

January 2018

# THE STATE OF THE FREIGHT

## *Top 10 Takeaways from Our 1Q Shipper Survey*

1. **Lots of Records:** Our survey is universally positive this quarter including record-high expectations for TL, Intermodal and FedEx rate increases. Pricing expectations for Rails and LTLs, as well as volume expectations broadly, also reached multi-year highs. So our survey is clearly indicative of very strong freight fundamentals.
2. **Volume expectations** increased in our survey to their highest level in nearly 8 years, and **budget expectations** (ex-fuel) increased to their highest level in at least 10 years.
3. Approximately 88% of shippers are seeing **tight TL capacity** right now, the highest level in our survey in 12 quarters. We've only surpassed 90% tightness two times in the 17-year history of our survey (2005 and 2014).
4. Shippers now expect a 4.5% increase in **TL rates** over the next year, the highest expectation in the history of our survey. Expectations for **LTL rates** also increased to 2.7%, the highest level in over 2 years.
5. **Rail service** ratings for **CSX** improved from last quarter but remained worst among the rails, while service ratings for all of the other rails remained stable. So our survey data doesn't suggest that the rails need to start adding a lot of resources back.
6. **Rail pricing** expectations improved to their highest level in 2.5 years, and shippers noted that **CSX** is raising rates most aggressively among the rails right now. Shippers still expect to shift business from **CSX to Norfolk Southern**, but at a slower pace compared with last quarter.
7. Given rising fuel and TL rates, expectations for **Intermodal share** gains improved to their highest level in over a year. And expectations for **Intermodal pricing** reached an all-time high in the history of our survey.
8. Given the tighter TL market, shippers overwhelmingly plan to increase their use of **Dedicated** TL capacity. Shippers also plan to expand their group of core carriers and use more small and mid-sized carriers, but they're hoping to reduce their exposure to large **truck brokers** where rates are going up materially.
9. Pricing expectations held steady for **UPS** this quarter, but expectations for rate increases with **FedEx** increased to the highest level in the history of our survey.
10. Global **Ocean pricing** expectations slowed to their lowest level in over a year, while **Airfreight pricing** expectations accelerated to their highest level in over 7 years.

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Special thanks to Veronica Wohlschlaeger for her contributions to this report.

All pricing is as of the market close on January 22, 2018 unless otherwise indicated.

## Executive Summary

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Below, we discuss some of the key investment implications on our coverage universe based on this quarter's shipper survey:

- (1) Our survey this quarter is clearly positive for freight fundamentals with better volume and pricing expectations than both last quarter and a year ago. Both volume and pricing expectations reached their highest level in several years, and rate expectations for several modes reached all-time highs in the history of our survey. This clearly bodes well for earnings growth for transports in 2018.
- (2) TL pricing expectations increased to their highest level since we started conducting our survey in 2001. So TL fundamentals are clearly very positive right now and we expect the best EPS growth for TLs this year among transports. That said, nearly 90% of shippers are seeing tight TL capacity right now, and we've only exceeded 90% tightness two times previously in our survey, in 2005 and 2014. Both of those periods were signs of a peak in the TL cycle. We expect an elongated TL cycle, but see risk to TL valuations and the stocks if TL spot data starts slowing later in the year against much tougher comps. Within the group, valuation seems most stretched to us right now for **HTLD** at almost 28x our 2018 EPS estimate.
- (3) LTL pricing expectations increased to the highest level in over two years. Combined with strong industrial demand and rising fuel prices, LTL fundamentals remain very positive. We generally prefer LTL over TL stocks right now and relatively prefer **ODFL** (Peer Perform rated) among the LTLs. We expect ODFL will continue to gain market share and should see the least risk from rising purchased transportation costs.
- (4) Our survey is positive for the Rails with pricing expectations improving to their highest level in 10 quarters. We believe improving TL pricing should be most positive for the eastern rails that are more truck competitive. Meanwhile, service ratings in our survey were generally better sequentially with the most improvement for **CSX**. We reiterate our Outperform ratings on all three U.S. rails – **CSX**, **NSC** and **UNP**.
- (5) Rising fuel and tight trucking capacity have boosted Intermodal pricing expectations to their highest level since we started asking shippers about rates in 2010. Meanwhile volume expectations are starting to improve as well given rising TL rates and rising fuel prices. We reiterate our Outperform rating on **JBHT**.
- (6) Our survey this quarter was more positive for **FDX** than **UPS**, with rate expectations accelerating materially for FDX and holding steady for UPS. We prefer FDX among the two as we expect better EPS growth, driven by Ground share gains, Express earnings momentum, ramping TNT accretion the next few years, and improving free cash flow conversion at FDX.
- (7) Shipper airfreight pricing expectations materially strengthened this quarter, while ocean pricing expectations fell modestly. Continued strength in international

airfreight demand and a stronger pricing environment bode well for **AAWW**. If airfreight demand proves more secular than cyclical right now, it should drive both EPS and valuation upside for **AAWW**. That said, rising fuel prices could negatively impact airfreight demand going forward.

Our WR Transport Index is already up 6% YTD, in line with the S&P 500. Last year, our Transport Index increased 27% and materially outperformed the 19% rise in the S&P 500.

Freight fundamentals are very positive right now and most of our coverage universe should benefit significantly from tax reform. So the recent outperformance by our group seems justified. The U.S. Rails are our favorite way to play the sector, as we believe they have the best combination of fundamentals, valuations and benefits from tax reform. Since the rails have the best long-term pricing power, they seem least likely to compete away the benefit from tax reform over time.

Our favorite stocks in 2018 include **CSX**, **NSC**, **UNP**, **GWR**, **JBHT** and **FDX**. We also recommend **ODFL** on pullbacks. On the flip side, we remain Underperform-rated on **EXPD** and **HTLD**.

Exhibit 1. Recent Transport Stock Performance (price weighted Transport average)

Rank	Stock	Price 1/22/18	2016	2017	YTD 2018	Last 12 Months	Since Tax Move
1	YRCW	\$17.45	(6.3%)	8.3%	21.3%	27.9%	55.7%
2	ODFL	\$149.10	45.2%	53.3%	13.3%	70.3%	23.8%
3	UPS	\$132.86	19.1%	3.9%	11.5%	15.6%	17.4%
4	WBC	\$158.00	3.8%	35.2%	10.1%	50.1%	9.0%
5	SAIA	\$77.85	98.4%	60.2%	10.0%	63.7%	25.6%
6	FDX	\$273.89	25.0%	34.0%	9.8%	47.5%	26.1%
7	PCAR	\$77.64	34.8%	11.2%	9.2%	17.6%	14.7%
8	JBHT	\$125.39	32.3%	18.5%	9.1%	32.7%	23.3%
9	ARCB	\$38.95	29.3%	29.3%	9.0%	28.5%	16.6%
10	FWRD	\$62.26	10.2%	21.2%	8.4%	26.5%	13.7%
11	<b>OEM Avg</b>	-	<b>37.2%</b>	<b>28.4%</b>	<b>8.3%</b>	<b>38.0%</b>	<b>14.5%</b>
12	WERN	\$41.80	15.2%	43.4%	8.2%	57.7%	22.0%
13	CMI	\$189.58	55.3%	29.2%	7.3%	33.9%	18.6%
14	CHRW	\$95.43	18.1%	21.6%	7.1%	29.7%	21.7%
15	HUBG	\$51.20	32.8%	9.5%	6.9%	15.6%	17.6%
16	LSTR	\$111.25	45.4%	22.0%	6.9%	32.4%	14.8%
17	KNX	\$46.67	36.4%	32.3%	6.7%	40.8%	19.4%
18	AAWW	\$62.60	26.1%	12.5%	6.7%	23.1%	17.9%
19	R	\$89.60	31.0%	13.1%	6.5%	20.0%	16.9%
20	<b>Freight Transports</b>	-	<b>27.3%</b>	<b>27.1%</b>	<b>6.4%</b>	<b>31.6%</b>	<b>17.3%</b>
21	XPO	\$97.12	58.4%	112.2%	6.0%	124.9%	26.9%
22	<b>S&amp;P 500</b>	<b>2832.97</b>	<b>9.5%</b>	<b>19.4%</b>	<b>6.0%</b>	<b>24.7%</b>	<b>9.7%</b>
23	UNP	\$141.97	32.6%	29.3%	5.9%	30.7%	22.4%
24	KSU	\$110.96	13.6%	24.0%	5.5%	26.2%	6.9%
25	CSX	\$57.73	38.5%	53.1%	4.9%	30.2%	16.1%
26	<b>Russell 2000</b>	<b>1605.17</b>	<b>19.5%</b>	<b>13.1%</b>	<b>4.5%</b>	<b>18.7%</b>	<b>NA</b>
27	NSC	\$151.47	27.8%	34.1%	4.5%	33.3%	19.2%
28	NAV	\$44.75	254.9%	36.7%	4.4%	61.0%	17.2%
29	SNDR	\$29.76	NA	50.3%	4.2%	NA	21.9%
30	GWR	\$81.58	29.3%	13.4%	3.6%	8.7%	12.1%
31	EXPD	\$66.44	17.4%	22.1%	2.7%	24.7%	12.4%
32	CP	\$185.85	11.9%	28.0%	1.7%	23.1%	10.9%
33	WAB	\$82.50	16.7%	(1.9%)	1.3%	(4.2%)	11.4%
34	HTLD	\$23.59	19.6%	14.6%	1.1%	17.7%	13.8%
35	CVTI	\$28.91	2.4%	48.6%	0.6%	47.8%	(0.4%)
36	CNI	\$79.90	20.6%	22.4%	(3.2%)	13.9%	0.5%
37	CGI	\$5.95	(27.7%)	(10.5%)	(7.0%)	(31.2%)	(15.6%)
38	FTAI	\$18.08	18.1%	49.8%	(9.3%)	22.7%	(0.4%)

Note: Stock performance is through January 22, 2018. "Since Tax" performance since November 20, 2017, when momentum on tax reform started picking up.

Source: FactSet Research Systems; Wolfe Research.

## Key Takeaways

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Below, we summarize the key takeaways from our most recent quarterly shipper survey, which we conducted in late December and early January:

- **Shipper Budget Expectations Increase to Multi-Year Highs.** Shippers in our survey expect their total transportation budgets (including fuel surcharges) to increase 6.7% over the next 12 months, up 170-basis points from last quarter, and 240-basis points better than a year ago. Including fuel surcharges, this is the highest budget expectation increase since mid-2011. Excluding higher fuel surcharges, shippers expect their budgets to increase 5.2% over the next year, accelerated from 4.3% last quarter and 3.0% a year ago. This is the highest expectation from shippers since we started asking the question in 2009 (see page 11).
- **Volume Expectations Also Increase.** Shippers expect a 3.6% increase in their same-store shipment volumes over the next year, a modest acceleration from +3.4% last quarter and +3.0% a year ago. This is the highest volume expectation from shippers since mid-2010 (see page 12).
- **Pricing Expectations Accelerate Too.** Shipper pricing expectations accelerated from last quarter for all modes we track, other than ocean pricing and domestic air expectations. Shipper expectations for international heavy airfreight rates accelerated the most from last quarter, and shippers continue to expect the largest increase in TL rates over the next year. Intermodal and LTL pricing expectations also improved meaningfully, while Ground Parcel and Rail pricing expectations improved more modestly compared with last quarter (see page 13).
- **Inventory Trends Generally Stable.** Inventory trends continue to seem pretty balanced, with 39% of shippers seeing higher y/y inventory levels and 22% of shippers citing lower inventory levels. Meanwhile, 34% of shippers indicated that current inventory levels are above targeted levels, down from 40% last quarter. So the inventory responses in our survey this quarter remain mixed but without any big changes compared with last quarter (see page 14).
- **CSX Service Levels Improve.** On a scale of 1 to 5 (with 1 indicating a strong decline in service and 5 indicating a strong improvement), CSX's service ranking improved to 2.1 this quarter, up materially from 1.6 last quarter. Given recent improvements in reported train speeds and dwell times, we expect CSX's service ranking to continue improving in our survey next quarter. Meanwhile, service rankings for the other rails remained stable at 3.0 on average (see page 18).
- **Shippers Expect to Shift Less Volumes Away from CSX.** Because of recent service improvements by CSX, 48% of shippers expect to shift some volumes from CSX to Norfolk Southern, down from 57% last quarter (see page 19).

