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Logistics MANAGEMENT®

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HIGH VALUE
PREMIUM

Management UPDATE

AN EXECUTIVE SUMMARY OF INDUSTRY NEWS

USPS reports $3.5B loss. Ongoing fiscal woes continue to threaten the financial viability of the United States Postal Service (USPS), as evidenced by its fiscal year third quarter earnings. For the quarter, the USPS incurred a net loss of $3.5 billion compared to $2.4 billion for the same timeframe last year, with operating revenue at $16 billion, a $294 million annual decline. Operating expenses—at $19.5 billion—were up $789 million year-over-year. This is the 14th net loss in the last 16 quarters for the USPS, with its fiscal 2010 year-to-date net loss at $5.4 billion compared to $4.7 billion at this point in 2009. Mail volume for the quarter—at 40.9 billion pieces—was down roughly 700 million pieces or 1.7 percent.

Labrie steps down as head of Con-way Freight. Con-way Inc. said last month that John Labrie, president of Con-way Freight, the company's less-than-truckload (LTL) subsidiary, has left the company to pursue other interests. Con-way President and CEO Douglas Stotlar has assumed the role of interim President of Con-way Freight and will fill the position for the next six to 12 months. The company said that during this time, Con-way Freight will focus exclusively on increasing profitability through yield management, cost reduction, and operating discipline. Second quarter revenue at Con-way Freight—at $817 million—was up 25.8 percent, with yield down 2.1 percent year-over-year. Tonnage per day increased 29.2 percent and operating income of $17.2 million was down compared to $49 million last year.

Hello Atlanta, goodbye Cleveland. That was the message from the Material Handling Industry of America (MHIA) last month when it announced the launch of a new trade event called Modex to be held in Atlanta. The move marks the end of the North American Material Handling & Logistics Show (NA) held every other year in Cleveland. The first Modex will be held February 6-9, 2012, at the Georgia World Congress Center. According to MHIA, the new tagline—solutions that move supply chains—reflects an expanded agenda, as the new event will meld a pure material handling focus together with broader logistics solutions. Modex 2012 will showcase equipment and systems solutions as well as learning opportunities that span the entire supply chain, from material handling, to logistics across manufacturing, assembly, and distribution.

Clean trucks scam. Rep. Jerrold Nadler, D-N.Y., introduced a bill that would effectively end the free enterprise drayage system at all U.S. seaports. According to Nadler, a member of the House Transportation and Infrastructure Committee, his Clean Ports Act of 2010 will enhance the ability of ports to enforce clean air standards by making them the exclusive domain of organized labor. Nadler cited the Los Angeles Clean Truck Program (that would eliminate non-union drivers) as a national model program, while observing that the Los Angeles "concession" program had been challenged in federal court. Those supporting his efforts to amend the Federal Motor Carrier Act "above the current federal requirements" include The Coalition for Clean and Safe Ports—loosely composed of highly unlikely Teamster bedfellows. This includes the Sierra Club, which has a never been regarded as "labor friendly" in the past.

Deal activity picking up. With the economy in better shape than it was a year ago, it appears that transportation and logistics merger & acquisition activity is on the mend, according to PricewaterhouseCoopers' (PwC) recently released data. In its quarterly report *Intersections: Second Quarter 2009 Global Transportation and Logistics Industry Mergers and Acquisitions Analysis*, PwC said that second quarter deal value at $13.1 billion was slightly below the first quarter's $15.9 billion but 63 percent better than the $4.8 billion total deal value for the second quarter of 2009. PwC said there were 29 announced second quarter deals worth $50 million or more, with 24 excluding deals with U.S. targets and/or acquirers and five with U.S. targets and acquirers.

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Management UPDATE

continued

U.S.-bound shipments on the decline. The number of global manufacturers shipping to the United States slipped from June to July, according to data from Panjiva, an online resource for information on global suppliers and manufacturers. June saw a 1 percent uptick from May, while July was up just 0.2 percent from June, making the month-to-month growth essentially flat. This does not follow the trend of increased economic and trade activity from the first half of the year, which featured a 9 percent spike from April to May and matching 3 percent gains for the previous two months, according to Panjiva data. What's more, July's data was up 14 percent year-over-year and down 0.4 percent compared to 2008.

America's Marine Highway efforts make cut for federal funding. Following an April announcement signaling the launch of "America's Marine Highway" program, an effort to shift freight to waterways from congested U.S. highways, the United States Department of Transportation (DOT) announced the corridors and an initial eight projects that will be receiving federal assistance through this effort. Since the America's Marine Highway program was launched, the DOT said it has awarded $58 million in grants for projects to support the start-up or expansion of Marine Highway services. Program officials add that it's making up to $7 million available in additional funding for designated projects.

UP ready with new intermodal terminal. Trains have started rolling in and out of Union Pacific's (UP) new 550-acre Joliet Intermodal Terminal (JIT) located in Joliet, Ill. UP officials told *LM* that the first train into the terminal was moving flat cars from its Rochelle, Ill.-based intermodal terminal. It arrived on Thursday, July 29, ahead of the facility's opening. Officials added that the first revenue train to depart the new facility left on Tuesday, August 3, en route to Long Beach, Calif., with the first revenue train arriving on the same day from Long Beach. Construction on the $370 million terminal began in August 2009. It is located five miles south of I-80 and seven miles east of I-55.

Seafaring education ranks high. The California Maritime Academy (Cal Maritime) once again ranked high in the annual *U.S. News & World Report* and *Forbes* surveys of the nation's undergraduate colleges and universities. Cal Maritime, a part of The California State University system, earned a fourth place ranking from *U.S. News* among Regional Colleges in the West, with the U.S. Air Force Academy taking the top spot in the category. *Forbes* magazine's 2010 rankings place Cal Maritime at 284th among the nation's colleges and universities based on the quality of its programs and student feedback on the quality of their educational experiences.

Reefer tracking improved. Sea Star Line announced last month that it has entered into a strategic alliance with Mark-It Services in order to outfit its refrigerated systems (reefers) with both GPS and RFID systems to create its Sea Star Line Refrigerated Cargo Guardian Service. According to the carrier, the new technology gives Sea Star wireless monitoring capabilities across its entire refrigerated container fleet and marine terminals. The new service has been achieved through the use of wireless devices mounted on every refrigerated container that continually report the status of all temperatures and onboard conditions back to a web-based software platform. Sea Star claims that the new system offers the carrier total and continual visibility and control.

Charleston gains advantage. The South Carolina State Ports Authority (SCSPA) and the South Carolina Coastal Conservation League (CCL) successfully concluded several months of mediation and reached a settlement, ending a years-long battle and allowing Charleston's new container terminal and port access road to proceed. The port's director of planning, Byron Miller, told *LM* in an interview that this represented a "second generation" of distribution services. "Given our logistical reach to so many core regional industries, this is a significant step forward," he said. Miller also noted that this is the first new terminal to be built on the U.S. East Coast in over 10 years. The settlement agreement includes a number of commitments from both parties, setting a course

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Management UPDATE

continued

for an "environmentally responsible" port expansion project.

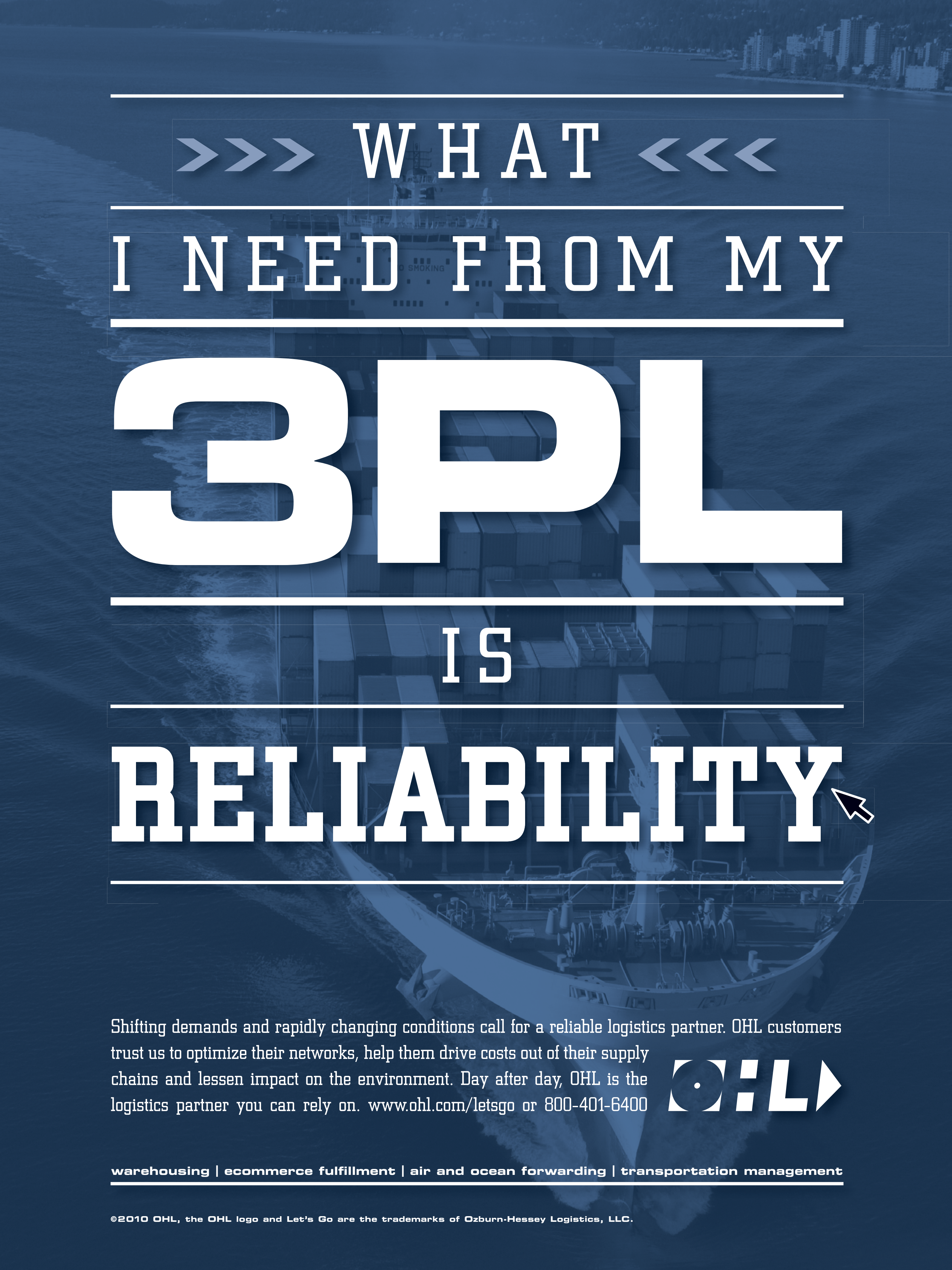
■ **Expanding Horizon.** Beginning on December 13, 2010, Horizon Lines will launch a weekly liner service, called the Five Star Express service, with port calls at Shanghai and Ningbo in Central China and Los Angeles and Oakland in California. Using its five Hunter Class vessels, Horizon said that it will offer some of the fastest transit times in the transpacific trade, including 11-day port-to-port transit from Shanghai to Los Angeles with Monday morning cargo availability every week at the nation's busiest import gateway. "The development of our Five Star Express service continues to be on schedule, and we are very pleased with the partnerships we have formed in China to support this operation," said Brian Taylor, senior vice president of international services.

■ **National transport policy proposed.** Senate Joint Resolution (SJR) 33, put forth by State Senator Alan Lowenthal (D-Long Beach), was passed unanimously by the California State Assembly last month. SJR 33 calls on Congress to create a National Freight Policy. There is currently no such policy to coordinate federal investments in trade infrastructure with any of the safety, security, environmental, and transportation agencies that are intertwined with our national and international supply chains. "SJR 33 is an acknowledgment of the fact that, while California's airports, border crossings, and seaports are critical national assets that facilitate massive amounts of international commerce, the federal government lacks a coordinated plan to invest in these assets," said Mike Jacob, vice president of the Pacific Merchant Shipping Association.

■ **Intermodal volumes still on the rise.** The positive momentum for intermodal transportation continued in the second quarter, according to the most recent Market Trends report from the Intermodal Association of North America (IANA). IANA stated that second quarter intermodal loadings—at 2,829,971—were up 17.2 percent year-over-year but fell short of the first quarter's 3,019,310. All four of the major intermodal categories IANA tracks were up year-over-year. Domestic containers, at 1,128,108, were up 16.4 percent, while all domestic equipment, at 1,534,188, was up 13.2 percent. International containers, at 1,782,594, were up 20.9 percent marking the first time since the second half of 2006 that international topped domestic containers.

■ **Canadian growth.** A gentle surge in U.S. manufacturing and more emphasis on "near shoring" indicate that trade with Canada will continue to grow this year, major forwarders report. This is a trend confirmed by economists at Toronto-based CIBC World Markets who reported that Canada would remain the biggest trading partner for the U.S. for years to come. Demand for U.S. goods is surging, said CIBC, with wholesale trade inventories climbing 1.7 percent to $52.4 billion this past May—the largest percentage increase since January 2007. "The inventory-to-sales ratio is a measure of the time, in months, required to exhaust inventories if sales were to remain at their current level," said CIBC analyst Rob Shotte. "Overall, 16 of the 25 wholesale trade industries reported higher inventory levels."

■ **Smaller Savannah footprint.** A diesel additive study conducted by The Georgia Ports Authority (GPA) reported a 5 percent reduction in fuel consumption as well as drastically decreased emissions in and around its ports. According to GPA Executive Director Curtis Foltz, the study represented a "proactive effort to reduce our environmental footprint." GPA's engineering staff recently commissioned this study to determine whether a fuel additive would be effective in reducing pollutant emissions and increasing engine fuel efficiency for its diesel equipment fleet. WPC, a regional environmental think tank, was contracted to conduct the test and provide analysis. "We were pleasantly surprised to see these dramatic results," said Wilson Tillotson, the GPA's senior director of engineering. "With the large-scale nature of this study, we are confident that the additive will yield an improvement in fuel efficiency and a significant reduction in emissions."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With its new DC and materials handling system, the pet retailer has reduced its handling costs, bolstered its green transportation initiatives, and fortified its overall distribution network—all while providing room to grow.

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Cover photography: Gary Payne/Getty Images

Mike Fernstrom, director of DC operations, Petco

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19th Annual Masters of Logistics Study

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TMS flexes its muscle

46 Even though technology has infiltrated every link of the supply chain, TMS adoptions are still surprisingly low. Here are two companies that have taken the plunge and have strengthened their logistics operations with a TMS.

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Group News Editor Jeff Berman, Executive Editor Patrick Burnson, and *LM's* Transportation Correspondent John Schulz cover the logistics and transportation markets better than anyone in the business. Read their daily news posts at **logisticsmgmt.com.**

SPECIAL REPORT: FREIGHT FORWARDING

Volumes return

Like every other sector servicing the global supply chain, freight forwarders have been trying to remain confident during the rocky economic rebound. However, industry analysts report that demand has recovered at a remarkable rate in 2010, signaling a whole new set of challenges for forwarders and shippers alike. **52S**

SPECIAL REPORT: EUROPE

A new direction in European distribution

Why should U.S. companies focus on their distribution networks in Europe? The European Union (EU) remains a $16 trillion economy: the world's largest. This year, American exports to the EU are up 3.5 percent, in nominal dollar terms, over 2009. **58S**

Subtle but significant shifts

WHEN IT COMES TO IMPLEMENTING NEW logistics and transportation practices, a year can make quite a difference. We saw that clearly when comparing the results of this year's *Annual Study of Logistics and Transportation Trends* (*Masters of Logistics*) to the results from the 2009 study.

At that time, most shipper organizations were firmly buckled into their seats, doing their best to ride out the economic turbulence that had thrown so many manufacturers and retailers off course. The main focus for nearly every respondent last year was survival; and to achieve this, these hearty logistics and transportation professionals told us that reducing costs across all areas of their operations was not just a goal, it was imperative.

Flash forward to the 2010 results and you'll find that the continued deluge of mixed economic signals has certainly forced the majority of respondents to stay focused on cost reductions. However, our findings do reveal that while transportation has been a prime target for cost cutting over the past 18 months, many respondents say that they may have reached the bottom of the savings barrel.

I'm happy to report that when you dig a little deeper into this year's findings we also find some subtle, tactical shifts over the past 12 months; moves that indicate that many shippers have grown wiser from surviving the tough conditions and are moving away from simple cost cuts masked as strategic improvements.

For example, the top initiative for 2010 was improving carrier tracking. In fact, 62.1 percent of respondents reported that they had completed this activity or were in the process of implementation. According to the study, carrier tracking was followed by improved shipment consolidation (60.5 percent) and improved route planning (52.1 percent).

As report authors Mary Holcomb and Karl Manrodt note, "Improved carrier tracking and shipment consolidation were also the top initiatives for 2009, suggesting that more firms have realized the benefits that can be gained from these actions."

Holcomb and Manrodt reveal a number of other subtle but significant shifts in shipper operations in their comprehensive breakdown of the *19th Annual Study of Logistics and Transportation Trends* (*Masters of Logistics*) that begins on page 30.

As it has for nearly two decades, this study identifies emerging trends in logistics and transportation and provides benchmarking data on transportation performance and expenditures. There's not a clearer snapshot available of how shippers and carriers are operating in these truly unprecedented times.

