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AN EXECUTIVE SUMMARY OF INDUSTRY NEWS

◆ **Union Pacific chief Young passes away.** *Logistics Management* regrets to report that James Young, chairman of Class I railroad Union Pacific (UP), passed away last month from pancreatic cancer at the age of 61. Young was elected UP chairman in January 2007 and prior to that was president and CEO from November 2005 until March 2012. He also served in other capacities at UP, including president and CEO and as director of Union Pacific Corp. Young joined UP in 1978. "Jim was an icon at Union Pacific and in the railroad industry, a colleague, and great friend," said Jack Koraleski, UP president and CEO. "Jim's vision and leadership took Union Pacific to unparalleled heights, and his civic contributions made positive impacts on many communities across Nebraska and the entire Union Pacific system."

◆ **Top NS executive "optimistic" on rail crude oil safety.** Despite recent, tragic accidents, hauling crude oil by rail is a safe and efficient mode of transport as well as a rising profit center for the nation's five Class 1 railroads, said Charles W. "Wick" Moorman, the chief executive of Norfolk Southern Corp. Moorman, who recently addressed attendees at the U.S. Chamber of Commerce's Second Annual Transportation Infrastructure Summit, added that he was "optimistic" that new and improved methods of hauling crude on rail will be found that will make the system even safer. "We're working on lot of things to make sure we're routing it in the safest possible manner," he said, adding that he favored more inspections of rail cars, which are usually not owned by the railroads, but by leasing companies and shipper customers.

◆ **Championing exports.** Supply chain giant UPS, which has long been a leading advocate for global trade, issued praise for President Obama on taking decisive action to reduce a major barrier to U.S. exports. By completing the International Trade Data System (ITDS), the processing and approval times for U.S. businesses that export American-made goods and services will be cut from days to minutes. "This Executive Order will be beneficial to improving our supply chain efficiency and moving goods and services that cross our borders," said Scott Davis, UPS chairman and CEO. "This change will be particularly meaningful to our small and medium-sized customers that depend on global trade to grow their businesses and reach the 95 percent of consumers that live outside U.S. borders."

◆ **Strong finish for 2013 deal making.** Merger and acquisition (M&A) activity in the transportation and logistics sector in the fourth quarter of 2013 fared well, posting the second highest quarterly deal volume and value in the last three years, according to Pricewaterhouse Coopers (PwC). PwC reported that the fourth quarter saw a 57 percent increase in deal volume, with value up more than 100 percent. Fourth quarter deal value—for deals valued at $50 million or more—was $23.2 billion, representing 66 deals with an average deal value of $352 million, compared to 42 deals representing $10.7 billion in total value in the third quarter of 2013. For all of 2013, PwC reported that there were 185 deals valued at $50 million or more, totaling $65.2 billion.

◆ **YRC wins $1.1 billion refinancing.** In a major refinancing aimed at lowering its annual interest payments and increasing liquidity for badly needed recapitalization, YRC Worldwide has refinanced approximately $1.1 billion in debt under much more favorable terms. The group of long haul and regional LTL carriers said last month that it had closed on the financing of a new $700 million term loan and a $450 million asset-based loan (ABL) facility. The new ABL facility also includes the ability to increase the facility size by an additional $100 million "to accommodate future growth," YRC said. The proceeds from the new term loan will be used to refinance the previous loan and ABL facilities that were put in place in August 2007 and were subsequently restructured in July 2011. These new facilities will extend maturities to 2019 and will provide annual interest savings to YRC of approximately $40 million to $50 million.

◆ **E-commerce is worth the risk.** Selling directly to customers via the Internet can seem like a dream come true—you reach larger markets at higher margins with no middlemen. But according to Grant Thornton's *Strategic Source and Sell: Channel Diversity Survey*, the dream can easily turn into a nightmare if customers in existing channels become confused or angry over new pricing models that exclude them. However, it may be worth the risk. Roughly a third of all organizations derive sales

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UPDATE

AN EXECUTIVE SUMMARY OF INDUSTRY NEWS

from all three primary channels—direct to customers, through retailers/dealers, and through distributors. Organizations that sell via all three report average profit before interest and taxes (PBIT) of 16.9 percent compared to 12.8 percent for those selling into two channels and 13.6 percent for those selling into one channel. The survey found that for businesses with no online sales, the average PBIT was 13.3 percent, compared to 14.9 percent for those selling through their own or third-party sites and 17.7 percent for those selling via both their own website and others' websites.

◆ **UPS acquires Polar Speed.** UPS continues to expand its global healthcare footprint, announcing that it has acquired Polar Speed, a U.K.-based provider of temperature-sensitive supply chain solutions. UPS officials said that Polar Speed's core focus is on active temperature-controlled deliveries to hospitals, pharmacies, and wholesalers while also offering services in the home care and direct-to-consumer delivery market. Bill Hook, vice president of global healthcare product strategy for UPS, told *Logistics Management* that this acquisition provides UPS a footprint in the U.K. from which to further expand its European healthcare network. He added that this is the service provider's third healthcare logistics acquisition in Europe.

◆ **USPS reports steep quarterly loss.** The United States Postal Service (USPS) said it incurred a net loss of $354 million in its first quarter of fiscal 2014. This is the 19th time in the last 21 quarters that the USPS has reported a loss and follows a fiscal year 2013 loss of $5 billion. USPS officials said that this most recent quarterly loss comes at a time when the USPS has grown revenue by "capitalizing on opportunities" in its Shipping and Packaging Services group, coupled with reducing operating costs. The Shipping and Package group, whose services are comprised of Priority Mail, Express Mail, Parcel Select, and Parcel Return services, saw a $479 million—or 14.1 percent—annual increase, due largely to gains in e-commerce, limited Sunday deliveries in certain U.S. locales, and success in its last mile service—which saw a 34.3 percent revenue increase from its Parcel Return and Parcel Select service.

◆ **Great lakes and logistics.** The state of Michigan is making a pitch that it is a model of delivery and distribution efficiency. The state's newly established Commission for Logistics and Supply Chain Collaboration aims to develop a statewide strategy featuring a partnership between government and industry in the pursuit of raising the international profile of Michigan's logistics capabilities. The commission said that in the next six months it will focus on connecting regional and local economic development organizations in a one-stop, statewide supply chain strategy to assist businesses moving materials and products to and from Michigan. According to the commission, nearly half of Michigan's economy is dependent of foreign trade, and the state ranks eighth among largest exporting states in the U.S. Further, Michigan averages $61.5 billion in annual trade with Canada—the largest U.S. trading partner.

◆ **Cautious outlook on hiring.** Although there have been recent signs of new hires in the supply chain sector, managers are being advised to remain cautious when it comes to investing in human capital this year. "We see the rate of employment bleeding off in the second half of 2014," said Alan Beaulieu, president of ITR, an economic forecasting firm. "The same goes for spending on equipment and technology." The reasons for restraint are many, he added, pointing to a forecasted "market correction" and concern about cost implications in healthcare reform. "These are the two major headwinds we see coming," said Beaulieu. "Consumer confidence is eroding, so manufacturers and retailers may continue to keep their inventories lean." Beaulieu, who will once again be the keynote speaker at the Conveyor Equipment Manufacturers Association annual convention in Palm Springs, Calif., this month, said that there are opportunities for companies with a healthy balance sheet.

◆ **Strengthening retail.** The Retail Industry Leaders Association (RILA) released its *2014 Public Policy Agenda: Retailers Strengthening Communities.* The agenda, which outlines the industry's top public policy priorities for 2014, showcases the role that retailers play in communities across America and how public policy affects their ability to invest locally and grow. "The fact is that few industries have a greater impact on the U.S. economy and its consumers," said RILA President Sandy Kennedy. "Public policy that intrudes upon the employer-employee relationship tilts the playing field against Main Street retailers, stifles the industry's growth, and undermines retailers' ability to invest locally." Conversely, Kennedy added, when the environment is conducive to growth, entire communities can benefit from the retail industry's success. ☐

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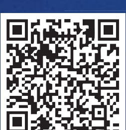

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Now on demand

2014 Rate Outlook: Managing costs via multiple modes

logisticsmgmt.com/2014rateoutlook

Where are your freight transportation rates headed in 2014?

Our panel of top economic and transportation market analysts agree that freight rates will most certainly see gains in 2014.

Join our panel as they share their insight on where rates are headed and the issues that will be driving those rate increases over the next 12 months. Attendees will gain a better understating of:

- The current state of the U.S. economy and its impact on transportation;
- which way oil and fuel prices are likely to go in 2014; and
- what to expect in terms of rates and capacity across all modes.

WEBCAST

2014 Warehouse/DC Equipment & Technology Survey

Thursday, March 27 @ 2:00 p.m. ET

Maxed Out: Are we still doing more with less?

Have we stepped up investment in equipment and technology inside the nation's warehouse and distribution center (DC) operations?

Our panel takes a deep look at the findings of our annual *Warehouse/DC Equipment and Technology Survey* and finds a growing interest in automation and software as workforce issues now factor heavily into every investment decision.

Join Group Editorial Director Michael Levans and Editor at Large Josh Bond as they conduct a conversation to put deeper context around the findings of this important annual study. Attendees will learn:

- Current activity levels inside U.S. warehouse and DC operations ;
- spending plans for equipment;
- current and future investment levels for software and automation; and
- the state of visibility across U.S. supply chains.

Go to: logisticsmgmt.com/2014WDCequipment

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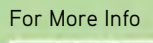

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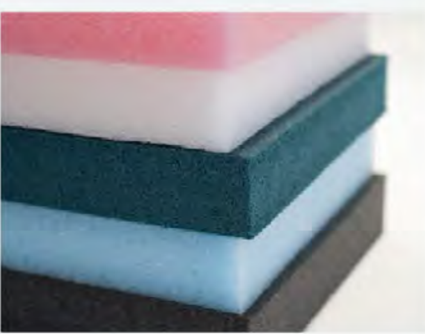

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New culture of collaboration

WE'VE CERTAINLY BEEN READING and hearing more about the benefits of improved communication and collaboration in logistics management—be it with our carriers, third party-logistics (3PL) providers, suppliers, and even competitors.

You've heard the basic collaboration axioms by now: Through more real-time contact with carriers we can cut driver detention time. By sharing long-term plans with our 3PLs, we can expand existing relationships, put more of their services to work, and create a strategy that benefits both parties. We can improve freight visibility and inventory management through collaborative planning with our suppliers. And we may even be able to cut rates and help our TL and LTL carriers improve service if we're willing to fill more trailers with the help of our competitors down the street.

And that list is just scratching the surface. Collaboration can come in many shapes and sizes and now needs to happen at every level of supply chain management. The very foundation of e-commerce, for example, is built on the backbone of improved collaborative planning between distribution center operations and transportation. The most sophisticated order fulfillment operation in the world is useless unless the trucks are at the dock to move the goods.

Logistics Management has covered the growing culture of collaboration extensively through case studies and columns—and based on some of the results we're hearing, we are not about to stop.

This month's cover story is an inspiring example of the power of collaboration between a shipper and an existing 3PL partner. Starting on page 26, Executive Editor Patrick Burnson explains how international home and leisure goods giant Hermes-OTTO set out to re-launch the Bombay Company brand and expand in North America with the help of the 3PL partner that was with them at the start.

"In these situations, shippers are often faced with the difficult decision of either spreading the risk of network expansion among multiple 3PL players or sticking with the provider that got them there in the first place," says Burnson. "It was refreshing to report that, even though Bombay considered other capable players, they decided to collaborate and build on the existing trust."

By setting up new pricing arrangements and customizing the existing contract to meet Bombay's needs in the region, the expanded 3PL partnership yielded a multi-channel supply chain built from the ground up. "They now openly share volume forecasts and are able to maintain a fully optimized fulfillment network with deliveries direct to stores, direct to customers, or back through the reverse loop."

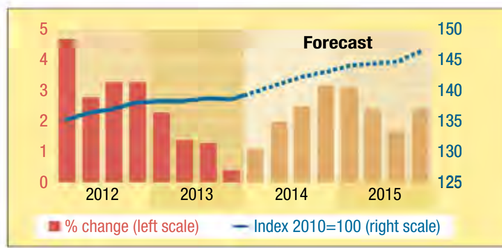
Beginning on page 32, Contributing Editor and Columnist Peter Moore offers his unique insight into the power of collaborative LTL contracting. According to Moore, LTL plays a critical role in our national supply chain network, yet all too often shippers look at these carriers as little more than a commodity—a perception that Moore contends is causing harm to the budgets of both parties.

"It's time to toss out the traditional LTL contract and impersonal RFP," says Moore. "Both the shipper and the carrier need to envision themselves sitting across the table from their mutual challenges." The objective, adds Moore, is for both parties to share the benefit of optimized costs and improved service. What's not to like about that?

Michael A. Levans, Group Editorial Director
Comments? E-mail me at
mlevans@peerlessmedia.com

price TRENDS

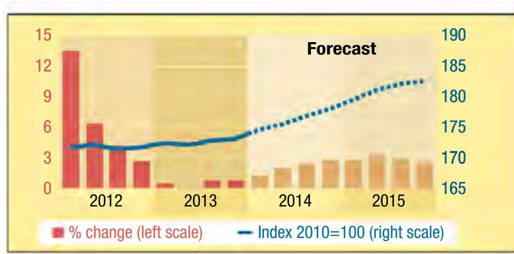
Pricing across the transportation modes



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
General freight - local	0.0	0.0	0.0
TL	-0.2	-0.8	-0.3
LTL	0.6	1.4	2.7
Tanker & other specialized freight	0.4	0.5	0.9

TRUCKING

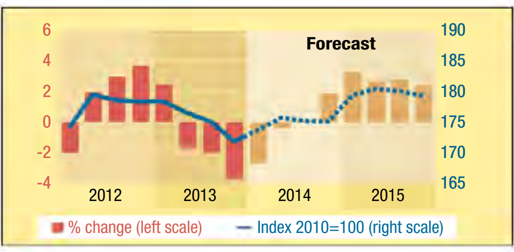
Too much snow on U.S. highways this past winter caused truck tonnage to fall; however, LTL escaped the cold at the start of the year by warming up with a 0.6% monthly price hike. That more than made up for price cuts endured at the end of last year. Looking ahead, LTL's inflation trend will likely travel a sedate route in 2014 and 2015, up only 2.5% and 2.6%, respectively. Truckload prices, meanwhile, fell 0.2% in January, which was the eighth consecutive month of either flat or declining prices. As a result, TL prices slid back to levels last seen in April 2013. Inflation in the TL marketplace will resume, but at a slow 1.5% annual rate this year and 1.8% next year.



