

October 3, 2022 04:01 AM GMT

Freight Transportation | North America

Fast Lane: USPS Rate Increase, IAM Rail Union Agreement, & Spot vs. Contract Behavior Enters Unusual Territory

Last Week, parcel players introduced new rate increases for the holiday season and the IAM reached a second tentative agreement with rail carriers. Spot rates also continue their decline past contract rates, contrary to past cycles.

The U.S. Postal Service introduces rate increases for the holiday season. The new rates will apply to commercial and retail customers from October 2nd until January 22, 2023. The USPS [filed notice](#) on August 10th with the Postal Regulatory Commission to increase prices for key products inline with previous years. Depending on delivery zone and package weight, these new prices will raise Priority Mail and Priority Mail Express services by \$0.25 to \$6.50 per package. First-Class Package Service, Parcel Select Ground, and USPS Retail Ground services will increase by \$0.25 to \$5.85 per package. **The price range increase is less than competitors FDX and UPS, who announced prices increases earlier this month**, and in addition to already discounted regular rates. Parcel players, OnTrac and DHL, have also announced peak season home delivery surcharges. Similarly to FDX and UPS, OnTrac will [apply a surcharge](#) ranging from \$1.25 to \$6.00 based on a customer's excess package volume beyond a June 2022 baseline. DHL's eCommerce Solutions [introduced surcharges](#) for SmartMail products up to \$6.25 per product and aligned with USPS peak pricing, which makes sense considering they rely on USPS for final-mile delivery.

The International Association of Machinists and Aerospace Workers (IAM) District 19 has reached a tentative agreement with rail carriers, after the union rejected the first deal. IAM District 19 represents ~4,900 locomotive machinists, track equipment mechanics, and facility maintenance personnel who rejected an initial agreement on Sep 14. The [updated tentative agreement](#) incorporates PEB recommendations including an immediate increase in wages of 14% and compounded increase of 24% over the 5-year term along with **additional incentives such as a cap on healthcare costs, provisions for travel lodgings and expenses and a joint study on overtime policies.** The agreement will be promptly shared with the rank and file and extends the cooling-off period to Dec 9. **With this agreement, all unions are in the process of ratifying or have ratified agreements, although ratification risk still remains for carriers.** The ability to avert a rail strike is a positive for our Rail coverage who already faced slight disruptions in preparation for a [potential strike in early September](#), but the

MORGAN STANLEY & CO. LLC

Ravi Shanker
EQUITY ANALYST
Ravi.Shanker@morganstanley.com +1 212 761-6350

Christyne McGarvey
RESEARCH ASSOCIATE
Christyne.McGarvey@morganstanley.com +1 212 296-3875

Katherine Kallergis
RESEARCH ASSOCIATE
Katherine.Kallergis@morganstanley.com +1 212 761-5618

Nancy Hipp
RESEARCH ASSOCIATE
Nancy.Hipp@morganstanley.com +1 212 761-1311

Freight Transportation

North America
IndustryView Cautious

Please see links below to other research we published last week:

[TechTrack: Sندر/Torc Level 4 AV Testing, WERN/Kodiak AV Trucking Lane, Biden's Electric Vehicle Infrastructure Deployment Plans, FAA Drone & Vertiport Approvals, Omnichannel Partnerships & More... \(30 Sep 2022\)](#)

[Truck Stop/TLFI: Falling In Line \(28 Sep 2022\)](#)

[The Frequent Flyer: Amazon Air Dials Back Cargo Operations, UAL Grounds BA 777S, LUV Announces Leadership Change & Biden Announces New Airline Regulations \(27 Sep 2022\)](#)

[FedEx Corporation: The Search for Normalized \(and Floor\) EPS and Multiple Continues; Cutting PT to \\$125 \(27 Sep 2022\)](#)

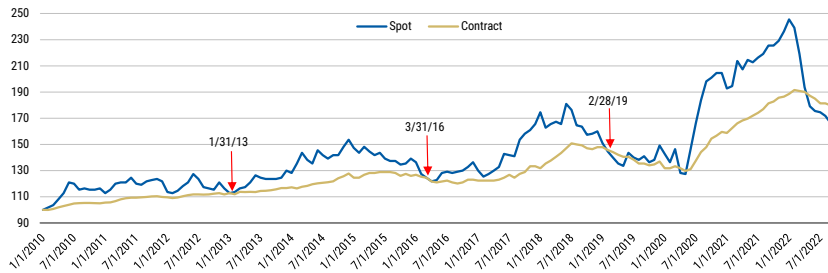
Morgan Stanley does and seeks to do business with companies covered in Morgan Stanley Research. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of Morgan Stanley Research. Investors should consider Morgan Stanley Research as only a single factor in making their investment decision.