- **Rail Pricing Expectations Accelerate.** Shippers expect their rail rates to increase 2.9% over the next 12 months, up from 2.7% last quarter and the highest level in the past 10 quarters. Rail pricing tends to lag TL pricing by 2-3 quarters, so we expect rail pricing expectations will continue to improve in our survey going forward (see page 19).
- **Rails Expected to Start Gaining Share Again.** Our survey respondents reported a 0.4% net shift of volume from rails to trucks over the past six months due to poor rail service. But looking forward over the next 6-12 months, shippers expect a net shift to rails of 1.3%, the highest expected share gain for rails in over a year. Given rising fuel prices and much higher TL rates, we expect rail share gains will accelerate this year (see page 22).
- **Intermodal Pricing Expectations Materially Accelerate.** Consistent with an increase in expectations for TL rates, shippers also expect their intermodal rates to increase going forward. Shippers in our survey expect intermodal rates to increase 3.4% over the next year, up from 2.3% last quarter and much better than +1.2% a year ago. This is the highest intermodal pricing expectation in the history of our survey (see page 23).
- **TL Capacity Tightens Further.** Approximately 88% of shippers cited tight TL capacity currently, up materially from 79% last quarter and the highest percentage in the past 12 quarters. Since our survey began in 2001, only twice has TL capacity tightness been 90% or higher, most recently in 2014 as well as 2005 (see page 24).
- **LTL Capacity Remains Balanced.** The majority of shippers (55%) are seeing balanced LTL capacity right now, although 36% now see tight LTL capacity which is up 10-percentage points from our last survey (see page 25).
- **TL Pricing Expectations Reach All-Time Highs.** Shippers expect their TL rates to increase 4.5% over the next 12 months, up materially from +3.6% last quarter and +1.3% a year ago. This is the highest rate expectation in the history of our survey dating back nearly 17 years (see page 27).
- **LTL Pricing Expectations Improve Too.** Shippers now expect a 2.7% increase in LTL rates over the next year, up from +1.8% last quarter. Historically, LTL rates lag TL rates by 2-3 quarters, so we'd expect LTL pricing expectations to continue to move higher over the next couple of quarters. That said, LTL pricing never went negative this cycle, so the LTLs face relatively tougher pricing comps than the TLs right now. Interestingly, the current spread between TL and LTL rate expectations remains at the highest in the 15-year history of our survey (see page 27).
- **TL Spot Rates Still Well Above Contractual Rates.** Shippers in our survey noted that spot TL rates were roughly 775-basis points higher than their current contractual rates, down from 900bp last quarter. Still, the large spread between spot and contract rates bodes well for contractual TL pricing as we're now starting to see (see page 28).

- **Expected ELD Impact Climbs Slightly.** Shippers expect ELDs (electronic logs) to negatively impact TL capacity by 4.6%, up from 4.3% and 3.2% the previous two quarters. Our survey was conducted after the December 18, 2017 ELD requirement, so shippers presumably had seen some impact from the ELD mandate, but weather and the timing of the holidays make it tough to decipher the impact of ELDs specifically (see page 28).
- **Strong Dedicated Growth Expected to Continue.** Almost 35% of shippers plan to increase their use of Dedicated trucking services going forward, while none expect to reduce their use of Dedicated. This is consistent with recent quarters and seems positive for JBHT and WERN with the most Dedicated exposure in our coverage. Meanwhile, our survey reveals that 36% of respondents plan to shift more business to smaller and medium-sized carriers. This compares to 20% who plan to shift more business to larger carriers (see page 29).
- **Shippers May Reduce Some Share with Brokers.** We asked shippers about potential shifts to or from truck brokers going forward. While 43% of shippers don't expect any change in their use of brokerage, a net 12% plan to decrease their use of truck brokers going forward, particularly large brokers where we think rates are going up the fastest right now. So based on our survey results, we expect some growth in share for asset-based carriers going forward (see page 29).
- **Old Dominion, FedEx Freight and Private LTL Carriers Expected to See Share Gains.** We asked shippers about potential share shifts among the LTLs. Generally, shippers expect Old Dominion, FedEx Freight and private, regional carriers to gain share, while they expect ABF Freight, XPO and YRC Worldwide to cede share over the next several years (see page 30).
- **New Brokerage Apps Likely to See More Growth.** While only 4% of shippers we polled this quarter are currently using a start-up truck brokerage app such as Convoy or Transfix, 22% of shippers plan to test one of these apps in 2018. This suggests these apps could gain some momentum this year (see page 30).
- **Higher Pricing Expectations for FedEx than UPS.** For the third consecutive quarter, shippers expect higher overall rate increases from FedEx than UPS. Over the next 12 months, shippers expect a 2.5% effective rate increase from UPS, unchanged from last quarter. Meanwhile, pricing expectations for FedEx improved to 3.2% this quarter, the highest we've seen in the history of our survey and the widest spread over UPS in the history of our survey (see page 32).
- **Airfreight Rates Expectations Accelerate Higher.** Our respondents expect heavy airfreight rates to increase 3.2% y/y, materially accelerated from +1.3% last quarter and the fourth straight positive expectation after seven straight quarters of declines (see page 34).
- **Ocean Rate Expectations Decelerate.** Our respondents anticipate a 1.7% increase in ocean container rates over the next 12 months, decelerated from the +2.0% last quarter



and +3.4% a year ago. After ocean spot pricing spiked significantly after the Hanjin bankruptcy in 2016, it seems that shipper expectations for ocean rates have tempered somewhat the past few quarters as significant new capacity continues to come online (see page 35).

## Survey Background

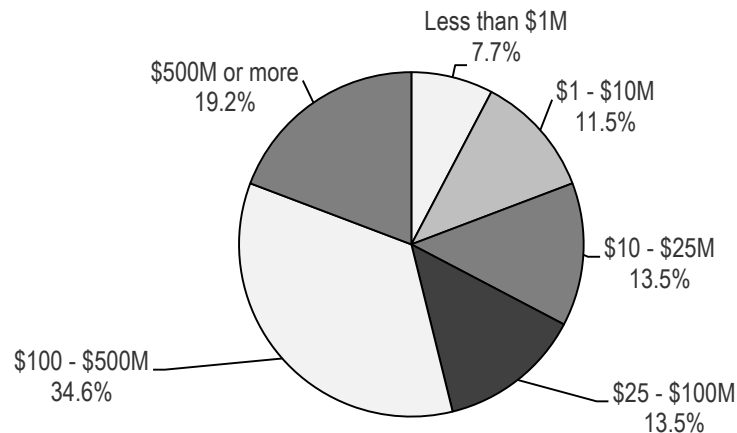
The background section of our survey focuses on three primary topics:

- Overall respondent statistics;
- General volume and budget expectations; and
- Summary of pricing expectations.

We believe the key highlights this quarter include:

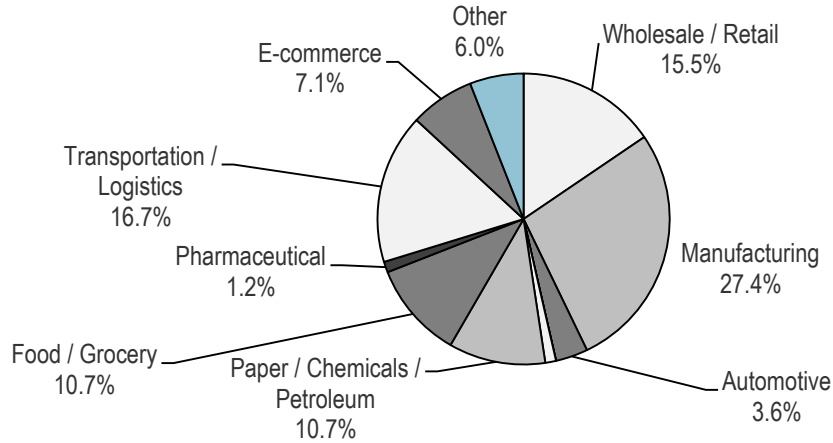
- Shippers expect their total budgets including fuel surcharges to increase 6.7% over the next 12 months. This is the highest budget expectation since 2011 as volume and pricing expectations both continue to increase.
- Shippers expect their same-store volumes to grow 3.6% over the next year, a modest acceleration from +3.4% last quarter and +3.0% a year ago. This is the highest volume expectation in 28 quarters.
- Expectations for rate increases continued to improve for all modes except for ocean rates (down modestly) and Domestic Air (flat). Int'l Heavy Airfreight rate expectations accelerated the most from last quarter and are now at the highest level since 2010.
- Shippers continue to expect more near-sourcing and in-sourcing to Mexico and the U.S. than outsourcing to Asia, but 49% of shippers do not expect any changes. So we haven't really seen any impact on sourcing decisions yet as a result of the Trump administration.