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
Air freight on scheduled flights	0.1	0.4	0.5
Air freight on chartered flights	15.8	14.9	10.2
Domestic air courier	3.8	5.0	3.3
International air courier	4.5	5.8	4.1

AIR

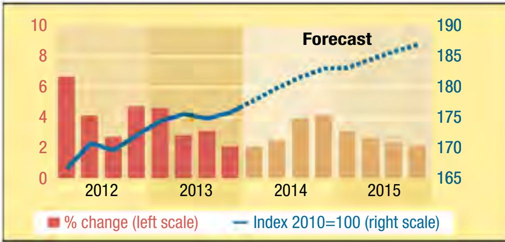
Despite this winter's stormy skies, or perhaps due to weather challenges, U.S.-owned airfreight charters flying domestic routes pushed a big 23.3% price hike in January. Surveys of U.S. companies that sell international nonscheduled airfreight services, however, show their prices up 0.5%. Airliners providing freight services on scheduled flights also reported prices up only 0.1%. Nonetheless, on all airfreight delivery fronts, the inflation route appears to be on a slow, but steady, upward trajectory. Our price outlook for shippers moving freight in the belly of planes on scheduled flights remains: up 2.1% this year and up 2.9% next year.



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
Deep sea freight	0.1	-1.7	-2.5
Coastal & intercoastal freight	1.6	-8.7	-7.9
Great Lakes - St. Lawrence Seaway	-0.1	0.2	-13.4
Inland water freight	-2.8	-6.3	-8.7

WATER

Average transaction prices in the water transportation services industry inched up 0.1% in the first month of 2014. However, following a persistent wave of price cuts in 2013, industry prices remained 4.4% below year-ago levels. All channels have contributed to this picture, with Great Lakes-St. Lawrence Seaway freight transportation providers reporting a 13.4% year-ago price cut—by far the biggest. Inland waterways prices also declined 2.8% from a month ago and 8.7% from the same month year ago. Excluding towing, inland waterways prices were down 11.5% from a year ago. The industry price outlook has been revised: down 0.3% in 2014 and up 2.8% in 2015.



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
Rail freight	0.8	1.3	1.5
Intermodal	1.4	1.9	2.0
Carload	0.7	1.3	1.4

RAIL

As usual, among all transportation modes, the rail transportation market continues to be the best at preserving its pricing position. Carload rail freight prices increased 0.7% in January, which was its largest one-month price hike in nine months. At the same time, intermodal rail freight prices chugged up 1.4%. For the entire U.S. rail transportation market, average prices were up 0.8% from month-ago and up 1.5% from same-month-year-ago price levels. After the uncertainties of the 2009-2011 price cycles, we see average rail prices increasing at a predictable 3.1% pace in 2014 and 2.5% in 2015.

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DOT's Foxx: "No more Band-Aids" for transportation infrastructure funding

Transportation chief says that a long-term investment strategy is needed to fix the nation's crippled transportation network.

By John D. Schulz, Contributing Editor

WASHINGTON, D.C.—According to Transportation Secretary Anthony Foxx, the U.S. is facing "a massive infrastructure deficit" that will cripple the U.S. economy and stunt the economic recovery.

In a speech at the U.S. Chamber of Commerce's Second Annual Transportation Infrastructure Summit last month, Foxx urged Congress to eschew its past practices of funding transportation on short-term funding cycles and called for a massive new investment in American infrastructure.

"Tell Congress no more one year or two year Band-Aids," Foxx told approximately 300 business leaders and other transportation stakeholders. "Tell them what's at stake for you and your employees and the products you sell. Tell them to get to yes."

Foxx said U.S. infrastructure is aging and poorly maintained. The American Society of Civil Engineers pointed out that, without investment, deficiencies in our infrastructure will cost U.S. business more than $1 trillion every year in lost sales.

"We have 100,000 American bridges old enough for Medicare," said Foxx, a former mayor of Charlotte, N.C. He added that, according to the World Economic Forum, the U.S. has fallen 20 spots over the past 10 years when it comes to the quality of our infrastructure. "That puts us behind Barbados, a country with one airport," Foxx quipped.

Foxx mentioned that the Highway Trust Fund (HTF) will again run out of money, probably around August, due to the fact that the mechanism for funding, the federal tax on motor fuels, has been unchanged since 1993. The HTF has been propped up by transfers of about $100 billion over the last 10 years from the general U.S. Treasury.

U.S. Chamber of Commerce President and CEO Thomas Donohue, with the support of the American Trucking Associations, is backing a bill sponsored by Rep. Eric Blumenauer (D-Ore.) that would raise the fuel tax by 15 cents over the next three years.

But Rep. Bill Shuster (R-Pa.), chairman of the House Transportation and Infrastructure Committee, is concerned about the political impact of raising the fuel tax in an election year and has ruled out raising the tax this year. The current two year extension of the current highway funding bill, MAP-21, expires Sept. 30.

"I just don't think there's the will out there with the American public or the Congress," Shuster said at a separate Washington transportation event on February 4.

But at the Chamber infrastructure summit, Secretary Foxx said that the nation must find that political will. "Tom Donahue rightly urged Congress to stabilize the Highway Trust Fund, and I'm grateful to him and you for stepping up and ringing the alarm bell," Foxx told the Chamber.

Foxx has even taken the unusual step to put a running ticker up on the

DOT website to make sure the American people can track how close the U.S is to insolvency on the highway trust fund. "For years, the growing infrastructure deficit has been an issue akin to termites in our national basement, slowly eating away at our foundation," Foxx said. "Now, it is a wolf at the door."

Foxx added that when you combine a crumbling infrastructure, economic costs associated with not addressing these needs, a Congress either unable or unwilling to handle business until emergencies loom, and an HTF that's fast approaching insolvency, transportation is "the next crisis we're heading toward." □

TRUCKING

Industry stakeholders commend GAO report on CSA scoring system

WASHINGTON, D.C.—Trucking interests are asking the federal government to shield carriers' safety ratings under a new controversial truck safety initiative because they believe that the ratings are useless due to a flawed system.

And the government's chief watchdog agrees, calling for major changes in the Federal Motor Carrier Safety Administration's (FMCSA) Compliance, Safety, Accountability (CSA) program. In fact, the Government Accountability Office recently blasted the FMCSA over its collection and use of trucker safety scoring data.

In its recommendation for executive action, the GAO said that "to improve the CSA program, the Secretary of Transportation should direct the FMCSA Administrator to revise the Safety Measurement System [SMS] methodology to better account for limitations in drawing comparisons of safety performance information across carriers."

The GAO suggested that the Secretary of Transportation should direct the FMCSA Administrator to conduct a formal analysis that specifically identifies the limitations in the data used to calculate SMS scores, including variability in the carrier population, as well as the limitations in the resulting scores including their precision, confidence, and reliability for the purposes for which they are used.

Launched three years ago, CSA was designed to weed out as many as 5 percent—or 150,000—of the nation's more than 3 million long-haul truck drivers that the federal government believes are involved in a disproportionately high number of truck accidents and fatalities.

The system was designed so that shippers, third-party logistics (3PL) providers, and the general public can log onto a Web site and find safety "scores" of various carriers. Trucking interests believe that the system was flawed from the start, and are now calling for the FMCSA to essentially hide the scores from shippers and the public.

Given that jury awards in wrongful death lawsuits involving heavy trucks can easily top $20 million, truckers say that wrongfully computed safety scores are costing them millions of dollars in lost business. Plaintiffs attorneys have been known to seek out "deep pockets" in these lawsuits, often naming manufacturers, shippers, and 3PLs in their wrongful death and negligence suits.

Even well before theses changes took effect, industry reaction to CSA has been frosty at best. In many trucking circles, the general consensus is that CSA is an ill-conceived plan that is doing nothing more than making it difficult to get things done in an already challenging environment.

The American Trucking Associations (ATA) has said that CSA scores are unreliable and have a loose and sometimes inverse connection to crash risk. The ATA adds that the FMCSA is also demonstrating an unwillingness to discuss CSA's flaws.

"Given GAO's findings, FMCSA should remove all carrier scores from public view," said Dave Osiecki, ATA executive vice president and chief of national advocacy. "Because scores are so often unreliable, third parties are prone to making erroneous judgments based on inaccurate data—an inequity that can only be solved in the near term by removing the scores from public view."

Jeff Tucker, CEO and founder at QualifiedCarriers.com and CEO of Tucker Company Worldwide Inc., soundly endorsed these recommendations.

"This is welcome news, and not a surprise to anyone who is objectively looking at CSA," said Tucker. "Academia, truckers, brokers, shippers, some people within FMCSA, former FMCSA leadership, Congress and others are vindicated. Top FMCSA leadership have been downright obstinate in their refusal to call CSA what it is—a good improvement on SafeStat that needs a lot more work. FMCSA is guilty of being data-blind and not a bit humble or realistic in the usefulness of CSA."

—John D. Schulz, Contributing Editor and Jeff Berman, Group News Editor

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SUSTAINABILITY

White House calls for further heavy-duty truck fuel efficiency standards

WASHINGTON, D.C.—Following steps taken in 2011 to mandate new heavy-duty truck fuel efficiency standards going into effect this year, President Obama said last month that he is again upping the ante for further fuel economy standards that will head into next decade.

"Today, I'm directing the Secretary of Transportation, Anthony Foxx, and Gina McCarthy, the Administrator of EPA… to develop fuel economy standards for heavy-duty trucks that will take us well into the next decade, just like our cars," Obama said at a Safeway distribution center in Upper Marlboro, Md., on February 18. "And they're going to partner with manufacturers and autoworkers… to come up with a proposal by March of next year, and they'll complete the rule a year after that."

Obama stressed the fact that the nation wants trucks that use less oil, save more money, and cut pollution, and he noted that the White House's National Clean Fleets Partnership, which is focused on helping large companies cut down on diesel and gasoline usage in their fleets, is now up to 23 member companies, including transportation titans UPS and FedEx.

Specifics of the improved fuel efficiency standards have yet to be disclosed, but the president did note that in order to have businesses and manufacturers meet the new goals, the White House is offering new tax credits for companies that manufacture heavy-duty alternative fuel vehicles and those that build alternative fuel infrastructure.

When the White House issued its mandate for improved fuel efficiency in 2011, it was estimated that these regulations would add roughly $6,200 to the cost of a $125,000 Class 8 tractor. It also called for the trucking industry to become more efficient—to go to 6.5 miles per gallon from today's 5 mpg average for a typical loaded semi-trailer. And for combination tractors it called for up to a 20 percent reduction in fuel consumption and greenhouse gas emissions by model year 2018.

The White House added that, by model year 2018, these heavy-duty standards can save vehicle owners and operators an estimated $50 billion in fuel costs and save a projected 530 million barrels of oil—or more than a year of Saudi Arabian oil imports.

While industry stakeholders were largely positive about what the White House proposed back then, some appear to have taken a bit of a more guarded approach this time around.

"We stood shoulder-to-shoulder with the President and his administration in 2011 when the historic first fuel efficiency standards were set for heavy-duty vehicles," said American Trucking Associations (ATA) President and CEO Bill Graves. "As we begin this new round of standards, ATA hopes that the administration will set forth on a path that is both based on the best science and research available and economically achievable."

—Jeff Berman, Group News Editor

INTERMODAL

Intermodal volumes finish 2013 strong reports IANA

CALVERTON, Md.—According to the recent release of the Intermodal Market Trends & Statistics report from the Intermodal Association of North America (IANA), intermodal transportation continued to gain traction in 2013.

Total 2013 intermodal volume was up 4.6 percent compared to 2012. Domestic containers were up 9.4 percent, and international containers were up 1.2 percent. All domestic equipment was up 7.1 percent, but trailers fell 0.7 percent.

IANA officials noted that the strong performance in the domestic container segment has doubled in the last ten years and again led all intermodal groups it tracks. They added that international and trailers both finished the year strong, showing their best improvements in years.

While the growth rates are impressive, industry experts maintain that these strong domestic container intermodal

volumes are due in large part to freight coming out of intermodal trailers into trailers, or from one box to another—coupled with the fact that the gross number of intermodal loadings were higher in 2006 than in 2013 as was gross GDP and industrial production.

IANA President and CEO Joni Casey told *Logistics Management* that there were various drivers for the late year surge in intermodal volume and performance, including continuing tight highway capacity, bad weather, the continued push of freight to rail, a compressed holiday season, and higher e-commerce related sales that required additional capacity.

And with domestic intermodal continuing to be the lead intermodal growth driver, Casey said that it's reasonable to expect more of the same. "It certainly looks like it was based on trends of the last three years," she said. "Domestic intermodal volumes have outgrown international at a more than 2:1 ratio over that time."

Casey observed that international volumes, which were solid in the fourth quarter, have increased in five of the last six months, while levels of monthly increases have fluctuated by as much as 5.5 percent.

"The encouraging sign is that international intermodal shipments are showing growth during the last half of the year versus losses. The rate of growth in 2014 remains to be seen."

—Jeff Berman, Group News Editor

TRUCK FREIGHT

January truck tonnage takes a weather-influenced step back, reports ATA

BOSTON—Difficult winter weather conditions played a significant role in January truck tonnage, according to data released by the American Trucking Associations (ATA).

Seasonally-adjusted truck tonnage in January dropped 4.3 percent, following a 0.8 percent drop in December. The ATA's not seasonally-adjusted index, which represents the change in tonnage actually hauled by fleets before any seasonal adjustment, was 122.3 in January, down 0.3 percent from December's 122.7.

"Like most economic indicators, truck tonnage was negatively affected by bad winter weather in January," said ATA Chief Economist Bob Costello in a statement. "January wasn't just one storm, it was several across a large part of the country. Therefore, I wouldn't panic from the largest monthly drop in two years. I've heard from many fleets that freight was good, in between storms. The fundamentals for truck freight still look good."

—Jeff Berman, Group News Editor

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Newsroom Notes
with Jeff Berman

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A winter like no other

WHEN YOU LOOK AT THE SLUGGISH retail sales numbers and declining truck tonnage, it's easy to see how Old Man Winter has left an indelible mark this year. And while the effects of his icy touch will not last forever, the overall impact will remain intact for a little longer.

At least that's been the sentiment of many leading supply chain and freight transportation industry stakeholders—shippers, carriers, and third-party logistics (3PL) providers—that I've spoken with over the last month. They all agree that in this winter like no other, the disruptions have been exacerbated due to the sheer number, frequency, and breadth of the storms that have canvassed such a wide area of the U.S.

In a recent conversation with Ben Cubitt, senior vice president of consulting and engineering at third party provider Transplace, I gained some insight into how this unique winter is providing drastic lessons on how to navigate difficult weather.