And as we have over the past five years, the findings of the study will be shared in deeper detail by the research team in our annual Masters of Logistics Webcast that will be going live on Wednesday, September 29, at 2:00 p.m. ET. You can register today at logisticsmgmt.com/masters2010.

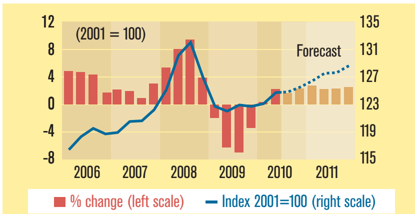
Don't forget, if you're attending the CSCMP Annual Global Conference in San Diego later this month, make sure to attend our in-person presentation of the results on Tuesday, September 28, in room 30 D/E at 1:30 p.m. PT. We tend to "sell out" the room, so make sure to get there early to grab a seat.

Take some time to digest this year's results, draw some parallels to your current operations, and be ready to share some of your subtle but significant operational shifts that are preparing you for the next stage of recovery.

Michael A. Levans, Group Editorial Director

Comments? E-mail me at mlevans@ehpub.com

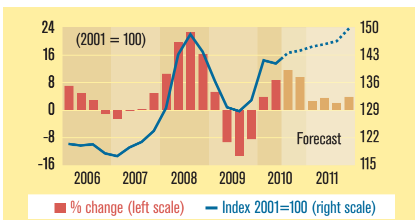
Pricing Across the Transportation Modes



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
General freight - local	0.0	-0.2	0.7
Truckload	-0.2	2.1	1.7
Less-than-truckload	-0.6	1.9	-0.1
Tanker & other specialized freight	-0.4	0.4	1.5

TRUCKING

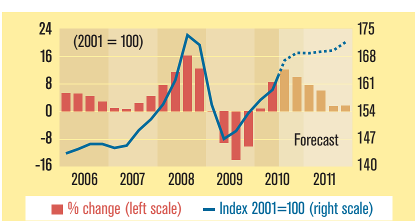
Both TL and LTL long-distance haulers of general freight report their average transaction prices fell from June to July, down by 0.2% and 0.6%, respectively. For the entire U.S. trucking industry, this pattern of weak pricing translated into a 0.3% one-month price cut. Worse still for the industry, overall trucking prices, on average, were up only 1.2% above July 2009 levels. Recall that June through August 2009 saw aggregate prices fell below year-ago levels by 7% for three consecutive months. Underlying cost pressures for truckers, meanwhile, increase still. In the 12-month period ending June 2010, all industry costs grew 1.9% from the prior 12 months, due mostly a 4.9% hike in fuel costs.



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
Scheduled air freight	-0.1	0.2	11.5
Chartered air freight & passenger	16.8	13.2	26.5
Domestic air courier	-1.8	1.4	12.8
International air courier	-3.6	1.4	8.7

AIR

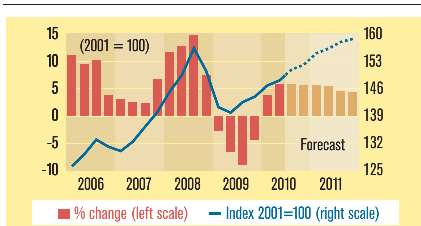
Airfreight prices charged by U.S.-based carriers, whether on scheduled passenger flights or chartered, have recovered significantly compared to last year. Prices for flying cargo in the belly on scheduled flights dipped 0.1% from June to July. These prices are up 11.5% from same month a year ago, thanks to a 7.1% price jump in May 2010. Chartered airfreight tags in July, meanwhile, jumped 16.8% from a month ago and soared 26.5% from same month a year ago. The forecast for airfreight prices on scheduled flights now calls for an 8.3% annual gain in 2010 and a 3% hike in 2011. For the entire industry (passenger and freight) in the 12-month period ending June 2010, average prices fell 1% as costs grew 0.9%.



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
Deep-sea freight	2.2	8.0	17.8
Coastal & intercoastal freight	17.1	12.6	18.9
Grt. Lks.-St. Lawrence Seaway	1.0	-4.4	4.7
Inland water freight	2.9	1.6	10.4

WATER

Inflation among U.S. purveyors of water transportation services took off in July. Coastal and intercoastal freight transportation companies led the way, hiking average transaction prices 17.1% from a month ago and 18.9% from same month a year ago. Over the same time periods, deep sea freight transport companies likewise increased prices by 2.2% and 17.8% as inland water freight transport companies reported prices up 2.9% and 10.4%. In aggregate, average prices in the water transport sector were up 6% and 14.7% from a month ago and same month year ago. Our revised forecast now shows an annual inflation rate of 7.8% in 2010 and 4.1% in 2011 for the entire U.S.-based water transportation industry.



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
Rail freight	0.3	2.7	6.8
Intermodal	-0.1	2.3	6.0
Carload	0.4	2.8	7.2

RAIL

Faring the best among all in the transportation sector, in July, line-haul railroads report transaction prices increased by 0.3% from a month ago and 6.8% from the same month a year ago. Carload rail services led the inflation wave again, with prices up 0.4%. That was the third consecutive monthly increase. Intermodal rail, meanwhile, reported a one-month price decline of 0.1%, which was the third monthly price cut in the past 4 months. Most significantly, however, for the entire 12-month period ending July 2010, rail was the only mode reporting a positive price hike, up 0.3%. The forecast now shows rail prices up 5.3% in 2010 followed by a 5% annual price hike in 2011.

Source: Elizabeth Baatz, Thinking Cap Solutions. E-mail: ebaatz@alertdata.com

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Dave

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NEWS & ANALYSIS

Peak Season shows signs of a modest return

A new LM *reader survey suggests that there's a cautious consensus that the industry may record a defined Peak Season in 2010—marking the first time in five years.*

By Jeff Berman, Group News Editor

BOSTON—Given the positive freight trends *LM* was reporting during the first half of 2010, it certainly wasn't unreasonable to predict that shippers and carriers would be seeing the return of the "Peak Season"—that traditional crush of freight traffic from August to October to accommodate holiday season imports.

However, that bet doesn't appear to be as certain as it was just a few months ago.

Since we crossed the mid-year mark of 2010, there has been a steady downturn in the good news department. We're now reporting that volumes across most modes of freight transportation are slipping, retails sales are starting to lag, and there are now new predictions for lower GDP growth.

What's more, some industry stakeholders maintain that July may become the "new October" in terms of when the new Peak Season hits its crescendo. In fact, analysts have stated that the inventory buildup over the first half of the this year may become a permanent fixture, with retailers holding off on adding more stock in the second half of the year until it's truly needed. This would appear to be a wise move, given the inventory overhang that occurred from 2008 and 2009.

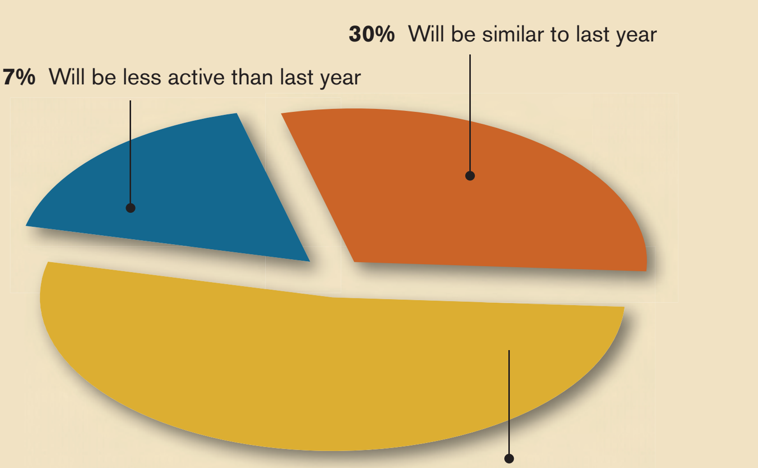
This theory was supported by the data posted in the August edition of the *Port Tracker* report from the National Retail Federation and Hackett Associates. The report is calling for July volumes to hit 1.38 million TEU (Twenty-Foot Equivalent Units) at U.S. retail container ports, compared to an anticipated 1.31 million TEU in October that is typically viewed as the peak shipping month of the year.

"Shippers and importers have moved ahead of the market by buying early partly out of fear that there was not going to be enough capacity later on—and it seems that they have gotten a head start," said Ben Hackett, president of Hackett Associates, a maritime industry consulting practice. "This is what really drove the strong May to July import gains."

July's import strength was apparent in TEU totals at the Port of Los Angeles (POLA) and the Port of Long Beach (POLB). July imports at the POLB hit 293,878 TEU for a 32.5 percent annual gain, while POLA imports, at 369,388 TEU, saw a 21.02 percent annual gain.

And while Hackett is calling for July to be the 2010 peak, POLA Director of Communications Phillip Sanfield noted that the port is expecting volumes to remain strong during the third quarter, adding that the end of the inventory replenishment system may not yet have occurred.

Shippers are divided on 2010 Peak Season activity



Source: *Logistics Management* reader survey, August 2010

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Regardless of when the peak occurs, there is a cautious consensus that the industry may record a defined Peak Season in 2010, marking the first time in five years that this has happened.

"Shippers and importers have moved ahead of the market by buying early partly out of fear that there was not going to be enough capacity later on—and it seems that they have gotten a head start."

—Ben Hackett, president of Hackett Associates

This was illustrated in the findings of a recent *Logistics Management* readership survey that found 53 percent of the 320 shipper respondents saying that they believe that the traditional Peak Season period would be more active compared to last year. This edges out the 30 percent that think traffic levels will be the same this year. Seventeen percent of the respondents are predicting a less active Peak Season in 2010.

Among the reasons cited for a busier traditional season include increased sales and larger average orders along with higher overall business levels compared to a difficult 2009.

But according to Gregg Sayers, director of supply chain and transportation at Jacksonville, Fla.-based discount apparel retailer Stein Mart, there are other factors at play that could lead to the return of the Peak Season.

"Capacity has shrunk, and there are some challenges when it comes to repositioning intermodal equipment," said Sayers. "Carriers are having a difficult time getting boxes back to the West Coast, and team and single line haul is regionally challenged. This is going to be a doozy of a Peak Season, and the activity level will be driven by lack of capacity, not growth in the economy."

Tight capacity levels present a far cry from the excess capacity that existed heading into the 2009 Peak Season when ships, terminals, railways, and over-the-road transportation networks were flowing freely. In fact, a shipper respondent said that while the economy is slightly better than a year ago, more shippers are trans-loading shipments this year, making it tougher to move boxes from the West Coast.

And while chances of a traditional Peak Season are better than recent years, Brooks Bentz, a partner in Accenture's Supply Chain Practice, said that it may be a little different this year.

"I don't think there is going to be a deluge of import freight like we have had historically," said Bentz. "But the ocean liner companies are finding their way back to more solid footing, along with a shortage of available capacity and containers. And they are not rushing to put ships back in service, with rates going up. If you are a shipper and did not plan accordingly for this Peak Season, you are likely going to pay more."

AIR CARGO

100 percent air cargo screening off to smooth start so far

WASHINGTON, D.C.—On August 1, a law mandating 100 percent screening of cargo transported on passenger aircraft took effect. While it's only been a little over a month, the early feedback indicates that things are off to a solid start, according to industry stakeholders.

The law was part of H.R. 1 Implementing the 9/11 Commission Recommendations Act of 2007 that required the Secretary of Homeland Security to enable the airline industry to establish a system to screen 100 percent of the

cargo transported on passenger aircraft commensurate with the level of security used for checked baggage. The mandate requires all air cargo to be screened at the piece level prior to transport on a passenger aircraft for flights originating in the United States, according to the Department of Homeland Security's Transportation Security Administration.

Included in this endeavor is TSA's Certified Cargo Screening Program (CCSP) that enables Indirect Air Carriers (IAC's), shippers, and Independent Cargo Screening Facilities (ICSF's) to screen cargo for flights originating in the U.S. According to TSA, most shippers involved in CCSP have readily incorporated physical search into their packing/shipping operation at minimal cost without needing to invest in screening equipment.

"So far it has been relatively transparent and not a significant event," said Brandon Fried, executive director of the Washington, D.C.-based Airforwarders Association (AfA). "We have not really seen any of the dire hardships that initially in 2007 we thought we would encounter when the legislation was passed."

While things are running smoothly at this point, Fried did point out that August is typically a slow month for the air cargo industry, adding that things it's likely to become more hectic in September as shippers gear up for the traditional holiday season.

Fried added that while freight forwarders were slow to initially respond to CCSP, they eventually got on board to devise strategies to deal with their screening responsibilities—and that lead to an upsurge in CCSP validations and registrations.

With the 100 percent cargo-screening rule required for cargo flying on passenger airlines, there are some freight forwarders who are electing not to bother. Instead, they're looking to avoid the headaches and move air freight on cargo-only airlines, said Albert Saphir, principal of ABS Consulting, a risk management firm.

"Some forwarders won't put anything on passenger aircraft," says Saphir. "In the lanes passenger airlines promote their business or services, 90 percent of those lanes are served by cargo-only carriers. If they have a shipment that needs to go to a passenger-only aircraft destination, they may give it to a friendly competitor if they're not active in that particular lane."

A freight forwarder told *LM* that since the law went into effect there has not been any evidence of interruptions or delays due to 100 percent screening. However, according to AfA's Fried, a lot has to do with seasonality, which will likely change in the coming weeks.

"That is the luck of timing with this law," said Richard Fisher, president of Boston-based Falcon Global Edge. "The August 1 deadline gave carriers, forwarders, and screeners time to work out the kinks. We have not seen major delays and have been able to work out screening arrangements at the hubs where we generate most of our shipments."

—Jeff Berman, Group News Editor

SIZE AND WEIGHT

Trucking "arms race" escalates as industry seeks heavier, longer trucks

WASHINGTON, D.C.—Truck sizes and weights have largely been frozen at the federal level since 1993. Now the industry and a coalition of shipping interests are again testing the waters in Washington to see if now might be the time to take another look at that emotional and politically charged issue.

Recently, a group of three bipartisan senators—Susan Collins, R-Maine; Mike Crapo, R-Idaho; and Herb Kohl, D-Wis.—introduced a bill called the Safe and Efficient Transportation ACT (SETA) of 2010, S. 3705. The bill would allow states to end the federal size and weight rules—currently 80,000 pounds over five axles—and authorizes the operation of longer and heavier trucks.

An identical bill, H.R. 1799, already has more than 50 cosponsors in the House of Representatives.

"Our legislation would allow all states to have the option of increasing truck weight limits on the Interstate System," said

SIZE & WEIGHT, *continued from page 17*

Senator Collins. "Keeping heavy trucks on the interstate highways where they belong, and off smaller streets, would improve safety for motorists and pedestrians and reduce congestion, fuel use, emissions, and road damage."

With the current legislative calendar in Washington dwindling to less than 30 working days left before Congress recesses to go home and campaign for the mid-term elections, changes of passage in the current congressional term are slim.

But with the $500 billion federal-aid highway reauthorization bill likely to be taken up early next year, trucking interests say they are laying the groundwork for a major revision of truck size and weight laws early in the new Congress.

That push is just part of a larger strategy to modernize and expand freight productivity. Already, railroads are experimenting with longer trains—there was recently a record-setting, 3.4-milion pound train rolling through Southern California as part of a Union Pacific Corp. test to increase the lengths of its intermodal trains in that popular corridor.

In addition, a group of 19 Western governors backed a resolution passed by the Western Governors' Association to allow further use of longer combination vehicles (LCVs). Use of such trucks has been frozen since 1991 and are now permitted on the roads that they were allowed to travel prior to 1991.

Expanded use of double- and triple-trailers makes economic sense, with no compromise in safety in the large expanses of the West, according to the group of governors. In addition, the move is backed by such large shippers as Kraft Foods, Coca-Cola, and MillerCoors, among others.

A Federal Highway Administration study requested by the Western Governors' Association found that a limited increase in the use of LCVs in 13 Western states where LCVs are already allowed could reduce heavy truck vehicle miles traveled by 25 percent immediately, reduce fuel consumption and emissions by 12 percent, reduce highway noise by 10 percent and, and save shippers $2 billion a year.

But the Western Governors' study found that these savings could be offset by higher transportation infrastructure and enforcement costs to states and could spur the undesirable shift from rail to more trucks. Finally, the study was unable to evaluate the impact of LCVs on safety because of inadequate data and monitoring systems.

Trucking industry officials say there's already plenty of data out there showing that LCVs, at least in the wide-open expanses of the West, have an enviable safety record. Typically, they are driven by the most experienced and capable drivers available, and are not driven in risky, snowy weather.

The Western Governors are asking Congress to allow the Department of Transportation to consider proposals from interested Western states to establish and operate pilot test programs to evaluate the benefits and costs of additional LCV routes, vehicle configurations, and operating conditions.

"Keeping heavy trucks on the interstate highways where they belong, and off smaller streets, would improve safety for motorists and pedestrians and reduce congestion, fuel use, emissions, and road damage."

– Senator Susan Collins, R-Maine

Already, as many as 44 states are doing a sort of "end run" around the 80,000-pound Interstate limit for trucks by allowing heavier trucks to operate on state roads. Trucking industry officials say expanding their use to Interstate and other federal-aid highways only makes sense.

