyu	2,457

*Revenues cover all four 3PL Segments (DTM, ITM, DCC and VAWD), are company reported or A&A estimates, and have been converted to US$ using the annual average exchange rate, as of April 2022.
*In-house logistics revenues were capped at 50% for fairness.

Wider roles

Taking on a wider role, some of the biggest 3PLs are now dealing in end-to-end logistics, with companies increasingly trying to expand value-added services, achieve geographic expansion and accelerate company valuation.

As a result, mergers and acquisitions in the industry continue to take place. In fact, analysts say that mergers and acquisition activity is keeping pace with 2021.

In the airfreight and air transport sector, Kuwait's Agility and its subsidiary National Aviation Service have made an offer for the UK based aircraft handling company John Menzies. GXO, the contract logistics spin-off of XPO, has bid for the UK 3PL Clipper Logistics, and MSC has just reached an agreement to acquire Bollore Africa Logistics.

C.H. Robinson is expanding its global and Asian reach by opening a new office in Beijing that will also serve as its North China airfreight logistics hub. It joins C.H. Robinson's existing airfreight hubs in Shanghai, Guangzhou, Shenzhen and Hong Kong. "Organizations with scale are likely to remain ahead of the market, especially during times of intense market disruption," comments Hudson.

For some shippers, using 3PLs with economies of scale offers wider benefits such as access to a larger network. "This is especially important for those shippers looking to expand into new territories," remarks Hudson. "Working with providers of scale is also likely to benefit shippers through lower costs as production becomes more efficient."

Consolidation within the market may also influence the visibility of shippers' supply chains as 3PLs gain access to new capabilities and new technology. Some 3PLs have been taking action to reduce order fulfillment expenses and offset the high costs of freight and rent. "Several companies have increased investment in automation to alleviate labor shortage pressures and optimize warehouse space," Hudson says.

DHL Supply Chain, for example, reported at the beginning of the year that it was investing $15 million in

Full steam ahead for diversified operations

Steamship lines are increasingly purchasing positions to marry their operations with those of 3PLs. This was particularly the case with Maersk in 2021.

"Maersk made no fewer than seven deals during the year, including several acquisitions that expanded its presence in the e-commerce market," says Nia Hudson, research analysts with Transport Intelligence Ltd (Ti).

One deal occurred in August with Visible Supply Chain Management, a U.S.-based B2C and B2B e-commerce fulfillment provider followed in December by Maersk acquiring LF Logistics, a Hong Kong-based contract logistics provider specializing in omnichannel and e-commerce logistics. The LF deal adds some 223 warehouses across Asia Pacific to Maersk's network that now covers 9.5 million square meters globally.

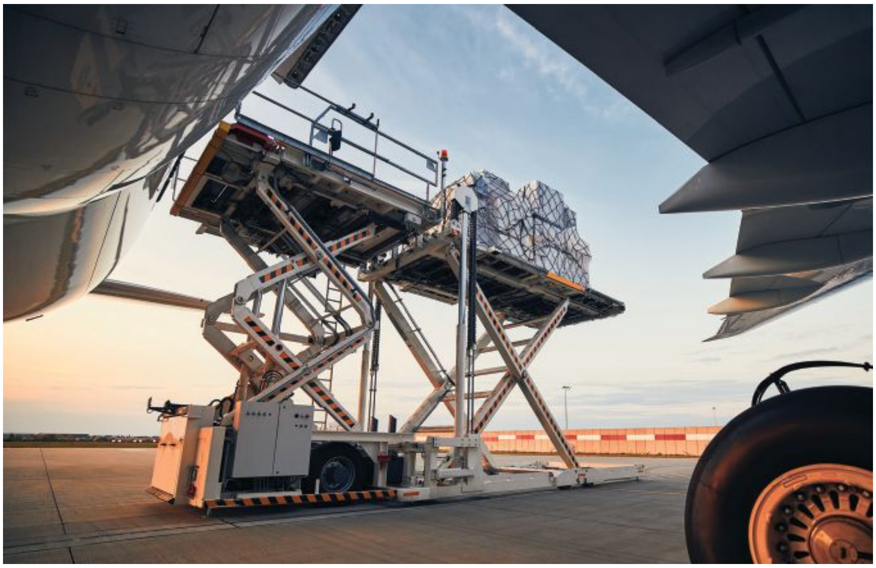
And just recently, on May 2, Maersk completed its $1.68 billion acquisition of Pilot Freight Services, a move the carrier sees as offering customized international, domestic, and cross-border logistics to its North America landside logistics capabilities for B2B and B2C distribution models.

If approved, Maersk will also expand its trans-Atlantic airfreight cargo capacity this year by acquiring Senator International in the second quarter of 2022.

–Karen Thuermer

robotics solutions from Boston Dynamics to further automate warehouses in North America that would be designed specifically to remedy challenges within the warehouse space. "Many European companies—such as GEODIS, SEGRO, and DSV—are purchasing warehousing space nearer to the end customers in an attempt to keep costs as low as they can

3PLs are also introducing services with the intent of cutting costs. GXO's Direct distribution network in North America, for example, places stock in strategically located distribution centers to provide shippers with a cost-effective, flexible distribution solution. "It's these providers that are attempting to introduce cost-effective services that will be able to create additional value for consumers," Hudson says.



Significant growth

The challenges have created vast opportunities for 3PLs—and their financials reflect this. Armstrong & Associates, Inc. (A&A) estimates that U.S. 3PL market gross revenues grew a whopping 50.3% in 2021, bringing the total to $347.9 billion.

A&A ranked C.H. Robinson No. 1 and estimated that the 3PL brought in $22.3 billion in gross revenues compared to $15.5 billion in 2020. For 2021, A&A ranked C.H. Robinson No. 5 globally, stating that C.H. Robinson's Global Forwarding division more than doubled in 2021, with gross revenue growth of 117.1% to $6.7 billion. Its net revenue increased 70.7% to $1.1 billion.

"C.H. Robinson is now a top freight

forwarder in the Asia to U.S. trade lane and with 1.5 million in total ocean export TEUs managed," says Evan Armstrong, president of A&A. "It has surpassed long-time U.S.-headquartered competitor Expeditors International."

Expeditors ranked No. 2 in A&A's Top 50 U.S. 3PLs, outpacing XPO Logistics (No. 6 in 2021; No. 2 in 2020) and UPS Supply Chain Solutions (No. 3 in both 2021 and 2020). Its 2021 estimated gross revenues were $16.5 billion and $10.1 billion in 2020.

"Expeditors International is the largest U.S.-based international transportation management 3PL revenue-wise," Armstrong says. A&A finds that Expeditors' 2021 gross revenue increased 67.7% to $16.5 billion and net revenue grew 39.7% to $4.5 billion. Growth primarily came from ocean freight where gross revenue grew 137% to $5.5 billion from $2.3 billion in 2020.

Expeditor's ocean freight consolidation business grew 194%, primarily on exports from Asia. Airfreight gross revenue was up 58% to $6.8 billion. Net revenue grew at a lesser rate due to increased costs of purchased transportation in both air and ocean, driving overall gross profit margin from 32.4% to 27% for 2021.

A&A finds that global player Kuehne + Nagel swapped places with DHL Supply Chain & Global Forwarding, by ranking No. 1 in 2021 as the largest global 3PL based on gross revenues. K+N grossed a whopping $40.8 billion in 2021 up from $25.8 billion in gross revenues in 2020 compared to DHL Supply Chain & Global Forwarding, which grossed an estimated $37.7 billion in 2021, up from $28.4 billion in 2020.

DSV rose to third place with 2021 gross revenues of $28.9 billion compared to $18.3 billion in 2020 when the company was DSV Panalpina.