"These storms have been huge," said Cubitt. "And as soon as you recover from one, another hits, and that has an impact on both primary and secondary markets. So, if Chicago and Indiana are shut down due to weather-related issues, that has an impact on St. Louis, Dallas, and Pennsylvania. Those trucks that are supposed to be shipping out of Chicago into these markets have not arrived, and that results in less capacity—that's been the story of this winter."

The second part to the story, according to Cubitt, is that the truckload market is in "relative equilibrium," meaning that most days there are about as many trucks as there are loads. And when these weather-related disruptions come along, the ability for the network to recover quickly is simply not there and quickly leads to a tipping point resulting in missed deliveries and pick-ups.

So, where does this leave shippers in terms of dealing with the elements and managing supply chains during this most challenging of winters?

The first, and maybe most basic step, Cubitt noted, is for shippers to just come to terms with it. Often it's a one day or one market issue, and it's not a specific carrier issue or a transportation planning issue.

"It's really a network issue," Cubitt said. "This should lead shippers to look for a broader solution. This requires better visibility, planning, and communication with all of your partners." He adds that shippers need to be in better communication with their 3PLs and carriers to forecast what's coming up, which markets are going to be affected, what's open, and what's closed.

This improved network planning can go a few ways in that if affects different modes, like trucking, intermodal, rail, and parcel. And it requires understanding from the carrier side of who's not operating on a given day and how long will they be down. Cubitt added that when those disrupted carriers are back up and operating, some receivers may not be ready, such as retailers with mall-based locations.

And while a distribution center may be able to get its trucks rolling again, they still may not be able to make a delivery due to unclear roads or the fact that the receiver's facility is still digging out from the storm.

> **Shippers need to be in better communication with their 3PLs and carriers to forecast what's coming up, which markets are going to be affected, what's open, and what's closed.**

"It's about really close coordination between the shipper, carrier, and the 3PL to really understand what the plan is that day," added Cubitt.

The theme of communication can't be sounded enough in supply chain and freight transportation management circles—and the never-ending winter of 2013-2014 will continue to serve as proof of that. While adverse weather can't always be perfectly predicted, Cubitt added that it could at least be planned for in order to mitigate the circumstances as well as possible. ☐

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Moore on Pricing

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What is the shipper's role in driver safety?

In a recent speech to shippers and carriers, Anne Ferro, administrator of the Federal Motor Carrier Safety Administration (FMCSA), said: "We need a real change in our transportation culture to recognize that safety means more than complying with safety rules. It means changing work/rest schedules that contribute to fatigue."

In Ferro's crosshairs—after driver hours-of-service (HOS) rules and electronic logs—is clearly the question of who is responsible for driver delays and the associated fatigue.

As I've discussed several times in this column, the shipper needs to ensure that they're not holding drivers at the origin or destination—or contributing to fatigue by forcing the driver to stand around while they're loaded or unloaded.

Those issues, says Ferro, are driving the FMCSA toward research "that allows us to better understand the correlation between driver detention and safety outcomes and driver compensation and safety outcomes." She adds that the FMCSA completed the first phase of its driver detention study and will issue a report soon.

I continue to see bad practices at loading docks and receiving stations at shippers and receivers—apparently so does Ferro and the FMCSA.

Driver detention costs the trucking industry as much as $4 billion a year in lost productivity, according to a 2009 study that was conducted by the Department of Transportation. Drivers measure lost productivity based on the hours spent waiting for trailers to be loaded or unloaded, the lost miles they could have been hauling with freight while waiting, and the money they're not earning while waiting at a customer's site.

This lost productivity time has always been a matter of contention between shippers and carriers. Many contracts allow for up to two hours of "free time," while some older tariffs and contracts show up to four hours.

In driver meetings, carrier management often hears frustrating stories of long waits despite appointment times, an issue that's likely a contributing factor in driver turnover. In fact, I remember finding a 10-foot circle drawn on the floor of a warehouse and being told that this is where the driver stands while his trailer is loaded—there was no chair or even a post to lean on. This is an extreme example, but one I've never forgotten.

Many industry colleagues draw attention to Ferro's recent statement: "We're preparing the groundwork for phase two of that detention study that will look more closely at the safety and operational impacts of detention time." I believe that this broader look at detention will undoubtedly include the shipper's role.

> **We need a real change in our transportation culture to recognize that safety means more than complying with safety rules. It means changing work/rest schedules that contribute to fatigue.**

Shippers have for too long pushed the responsibility of driver safety and productivity solely onto carriers. Shippers already pay dearly in higher rates for driver delays and are possibly going to find themselves regulated in their operations.

The answer resides in a more proactive approach. Shippers and receivers have options for shortening driver down time, and this needs to be a priority in re-engineering warehouse operations. A candid conversation between operations professionals at the shipper and carrier can reveal where costs are most affecting rates as well as the root causes of driver fatigue under their control.

The bottom line is simple: Improving driver safety as well as the opportunities to drive more will have the side benefit of reducing accidents and driver turnover—and perhaps attract more drivers to the industry. ☐

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Pearson on Excellence

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Leading manufacturers thrive in a world of ongoing volatility and uncertainty

VOLATILE MARKETS. UNSTABLE CURRENCIES. Vacillating demand. Unpredictable commodity costs. Manufacturers, like most companies, have plenty to worry about.

However, there is a small segment of manufacturers that consistently increases profits and maintains growth—in spite of all of the challenges mentioned above. According to a recent Accenture survey, this group comprises about 9 percent of our survey respondents. On average, they have increased production levels, profitability, and labor efficiency by more than 10 percent since 2011, and anticipate similarly strong results in the near future. The primary goal of the survey was to discover what these leading manufacturers are doing better than everyone else. Several areas surfaced: technology investment, strong service culture, and enlightened leadership.

Yet, one factor was particularly prominent: The ability to flexibly and dynamically alter production to match demand. In other words, the operating models of these high profit, high growth companies accommodate a near constant shifting of resources and activities to different locations across their supply chain and manufacturing networks—and even within specific facilities.

Compared to the other 91 percent, the leading manufacturing's are twice as likely to have relocated manufacturing operations since 2011; to have started new operations during that time; and to be considering relocating manufacturing operations in the near future. They are also more prone to:

- Rely on modular business processes that allow them to quickly reallocate manufacturing capacity.
- Have extensive visibility across the supply chain, thus helping them make informed, flexible decisions about how to handle demand.
- Excel at sensing market changes and opportunities.
- Employ diverse workforces that include full- and part-time employees, contractors, and consultants.
- Build programs focused on extending the life and contribution of existing assets, particularly through total productive maintenance (TPM) and analytics.

From this group of leading practices, Accenture has identified four "flexibility enablers," or exceptionally desirable capabilities for manufacturers seeking higher profits and stronger growth:

Control towers. Control towers offer manufacturers "integrated visibility" into demand; capacity (suppliers, manufacturers, distributors); inventory; orders and shipments in transit; and the activities of supply chain partners. Control towers can also help companies use the data they collect to respond more quickly and decisively to changes. For example, by leveraging predictive analytics, manufacturers can set alerts to flag potential issues and run simulations to model the potential outcome of various decisions.

Contract manufacturing strategies. Our survey revealed that many manufacturers plan to use more contract manufacturing in the coming year. However, the predominant reason is to relieve temporary (short-term) capacity constraints, which is not a particularly strategic, productive, or flexible way to leverage contract manufacturers. Utilizing contract manufacturing more strategically begins with careful consideration of what the company should be outsourcing and what it should keep in house. Next, they need to understand how to outsource—something that is not as self-explanatory as it seems.

Manufacturing leaders, for example, appear to put a lot of thought into what kind of contract manufacturing relationship is right for them. They also make fact based decisions about what tools and capabilities are needed to effectively monitor and manage the relationship .

Production systems. Think of a production system as an integrated governance tool designed to help manufacturers operate globally repeatable and consistent manufacturing processes, efficiently re-allocate manufacturing capacity, ensure continuous improvement, and eliminate waste. Production systems are increasingly important to achieving the highest concurrent levels of flexibility and consistency. To be effective, a production system must be tightly linked to a company's overall business strategy. It should also be based on lean principles that emphasize customer focus, process standardization, and waste elimination across the enterprise.

Enlightened asset management. Highly effective manufacturers consider asset reliability a shared responsibility between production and maintenance. They also excel at using predictive analytics to create models that highlight the likelihood of various events and the impact those events could have on an asset's performance. Most importantly, successful manufacturers don't neglect maintenance during times of austerity. □

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Fuel price volatility is back

NATURAL GAS PRICES HAVE RISEN 40 percent to over $6 per thousand cubic feet (Mcf) since the beginning of the year. As a regular reader of this column, rising prices should come as no surprise. In July of last year, when the price was just $3.52 per Mcf, I predicted that prices would rise to between $4.00 and $4.25 per Mcf by the end of the year.

By the end of December, the price had risen to $4.30 per Mcf. Midway through January, when prices were $4.40, I recorded a webcast with *LM* in which I predicted that prices would rise above $5 in the first half of the year. By the time the webcast aired on January 30, prices had already risen above the $5 mark, and have continued to climb.

How high will natural gas prices go, and how will this affect CNG and LNG prices? More importantly, how will the price differential between diesel and CNG/LNG evolve? Answering the latter question requires insight into both natural gas and oil prices. Despite the fact that domestic oil production continues to grow, oil prices are up 8.7 percent since the beginning of the year. The impact of rising oil prices on diesel prices has been somewhat subdued, however. Since the first of the year, diesel prices have climbed from $3.90 to $4.02 per gallon.

Unlike diesel, neither CNG or LNG prices are reported on a timely basis, so exactly how CNG and LNG prices have been affected by the rise in natural gas prices is unknown. One thing that's certain is that rising commodity prices will translate to higher pump prices. The rise in natural gas prices has been largely, but only somewhat deservedly, pinned on the series of arctic blasts that have hit the country. The bigger story is that natural gas storage volumes have been eroding for more than a year because consumption has been rising faster than production.

Prior to December 2012, the volume in storage was at a five year high, but by March 2013, storage levels had fallen to the five-year average. Between October and late December, storage volumes had fallen to the five-year low. This descent occurred prior to the repeated arctic blasts, so rising prices can't be fully pinned on "unseasonably high" natural gas demand.

Since December, storage volumes have set new five-year lows every week, and they're now on par with volumes last experienced in 2008, a year during which spot prices increased from just under $8 per Mcf to over $13.

In order for storage volumes to recover, new production wells need to be drilled, but drilling rates remain low. In September 2008, there were 1,606 rigs drilling for natural gas; but as of one year ago, there were just 428. As of late February, there were only 342. The hesitation to return to drilling natural gas wells is due in part to the weather, in part to the recent history of low prices, and in part to the opportunity cost of deploying drilling rigs on natural gas fields. These same rigs can be used to drill more lucrative shale oil wells. As of September 2008, the number of rigs drilling for oil was just 417, but this number has risen to 1,425.

As of November, the national average CNG price was just $2.49 per diesel gallon equivalent (dge), and the national average diesel price was $3.93 per gallon. With the price differential at $1.44 per dge, conversion from diesel to CNG looked very attractive for many fleet owners.

Although current CNG prices are not available, a bit of quick cowboy math can get us to an estimate of how the price differential has evolved since then. Between November and February, natural gas prices increased 71 percent, and the commodity constitutes approximately 25 percent of the final CNG price. Holding all other factors constant, an increase of 71 percent would push the CNG price up to $2.93 per dge.

> **One thing that's certain is that rising commodity prices will translate to higher pump prices.**

Meanwhile, diesel prices increased just nine cents per gallon. Consequently, we may expect that the diesel/CNG price differential to contract to just $1.09 per dge. At this price, many conversions become uneconomical, but three points must be made in this regard.

First, the calculations above imply that any natural gas price movements are immediately transferred to CNG prices, and this may not be true in many cases. With that caveat in mind, any sustained increase in natural gas prices must eventually be pushed to the end consumer. Second, the point at which the price differential does or does not justify conversion depends largely on the fleet in question. Third, all the prices quoted above represent national averages, and paying the national average price is like having 2.3 children—it may be the norm, but it's certainly not normal.

Looking forward, I expect that natural gas prices will remain high, though they will fall somewhat as winter gives way to spring. Whether or not rising natural gas prices make potential natural gas conversions uneconomical, however, will depend on the characteristics of the fleet and the region in which it operates. □

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Bombay Company: Fresh

The global retailer re-launched in North America and built a new multi-channel supply chain from the ground up with the help of its existing 3PL partner.

BY **PATRICK BURNSON,** EXECUTIVE EDITOR

When Hermes-OTTO International—a global trading and sourcing company specializing in fashion, home living, and leisure products—sought to re-launch its Bombay Company brand in North America, the logistics team faced a tough decision: Should they stay loyal to one third-party logistics (3PL) provider or spread the risk among multiple players?

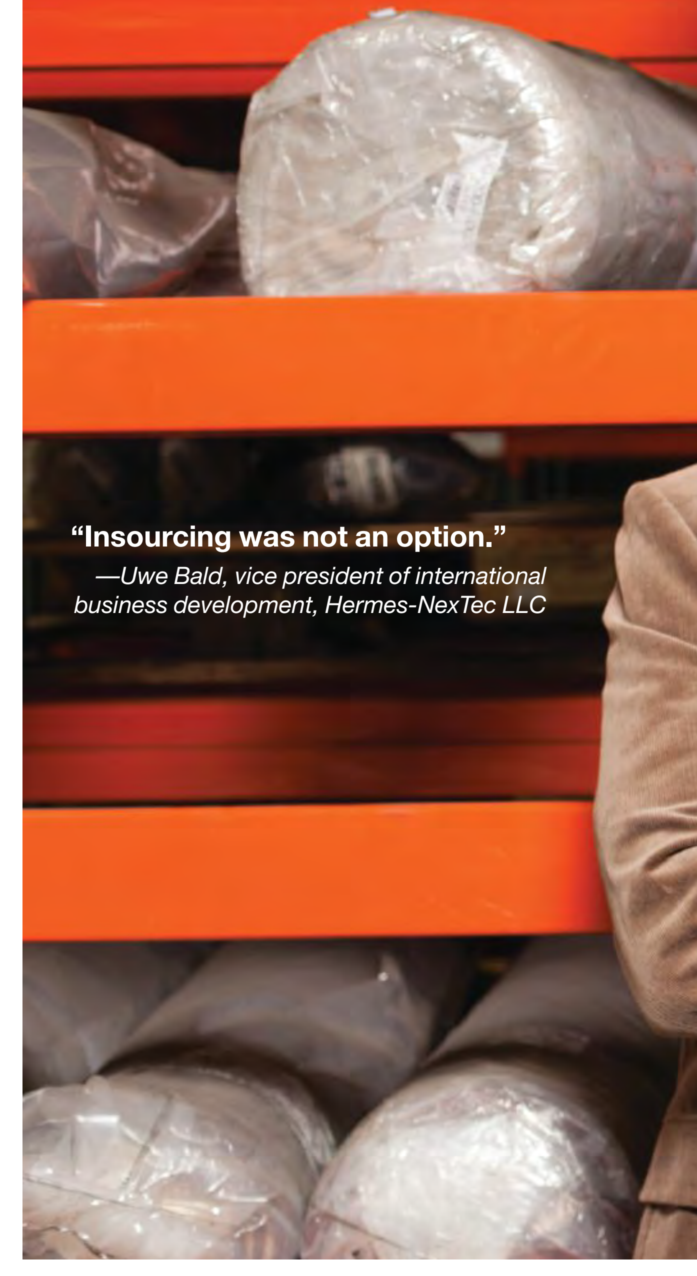
In order to make this fresh start in the multi-channel age, Bombay needed a provider of fulfillment and distribution services with knowledge, experience, and assets that could support rapid growth. The new distribution network had to be built from the ground up, and it had to meet high customer expectations from the first day of operations.