"At the end of the day, 44 states are allowing heavier trucks to run on their state system of roads, but aren't allowed on the best roads we have in this country," says Randy Mullett, vice president of government relations for Con-way. "All these issues favor expanded use of more productive trucks."

—John D. Schulz, Contributing Editor

GREEN

With energy legislation tabled, sustainability efforts go forward

WASHINGTON, D.C.—Now that the United States Senate has reached a stalemate regarding a national energy policy, the subsequent effects from a transportation and logistics perspective remain to be seen.

The national energy legislation, introduced by Senators John Kerry and Joseph Lieberman in May, pledged to reduce greenhouse gas emissions by 17 percent compared to 2005 levels by 2020 and 83 percent by 2050—matching an objective put forth by the White House in 2009.

And from a supply chain and freight transportation perspective, one of the bill's most notable takeaways was a goal to decrease U.S. dependence on foreign oil. Also included was a form of so-called "cap and trade" to control pollution by offering economic incentives in order to achieve reductions in emissions pollutants and put limits on emissions from motor vehicles, coal-fired plants, and factories.

With no closure coming anytime soon on the legislative front, what happens now when it comes to the business of

GREEN, *continued from page 19*

"green logistics" remains to be seen.

"Everyone will probably go back to business as usual and probably not do some of the things they should be doing when it comes to sustainability," said Kevin Smith, president and CEO of Sustainable Supply Chain Consulting. "One thing we do not have in the supply chain industry is a unified lobbying process for these matters."

And with no legislative mandates coming anytime soon, Smith said shippers and carriers need to rely on a combination of common sense and lessons learned from the recession, whether it be improving efforts to maximize trailer space, running leaner supply chain operations, leveraging Software-as-a-Service technologies to link systems together, or simply using less energy and fuel.

From a shipper's perspective, Ryan Boccelli, director of logistics at Stonyfield Farm Inc., said waiting for legislation to mandate that shippers develop a green logistic strategy is the wrong approach.

"If we are waiting for that, then we are going to have carriers knocking on the door for a rate increase," said Boccelli. "I don't think that is the way to go, but unfortunately that may be the only way to install broad change."

Boccelli said that Stonyfield is incentivizing its carriers for achieving green initiatives by measuring actual performance and establishing a system of gain- or cost-sharing. Stonyfield has also tripled its rail volume in 2010 to reduce fuel cost.

When asked for advice for shippers that may be new to the sustainability movement, Boccelli said a good place to start is emissions measurement.

"With fuel you need to start somewhere and understand what you are measuring for emissions," he said. "If you don't understand that at the start then it doesn't matter if diesel goes up because you don't know your starting point from which you need to improve."

—Jeff Berman, Group News Editor

REGULATION

Truckers to FMCSA: Keep HOS regs the way they are

WASHINGTON, D.C.—As Washington prepares for yet another revision to the truck driver hours of service (HOS) rules—and lawyers on both sides hunker down for what they say is yet another inevitable court fight—the battle lines are being drawn.

Safety advocates and the Teamsters union want drivers to drive fewer hours. This summer, the Public Citizen advocacy group asked the government to cut back the legal limit a truck driver could drive to eight hours within any 12-hour period. The current rule allows 11 hours of driving within a 14-hour on-duty period followed by a mandatory 10-hour rest break.

On the other side, major trucking companies and the American Trucking Associations (ATA) would like to leave the current rule in place. They say the current HOS rules have resulted in improved productivity as well as industry safety. They point to the government's own heavy truck vehicle crash rate data to show the industry has never been safer while per-mile truck fatality figures are at an all-time low.

"If we could wave a magic wand, we would like the current system to stay where it is," says Randy Mullett, vice president of government relations and public affairs for Con-way Inc., a major $5 billion transportation company. "The current safety statistics of the industry that has operated under the current HOS rules probably would validate this."

At press time, the latest proposed revision to the rules governing some 3 million long-haul truck drivers was sitting at the Office of Management and Budget after being revised by the Department of Transportation's Federal Motor Carrier Safety Administration (FMCSA). The latest rule is expected to be issued as a notice of proposed rulemaking by November. A public comment period ends January 4, 2011, with a final rule perhaps issued next summer.

Here is the upshot for shippers: If truckers are forced to curtail hours that a driver operates, that almost certainly guarantees higher truck rates. If these rules were changed at a time when the economy is improving and truck capacity is tight, those rate increases would be larger, perhaps as much as 10 percent or more, according to knowledgeable industry sources.

That's because in addition to exacerbating the supply-demand equation, any change in HOS would cause higher costs for carriers. They would need to retool their systems and change the computer-designed matrixes that are the heart of today's load-matching software. These moves would probably result in higher congestion costs as carriers would be forced to put more trucks on the highways to offset the loss of productivity by reduced driving hours.

According to carriers, slower service is almost a certainty under those conditions.

—John D. Schulz, Contributing Editor

FREIGHT VOLUMES

TransCore data points to 122 percent annual gain in spot market freight availability

SPRINGFIELD, Mo.—While over-the-road transportation capacity remains tight, spot market freight availability continues its upward trend, according to the TransCore North American Freight Index.

TransCore recently reported that spot market freight availability in July was up 122 percent year-over-year, but its load volume was 14 percent below June. Spot market freight availability in June was up 112 percent. And in the second quarter it was up 60 percent compared to the first quarter and up 331 percent compared to the second quarter in 2009.

TransCore also reported that spot freight loads for dry vans and reefer vans were each down 8 percent in July compared to June, with flatbed availability down 17 percent.

While some of the sequential declines are seasonal, other indices, such as the American Trucking Associations Tonnage Index and the Cass Freight Index, are also showing sequential declines, especially compared to a strong first half of the year.

"Due to a tough 2009, all these year-over-year numbers look great," said Lana Batts, a partner at Transport Capital Partners. "One would expect that on an annual basis, even though some numbers are trending down month-over-month. Based on numbers from different indices, the peak for tonnage and spot market freight seems to be May."

Batts said that many carriers are not as optimistic as they once were about volumes. She said that most carriers are not seeing volumes decline, but instead, they appear to be settling in.

—Jeff Berman, Group News Editor

A framework for securing goods across the supply chain

INDUSTRIES FROM COMMUNICATIONS and high tech to pharmaceuticals and consumer goods are more global and fragmented than ever—with growing numbers of widely dispersed suppliers, suppliers' suppliers, contractors, sub-contractors, business partners, and third parties. Supply chain complexity is the inevitable result, and supply chain security is among the most prominent concerns.

Companies may have varying conceptions of what supply chain security means, but the term can broadly be defined as the ability to move products through design, sourcing, procurement, manufacturing, warehousing, and transportation without tampering or the introduction of inauthentic components.

Another general observation is that most entities approach supply chain security more or less as they did in years past—when less scope and less complexity meant fewer and simpler security concerns. For example, many companies continue to maintain highly centralized control over supplier selection and management, and they often use internal audits as the principal defense against substandard quality and counterfeit parts. And rather than "do it themselves," more than a few rely mainly on supply chain partners to protect against security breaches.

Practices such as these are increasingly unviable. However, a different, more-structured approach is needed to identify and mitigate key areas of risk.

For companies seeking a slightly higher degree of visibility at this end of the complexity-criticality continuum, an emerging option is the use of third party auditing or rating services to monitor suppliers.

BUILDING A SECURE SUPPLY CHAIN

Supply chain security issues basically segment themselves into internal and external. External dangers naturally are more visible and palpable, with extreme but not uncommon cases including accidents or illnesses suffered by consumers due to substandard quality control or the illicit introduction of improper materials or ingredients. Of course, external damage dramatically affects the internal health of a company in the form of costly brand damage, recalls, litigation, productivity losses, engineering rework, and design changes.

A second distinction is complexity versus criticality. Thinking in terms of a "complexity-criticality continuum" allows supply chain and risk management decision makers to select investments that are appropriate to the issues they face.

As shown in the graphic, one end of such a continuum would be low complexity and low criticality—a point where most organizations already have many necessary tools in place. Rigorous sourcing processes with requests for proposal that evaluate long-term quality and regularly scheduled audits are generally adequate for products in this category. Technology investments also may not need to be dramatic. In fact, electronic data interchange and similar connections with suppliers and logistics services providers—coupled with savvy sourcing and procurement performance metrics—are typically sufficient.

For companies seeking a slightly higher degree of visibility at this end of the complexity-criticality continuum, an emerging option is the use of third party auditing or rating services to monitor suppliers.

At the other end of the continuum, more significant investments in process and technology are needed. These investments typically fall into two categories. First, product pedigree solutions provide serialized tracking of components

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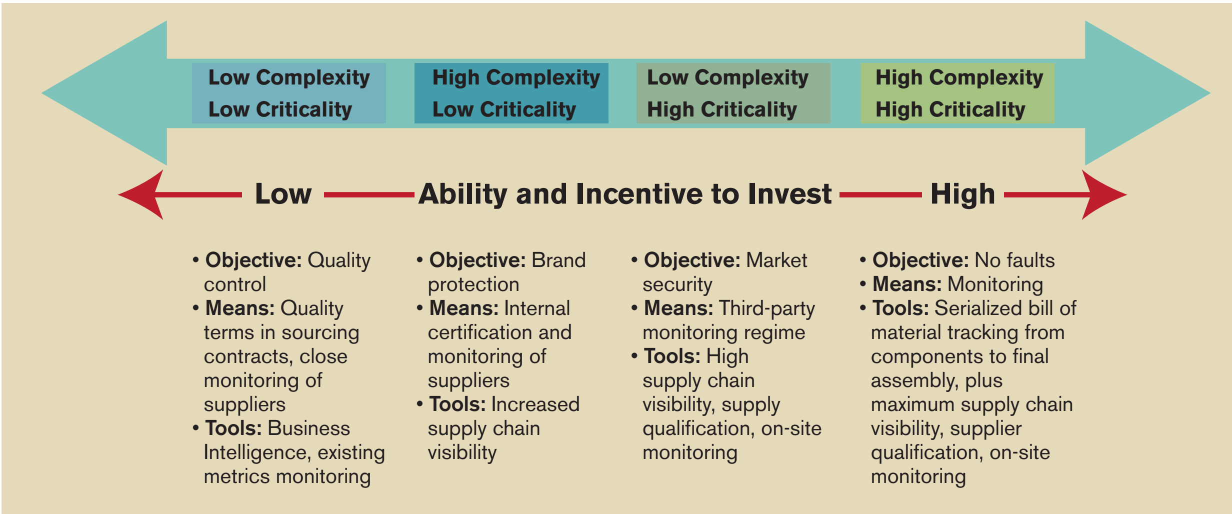

A complexity/criticality continuum for implementing supply chain security measures.

and finished goods. These solutions link components and subcomponents to their sources, while providing overall visibility through a centralized data repository. Examples include "e-pedigree" in pharmaceuticals and the Item Unique Identification (IUID) program used by the United States Department of Defense.

Second, track-and-trace capabilities are technologies and processes for continuously monitoring the physical location of goods through the supply chain. By using auto-ID systems such as RFID and telematics, track-and-trace offers high levels of clarity at the facility or even the shelf level.

Third parties also may be part of a solution for increasing supply chain security. For example, contract manufacturers, logistics services providers, and technology services companies can provide, analyze, and aggregate information to reveal the source and location of materials and components. Moreover, supply chain security can be outsourced to organizations whose specific expertise includes track-and-trace technology. As part of their responsibilities, these providers audit the supply chain with tools that monitor transactions and physically track goods.

NEW CHALLENGES MEAN NEW SUPPLY CHAIN SECURITY APPROACHES

Few companies dispute the need for security measures that adequately ensure a product's safe and proper use while protecting the organization's reputation and profitability. However, it is important to reiterate that the downsides associated with security failures are higher than ever and the benefits considerably larger—reduced costs, higher margins, more available working capital, less unsalable inventory, fewer returns, and lower field service costs, to name just a few.

To achieve these milestones, a new approach to supply chain security—potentially based on the framework introduced herein—may be in order. For many companies, the key will be tying investments to an item's criticality and the complexity of its design, rather than to what is convenient or (worse) traditional. ☐

Petco strengthens the network

"We eliminated materials handling inefficiencies associated with using third party warehousing and we have a better cost structure across the network than we did before..."

—Mike Fernstrom, director of DC operations

GETTY IMAGES/GARY PAYNE

With its new DC, the pet retailer has reduced its handling costs, bolstered its green transportation initiatives, and fortifies its overall distribution network—all while providing room to grow.

The new 506,000 square foot distribution center (DC) in Braselton, Ga.

FEATURE PHOTOS BY DAN WATTS

BY **BOB TREBILCOCK**, CONTRIBUTING EDITOR

With more than 76 million cats, 62 million dogs, and 9 million aquarium owners, Americans love pets. Over the past 45 years, Petco Animal Supplies, Inc. has built a national brand as the place where pets and their owners go, helping more animals to live long and happy lives. Today, the San Diego-based retailer has a footprint in all 50 states, with more than 1,000 stores and a growing e-commerce business.

To support the company's growth, Petco partnered with TGW Systems to design and implement the materials handling system in its new 506,000 square foot distribution center (DC) in Braselton, Ga. The facility, which went live in June 2008, services 237 stores in 13 states in the Southeastern and Southwestern U.S.

According to Mike Fernstrom, director of DC operations, the new Southeast location, coupled with the capabilities of the new system, has allowed Petco to reduce its handling costs, bolster its green transportation initiatives, and strengthen its overall distribution network—all while providing room to grow.

First, the DC's new system is flexible enough to handle a wide variety of products—everything from accessories that fit easily into a carton and can be automatically conveyed and sorted to non-conveyables like pallets of dog food, animal crates, and furniture. It can also process an estimated 5 million units per month for store replenishment as well as direct-to-consumer orders from a 70,000 square foot area dedicated to piece picking for dot.com fulfillment.

Second, locating the new distribution center in the Southeast delivered a couple additional strategic logistics benefits. During 2008, the year the facility went live, Petco drivers traveled 900,000 fewer miles, saving 135,000 gallons of diesel, furthering the retailers "Going Green" initiative.

And by being closer to the markets it serves, the project drove further transportation efficiencies because Petco was now able to convert over-the-road truck routes to southern Florida and Texas to intermodal.

"Not only have we reduced our cost per case, but the cost to operate our overall network has gone down as a direct result of the capacity we added in Braselton," says Fernstrom. "We eliminated materials handling inefficiencies associated with using third party warehousing and we have a better

Petco installed break pack, or split case, picking modules and picking methodologies, like ring scanning, to build store-ready mixed SKU pallets by stocking zones in a store.

cost structure across the network than we did before Braselton."

ADDING CAPACITY

According to Fernstrom, Petco's continued growth was the driving factor behind the new distribution center. The retailer currently operates a network of 10 distribution centers. Along with the new Braselton DC, Petco has three other full assortment distribution centers, including Monroe, N.J.; Joliet, Ill.; and a West Coast operation.

The remaining regional facilities are smaller in size, ranging from 50,000 to 90,000 square feet, are located close to the markets they serve, and stock fast-moving items like pet food and litter for quick replenishment.

Prior to building the facility in Braselton, stores in the Southeast and Southwest were serviced by the New Jersey and Illinois facilities. All three full assortment DCs were filling dot.com orders as well. "As our business grew, we ran out of space," says Fernstrom. "To keep up with growth, we were using public warehousing for our year-round surplus storage and 3PLs for seasonal business."

That was inefficient and expensive. In 2007, Petco conducted a network study and concluded that it needed a full assortment DC in the Southeast. Beyond getting a footprint in Georgia that would optimize the network, Petco had several goals for the new facility.

One was to leverage the investment in materials handling automation and get volume out of the building by moving the growing dot.com business to Georgia. "We were doing direct-to-consumer order fulfillment from all three of our full assortment DCs," says Fernstrom. "We decided to consolidate that business in the new facility and operate Joliet as a contingency operation in case Braselton has a maintenance issue."

Another key requirement was to install break pack, or split case, picking modules and picking methodologies to build store-ready mixed SKU pallets configured by stocking zones within the stores they were going to be delivered to. "We did not have pick modules in our other buildings, so the totes had a mix of products that had to be sorted in the store before the product could go on the shelf," says Fernstrom. "With the new system, we can pack totes and build pallets with products that are specific to a zone or departments in a store. That saves a lot of time on the other end."

A final objective was to optimize Petco's transportation network. By being closer to the stores it serves than New Jersey and Illinois, the retailer was able to shave thousands of miles from its delivery routes. The transportation department was even able to save more miles by converting some truck deliveries to rail.

BRINGING INTEGRATION TO THE TABLE

One of the challenges of the new facility was the aggressive timeline for the project. The design process began in October of 2007, the implementation began in April 2008, with the first receipts coming in July and the first deliveries leaving the building in August.

"Once we made the decision to build a facility that would take us into the next generation, we wanted to get the capacity online before the next holiday season," says Fernstrom. "We were handling product multiple times, either in external buildings or because we had to consolidate our reserve storage on a daily basis just to make room. We had to get this done."

According to Fernstrom, that's where TGW Systems played a vital role. Although Petco was responsible for the overall design of the facility, he says its system provider was a strong partner throughout that process. TGW was also responsible for manufacturing the

The new location in Georgia is closer to markets in the Southeast and Southwest, saving 900,000 transportation miles a year.

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conveyor, racking, mezzanines, and sortation equipment and integrating the warehouse control system and picking technologies.