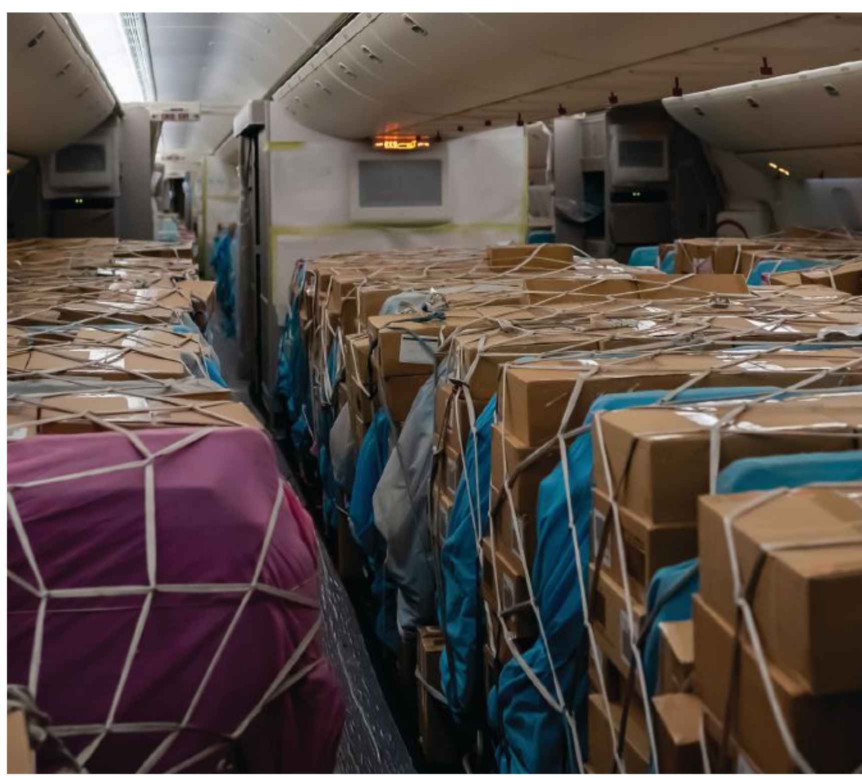
Going forward in 2022

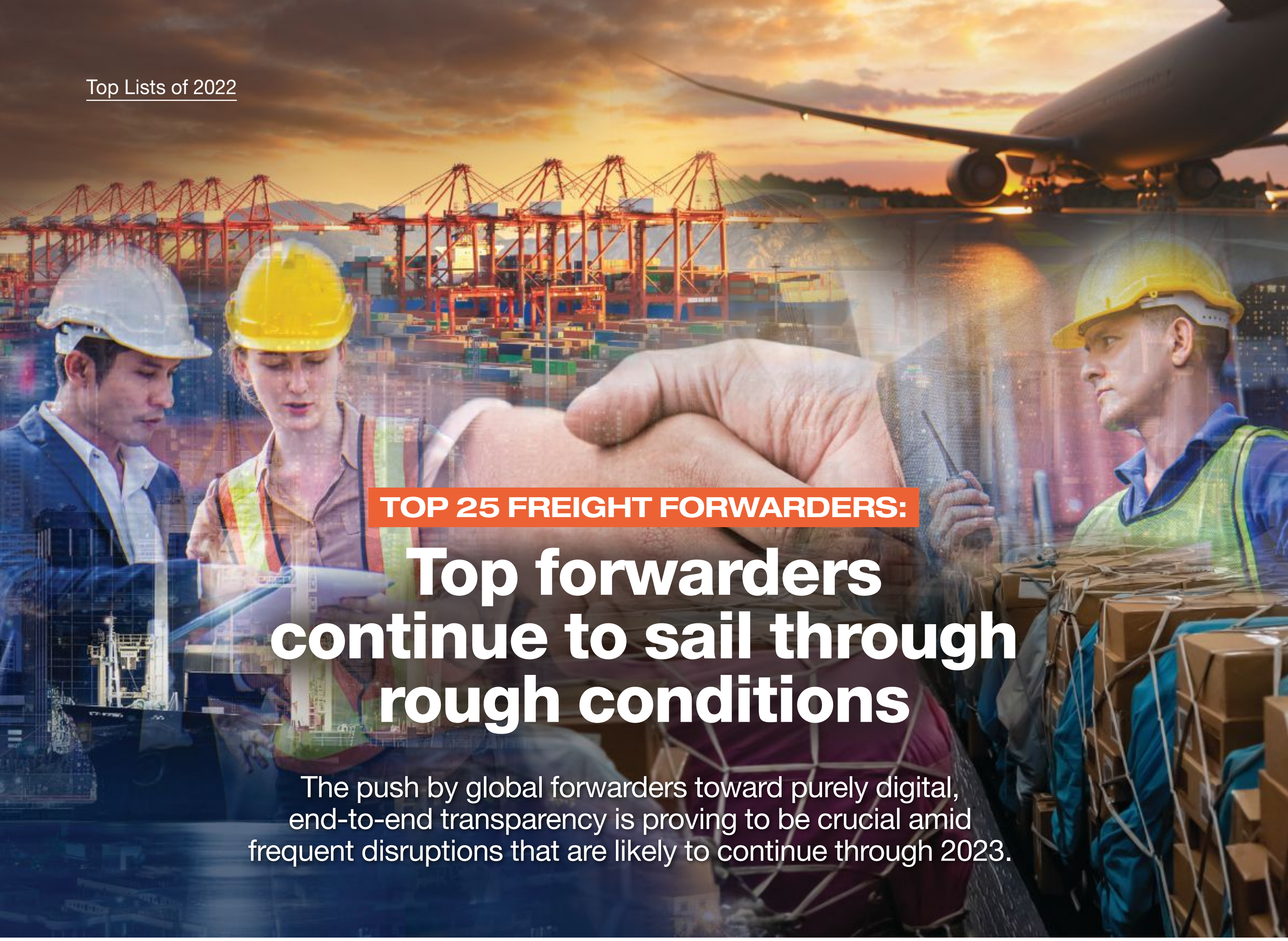
While company financials for 2021 were staggering, the state of the market in 2022 depends on the pace of global recovery, which currently seems to be slowing.

"The global economy has entered 2022 in a weaker position than expected," adds Hudson. "It's perhaps too early to fully understand the impact of these factors on the market. It has, however, been predicted that supply chain disruptions will level out by mid-2022 as inventory levels begin to normalize to pre-COVID levels and shipping capacities begin to increase, although this remains to be seen."

Ti's forecasts show that growth will therefore slow slightly in the coming years, growing by 7.0% year over year in 2022 and a CAGR of 4.7% by 2026. •

Karen Thuermer is a contributing editor for Logistics Management





TOP 25 FREIGHT FORWARDERS:

Top forwarders continue to sail through rough conditions

The push by global forwarders toward purely digital, end-to-end transparency is proving to be crucial amid frequent disruptions that are likely to continue through 2023.

BY **KAREN THUERMER**, CONTRIBUTING EDITOR

As if 2021 wasn't bad enough, 2022 is presenting additional layers of disruption to global freight markets with further COVID-related lockdowns, especially in China; Russia's invasion of Ukraine; exceptionally strong increases in energy prices; heightened competition for talent; and inflation and recession worries that are hitting multiple geographies and supply chains at different locations at different times.

Against this backdrop, buoyant global trade and capacity shortages in ocean and air transport have caused rates to escalate to historic highs.

"These are different challenges than those we experienced in 2020 and 2021," comments Brian Bourke, chief growth officer at SEKO Logistics. "These are creating even more complexity and volatility in global markets."

In such a volatile environment, shippers are continuing to lean heavily on their freight forwarders to help bolster their inventories and avoid product stock outs. And at the same time, high freight rates benefited freight forwarders in 2021, as many realized record profits.

"The volatile conditions created growth opportunities for all third-party logistics [3PL] providers, particularly those with strong carrier

Top 25 Global Freight Forwarders*

Ranked by 2021 Gross Logistics Revenue and Freight Forwarding Volumes

A&A Rank	Provider	Headquarters	Gross Revenue (US$ M)	Air Metric Tons	Ocean TEUs
1	Kuehne + Nagel	Switzerland	40,838	2,220,000	4,613,000
2	DHL Supply Chain & Global Forwarding	Germany	37,707	2,096,000	3,142,000
3	DSV	Denmark	28,901	1,510,833	2,493,951
4	DB Schenker	Germany	27,648	1,438,000	2,003,000
5	Sinotrans	China	19,097	804,000	3,940,000
6	Expeditors	United States	16,523	1,047,200	1,047,725
7	C.H. Robinson	United States	22,356	300,000	1,500,000
7	CEVA Logistics	France	12,000	474,000	1,269,000**
7	Nippon Express	Japan	18,612	971,763	747,624
8	Kerry Logistics	Hong Kong	10,516	520,415	1,229,298
9	UPS Supply Chain Solutions	United States	14,639	988,880	620,000
10	GEODIS	France	11,900	346,667	900,866
11	Kintetsu World Express	Japan	9,010	728,534	715,481
12	Hellmann Worldwide Logistics	Germany	4,718	652,100	977,500
13	Bolloré Logistics	France	5,701	656,000	826,000
14	CTS International Logistics	China	3,822	416,190	1,051,297
15	Yusen Logistics	Japan	7,788	410,000	742,000
16	LX Pantos	South Korea	6,541	142,000	1,658,000
17	DACHSER	Germany	8,333	365,000	530,000**
18	AWOT Global Logistics Group	China	4,058	486,216	250,310
19	Logwin	Luxembourg	2,184	182,000	715,000
20	Hitachi Transport System	Japan	5,995	148,000	441,000
21	Toll Group	Australia	6,300	117,400	523,300
22	Worldwide Logistics Group	China	1,905	129,732	840,060
23	Savino Del Bene	Italy	3,538	88,500	660,000
23	Maersk Logistics	Denmark	9,830	173,648	133,452

*Revenues and volumes are company reported or Armstrong & Associates, Inc. estimates. Revenues cover all four 3PL Segments (DTM, ITM, DCC and VAWD) and have been converted to US$ using the annual average exchange rate. Freight forwarders are ranked using a combined overall average based on their individual rankings for gross revenue, ocean TEUs and air metric tons.
**Includes LCL shipments.

management, e-commerce, and airfreight forwarding capabilities," says Evan Armstrong, president of leading 3PL analyst firm Armstrong & Associates (A&A). "Year-over-year, 2021 saw the fastest 3PL growth since we began estimating the market size in 1995."

A recent report by A&A finds that U.S. 3PL Market gross revenues grew a whopping 48.1% in 2021, bringing the total U.S. 3PL Market to $342.9 billion. It also found that the global freight forwarders with the most gross revenue earnings remained in nearly the same position as A&A's 2020 report with only slight deviations.

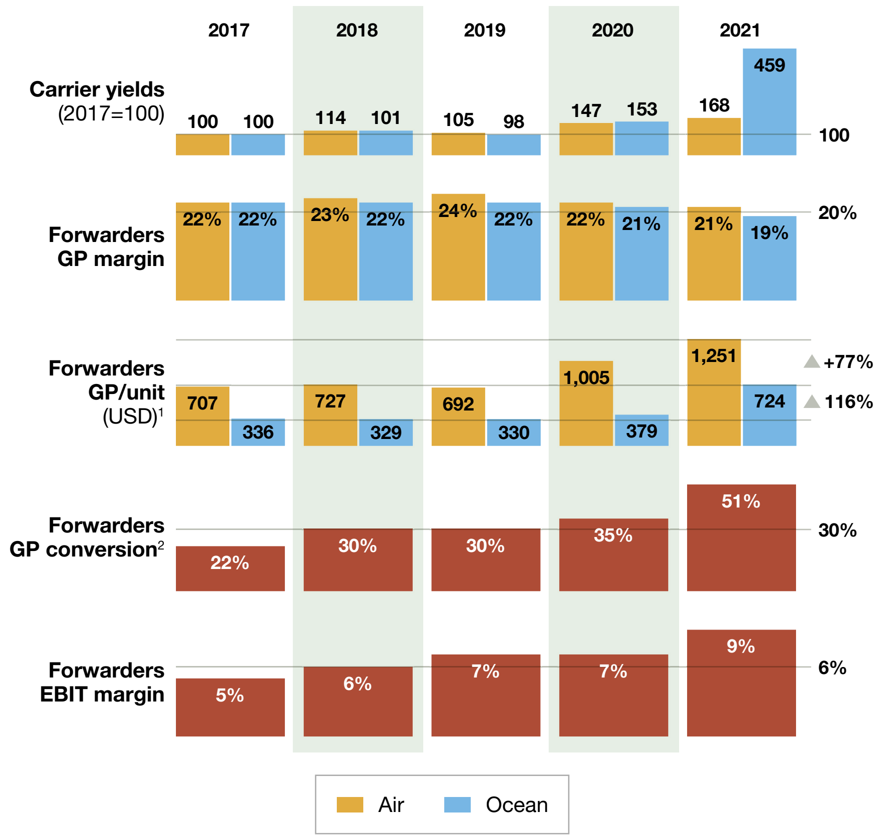
Kuehne + Nagel remained No. 1, whereas DHL Supply Chain & Global Forwarding, which shared that position with K+N last year, moved to No. 2. DSV Panalpina A/S (DSV) came in No. 3 in 2021, down from No. 2 in 2020, while DB Schenker slipped from No. 2 in 2020 to No. 4 in 2021.