**Exhibit 2. What Is Your Company's Total Annual Transportation Budget?**



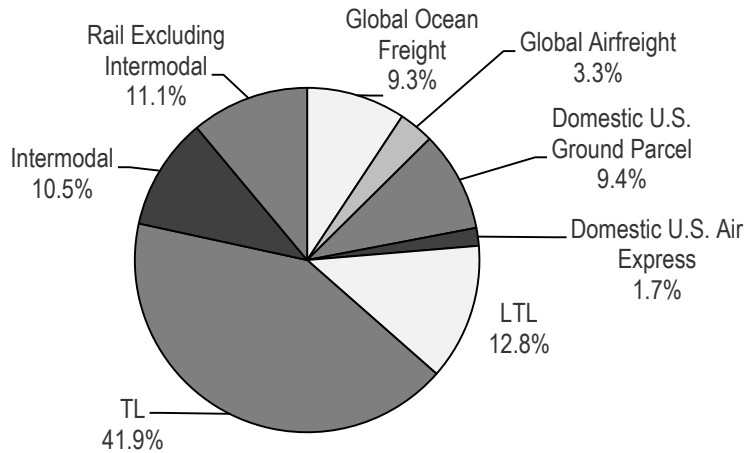
Source: Wolfe Research

**Exhibit 3. Identify the Industry (-ies) in Which Your Company Participates**



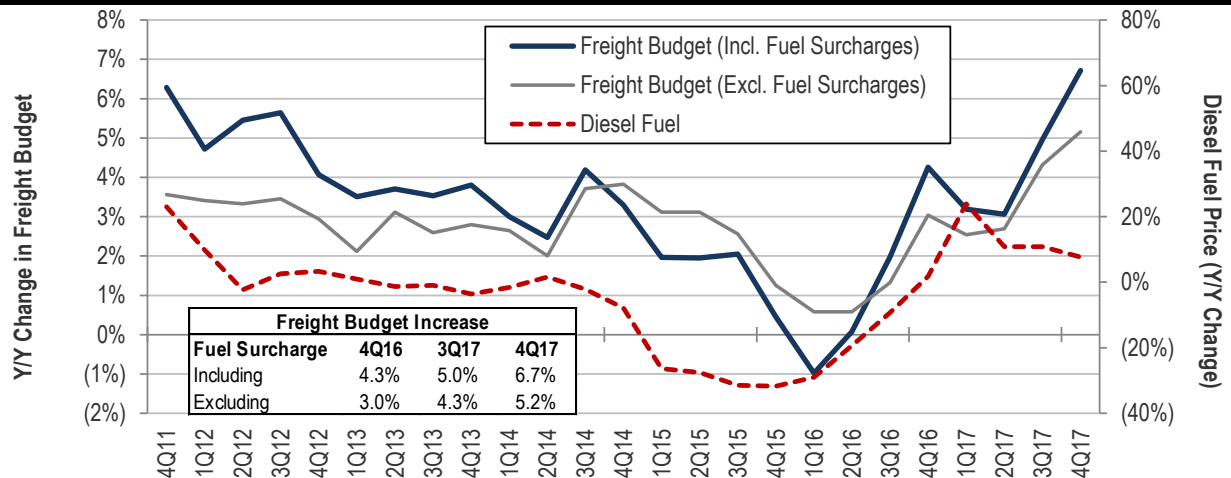
Source: Wolfe Research

**Exhibit 4. How Does Your Transportation Budget Break Down by Mode?**



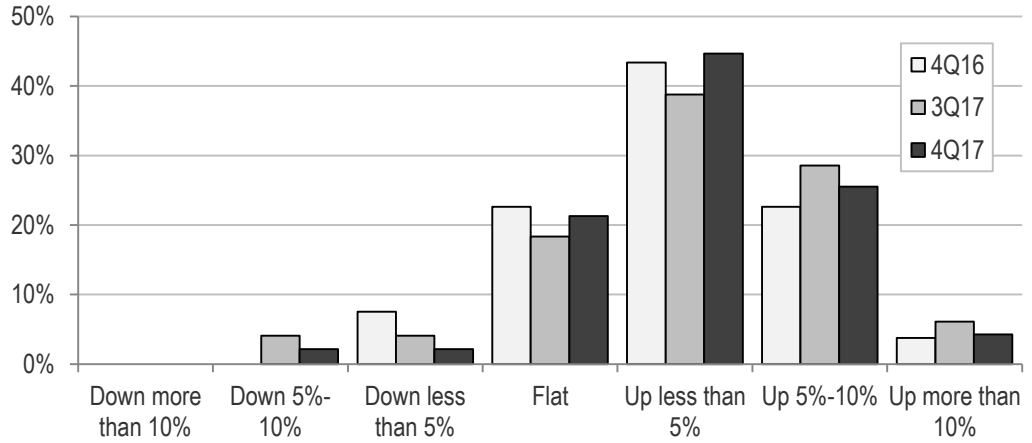
Source: Wolfe Research

**Exhibit 5. Expected Y/Y Change in Total Freight Transportation Budget Over the Next 12 Months?**



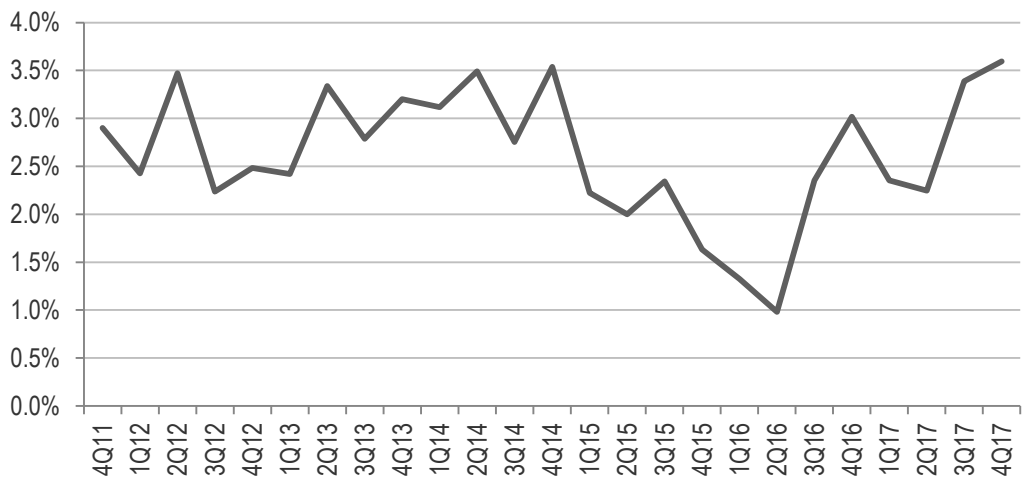
Source: Department of Energy; Wolfe Research

**Exhibit 6. Expected Percent Change In Same-Store Shipment Volumes Over the Next 12 Months?**



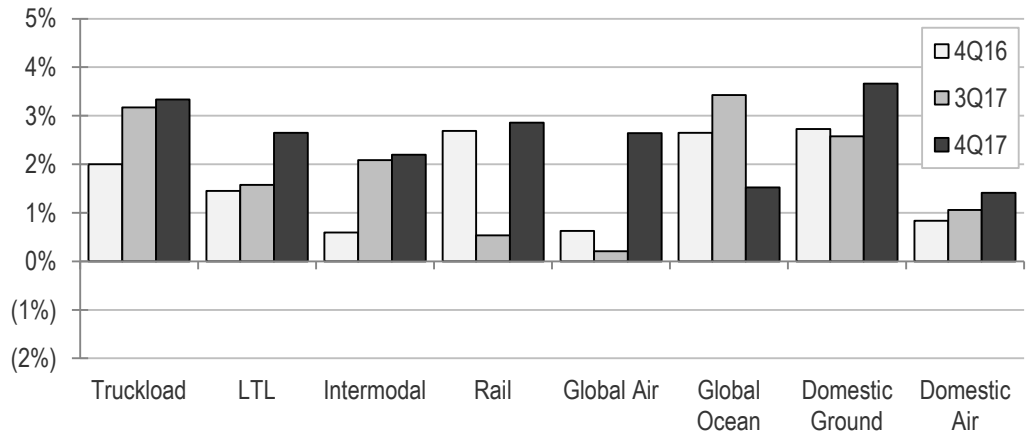
Source: Wolfe Research

**Exhibit 7. Expected Percent Change In Same-Store Shipment Volumes Over the Next 12 Months?**



Source: Wolfe Research

**Exhibit 8. What Percentage Increase or Decrease in Volumes Do You Expect From Each Mode Over the Next 12 Months?**



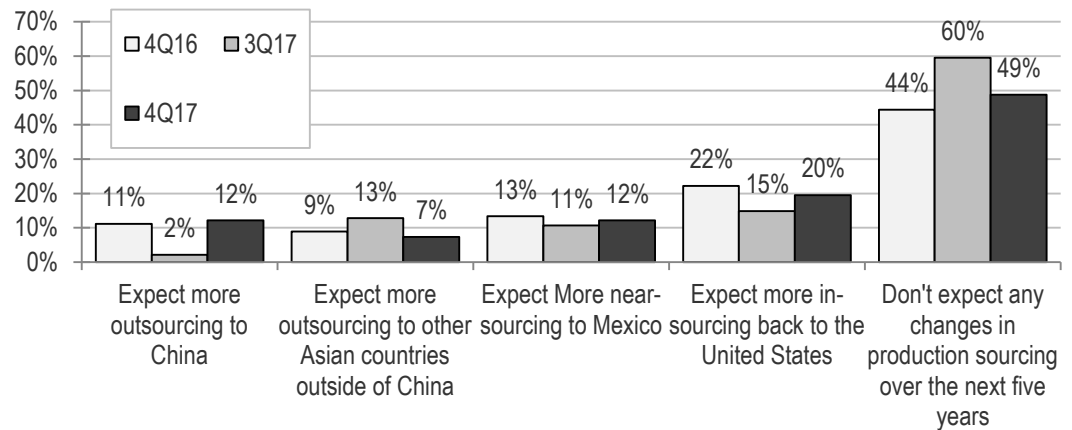
Source: Wolfe Research

**Exhibit 9. Quarterly Summary of Shippers' Year-over-Year Rate Expectations by Mode**

Mode	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	3Q to 4Q Trend
Rail	1.8%	1.4%	2.7%	2.3%	2.3%	2.0%	2.7%	2.9%	▲
Intermodal	(0.1%)	0.1%	0.2%	1.2%	0.6%	0.9%	2.3%	3.4%	▲
TL	(0.9%)	(0.4%)	0.4%	1.3%	0.6%	1.7%	3.6%	4.5%	▲
LTL	0.9%	0.9%	0.8%	1.9%	1.2%	1.7%	1.8%	2.7%	▲
Ground Parcel	2.9%	2.9%	2.9%	3.0%	3.0%	2.6%	2.7%	2.9%	▲
Domestic Air	2.9%	2.9%	2.9%	2.9%	2.9%	2.7%	2.8%	2.8%	—
Int'l Heavy Airfreight	(1.4%)	(2.0%)	(0.2%)	(1.0%)	0.6%	0.4%	1.3%	3.2%	▲
Ocean	(4.0%)	(2.8%)	2.3%	3.4%	3.4%	2.1%	2.0%	1.7%	▼

Source: Wolfe Research

**Exhibit 10. What Change in Production Sourcing Do You Expect Over the Next Five Years?**



Source: Wolfe Research

## Inventory Survey Results

The inventory section of our survey focuses on key inventory issues and how they may impact shipping decisions and future freight volumes:

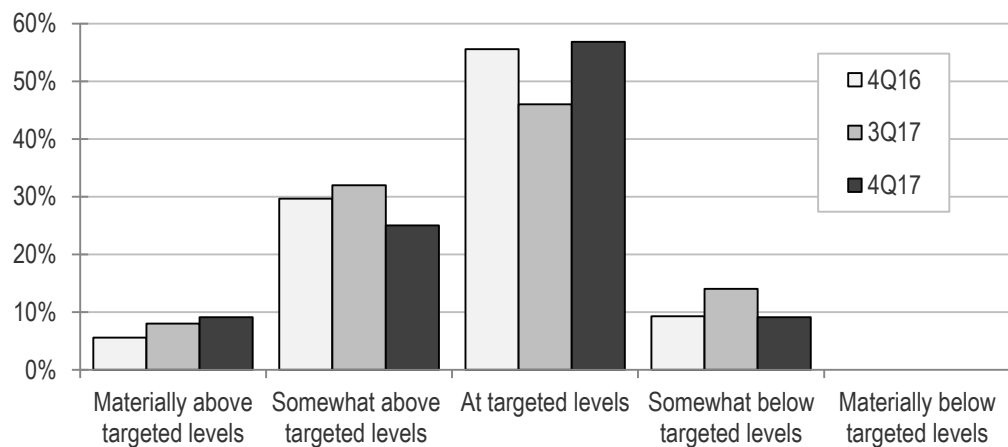
- Current inventory levels versus past periods and future expectations; and
- Inventories compared with targeted inventory levels

We believe the key highlights this quarter include:

- Approximately 39% of shippers cited higher y/y inventory levels this quarter, similar to 38% last quarter, and well above the 22% of shippers seeing lower y/y inventory levels right now. This suggests inventory levels are still too high.
- On the other hand, 34% of shippers noted that their inventory levels are currently above targeted levels, down from 40% last quarter. So this question suggests the inventory situation has improved since last quarter.

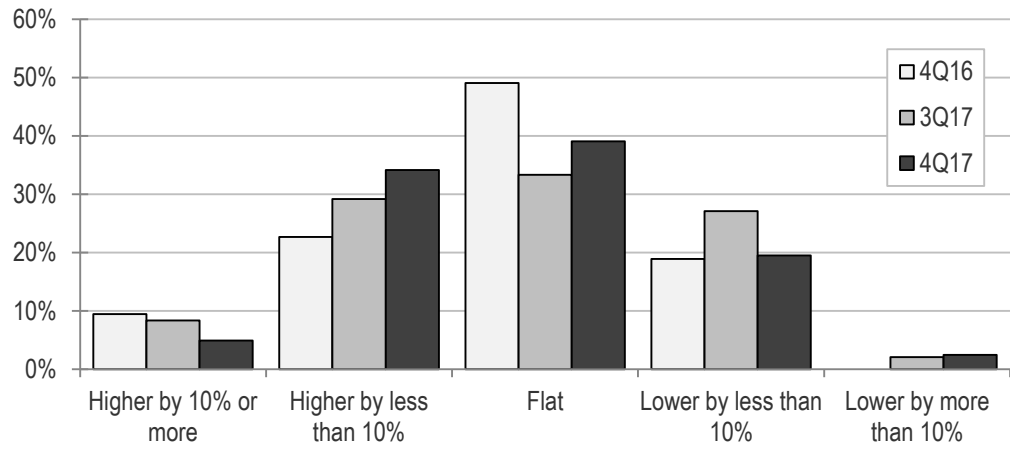
With conflicting results in our survey this quarter with respect to inventory trends, we don't see a clear read-across to near-term freight volumes.

**Exhibit 11. What Are Your Current Inventory Levels Compared to this Time a Year Ago?**



Source: Wolfe Research

**Exhibit 12. Where Are Your Inventory Levels Currently vs. Company Targets?**



Source: Wolfe Research

## Railroad Survey Results

The railroad section of our survey focuses on three primary topics:

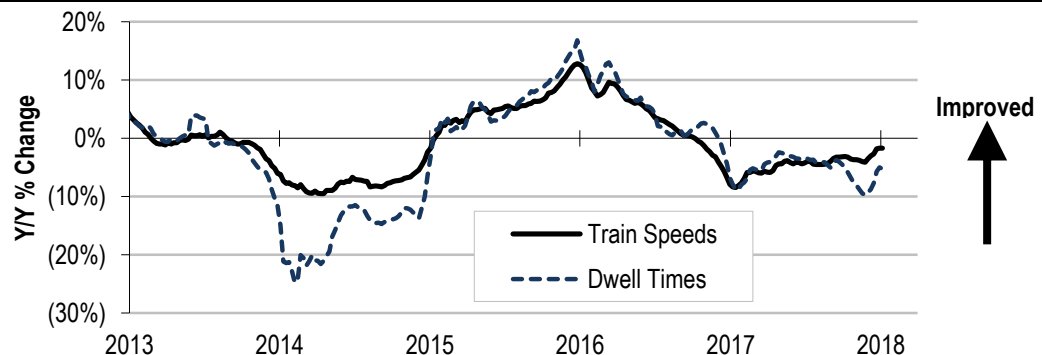
- Recent rail service trends and comparisons of rail service performance;
- Changing market dynamics between rail and truckload carriers, including recent and potential market share shifts; and
- Pricing trends and shipper expectations of rate increases over the next 12 months.