"Insourcing was not an option," says Uwe Bald, vice president of international business development at Hermes-NexTec LLC. "We evaluated the strengths of our existing 3PL, but considered several other players capable of supporting our new multi-channel distribution strategy."

As with most cases of this kind, the shipper was confronted with profound risk/reward decisions. They could sever ties with their existing 3PL and build a relationship with another from scratch; they could hire multiple 3PLs to handle different parts of their business; or they could turn to an existing partner and expand services and build on past success. For Bombay, the choice was simple.

Brand rebirth

The Bombay Company closed its retail operations in 2008, but the brand still proved resilient enough to attract the attention



"Insourcing was not an option."

—Uwe Bald, vice president of international business development, Hermes-NexTec LLC

start for a new age

Photograph by Roman Cho/ Getty Images

Bombay ships items as small as candle holders and as large as beds.

of Hermes-Otto International, which also owns Crate & Barrel—another multi-channel seller of home furnishings. Purchasing Bombay's U.S. license appeared to be a good idea, and the deal was signed in September 2012.

Having retail partners like Bed Bath & Beyond and Burlington Coat Factory helped get Bombay back in business by giving its licensed products a brick-and-mortar platform, augmenting fulfillment direct to consumers via e-commerce and direct channels. These channels also include international e-commerce retailers QVC and Joss & Main.

But complicating matters was the fact that Bombay was seeking a lead logistics provider capable of meeting high performance requirements extending across a wide range of products. "We ship items as small as candle holders and as

Four reasons 2014 will be the "year of the distribution center"

As Bombay made eminently clear, distribution space and location are deal makers or deal breakers when it comes to successfully fulfilling multiple channels. Not surprisingly, industrial real estate is poised for a spike in demand, development, and delivery.

According to recent research by Jones Lang LaSalle (JLL), industrial markets nationwide have been recovering for more than four full years, with 15 consecutive quarters of adaptive reuse. Last year marked a five-year high, with 168 million square feet of reuse, and, with current forecasts, this figure could top 180 million square feet in 2014. So, what's behind this momentum?

"This year is starting off with high demand from e-commerce and other users who are in the market for large, sophisticated space, and lots of it," said Craig Meyer, president of industrial brokerage at JLL. "This will make 2014 the 'year of the distribution center.' Modern space with proximity to population centers and a robust logistics infrastructure will dominate the industrial real estate sector in 2014."

JLL anticipates the overall national vacancy rate will settle at a cyclical low of 7.5 percent in 2014. Here are four trends driving this momentum:

1. Demand is spreading into secondary markets. Tenant requirements for large, modern warehouse space to accommodate evolved distribution strategies and materials handling processes outweigh supply in prime distribution hubs such as Los Angeles, Chicago and New Jersey. As a result, development will spill into markets with land ready for new construction like Phoenix and Indianapolis.

2. Build-to-suits are the new spec. In 2013, half of all U.S. warehouse and DC construction began with pre-leases in place. Underwriting criteria for big box space made true speculative construction difficult and many developers sought pre-commitments prior to ground breaking. This means today's build-to-suits are less about special purpose buildings, or design-build projects, but are more about kicking off semi-spec buildings.

3. Focus on rail. With the cost of trucking on the rise, developers and investors are focusing on markets with solid intermodal infrastructure in place such as Dallas, Columbus, and Memphis. For the seaport markets such as Oakland and Miami there is a push to enhance on- and near-dock rail capabilities. Miami's new rail system, for example, will give the port access to 74 percent of the U.S. population.

4: Growth driven by "clicks" surpassing "bricks." A staggering 40 percent of big-box industrial requirements are correlated to e-commerce, a sector growing globally by 20 percent each year. As retailers develop new real estate models to support their omni-channel logistics models, they are looking at six primary types of warehouse space, ranging from mega-distribution centers to smaller delivery centers in urban areas. In 2014, JLL expects to see demand for urban logistics centers to support same-day package delivery.

—Patrick Burnson, Executive Editor

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The arrangement found the 3PL developing an optimized fulfillment network, importing products from China and Asia into its Chino, Calif., distribution center.

large as beds, which are sold through e-commerce channels driven by holiday peaks, 'deals of the day,' and TV specials," observes Bald. "There's also a consistent stream of orders from regular customers."

Bald says that the wide range of product characteristics, from heavy weight to fragile, had to be considered when evaluating a 3PL. "You must remember that our products used to be packaged for B2B distribution," says Bald. "Now we had to find ways to repackage them for B2C fulfillment in some cases. At the same time, we had to improve the inbound packing where possible in order for it to meet the requirements for B2B and B2C fulfillment."

Expanding existing contract

Kenco was Bombay's sole logistics provider when plans were afoot for the re-launch into North America. The provider executives knew and understood that they would be asked to demonstrate their ability to grow with the shipper—or be replaced with a competitive 3PL.

"It is generally our assumption that existing and potential customers will assess multiple 3PLs when their needs change," says Judy Craig, vice president of sales at Kenco. "We didn't ask Bombay who they were evaluating, but the process must be transparent."

Rather than go through another RFP process, however, Bombay asked their existing 3PL to detail a new pricing arrangement and customize the existing contract. Both Bald and Craig agree that a long-term, valued relationship was the foundation for the deal. They dismiss "price point hunting"—going with the lowest bidder—as a tactical error when making a decision of this magnitude.

Bombay did not demand that its 3PL customize it warehousing, either, because new supply chain configurations are changing the industrial landscape. Indeed, industry analysts note that technological advances in fulfillment are affecting the demand for warehouse space, influencing not only building size requirements, but also the location and build-out of the facilities (see sidebar).

"For a company like Bombay, the need for regional expansion is not necessarily a 'big box' solution," says Bob Silverman, executive vice president for Jones Lang LaSalle. "Having the right space in the right location is far more critical."

The arrangement found the 3PL developing an optimized fulfillment network, importing products from China and Asia into its Chino, Calif., distribution center. Handling up to 400 SKUs, Kenco now receives Hermes volume forecasts and fulfills all Bombay products as needed to retail stores throughout North America and direct to consumer homes in fulfillment of e-commerce orders. The 3PL handles returns for the retailer.

"The reverse loop is very important to us," says Bald, "because furniture returns can be very costly. We needed a 3PL with a special concentration in reverse logistics."

At the same time, reliable forward logistics had to be assured with push into the region. "We expect and require our 3PL to provide same-day shipping for about 90 percent of all B2C orders, and to do so with a high level of inventory accuracy," says Bald.

Lessons learned

According to Bald, there was one clear logistics management lesson from the re-launch. "For us, it meant remaining loyal to our 3PL until they failed or disappointed us," he says. "And that did not happen…fortunately for both of us. We're very happy with the way things are going, and the network worked fine from the beginning."

Bombay says that with their new multi-channel strategy, they made changes in 20 percent of their core processes. These include delivery, quality control, and returns. Furthermore, they made changes in 15 percent of their supporting processes, including exception handling and cycle count—counting on a cyclic schedule rather than the traditional inventory process, which occurs once a year.

Meanwhile, their 3PL partner has a supply chain design capable of handling B2B and B2C volume spikes, while providing stable B2B and B2C freight and packaging rates. "Customer satisfaction rose by 17 percent on average for the areas that were improved," says Bald, "and that is a direct reflection of our logistics management."

—Patrick Burnson is Executive Editor of Logistics Management

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Collaborative LTL contracting

New systems and management techniques are providing the infrastructure needed to revolutionize the LTL market. Now, shippers and carriers need to sit down and re-engineer their relationships from scratch to improve margins for both. Here's how it's done.

BY **PETER MOORE,** CONTRIBUTING EDITOR, COLUMNIST

Shippers spend between $30 billion to over $100 billion per year on less than truckload (LTL) freight—the variance in this big number depends on whether or not you count multi-stop shipments as LTL moves.

Either way, LTL plays a massive role in our national supply chain network and is a critical resource for shippers that are looking to maintain flexibility in their customer service as well as cost control. But despite this lofty position, many large shippers overlook LTL in the procurement process and often consider the carriers providing the service as little more than a generic commodity.

LTL suffers this fate for a couple of key reasons. First, for many mid-size to large shippers, LTL is 5 percent to 10 percent of its total transportation spend, and the focus is on truckload and intermodal. The carrier pricing practices of offering standardized discounts, FAK rates, and simple rate tables has reinforced the generic commodity thinking.

Second, by averaging risk, mileage, dimensions, and weights, carriers have simplified pricing so that a junior member of the transportation staff, or a purchasing agent, can handle an LTL RFP. My very first traffic management job was handling LTL rates

Eva Vázquez

Both the shipper and carrier must want the joint effort to succeed and be willing to extend the benefit of the doubt to the other, believing that they also want the same mutually beneficial result.

and lanes. The boss felt that even I couldn't mess up getting the biggest discount percentage off the applicable tariffs. A carrier shows their coverage area—regional or national—and quotes a discount.

Many shippers are still locked in this paradigm, but carriers are moving on—where possible. Carriers have sophisticated pricing models and know their cost to serve each customer. From insurance risk to driver delays to capacity utilization, they're measuring their customers and evaluating their relationship.

Today, shippers still make carriers respond to an RFP that asks for discounts off of an expired 1998 Roadway tariff with out-of-date zip codes. The carrier will respond if they really need your freight, but will manipulate whatever leavers (accessorials and minimums) they have to create a reasonable margin. In most cases, carriers will live with having to interact with junior procurement personnel and being treated as a commodity service—until they can replace your freight from a shipper that wants to work more strategically.

Building trust

Rather than establishing LTL contracts on impersonal RFPs and discounts off old rate tables, best practices suggest building collaboration around a nucleus of trust.

That trust is made possible through transparency and mutual knowledge of each other's operational network compatibility. Both the shipper and carrier must want the joint effort to succeed and be willing to extend the benefit of the doubt to the other, believing that they also want the same mutually beneficial result.

To start this process, the shipper needs to make a full disclosure of their network and their business cost and service objectives. Kate Vitasek, a faculty member at the University of Tennessee, refers to this as "skinny-dipping," and the rule is that the buyer (shipper) goes in first.

In their most recent book, *Getting to We: Negotiating Agreements for Highly Collaborative Relationships*, authors Jeanette Nyden, Vitasek, and David Frydlinger lay out the elements of a successful contract negotiation in which the objective is win-win.

The authors seem to be describing many LTL deals when they say: "Transactions are quick short-term exchanges. The deals they create are static, but of course a business environment is not. And static deals often lose equilibrium, where the deal is no longer perceived as fair by one or both parties."

In light of these ideals, it doesn't matter whether you are a shipper or a carrier. The same culture of cooperation is required regardless of the title you bear or the relative power you wield in each negotiation.

With that in mind, it's then necessary to believe that the long term gains of a "we" relationship offer greater gains to your company than those negotiated through traditional competitive approaches. However, this attitude may be difficult for some shipper negotiators to absorb.

In addition to being flexible about the creation and management of a collaborative contract, the agreement between the shipper and carrier must transcend the contract for carriage itself. The length of a contract is often artificially determined based on market conditions and risk, and assumes far more about the ongoing relationship than either party can know at the time of signing.

The relationship, and more specifically the vision statement that the relationship is based on, should replace the contract as the hinge between the partners. The two parties pledge to keep the relationship going and to make adjustments during the life of the contract to foster innovation. The contract becomes a living document.

The bottom line: Research and experience demonstrates that collaboration based upon trust results in larger margins for both parties.

Cost factors to build into negotiations

In collaborative contracting, both the shipper and carrier envision themselves sitting together across the table from their mutual challenges. The objective is to share in the benefits that they both can contribute to in optimizing cost and service factors.

Once you get past the fuel surcharge calculations it's time to get on to real controllable cost elements. Below are just five of these elements that should be a part of every working meeting on collaborative contracting.

• ***Service levels (damage free, information, lead times).*** Both parties contribute to damage free, on-time shipments. For the shipper it's proper packaging, palletizing, description, and documentation. For the carrier it's handling, routing, and data capture. Transparency as to operating practices from packing to proof of delivery will help

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both parties to see where improvements and innovations would pay off for both parties and their mutual customers.

• ***Tendering and settlement automation.*** A recent study indicated that most carriers spend at least $10 to generate an invoice, and that invoicing accuracy for most carriers is well below 95 percent. Clearly there is a business case for change.

Tendering loads earlier in the order cycle would help carriers optimize equipment utilization—even if the shipper could supply a forecast a day earlier would help. If customer service representatives knew that better rates were available a day earlier or later, then shippers could provide options to their customers.

By moving to a system where the carrier holds the negotiated rates on their system open to shipper inspection and inquiry, the concept of "one number" shared by both parties can be realized. Because we have tracking data and can tell when a shipment has been delivered, the simple one-step settlement process can replace the "match-pay" process in common use today.

Tendering and settlement could be done automatically using existing technologies, and by doing so, shippers and carriers can share in the freight tendering and settlement savings.

• ***Dynamic rating.*** With process automation comes opportunities to share operational strengths that will build stronger networks at optimized costs. Shippers and carriers will have to understand the other's capabilities through transparent reporting and joint planning. A pricing model that includes variables for day-of-week, season, density, and lead-times is a start. Rigid classes—or freight all kind (FAK)—with fixed discounts needs to yield to dynamic pricing that incents innovation.