C.H. Robinson remained at No. 7 whereas Sinotrans slipped from No. 3 in 2020 to No. 5 in 2021; Nippon Express from No. 5 in 2020 to No. 7 in 2021, and Expeditors from No. 4 in 2020 to No. 6 in 2021. UPS Supply Chain Solutions slipped a notch from No. 8 in 2020 to No. 9 in 2021, and CEVA Logistics slipped from No. 6 in 2020 to No. 7 in 2021, a position in which Armstrong found a three-way statistical tie.

The A&A study also found market segment growth uneven. While gross revenues of dedicated contract carriage (DCC) and value-added warehousing and distribution (VAWD) segments grew 15.3% and 17.0%, respectively, most growth came from international transportation management (ITM) and domestic transportation management (DTM), which increased 74.9% and

Forwarders earnings are currently elevated, driven by freight rate peaks

Freight forwarders[3] performance against market rate developments



¹ GP/TEU for ocean, GP/ton for air
² Defined as EBIT in % of GP
³ Based on average of KN, DSV, expeditors, DGF, Panalpina and Agility (prior to DSV acquisition)

Source: Clarkson, IATA

52.4% year-over-year respectively.

ITM, which consists of airfreight and ocean freight forwarding, customs brokerage, and complementary value-added services, led all 3PL segments. To meet demand, service providers in both ITM and DTM increasingly tapped the spot market to source carriers to cover shipments.

The global challenges for providers with a strong focus on freight forwarding are not abating. Nevertheless, they continue to realize impressive profits. In the first half of 2022, Kuehne + Nagel realized a 55% rise in net turnover to roughly U.S. $21.531 billion, EBIT by 112% to approximately U.S. $2.299 billion, and earnings by 113% to around U.S. $1.672 compared to the first half of 2021.

DSV reported that gross profit grew 61% in the first half of 2022 compared to same period in 2021, during which time its airfreight and ocean segments achieved a 105% EBIT increase. Its solutions segment, which includes warehouse, fulfillment, and contract logistics, achieved a 179% EBIT increase.

Merger and acquisition (M&A)

activity last year also positioned many forwarders with advantages given their global scale. According to A&A, an astounding 25 large M&A transactions took place in 2021, with purchase prices of more than $100 million. "This is more than eight times the number of large acquisitions made in 1999, when we first started tracking them, and more than three times the number of transactions seen just last year," says Armstrong.

The most notable was K+N's purchase of Apex Logistics International for approximately $1.5 billion. "The combination not only made Kuehne + Nagel the largest global airfreight forwarder, handling more than 2.2 million metric air tons in 2021," adds Armstrong, "but it's also the largest 3PL globally, replacing DHL Supply Chain and Global Forwarding in both instances, and continues to hold its place as the largest ocean freight forwarder."

DVS acquired Agility's Global Integrated Logistics (GIL) in August 2021, which will further contribute to its growth and adding strength to the overall global forwarding services market.

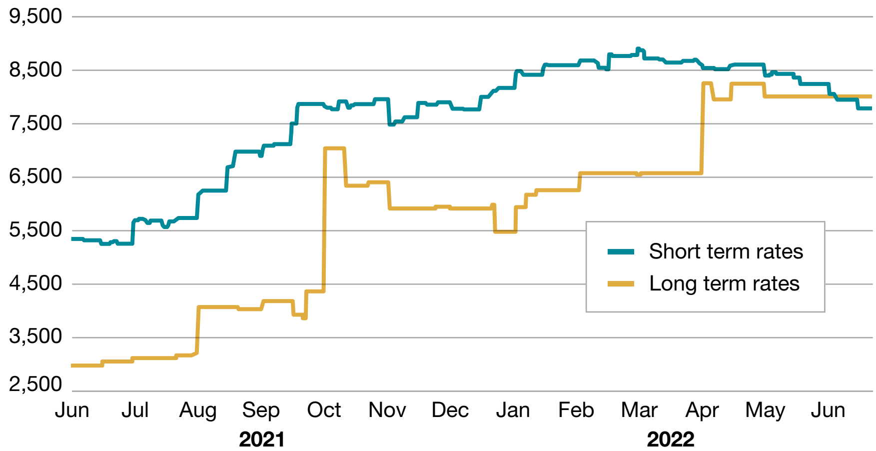
Possible global deceleration

Florian Neuhaus, partner at McKinsey & Company, warns that current conditions point to a deceleration of global market dynamics—at least on the demand side. For one, International Monetary Fund (IMF) projects global trade to slow from an estimated 6.1% in 2021 to 3.6% in 2022 and 2023.

Beyond 2023, the IMF expects growth to fall to about 3.3% over the medium term, which is 0.8 and 0.2 percentage points lower for 2022 and 2023 than projected in January. In

Container freight rates, China to U.S. West Coast, 2021-2022

USD per 40' dry container



Source: Xeneta.com

addition, the June Manufacturing Purchasing Managers Index (PMI) registered 53%, down 3.1 percentage points from the reading of 56.1% in May.

"This is the lowest Manufacturing PMI reading since June 2020, when it registered 52.4%," Neuhaus says. "The New Orders Index reading of 49.2% is 5.9 percentage points lower than the 55.1% recorded in May."

Neuhaus notes that lower demand is already driving down freight rates. "In ocean, spot rates have fallen below contract rates," he says. "Airfreight rates have continued to drop since the return of more passenger flights and the introduction of airline's summer schedules."

Meanwhile, with demand-side pressure likely to slow over the next 12 months to 24 months, Neuhaus sees shippers taking advantage of declining rates. "Many shippers will go in the market and tender their volumes again," he says. "At the same time, many shippers will be looking to build stronger partnerships with their logistics providers in order to build more resilient supply chains."

Within the next four years to five years, McKinsey expects ocean and airfreight rates to gradually decline from their 2021/2022 peaks, but stay slightly elevated compared to pre-pandemic, as lower constrained supply will prevent a full mean reversion. "As yields decline, so will 3PL earnings that are fundamentally linked to carrier rates," Neuhaus says.

Unpredictable and competitive

To remain competitive, some global freight forwarders have ensured access to ocean capacity and chartered air freighters amidst belly capacity shortages as well as suggested alternatives to traditional shipping practices.

"This may include considering more extended booking windows of five to six weeks, using new ports, different modes of transportation—including multimodal solutions—and even alternative sourcing decisions," says Jeff Pearlman, ocean freight senior marketing manager at UPS. "Some of the options defy what we used to consider best practices, for instance: using less-than container load for the most urgent PO's or partial shipments; limiting the number of containers per bill of lading to one or two so carriers can more easily accept and transport the bookings; and microscopically managing your vendors so the product they ship first is the product you must urgently need."

Freight forwarders are also upping their competitive position increasingly by focusing on people. "For us, that is Team CEVA," says Shawn Stewart, regional managing director for North America, CEVA Logistics. "Our diverse team possesses the skills and knowledge to provide solutions across numerous industry verticals. This expertise is combined with strong customer relationships to deliver our central commitment we call Responsive Logistics."

Going forward, Armstrong sees the true leaders being those that embrace technological innovation and demonstrate strong carrier management skills. "This has allowed freight forwarders to efficiently tap long-standing carrier relationships to cover shipper demand versus being overly reliant on using load boards or traditional means to buy capacity at spot market rates," he says.

C.H. Robinson has implemented a strategy that leverages technology and innovation—along with people, scale and a global suite of services. Mike Short, C.H. Robinson president, says this gives C.H. Robinson a unique position to serve global shippers' needs.

"This approach enables us not only to help our customers navigate today's increasingly complex global supply chains, but also orchestrate comprehensive, integrated strategies in a constantly changing environment," Short says. "Being nimble was no longer just the smart option for shippers, it became the only option when disruption hit its peak. We continue to utilize our scale and multi-modal model to our customers' advantage as challenges shift in the industry, which we are seeing now with the softening in demand on the trans-Pacific."

According to Stewart, CEVA applies industry-leading technology such as WMS, shipment visibility tools, robots, cobots, wearables, electric and autonomous vehicles, or just a simple algorithm that improves how the provider uses its data. "We're building an innovation culture, and for us, innovation is the implementation of new ideas with business impact," he says.

Stewart points out how CEVA has the scale to implement supply chain solutions around the world. "That global awareness and the agility to respond to our customers' needs locally has helped us strengthen our business—and many of our customers—throughout a few very challenging years. The focus on agility will continue to gain importance in the months and years to come."

According to Neuhaus, this stronger push by global forwarders toward a digital channel and end-to-end transparency has proven to be crucial amid frequent supply chain disruptions that are likely to continue going forward. "Larger forwarders were generally in better position to make these investments in the IT infrastructure that enable both transparency and an improved digital sales experience," he concludes. •

Karen Thuermer is a contributing editor for Logistics Management

Market drivers for freight forwarders

What are the key trends making an impact on freight forwarders today? Florian Neuhaus, partner at McKinsey & Company, suggests the following.