We believe the key highlights this quarter include:

- Rail service levels generally improved sequentially in the fourth quarter, with CSX showing by far the greatest sequential improvement and only Canadian Pacific showing a slight decline.
- Because of relative service improvements at CSX, 48% of shippers plan to shift some volumes from CSX to Norfolk Southern, down from 57% last quarter.
- Rail pricing expectations increased this quarter to 2.9%, up from 2.7% last quarter and 2.3% in fourth quarter from a year ago.

We believe our survey results this quarter are positive for the rails with some modest improvement in service levels and improving pricing trends in 2018.

**Exhibit 13. Six-Week Rolling Average Dwell Times & Train Speeds**



Note: Dwell times inverted to show improvement as an upward trend.

Source: AAR; Wolfe Research.



Exhibit 14. Service Metrics by Railroad (Year-over-Year Percent Change)

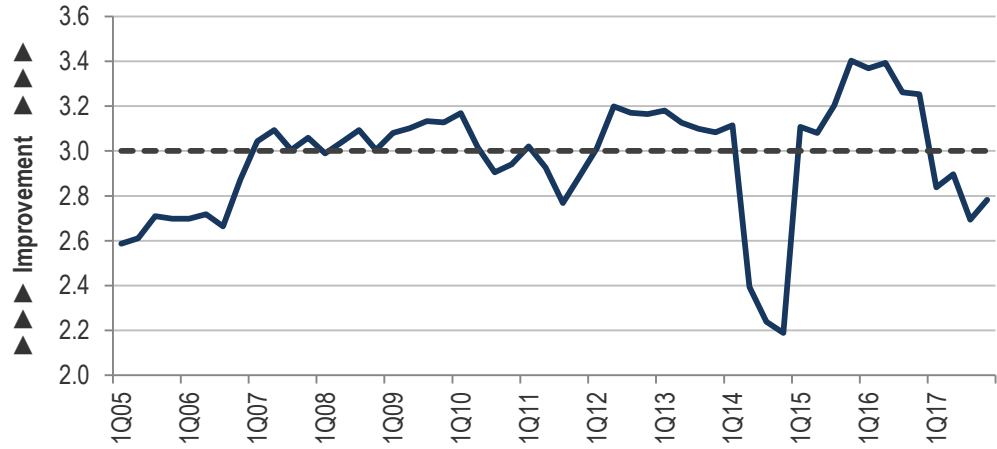
Dwell Time	1Q:16	2Q:16	3Q:16	4Q:16	1Q:17	2Q:17	3Q:17	4Q:17
BNSF	0.5%	(5.7%)	(5.5%)	1.5%	9.3%	12.7%	4.1%	(0.1%)
CNI	(14.3%)	(6.8%)	(5.0%)	1.2%	8.0%	7.9%	18.5%	26.6%
CP	(21.7%)	(0.0%)	4.9%	(3.4%)	2.6%	(11.7%)	(4.0%)	8.9%
CSX	(6.2%)	0.4%	1.8%	3.2%	0.0%	(2.7%)	8.1%	(4.6%)
KSU	(4.7%)	(6.9%)	5.0%	15.3%	9.0%	1.8%	(9.6%)	(3.4%)
NSC	(15.0%)	(8.6%)	(3.1%)	0.4%	(1.1%)	8.6%	5.8%	11.1%
UNP	(5.7%)	(4.7%)	(2.2%)	(1.7%)	7.4%	4.5%	6.5%	11.6%
<b>Total</b>	<b>(9.6%)</b>	<b>(4.6%)</b>	<b>(0.6%)</b>	<b>2.4%</b>	<b>5.0%</b>	<b>3.0%</b>	<b>4.2%</b>	<b>7.2%</b>
<b>Large-Cap US</b>	<b>(6.6%)</b>	<b>(4.6%)</b>	<b>(2.3%)</b>	<b>0.9%</b>	<b>3.9%</b>	<b>5.8%</b>	<b>6.1%</b>	<b>4.5%</b>

Train Speed	1Q:16	2Q:16	3Q:16	4Q:16	1Q:17	2Q:17	3Q:17	4Q:17
BNSF	21.4%	17.4%	6.2%	(1.1%)	(11.6%)	(9.3%)	(0.5%)	(0.4%)
CNI	10.4%	5.2%	1.9%	(3.1%)	(6.5%)	(5.2%)	(6.6%)	(10.3%)
CP	20.4%	10.4%	7.8%	0.1%	(4.7%)	(3.6%)	(3.8%)	(3.9%)
CSX	4.7%	3.7%	1.4%	(4.3%)	(3.9%)	2.8%	(6.0%)	13.3%
KSU	3.7%	6.9%	9.8%	2.8%	(1.3%)	(3.7%)	(1.5%)	(2.1%)
NSC	15.1%	11.1%	8.1%	(0.5%)	(3.8%)	(8.1%)	(6.0%)	(11.4%)
UNP	11.3%	7.6%	1.4%	(1.8%)	(5.7%)	(3.8%)	(2.5%)	(5.2%)
<b>Total</b>	<b>12.4%</b>	<b>8.9%</b>	<b>5.2%</b>	<b>(1.1%)</b>	<b>(5.4%)</b>	<b>(4.4%)</b>	<b>(3.8%)</b>	<b>(2.9%)</b>
<b>Large-Cap US</b>	<b>13.1%</b>	<b>10.0%</b>	<b>4.3%</b>	<b>(1.9%)</b>	<b>(6.3%)</b>	<b>(4.6%)</b>	<b>(3.8%)</b>	<b>(1.0%)</b>

Cars Online	1Q:16	2Q:16	3Q:16	4Q:16	1Q:17	2Q:17	3Q:17	4Q:17
BNSF	(6.3%)	(5.7%)	(3.3%)	0.5%	7.1%	7.2%	3.2%	1.4%
CNI	(2.9%)	1.3%	(0.7%)	(0.2%)	1.8%	1.6%	3.8%	5.8%
CP	(5.3%)	(6.6%)	(5.0%)	(7.7%)	(4.0%)	(1.2%)	(1.1%)	3.0%
CSX	(0.9%)	0.5%	1.8%	2.1%	1.5%	(0.3%)	NM	NM
KSU	4.4%	4.2%	0.4%	4.0%	5.5%	5.2%	2.2%	3.9%
NSC	0.6%	(0.6%)	(3.7%)	(3.9%)	(4.3%)	(1.2%)	0.4%	3.8%
UNP	(0.7%)	(2.1%)	(1.4%)	(0.8%)	1.9%	2.4%	2.7%	3.9%
<b>Total</b>	<b>(1.6%)</b>	<b>(1.3%)</b>	<b>(1.7%)</b>	<b>(0.9%)</b>	<b>1.4%</b>	<b>2.0%</b>	<b>1.9%</b>	<b>3.6%</b>
<b>Large-Cap US</b>	<b>(1.8%)</b>	<b>(2.0%)</b>	<b>(1.6%)</b>	<b>(0.5%)</b>	<b>1.6%</b>	<b>2.0%</b>	<b>2.1%</b>	<b>3.0%</b>

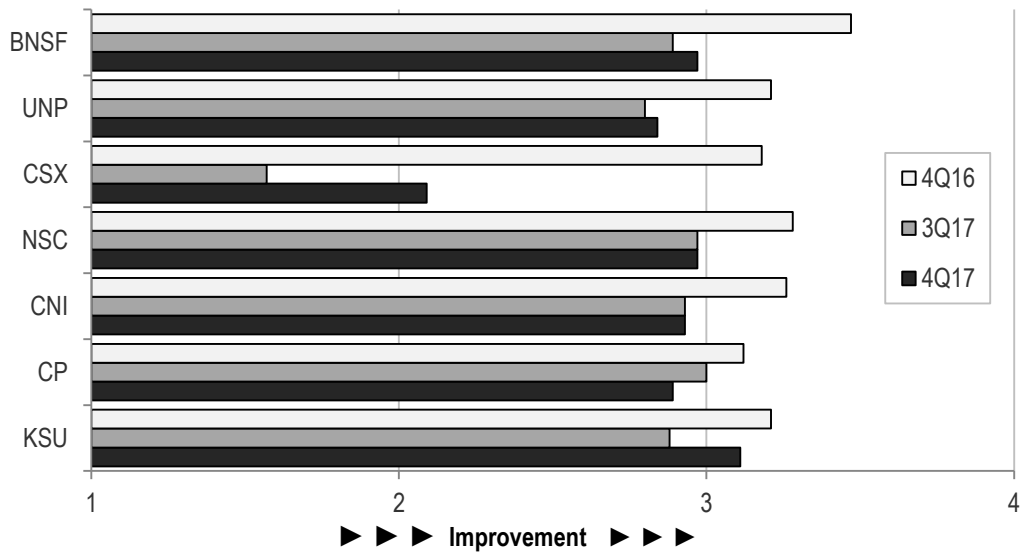
Source: AAR; Wolfe Research.

Exhibit 15. Average Rail Service Ranking



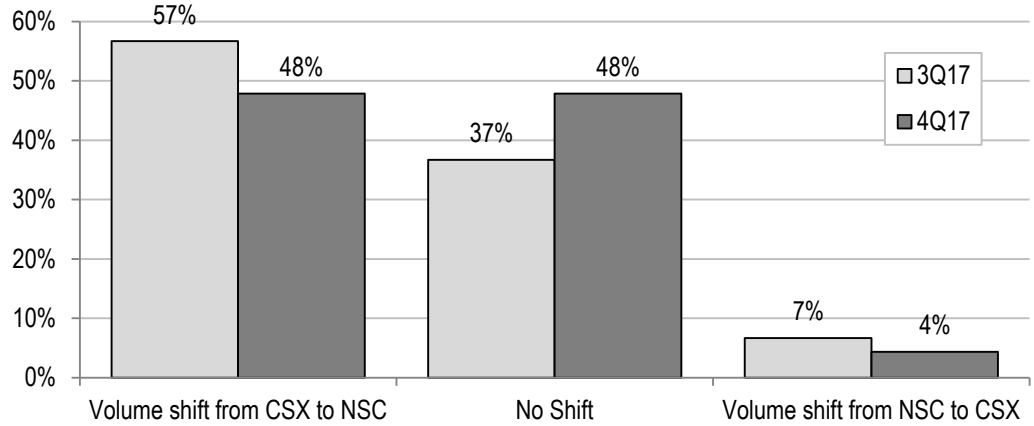
Source: Wolfe Research.

Exhibit 16. Have Service Levels Improved or Declined for the Following Rail Carriers Compared with Year-Ago Levels?



Source: Wolfe Research.

**Exhibit 17. Do You Plan to Shift Any Volumes Away From CSX to Norfolk Southern?**



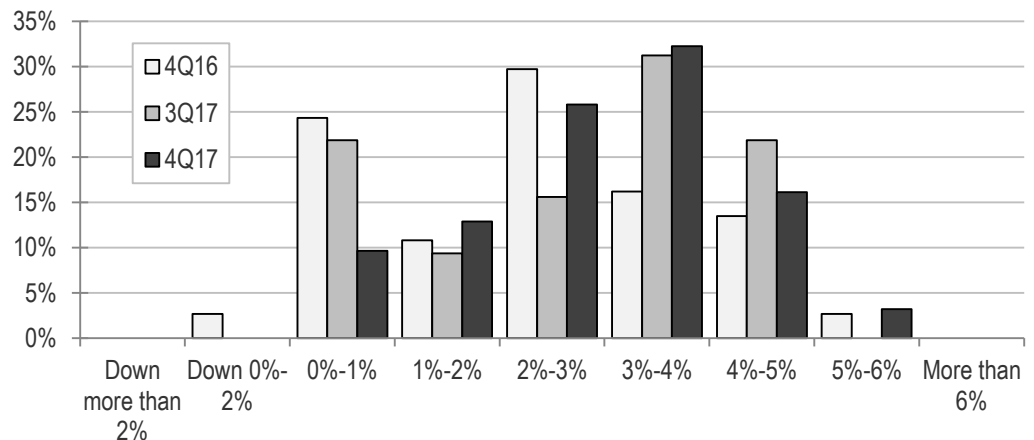
Source: Wolfe Research.