Carriers may find it advantageous to cooperate more closely with their customers by adopting a pricing scheme that works to the benefit of both. Shippers also need a flexible and easily understood pricing methodology that can be accessed from their transportation management system (TMS) software. And the shippers I have spoken to would certainly value the opportunity to optimize their transportation solutions with real-time access to the charges and options offered by their carriers.

• ***Insurance/release valuation.*** If you are using traditional NMFC classifications as a base for rates, and even more so if you have FAK, then shipper and carrier are making assumptions about insurance coverage.

Best practice is to make item valuations a part of the full disclosure by shippers, and the relative cost of cargo insurance as well as accident rates a part of the carrier's disclosure. What can follow is an open, productive discussion on who should carry what portion of the burden of coverage, how to minimize claims, and how to settle disputes quickly. For many shippers, this is an eye-opening discussion, especially as they find out that they are either over insured or paying too high a rate for redundancy.

• ***Driver retention.*** The U.S. Bureau of Labor Statistics classifies truck driving as a high-demand job and predicts an additional 300,000 job openings by 2020. The turnover rate for most firms still hovers around 100 percent, according to the American Trucking Associations, with job satisfaction just one factor keeping this number so high.

Reports of commissions awarded to current drivers to bring in fellow drivers has created a perverse incentive as drivers are attracted by friends to job hop, collecting bonuses and slight pay increases as they go along.

The Center for Intermodal Freight Studies estimates that the trucking industry spends approximately $4.8 billion a year in recruiting and qualifying experienced drivers. Thus, shippers need to fully understand this phenomenon and its impact on their rates and service.

A contract might have incentives for shippers to help retain drivers by treating them with respect, providing shipper loading, and adjusting shipping and receiving hours. Retaining skilled drivers also has the effect of pleasing the customer of the shipper with friendly, familiar delivery personnel.

With process automation comes opportunities to share operational strengths that will build stronger networks at optimized costs. Shippers and carriers will have to understand the other's capabilities through transparent reporting and joint planning.

Keep the door open

To really improve service and costs, the two parties need to openly discuss the roles and responsibilities in these five key areas. As important as this initial discussion is in getting a baseline for an agreement, ongoing meetings are even more important to building a joint culture of collaboration.

For shippers and carriers in the LTL market, new applications, systems and management techniques are providing the infrastructure needed to revolutionize the LTL market. Shippers and carriers need to sit down and re-engineer their relationships from scratch to improve margins for both.

Peter Moore is a Contributing Editor and Columnist for Logistics Management

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Global Trade Management: Automation time

According to recent market surveys, too many global shippers are still using a mix of manual processes and homegrown systems to manage global trade. Our analysts say "enough is enough."

BY **BRIDGET McCREA**, CONTRIBUTING EDITOR

Aware of the complexities of running a global supply chain, today's global shippers generally take one of three routes to import and export compliance and management.

Some off load the task to their third-party logistics (3PL) providers and freight forwarders, while others use spreadsheets and manual processes to tackle the issues. However, a smaller portion has turned to global trade management (GTM) software to streamline and automate processes related to customs and regulatory compliance, global logistics, and trade financing.

According to ARC Advisory Group's recent *Global Trade Management Market Study*, international trade has grown at almost three times the rate of global GDP over the last 10 years. In turn, this increased volume of trade has made manual global trade processes insufficient in many cases. Concurrently, global expansion has increased the complexity of trade regulatory requirements placed on multinational corporations.

According to ARC's findings, these market dynamics certainly improve the GTM value proposition and *should* increase demand for the solutions. However, shippers have been somewhat reluctant to adopt GTM.

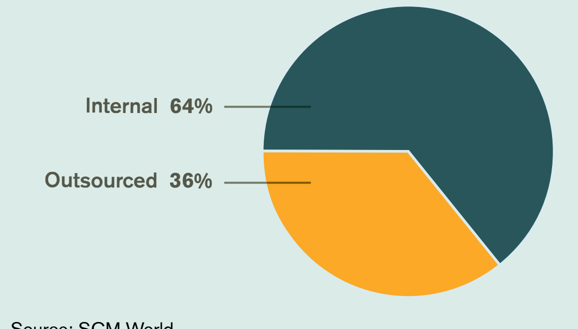
According to SCM World's recent *Managing Global Trade: Rising Importance but Lagging Execution* survey, 75 percent of companies trade across more than 10 countries and that nearly half (48 percent) trade across more than 50 countries. Almost half (48 percent) of respondents say that an inability to control global transportation costs and the lack of visibility of global shipments moving through the global supply chain are among their top five business challenges.

Key challenges these shippers face include delay of shipments by customs (80 percent) and unpredictable lead times on international deliveries (90 percent). And while 57 percent of respondents say complying with global trade regulations is a top concern, less than 4 percent have automated their import compliance functions and just 12 percent collaborate with extended global trading partners in an automated fashion.

According to SCM World's findings, the most common way of handling trade management processes and the

How global trade is managed

What % of your global trade functions are you performing with internal staff versus outsourcing to third-party logistics providers?



Source: SCM World

information needed to support such processes involves some combination of manual work in spreadsheets, clunky homegrown systems, and arm's length relationships with third-party partners.

"Truly successful global trade management depends on getting both the visibility problem and the compliance problem right," says Kevin O'Marah, SCM World's chief content officer. "Without accurate and up to date content for compliance purposes, money will be wasted."

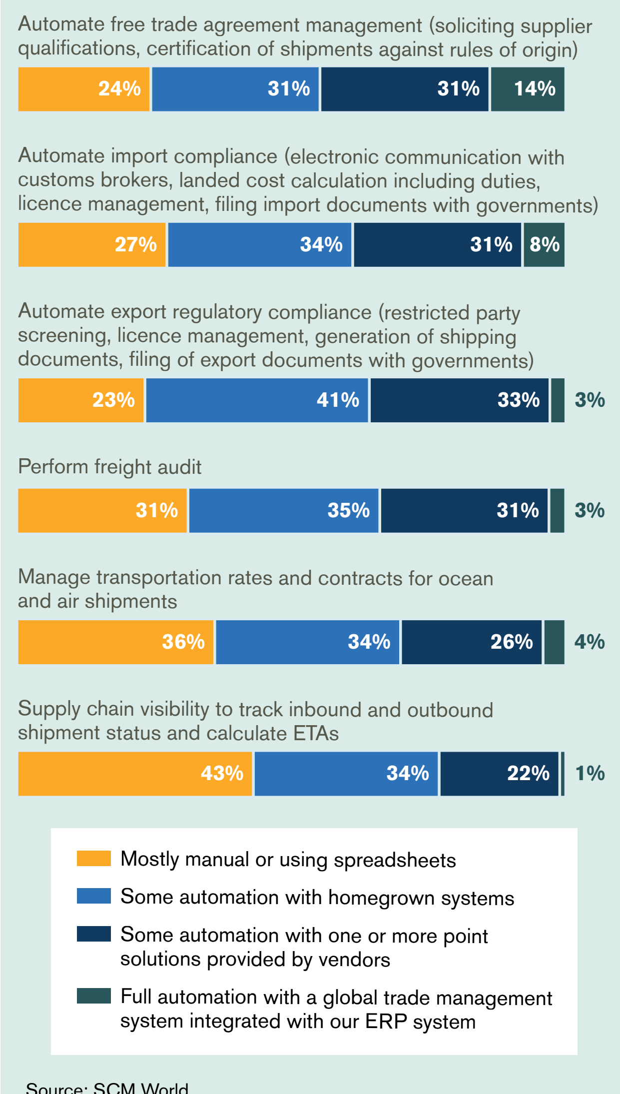
Over the next few pages we'll explore the adoption rates of GTM, explain the critical role that such solutions can play in the smooth running of a global supply chain, and hear from a shipper that has moved from manual, homegrown processes to a full blown GTM.

Global disconnection

With such a high degree of shippers relying on disconnected global trade compliance and management solutions, a lot of money and time is being lost as companies struggle to keep up with new rules, regulations, and laws.

"Delivery holdups at the border and at customs, regulatory issues, visibility problems, and myriad other challenges are making global shipments harder and harder to manage," says O'Marah. "When shippers use a slew of manual processes, phone calls, and rely on individuals to remember things, even the shortest global supply chains can run into trouble."

Those potential trouble spots haven't gone unnoticed by shippers. According to ARC, demand is especially strong for solutions that support special-duty programs such as free trade and foreign trade zones.



Free trade functionality automates classification processes that support duty minimization, ARC reports, while foreign trade zones offer opportunities for companies to reduce or delay duty payments, resulting in lower operational and inventory management costs. Other functions that shippers need help with, and that GTM handles, include maintenance of product classification databases, denied party screening, export license management, and supply chain security program compliance.

According to William McNeill, principal research analyst at Gartner, Inc., there's a resurgence in the number of shipper inquires around restricted party screening (the process of screening those parties involved in an export transaction for the purpose of complying with the safety standards) and export compliance.

"Now that the economy is improving, companies that are doing more international business are re-examining their export policies in an effort to mitigate the risks," says McNeill.

Holistic view

For the most part, investment in global trade solutions remains highly tactical in nature, with companies finding specific ways to mitigate potential risks without looking at the more holistic, global picture.

Most remain focused on restricted party screening, says McNeill, who also sees a high degree of shippers relying on their 3PLs and freight brokers to identify and address any potential risk areas. This can get shippers into trouble, he notes. "Just because you outsource the process doesn't mean you shouldn't have visibility into it."

O'Marah concurs, and says GTM provides that visibility while also maintaining the all important content (customs, taxes, tariffs, denied parties) that is cross-referenced to ensure compliance. "Keeping track of all of the changing rules is the hardest aspect of global trade right now," says O'Marah. "Through our own research, we found that every shipper could tell a story of being caught by surprise by a new rule or regulation. Those issues can really hurt."

STRENGTHENING THE HIGH-TECH GLOBAL SUPPLY CHAIN

New survey reveals key points of concern within high-tech organizations' globally connected supply chains.

Increasing globalization in the high-tech sector, high levels of competition, and shifts in consumer demand are pushing organizations to innovate faster and get their products to market within compressed windows of time. The pressure to perform at optimal levels while still attaining profitability targets is challenging even the most efficient and productive organizations.

The high-tech supply chain is particularly vulnerable to these new pressures, according to the *Change in the (Supply) Chain* survey, conducted by IDC Manufacturing Insights. Logistics managers in the high-tech supply chain are gearing up to meet the demands of an increasingly competitive marketplace in 2014 and beyond. In this article we'll explore the key survey results and show how organizations are solving their key pain points and driving inefficiencies out of their global supply chains.

The Near-Shoring Trend

With 41 percent of shippers anticipating exports to grow faster over the next two years, the number of global supply chains will increase exponentially. As a result, more logistics managers will seek out solutions to handle these increasingly complex distribution networks.

According to the *Change in the Chain* survey, one strategy that's being explored is near-shoring, or the transfer of business or IT processes to companies in a nearby country. Currently, 27 percent of high-tech logistics decision makers are planning to embrace near-shoring—a 10 percent increase over 2012.

Key drivers of the near-shoring movement include improving service levels by bringing production closer to demand and the diversification of manufacturing to avoid natural and socioeconomic risks.

A Focus on the Customer

Executives are also emphasizing the customer-centric supply chain, with 71 percent preparing to improve planning capabilities and reduce lead times; 68 percent looking to improve fulfillment capabilities; and 66 percent focused on improving post-sales/return capabilities.

Future of high-tech exports

41% Expect to see exports grow faster over the next two years compared to 2013

39% Expect to see exports grow at the same level over the next two years compared to 2013

13% Expect to see exports remain at the same absolute level over the next two years compared to 2013

7% Expect to see exports decline over the next two years compared to 2013

Source: Change in the Chain, IDC Manufacturing Insights, November 2013

And while high-tech logistics managers are confident in their organizations' product innovation capabilities, just 47 percent exhibit the same level of assurance in fulfillment, distribution, and post-sales support. Globally, 53 percent of logistics executives across all segments of the high-tech industry cite a flawless initial product launch and quickly reaching full-scale manufacturing as critical aspects of the product lifecycle.

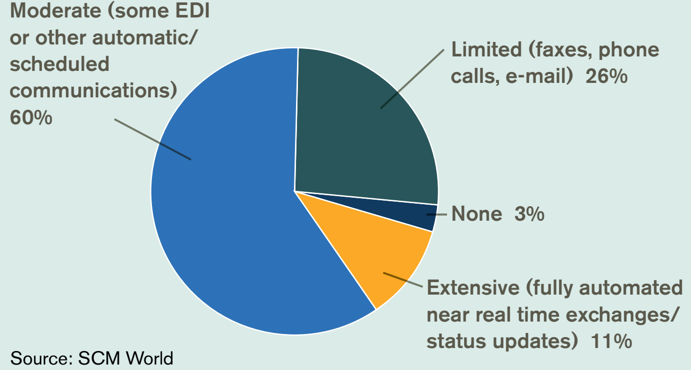
An Eye on Emerging Markets

As emerging markets continue to play a more critical role in the high-tech industry, 49 percent of executives say they're already establishing a presence and location in these places.

Key obstacles that these executives face during emerging market expansion include figuring out how to best establish initial operations (27 percent), overall in-country management (16 percent), and management of changing regulations (15 percent).

Facing higher levels of competition and increasing risk, a growing number of global high-tech firms are turning to technology to help them overcome a mix of current and future challenges.

Note: The survey was commisioned by UPS.



Ultimately, O'Marah says that a good GTM's ability to check against all possible issues and conditions in advance—before any problems can arise—is what makes such systems invaluable. And as global supply chains continue to grow and expand, the need for such automated oversight is sure to increase.

Looking ahead, O'Marah says he sees great potential for a more holistic approach to cloud based GTM—a development that could make content updates, transparency, and trade partner collaboration easier and more accessible in the 24/7, web-based format.

"If shippers had access to a layer of universal content that was changed and updated consistently without the need for manual updates," says O'Marah, "there would be greater transparency and, perhaps, more companies interested in replacing their manual trade systems with automated options."

McNeill also predicts a coming convergence between GTM and sourcing/general visibility applications. "When companies examine either compliance software or GTM, they should do it with an eye toward their organization's overall logistics strategy," says McNeill.

"It should be based on their existing logistics applications and those that can help improve their sourcing and visibility. This is yet another direction that GTM may be headed in the future."

—Bridget McCrea is a Contributing Editor to Logistics Management

Moving from manual "pinging" to GTM

When it comes to global supply chain management, time is always of the essence for Flame Enterprises, Inc., and its customers.