For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report.

heightened labor costs may exceed the Rails expectations as [stated](#) by NSC.

Spot prices have continued their decline past contract prices, unlike previous cycles. As exemplified by the chart below, spot rates have bounced back up the last three times they have “touched” contract rates, with the most recent example from 2019. Spot and contract rates both began their decline in January of 2022, similar to prior cycles, but spot rates declined rapidly and surpassed contract rates in April. Throughout 3Q22, spot rates accelerated their declines and fell on a YoY basis each month while contract rates trended higher YoY until falling slightly in September. This unusual trend follows an unprecedented cycle in which spot rates shot up during one of the tightest truck markets in history. Perhaps, the relatively stable change in contract rates represent a “new normal” in which they are more resilient than spot. Additionally, spot could have “normalized” more than usual after over earning throughout the upcycle. **However, the chart demonstrates that there may not much more downside left in the spot market, potentially signaling we could be nearing the bottom of the cycle.**

Exhibit 1: Spot and Contract Rates indexed to 1/1/2010: Our chart indicates three cycles of ~3 years each and historically the spot rate line bounces each time it “touches” the contract rate line; now we enter uncharted territory with spot haven broken through contract.



Source: DAT, Morgan Stanley Research

Freight Transportation Research Collections

COLLECTION

Disruption in Brokerage

We remain structurally bearish the 3PLs. We believe that the upcoming digital revolution...

29 reports

Owner: Ravi Shanker
Last Updated 28 Nov 2019

COLLECTION

Disruption in Parcel

We see competitive secular threats to the Parcel business as a triple threat of (1)...

49 reports

Owner: Ravi Shanker
Last Updated 27 Nov 2019

COLLECTION

Intelligent Trucks

The intelligent revolution is coming to Trucks. We believe that autonomous and electric...

45 reports

Owner: Ravi Shanker
Last Updated 27 Nov 2019

COLLECTION

TechTrack

In this collection you will find our monthly TechTrack feature which keeps tabs on...

45 reports

Owner: Ravi Shanker
Last Updated 4 Dec 2019

COLLECTION

Freight 101

We believe Freight Transportation is ripe for technological disruption. Here you can find...

14 reports

Owner: Ravi Shanker
Last Updated 28 Nov 2019

COLLECTION

Crude-by-Rail

We believe Crude-by-Rail will be a powerful earning catalyst for the Canadian Rails over...

25 reports

Owner: Ravi Shanker
Last Updated 27 Nov 2019

Freight Catalyst Calendar

September 2022

September 20-24: Cathay Pacific expected to release August Cargo Data

September 20-24: STB to release August Class I Rail Employee Data

September 20-24: ATA preliminary August Truck Tonnage Index Release

September 21: Morgan Stanley Proprietary TLF I bi-weekly update

September 27: Class I rails release weekly rail traffic

September 28: Morgan Stanley Truckload Sentiment Survey (TLSS) bi-weekly update

October 2022

October 4: Class I rails release weekly rail traffic

October 4: ACT Releases preliminary Class 8 Truck Net Orders for September

October 5: Morgan Stanley Proprietary TLF I bi-weekly update

October 11: Class I rails release weekly rail traffic

October 12: Morgan Stanley Truckload Sentiment Survey (TLSS) bi-weekly update

October 18-22: September Cass Freight Index data released

October 18-22: Ports expected to release September Container Data

October 18-22: Cathay Pacific expected to release September Cargo Data

October 18-22: STB to release September Class I Rail Employee Data

October 18-22: ATA preliminary September Truck Tonnage Index

ReleaseOctober 19: Morgan Stanley Proprietary TLF I bi-weekly update

October 25: Class I rails release weekly rail traffic

October 26: Morgan Stanley Truckload Sentiment Survey (TLSS) bi-weekly update

U.S. Coverage Rankings

Exhibit 2:

		Company	Market Cap (\$bn)	Current Price	MS PT	Upside to PT (%)	EPS (2022e)		Valuation (2022e)		Consensus			
							MS	Cons	P/E	EV/EBITDA	OW	EW	UW	
1	AV Truck	OW		1.7	7.56	35	363%	-\$1.72	-\$2.31	NM	NM	80%	20%	0%
2	Truckload	OW		8.0	49.78	85	71%	\$5.42	\$5.38	9.2x	4.5x	81%	14%	5%
				2.5	38.84	73	88%	\$3.70	\$3.87	10.4x	4.6x	47%	41%	12%
				8.3	94.28	131	39%	\$8.09	\$7.85	11.6x	6.8x	92%	8%	0%
				3.8	21.07	39	85%	\$2.66	\$2.66	7.9x	3.2x	47%	33%	20%
		EW		0.1	2.48	5	102%	\$0.09	-\$0.02	NM	9.3x	0%	60%	40%
3	Less-than-Truckload	OW		1.8	74.32	140	88%	\$14.11	\$14.21	5.3x	3.3x	60%	40%	0%
				28.4	254.18	314	24%	\$11.78	\$11.78	21.6x	13.7x	29%	62%	10%
		UW		5.1	194.65	195	0%	\$13.90	\$13.88	14.1x	7.9x	56%	38%	6%
4	Asset-Light / Non-Asset	OW		5.2	44.99	75	67%	\$5.81	\$5.79	7.8x	5.3x	88%	13%	0%
				17.2	165.28	170	3%	\$8.83	\$9.65	18.3x	11.3x	65%	31%	4%
		UW		2.5	71.03	92	30%	\$10.08	\$10.39	7.0x	4.1x	60%	40%	0%
				14.8	90.47	94	4%	\$7.22	\$8.11	12.5x	7.9x	19%	56%	25%
				5.3	145.75	120	(18%)	\$11.27	\$11.79	12.9x	8.4x	0%	86%	14%
5	Rails	EW		76.1	150.61	154	2%	CAD 7.10	CAD 7.15	20.9x	14.4x	19%	76%	5%
				124.4	199.20	207	4%	\$11.14	\$11.68	17.5x	13.2x	55%	45%	0%
		UW		58.2	27.19	25	(8%)	\$1.78	\$1.86	14.9x	10.0x	67%	30%	4%
				50.4	214.55	196	(9%)	\$13.44	\$13.64	16.1x	11.2x	44%	48%	7%
				39.6	152.31	125	(18%)	\$12.70	\$14.46	10.5x	5.3x	52%	48%	0%
6	Parcel	EW		39.6	152.31	125	(18%)	\$12.70	\$14.46	10.5x	5.3x	52%	48%	0%
		UW		143.6	165.32	148	(10%)	\$12.58	\$12.86	13.3x	9.4x	50%	43%	7%

Source: Company Data, Refinitiv, Morgan Stanley Research
 Note: FDX EPS and Valuation Metrics are for FY2023e

Transportation Comp Sheet

Notes to Transport Comp Sheet

+ Rating and price target for this company have been removed from consideration in this report because, under applicable law and/or Morgan Stanley policy, Morgan Stanley may be precluded from issuing such information with respect to this company at this time

* All consensus estimates are based on Refinitiv

"-" signifies that there is insufficient data for a metric or that a result is not meaningful

a Mkt Cap and EV are shown in USD (Except CNR & CP which are in CAD)

b Adj. EV = Mkt Cap + Adj. Net Debt, where balance sheet metrics are a weighted average of annual data to target the most recent period

c Adj. Net Debt includes capitalized operating leases, based on the 7x convention

d Adj. Upside = Base Case upside / the Range of the Bull and Bear Cases

e Italicized numbers in "Avg/Sum" row are sums, all others are averages

f EBITDAR includes annual rent expense for companies where noted, consensus EBITDAR is calculated based on Refinitiv consensus data for EBITDA + MS annual Rent Expense

g Net Interest Expense includes annual Rent Expense

h Adj. Assets (used in ROA calc), like Adj. Debt and Adj. Net Debt, have been adjusted for off-balance sheet assets per 7x rent convention and excludes cash and short- and long-term investments

i ROIC is calculated as Net Income / (Equity + Adj. Debt)

j FDX's fiscal years do not align with the calendar year

All metrics are shown in USD (Except CNR & CP which are in CAD)

NOTE: FDX annual and quarterly financials and estimates are calendarized, not based of Fiscal Year.