**Exhibit 18. Historical Shipper Expectations for Railroad Pricing Increases (Net of Fuel) in our Survey**



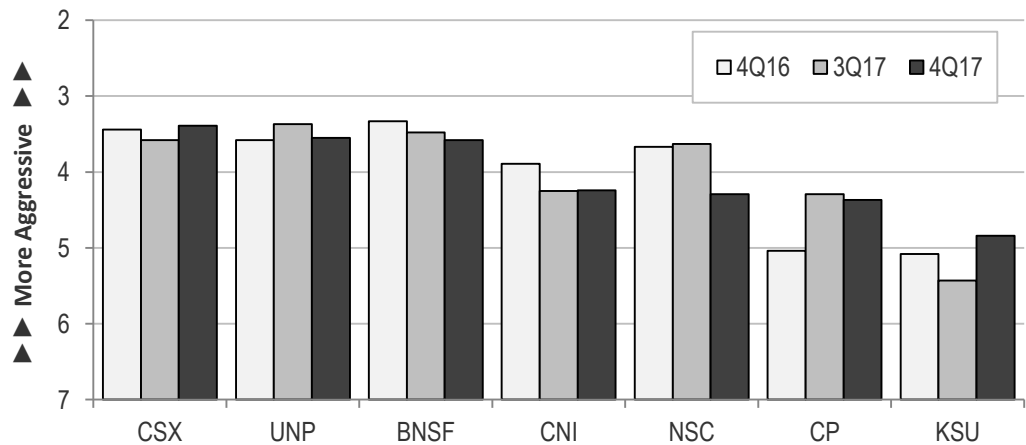
Source: Wolfe Research.

**Exhibit 19. What Change in Railroad Rates (Net of Fuel) Do You Expect to Pay The Next 12 Months?**



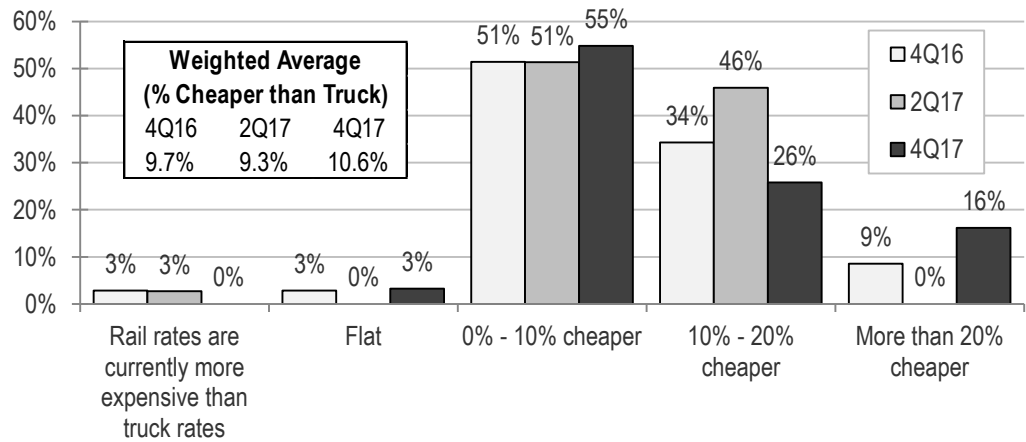
Source: Wolfe Research.

**Exhibit 20. Which Rails Are Currently Most Aggressive on Rate Increases (Rank from 1-7 with 1 Being Most Aggressive)?**



Source: Wolfe Research.

**Exhibit 21. Where Rails and Trucks Compete, How Much Cheaper are Your Railroad Transportation Costs, on Average, Compared to Comparable Truckload Movements?**



Source: Wolfe Research.

## Intermodal Topics

The intermodal section of our survey focuses on:

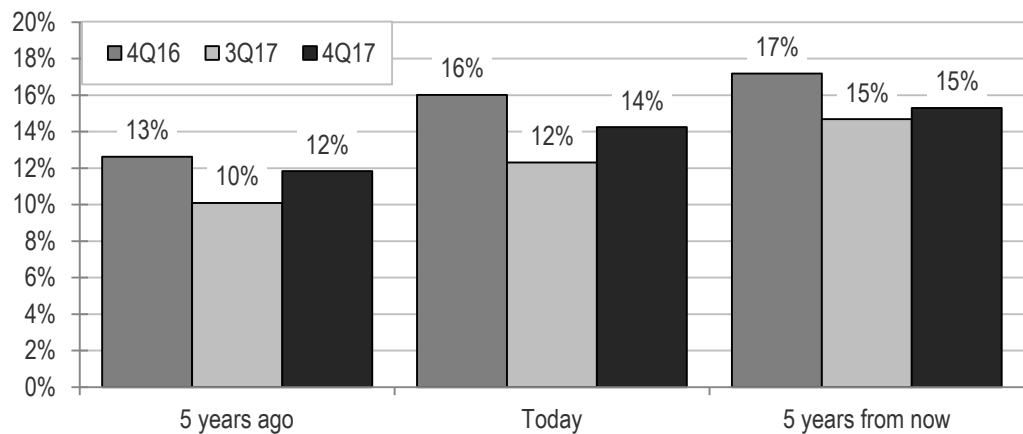
- Near- and long-term expectations for intermodal share gains; and
- Shipper expectations of rate increases over the next 12 months.

We believe the key highlights this quarter include:

- Compared with last quarter, expectations for intermodal share gains improved as TL rates and fuel prices are both moving higher.
- Shippers expect intermodal rates to increase 3.4% over the next 12 months, a sharp acceleration from 2.3% last quarter and well above the 1.2% expectation a year ago. This is the highest expectation in the history of our survey.

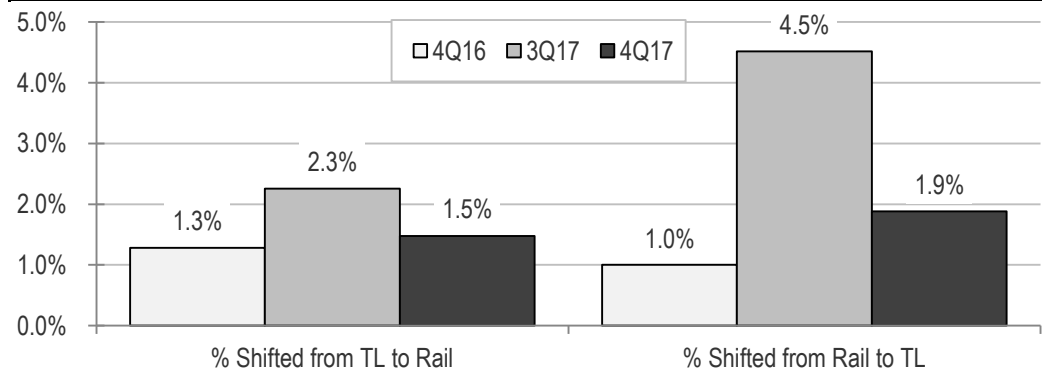
Our survey has started to show positive signs for intermodal, as tighter trucking capacity has led to increased rate expectations. Longer term, our survey results reveal that intermodal should continue see some secular share gains. JBHT continues to be our favorite way to play secular intermodal growth over time.

**Exhibit 22. What Percent of Your Total Over-the-Road Volumes is Intermodal?**



Source: Wolfe Research.

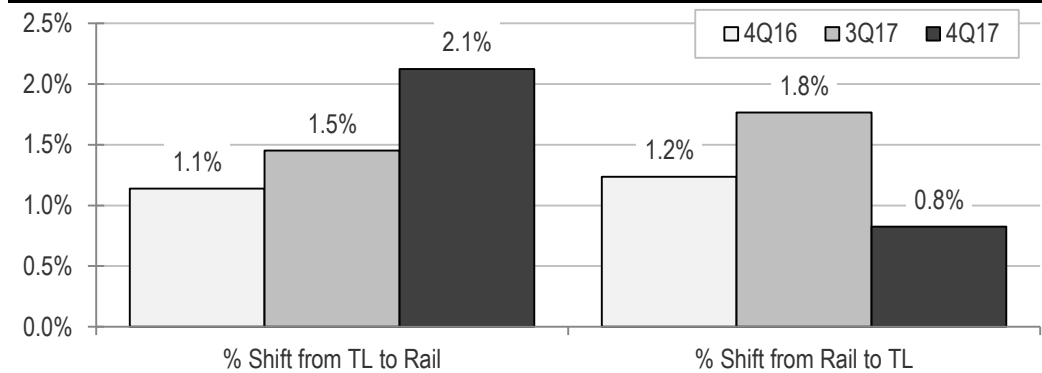
**Exhibit 23. Have You Shifted a Significant Percentage of Your Volumes from TL to Railroad or Vice Versa over the Past Six Months?**



Past 6 Months	4Q15	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17
From TL to Rail	0.8%	1.9%	2.1%	3.3%	1.3%	1.2%	1.6%	2.3%	1.5%
From Rail to TL	1.2%	1.5%	0.9%	1.5%	1.0%	1.6%	2.6%	4.5%	1.9%
Net Shift to Rail	(0.5%)	0.5%	1.2%	1.7%	0.3%	(0.4%)	(1.1%)	(2.3%)	(0.4%)

Source: Wolfe Research.

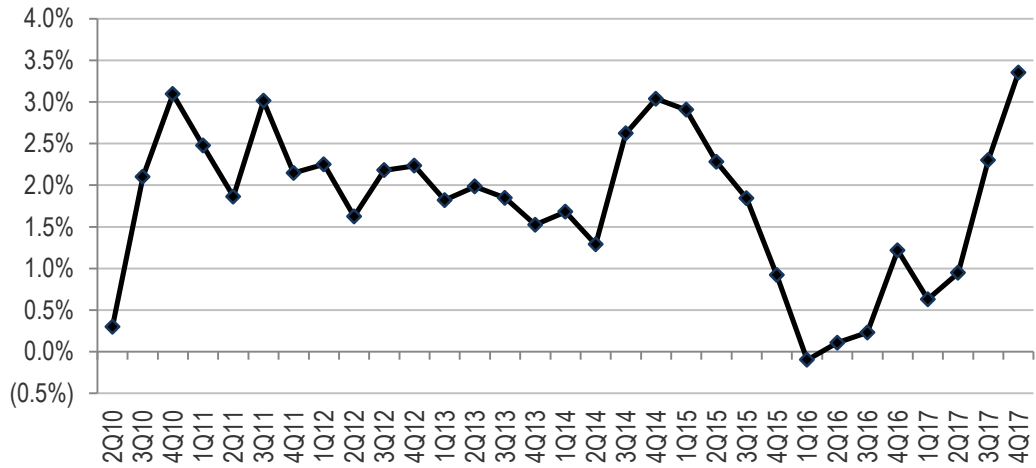
**Exhibit 24. Do You Plan to Shift a Significant Percentage of Your Volumes from TL to Railroad or Vice Versa Over the Next 6-12 Months?**



Next 6-12 Months	4Q15	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17
From TL to Rail	1.3%	2.5%	1.8%	4.0%	1.1%	1.4%	1.4%	1.5%	2.1%
From Rail to TL	0.3%	0.5%	0.4%	0.4%	1.2%	1.0%	0.7%	1.8%	0.8%
Net Shift to Rail	1.0%	2.0%	1.4%	3.6%	-0.1%	0.4%	0.6%	-0.3%	1.3%

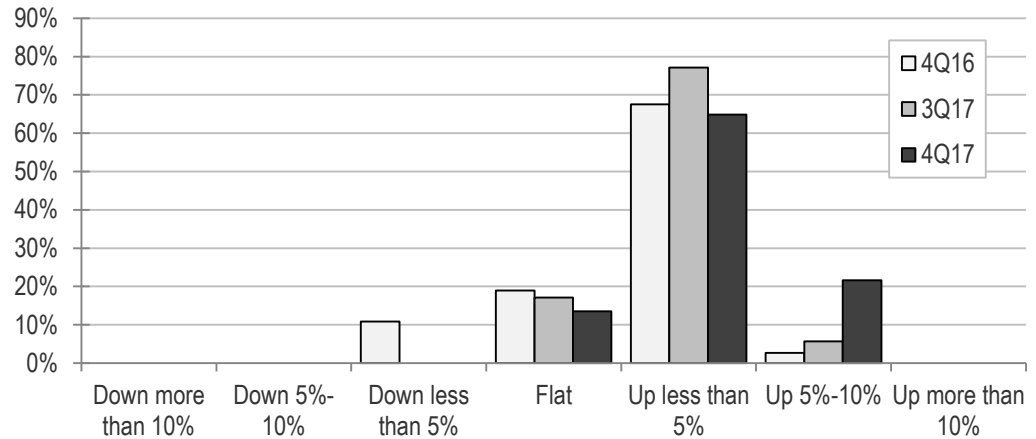
Source: Wolfe Research.