A distributor of electro-mechanical items for the military and the aerospace industry, this Chatsworth, Calif.-based firm for 44 years has specialized in maintaining a ready inventory of relays, circuit breakers, time meters, switches, and other critical components for customers who in turn use the items to complete projects in a timely fashion.

As one of the largest stocking distributors in its industry, Flame Enterprises focuses on inventory relevance related to customer needs and requirements. Its product lineup totals over 180,000 SKUs that more than 6,000 customers worldwide rely on to manufacture their own products.

With roughly 10 percent of its shipping volume going overseas, Flame Enterprises ships primarily to Italy, Germany, and Turkey. Up until 2012, a patchwork of accounting employees, spreadsheets, and lists of denied parties were used to manage the firm's compliance, third party screening, and other export requirements.

When Flame Enterprise's export business began to grow, the company brought on Victoria Starr to manage compliance. "We basically just pinged everything against a list and hoped that we weren't using an old version of that list," says Starr. "It was a labor intensive process."

One of Starr's first tasks was to find an automated system that would free up the accounting team to focus on more germane tasks and minimize potential regulatory risks. Starr says that she investigated several different GTM solutions before selecting Amber Road's Export On-Demand solution for its all-encompassing capabilities.

"We wanted to cover all of our bases with one vendor that would stick with us as we continued to grow," says Starr.

Using its GTM, Flame Enterprises can quickly screen customers, suppliers, and other trading partners against more than 200 restricted party lists from governments around the world. The distributor can also store and access information about all customers and trading partners, speed up shipments, and clear any shipping holds. Implementation of the on-demand solution went smoothly, according to Starr, and required no on-premise software or hardware installation.

When new customers or trading partners come onboard, Flame Enterprises adds their data to the GTM, which in turn screens that data on a daily basis for any potential problems. She says the automated nature of the system has saved the company both money and time and allowed her team to focus on different aspects of compliance and risk.

"We've become much more efficient and productive because we no longer have to stop shipments to review information; we just hit ship," says Starr. "Also, our compliance is much more robust now because we have a reliable, automated system handling it for us."

—Bridget McCrea, Contributing Editor

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Solving the *reshoring* dilemma

A number of events have tipped the balance in favor of domestic manufacturing, leading to a growing reshoring movement in the U.S. Still, bringing manufacturing back and reconfiguring your logistics and transportation network isn't for everyone. Here are some of the tools and factors you should consider to assess whether reshoring is right for your company.

BY **PATRICK VAN DEN BOSSCHE, PRAMOD GUPTA, HECTOR GUTIERREZ, AND AAKASH GUPTA**

Editors' Note: *Logistics Management (LM)* has been keeping close tabs on the reshoring discussion that's building momentum due to the change in a number of macroeconomic factors throughout Asia. According to a recent Grant Thornton survey, more than one-third of U.S. businesses now say they'll bring services and manufacturing back home in the next 12 months. In order to shed light on the necessary steps toward making this game-changing decision, *LM* offers this truncated version of a recently published feature in our sister publication *Supply Chain Management Review (SCMR)*. To obtain the full text and data version of this feature, subscribe to *SCMR* at scmr.com.

It's not news that manufacturing in the U.S. has become more attractive in the past few years. And, even though there is no torrent of renewed manufacturing activity moving the needle just yet, it's clear that the reshoring movement is growing.

At the very least, it should make U.S. companies think twice about where they will manufacture their products in the next few years. But how do you figure out whether to jump on the reshoring bandwagon or sit this one out?

There are a few tools and tests that can help you assess whether reshoring is the right choice. And if the answer is "yes," making sure your assumptions are realistic and you are factoring in all of the moving pieces into your analysis is crucial to avoid any nasty surprises.

Consider the factors

A number of macroeconomic factors have certainly tipped the balance in favor of domestic manufacturing, at least for some industry sectors.

Among them are the appreciation of China's currency versus western currencies; China's labor rate inflation; increased concerns about supply interruption; lower energy costs in the U.S. as a result of shale gas exploration; and a general push from federal and state governments to reduce the costs and administrative barriers of bringing manufacturing back.

Companies are responding: A growing number of reshoring cases, ranging from heavy machinery and appliances to chemicals, have been covered by the media in the past few months. Several recent studies have added even more fuel to the fire by identifying a number of industry sectors that, based on macroeconomic factors and industry cost models, should consider reshoring their operations.

The usual suspects include computers and electronics, appliances and electrical equipment, primary metals, machinery, furniture, plastics and rubber, paper, and fabricated metals.

A list of recent reshoring cases published by The Reshoring Initiative shows many of these industries indeed at the

forefront. If you are active in these industries, reshoring should be on your radar screen. There are, however, cases from less straightforward industries, such as that of an Indian textile company that recently set up manufacturing operations in the U.S.

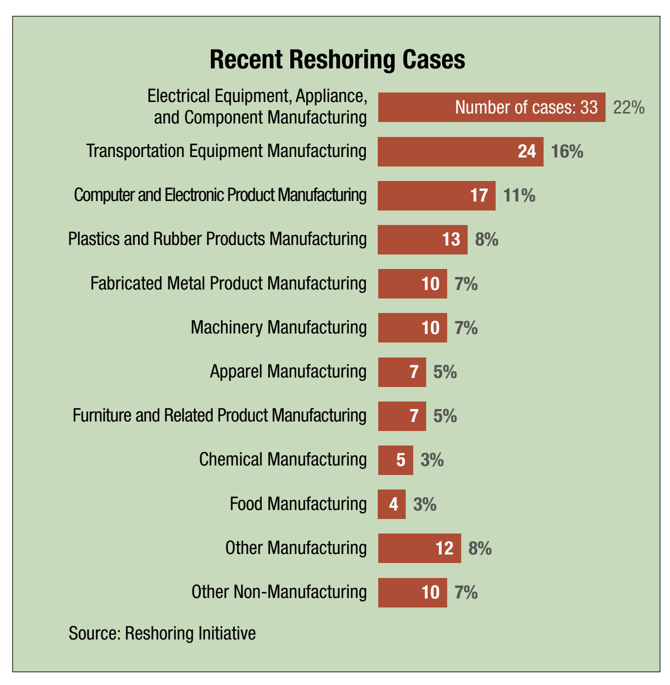
The move placed the company closer to raw materials (cotton, for example) and also helped position it to take advantage of Wal-Mart's promise to source an extra $50 billion of domestic products over the next decade.

Of all the industries, textiles would be one of the last you would expect to return to the U.S. if only the macroeconomic picture was considered. On the other end of the spectrum, several companies in slam-dunk industries aren't planning on returning anytime soon. So only taking into account the macroeconomic factors does not provide the complete answer.

What drives companies to reshore?

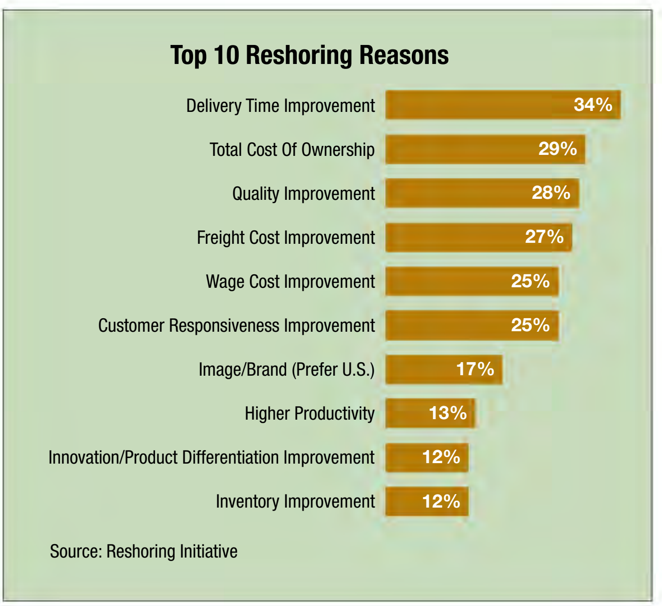
When asked why they decided to reshore their operations, the companies on the list cite a variety of reasons.

Several of these reasons are linked to being closer to the customer. It's important to remember, however, that the location of your suppliers is a crucial factor in realizing these



benefits. Unfortunately, most domestic supplier networks have evaporated or followed their customers overseas.

Because there's typically a delay of a few years between companies moving and their supply base following them, companies that return their own manufacturing operations may still have to rely on suppliers from overseas—at least until the economics for the supplier also drive them to return to the U.S.



This would, of course, diminish the proximity-related benefits of reshoring because the end-to-end supply chain could still be as long as before and therefore prone to disruptions. As a result, manufacturers may now have to stock up on supplies or parts instead of on finished goods, as was the case when they had their own manufacturing operations overseas.

This would mean less money tied up in inventory, but it would still require approximately the same amount of storage space, albeit more concentrated near plants than finished goods inventory, which is typically stored closer to points of sale.

As suppliers start to move back, several supply chain and logistics changes would take place that would affect cost and service. You would see much less container traffic to the West Coast ports and therefore less need for intermodal transport to deliver these containers from west to east.

As suppliers start to move back, several supply chain and logistics changes would take place that would affect cost and service. You would see much less container traffic to the West Coast ports and therefore less need for intermodal transport to deliver these containers from west to east.

Because it appears the non-union states in the South may be attracting much of the returning manufacturing operations, you could anticipate a shift in goods flow to more of a south to north pattern, which has already started to emerge due to the rise of manufacturing in Mexico. This will require logistics services companies to adapt their networks and fleets, and the availability of warehousing space and transportation will depend on the pace with which that happens. So the expected cost, inventory, and even service benefits related to becoming "local" again are far from guaranteed.

Similarly, the cost-related reasons are not that straightforward, as many of the forces that drive the reshoring cost equation are very much still in flux, such as the labor cost gap and the energy cost differential between the U.S. and Asia.

It's true that in China labor costs are projected to rise six-fold from 2004 to 2016. However, labor costs in the U.S. are also creeping up. Manufacturing labor is becoming scarce due to a higher retirement rate than graduation rate and an overall lack of skilled workers. The past years' wage inflation of nearly 2 percent is forecasted to continue.

In addition to labor costs, the positive outlook for U.S. energy also makes the case for reshoring look attractive. The relative success of American fracking initiatives is expected to keep U.S. electricity costs 40 percent to 70 percent lower than in Europe or Japan. However, the longevity of the many fracking wells is in question.

According to DrillingInfo, an international oil and gas intelligence company that tracks the performance of U.S. wells, the production of wells bored into so-called tight oil formations has typically declined by 60 percent to 70 percent in the first year alone. And the U.S. isn't the only country that has shale gas; in fact, other regions of the world are also sitting on sizeable reserves.

China has even greater reserves than the U.S., but they are more difficult to access. However, once these reserves are successfully tapped, China's yearly electricity price growth, which currently sits around 8 percent, will slow down and prices may even decrease. It's therefore unclear if the U.S. will be able to rely on shale gas as a sustainable energy cost advantage.

Is reshoring right for your company?

After studying the possibilities and determining if reshoring is right for your company, it's time to develop an initial business case. However, rather than diving into a location search immediately, it's important to answer three questions, in the following order: Is my reshoring decision future-proof?

Is my company ready to reshore? Where is the best reshoring location?

Is my reshoring decision future-proof? When considering whether reshoring is right for your company, it's important to remember that the answer isn't a simple yes or no, but rather a more qualified answer, such as: "Yes, but only under conditions X and Y." Understanding these conditions requires thinking through potential scenarios. The tried and tested methods of scenario planning can help you find the right balance of testing for operational efficiency and robustness by determining the potential impact of macroeconomic and industry trends on different reshoring options in an unbiased way.

The process can help test alternative future scenarios, such as energy cost differential and supplier network developments, and include them during the development of the reshoring solution to ensure that your company has the right balance of steady state efficiency and future-proof robustness. It can also help identify potential areas of weakness and the risk mitigation plans to overcome them.

In a typical scenario planning exercise, alternative futures or scenarios are developed by generating interactions between the macroeconomic environment and the industry environment. The first step involves determining the time line that you need to consider to make sure the cost and capital related to reshoring are adequately paid back.

Given that time line, you then need to determine the set of macroeconomic and industry trends that can drive change in your business to the extent that it could impact your reshoring decision.

In the somewhat simplified and approach, the second step involves selecting the top two drivers that could shape a company's performance and articulate the polarized outcomes for these drivers. For example, if energy costs are indeed one of the top two variables that will affect the reshoring decision for your company or industry, the two polarized outcomes could be "energy costs stay low" within the chosen time line or "energy costs revert to pre-shale gas levels."

Once the four scenarios are laid out, the reshoring evaluation team needs to determine the expected probability for each future scenario relative to the others and figure out how the business case to reshore is affected by each scenario.

Is my company ready to reshore? While the macroeconomic math can provide directional confirmation that the environment is ripe for you to consider reshoring, several internal factors, specific to each company, will have to be further investigated before announcing any strategic reshoring move publicly.

For example, the fundamental macroeconomic drivers of the chemical sector—high energy consumption, proximity to the supply base, significant domestic demand, low level of manual labor needs—create a good high-level business case and probably prompt many companies in this space to consider reshoring to the U.S.

However, the actual attractiveness of setting up a new manufacturing operation stateside can vary significantly from company to company. For example, available capacity is one of the more important factors to consider when assessing reshoring attractiveness as it can provide multiple economies of scale and scope while accelerating the operation's transition and learning curve.

So, if a company determines that they can make enough existing capacity available—by adding shifts or by restarting a mothballed operation—to meet the needs of its business, they can avoid the significant capital investment that's required to build new operations. However, even though the short-term savings and benefits that reshoring to existing sites provides are substantial, companies could be missing out on long-term savings or advantages that other manufacturing hungry destinations and their governments may offer.

Knowing that your company's overseas operations are good candidates for reshoring, even under multiple future scenarios, is only half the task. Testing your readiness and deciding who should own the operation and where the best reshoring location should be is equally important.

When locations with free capacity are available, however, the (psychological) pull to reshore into those locations is usually pretty strong. Our research of companies that have reshored found that 74 percent of companies reshored to existing locations. These companies mentioned existing capacity, supply chain ecosystem synergies, and favorable labor relations as their top considerations.