Sustainably and de-carbonization. Forwarders are actively looking for ways to decarbonize their offerings to satisfy demand from some shipper segments. To move the market and encourage carriers to act, some forwarders are willing to sign volume guarantees. These guarantees enable carriers to hedge some of the investment risk they need to take to decarbonize.

Growth dynamics stemming from e-commerce. More than 50% of global logistics growth will be driven by e-commerce over the next five years. Forwarders need to think about what role they can play in this market—for example, more of a consolidator for cross-border e-commerce volumes that are moved by air.

Changing competitive dynamics and market consolidation. The overall market is becoming more competitive, especially on the ocean freight side. Shipping has become a more consolidated market, and liners are improving their digital direct to customer channel, which allows them to reach a much broader customer base. Therefore, forwarders must find ways to further differentiate their offering and provide additional value to their customers.

—By Karen Thuermer, ontributing editor

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U.S. PORTS UPDATE

TOP 30 PORTS:

VOLUMES SWELL, CHALLENGES PERSIST

Schedule reliability remains a significant headache for carriers. Meanwhile, seaports remain flooded with containers, labor negotiations on the West Coast are ongoing, and issues regarding congestion are slow to be resolved as ports continue to look for answers.

BY **KAREN THUERMER**, CONTRIBUTING EDITOR

U.S. seaports are facing the worst congestion they've seen since the age of containerization. The culprit: backlogs of imports coming into the United States, a shortage of equipment, and inland logjams.

"U.S. seaports face the unprecedented situation where they're now in their 17^{th} straight month [as of March 2021] of record container import volume," says Chris Jones, executive vice president of industry and service at trade intelligence firm Descartes Datamyne. "Consequently, continuous and shifting congestion and delays, and unpredictable lead times for importers has resulted."

The Ports of Los Angeles (POLA) and Long Beach (POLB), which handle approximately 40% of U.S. imports, are ground zero for the crisis. As 2021 ended, more than a hundred vessels waited to berth at Los Angeles for more than two weeks. POLA closed 2021 having handled 5,667,381 TEUs, a 17% gain over 2020 totals.

Top 30 U.S. Ports

By TEU Ocean Imports 2021

Rank	Port	2021 TEU	2020 TEU	TEU Change	2021 Shipments	2020 Shipments	Shipments Change
1	Los Angeles, CA	5,667,380.96	4,832,329.68	17.29%	2,886,565	2,516,304	14.71%
2	Long Beach, CA	4,687,541.44	4,042,278.80	15.97%	2,488,938	1,920,825	29.58%
3	New York-New Jersey	4,651,094.37	3,891,768.53	19.52%	2,548,560	2,087,357	22.10%
4	Savannah, GA	2,815,808.43	2,307,444.35	22.04%	1,089,745	855,167	27.43%
5	Houston, TX	1,663,157.55	1,290,192.02	28.91%	720,104	558,578	28.92%
6	Norfolk, VA	1,617,583.47	1,258,787.99	28.51%	683,213	520,286	31.31%
7	Charleston, SC	1,302,872.99	1,033,118.12	26.12%	518,496	409,582	26.59%
8	Oakland, CA	1,062,876.32	986,106.34	7.79%	408,560	796,266	-48.69%
9	Tacoma, WA	856,706.05	738,770.59	15.97%	416,602	353,801	17.75%
10	Seattle, WA	754,804.55	617,998.06	22.14%	320,237	246,089	30.13%
11	Miami, FL	576,535.04	488,147.20	18.11%	314,712	272,571	15.46%
12	Baltimore, MD	484,420.48	512,314.18	-5.45%	214,234	206,944	3.52%
13	Philadelphia, PA	435,833.74	377,818.43	15.36%	159,929	138,066	15.84%
14	Port Everglades, FL	367,661.23	300,541.07	22.34%	174,830	140,469	24.46%
15	Mobile, AL	258,576.91	212,351.94	21.77%	120,806	101,947	18.50%
16	San Juan, PR	219,502.61	195,107.94	12.51%	98,145	90,192	8.82%
17	Jacksonville, FL	208,400.48	227,808.07	-8.52%	76,010	78,802	-3.54%
18	Wilmington, DE	190,740.60	197,000.31	-3.18%	23,888	21,934	8.91%
19	Chester, PA	132,905.44	114,022.44	16.57%	62,776	54,273	15.67%
20	New Orleans, LA	125,983.79	135,847.37	-7.27%	53,101	49,991	6.22%
21	Wilmington, NC	121,409.58	125,104.97	-2.96%	49,774	46,304	7.49%
22	Port Hueneme, CA	114,637.04	87,403.33	31.16%	31,877	19,382	64.47%
23	Boston, MA	93,003.13	137,285.51	-32.26%	48,704	66,002	-26.21%
24	Gulfport, MS	85,490.80	77,063.74	10.94%	22,109	18,470	19.70%
25	Tampa, FL	82,207.14	76,225.83	7.85%	30,168	28,303	6.59%
26	San Diego, CA	80,171.73	73,629.36	8.89%	35,998	33,609	7.11%
27	Port Manatee, FL	73,384.09	52,619.05	39.47%	14,186	12,576	12.80%
28	Portland, OR	43,560.62	20,939.53	108.04%	22,457	7,720	190.89%
29	Freeport, TX	31,494.34	26,370.45	19.44%	10,940	8,614	27.00%
30	West Palm Beach, FL	29,972.35	25,663.77	16.79%	30,726	28,543	7.65%

Source: Descartes Datamyne

In July, POLA processed an estimated 935,345 TEUs, outpacing the previous record set in 2019 by 2.5%. Last year, the Port of Long Beach experienced an increase of 16% in TEUs. This July, POLB handled 785,843 TEUs—its busiest July on record despite a cooldown in consumer spending. In fact, the top five West Coast ports saw total throughput decline 40.6% in July. By comparison, the top five East Coast ports held steady at 44.4%.

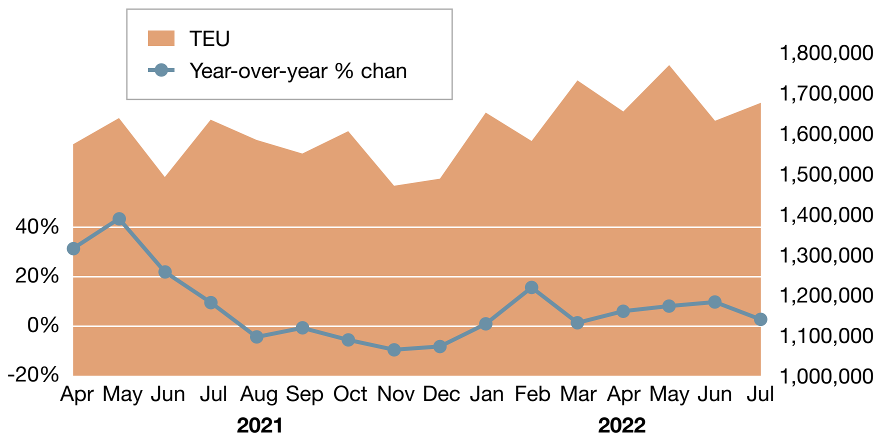
Third ranked Port of New York/New Jersey closed 2021 with 4,651,094 TEUs handled, up 19.5% over 2020. Contributing to that growth were South Asia imports, which increased 36.1% in 2021, and ship diversions to the East Coast largely because of shorter delays. On average, December shipments cleared four days faster than at either of the San Pedro Bay ports.

"Part of the reason for the shift to East Coast ports can be attributed to the growth of Chinese imports getting around West Coast port congestion," says Jones.

In July 2022, for example, the ports of Savannah, Houston and Charleston saw 24.8%, 20.3% and 19.0% growth, respectively. The only West Coast port that saw a similar increase was Seattle at 25.9%. Long Beach saw the greatest decline at -7.3%. "Overall, volume shares of the top 10 edged down to 85.1% in July 2022, compared with 86.7% the month before and 87.5% year-on-year," adds Jones.

Imports from China remain high and increased July over June vs. expected decline

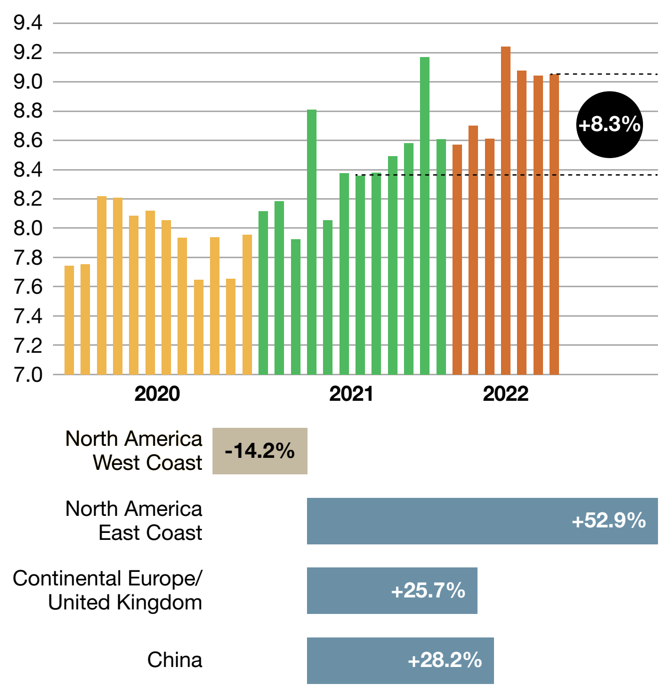
(Total monthly TEU volume of U.S. containerized imports from Asia, with year-over-year change)



Source: IHS Markit

U.S. port congestion

(Container congestion in million TEUs; 7-day moving average)