**Exhibit 25. Historical Shipper Expectations for Intermodal Pricing Increases in Our Survey**



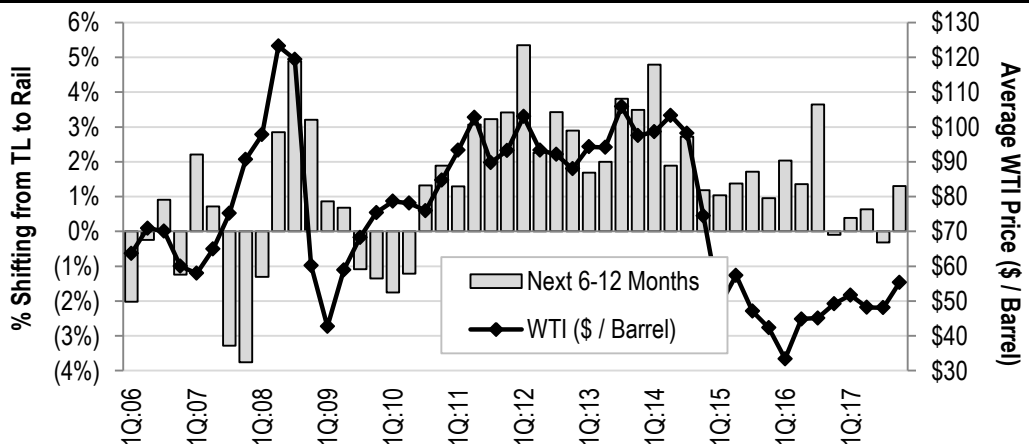
Source: Wolfe Research

**Exhibit 26. What Increase (Decrease) in Intermodal Rates (Excluding Fuel Charges) Do You Expect to Pay Over the Next 12 Months?**



Source: Wolfe Research.

**Exhibit 27. Shipper Expectations for Shifting Freight from Truck to Rail vs. WTI Oil Prices**



Source: FactSet Research Systems Inc.; Wolfe Research.

## Trucking Topics

The trucking section of our survey focuses on three primary topics:

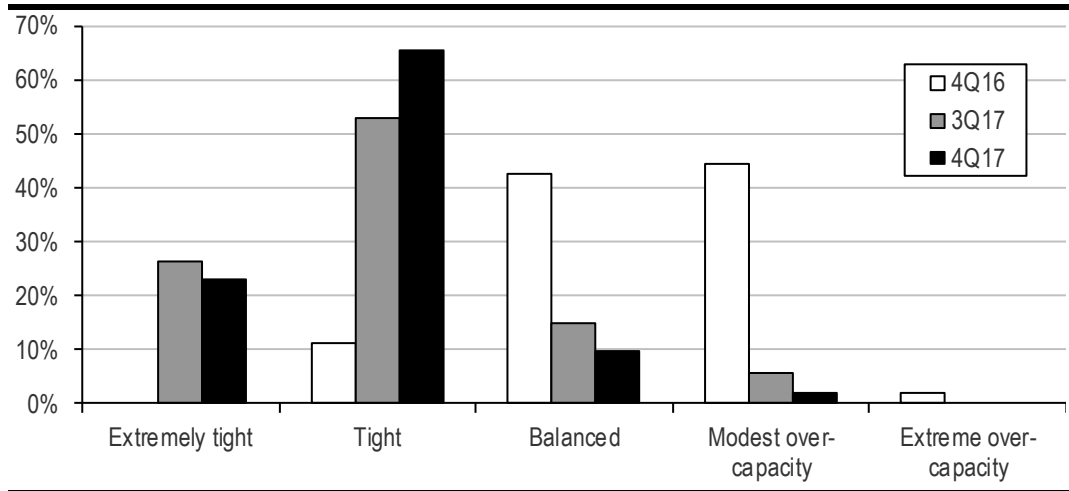
- Current and future TL and LTL capacity trends;
- Expectations for TL and LTL pricing trends; and
- Views on the ELD (electronic logging device) mandate

We believe the key highlights this quarter include:

- 88% of shippers believe the TL market is tight right now versus just 2% of shippers seeing TL over-capacity. This is the highest percentage of shippers seeing tight TL capacity in the past 12 quarters. Meanwhile, the majority of shippers (55%) continue to see balanced LTL capacity.
- Shipper expectations for TL and LTL rate increases over the next 12 months both improved 80-basis points to 4.5% and 2.7%, respectively. Shipper expectations for TL rates increased to the highest level since we began our survey in 2001.
- Shippers expect a 4.6% reduction in TL capacity as a result of the ELD mandate, up from 4.3% last quarter before the mandate went into effect. Additionally, shippers plan to shift a net 12% away from truck brokers due to the ELD mandate.
- 4% of our respondents currently use an Uber-like truck brokerage provider (such as Convoy), up from 2% last quarter. Looking ahead, 22% expect to test one of these apps over the next 12 months, which is similar to last quarter.

Overall, our survey results indicate that the TL market strengthened further in 4Q:17, and we are optimistic about contractual rate increases in 2018.

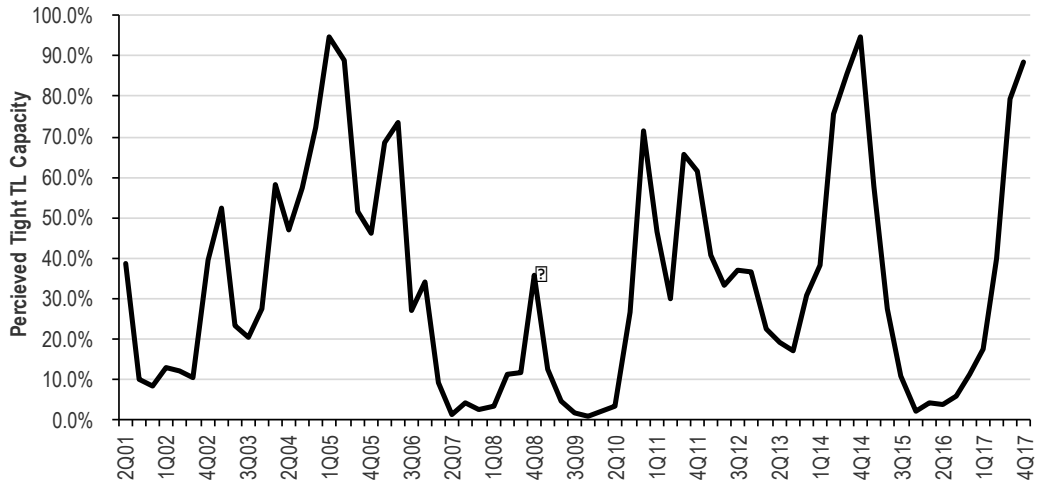
**Exhibit 28. How Did You Perceive TL Capacity During the Current Quarter Compared with this Time in Previous Years?**



Source: Wolfe Research

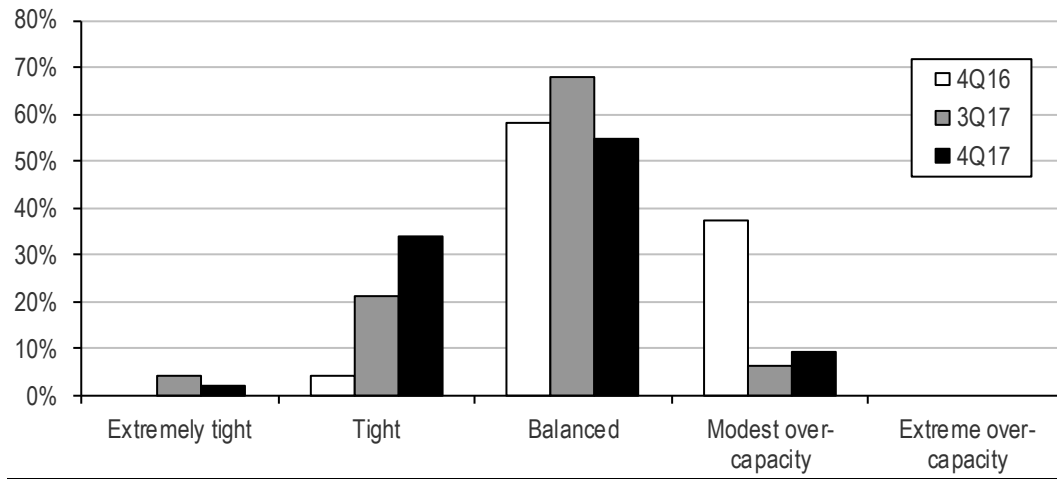


**Exhibit 29. Historical Shipper Perceptions of TL Capacity Tightness In Our Survey**



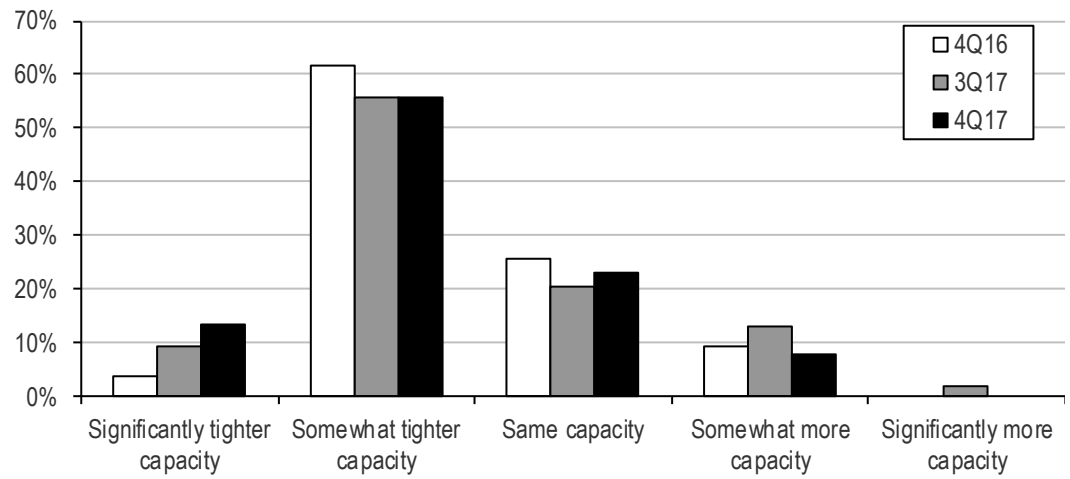
Source: Wolfe Research

**Exhibit 30. How Did You Perceive LTL Capacity During the Current Quarter Compared with this Time in Previous Years?**



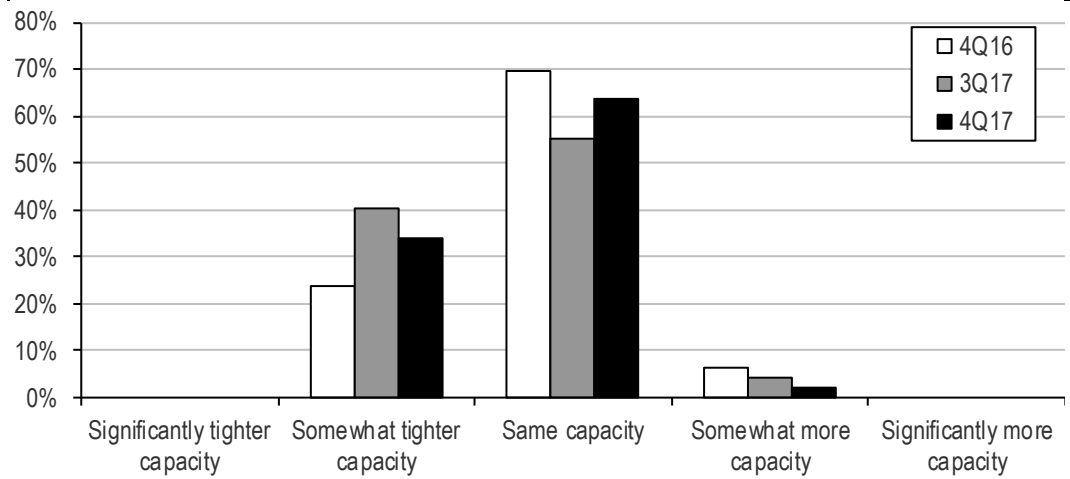
Source: Wolfe Research

**Exhibit 31. What Do You Expect Regarding the Direction of TL Capacity Over the Next 12 Months?**



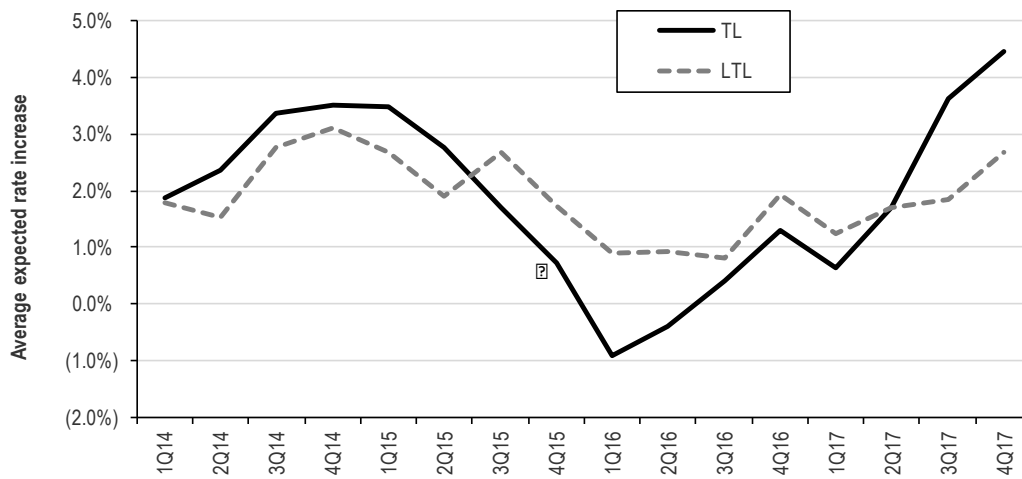
Source: Wolfe Research.