Companies that believe they may benefit from reshoring, but don't have available capacity or optimal locations in the U.S., need to make a key decision about whether to own or outsource the reshored operation and all its transition needs. This "make or buy" decision should obviously fit into the broader business and manufacturing strategy and should consider both internal and external aspects, such as a company's ability to run the operation in a cost-effective way, and the competitive landscape and evolving

Reshoring Readiness Factors

Capability	Description	Decision
Skills Availability	Degree of functional expertise of current workforce	If capability not at par, consider relocation of experts or local acquisition of capability
Asset Health and Performance	Age and health of machinery, OEE performance	If not in good health or performance, include capability enhancement in business case
Knowledge Transfer	Existing processes and infrastructure to transfer knowledge and experts	If process or infrastructure not in place, include capability enhancement and ramp-up in business case
Project Management	Internal capability to run high stakes projects effectively	If capability not up to task, include capability enhancement or external support in business case

Source: A.T. Kearney

ecosystem around it.

What is the best reshoring location? A thorough location selection exercise must be conducted, including an evaluation of quantitative cost measures and qualitative capability assessments. The evaluation of these location selection factors includes defining the right factors, setting a specific weight to each factor, and rating the performance of each factor for each of the selected locations—cities or states.

The location selection factors mentioned above provide a good template to compare and shortlist potential reshoring locations. As previously discussed, labor availability is an operating risk that companies should be particularly sensitive to. In fact, our research of companies that have reshored found that 26 percent of companies that moved to new locations picked those locations based primarily on advantaged skilled labor, supply chain ecosystem synergies, and proximity to customers.

Skilled labor and customer proximity are obvious in that equation. However, factors such as the economies of scope and network externalities that existing business ecosystems provide are often hard to measure independently.

Business ecosystems are especially valuable for companies considering a greenfield reshoring operation as they could provide a shortcut to build capabilities while lowering startup and ongoing costs. Indeed, they help address the shortage of labor by providing a critical mass of workers for a variety of key needs. Nearby universities can also provide high potential, local labor that comes without the often sizeable relocation fees.

Choosing the reshoring location is one of the most critical decisions, not only for the reshoring company, but also for the potential destination locations. State economic development programs have acknowledged the reshoring trend and the economic benefits that come with it, and are actively benchmarking and improving their offerings to attract operations that are being reshored.

Because it appears the non-union states in the South may be attracting much of the returning manufacturing operations, you could anticipate a shift in goods flow to more of a south to north pattern, which has already started to emerge due to the rise of manufacturing in Mexico.

Not straightforward

The equation to determine whether reshoring is right for you, both now and in the foreseeable future, is probably a bit more complicated than you had envisioned. But that's not necessarily a bad thing, as the process may help you avoid making decisions that you could live to regret.

Multiple pitfalls and headwinds can negatively affect the timing, effort required, and even the business case at the root of your reshoring project. To do reshoring the right way, companies must understand the underlying conditions that drive the attractiveness of reshoring for their company.

Knowing that your company's overseas operations are good candidates for reshoring, even under multiple future scenarios, is only half the task. Testing your readiness and deciding who should own the operation and where the best reshoring location should be is equally important. Only by going through a rigorous analysis and process will companies know if reshoring is the right decision for them, both now and in the future.

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The Reshoring Initiative is an industry-led effort to bring manufacturing jobs back to the United States. The initiative works with U.S. manufacturers to help them recognize their profit potential as well as the critical role they play in strengthening the economy by utilizing local sourcing and production. Among the tools and resources available from the initiative are a Total Cost Of Ownership estimator. For more information on this program, visit www.reshorenow.org.

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Data capture is ready for its close-up

Camera-based bar code scanners are a must for 2D codes, but today's payoff mainly ties to improving 1D code processes, ergonomics, and read rates. Here's a look at how this versatile tool is helping to transform fulfillment accuracy in dynamic distribution environments.

BY **ROBERTO MICHEL**, CONTRIBUTING EDITOR

Interest in scanning technology for two-dimensional (2D) bar codes is on the rise. But oddly enough, the business driver in many cases isn't the need to read 2D codes, but rather to improve on processes related to one-dimensional (1D) codes. The enabler for why things are playing out this way is the camera-based technology used in these scanners.

These camera-based scan engines can read both 2D and 1D codes, and by capturing an image, you have a digital picture that can be analyzed and used in different ways.

To read a 2D code, traditional laser based scanners won't do the trick—camera-based scan engines are needed. These camera-based scanners hold multiple benefits, from the way they can make handheld scans less fatiguing, to fixed-position scanners with image-capture capabilities that can get at the root cause for read failures.

Richa Gupta, a senior analyst for automatic identification (auto ID) technology at VDC Research, says fixed-position camera-based scanners are being used for "quality assurance" processes around bad reads and problems with labels, mainly for 1D codes.

"With laser-based systems, you couldn't really go back and analyze what went wrong, but with these camera-based systems, because you have a visual of what is moving on a belt, it makes the process easier in terms of correcting and eliminating errors that might be there," Gupta says.

The result is that operators now have a new tool for quality assurance on labeling and data capture, which should eventually help with fulfillment accuracy. "The technology can help ensure that data is being captured and that products are headed in the right direction," says Gupta.

Fixed-position, camera-based scanners generate a digital "close-up" of labels and goods as they pass through points in the fulfillment chain. This close-up can be stored, analyzed, and used to correct problems.

Meanwhile, with handheld scanners and mobile devices, similar camera-based scan-

Camera-based scan engines enable fast, accurate reads of either 1D or 2D codes, and capture images that can be saved and used for quality control purposes.

ning also carry benefits in the form of better ergonomics, flexibility to capture 2D or 1D codes, and scan engines that perform well at short or long distances.

Fixed-position solutions

The market sector that has really driven the development of 2D and camera-based scanning is the express parcel market, says Mark Kremer, director of retail distribution for SICK, Inc., a provider of auto ID solutions.

In this segment, 2D codes, because of their ability to hold more data, are used for shipping labels. But in the broader warehousing and logistics market where 1D codes for product labels still dominate, camera-based fixed position scanners are being used for quality control purposes—or what Kremer calls "point of inspection" applications.

"An image can tell you some very specific things about the condition of a label or a product," says Kremer. "An image, in effect,

can talk."

Images can reveal issues with label quality such as poor contrast or a damaged label, says Kremer, and some camera-based solutions can also examine the package itself, spotting package damage, improper spacing or gap between packages, or the wrong package dimensions.

"You can go beyond the label," Kremer says. "You can determine if this product is positioned properly on the conveyor, is it undersized or oversized, or is it damaged?"

However, to make the images useful, says Kremer, they need to be easily storable and searchable. Kremer says SICK has devised compression technology to reduce image size while maintaining image quality, and has also developed a software system for analyzing problems.

This type of camera-enabled point of inspection solution is especially useful at critical inbound and outbound points in a warehouse, says Kremer. On the inbound side, a camera-based inspection point is a way to validate label and packaging compliance for goods coming into the warehouse.

"We need to understand what our vendors are delivering and whether it meets our specifications," says Kremer. "We need to start analyzing compliance on the front end, prior to putting products into sortation."

Similarly, on the outbound side, camera-based scan points verify and record factors like package condition and proper labels. "Before it's shipped, you can have a searchable record of what the product looked like when it went out the door," says Kremer.

For the midpoints in an operation, says Kremer, it's possible that laser-based scanning is more than adequate. It should be a price/performance issue at the midpoints, adds Kremer.

According to Matt Engle, manager of product marketing for logistics at Cognex Corp., a provider of auto ID solutions, camera-based scanners have been around for many years, but they have been "line-based" scanners that function on a principle similar to a copier.

Positioned at key points in a DC, camera-based scanners can save images of bad reads or damaged/non-compliant packages.

Engle says that the newer trend is an "area-based" camera that functions on a principle similar to the camera in a smart phone—and typically found at a lower price point than line-based units. The area-based cameras, says Engle, are also "point and read" in that they don't require a focusing set up. "So the technology is getting easier to use and it's lower cost," says Engle.

> **"Even a read rate improvement of a percentage point or two can add up to considerable savings in a high volume setting."**
>
> *—Matt Engle, Cognex Corp.*

Camera-based scanning also tends to bring better read rate performance than laser scanning because it captures multiple images—essentially sampling more data—as the item passes the scanner, which boosts performance, says Engle. "Even a read rate improvement of a percentage point or two can add up to considerable savings in a high volume setting," he adds.

Engle agrees that quality assurance is a key driver for camera-based scanning. "Now we can have an image of the package that didn't read and analyze it further to understand why the bad read happened," says Engle.

Today, 2D codes are being used beyond the realm of express delivery and shipping codes. Direct parts marking in which parts are etched with a 2D code is a proven use, notes Engle, and there is growing use of 2D codes on labels and on packaging because of the ability of 2D codes to hold more data for track and trace applications or food safety.

For example, says Engle, 2D codes are being used by ice cream manufacturers as an allergen safeguard in filling and packaging. A camera-based scanner near the filling line can be used to scan a 2D code on the ice cream container to ensure that a product that contains peanuts isn't dispensed into a container that has a code for a nut-free product.

2D capable handhelds

Camera-based scan engines also are used in hand-held scanners, according

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to Mike Maris, global lead for transportation, logistics, and warehousing with Motorola, which offers auto ID solutions. Improvements in the scan engines have done away with some of the drawbacks of earlier generation camera-based scanners, says Maris, which were relatively slow in capturing data and could only scan labels at short distances.

Ruggedized handheld scanners faces more competition from "sleds" that attach to an iPhone or other consumer device to offer bar code data capture capability.

Today's camera-based scan engines for handhelds, says Maris, are not only fast, but some have features that allow a scanner to read a bar code from a few feet away or 30 feet away. This is a plus in a distribution center setting where a worker may need to scan a label up high on a rack.

Laser-based scanners are also fast and have become capable of reading codes at longer distances, but one factor they can't match camera-based units is on ease of the scan motion, says Maris.

Conventional laser scanners need to be swiped across the bar code in one direction, whereas camera-based units are omni-directional because they focus in on the target in a free-form motion. "Omni-directional is important, because it does away with the highly repetitive motion you need with a lot of scanning," says Maris. "With a camera-based scanner, you no longer have to twist and turn a certain way to get a good read."

Maris notes established use of 2D codes in various markets. For example, direct parts marking in the automotive sector. In the electronics industry, small paper-based 2D bar codes are placed on components to identify exactly which parts went into a product.

Pharmaceutical packaging is another application for 2D codes, says Maris. With the growth of retail super stores that sell a mix of groceries, pharmaceuticals, and items like apparel, the retail industry now has a bigger need for multifunction scanners capable of reading 2D codes, says Maris.

Because of the inherent ability of 2D codes to hold more data than 1D codes, the potential use cases are many, especially for track-and-trace related functions, agrees Bruce Stubbs, director of industry marketing at Intermec by Honeywell, a provider of auto ID equipment.

"It's practically limitless what you can convey with a 2D code" says Stubbs. "Also, because you are generating an image, you can tell the condition of things—is the box damaged, and is it packaged in the right way?"

One niche where handhelds with camera-based scanning are starting to see use, says Stubbs, is by orchards and farms for "point of harvest" traceability. When combined with portable printer units, camera-based handhelds allow workers in these settings to generate labels and begin tracking the product's history.

"All of that information the grower wrote to the 2D code then follows the goods and makes them traceable at a very detailed level," says Stubbs.

Ruggedized smart phones

Outside the Intermec brand, Honeywell also offers ruggedized smart phones with camera-based imagers, as well as "sleds" for smart phones. A sled is a hardware sleeve that can give a phone scanning or credit card processing capability.

According to Stubbs, rugged mobile devices are suited to uses such as field service where the occasional scan is needed, and the worker needs access to multiple enterprise applications and a larger screen.

Andrew Graham, president of Infinite Peripherals, a provider of sleds for iPhones and iPods, says his company is preparing to target the warehousing, logistics, and transportation markets with a more rugged sled with longer battery life. Graham says that while the retail sector has been his company's primary market, sleds could prove a good complement to more traditional scanners and highly ruggedized devices in the logistics market.

With sleds, says Graham, a company can take advantage of the easiest to use, most innovative mobile devices, which today, are consumer devices. "Ten years ago, it used to be the enterprises that had the most cutting edge hardware, but now that's been reversed, and consumers are walking around with the cutting edge mobile devices," he says. "We're basically enabling consumer devices to function as enterprise devices with the addition of our sleds."

However, the scan gun form factor isn't about the go away, says Stubbs. Today's camera-based handhelds are rugged, can read at long or short distances, and have the 1D and 2D capability needed to support everything from 1D scans for picking or receiving, to 2D code capture for applications such as traceability and food safety.

"Industries are really opening some doors to creative thinking on how to take advantage of this technology," says Stubbs.

—Roberto Michel is a Contributing Editor to Logistics Management

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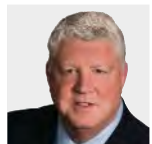

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Quarterly Transportation
MARKET UPDATE: Ocean

2014 State of Ocean Cargo: Rate hikes, dead ahead

Pent-up demand, depleted inventories, and a greater overall sense of economic security are converging in 2014. If so, ocean cargo carriers will be determined not to miss that opportunity to make rate hikes stick.

By Patrick Burnson, Executive Editor

Will this be the year ocean cargo carriers finally return to profitability? Many industry analysts think so, and logistics managers are scrambling to readjust forecasts and budgets accordingly.

Transpacific cargo demand posted steady growth coming off a healthy holiday season last year, and container lines serving the Asia-U.S. trade lane say that the gains are so far reflected in freight rates. In fact, a January 15 general rate increase (GRI) taken by member lines in the Transpacific Stabilization Agreement (TSA) has added an average $300 per 40-foot container (FEU) to rate levels.

Strong forward bookings proved that the increase would hold through the important Lunar New Year period, with carriers building on that momentum with another $300 per FEU increase effective March 15. Furthermore, shippers may expect yet another rate boost on May 1, separate from adjustments planned for 2014-2015 contracts.

"Carriers have left a lot of money on the table in this market as partially successful increases have been eroded over time," says Brian Conrad, TSA executive administrator. "There's now a growing sense that pent-up demand, depleted retail and business inventories, and a greater overall sense of economic security are converging in 2014. Lines are determined not to miss that opportunity."

At the same time, TSA also announced its 12 month revenue and cost recovery program for 2014-2015 contracts that recommends increases to

contract rates of $300 per FEU from 2013-2014 levels for U.S. West Coast cargo and $400 per FEU for all other cargo. A key consideration, obviously, is the revenue baseline set as contract negotiations move forward.

"Simply rolling over last year's contract rates—let alone reducing the rates, as some shippers have requested—is just not workable," Conrad says, reiterating that no major transpacific carrier operated profitably in the trade in 2012 or 2013. "The goal is a meaningful net increase, with full cost recovery for fuel, chassis, free time and other costs, irrespective of supply/demand or other considerations."