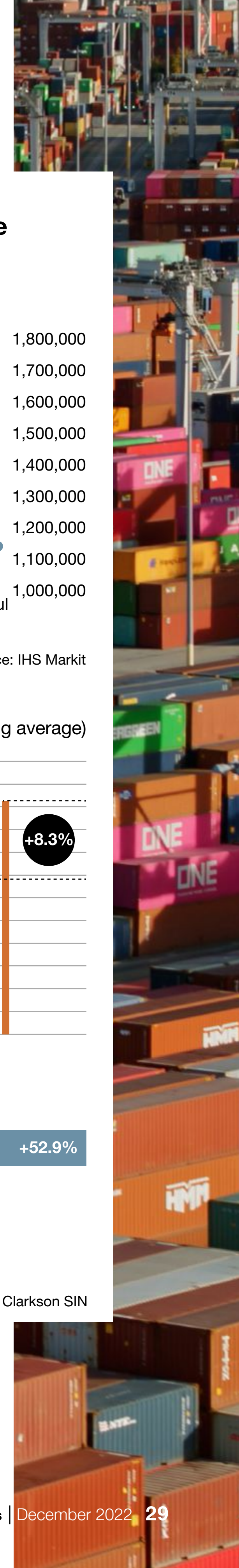


Source: Clarkson SIN

Consistent schedule issues

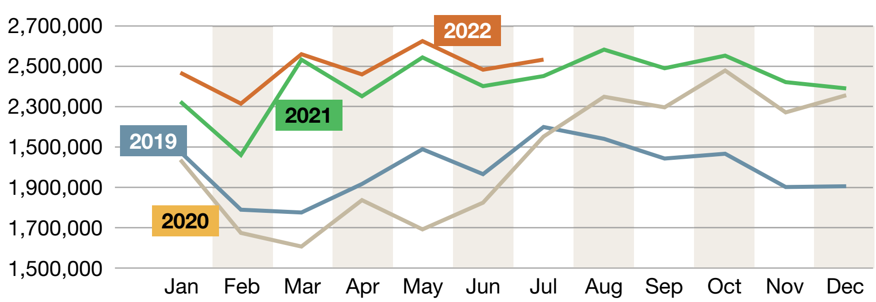
Schedule reliability remains a significant challenge for carriers. "Lead times have been very fluid," says Jones. "Last year, West Coast ports experienced long delays, and now it's the East and Gulf Coast ports. This makes it hard for carriers to predict when containers will be available for their customers. There is a knock-on effect for subsequent schedules if vessels are delayed at ports."

The Port of Savannah, in particular, has been



U.S. container import volume year-over-year comparison

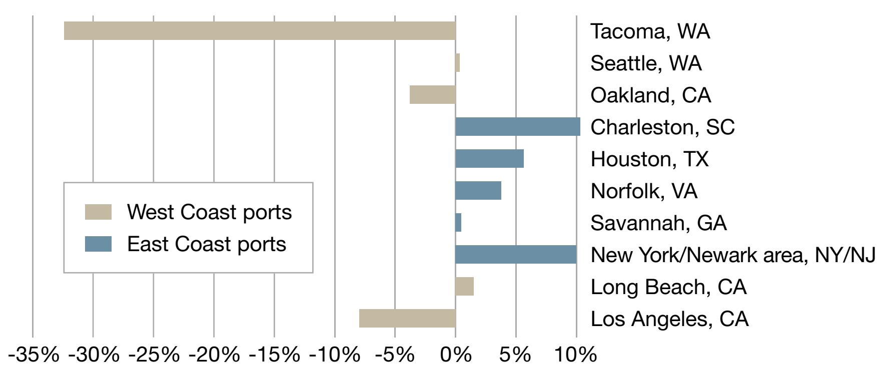
(TEUs)



Source: Descartes Datamyne

Container import volume shifts at top 10 ports

(Volume shift May-September 2021 vs. February-June 2022)



Source: Descartes Datamyne

reporting record volumes. Since January, the port has moved 3.4 million TEUs, up 231,400 or 7% over its performance during the same period in 2021. Concurrently, the port is experiencing mounting ship delays. GoComet, which tracks ship delays at seaports, found that in August those ranged from approximately 12 days to 37 days.

"This is why recently Savannah is now the congestive champion, taking the position from Long Beach," says Stefan Verberckmoes, analyst at Alphaliner. "Savannah is now the most congested port in America."

Meanwhile, a trend is emerging whereby shippers are increasingly turning to smaller, underutilized ports. One major beneficiary last year was Oregon's Port of Portland, which gained largely from shipments diverted from Los Angeles and Long Beach. Consequently, Portland's TEUs from East Asia increased 101.2%, and volumes from Southeast Asia gained 144.7% in 2021 compared with 2020.

Frankie Mossman, chief customer officer at Overhaul, a supply chain risk management firm, predicts an emergence of alternate network designs to leverage the use of secondary ports. "We've seen a huge increase in bookings via Houston, Baltimore, and Port of New Jersey," he says. "Typically lead times can be longer but more predictable—so we're seeing this propensity for not just a Plan B, but Plan Cs and Ds."

Labor issues

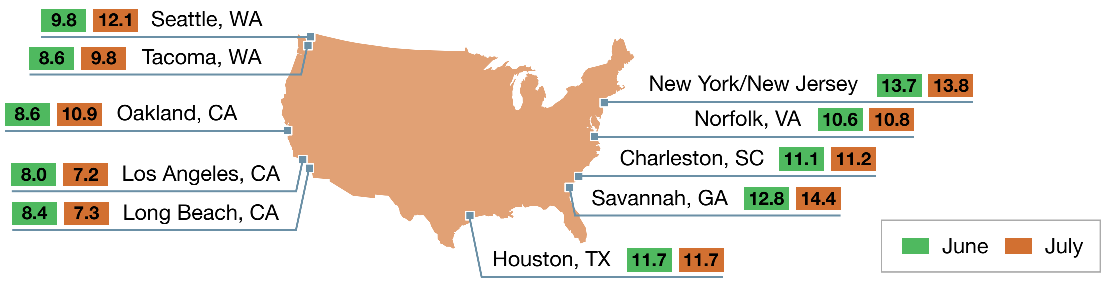
Another major issue affecting U.S. seaports is labor. Labor negotiations that have taken place at West Coast ports have been significantly affecting shippers who remain concerned about slowdowns and potential strikes.

"Part of the backlog that's been taking place is due to shippers shifting their freight to the U.S. East Coast when labor negotiations started on the West Coast in anticipation of potential delays," says Mike Short, president of global forwarding at C.H. Robinson. "One way C.H. Robinson is helping customers with port congestion is sorting our customer's freight at the port—some refer to it as a 'secondary supply chain.'"

Recently, the International Longshore and Warehouse Union (ILWU), which represents 22,000 West Coast dockworkers, and the Pacific Maritime Association (PMA), whose membership comprises

Monthly average delays at top 10 ports

(Days)



Source: Descartes Datamyne

70 ocean carriers and terminal operators who operate at the 29 West Coast Ports, have been at loggerheads over who maintains equipment at a terminal at the Port of Seattle.

The dispute threatened disruptions at major U.S. gateways that handle trans-Pacific trade. It also came on the heels of earlier clashes over automation. Consequently, shippers are uncertain whether to keep diverting to the East and Gulf Coasts or resume shipping on schedule to the West Coast.

"East and Gulf Coast ports, however, don't have the overall capacity to be efficient and properly manage the additional volume," comments Spencer Shute, senior consultant at procurement services firm Proxima. "With no agreement in place, it's unknown at this time how the United States will handle the volume that's expected."

There are other concerns, most notably California Assembly Bill 5 (AB5), which affects independent truckers. AB5 sets tough standards for classifying workers as independent contractors, meaning that many independent truckers who are owner-operators are at risk of losing their ability to work because AB5 regulates the relationship between owner-operators and carriers and set tests that are difficult to meet.

Rail workers are also facing labor issues and threatening to strike. This not only would affect U.S. seaports, but the already inflationary economy. About one-third of exports are shipped via rail.

Port leverage

To counter these problems, U.S. ports need modernization, which requires a significant amount of funding. "We've started to see investment and positive movement in some areas," says Shute.

For instance, the Port Infrastructure Development Program (PIDP) provides a $2.25 billion investment allowing ports to apply for a $450 million grant to help improve supply chain, port efficiency, and resiliency. Ports are also focusing on data visibility and finding ways to become more efficient.

"This requires a lot of groundwork to understand the current state of ports: what their capacity is; where the gaps are; and then how they can get and use real-time data to start making operational changes that affect efficiency," Shute says.

It's not an overnight fix, but data from ports is starting to flow much more rapidly and with increasing volume. The U.S. Department of Transportation Freight Logistics Optimization Works (FLOW) program, a big data-sharing initiative, aims to help move goods more quickly and more cost effectively.

"They're trying to do proof of concept, and since they've started ramping up the data sharing, it seems to be on the right track," says Shute. "While it may take three years to four years to see significant investments and improvements in this space, there's a lot of progress being made to ensure decisions are driven by leveraging data and technology properly."

According to Shute, ports are also considering other practical solutions, such as how they stack containers and optimize traffic flow without creating bottlenecks.

Going forward

Other factors continue to affect port volumes. The Russia-Ukraine war has created issues getting goods by rail from China across Russia to Europe, thereby creating backlogs for shippers and pushing more freight to ocean. This is putting pressure on carriers already facing capacity issues.

The political climate regarding China and Taiwan also raises issues regarding the shipment of technology components and raw materials, thereby pushing shippers to consider nearshore sourcing.

"While it's premature to say what the direct impact is going to be on supply chains and particularly ports, many supply chain managers are starting

Digitalization: A long-term solution

A **long-term, albeit challenging,** solution to port congestion could be digitalization.

"Digitalization—and increasing 'connected freight'—are definitely trends on the rise," says Frankie Mossman, chief customer officer at Overhaul. "Visibility and transparency across entire port operations are the weakest points, as is evident in how once one capacity challenge is resolved a new one pops up downstream."