A key component to the overall design was the NBS 30 Turbo narrow belt sorter that can sort 120 cartons per minute with an extremely mixed product size. The sorter is 600 feet long with 18 diverts. With its modular design, the sorter will allow Petco to easily add new divert lanes in the future as business expands.

"The narrow belt sorter gave us sliding shoe capabilities but with a faster implementation time and a much lower cost," says Russell Pace, sales manager for TGW's integrated systems group. With just three 15 horsepower motors required to drive the system, the sorter is also 30 percent more energy efficient than a sliding shoe sorter with comparable throughput.

Another key feature is a cartonization function within the warehouse control system (WCS). The WCS profiles orders to determine how many cartons will be required to complete each order.

A zone skipping feature allows the facility to route a tote anywhere in the break pack piece picking modules to make sure that the right SKUs are picked to a tote to meet the goal for store-ready totes and pallets. "That functionality was absolutely the right thing to do in order to meet that goal," says Fernstrom.

Finally, Petco took advantage of a variety of picking technologies, all directed by the facility's warehouse management system. Piece picking in the 3-level break pack mezzanine, for instance, is directed by pick-to-light. Associates in the three full-case pick modules use voice technology to work in a hands free/eyes free environment. RF directs some of the picking in the dot.com area.

To keep the system up and running, TGW provides ongoing software maintenance for the conveyor and pick-to-light systems. "Our technicians can dial into the system for 24/7 support," says Pace.

HOW IT WORKS

The Braselton facility brings together a variety of technologies that minimize handling and reduce costs, starting at the receiving dock.

There, Petco receives against a purchase order. Full pallets of a single SKU, like dog food, are ready for putaway once

Petco's Braselton, Ga., DC: System snapshot

THE 506,000 SQUARE FOOT BRASELTON DISTRIBUTION center brought together an innovative design and energy saving automated materials handling equipment from TGW Systems to handle store replenishment in the Southeastern U.S. as well as direct-to-consumer dot.com fulfillment.

The facility manages an estimated 13,000 stock keeping units (SKUs) and handles an estimated 5 million units per month. Features of the system include:

Break pack "piece-pick" module

The break pack system is served by a conveyor system designed to route totes to active pick zones at a rate of 1,500 totes per hour.

24 pick zones

8 zones per level
3 levels high

12 carton flow bays per pick zone

4 shelf levels per bay
6 SKUs per shelf level

2 static shelving units per pick zone

5 shelf levels per unit
6 SKUs per shelf level

Three full case pick modules

In total, the full case pick module area features 1,584 static locations and 1,584 pallet flow locations, for a total of 3,168 full case locations. The system supports throughput of 1,800 cases per hour per module, or a total of 5,400 cases per hour.

- 88 bays per level
- 3 levels high
- 2 pallet positions per bay
- 6 static positions per bay on the floor level only

Shipping Sorter

The induction, scanning, and sortation system supports throughput of up to 120 cartons per minute/7,200 per hour.

- Automated merge of 4 module accumulation lines and a sorter recirculation line
- 16 dedicated shipping lanes
- 1 dot.com sort lane
- 1 exceptions lane

Dot.Com

The 70,000 square foot dot.com area supports Petco's growing direct-to-consumer business and features:

- 8 sort lanes with a put-to-order pack out system
- dunnage and taping area
- parcel scale and manifesting

A high speed conveyor and narrow belt shipping sorter handles 120 cartons per minute with mixed sized products.

a UPC barcode has been scanned and validated. An overseas shipping container, on the other hand, may have product from several dozen POs and may contain hundreds of SKUs. Those products will be sorted and palletized by SKU. The WMS will then create a license plate barcode label that is applied to a pallet and scanned.

Lift truck operators are directed by the WMS to store pallets in single deep pallet rack. The WMS also directs replenishment. Full case modules with two-deep pallet rack are replenished by a reach truck operator, while break pack modules are replenished from a man-aboard truck. Orders for store replenishment drop from an order management system into the WMS. The system then creates waves of orders to be picked for a group of stores for that day.

In the full case pick zone, an associate receives a stack of labels that are sorted in bin sequence. The associate applies a label to cases as they're picked and then places the cases on the take-away belt conveyor. After the barcode is automatically read at the sorter induction point, a carton is diverted to a shipping lane. There it will be palletized, stretch-wrapped, and staged for delivery.

In the break pack picking modules, the associate starts the picking process by applying and scanning a label on a tote. The pick-to-light system identifies the items and quantities for each pick in that associate's area. Once the picks have been completed for that tote, it's placed on a takeaway conveyor and routed to the next pick zone. After the final pick, the tote is closed and conveyed to an induction point for the sorter.

After the label is scanned, the tote is sorted to the right shipping lane, where it will be palletized, stretch-wrapped and staged for delivery.

Non-conveyables are picked by order selectors using pallet jacks with 96-inch forks. Wearing voice headsets, they are directed to a pick location and told by the system how many pallets to pick. They confirm the pick by speaking a check digit into their headset. Pallets are then delivered to the stretch wrapper, where they are wrapped and staged for delivery.

Items for dot.com orders are picked in a break pack module and are then conveyed and sorted to a pack station for direct-to-consumer orders. There, multi-line orders are packed together into a single shipping container. Dunnage is added and the cartons are taped shut for shipment.

Dot.com orders may also include items from the full case area, as well as non-conveyables like pet food, animal cages, and furniture. Those are delivered to the shipping area where they are manifested with the appropriate shipping paper and are shipped out.

FINE TUNING

One year after the system went live the system provider performed a facility assessment to insure that the system was meeting its goals. The result: Petco discovered that some new products weren't within the original design specifications.

Instead of being read by the barcode scanner, they were being diverted as misreads to a quality check station where they were manually audited. TGW installed new photo eyes to pick up the new products. In addition, Petco worked with the provider to reduce the number of pallet sizes it was handling from three to two to drive further efficiencies.

Approaching the two-year anniversary of going live, Fernstrom says the system has been a success. "We have been able to sort totes by the stocking zone in the store from day one," he says. "Since then, we've implemented that same process in our other DCs and are able to do that across the company."

Most important of all, Petco is bringing down its handling costs while providing room to grow. □

Bob Tebilcock is a Contributing Editor to Logistics Management

A cartonization function in the warehouse control system profiles orders to determine how many cartons are needed to fill the order.

2010 MASTERS OF LOGISTICS STUDY

Efficiency remains TOP PRIORITY

The findings of our annual study reveal that shippers have not significantly changed how they manage their logistics and transportation activities over the past year. However, we find that the Masters are moving to a more defined organizational structure and are putting more 3PLs to work to help them gain significant cost advantage once the recovery finally kicks in.

BY **MARY COLLINS HOLCOMB**, PH.D., ASSOCIATE PROFESSOR, UNIVERSITY OF TENNESSEE, AND **KARL MANRODT**, PROFESSOR, GEORGIA SOUTHERN UNIVERSITY

Last year we reported that the economy had leveled the playing field for all firms with respect to competitive advantage that can be built through transportation and logistics. In essence, the significant performance and organizational structural differences between the Masters (firms with sales greater than $3 billion) and other firms that was built from 2006 to 2008 was largely eroded as the economy slid into a global recession in 2009.

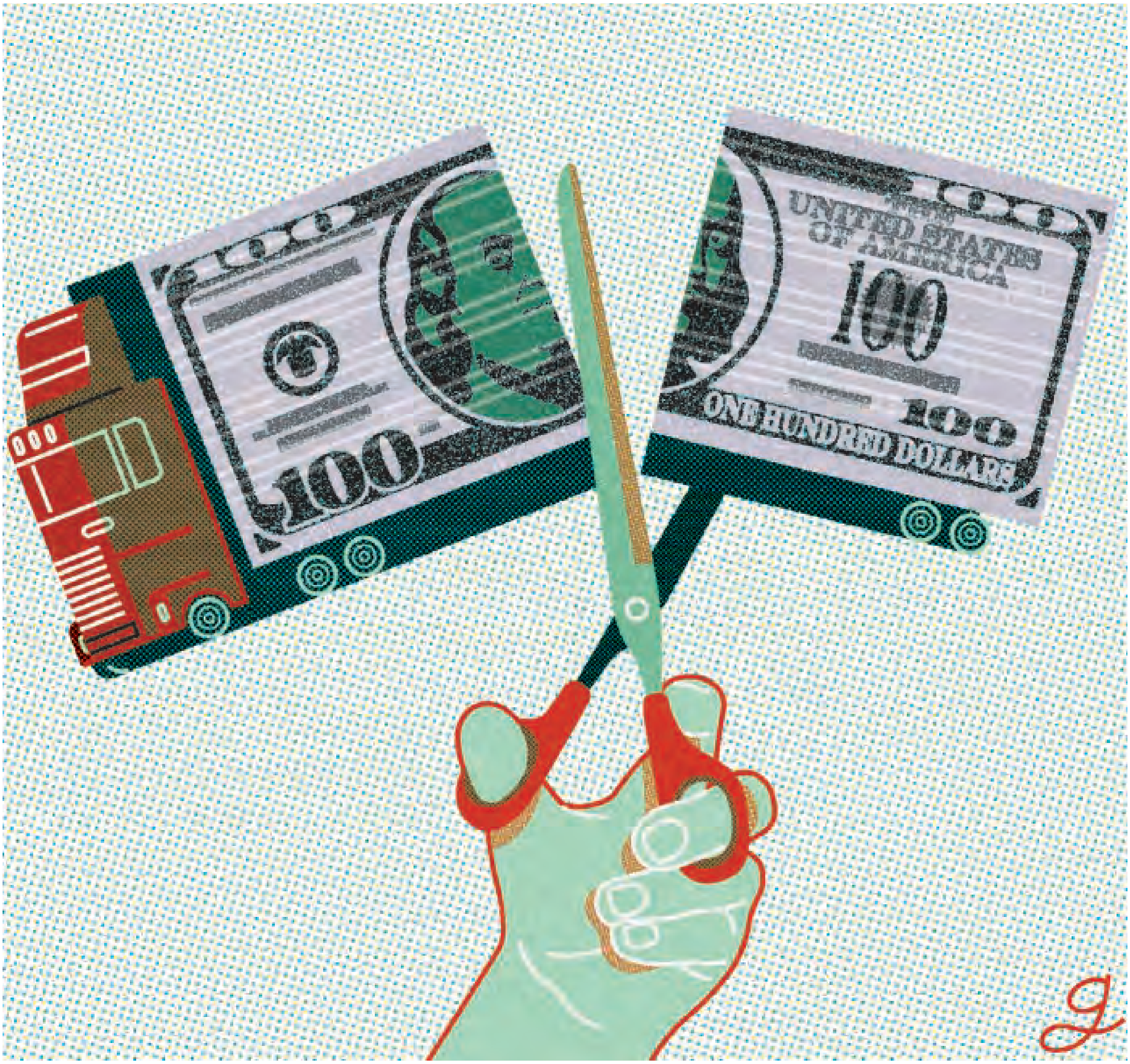
The main focus for every firm became surviving the difficult economic times, and many began an unrelenting quest to reduce costs across all areas including transportation and logistics. The advent of 2010 brought hope and anticipation that the economy would begin its recovery from the recession; but to date, the economic signals have been mixed.

This uncertain environment is also reflected in transportation and logistics practice across firms of all sizes according to the results of the *19th Annual Study of Logistics and Transportation Trends (Masters of Logistics)*. In short, shippers report that they have not significantly changed how they manage these activities, and reducing costs remains the primary objective. A deeper look at the study results suggests, however, that while the playing field remains on equal ground relative to transportation, this may only be an intermediary gear for the true Masters of Logistics.

TRANSPORTATION IN A RECOVERING ECONOMY

For the past 19 years the *Annual Study of Logistics and Transportation Trends*, also known as the *Masters of Logistics*, has identified emerging trends in the field of logistics and has provided benchmarking data on transportation performance and expenditures. As it has been done in years past, the research was conducted by Georgia Southern University and the University of Tennessee in partnership with *Logistics Management*. This year's partners also include Celerant Consulting and Jones Lange LaSalle.

More than 800 domestic and global logistics, transportation, and supply chain professionals participated in this year's study and account



Daniel Guidera

for an estimated $36.5 billion in transportation expenditures and over $17.4 billion in international transportation. The companies represented in the analysis range from small to very large. To offer a sampling, 39.9 percent of respondents reported that their companies have less than $250 million in annual sales, while 23.2 percent of the respondent pool reported that their companies' annual sales were greater than $3 billion. We define this latter group as the Masters of Logistics.

More than fourteen industry sectors from energy/chemical/mining to retailing participated in this year's study with the core group of participants falling in the manufacturing sector (53.8 percent). General manufacturing and consumer products represented the largest sub-sectors of this group (25.3 percent and 15.3 percent, respectively). The next largest sector participating in this year's study is transportation service providers, accounting for 13.2 percent of the total participants.

A key measure for the past several years has been transportation spend as a percent of sales. In North America, domestic transportation spend as a percent of sales increased every year from 2004 to 2008. As the economy began to weaken in 2008, the percentage of firms spending more than 5 percent of sales on domestic transportation dropped significantly from the previous year.

This trend did not continue, however, as the percentage of firms spending more than 5 percent of sales on domestic transportation rose slightly in 2009. The increase in spending has continued in 2010, with 22.6 percent of firms spending more than 5 percent of sales on domestic transportation as compared to 21 percent in 2009. The data also point to a shift in increased spending on transportation as indicated by a larger percentage of firms that are spending between 1 percent to 2 percent and 2 percent to 3 percent of sales on transportation.

Further analysis indicates that significantly more small firms spend greater than 5 percent of sales on domestic transportation than medium- or large-size firms (the Masters). Relative to international transportation, however, small firms spend less than 1 percent of sales on this activity as compared to the majority of Masters who spend greater than 5 percent.

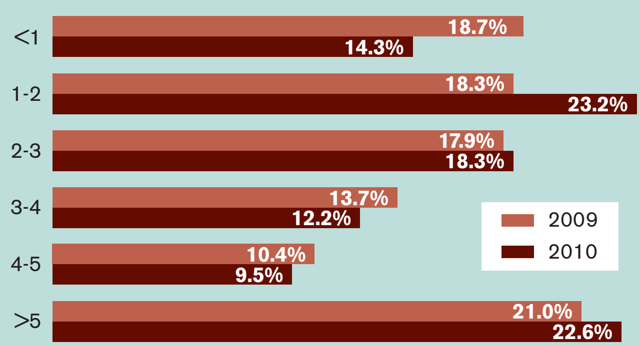
The results suggest that while transportation has been a prime target for cost cutting over the past 18 months, companies may have reached the limits in pursuing this activity for additional savings. Instead, the study findings indicate that firms have taken actions over the last 12 months to improve transportation efficiency and/or effectiveness.

The top initiative for 2010 was improving carrier tracking. In fact, 62.1 percent of respondents reported that they had completed this action or were in the process of implementation. This was followed by improved shipment consolidation (60.5 percent of study participants) and improved route planning (52.1 percent). Improved carrier tracking and shipment consolidation were also the top initiatives for 2009 suggesting that more firms have realized the benefits that can be gained from these actions.

Interestingly, study participants reported that of all the actions that were taken in the past 12 months to improve efficiency, the increased use of intermodal shipments had the greatest impact on the firm. This was one of the top three initiatives last year that had been undertaken by the Masters in contrast with

Transportation spend as a percentage of sales

Percentage of respondents



Source: 19th Annual Study of Logistics and Transportation Trends

other, smaller firms. It appears that this effort has achieved the desired results; however, making the move to more intermodal did not make the top five list for 2010. In fact, 45.7 percent of respondents noted that they were not planning to increase intermodal shipments.

Study results show that improved carrier tracking, improved shipment consolidation, increased use of dedicated transportation, and reduced emergency or special shipments has also enabled companies to realize direct and quantifiable benefits. Combined with the increased use of intermodal shipments, these initiatives have resulted in lower administrative costs, a reduction in transportation and inventory costs, and more accurate accountability to promise in the average range of 5 percent per initiative.

Just as important as the actions taken to improve efficiency and effectiveness is the list of initiatives that companies are not planning. Reducing service levels—either in transportation and customer service—is not being considered. In addition, companies are not planning on increasing the amount of freight that is "spot" bid or converting pre-paid freight to collect (59.8 percent and 54.8 percent, respectively). Also not on the horizon is more use of "green" carriers.

MODAL EXPENDITURES REFLECT PURSUIT FOR EFFICIENCY

Truckload (TL) continues to be the dominate mode for moving freight in 2010, accounting for 27.2 percent of the total budget, followed by private transportation at 15.8 percent. This represented a sizeable increase in the domestic transportation spending for private fleets (37 percent) and a moderate decline for TL (15 percent) when compared to 2009.

TL and LTL (both national and regional) captured the vast majority of freight expenditures at 46.1 percent of total spend. In 2009, TL and LTL expenditures represented 53.9 percent of the budget. The shift of freight from these modes to private fleets, rail, and ocean reflects the continuing pursuit to reduce costs in an uncertain economy.

From 2009 to 2010, transportation spending on rail more than doubled and ocean increased by 26 percent. Both of these modes, however, account for small portions of the overall transportation budget. It's interesting to note that transportation spend for intermodal remained essentially unchanged from the previous year. Transportation spending for small package carriers increased by 27 percent from 2009 to 2010, reflecting strong growth in direct-to-consumer shipping as Internet sales continue to grow.