Exhibit 3: Recent Stock Performance and Trading Detail Summary

9/29/2022 MW Ticker	Current Price	3 Yr. Beta	Avg Daily \$M Traded	% of Float Traded/Day	Mkt Cap (\$Bil.) ^a	Price Chg		Price Returns					Short Interest Days Out					
						YTD Chg	Rank	1-Wk	Rank	1-Mo	Rank	3-Mo	Rank	Current	Rank	52wk High - Low	52wk High	52wk Low
Rails - Analyst: Ravi Shanker																		
CNR	\$150.61	0.68	169	0.2%	104.10	-3%	8	0%	24	-2%	12	5%	7	4.0	14	5.9 - 0.9	5.9	0.9
CSX	\$27.19	0.99	500	0.6%	58.22	-28%	19	-2%	26	-13%	25	-5%	24	1.1	21	2.3 - 1.1	2.3	1.1
NSC	\$214.55	1.01	304	0.6%	50.39	-28%	20	-1%	25	-11%	22	-5%	23	1.5	20	3.4 - 1.5	3.4	1.5
UNP	\$199.20	0.98	624	0.5%	124.40	-21%	16	-2%	27	-10%	20	-5%	25	1.6	19	3.9 - 1.6	3.9	1.6
Avg/Sum		0.92		0.5%	451.26	-20%			-1%		-9.0%		-2%	2.0		3.9 - 1.3	3.9	1.3
Parcel/Airfreight - Analyst: Ravi Shanker																		
FDX	\$152.31	0.96	835	1.1%	39.63	-41%	24	2%	13	-29%	28	-34%	28	0.6	22	3.2 - 0.6	3.2	0.6
UPS	\$165.32	0.83	580	0.4%	143.80	-23%	18	1%	17	-14%	27	-8%	27	3.6	15	6.5 - 1.8	6.5	1.8
Avg/Sum		0.89		0.7%	183.44	-32%		1%		-21.5%		-21%		2.1		4.9 - 1.2	4.9	1.2
Logistics - Analyst: Ravi Shanker																		
CHRW	\$98.73	0.56	137	1.1%	12.23	-8%	9	1%	16	-13%	26	-2%	19	8.7	2	12.3 - 6.5	12.3	6.5
EXPD	\$90.47	0.88	151	0.8%	14.80	-33%	22	3%	8	-12%	24	-8%	26	2.7	17	4.4 - 1.9	4.4	1.9
HUBG	\$71.03	0.83	19	0.7%	2.46	-16%	11	4%	5	-11%	21	0%	10	4.1	13	6.8 - 1.9	6.8	1.9
JBHT	\$165.28	0.92	135	0.7%	17.16	-19%	15	3%	10	-4%	15	6%	6	3.4	16	4.8 - 1.1	4.8	1.1
LSTR	\$145.75	0.66	55	0.8%	5.31	-19%	14	2%	12	0%	9	0%	11	6.7	6	10.7 - 2.7	10.7	2.7
XPO	\$44.99	1.90	68	1.6%	5.18	-42%	25	5%	4	-12%	23	-5%	22	2.3	18	3.5 - 1.2	3.5	1.2
Avg/Sum		0.96		0.9%	57.14	-23%		3%		-8.8%		-1%		4.6		7.1 - 2.5	7.1	2.5
Intelligent Trucking - Analyst: Ravi Shanker																		
TSP	\$7.56		19	1.0%	1.70	-79%	28	6%	3	12%	1	11%	2	4.1	12	7.8 - 2.1	7.8	2.1
Truckload - Analyst: Ravi Shanker																		
HTLD	\$14.60	0.62	4	0.4%	1.15	-13%	10	3%	9	-4%	13	5%	8	4.4	9	5.7 - 2.5	5.7	2.5
KNX	\$49.78	0.80	96	1.2%	8.00	-18%	12	4%	6	-1%	11	8%	3	4.9	8	7.3 - 3	7.3	3.0
SNDR	\$21.07	0.62	12	0.3%	3.75	-22%	17	1%	15	-6%	18	-4%	21	6.9	4	10.2 - 2.6	10.2	2.6
USX	\$2.48	1.57	0	0.6%	0.13	-58%	27	-4%	28	4%	2	-4%	20	15.6	1	15.6 - 1.4	15.6	1.4
WERN	\$38.84	0.66	21	1.1%	2.46	-19%	13	2%	14	-1%	10	2%	9	6.8	5	9.3 - 3	9.3	3.0
TFII	\$94.28	1.20	21	0.2%	11.39	257%	1	4%	7	-4%	16	19%	1	5.3	7	5.3 - 1.3	5.3	1.3
Avg/Sum		0.91		1%	4.48	21%		1%		-2%		4%		7.3		7.6 - 2.3	7.6	2.3
Less-Than-Truckload - Analyst: Ravi Shanker																		
ARCB	\$74.32	1.25	17	1.1%	1.82	-38%	23	6%	2	-7%	19	7%	4	7.7	3	9 - 1.8	9.0	1.8
ODFL	\$254.18	1.05	232	0.7%	28.41	-29%	21	2%	11	-6%	17	0%	18	4.3	10	5.3 - 1.4	5.3	1.4
SAIA	\$194.65	1.27	104	1.1%	5.14	-42%	26	6%	1	-4%	14	6%	5	4.2	11	7.5 - 2.4	7.5	2.4
Avg/Sum		1.19		1.0%	35.37	-36%		5%		-5.3%		4%		5.4		7.3 - 1.9	7.3	1.9