Nalin Jain, president of Wabtec's digital electronics business, refers to the Port of Los Angeles as the American pioneer for digitalization by becoming the nation's first and only port community to digitizes maritime shipping data.

Today the port uses Wabtec's Port Optimizer software that allows supply chain stakeholders to better predict and plan cargo flows, and this year added new features that provide single view visibility for 70% of the import data for all 12 container terminals in the port complex.

Accordingly, the Port of Oakland has a program underway called the Freight Intelligent Transportation System (FITS), a suite of 15 technology projects throughout its maritime area that will measure and manage cargo flow, and is intended to improve truck traffic flow, increase the efficiency of operations and goods movement, and enhance the safety and incident response capabilities throughout the port.

Ports are also looking at how to schedule the flow of dray haulers as to limit truck waiting times and the number of trucks that need to come

to plan for alternative solutions," Shute says.

Inflation is another area to track. "We will probably start to see some softening in terms of overall demand, which is going to help alleviate the volume issues," Shute adds. But again, backlog issues remain. "How long and how high inflation continues to be is going to dictate some of the future volumes."

In the meantime, seaports remain flooded with containers and issues regarding congestion are slow to be resolved. •

—Karen Thuermer is a contributing editor for Logistics Management

into the port. "A significant part of local congestion is related to dray haulers waiting locally for many hours before being able to get access to the port," says Chris Jones, executive vice president of industry and service at Descartes Datamyne.

Inland ports are increasingly being used to reduce dwell time and expedite shipments.

Last year the Port of Long Beach (POLB) partnered with the Utah Inland Port Authority to improve cargo flows between Southern California and Utah, Colorado, Nevada and Idaho. Here the POLB will invest $1 billion in rail improvements over the next 10 years, and the Utah Inland Port Authority will strengthen its ability to transfer cargo for further distribution.

South Carolina Ports Authority (SCPA) is moving cargo inland to its Inland Port Greer and Inland Port Dillon to meet up with rail services operated by Norfolk Southern and CSX, respectively.

To handle even more cargo, SCPA is expanding Inland Port Greer by building additional rail processing and storage tracks within the terminal, expanding its container yard, enlarging the existing chassis yard, and building new facilities for heavy lift maintenance and terminal operations.

Georgia Port Authority (GPA) is employing pop-up arrangements for the use of off-port acreage that includes a 330-acre CCX Yard in Rocky Mount, N.C., which is owned and operated by CSX Rail. GPA's initial arrangement with CSX calls for the port authority to use 400 container slots at the facility for an annual capacity of 40,000 TEUs.

—Karen Thuermer, contributing editor

Alphaliner's Top 30 reflects further consolidation

RANK	OPERATOR	TEU
1	Mediterranean Shg Co	4,475,902
2	Maersk	4,250,047
3	CMA CGM Group	3,324,699
4	COSCO Group	2,875,703
5	Hapag-Lloyd	1,762,712
6	Evergreen Line	1,581,205
7	ONE (Ocean Network Express)	1,497,162
8	HMM Co Ltd	818,075
9	Yang Ming Marine Transport Corp.	696,543
10	Zim	515,902
11	Wan Hai Lines	439,541
12	PIL (Pacific Int. Line)	297,163
13	SITC	150,635
14	KMTC	149,255
15	IRISL Group	143,468
16	UniFeeder	142,709
17	X-Press Feeders Group	131,559
18	Zhonggu Logistics Corp.	113,220
19	TS Lines	106,090
20	SM Line Corp.	91,208
21	China United Lines (CULines)	90,530
22	Antong Holdings (QASC)	88,039
23	Sea Lead Shipping	87,198
24	Sinokor Merchant Marine	82,580
25	RCL (Regional Container L.)	73,244
26	Global Feeder Shipping LLC	72,256
27	Matson	68,563
28	Swire Shipping	65,520
29	Emirates Shipping Line	64,065
30	Arkas Line / EMES	51,869

SOURCE: ALPHALINER

All information above is given as guidance only and in good faith without guarantee. Data captured September, 2022.

Top 30 Ocean Carriers:

RIDING HIGH ON WAVE OF PROFITS

While the industry is still caught in the wake of the pandemic and the subsequent string of unprecedented events, profits for the top carriers has never been better.

BY **KAREN THUERMER**, CONTRIBUTING EDITOR

This is a time of highly disrupted supply chains compounded by cascading issues. Yet ocean carriers are riding a high wave of unprecedented record profits.

Maersk, now the world's second largest shipping company, reported second quarter 2022 revenues of $21.7 billion, marking a 52% increase compared to the same period of 2021. Net profits were $8.6 billion, a new quarterly record, and $15.4 billion for the first half of the year.

For the first half of 2022, Hapag Lloyd, the world's fifth biggest container line, reported revenues of $18.6 billion with a net profit of $9.5 billion— more than three times a year earlier.

"All container carriers are seeing high profits," said Nils Haupt, Hapag-Lloyd spokesman. "Due to low capacity and high demand, all carriers have seen rates going up pretty much since the second half of 2020. Heavy congestions at ports lead to capacity reduction at Hapag-Lloyd of about 20%. This of course leads to higher rates due to much less capacity."

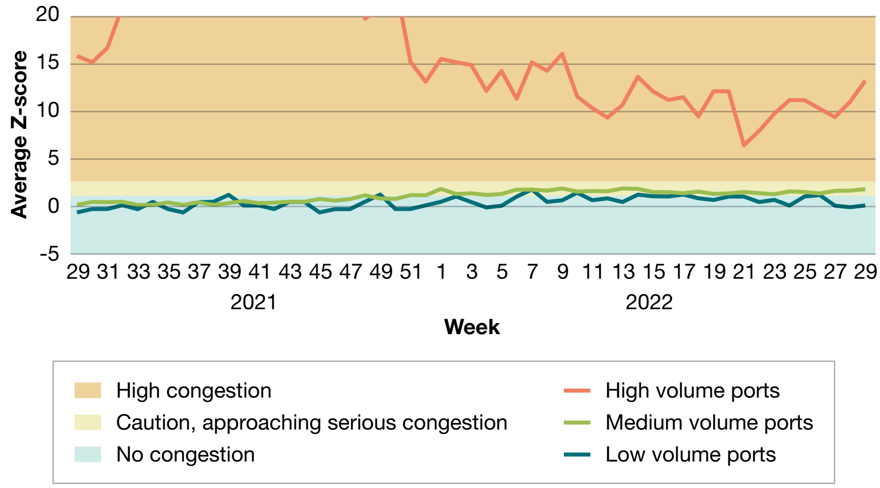
Based on the current business performance, Hapag-Lloyd officials believe the second half of 2022 will exceed previous expectations. In Germany, Hapag Lloyd is now regarded comparably to Volkswagen in terms of corporate profitability.

"Liner carriers have never made so much money," says Stefan Verberckmoes, an analyst at ocean cargo database provider Alphaliner.

Drewry Supply Chain Advisors forecasts ocean carriers will make $270 billion in profits in 2022. That's $70 billion more than what they amassed in 2021, and more than five times what they made in 2020. Drewry also sees the industry's profits declining to about $150 billion in 2023 as supply chain bottlenecks unwind and freight rates fall.

North America: Port congestion Z-score indicators

(Number of vessels waiting)



Note: North America was off-scale during weeks 4-5 and 32-50

Source: Drewry Container Capacity Insight

Supply and demand

Much of that profit comes from the high prices—many hitting records—carriers have been charging for containers. Simply put, it's the result of supply and demand, which has not traditionally been the case for the ocean shipping industry.

"Historically, the carriers have always operated with enough ships," says Verberckmoes. "But with the pandemic, the industry faced its first shortage."

The industry is still caught in the wake of the pandemic and the subsequent string of unprecedented events: a sudden shortage of ships; port congestion exacerbated by China's zero-COVID policy lockdowns; labor shortages and union disputes at terminals; and inland transportation bottlenecks. By Drewry estimates, these disruptions removed about 10% of ocean capacity from the market, which escalated container shortages and high container rates.

In response, some carriers placed large orders for containers. For example, in April 2021 Hapag-Lloyd ordered 150,000 TEUs of new dry and reefer boxes plus 8,000 TEUs of special containers. At a cost of $550 million, it was the company's largest investment ever in boxes.

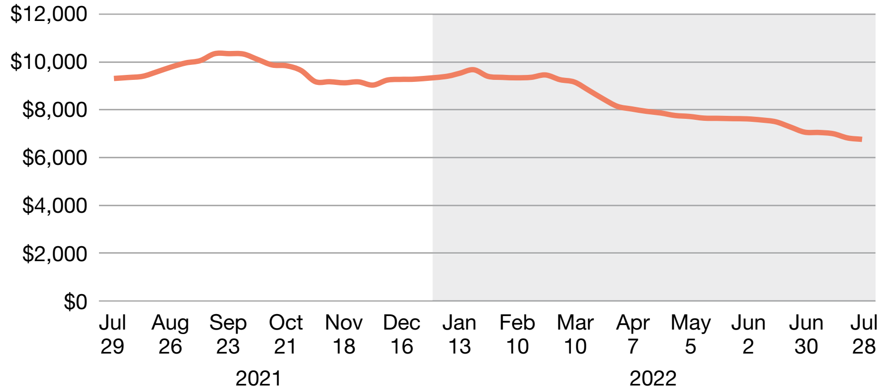
But now there's an oversupply of containers. Drewry recently reported that while the global pool of shipping containers increased by 13% to almost 50 million TEUs in 2021, the industry now has a global surplus of 6 million TEUs.

Rates are also coming down. Freightos reported that the cost to ship a container from China to the U.S. in June 2022 was $9,500, half the $20,000+ price tag 10 months earlier—yet still four times higher than the $2,500 rate in June 2020.

"We always knew that extreme freight rates and profits were unsustainable," says Philip Damas, managing director, Drewry Supply Chain Advisors. "The only question was when will the market turn, and then, how quickly will it normalize? We still believe that the winding down of high rates and carrier profits will take some time."