SHIPPERS BECOME MORE SOPHISTICATED

There is little argument that transportation has become increasingly more complex to manage and control. The ability to achieve the desired efficiency and effectiveness improvements has depended by and large on the use of more sophisticated tools and techniques for strategic, tactical, and operational decision making.

The study data suggest that if this

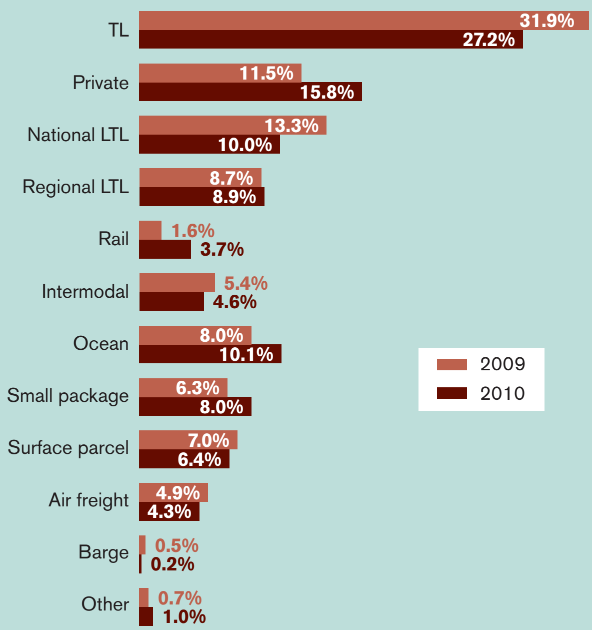
is true, there is a large number of firms that are using a less optimal approach to managing transportation. Commercially purchased software—either part of the enterprise resource planning (ERP) system, "best-of-breed," or Software as a Service (SasS)—is being used by 33.7 percent of the study participants in 2010.

While this represents an increase from 2009, a large proportion of companies are still using manual/spreadsheets and software developed in-house to manage transportation and logistics activities. The bright spot in this year's results is a decline in the use of manual/spreadsheets and a shift towards commercially purchased "best-of-breed" software as well as more companies taking advantage of the technology offered by their third party providers.

Study participants were asked how many transportation applications their firm uses to manage transportation. For domestic transportation, the median number of tools was 35, with approximately 36 percent using 15 or fewer applications. The majority of respondents expect this number to remain the same over the next year while some 39.5 percent anticipate that they will increase the number of transportation applications.

Allocating freight dollars

Percentage of transportation budget



Source: 19th Annual Study of Logistics and Transportation Trends

The large number of applications makes it very difficult to achieve the level of visibility that's needed for the seamless flow of data and information in a supply chain as the integration effort increases significantly with each additional application. By comparison, international transportation is much more streamlined with an average of 13.4 applications. This year, 63 percent of companies expect the number of applications for managing international transportation to stay the same over the next 12 months.

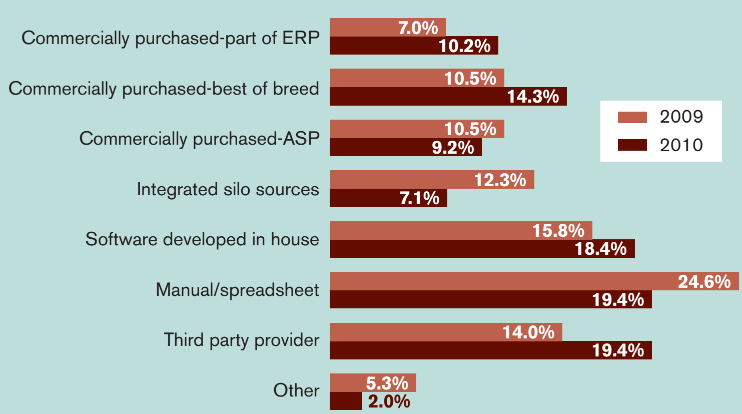
MIXED SIGNALS ON TRANSPORTATION PERFORMANCE

As part of the annual study, five performance measures—on-time delivery, correct invoice, damaged shipments, equipment availability, and turndown ratio—are tracked for selected modes of transportation including TL, national LTL, regional LTL, rail, and intermodal.

The study results show that all the modes, except for TL, maintained on-time delivery performance equal to or slightly better than the previous year. TL reported a decline in on-time delivery from 97.2 percent (in 2009) to the current 91.9 percent, representing a 5.5 percent drop in service. Damaged shipments and equipment availability remained at basically the same levels as last year with the exception of rail. Damaged shipments for rail increased dramatically, rising from 1.1 percent in 2009 to 7.8 percent in 2010. During the same time period, equipment availability for rail declined by 6.3 percent.

The most noteworthy change in performance is the turndown ratio. All the modes reported a significant increase in the total number of "shipments declined" per the total number of "shipments offered." The turndown

Opportunity for improving transportation management



Source: 19th Annual Study of Logistics and Transportation Trends

Performance gains and losses

	TL		National LTL		Regional LTL		Rail		Intermodal	
	2010	2009	2010	2009	2010	2009	2010	2009	2010	2009
On-time delivery	91.9	97.2	93.2	92.8	94.6	94.4	85.4	86.0	91.9	NA
Correct invoice	95.2	97.3	94.8	93.1	93.2	93.7	91.1	96.0	95.5	NA
Over/short/damaged shipments (OSD)	1.9	1.1	3.7	3.2	3.2	3.2	7.8	1.1	3.0	NA
Equipment availability	95.7	96.5	98.0	97.7	97.9	97.1	90.7	96.8	95.8	NA
Turndown ratio	4.9	1.1	6.0	1.0	5.8	0.5	9.5	1.0	6.2	NA

Source: 19th Annual Study of Logistics and Transportation Trends

ratio data suggest that carriers are carefully considering each freight move and its potential impact on operations and finances. It's anticipated that as the economy continues its recovery, capacity will remain tight leading to an even larger increase in the turndown ratio.

HOW ARE THE MASTERS DOING?

However, the study results suggest that the current "neutral gear" is just a transitional state for the Masters of Logistics. The Masters (shipper respondents from companies with sales greater than $3 billion) tell us that they're moving to a more defined logistics and supply chain organizational structure than other size firms.

They also extensively use cross-functional teams for managing transportation and logistics activities. An example would be procurement and inbound transportation that meets regularly to discuss strategic issues for both areas as opposed to other size firms where procurement decisions drive inbound transportation execution.

The study findings imply that the organizational changes have enabled the Masters to improve performance relative to supply chain velocity (as measured by inventory turns) and customer service. In addition, policy decisions for the Masters are becoming more centralized across a variety of activities including raw materials and finished goods inventory, packaging, and managing freight forwarding relationships.

Last, but certainly not least, unlike other size firms the Masters have shifted more services and volume to 3PLs over the past year. Other firms tell us that they're not even planning to implement this action. All of this suggests that the Masters are making modifications at a level that will ultimately have a profound impact on how transportation activities are conducted and managed. Indeed, it can be argued that these changes will position them to build sustainable competitive supply chain advantage as the economy emerges from the recession.

The top initiative for 2010 was improving carrier tracking. In fact, 62.1 percent of respondents reported that they had completed this action or were in the process of implementation.

One of the first fundamentals that we teach students at our respective universities is that transportation is a derived demand. It's the global economic engine that drives the need for transportation services.

Therefore, given the current uncertain state of the world economy, it's not surprising that transportation, and to a certain extent logistics, is also stuck in neutral gear. This year's results indicate that almost half of the companies in the study have a mixed strategic approach. In fact, they're being tasked with being both cost and service driven.

The last 18 months can be characterized as having a heavy emphasis on cost reduction and maintaining service levels. History has shown that in good economic times, we tend to tip the scales towards service with due consideration to cost. The interesting part is yet to come: What changes will occur when the economy fully recovers? What things will remain the same?

The ultimate question will be: What did we learn from managing transportation and logistics operations during the most difficult time of our professional careers? ☐

—Mary Collins Holcomb, Ph.D., and Karl Manrodt are frequent contributors to Logistics Management

2010 Ocean Roundtable: CLOSE QUARTERS

Dwindling space and risings rates have caused major disruptions for U.S. importers over the first half of 2010. How long will these challenges persist on the high seas? We've asked a couple experts to explain what ocean shippers can expect for the rest of this year.

BY **PATRICK BURNSON**, EXECUTIVE EDITOR

As *Logistics Management* has been documenting over the first half of 2010, ocean shippers have been scrambling for space due to a global shortage of containers and are getting squeezed for higher rates when they find it.

So, what can ocean shippers expect to face during the final quarter of this year and how do they need adjust their planning heading into 2011? We've asked ocean shipping and global trade insiders Michael Berzon and Jon Monroe to shine a little light on ocean rates, capacity, and trade trends—a few of the more perplexing challenges facing global shippers today.

A long time ocean shipper, Berzon is the ocean transportation committee chair of the National Industrial Transportation League (NITL). Jon Monroe is president of Jon Monroe Consulting, a firm specializing in helping shippers optimize their overseas trade lanes. Here's what these two men in the trenches had to say about the current conditions on the high seas.

Logistics Management:* *This has been a disruptive year for shippers in the Transpacific. What do you regard as the most challenging aspect of doing business in this trade lane?

Jon Monroe: The most frustrating part was the lack of adherence to contract terms by the carriers. This challenge affects the ocean freight rates and space commitments that are so important to a consistent and reliable inbound program. The carriers' freewheeling market share approach to contracts is what took rates down in the first place. But the real frustration was the lack of communication and the lack of a real partnership.

Michael Berzon: Jon's correct. And it should also be noted that the carriers in the transpacific eastbound routes grossly underestimated the volume surge that occurred in late 2009 and early 2010. This forecasting miscalculation, along with the consequent lack of capacity, caused major disruptions to U.S. importers. The carriers' insistence on repeatedly raising rates and surcharges in the eastbound leg and their decision not to add capacity until the eastbound volume became sustainable were shown to be poor business decisions.

LM: Do you think there might be a ripple effect in the westbound transpacific trade? After all, the carriers did eventually add capacity in the transpacific market, although it didn't do much for the U.S. exporters.

Berzon: That's the entire point. In light of President Obama's challenge to double U.S. exports in five years, shippers largely shipping heavy agricultural products in containers encountered great difficulty finding the equipment and space necessary in the Pacific Rim outbound lanes. The ships were weighing out before cubing out and therefore could not reposition sufficient containers to satisfy the eastbound leg demands.

LM: On top of these disruptions, what regulatory changes should shippers keep their eyes on as we head into 2011?

Monroe: Everyone is still grappling with C-TPAT and new risk assessment rules. I think Michael and his constituents at the National Industry Transportation League (NITL) are staying on top of this.

Berzon: We're certainly doing our best. We're also looking

Daniel Guidera

hopefully to the end of carrier price-fixing. The removal of the limited ocean carrier anti-trust immunity seems to be gaining support. During the NITL's Washington Freight Transportation Policy Forum, Congressman Jim Oberstar (D-MN), chairman of the U.S. House of Representatives' Transportation and Infrastructure Committee, announced that in response to practices by ocean liner carriers serving the U.S. trades, he would propose legislation ending the limited anti-trust immunity that remains in effect.

Currently, it permits the ocean carriers in the U.S. trades to join in discussion agreements where they can discuss rates and capacity issues. If enacted, the end of the limited anti-trust immunity would follow the action taken by European regulators. The recent elimination of the EU Block Exemption prohibits consultation by groups of carriers to discuss rates in the European trades.

LM: ***Do you have any concern about the dockside labor and "clean trucks" issues?***

Monroe: While the concept of clean trucks in and of itself is not a bad notion, it reduced the number of trucks in Southern California at a time that demand outpaced supply. The big issue of concern now, however, is how carriers and truckers will address the new chassis policies. This will be the nightmare for 2011.

"The carriers' freewheeling market share approach to contracts is what took rates down in the first place. But the real frustration was the lack of communication and the lack of a real partnership."

—Jon Monroe

Berzon: That's correct, Jon. Most importers and exporters are in favor of reduced emissions. The Ports of Los Angeles and Long Beach have achieved great success in implementing their clean truck programs and should be recognized for their efforts. Several other ports have followed these examples and have embraced the concept.

LM: ***But isn't there some worry about having the Teamster's taking over the drayage at these ports?***

Berzon: There certainly is. The Clean and Sustainable Transportation Coalition, that includes importers, exporters, transportation services providers, and logistics industries, is concerned about the "camel's nose under the tent" phenomenon that could negatively affect small businesses and owner operators that move a great deal of U.S. exports and imports.

***LM:* Another issue that seems to be hot now is "near-shoring." Do you believe that this strategy, moving manufacturing and sourcing closer to home, will gain momentum over the next year?**

Monroe: A number of companies

"China is still in its infancy as a consumer market with a growing middle class. So my bet is that China has a lot of room to move into."

—Jon Monroe

have looked at this, and some are moving from China to other countries, but it's not so easy to do. China's labor is among the most efficient in the world. A few years ago, we helped a company migrate from China to Mexico. It didn't work. The concept was simple: Manufacture product closer to the market. However, we found that the labor market could not keep up, and soon the product was 30 days behind schedule. That company is now back in China. Some companies may make the move but we do not see the trend growing at this time.

Berzon: I hear the issue discussed from time to time but it never seems to get enough traction beyond a few manufacturers and assemblers testing the concept. Trouble is, they never take the definitive step. Asia still seems to be the preferred source for most manufactured goods. We hear that labor costs in China are rising, however, we see little volume moving to Mexico or Central America.

***LM:* Like most news sources covering the Panama Canal expansion, we've been busy speculating over**

its potential impact on the flow of trade. Can you help our readers draw a few early conclusions?

Berzon: The expansion will offer U.S. shippers greater flexibility with an all-water East Coast option. Several U.S. East Coast ports are making the necessary moves to widen and deepen channels as well as to ensure adequate air space, such as under bridges, for the larger ships that will start calling on East Coast ports. The issue that cannot be ignored, however, is the great need for repair and expansion of the surface transportation infrastructure in and around those expanding ports.

LM: And while we'll surely see increased cargo flow to our East Coast ports, what new markets are U.S. shippers targeting and why?

Monroe: China is still in its infancy as a consumer market with a growing middle class. So my bet is that China has a lot of room to move into. In 2009, in the midst of a global recession, two things stood out to indicate China is in the midst of a transition. First, the GDP of most cities and the country continued to grow at high single digits. Second, retail sales in the tier one through tier three cities were up 15 percent to 22 percent over 2008.

Berzon: Well, in this case the issue is all about risk and reward. I would say that Eastern Europe deserves closer examination both as a market for U.S. goods as well as a manufacturing and sourcing location. Poland continues to see investments in manufacturing by large multinationals. The transportation infrastructure, particularly roads, was and still is a great cause for concern. This will change over the next several years thanks to large investments in highways. Rail is a good option for regional shipments as well.

LM: China seems to be ramping up its trade with the EU and its Asian neighbors. Will this be bad for U.S. ocean shippers?

Monroe: It all depends. Importers may find themselves competing with European and Asian companies for access to labor and factories. But other than that, I believe that a strong China will be good for everyone

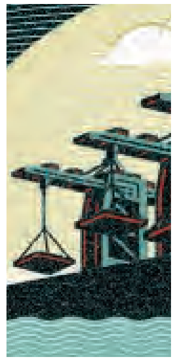
Berzon: Much has to do with the desire and ability on the part of U.S. exporters to jump in and trade. In many cases, this requires knowing the geography of the region. Cultural and language skills are a must. Many exporters have gone overseas thinking they could make a deal in a matter of weeks, or less. This approach does not work in Asian cultures; in fact, it doesn't work that well in many Latin American countries. We need to make sure the next generation of U.S. businessmen and women are multilingual.

LM: Finally, what do you see as the most urgent imperative for ocean shippers regarding contracts? How

should they negotiate with liners next year?

Monroe: I'd like to make the point that the market dynamics may very well have changed for the better. It is too early to tell. The carriers have learned how to control their urges to drop rates, and the lessons learned this year may change the way the carriers view their business. Through 2009, one could say it was really a supply and demand driven market. The lessons of 2010 may very well indicate a shift to more of a controlled market. That said, the most urgent imperative regarding contracts can be addressed by the answer and documentation to one simple question: Will you honor my contract once signed?

Berzon: Ever since the Ocean Shipping Reform Act of 1998 (OSRA), shippers and carriers have had a great opportunity to negotiate what I would call comprehensive service contracts. Barring a few inspired businesses, the majority of shippers and carriers never got beyond time-volume agreements. OSRA provides the opportunity for shippers and ocean carriers to sit down and openly discuss their supply chains and develop healthy, confidential partnerships.



"Asia still seems to be the preferred source for most manufactured goods. We hear that labor costs in China are rising, however, we see little volume moving to Mexico or Central America."

—Michael Berzon

LM: Can you give us a specific example of how this would work?