Source: Company data, Refinitiv, Morgan Stanley Research. See notes for details

Exhibit 4: Valuation Metrics (Consensus Estimates)

9/29/2022 MW Ticker	Cons. P / E Ratio*			Cons. 3yr EPS CAGR	Cons. EPS Est.*			PEG Ratio		Cons. EV / EBITDA(R)f Ratio*			Cons. EV / Sales Ratio*				P/BV	
	2022	TMF	2023		2022	NTM	2023	TMF	Rank	2022	TMF	2023	2021	2022	TMF	2023	2022	2023
Rails - Analyst: Ravi Shanker																		
CNR	21.1	19.6	19.1	8%	\$7.15	\$7.70	\$7.89	2.4	22	14.3	13.8	13.6	8.52	7.25	7.08	7.03	4.65	4.37
CSX	14.5	14.0	13.8	32%	\$1.87	\$1.95	\$1.97	0.4	7	10.6	10.1	10.0	6.32	5.37	5.15	5.07	3.52	2.92
NSC	15.7	14.8	14.4	22%	\$13.69	\$14.47	\$14.89	0.7	13	11.1	11.0	11.0	5.97	5.38	5.40	5.41	4.27	4.11
UNP	17.0	16.3	15.8	19%	\$11.71	\$12.21	\$12.63	0.9	16	13.1	12.8	12.7	7.53	6.70	6.64	6.63	11.42	10.13
Avg/Sum	17.1	16.2	15.8	20%				1.1		12.3	11.33	11.8	7.09	6.18	5.73	6.03	6.41	5.72
Parcel/Airfreight - Analyst: Ravi Shanker																		
FDX	7.4	9.6	10.0	13%	\$20.50	\$15.86	\$15.24	0.8	15	5.8	3.2	2.4	1.05	0.94	0.93	0.92	1.46	1.37
UPS	12.9	12.9	12.7	9%	\$12.86	\$12.84	\$13.01	1.4	20	9.4	9.2	9.1	1.73	1.57	1.53	1.52	7.34	6.79
Avg/Sum	10.1	11.2	11.4	11%				1.1		7.6	6.2	5.8	1.39	1.26	1.23	1.22	4.40	4.08
Logistics - Analyst: Ravi Shanker																		
CHRW	11.1	13.0	14.8	7%	\$8.88	\$7.58	\$6.65	1.8	21	9.2	11.2	11.9	0.63	0.56	0.61	0.63	5.39	5.61
EXPD	11.2	13.3	15.8	14%	\$8.11	\$6.83	\$5.72	1.0	18	8.3	10.6	11.4	0.99	0.87	1.06	1.12	3.87	4.22
HUBG	6.8	8.1	9.1	15%	\$10.40	\$8.78	\$7.81	0.5	11	4.3	4.8	5.0	0.63	0.46	0.44	0.43	1.44	1.25
JBHT	17.1	17.0	16.6	13%	\$9.67	\$9.74	\$9.93	1.4	19	10.8	10.7	10.6	1.82	1.46	1.43	1.42	5.32	4.73
LSTR	12.3	14.5	15.6	23%	\$11.81	\$10.03	\$9.37	0.6	12	8.6	10.0	10.4	0.84	0.72	0.80	0.82	5.23	4.06
XPO	7.8	7.7	7.8	60%	\$5.79	\$5.83	\$5.76	0.1	3	7.4	6.6	6.3	1.02	0.80	0.73	0.71	3.00	2.37
Avg/Sum	11.1	12.3	13.3	22%				0.9		8.1	9.0	9.3	0.99	0.81	0.85	0.86	4.04	3.71