World Container Index

($ per 40 foot container)



Source: Drewry Container Capacity Insight

Investment strategies

Meanwhile, carriers are looking for investments. With hundreds of billions of windfall profits, carriers have paid back debts, bought thousands of new containers, ordered dozens of new ships, acquired port terminals (i.e., CMA CGM's acquisition of 90% of the Fenix Marine Services terminal in Los Angeles), and have invested in air cargo and logistics businesses.

In April, Maersk launched Maersk Air Cargo to meet the rising demand across the global integrated logistics market. A year earlier, CMA CGM launched CMA CGM Air Cargo, and in May 2022 signed a long-term partnership with Air France-KLM to jointly sell their air freight capacity.

Carriers worldwide have also been on a buying spree to add ships to their fleets. None has been more aggressive than MSC. In early January, its vessel acquisition policy resulted in its overtaking Maersk as the world's largest container shipping company, thereby ending Maersk's 25-year reign at the top.

As of August 18, 2022, the Alphaliner Top 100, which is updated daily, showed MSC owning 371 ships and 319 charters for a total of 690 vessels with 4,471,244 TEUs. And, MSC has 114 vessels on order with a capacity of 1,533,730, which, at current figures, increases its capacity to 6,004,974 TEUs.

By comparison, Maersk owns 343 ships and 388 charters, or 731 vessels with 4,262,161 TEUs, and has 28 vessels on order with 306,165 TEUs capacity. This brings its capacity to 4,568,326 TEUs. MSC will outpace Maersk by 1,436,648 TEUs.

MSC's appetite for second-hand ships has been described as "insatiable." Maersk had achieved the No. 1 position through acquisitions: Sealand in 1999; P&O Nedlloyd in 2005; and Hamburg Süd in 2017. "Today MSC and Maersk have two different strategies," says Verberckmoes. "Maersk is investing more in logistics with a goal to become a logistics integrator in containers like UPS and DHL are integrators for parcels."

Other liners with a notable number of ships on order are CMA CGM, which is adding 68 ships (641,489 TEUs) and Evergreen Line, which is adding 55 ships (539,340 TEUs). "Evergreen has overtaken ONE because of their new program for huge modern ships," Verberckmoes says.

Hapag-Lloyd has doubled its container ship order by ordering six mega-vessels with a capacity of more than 23,500 TEUs. Delivery is expected in December 2023. With so many ships on the orderbooks, 2024 will see a serious influx of new tonnage. "It's very unlikely there will be enough cargo to fill all of these ships," Verberckmoes observes.

Meanwhile, smaller, non-alliance carriers such as Matson and Zim in the trans-Pacific trade, and new entrants like BAL and Sea Lead Shipping, are creating what Drewry sees as being "a fillip of competition" to the very large alliance ocean carriers who control 70%+ of the total ocean shipping capacity on the East-West routes.

In March, for example, Sea Lead launched a new service connecting East Asia to four strategic ports on the U.S. East Coast. "But the smaller regional carriers are not making a big impact on overall major routes other than providing exporters and importers some alternative options when capacity is very tight—and sometimes a higher level of service," Damas says. "They play a big role in intra-regional markets like intra-Asia, not the major East-West routes."

Given looming changes in supply and demand whereby container lines may face excessive capacity, the next big issue will be cargo visibility.

Ocean Shipping Reform Act: Red tape and politics

Many are questioning what impact the Ocean Shipping Reform Act of 2022 will have on ocean carriers. In short, analysts say: "Not much."

The Act essentially revises requirements governing ocean shipping to increase the authority of the Federal Maritime Commission (FMC) to promote the growth and development of U.S. exports through an ocean transportation system that's competitive, efficient, and economical.

For example, the bill requires the FMC to investigate complaints about detention and demurrage charges (i.e., late fees) charged by common ocean carriers, determine whether those charges are reasonable, and order refunds for unreasonable charges.

It also prohibits common ocean carriers, marine terminal operators, or ocean transportation intermediaries from unreasonably refusing cargo space when available or resorting to other unfair or unjustly discriminatory methods.

"The FMC concluded that the carriers are not doing something illegal," comments Stefan Verberckmoes at Alphaliner. "But because the carriers are now so rich, some think they did."

The Act does reinforce FMC oversight powers. Carriers will have to revise their detention and demurrage tariffs and practices to ensure shippers have sufficient time and ample opportunities to act before they must pay the late fees.

"Fines will be imposed on carriers who charge penalties the FMC regards unfair," explains Philip Damas, managing director at Drewry Supply Chain Advisors. "Ocean carriers will also feel pressured to provide more empty containers to U.S. exporters instead of returning them empty to Asia."

—Karen Thuermer, contributing editor

Vital green transition

Currently, however, environmental regulations, specifically IMO 2023, are prompting containership acquisitions. IMO 2023 requires that carriers reduce their carbon emissions by 40% by 2030 and by 70% by 2050.

The regulations are challenging container lines because there are only three options: low sulfur fuel; alternate fuel such as LNG; or the installation of Exhaust Gas Cleaning Systems (EGCS), or "scrubbers." Low sulfur fuel is significantly more expensive than high sulfur fuel. High oil prices, the result of the Russian invasion of Ukraine, has particularly made ships installed with scrubbers less costly to operate.

Frankie Mossman, chief customer officer at supply chain visibility and risk management software company Overhaul explains: "IMO 2023 regulatory initiatives for driving carbon compliance will require all vessels to be assessed by their efficiency, carbon index, and ship energy efficiency management plan. Based on the age of the fleet and these assessments, this could reduce vessel capacity and strain sailing options."

At the end of 2021, Evergreen had installed scrubbers on 108 ships, or some 50% of its fleet. In May 2022, ONE ordered 10 mega-ships designed to run on methanol and ammonia as part of its $20 billion plan to overhaul its fleet. Last year Maersk announced it was investing $1.4 billion in eight new vessels, each costing $175 million, that can be propelled by methanol. Delivery is expected in 2024.

In 2020, CMA CGM became the world's first maritime shipping company to choose LNG to power its ultra-large containerships and announced its

decision to acquire a new generation of 26 LNG-powered containerships.

Drewry finds evidence that the industry is trying to decarbonize the majority (54%) of vessel order contracts placed this year for alternative fuel types. Shipping analytics firm Clarksons Research reports that only around 5% of the world's fleet currently can run on alternative fuels, with some 4% being LNG fueled. It adds that 40% of new ship orders have that option. However, the cheapest solution to decreasing emissions is to drastically reduce transport speeds.

Then there's the issue of older ships, some 40 years in service and running because carriers needed all the vessels they could deploy. "The older ships, which are the most polluting, will be forced to slow down. If they were going 20 knots, they will be forced to sail at 10 knots," Verberckmoes says.

But this also creates a need to transport 5% to 15% more capacity to make them viable. "There is a large difference between 5% and 15%," says Verberckmoes. Plus, mega container ships consume less fuel on a voyage than 16,000 TEU vessels, thereby saving money. "This is why so many new and large ships are being delivered," he adds. "They won't have to face speed reductions and offer huge capacity."

Given that most ships typically are commission for 25 years, and ships need to be carbon free by 2050, the time to go fuel-free is now. "Apart from heavy and low-sulphur fuel oil, and to some extent LNG, there's currently still nothing available on a worldwide scale yet," Verberckmoes says.

Damas adds that many companies are just starting to look at decarbonization and sustainability strategies for their transportation activities. "This will become an area of much stronger focus over the next 12 months," he says. •

—*Karen Thuermer is a contributing editor for* Logistics Management

M&A MOMENTUM:

2022's Top 20 warehouses

Demand for dry and cold chain warehousing remained strong in 2022 and is expected to continue climbing steadily in 2023. As the sectors continue to evolve, warehouse operators are attracting investor attention, consolidating, and changing their names.

BY **BRIDGET McCREA**, CONTRIBUTING EDITOR

The increased focus on all things supply chain, fulfillment, distribution and shipping propelled third-party logistics (3PL) providers and refrigerated warehousing and logistics providers through a busy 2022 and set up them up for more success in the coming year. Investors took a bigger interest in the sector, which experienced some internal consolidation as 3PL operators acquired one another.

"The big themes this year were industry consolidation and company name changes," says Evan Armstrong, president at Armstrong & Associates, a 3PL consultancy and research firm. The company tracks annual growth in the warehousing segment and reports that total commercial warehousing space for the Top 20 North American warehouses totaled roughly 842 million square feet situated in 3,461 different facilities. In 2021, 3PLs had about 767 million square feet of space and 3,214 facilities.

Top 20 North American Warehousing 3PLs

(Rank Based on 2021 Warehousing Square Footage within North America)*

2022 Rank	2021 Rank	Third-party logistics provider (3PL)	Headquarters	Warehouse Space (Millions of Square Feet)	Number of warehouses	Website
		*Amazon***	*Seattle, WA*	*232.5***	*370*	amazon.com
1	1	DHL Supply Chain North America	Westerville, OH	143.0	500	dhl.com
2	2	GXO Logistics	Greenwich, CT	90.0	316	gxo.com
3	3	Ryder Supply Chain Solutions	Miami, FL	75.2	330	ryderscs.com
4	4	NFI	Camden, NJ	60.0	162	nfiindustries.com
5	5	GEODIS North America	Brentwood, TN	52.1	144	geodis.com
6	12	CJ Logistics America	Des Plaines, IL	51.1	71	cjlogistics.com
7	6	Americold	Atlanta, GA	46.0	201	americold.com
8	7	Lineage Logistics	Novi, MI	45.0	244	lineagelogistics.com
9	9	Kenco	Chattanooga, TN	36.3	103	kencogroup.com
10	11	Saddle Creek Logistics Services	Lakeland, FL	31.0	80	sclogistics.com
11	8	FedEx Logistics	Memphis, TN	30.7	110	supplychain.fedex.com
12	10	Penske Logistics	Reading, PA	26.5	94	penskelogistics.com
13	13	DB Schenker North America	Miami, FL	23.7	91	dbschenkerusa.com
14	14	Kuehne + Nagel North America	Jersey City, NJ	18.7	87	kuehne-nagel.com
15	15	CEVA Logistics North America	Houston, TX	18.1	119	cevalogistics.com
16	17	Maersk Logistics North America	Florham Park, NJ	18.0	65	maersk.com
17	16	UPS Supply Chain Solutions	Alpharetta, GA	17.3	144	ups-scs.com
18	18	DSV North America	Iselin, NJ	16.4	65	dsv.com
19	N/A	Kintetsu World Express North America	Jericho, NY	15.0	83	kwe.com
20	19	Warehouse Services	Piedmont, SC	14.0	30	wsionline.com
20	19	WSI	Appleton, WI	14.0	52	wsinc.com

*Square footage is company reported or Armstrong & Associates, Inc. estimates.