Berzon: Certainly. One such missed opportunity is cargo liability. Negotiating cargo liability terms (beyond COGSA) was available to shippers and carriers with the enactment of the Shipping Act of 1984. I negotiated several service contracts with non-COGSA liability terms right after enactment of the '84 Act. But now it's time we use the tools that provide shippers and carriers the freedom to negotiate contract terms within the context of a business relationship. The time to do the groundwork for comprehensive service contracts is now. Shippers may be surprised that carriers are ready to move forward. ☐

—Patrick Burnson is Executive Editor of Logistics Management

Cargo insurance
HOW TO RIDE THE

Cargo insurance is the oldest type of insurance in existence, yet it's often the least understood. Whether you are a transportation intermediary or a shipper, here are some cargo insurance buying tips from the unique perspective of an insurance insider.

BY **RICK BRIDGES**

Do insurance underwriters rely on methodology and science to determine pricing or do they just pull numbers out of their hat? Actually, applying a rate to a risk is a combination of both.

Contrary to traditional lines of insurance, marine insurance does not rely on company published rate guides or state filed rates. Pricing is typically based on an insured's loss experience, the relative risk, type of commodity, and geography. But at its core, pricing is ultimately based on the insurance company's level of comfort with you and the risk.

So, if you want better pricing, work with your insurance provider to help make the underwriter feel as comfortable as possible with the risk.

When it comes to negotiating cargo insurance, information about packing details, prior experience, routing details, and loading or transloading should be submitted in your request. The more detail the better. Without sufficient information, underwriters will express their discomfort by way of inflated pricing, deductibles, and restrictive insuring conditions.

For example, An RFP for insurance pricing on $5.5 million of pharmaceutical equipment carried on flat-racks from Houston to Russia will yield a reluctant response. The same RFP that describes the risk as "new pharmaceutical equipment, custom crated, and moisture protected by XYZ Professional Heavy Equipment Packers and supervised by manufacturer engineers to ensure product integrity" will yield a much more favorable response.

In addition to providing information to reassure the underwriter, shippers willing to absorb higher deductibles can typically yield much better pricing. Included in the wide range of deductible options are deductibles expressed as a percentage of the value, flat deductibles per shipment, and per-piece or per-conveyance deductibles. If your company is publicly traded, it's important to consider Sarbanes Oxley accounting rules when designing a deductible structure for outbound freight.

PROTECTING THE SUPPLY CHAIN

While a cargo policy is generally thought of as the answer to insure international transits, it can be expanded to provide coverage for your entire supply chain.

Complex supply chains involving consolidation, temporary warehousing, third party processing, and distribution centers are the norm, and a properly designed cargo policy should extend coverage all the way through to avoid gaps in coverage. This is especially important with concealed damage claims where the loss may not be discovered until the goods are in the hands of your buyer.

One of the most overlooked areas of any insurance is subrogation capabilities of the insurer—this is especially true with cargo insurance. Subrogation is the action the insurer

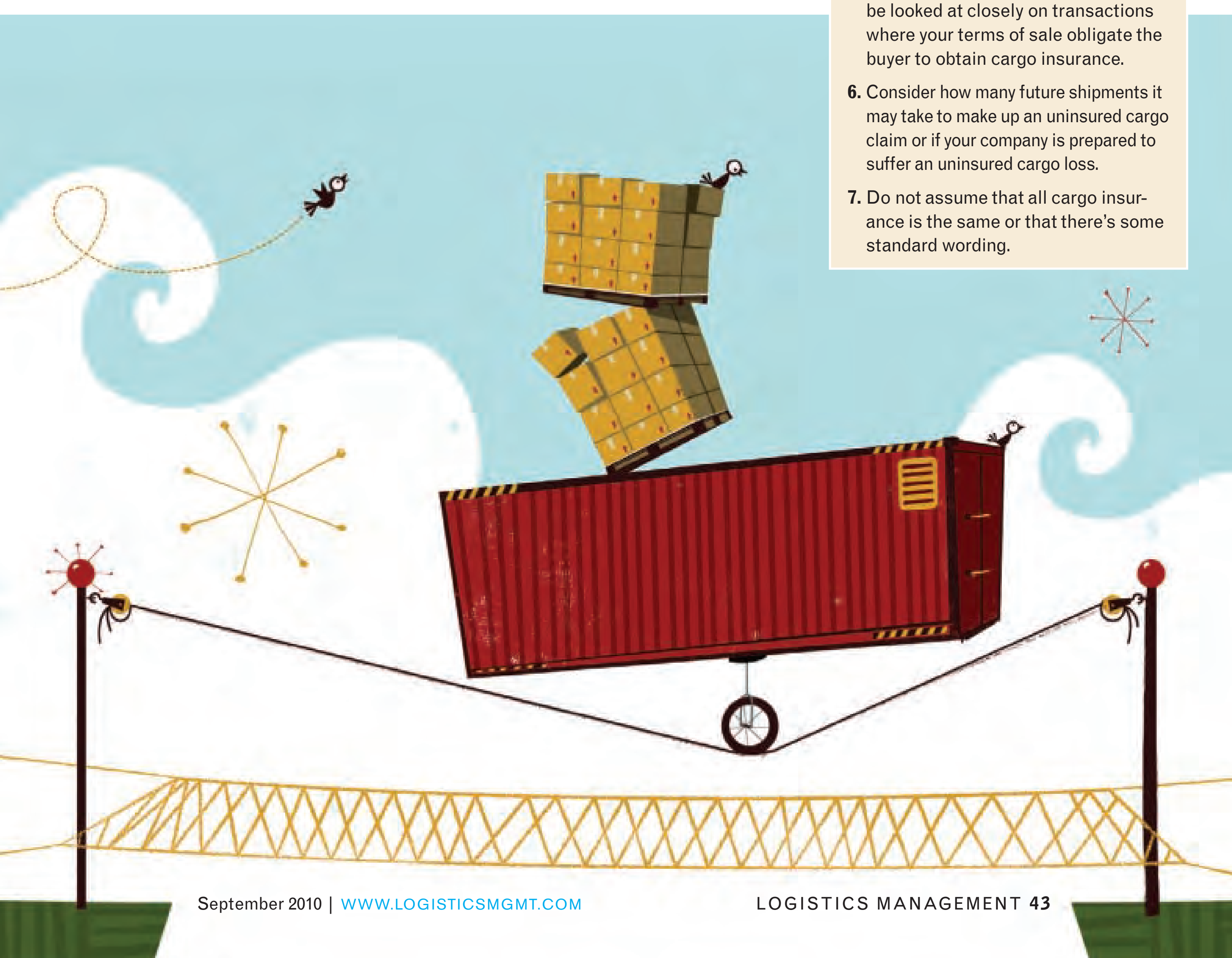
Editor's Note: *In seeking to gain "an insider's guide" to cargo insurance,* Logistics Management *was pointed to Rick Bridges, a director representative of the Coalition of New England Companies for Trade. Bridges has also worked on special projects with the United Nations and other governmental organizations, and has delivered workshops and seminars on behalf of Roanoke Trade Services clients nationwide.*

SHAW NEILSON

& liability: TIGHTROPE

7 Tips for the tightrope

1. When it comes to negotiating cargo insurance, information about packing details, prior experience, routing details, and loading or transloading should be submitted in your request. The more detail the better.
2. If you want better pricing, work with your insurance provider to help make the underwriter feel as comfortable as possible with the risk.
3. If your company is publicly traded, it's important to consider Sarbanes Oxley accounting rules when designing a deductible structure for outbound freight.
4. Subrogation capabilities vary widely with insurers, and ideally you want to be assured that your insurer has a very aggressive subrogation team that will fight to keep your loss ratio down.
5. Open account payment terms should be looked at closely on transactions where your terms of sale obligate the buyer to obtain cargo insurance.
6. Consider how many future shipments it may take to make up an uninsured cargo claim or if your company is prepared to suffer an uninsured cargo loss.
7. Do not assume that all cargo insurance is the same or that there's some standard wording.



A reason to fear the Rotterdam Rules?

THE "ROTTERDAM RULES," ADOPTED LAST September by the United Nations General Assembly, will reflect current shipping practices, cover cargo liability on legs of an intermodal shipment, promote harmonization among trading partners, reduce legal obstacles, and allow shippers, carriers, and third parties to customize contracts to meet commercial needs.

As reported on logisticsmgmt.com, 21 countries, including the United States, signed the Rotterdam Rules within the UN but they will need formal ratification by at least twenty countries worldwide before becoming law. In the U.S., the rules would replace the 1936 Carriage of Goods by Sea Act (COGSA). The European Union, the American Bar Association, and the National Industrial Transportation League, among other groups, have endorsed the new rules.

However, there is no timetable on when the rules would be ratified, and some insurance experts maintain that there's an underlying risk yet to be fully explained.

"Shippers should be concerned about the Rules due to the complications related to two recent Supreme Court cases currently awaiting a decision," says Chris Clott, an adjunct professor at the California Maritime Academy. "The negative impact it could have in the U.S. may be quite substantial."

The two cases include *Kawasaki Kisen Kaisha v. Regal-Beloit Corporation*, No. 08-1553, and *Union Pacific Railroad Company v. Regal-Beloit Corporation*, No. 08-1554. Both were argued together late last spring. The question before the court was whether the inland portion of an intermodal shipment is subject to the Carmack Amendment to the Interstate Commerce Act of 1887, which governs certain rail and motor transportation by common carriers within the United States rather than the COGSA.

The Carmack Amendment, which affects the U.S. surface transportation (rail and truck), is far more encompassing than COGSA regarding carrier liability. COGSA places severe limits on carrier liability, while Carmack has no dollar limits on the amount of liability.

The main issue is whether an international through bill of lading that shows the maritime operator as the "carrier" is liable for damages via the intermodal portion of the move under the tight standards of Carmack or the loose standards of COGSA.

"If the Supreme Court decides the Carmack Amendment applies to all inland transportation, shippers will have to negotiate separate liability agreements with the ocean carrier and the inland railroad or motor carrier," observes Clott. "The Rotterdam Rules, which represents one standard of liability throughout a door to door move, would be more limited in their application within the U.S."

—Patrick Burnson, Executive Editor

performs to try and collect money back from any parties that may have been negligent in the loss or damage to cargo.

While subrogation reduces the claim amount for the insurer, it can also drastically affect your future rates and premium. Remember, insurance companies are for-profit ventures and if losses exceed a certain threshold, rates and premium will likely increase.

Subrogation capabilities vary widely with insurers, and ideally you want to be assured that your insurer has a very aggressive subrogation team that will fight to keep your loss ratio down. Your broker should be able to provide details of the subrogation services of your insurer.

For larger shippers, ask for a "no claims" bonus or a profit share agreement whereby a portion of the premium is returned to you for a favorable loss record.

Open account payment terms should be looked at closely on transactions where your terms of sale obligate the buyer to obtain cargo insurance. Ask yourself, what happens if the cargo is damaged in transit and the buyer failed to obtain cargo insurance or their insurance does not respond? Conversely, what if you are purchasing on prepaid terms and the seller's cargo insurance fails to respond? A properly designed cargo policy can include coverage to protect your contingent interest in these exposures, but don't assume that it's automatically included.

Consider how many future shipments it may take to make up an uninsured cargo claim or if your company is prepared to suffer an uninsured cargo loss. Also consider that failure to purchase proper cargo insurance won't be covered under Directors and Officers insurance if your shareholders decide to take action after an uninsured loss.

A thorough review of your supply chain exposures and a customized cargo insurance policy will greatly reduce the possibility of an uncovered loss. Demand that your insurance provider perform an annual review and ongoing training with finance, sales, traffic, and risk management departments. With cargo insurance at relatively low prices, there is no reason not to have the proper coverage in place.

COVER YOUR RISKS

It's important to remember that cargo insurance is one of the last unregulated lines of insurance, and the strength of the policy you purchase is often based on you and your insurance provider's ability to identify all the potential hazards within the supply chain. Then you need to work together to customize coverage to properly insure the real risks.

Do not assume that all cargo insurance is the same or that there's some standard wording. For example, most policies limit coverage at the port to a maximum of 15 days and inland at a maximum of 30 days. If your goods sit at the port longer than 15 days, it's important to ensure coverage is extended to suit the exposure.

Consider the current capacity issues, rolled shipments, missed sailings, and other delays that may leave your cargo sitting at the port or elsewhere without coverage. Even if you have coverage for the extra time the cargo may sit, the policy may still not be adequate to accommodate the high values that may have accumulated at one place so policy limits must be reviewed as well.

Finally, bear in mind that these are just a few examples of hundreds of scenarios that may alter an insured's needs beyond a standard cargo policy. It's up to shippers to do their homework. ☐

TMS FLEXES ITS MUSCLE

BY **BRIDGET MCCREA**, CONTRIBUTING EDITOR

As transportation management systems (TMS) have evolved, so too have the number of TMS options and formats available to shippers. For example, traditional purchase-and-install options have taken a backseat over the last few years as more shippers lean toward on-demand options that provide flexible, affordable choices and quick setup times.

Vendors have also expanded their TMS functionalities to include a range of features that not only touch the transportation component, but extend throughout the enterprise. Today's TMS solutions help companies reduce transportation spend and optimize their operations by handling basic payment, auditing and route scheduling, carrier and bid optimization, collaboration across departments, and even fleet management.

With technology infiltrating every link of the supply chain, savvy logistics operations are slowly but surely adopting new and upgrading existing transportation management systems. CytoSport, Inc., a maker of sports nutrition beverages, and consumer electronics manufacturer LG Electronics are just two companies that are now

Even though technology has infiltrated every link of the supply chain, TMS adoptions are still surprisingly low. Here are two companies that have taken the plunge and have strengthened their logistics operations with a TMS tailored to their specific needs.

reaping the rewards of their technology investments. Over the next couple pages, we'll learn how these logistics teams selected, implemented, and are now reaping significant benefits from transportation management systems that have been tailored to their companies' specific needs.

CYTOSPORT REALIZES SEVEN-FIGURE SAVINGS

When athletes need their Muscle Milk nutritional drinks, those products had better be available, and fast. The last thing anyone wants to deal with is an undernourished track star that can't get his hands on his favorite protein-enriched drink. To make sure that never happens, Benicia, Calif.-based CytoSport Inc. recently moved from a manual transportation management system to a state-of-the-art TMS from MercuryGate.

Founded in 1998 by the father/son team of Greg and Mike Pickett, CytoSport has been on a growth tear. Over the last 12 years, the firm has evolved into a premier manufacturer of sports-oriented nutritional products that address the needs of athletes and active lifestyle individuals at every level. As the company grew so too did its need to better manage its supply chain operation.

"Our company has posted tremendous growth over the last five years," says Mike O'Hare, CytoSport's director of logistics and warehousing. When he joined the company in 2009, O'Hare says that everything was done on paper, including both transportation and warehouse management. "Up until this year we relied on brokers, third parties, and a manual system," says O'Hare. "We are a testament to the fact that you can grow a small firm into a large, customer-friendly company just using paper."

Familiar with the benefits associated with TMS from a prior position, CytoSport's vice president of operations, Kirk Connors, knew the firm's growth would be more easily managed with technology. "He had used TMS before and noted its value," says O'Hare. "We started to explore TMS as a means of getting a better understanding of our freight costs and reducing those costs."

In the second quarter of 2009, CytoSport hired a consultant to help select the right TMS. Five different vendor packages were reviewed, and MercuryGate was chosen based on various criteria. Cost of implementation was a key factor, says O'Hare, as was the software's ability to optimize CytoSport's transportation operations. The vendor put together a presentation using the shipper's historical shipment data that showed how the TMS could optimize freight movements. "The savings presented were staggering," says O'Hare, "so we went ahead with the implementation."

CytoSport, which ships both domestically and internationally, selected an on-demand option. "As our freight spend increases," O'Hare notes, "we may go ahead and purchase the product." Rolled out this past January, the TMS is being used to handle all freight shipments to customers. Loads are tendered from the TMS to the respective carriers, says O'Hare, whose department uses the software for rate shopping and one-stop shipment tracking through the system's integration with the carriers' own tracking systems.

O'Hare says implementation took several months, with much time spent planning out the project's phases. According to O'Hare, first phase took the most time and found the firm selecting carriers to "hook into" its new TMS. Making this move required a movement from a broker-based system to one that revolved around the carriers themselves. LTL carriers were asked to apply a discount to their base rates, says O'Hare, and a freight network was created around customer and supplier shipments.

> **"We're already in the seven figures as far as savings goes…and from a reporting standpoint, we now really understand what our freight spend is, and we can share that reporting with our executive team."**
>
> –Mike O'Hare, director of logistics and warehousing, CytoSport

During the initial phase, CytoSport's logistics team also had to work through several EDI integrations with its carriers. It also incorporated its new TMS with its two existing ERP systems. Finally, the manufacturer tweaked its own distribution model from a three-point system to a two-point setup that relies on a DC in Benicia and the services of a 3PL in Carlisle, Pa.

Even though it's only been up and running for just a few months, O'Hare says that CyberSport's TMS is already paying off. The hard dollar savings on

> **"LG has reduced its transportation costs by over 42 percent over the last few years. That's pretty significant given the competitive nature of the marketplace."**
>
> –Larry Monaghan, director of transportation and logistics, LG

freight have been significant, according to O'Hare, who estimates that the firm will shave more than $3 million from its 2010 freight budget. "We're already in the seven figures as far as savings goes," says O'Hare. "We attribute that savings to the fact that we really understand our charges now. We've been able to do some pretty attractive spot pricing using the TMS as a data tool."

The indirect cost savings are also worth noting. Coordination between CytoSport's logistics and accounting departments is now automated, runs more smoothly and requires little human interaction. "From a reporting standpoint," O'Hare adds, "we now really understand what our freight spend is, and we can share that reporting with our executive team."