**Exhibit 32. What Do You Expect Regarding the Direction of LTL Capacity Over the Next 12 Months?**



Source: Wolfe Research.

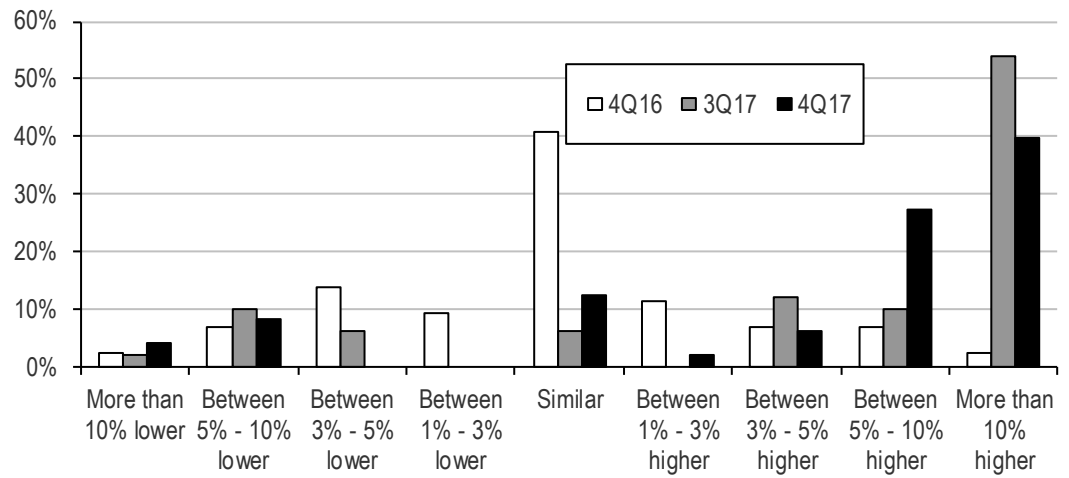
Exhibit 33. What Change in TL/LTL Rates Do You Expect to Pay Over the Next 12 Months?



	Weighted Y-o-Y Average	
	LTL	TL
1Q14	1.8%	1.9%
2Q14	1.5%	2.4%
3Q14	2.8%	3.4%
<b>4Q14</b>	<b>3.1%</b>	<b>3.5%</b>
1Q15	2.7%	3.5%
2Q15	1.9%	2.8%
3Q15	2.7%	1.7%
<b>4Q15</b>	<b>1.7%</b>	<b>0.7%</b>
1Q16	0.9%	(0.9%)
2Q16	0.9%	(0.4%)
3Q16	0.8%	0.4%
<b>4Q16</b>	<b>1.9%</b>	<b>1.3%</b>
1Q17	1.2%	0.6%
2Q17	1.7%	1.7%
3Q17	1.8%	3.6%
<b>4Q17</b>	<b>2.7%</b>	<b>4.5%</b>
<b>Average</b>	<b>1.9%</b>	<b>1.9%</b>

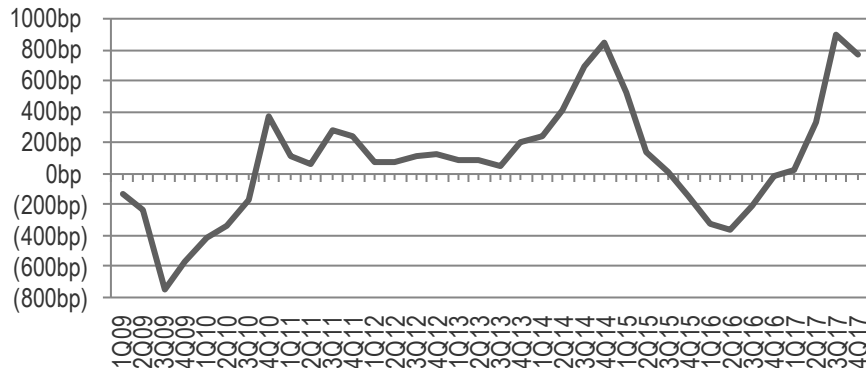
Source: Wolfe Research

**Exhibit 34. How Do Current Spot (Non-Committed, Non-Contractual) TL Rates Compare with Current TL Contractual Rates?**



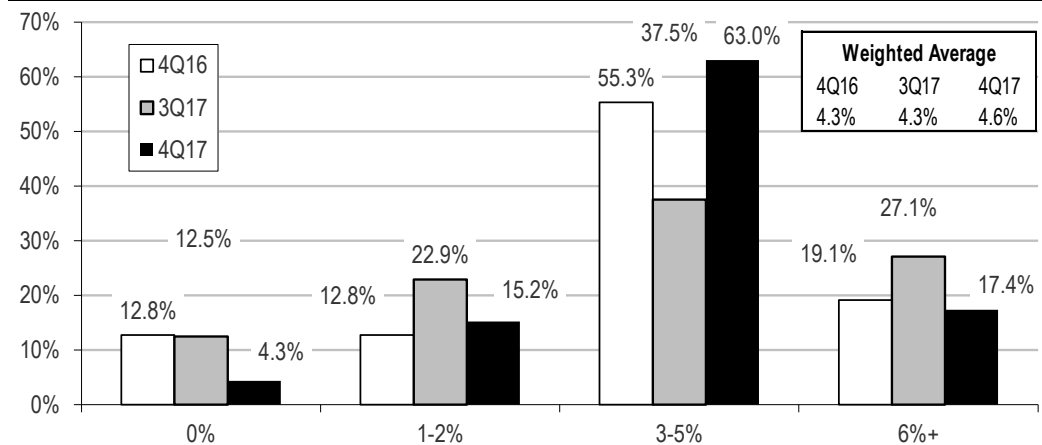
Source: Wolfe Research

**Exhibit 35. Quarterly Trend of TL Spot Market vs. Contractual Rates**



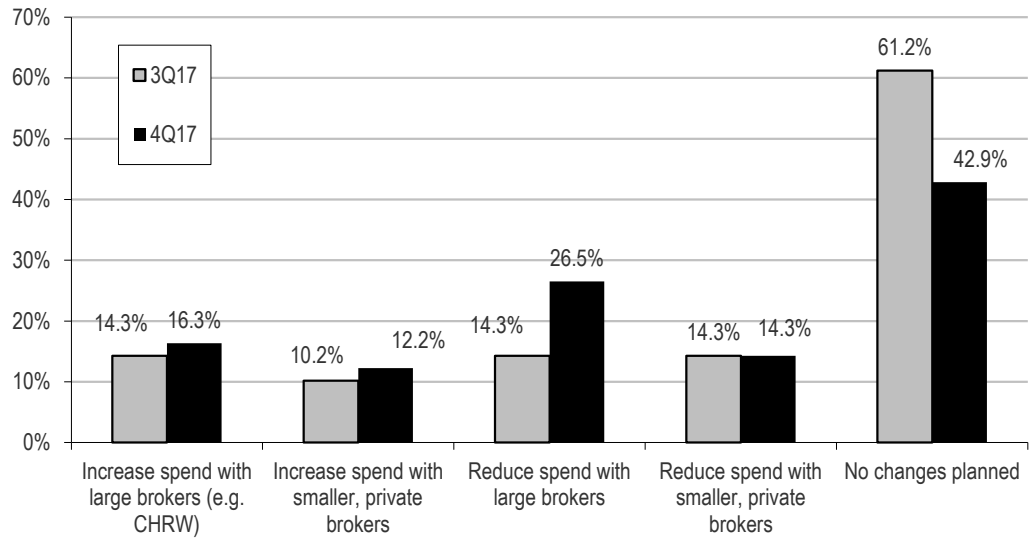
Source: Wolfe Research

**Exhibit 36. What Percent Impact on TL Capacity Do You Expect From the Recent ELD Mandate?**



Source: Wolfe Research

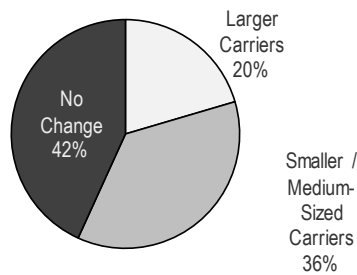
**Exhibit 37. Do You Expect To Increase or Decrease Your Transportation Spend with Truck Brokers Going Forward?**



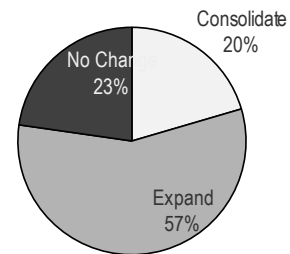
Source: Wolfe Research

**Exhibit 38. Which of the Following Changes Do You Expect to Make Going Forward with Respect to Your TL Spend?**

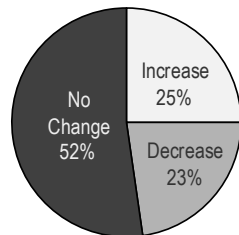
**Plan to Shift Freight to Large or Small Carriers?**



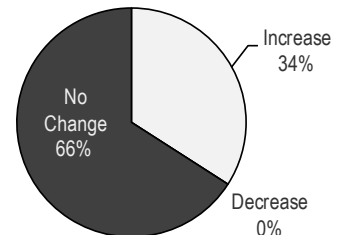
**Plan to Consolidate Group of Carriers?**



**Plan to Increase Use of Truck Brokerage?**

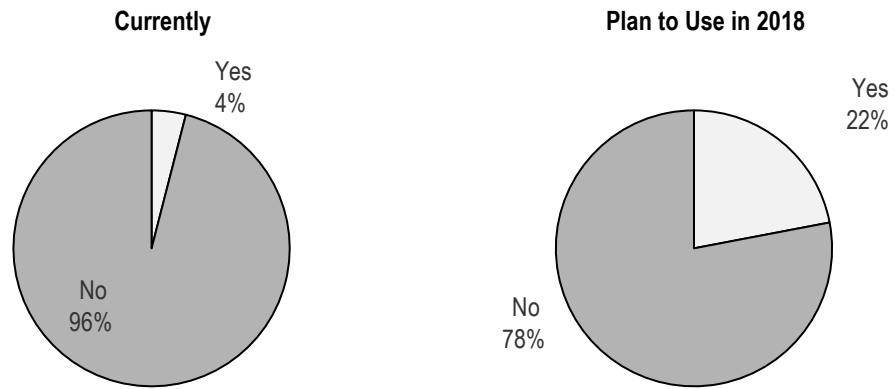


**Plan to Increase Use of Dedicated?**



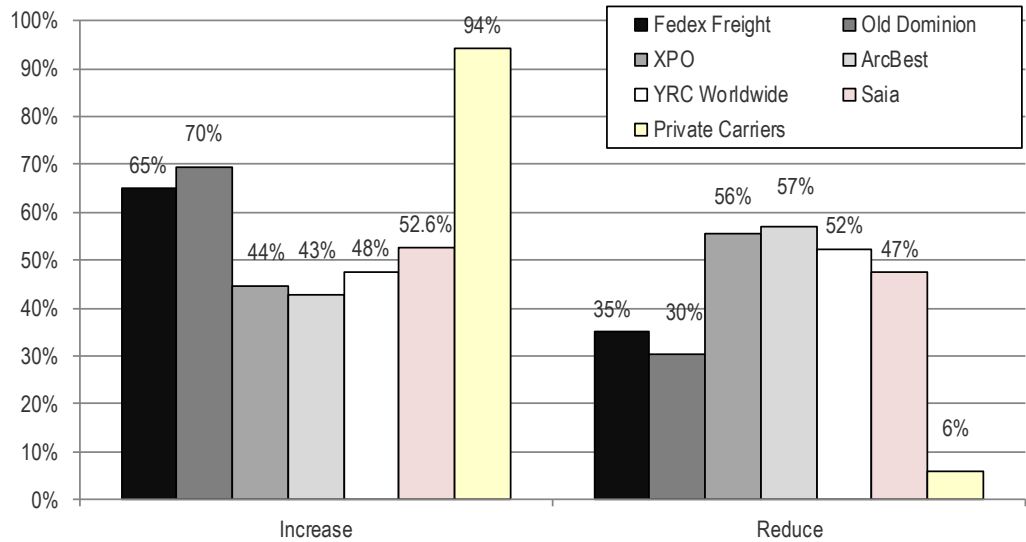
Source: Wolfe Research

**Exhibit 39. Are you currently using, or do you plan to use, an Uber-like truck brokerage provider (such as Convoy or Transfix)?**



Source: Wolfe Research.