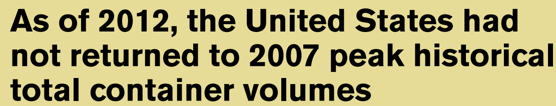
Moment of truth

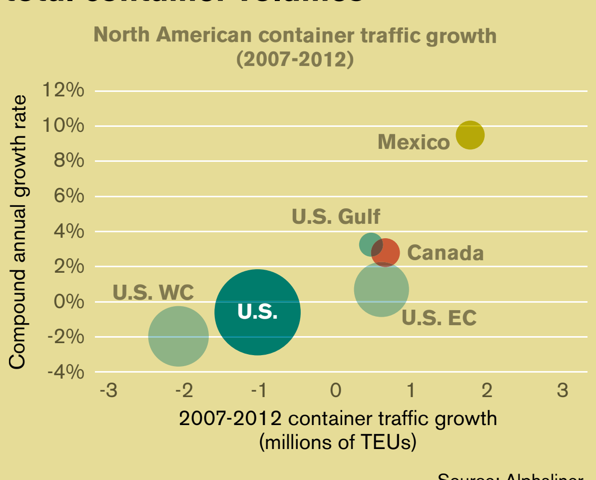
Shippers, meanwhile, are waiting to see how the trend toward greater carrier consolidation will play out.

The TSA's "talking agreement" among 15 liners is a relatively small shift in balance compared to the recent success of The Grand Alliance, which was organized by NYK Line, Hapag-Lloyd, and Orient Overseas Container Line. Through their vessel sharing agreement, all three operate scheduled deployments on a variety of trade lanes where each may have ownership of participating vessels in the string—giving all carriers the ability to book freight on any of the partner's ships.

"There are quite a few vessel sharing agreements operating this way in trade lanes around the world," says Rich Roche, vice president of international transportation for the freight forwarder Mohawk Global. "Some are larger than others, and some are specific to a single trade lane, while others cross multiple lanes."

Roche notes that a few carriers have opted out of vessel sharing arrangements, choosing instead to provide all the vessels on a given string, be fully responsible to fill out slots, and profit solely from their efforts. "This is not the norm on most container trades, where volume concentration is key to success," he adds.





Source: Alphaliner

Further complicating the picture are the alliances forged by G6 and P3 carriers. Originally deployed together in the Europe-Asia trade, G6 recently expanded their service to include Transpacific and Transatlantic trade routes as well.

> "Simply rolling over last year's contract rates—let alone reducing the rates, as some shippers have requested—is just not workable."
>
> *—Brian Conrad, executive administrator, TSA*

They currently employ 240 vessels serving 66 ports in three major trade lanes.

The G6 Alliance members are: APL, Hapag-Lloyd, Hyundai Merchant Marine, Mitsui O.S.K. Lines, NYK, and Orient Overseas Container Line. Member carriers maintain that this cooperative agreement is characterized by competitive transit times, broad port coverage, and newer containerships.

"Ocean freight has been commoditized over the years," says Roche. "Drastic measures like super-consortiums are the next answer to survival for the ocean carriers we have all come to depend on."

Pending approval by the Federal Maritime Commission, the effective start date for P3 is March 24. This agreement comprises the world's largest vessel owners—Maersk, CMA-CGM, and MSC. Their plan is to operate an even larger group than G6, with 255 vessels and 28 vessel strings serving the same three trade lanes.

"Collectively, the three emerging global shipping alliances carried an estimated 70 percent of total U.S. loaded container traffic between 2005 and 2012, notes James Brennan, partner with the supply chain consultancy Norbridge, Inc. He adds that the three largest alliances account for 52 percent of the projected world fleet and 69 percent (operational and on order) of its projected capacity.

"Furthermore," says Brennan, "evolving alliance structures could provide a path to significant consolidation. This in turn, could alter global trade patterns for vessels transiting both the Panama and Suez Canals."

Economies of scale

Bruce Carlton, president of the National Industrial Transportation League, says that shippers have voiced their concern about having limited options, but that "free market forces" will always prevail when it comes to vessel deployments and availability.

"And hopefully these alliances will result in a lower rate level in the long term if the carriers let shippers benefit

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from the carriers' significant unit costs," says Carlton. "Everyone in this industry is trying to be more efficient."

But analysts at the Paris-based think tank Alphaliner say that although the P3 carriers are expected to rationalize some of their services, capacity reductions are not expected. They add that the large "newbuildings" will replace smaller ships on the east-west routes.

"P3 will probably deploy almost all of their 130 ships of above 10,000 twenty-foot equivalent units (TEUs) on Asia-Europe and the Pacific routes," notes Stephen Fletcher, Alphaliner's commercial director. "The P3 alliance will be particularly dominant on the Asia-Europe trade lane, while P3 on the routes between the Far East and North America will have less coverage in relation to the services that the two other alliances offer."

Room for improvement

Analysts agree that the industry's major players are continuing to adapt to a new era characterized by too much vessel capacity and cargo volumes on many trade lanes that refuse to live up to previous forecasts. Yet liner shipping may be becoming less reliable as operators ignore service standards in the rush to cut costs.

According to Drewry's newly published *Carrier Performance Insight* report, containership reliability worsened in every quarter of 2013, with the fourth-quarter decline taking the on-time average below 64 percent—the lowest it has been for two years. Compared to the same quarter in 2012, when the all-trade averages reached a peak of 75.2 percent, the fourth quarter result was down by a hugely disappointing 11.4 points.

The weaker performance coincided with a raft of skipped voyages, and the short-term outlook for reliability is not great, say analysts.

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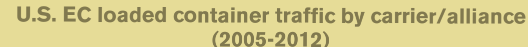

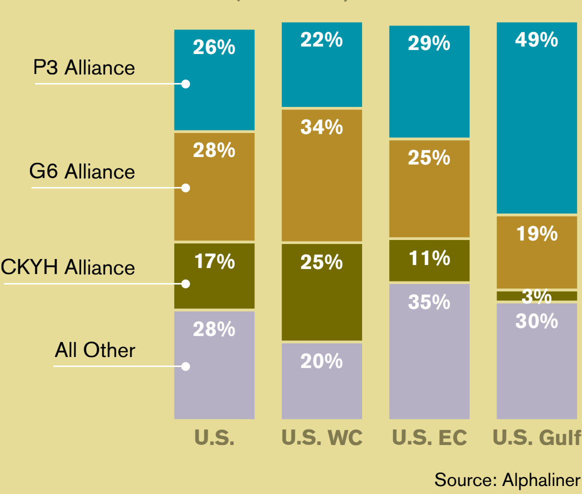

Source: Alphaliner

"The focus on reliability seems to have been lost in the current cost-cutting environment," says Simon Heaney, senior manager of supply chain research at Drewry. "Shippers are now paying more for poorer services, but they know lines are saving money. So, they may be unwilling to accept further increases from all the carriers; in turn, this could provide an opportunity for more reliable carriers to secure better rates."

Maersk Line maintained its position as the most reliable major carrier in the industry in a generally poor fourth quarter when most of its competitors suffered a free fall in on-time ship arrivals. Maersk achieved 80 percent on-time reliability in the fourth quarter, improving its all-trade reliability by 0.8 points. It was one of only eight carriers to improve on their third-quarter performance.

A three point improvement was enough to see Evergreen rise from No. 11 to No. 2 with a 74 percent on-time result. Despite a four point decline, Yang Ming ranked third with an on-time average of 73 percent. At the wrong end of the table, the worst performing carriers were MSC (48 percent) and CSAV (51 percent).

But all this may change as a consequence of the alliances, says Alan Murphy, chief operations officer and partner at SeaIntel Maritime Analysis in Copenhagen. "As carriers continue to cooperate through alliances and agreements, they will increasingly be aboard the same vessels and will subsequently lose their ability to show differences in performance," he says.

SeaIntel predicts that carriers' reliability will remain about the same in 2014 as it's been over the past two years. However, the company advises shippers to prepare for approval of the P3 and expansion of the G6, which could cause disruptions to reliability during network restructuring.

Constant pressure

Peter Sand, chief shipping analyst for The Baltic and International Maritime Council in Copenhagen (BIMCO), observes that the increased demand from "advanced economies" should increase the utilization of containerships.

"The U.S. economy is the key driver for global growth in container shipping, and we see a slow but positive development there," says Sand. "On a global scale, containerized export research shows that activity improved in May following a weak start to 2013. Since then, the pace has picked up, and November and December saw 5 percent to 7 percent growth rates from same months of last year."

In terms of fleet growth, BIMCO expects 2014 and 2015 to be similar to last year—around 6 percent. The council

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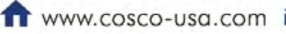
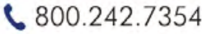

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adds that the industry's ability to land the supply growth at a "new normal" level—one that matches demand growth better—seems strong.

In the meantime, the World Shipping Council (WSC) says that it's no secret that international liner shipping is a tough business, with shipping rates under constant pressure. "It is a bit of a paradox that, notwithstanding financial returns that are generally poor, investment continues at the rate it does," says Chris Koch, WSC president and CEO. "It's not an industry of quitters, it's an industry of fighters."

Koch adds that the strategies being used to win the fight are evolving. "Some carriers that have tried to differentiate themselves by providing higher cost and premium service have had a tough time making those higher operating costs pay off," he says. "Higher cost services struggle to attract enough cargo at rates needed to cover those higher price points. As a result, carriers have had little choice but to focus on cost-savings and increased efficiency as their strategy."

Analysts agree that the industry's major players are continuing to adapt to a new era characterized by too much vessel capacity and cargo volumes that refuse to live up to previous forecasts.

For example, fewer ocean carriers try to provide integrated or sophisticated logistics services as part of their ocean transportation service offerings. Because the market dynamics predominantly favor shippers, carriers have been generally unsuccessful at recovering the costs of higher "value added" services, so they are offering them less often as part of their ocean transportation offerings.

"To the extent ocean carriers provide such logistics services, they increasingly tend to do that through stand-alone affiliate companies that are responsible for their own profit and loss, not as an integrated service offering to give away to a customer at less than cost in the ultra-competitive liner shipping market," says Koch.

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The competitive market forces have led to a variety of ocean carrier cost saving measures, such as "slow steaming" to save fuel. They've also led to ocean carriers getting out of the practice of providing container chassis in North America. Carriers now focus on larger, more fuel-efficient ships that have lower costs per container slot—even if that means fewer service strings and challenges at port terminals that have to handle the larger cargo volumes.

"These changes are unlikely to go away," says Koch. "Carriers can't control the market, so they must focus on areas where they can hope to have some control."

Industry watchers say that there are plenty of reasons to doubt a reversal of fortune is in the offing. Koch sums it up this way: "Some shippers may not like slow steaming because it takes longer for their cargo to be delivered, but there are simply not enough shippers willing to pay the higher fuel costs of faster service."

—Patrick Burnson is Executive Editor of Logistics Management

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Pacific Rim Report

By Patrick Burnson

Patrick Burnson is Executive Editor of *Logistics Management.* If you want to contact Patrick with feedback or a story idea, please send an e-mail to pburnson@peerlessmedia.com.

Demand for air cargo set to surge

WHEN THE INTERNATIONAL Air Transport Association (IATA) World Cargo Symposium convenes in Los Angeles (March 11-13) it will focus on demonstrating how innovation can transform the industry to deliver value. Issues related to e-freight and the Cargo 2000 (C2K) quality management benchmark will also be high on the agenda.

But equally important, note air cargo analysts, is the fact that this is another example of how the Pacific Rim is used as a staging ground for addressing the most pressing issues facing this vital portion of the logistics and transportation sector.

Heading into the symposium, Conrad Clifford, IATA's regional vice president for Asia Pacific, observes that as shippers embark on the second century of commercial flight, the Pacific Rim offers tremendous opportunities for the region's governments. In fact, these entities are now using aviation as a critical element of their economic strategies.

Clifford's point was made dramatically clear just last month at the 2014 Singapore Airshow that showcased Airbus' high-profile commitment to support the continued development of Asia Pacific's air transport industry—the world's fastest growing airline market.

Airbus' strategy for the more rapid development of incremental innovation across its jetliner products will be assisted by high-value research activities—including big data analytics—to be performed jointly by the company with Singapore's Agency for Science, Technology, and Research. A Memorandum of Understanding signed by Airbus and the agency at the Airshow is expected to open new ways for airlines to reduce fuel consumption through speedier, more effective analysis of their operational data.

Meanwhile, the Airbus commercial presence in Asia Pacific will enter a new era with the service introduction of its A350 XWB wide-body jetliner, which had a starring role at the Airshow. Of the 814 orders currently booked for the A350 XWB, 30 percent are from the Asia Pacific region.

Officials for Boeing Commercial Airplanes had much to announce in Singapore as well. They say that during the next 20 years, nearly half of the world's air traffic growth will be driven by flights to, from, or within the Asia Pacific region. Total traffic for the region will grow 6.3 percent per year.

Fueled by national economic growth and the increasing accessibility of air transport and cargo services, traffic within the region will grow faster than traffic to and from other regions. Domestic and international travel within the region will grow 6.5 percent per year, says Boeing.

The two giant airline manufacturers agree that air cargo plays a critical role in the region's economy, transporting goods over difficult terrain and vast stretches of ocean. In fact, some of the world's largest and most efficient cargo operators are located in Asia. These include global players like Singapore, Cathay, and Korean Airlines.

According to Boeing, the region's air cargo volume will grow 5.8 percent per year during the next 20 years, while carriers within the region are expected to take on 370 new freighters, with an additional 490 freighter conversions.

> **For U.S. shippers seeking export opportunities in new markets and regional niches, expanding air service in the Asia Pacific is the megatrend to track.**

Asia Pacific airlines will need 12,820 new airplanes, valued at $1.9 trillion, over that same time span to accommodate this growth, according to Boeing. The number of airplanes in the Asia Pacific fleet alone will nearly triple, from 5,090 airplanes in 2014 to 14,750 airplanes in 2032. New low-cost carriers and demand for intra-Asia travel have spurred a substantial increase in single-aisle airplanes, a trend that will continue as single-aisle airplanes gain an increasing percentage of the region's traffic.

IATA says that, at the same time, the structure of the Asia Pacific airline industry is changing as regulations become more liberal and carriers expand beyond national boundaries.

It's safe to say that the event in Los Angeles this month will also make logistics managers aware of cross-border franchise agreements and direct investment in foreign carriers that will allow established airlines access to new markets.

For U.S. shippers seeking export opportunities in new markets and regional niches, expanding air service in the Asia Pacific is the megatrend to track. ☐

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