But the buck doesn't stop there. According to O'Hare, the next "optimization" phase of CytoSport's TMS implementation will have the most impact on the company. "Optimization is probably going to be the single greatest cost reduction that the TMS will provide us," says O'Hare. "It's going to allow us to take LTL shipments (which comprise about 80 percent of the firm's current shipments) and consolidate them into truckloads. That's going to result in even more significant savings."

LG TUNES INTO TMS

LG Electronics' televisions, cell phones, home appliances, and other consumer electronics can be found in nearly every corner of the world. Check into a hotel room and the letters "LG" are probably at the bottom of that flat-screen TV. Hit your favorite wireless store and you're sure to see more than one of the firm's cell phones on display. Headquartered in Seoul, South Korea, the firm is known as a global leader and technology innovator in consumer electronics and mobile communications.

In the mid-2000s, LG gave its own supply chain a once-over and realized that a technological facelift was in order. Intent on establishing integrated, best-practice workflows across its global transportation and distribution organization, the company set out in search of a TMS to help make those goals a reality.

Larry Monaghan, LG's director of transportation and logistics, says the need for a TMS hit home in 2004, when LG—which had previously operated three DCs in the U.S.—began selling products to a handful of large, domestic retailers. "We had to increase our setup to seven DCs," says Monaghan. "Our shipping volume increased from a couple of thousand shipments a month to nearly 30,000."

LG's logistics network comprises three central distribution centers (CDCs), 18 regional distribution centers (RDCs), and more than 3,000 domestic consignees. In this environment, LG fills more than 700 truck loads every day, 300 of which deliver to the CDCs with the remaining 400 delivered to the RDCs.

To find a technology solution to handle its growing business, LG's management team in Korea joined forces with its IT team to pinpoint a TMS solution from i2 Technologies (which has since been acquired by JDA). When shopping around, Monaghan says the selection team focused on solutions that could scale up with LG's growing business and enable the manufacturer to meet delivery schedules in a cost-effective manner.

Implementation of the traditional purchase-and-install software took about eight months for LG, whose goals included a 4 percent reduction in transportation cost in RDCs and a 3 percent increase of load fill rate in CDCs through transportation optimization planning.

The shipper's goals have been exceeded in those areas, with results including a recurring 8 percent annual reduction in overall transportation and distribution costs. Inventory turn has been accelerated as a result of improved transportation planning, as has the level of collaboration between replenishment planners and DCs.

The system also allows LG to improve its carrier selection process, both in terms of delivery times and costs. For example, LG can easily select carriers based on shipping lanes and type of service required and then do "cost to value comparisons" across various providers.

According to Monaghan, LG has also achieved improvements in service levels and customer satisfaction, and established a supply chain management architecture that's built to accommodate future growth. LG's retailers have also benefitted from the system, which allows the manufacturer to consistently hit 98 percent to 99.2 percent on-time delivery goals. Finally, Monaghan says LG has reduced its transportation costs by over 42 percent over the last few years. "That's pretty significant," he says, "given the competitive nature of the marketplace." □

Bridget McCrea is a Contributing Editor to Logistics Management

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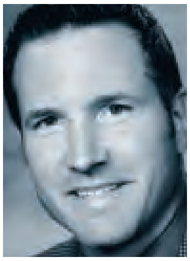

Five priorities for supply chain success

By **Jim Takach**

COMPANIES ARE GENERALLY OPTIMISTIC that the worst of the downturn is over. But many doubt that their supply chains are ready for the upturn.

After slashing inventories and operating costs to weather the recession, supply chain executives are seeing an uptick in demand. According to PRTM's recent global survey of senior executives (www.PRTM.com/SCTrendsReport2010), companies expect their revenues to grow more than 8 percent annually through 2012, and more than one third expect average gross margins to exceed 20 percent by 2012.

New global survey of supply chain executives points to five key actions needed to ensure that the supply chain is ready for an economic upturn.

These numbers represent a big change from two years ago, when many companies reported flat or declining sales. But many companies lack the supply chain capabilities needed to meet growing demand and an increasingly complex supply chain.

This year's survey provides five key takeaways:

1. Supply chain volatility and uncertainty are here to stay.

The economic slowdown drove changes in buying behaviors that are likely to linger—and greatly impact supply chains—for the foreseeable future. In an era of widespread discounting and greater market transparency, customers are more price sensitive and less loyal to particular products, making it enormously challenging for companies to get a true picture of demand.

On the supply side, capacity cutbacks by suppliers in recent years have made it difficult to ramp up production when needed. No surprise, then, that respondents consider demand volatility and poor forecast accuracy by far the greatest challenges to supply chain flexibility. Additionally, nearly a quarter of respondents cited supplier quality and on-time delivery as major concerns.

Addressing these challenges requires solid management processes, strong organizational capabilities, and the right systems and tools.

2. Securing growth requires global customer and supplier networks.

Before the downturn, globalization was progressing at a rapid pace. The companies we surveyed expect this trend to continue, with much of the growth coming from new international markets. More than three fourths of respondents anticipate an increase in the number of international customer locations, and more than two thirds expect an increase in the number of products and product variants to address future market needs (*see Exhibit 1*). Each of these factors, of course, will add another layer of complexity to the supply chain. Well-designed global supply chain networks and the capabilities to manage them will be crucial for long-term success.

3. Market dynamics demand regional and cost-optimized supply chains

Outsourcing and low-cost-country operations are effective ways to reduce operating costs and improve margins. These strategies can also help reduce delivery lead times when operations are close to customers. The survey showed that warehousing and transportation is the supply chain function outsourced the most, with nearly 40 percent of respondents claiming to do this.

Companies report their manufacturing capacity is evenly split among external partners, in-house international facilities, and in-house in the home country or headquarters. This finding suggests that companies are beginning to strike a balance in their manufacturing strategies. Yet while outsourcing has provided significant labor and material savings, many companies have not achieved reductions in process or management costs.

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Supply chain executives need to fine-tune their strategies for ensuring market agility while optimizing cost savings—that is, which capabilities to retain in low-cost countries, which to retain in the home country, which to locate close to customers, and so on.

4. Companies must take a broader approach to supply chain risk management.

Over the past few years, supply chain risk management was generally one dimensional: Executives focused mostly on minimizing the risk of supplier defaults and other issues with the potential to disrupt supply quality and delivery. That focus is now just one component of a much broader approach to supply chain risk management as customer companies shift more risk upstream to their suppliers. Respondents noted that effective risk mitigation requires, among other things, better inventory management, delivery performance, and lifecycle management.

These findings indicate that supply chain executives should take an end-to-end view of risk management—from demand planning to the supply chain footprint. It is also critical to include supply chain partners and internal stakeholders.

5. Existing supply chain organizations are not equipped for the challenges ahead.

Organizational issues have impeded the efforts of supply chain managers and executives to capture the full benefits of the recovering economy. Having the right structure, skill sets, and operational model is critical. Nearly 30 percent of respondents indicated a lack of integration/effective collaboration between key functions, such as product development and manufacturing. This interface is particularly important in a number of areas, including new product introductions and ongoing lifecycle management.

These findings are subtle, but their impact is far reaching. Establishing clear roles and accountabilities, encouraging effective collaboration, and securing the right talent are paramount to meet the supply chain demands of the future.

THE SUPPLY CHAIN EXECUTIVE AGENDA

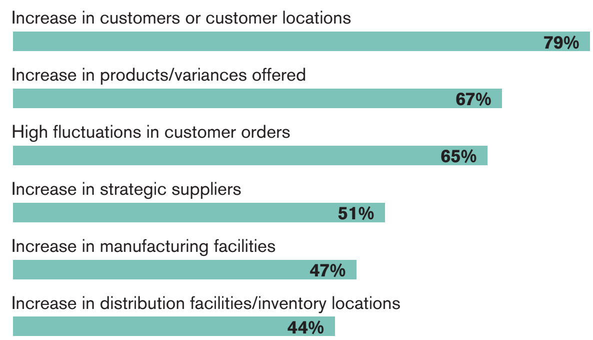
With these findings in mind, there are a few, select priorities to act upon for ensuring supply chains are prepared for what is in store for the coming years:

Priority 1. Improve customer collaboration and accuracy in supply chain planning. Companies have a variety of methods for responding effectively to volatility and its ripple effect throughout the supply chain. These include use of point-of-sale data for forecasting, collaboration with customers and suppliers, and use of real-time demand and supply planning.

Priority 2. Increase upstream and downstream supply chain flexibility. The increased globalization and product complexities cited earlier will continue to test supply chain agility. Supply chain executives have a number of potential solutions available, such as global footprint optimization, use of temporary resources, and late-stage customization.

Drivers of Supply Chain Complexity

Percentage of participating companies expecting an increase (multiple answers possible)



Priority 3. Focus on total supply chain cost engineering. Supply chain organizations will continue to be viewed as a source of cost savings. Executives can deliver on this promise by ensuring the right mix of outsourced and in-sourced operations by developing regionally configured and optimized supply chains, and taking a "total cost" approach that considers often-overlooked process and management costs.

Priority 4. Implement end-to-end supply chain risk management. Top companies take a broad view of risk management. Following their lead, other companies need to step back and determine where the greatest risks of higher costs, increased working capital, and missed deliveries/service exist. It is important to look beyond the supply base and consider other sources of risk—everything from cash management to new product introductions to quality and safety.

Priority 5. Integrate and empower the supply chain organization. The ability to meet future challenges demands strong organizational capabilities. In particular, it requires efficient and effective collaboration within the organization and with partners, efficient decision making, and the right structure and talent. Supply chain executives should step back, make a broad assessment of their organizations' effectiveness, and put into effect changes that are necessary to develop their supply chain organization to its fullest potential.

Although no one knows when the economy will fully recover, companies should not wait to get their supply chain capabilities up to speed. Only organizations that take the necessary steps now will be able to capture the benefits of the upturn—whenever it arrives. □

A SPECIAL SUPPLEMENT TO
Logistics MANAGEMENT

By Patrick Burnson, Executive Editor

Freight forwarders have been trying to remain confident during the rocky economic rebound. However, industry analysts report that demand has recovered at a remarkable rate in 2010, signaling a whole new set of challenges for forwarders and shippers alike.

Volumes RETURN

The global trading system is experiencing "extraordinary volatility," and this is being reflected in the performance of the freight forwarding industry, says Jon Manners-Bell of Transport Intelligence, Ltd. (Ti), a London-based logistics and transportation think tank. Demand, capacity, and profitability have all shown huge unpredictability both in the air and sea freight sectors over the past two years, he says, with shipper confidence still being tested.

"In some respects, the past 12 months have been a good time for the sector with demand recovering at a remarkable rate in a number of key routes," notes Manners-Bell. "The crash in volumes experienced in 2008 and early 2009 appeared to herald a long-term slump in global trade and logistics in 2010. However this slump has not occurred…rather the reverse."

According to Ti's *Global Freight Forwarding 2010* research report released last month, the freight forwarding market indicates that the current lack of capacity for both air and ocean freight shippers may well continue to be the central problem, however. According to Manners-Bell, the sector was caught in the "perfect storm" of falling volumes and rates in 2008—a storm that is now clearing.

Tighter markets

Freight forwarding volumes in all regions of the world are growing, industry sources acknowledge, although most agree that the losses in market size in 2009 will not wholly be made up in 2010. According to Ti analysts, Europe is still lagging behind both North

Lazslo Kubinyi

America and Asia Pacific.

That hasn't prevented some major players from investing in the EU, however. FedEx subsidiary FedEx Trade Networks, the company's global trade arm, recently announced it has opened offices in Rotterdam, Hamburg, and Frankfurt.

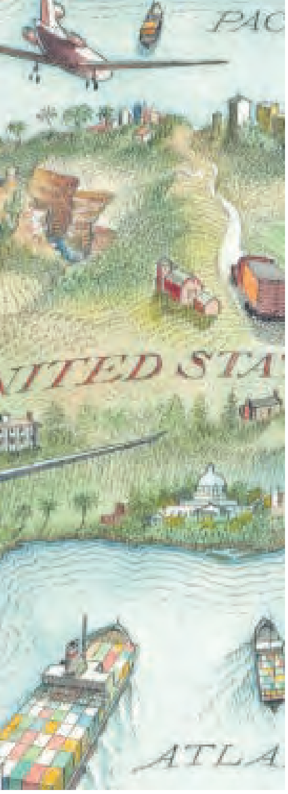
"Rotterdam and Hamburg are two of Europe's largest seaports, and Frankfurt serves as an important air cargo gateway to Central Europe," says Fred Schardt, president and CEO of FedEx Trade Networks. He also notes that Germany is the largest trading partner of each nation comprising the EU.

Meanwhile, market consolidation seems to be good for other major forwarders as well. Ti analysts say consolidation "pre-dates the recession," although the recession may have accelerated the process. "In particular the largest forwarders appear to have been able to use their buying power both to sustain a wider gap between purchased services and the prices charged to customers during this downturn," says Manners-Bell.

He adds that the big players have also been able to gain access to more capacity, and with greater reliability than the smaller forwarders, during the recovery.

According to Manners-Bell, China has seen substantial recovery in container shipping volumes, but air freight is where the increase has been "most violent." Indeed, he adds, the problems with Chinese-based supply chains have driven much of the shortage of capacity.

"China has obviously been a major source of volume growth over the past year or more," says Manners-Bell.



"This is both in terms of imports—largely from Japan, Korea, and other Asia Pacific nations—as well as exports to the U.S. and Europe."

Ti researchers maintain that there is evidence from the electronics sector in particular, pointing to severe under capacity among Chinese component assembly operations. This, they say, has caused issues with inventory management and "knock-on" problems with emergency shipments.

"The situation in North America is much more nuanced," says Manners-Bell. "Volumes are certainly up, but the capacity situation in air freight is not as severe as in China. The most notable development in Europe has been the rapid recovery of German export activity. Both capital goods and automotive related traffic has increased by around 30 percent over the past three or four quarters."

Exports out of Germany, however, do not seem to have suffered from the over-heating in rates to the degree seen in China. And it's important to remember that Europe is the most important freight forwarding region—slightly larger than Asia Pacific.

Top 10 global freight forwarders

Euros (millions)

DHL Global Forwarding	7,891
Kuehne+Nagel-Sea/air freight	7,808
DB Schenker Logistics-Air/ocean freight	4,987
Panalpina-Air/ocean freight	3,799
Expeditors	3,236
Sinotrans-Freight forwarding	2,633
Agility-Freight forwarding	2,500
CEVA-Freight management	2,355
Nippon Express-Air & sea freight	2,263
DSV-Air & sea freight	1,886

SOURCE: TRANSPORT INTELLIGENCE

***Note:** For 2009 DHL Global Forwarding (including Project fowarding), Kuehne+Nagel, Panalpina, Expeditors, Sinotrans, CEVA, Nippon Express, and DSV are all from 2009 Report & Accounts. All other totals are estimated by Transport Intelligence. Exchange rates as of June 2010.*

There are two main reasons for this, say Ti researchers. "First, the intra-European market is important in its own right," says Manners-Bell. "Second, although much of the freight shipped by EU forwarders emanates in Asia, it's actually paid for in Europe, which means that it is reported in European companies' revenues rather than those in Asia."

This trend is also reflected in the U.S. and is due to Chinese manufacturers tending to take a passive role in supply chains, analysts observe. "They manufacture goods and move them to the ports, but at that point the risk transfers to the buyer," adds Manners-Bell.

Modal issues

The next two years will not mean blue skies for airlines despite an encouraging recovery in the freight market since last fall, according to David Hoppin, managing director of MergeGlobal, a Washington, D.C.-based transportation and logistics consultancy.

Airfreight shrank by an unprecedented 26 percent in value terms in 2009, from $60.7 billion to $44.9 billion. By February 2010, volumes were still 9 percent below the peak of two years ago. Hoppin does not think a double-dip recession is inevitable, but says he is "deeply concerned about the macroeconomic picture in the U.S. and parts of the Eurozone."

From double-digit levels of growth in the mid-2000s, the airfreight forwarding market first steadied and then plunged in 2009, the result of falling volumes and, to a lesser extent, falling rates. In 2009 the market contracted by over 20 percent.

The Asian market has the largest share of airfreight, accounting for 36 percent of the total. This is no doubt driven in part by the insular nature of many of the economies in the region. In these markets air is essential for movements of high value, high priority goods in contrast to Europe and North America where road is often a viable alternative.

Meanwhile, forwarding giant Kuehne+Nagel reports that its first half net profit was up almost 9 percent from a year ago due to increased airfreight volumes. "The entire logistics industry has capitalized on the economic recovery, resulting in rising transport volumes and increased warehouse utilization," says Richard Lange, CEO of Kuehne+Nagel International AG.

At the same time Kuehne+Nagel says its ocean container traffic increased by 20 percent in the first half, outperforming the market and returning to its "pre-crisis" growth dynamic. The company says it gained market share on all trade lanes, performing particularly well in the export business to South and North America.

Ti estimates the volume of containers shipped yearly amounts to around 154 million. The short-sea shipping trade lanes are among some of the largest. Intra-Asian trade accounts for 19 percent of the total, and intra-European volumes account for 12 percent. The deep-sea shipping routes are dominated by Asia to Europe and Asia to North America (transpacific). These account for 9 percent and 7 percent respectively.