**Exhibit 40. Which LTL carrier(s) are you likely to reduce your spend with over time?**



Source: Wolfe Research

## Express/Parcel Topics

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The Express/parcel section of our survey focuses on three primary topics:

- Expectations for mode shifts between Ground Parcel and Air Express;
- Pricing expectations for FedEx and UPS;

We believe the key highlights this quarter include:

- Compliance rates with rate increases from FedEx and UPS remain at very high levels. Approximately 78% of customers expect to comply with a portion of FedEx's ground/air list rate increases, while 74% expect to comply with UPS's increases.
- For the third consecutive quarter, shippers expect higher overall rate increases from FedEx than UPS. Over the next 12 months, shippers expect a 3.2% effective rate increase from FedEx and a 2.5% rate increase for UPS. This is the highest rate expectation ever in our survey.

Overall, both FedEx and UPS continue to see very strong compliance rates from shippers which should support strong core pricing gains. We believe much of these pricing gains will be offset by continued negative mix as lower-weight and lower-yielding B2C packages continue to grow much faster than B2B volumes. So we expect reported yield growth to remain below underlying pricing gains for both UPS and FedEx.

We continue to prefer FDX's stock over UPS as we expect FDX will see better EPS growth over the next several years, driven by continued Express profit improvement, ramping TNT accretion, a lower tax rate, and hopefully a gradual rebound in Ground margins. We also favor the improving free cash flow conversion story at FDX relative to the deteriorating one at UPS.

**Exhibit 41. Anticipated Compliance with Recent FedEx and UPS List Price Increases**

**Fourth-Quarter 2017**

<b>FedEx</b>	Ground	Domestic Express	Int'l Export	Avg.
List Rate Increase	4.9%	4.9%	4.9%	4.9%
Average Expected Actual Rate Increase	3.2%	3.1%	3.1%	3.2%
% Paying a Portion of Increase	82%	78%	74%	78%

<b>UPS</b>	Ground	Domestic Express	Int'l Export	Avg.
List Rate Increase	4.9%	4.9%	4.9%	4.9%
Average Expected Actual Rate Increase	2.5%	2.4%	2.7%	2.5%
% Paying a Portion of Increase	75%	73%	75%	74%

**Third-Quarter 2017**

<b>FedEx</b>	Ground	Domestic Express	Int'l Export	Avg.
List Rate Increase	4.9%	4.9%	4.9%	4.9%
Average Expected Actual Rate Increase	2.8%	3.0%	2.7%	2.8%
% Paying a Portion of Increase	91%	83%	72%	82%

<b>UPS</b>	Ground	Domestic Express	Int'l Export	Avg.
List Rate Increase	4.9%	4.9%	4.9%	4.9%
Average Expected Actual Rate Increase	2.6%	2.6%	2.3%	2.5%
% Paying a Portion of Increase	83%	77%	63%	74%

**Fourth-Quarter 2016 Survey Results**

<b>FedEx</b>	Ground	Domestic Express	Int'l Export	Avg.
List Rate Increase	4.9%	4.9%	4.9%	4.9%
Average Expected Actual Rate Increase	2.9%	2.8%	3.1%	2.9%
% Paying a Portion of Increase	92%	89%	87%	89%

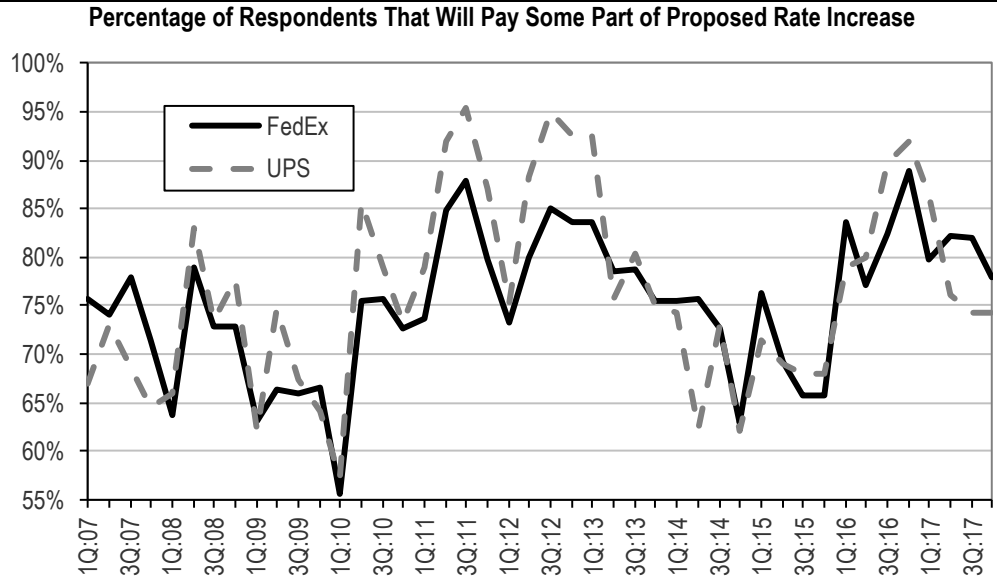
<b>UPS</b>	Ground	Domestic Express	Int'l Export	Avg.
List Rate Increase	4.9%	5.2%	5.2%	5.1%
Average Expected Actual Rate Increase	3.1%	3.1%	3.1%	3.1%
% Paying a Portion of Increase	93%	88%	96%	92%

(1) List Rates shown net of changes in fuel surcharge schedules. (2) FedEx and UPS (Wolfe expected) proposed calendar 2018 list rate increases of 4.9%, each, at Express, Air, and Ground for UPS and 4.9% for FedEx Domestic Express, International Export and Ground. Methodology: Compliance based on the percentage of respondents who intend to pay some or all of the respective rate increases by the end of the calendar year. In addition, for those who indicated an intention to comply, we asked how much of the respective rate increase they intended to pay (as a percentage of the total rate increase). We then multiplied the anticipated participation rate (percentage intending to pay part or all of a rate increase) by the percentage of a given rate increase that shippers intend to pay. We then multiply this value by the announced nominal rate increase to yield an estimate of what may actually be collected.

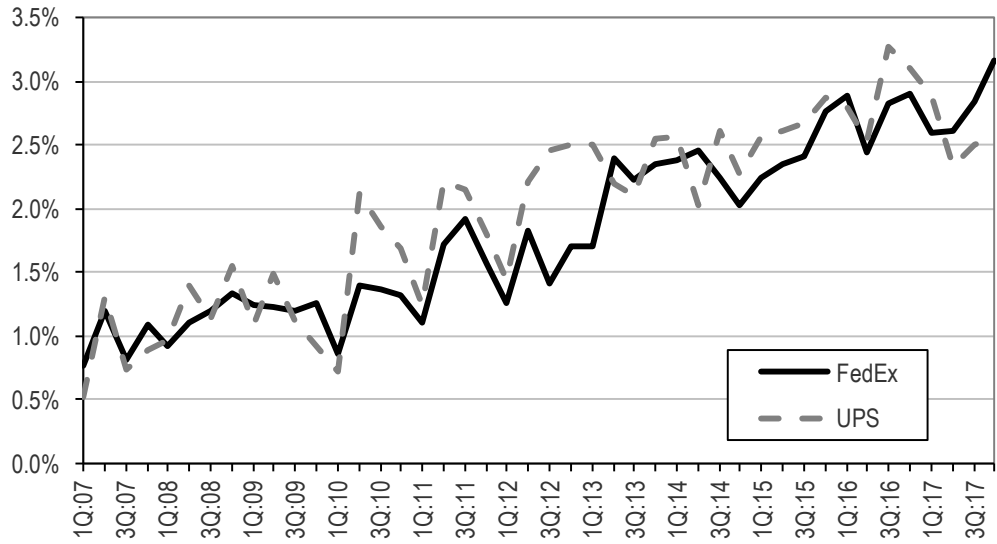
Source: Wolfe Research



**Exhibit 42. Percentage of Expected Year-over-Year Compliance with UPS and FedEx Rate Increases and Average Forward-Year Base Rate Increase Expectations from Our Past Surveys**



**Anticipated Effective Base Rate Increase to Be Received After One Year (average percent increase)**



Source: Wolfe Research

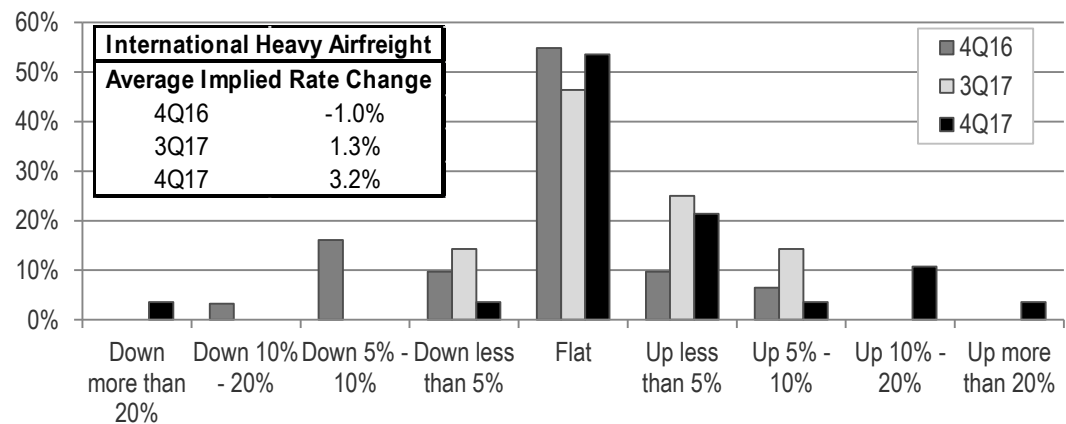
## Import and Export Demand

The import and export demand section of our survey relates principally to rate expectations for ocean container and heavy airfreight services. As part of our ongoing effort to monitor the overall macroeconomic backdrop as it relates to the transportation sector, we track a number of U.S. and international trade lanes and other global freight indicators across modes.

We believe the key highlights this quarter include:

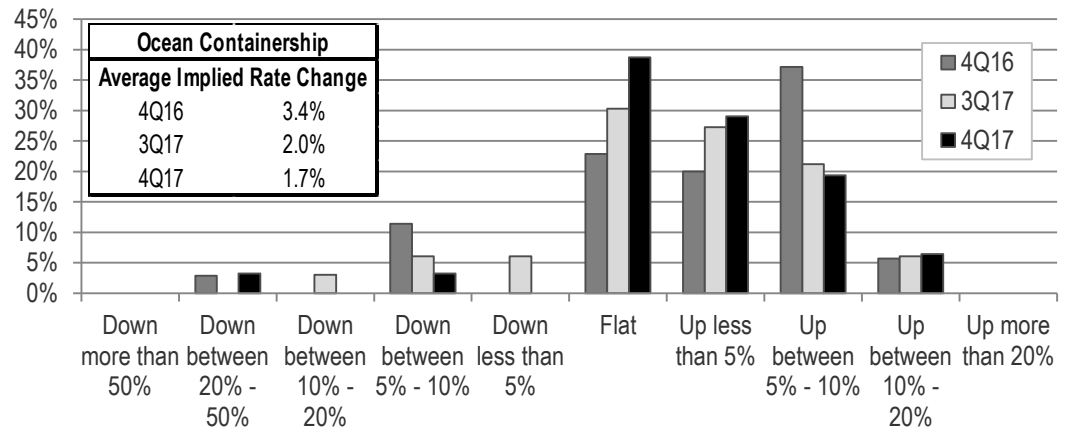
- Ocean rates are expected to increase 1.7% year-over-year in the next 12 months, decelerated from +2.0% last quarter. This is the only mode where shippers' rate expectations decelerated relative to last quarter.
- Air rates are expected to increase 3.2% over the next year, the fourth straight positive quarter after seven straight quarters of declines previously. Airfreight continues to see strong demand, with global airfreight volumes growing at their fastest rate since 2010 which should support stronger pricing trends as airfreight capacity has tightened.

**Exhibit 43. By How Much Do You Expect Your International Heavy Airfreight Rates (Excluding Fuel Surcharges) to Change Over the Next 12 Months?**



Source: Wolfe Research

**Exhibit 44. By How Much Do You Expect Your Ocean Containership Rates (Excluding Fuel Surcharges) to Change During the Next 12 Months?**



Source: Wolfe Research

**DISCLOSURE SECTION**

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