**Armstrong & Associates, Inc. estimated space for 3PL based off of Amazon Global Supply Chain and Fulfillment Center Network, MWPVL International, Inc., May 2022

Some of the merger and acquisitions (M&A) activity affecting warehousing started in 2021 and included XPO Logistics' spinoff of its global logistics segment, GXO. XPO has since become a pure-play contract logistics provider. Also in 2021, Maersk acquired e-commerce logistics provider Visible Supply Chain Management.

"Last year there were 25 M&A deals totaling $100+ million in the sector," says Armstrong. "It was the most acquisitive year since we started tracking it in 1999."

That M&A momentum rolled right into 2022. By late-July Armstrong & Associates was already tracking 14 new M&A transactions. "The last few years have been very good for 3PLs," says Armstrong. "We're seeing more private equity investors acquiring 3PLs which, in turn, is driving some consolidation among regional players."

The 2022 ranking

Armstrong compiles an annual list of the top North American warehousing companies. Each company has either provided square footage information or enough public information for the research firm to make a reasonable estimate of size.

With about 143 million square feet of warehousing space across 500 warehouses, DHL Supply Chain North America held onto its top spot as the largest 3PL in North America this year. And while Amazon's estimated 232.5 million square feet of space in 370 warehouses technically tops the chart, Armstrong & Associates doesn't give the company an official ranking number.

This year's top five largest warehousing 3PL rankings included GXO Logistics (90 million/316 locations), Ryder Supply Chain Solutions (75.2 million/330 locations), NFI (60 million/162 locations) and GEODIS North America (52.1 million/144 locations). Each of these organizations maintained their respective positions on the list, compared to 2021's rankings.

With 51.1 million square feet of space and 71 warehouses, CJ Logistics America (formerly DSC Logistics) took over the No. 6 spot on this year's list (moving up from No. 12 in 2021) and in doing so effectively reordered the Top 10. Americold (46 million/201 locations), Lineage Logistics (45 million, 244 locations), Kenco (36.3 million/103 locations), Saddle Creek Logistics Services (31 million/80 locations) and FedEx Logistics (30.7 million/110 locations) rounded out this year's Top 10.

The only new entrant on this year's Top 20 list was Kintetsu World Express North America, which has 15 million square feet of space in 83 warehouses.

Attractive acquisition targets

One of the larger M&A transactions in warehousing happened in October when Pritzker Private Capital announced that it was buying Kenco Logistics, the latter of which was owned by the Kennedy family.

"For more than 70 years, Kenco has thrived as a family-owned organization," said Denis Reilly, Kenco's president and CEO, in a press release. "As the demand for innovative and reliable logistics solutions becomes greater than ever," he continued, "we have found the ideal partner in Pritzker Private Capital to support our growth and advance our mission to be the preferred supply chain partner in North America."

In assessing the deal, Armstrong says Kenco was an attractive M&A target for its established platform and large, established footprint. "Private equity investors will often invest in companies that they can build out through additional acquisitions," he points out, "but Kenco already has significant operations in the United States. If they're going to build the company out, it will be about international expansion."

The outlook for 2023

Armstrong expects the North American 3PL sector's total gross revenues to grow by about 8% in 2022. Looking further out, he says growth could be "pretty flat" in 2023 as the labor shortage, lack of warehousing space and rising interest rates continue to present challenges for the industry. If demand continues to decrease, 3PLs may become more reliant on their storage revenues. Because many of those facilities are full right now, those revenues may help buoy the sector in 2023. "Next year should probably be a flat year for valued warehousing and distribution 3PLs in the United States," Armstrong says.

Cold chain trends

Each year, the International Association of Refrigerated Warehouses (IARW) publishes its North American Top 25 List of the largest refrigerated warehousing and logistics providers in Canada, Mexico and the United States.

The list is determined by total capacity—in millions of cubic feet—of temperature-controlled space operated by IARW warehouse members. The IARW is part of the Global Cold Chain Alliance (GCAA) with two other associations and one foundation. The IARW is the third-party temperature-controlled warehousing industry's association.

Throughout 2022, the temperature-controlled warehouse market also continued to see M&A activity across North America. "The pace of acquisitions remained high and shifts in the 2022 top 25 indicate that big capacity facilities were the focus," says Matthew R. Ott, GCAA president and CEO. "So much so that when this list comes out again in March 2023 a number of these companies will no longer be listed due to being acquired."

Top 20 North American Refrigerated Warehousing Companies

(Canada, Mexico and U.S.)

2022 Rank	2021 Rank	Company	Locations	2022 volume (millions of cubic feet)	2021 volume (millions of cubic feet)	Percent change
1	1	Lineage Logistics	U.S.	1,830.4	1643.1	11%
2	2	Americold Logistics	Canada and U.S.	1,161.4	1192.3	-3%
3	3	United States Cold Storage	U.S.	423.3	381.8	11%
4	4	Interstate Warehousing	U.S.	115.7	137.2	-16%
5	5	VersaCold Logistics Services	U.S.	105.5	123	-14%
6	8	Conestoga Cold Storage	U.S.	64.3	64.3	0%
7	9	Congebec Logistics	U.S.	60.9	57.7	6%
8	16	RLS Logistics	U.S.	59.0	26.1	126%
9	7	Burris Logistics	U.S.	58.9	74.9	-21%
10	10	NewCold Holdings	U.S.	47.9	47.9	0%
11	13	Confederation Freezers	Canada	34.5	34.6	0%
12	14	Trenton Cold Storage	Canada	34.3	34.3	0%
13	15	Nor-Am Cold Storage	U.S.	34.1	30.4	12%
14	19	WOW Logistics	U.S.	23.4	23.4	0%
15	n/a	Enstructure	U.S.	21.5	n/a	n/a
16	20	Interstate Cold Storage	U.S.	21.4	21.4	0%
17	n/a	SnoTemp Cold Storage	U.S.	19.0	n/a	n/a
18	n/a	Valley Cold Storage & Transportation	U.S.	18.0	n/a	n/a
19	n/a	Central Storage & Warehouse	U.S.	16.6	n/a	n/a
20	n/a	MWCold	U.S.	15.2	n/a	n/a

Source: International Association of Refrigerated Warehouses (IARW)

In the North American market, GCCA also saw an increase in interest and investment outside of the United States and expects changes in the ranking of operators outside of the continental United States in the coming year.

For 2021, the top five refrigerated warehouse operators maintained their respective positions and included Lineage Logistics (1830 million cubic feet of space), Americold Logistics (1161 million), United States Cold Storage (432 million), Interstate Warehousing (115.7 million) and VersaCold Logistics Services (105.5 million).

Rounding out this year's Top 10 list were Conestoga Cold Storage (64.3 million cubic feet of space), Congebec Logistics (60.9 million), RLS Logistics (59 million), Burris Logistics (58.9 million) and NewCold Holdings (47.9 million). With the exception of NewCold, the bottom half of the Top 10 list was completely reshuffled this year.

New entrants on GCCA's 2022 list included Enstructure (21.5 million cubic square feet of space), SnoTemp Cold Storage (19 million), Valley Cold Storage & Transportation (18 million), Central Storage & Warehouse (16.6 million) and MWCold (15.2 million).

Key refrigerated warehousing trends

Overall, Ott says GCCA is seeing trends that lead toward increased refrigerated warehousing capacity in North America. Existing operators continue to invest in new facilities and expand existing facilities. Between January 2022 and September 2022, Ott says there were also "many new entrants in this space with an interest in development."

"Construction costs and labor continue to be challenges, and continued supply chain issues mean that material is not always readily available," he points out. "This has pushed construction timelines longer than many anticipated." And while costs have normalized and materials are now more accessible, Ott says many 2022 deliveries are now being pushed to the first and second quarters of 2023.

More value-added services

From an operational perspective, the focus on the customer is a key priority for refrigerated warehouse providers. Ott has seen an increased emphasis being put on value-added services throughout the cold chain. "Shippers are turning to refrigerated warehouses increasingly for value-added services," he says. "For instance, U.S. cold storage companies are serving the import/export border trade needs of shippers more and more often."

At the United States/Mexico border, cold storage warehouses are increasingly adding USDA-approved lab/inspection facilities to their sites to service packing houses exporting protein to the United States and Canada. Ott says the trend is being driven by shippers and warehouse providers that are collaborating to optimize supply chains.

"More and more, warehouses are looking to become a full supply chain solution for their customers," he adds, "and providing increased value-added services is an important part of this effort."

Looking ahead

Labor will continue to be a challenge across the temperature-controlled warehousing and logistics industry, but the GCCA believes the headwinds contributing to the challenging market will begin to ease in 2023. Ott expects continued growth in refrigerated capacity in 2023. Concerns about inflation and rising interest rates may slow the pace of investment and development that the sector has seen over the last two years, however, and particularly for projects that have yet to break ground.

In the ever-evolving economic environment, there's been a continued need to increase operational efficiency.

Companies are achieving this goal by making more investments in sustainability and automation—a trend that Ott sees continuing in the coming months.

"In 2023 the temperature-controlled warehousing and logistics sector will continue to do what we have been doing," he says, "ensuring that the world has access to the safest, highest quality food, pharmaceuticals and goods possible." •

—Bridget McCrea is a contributing editor for Logistics Management