"Among the trade lanes to watch in the future will be Asia to South America and Asia to Africa," says Manners-Bell. "Chinese investment in these markets is stimulating trade, and shipping lines are adding capacity on these lanes at a rapid pace."

Through 2008 and into 2009 the difference between supply and demand in the container shipping market changed. Before 2008, supply of container shipping capacity had roughly kept pace with demand; however 2008 saw a sudden interruption with supply continuing to grow while demand fell substantially. Only in the second half of 2009 did this dynamic change, with a sudden reduction in capacity. Towards the end of 2009,

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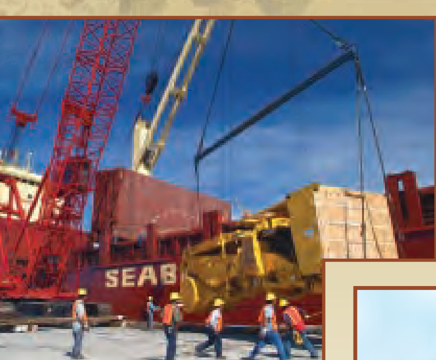

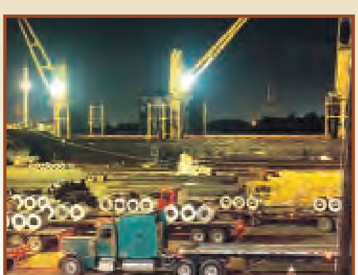

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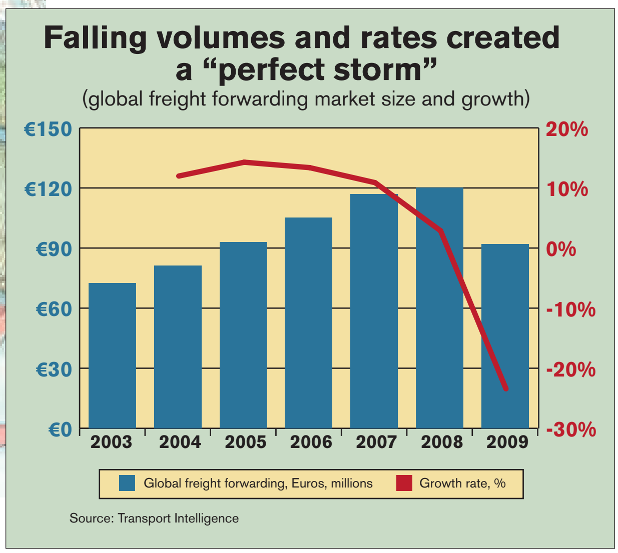
possibly in Q3, demand began to rise once more. The ocean carriers, however, had taken significant steps to reduce capacity.

For example, older vessels were scrapped. These were often smaller "panamax" ships that due to previous demand had remained in service longer than normal. Vessels with expensive operating characteristics were laid up, including both mid-sized vessels and faster or older vessels with higher fuel consumption. At the same time, a further measure of "slow steaming" was adopted.



"This was initially prompted by a period of rising bunker fuel costs, however it also had the effect of reducing the capacity of container fleets by increasing their sailing/turn-around times," says the Ti report.

A related issue around the numbers of ships on order also had an effect on the market. Around 2007 and 2008 it was assumed that the global container fleet would expand rapidly due to the number of vessels owners and operators had ordered from shipyards. The number suggested at the time was equivalent to 50 percent of the existing container fleet.

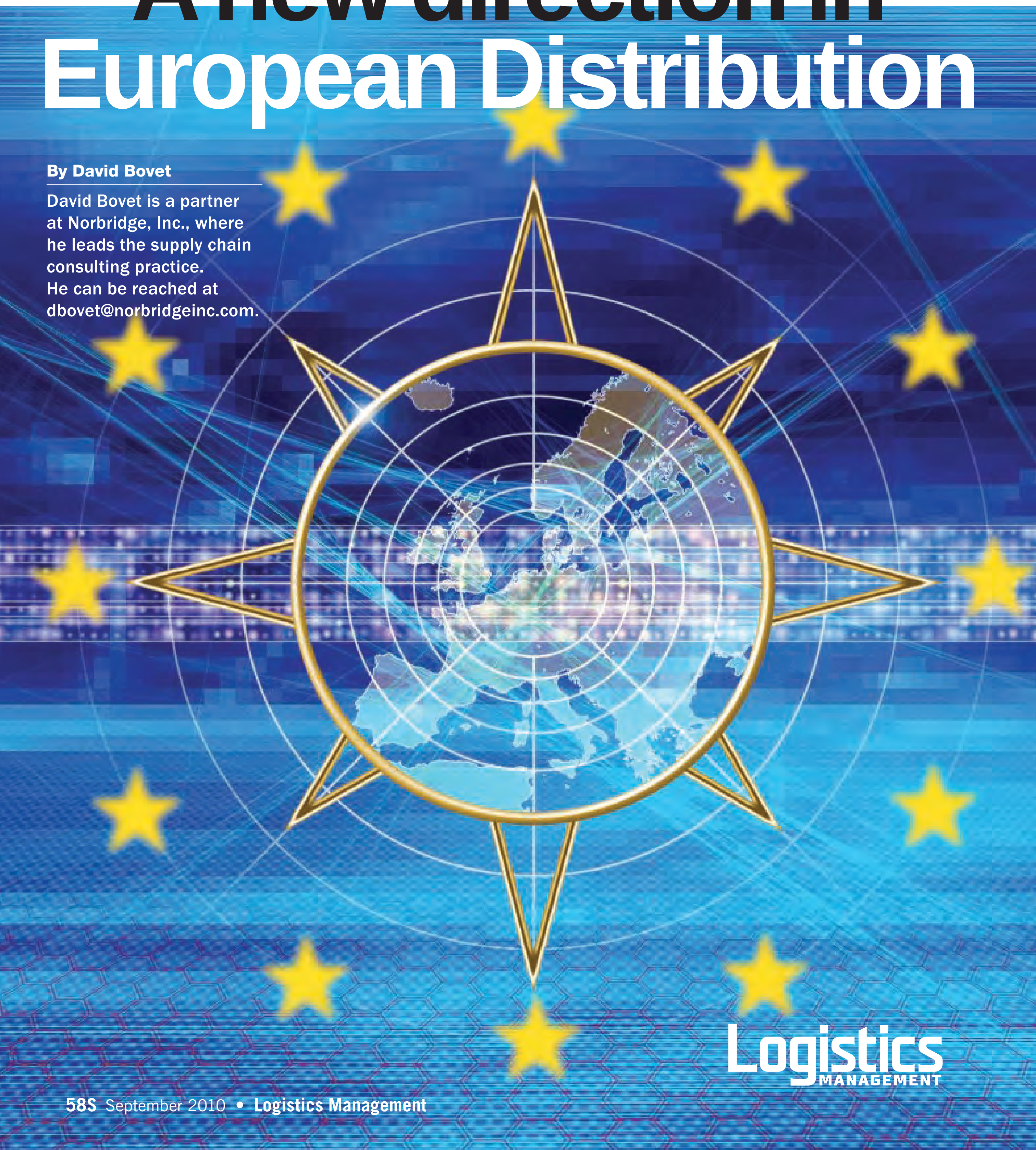
"Yet, the number of ships on order has fallen in size implying an extensive cancellation policy," observes Manners-Bell. "It remains unclear if a large overhang of capacity exists in the market. It is possible that owners and operators could be in the process of commissioning new vessels in the near future. This injects a strong level of uncertainty into the market."

—Patrick Burnson is Executive Editor of Logistics Management

A new direction in European Distribution

By David Bovet

David Bovet is a partner at Norbridge, Inc., where he leads the supply chain consulting practice. He can be reached at dbovet@norbridgeinc.com.

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Why should U.S. companies focus on their distribution networks in Europe? Headlines about Greek sovereign debt and German unhappiness at "rescuing" the euro could give pause to expansion strategies aimed at Transatlantic markets.

Yet the European Union (EU) remains a $16 trillion economy, the world's largest. Many U.S. companies are seeking to further diversify their business globally, hedging bets and searching for new geographies. American exports to the EU are up 3.5 percent, in nominal dollar terms, this year (January-April) over 2009. Meanwhile, despite a reversal in the past few months, the U.S. dollar is still down by 27 percent versus the euro since ATMs across Europe first started dispensing the new currency in January 2002. And Europeans remain among the wealthiest consumers in the world—six countries in Europe currently have higher nominal GDP per capita levels than the United States.

Drivers of location decisions

Where to begin in thinking about establishing, growing or simplifying a European distribution network? Whether starting from scratch or adjusting current locations, it's critical to consider the customer base, projected growth, and service requirements. Product characteristics, such as demand variability and freight intensity, are also essential ingredients in setting network parameters.

Logistical considerations span three key aspects of the supply chain:

1. Market proximity (outbound):

• Reaching European customers quickly and cheaply. (For many, overnight truck delivery; for others, rail and inland waterway access.);

• avoiding congestion and restrictions;

• and, minimizing "last mile" cost to customers.

2. Gateway logistics (inbound):

• Inbound sourcing (e.g., from China, United States, Eastern Europe);

• and proximity and capacity of seaports, airports, autoroutes.

3. Hub efficiency (DC operations):

• Occupancy or outsourced hub costs;

• management, labor skills, cost and flexibility;

• tax levels and incentives;

• and regulatory ease of doing business.

The optimal solution, in terms of total delivered cost and service, will vary from one company and industry to another. But as in the U.S., certain patterns are apparent that bracket the likely answer for many businesses.

European distribution patterns

Wealth and income remain concentrated in Europe's west and north. The "Blue Banana" of wealth in Europe cuts a swath roughly from Birmingham in the UK, across the Channel to the Benelux countries, through Germany, France, Switzerland, and northern Italy to end up in Madrid, Spain. This is still true despite the dramatic expansion of the EU towards the east and south. While manufacturing has moved eastward to lower-cost areas, wealth itself remains—for now—in the traditional heartland of Western Europe. For example, GDP per capita is $48,000 for the Netherlands versus $11,000 for Poland.

Traditionally, the Benelux countries (Belgium, Holland, and Luxembourg) have been major locations for European distribution centers. This is driven by a number of natural advantages, including proximity to major gateways:

• *Seaports:* Rotterdam and Antwerp are Europe's two leading container ports, together handling 17 million TEUs in 2009.

• *Airports:* Airfreight is also well-served in these countries, with the four main airports (Amsterdam, Brussels, Luxembourg, and Liège) handling about 3 million metric tons of cargo per year.

In addition to excellent gateway infrastructure, the international distribution role is highly developed in these countries. Clear strengths include:

• *International trade genes.* The Netherlands, in particular, has been trading for centuries.

• *Language capabilities.* The Dutch typically speak two languages other than their own—English, German, often French or Spanish as well. Staffing a customer service center that covers much of Europe is relatively easy to do in the Benelux countries.

• *Road links.* Benelux is closely tied to the major European markets.

• *Management and labor.* These countries excel in producing well-educated and experienced warehousing and transportation professionals.

• *Government policies and incentives.* The Netherlands, Belgium (both Flanders and Wallonia), and Luxembourg all offer favorable tax rates and incentives.

The downsides to these locations, particularly in parts of the Netherlands, reflect the consequences of their own success over the years. Road congestion can be a major problem. The population density and limited land for expansion make road freight movement slow in many parts of the Benelux, particularly along the axis from Antwerp to Amsterdam. Building costs can be problematical, too. Due to the scarcity of land and the existing high density of construction, the Netherlands is not low-cost in terms of DC space. However, parts of Belgium (Liège, Hainaut) are not as developed and offer reasonable real estate costs.

Recent activity

Where are companies locating their European DCs at present and why? Despite the global recession, new facilities are being built and public agencies are more focused than ever on attracting certain kinds of investment to their region. Here are a few examples that illustrate recent activity and the underlying rationale.

The Netherlands. Several U.S. companies have announced new distribution facilities in the Netherlands this year, for example:

• Warnaco Group, a U.S. apparel maker (with brands such


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as Calvin Klein and Speedo), is building a 30,000 square meter European distribution center near Roosendaal (midway between Rotterdam and Antwerp). Warnaco is consolidating its operations, closing distribution centers in France and Italy as well as an existing logistics site elsewhere in Holland.

• Stryker, a U.S. medical technology company, is partnering with property developer Goodman to build a new 7,875 square meter warehouse in Venlo, Holland, which will gain sustainability certification.

Wallonia in Belgium. This is the French-speaking area, in the southern half of the country. A recent study named Wallonia the best European DC location, because of its available land, incentives offered, and good transport infrastructure toward the south. Examples include:

• Hennes & Mauritz (H&M), the global Swedish-based apparel retailer, recently announced its selection of a site in Hainaut, Belgium, for distribution of garments all across southern Europe. Wallonia was the group's first choice because of the attractive price of greenfield land, the quality of the work force and the availability of investment grants.

• Skechers, a U.S. footwear maker, recently expanded its European logistics center in Liège to 41,000 square meters.

Other regions of Europe. Much depends on target markets and on sourcing.

• To serve the Nordics, for instance, the Copenhagen area is ideal. This is due to the overnight truck delivery possible to some 80 percent of the population in Denmark, Norway, and Sweden. The Øresund Bridge, an 8-km engineering marvel, now directly links Denmark with Sweden. Distances are too great, from the Benelux, to support next-day truck delivery to this area.

• Distribution centers are also being built in the eastern countries of the EU, where manufacturing has expanded rapidly. Poland, Hungary, Czech Republic, and Romania, for example, have all gained new plants and DCs in recent years. Dell and Lenovo build notebook computers, and Delphi makes auto parts, in Poland. About 1 million square meters of warehouse space was leased in Poland during 2009. And U.S. logistics facility developer ProLogis had half its total European rentable DC space in the Czech Republic, Hungary, Poland, Romania, and Slovakia, at the end of 2009.

Bottom line

The economic recovery is uneven in Europe, as in the United States. Yet for American companies, this can be a good time to acquire space for expansion or to consolidate older country-level DCs to a single site.

The market strategies, understanding of customer needs, and considerations involved in designing an effective European distribution network and locating key DCs are more complex than in the U.S. National and regional differences in transport infrastructure, land availability, tax incentives, and worker skills are all important considerations in making successful decisions. ☐

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SEA STAR

Are you proud of your company's core values?

By John A. Gentle, DLP

"Lazy," "incompetent," and "immoral" are terms that should be used to identify logistics and transportation professionals that intimidate or force carriers or third party logistics providers (3PLs) to accept contract terms that would hold the shipper harmless—indemnify them—from any of their direct or indirect actions and from unforeseen events.

Several years ago I headed up an initiative with my fellow National Industrial Transportation League (NITL) shippers and American Trucking Association (ATA) colleagues to create a model contract for use by carriers and shippers. When the team came to the issue of indemnification, it was clear to everyone that our respective companies alone were responsible for the things that were under our control, and our partners should not be responsible for our actions.

The contract model that emerged from that collaboration exists today and is available at no charge to anyone on the ATA and NITL websites. A similar model contract was created for use between shippers and third party freight brokers and is on the web sites of the Transportation Intermediaries Association (TIA) and the NITL.

If you are a shipper that even attempts to force your carriers or 3PLs to indemnify your company for its shortcomings or be held responsible during extraordinary times typically covered by *Force Majeure*, then you need to check your moral compass and change your position.

The issue of *Force Majeure* was also pretty clear to all of us. There are unforeseen events that occur globally and nationally that no one can control. Weather, terrorism, and war are some simple but realistic examples. Attempting to hold a business partner accountable for non-performance during these events is simply unreasonable unless the carrier itself was the primary cause.

So, what causes some shippers to continue to want to force others to indemnify them from actions that they had no control over and to discount the *Force Majeure* provision? It seems to me that companies that act defiantly and in a bullying manner are probably consciously competent. They know the difference between right and wrong, but they feel that all others are "inferior" to them, and they revel in their feeling of superiority and need to create a submissive environment.

It's also possible that these consciously competent abusers are genuinely concerned about their poor operating practices, criminal activities, or regulatory infractions within their domain. In turn, they realize the need to position other parties to be liable for their activities including being responsible for the financial penalties associated with them.

When a company's transportation team knows that the language is inappropriate for use in today's market place but lacks the leadership, professionalism, and control over its process to convince their leadership and attorneys to change this abusive practice, then I would argue that they are consciously incompetent.

There can also be an argument for "unconscious incompetence" for smaller players that just don't read anything and have simply used historical language from their attorneys. In the end, they're simply not competent, and we can argue as to whether they are conscious or unconscious—or just plain lazy.

If you are a shipper that even attempts to force your carriers or 3PLs to indemnify your company for its shortcomings or be held responsible during extraordinary times typically covered by *Force Majeure*, then you need to check your moral compass and change your position.

The logistics and transportation profession needs to move past these issues and start concentrating on creating real "earned' productivity based on moral principles of right and wrong and not from unethically deflecting risk responsibility and costs on to someone else. Most of us are proud of our company's core values. Are you? □

John A. Gentle is president of John A. Gentle & Associates, LLC, a logistics consulting firm specializing in contract/relationship management and regulatory compliance for shippers, carriers, brokers, and distribution centers. A recipient of several industry awards, he has more than 35 years of experience in transportation and logistics management. He can be reached at jag@RelaTranShips.com.