Intelligent Trucking - Analyst: Ravi Shanker																		
TSP	-	-	-	NA	-\$2.31	-\$2.49	-\$2.63	NA	NA	-	NA	-	2062.77	26.29	24.42	23.80	1.96	2.21
Truckload - Analyst: Ravi Shanker																		
HTLD	13.1	12.4	13.3	13%	\$1.12	\$1.17	\$1.10	0.9	17	4.1	5.6	6.2	1.71	1.19	1.41	1.48	1.45	1.34
KNX	9.2	10.1	10.7	20%	\$5.39	\$4.91	\$4.64	0.5	10	4.8	5.1	5.2	1.44	1.15	1.16	1.17	1.20	1.11
SNDR	7.9	8.5	9.1	NA	\$2.67	\$2.48	\$2.32	NA	NA	3.6	3.4	3.3	0.63	0.53	0.48	0.46	1.31	1.16
USX	-	-	21.4	NA	-\$0.02	\$0.02	\$0.12	NA	NA	8.4	7.5	7.2	0.40	0.36	0.39	0.40	0.46	0.45
WERN	10.0	10.4	11.0	30%	\$3.88	\$3.74	\$3.53	0.3	6	4.9	4.8	4.8	1.04	0.93	0.90	0.88	1.80	1.63
TFII	12.0	12.6	12.2	NA	\$7.85	\$7.47	\$7.71	NA	NA	7.3	7.3	7.3	1.42	1.18	1.18	1.18	3.16	2.61
Avg/Sum	10.5	10.8	13.0	21%				0.6		5.5	5.6	5.7	1.11	0.89	0.92	0.93	1.56	1.38
Less-Than-Truckload - Analyst: Ravi Shanker																		
ARCB	5.2	5.7	6.3	42%	\$14.21	\$13.04	\$11.88	0.1	4	3.5	3.7	3.8	0.52	0.41	0.39	0.39	1.64	1.39
ODFL	21.6	21.2	20.9	29%	\$11.79	\$11.99	\$12.13	0.7	14	14.0	13.9	13.8	5.60	4.61	4.54	4.52	6.99	5.81
SAIA	14.0	14.1	14.3	32%	\$13.91	\$13.84	\$13.61	0.4	9	8.1	7.9	7.8	2.36	1.87	1.82	1.81	3.26	2.72
Avg/Sum	13.6	13.7	13.8	34%				0.4		8.5	8.5	8.5	2.83	2.29	2.25	2.24	3.97	3.31

Source: Company data, Refinitiv, Morgan Stanley Research. See notes for details

Exhibit 5: DuPont Analysis (MS Estimates)

9/29/2022	Net Inc. Margin			Sales / Adj. Assets ^h			ROA			Adj. Assets ^h / Equity			ROE			ROIC ⁱ		
MW Ticker	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Rails - Analyst: Ravi Shanker																		
CNR	29.1%	29.7%	29.7%	0.29	0.31	0.32	8.7%	9.6%	9.6%	2.2	2.3	2.3	19%	22%	21%	11%	13%	13%
CSX	28.1%	27.0%	24.8%	0.30	0.34	0.33	8.7%	9.4%	8.3%	3.1	2.4	2.1	26%	23%	17%	11%	11%	9%
NSC	26.4%	25.5%	24.9%	0.28	0.30	0.30	7.5%	7.9%	7.5%	2.9	3.3	3.2	22%	25%	24%	10%	11%	10%
UNP	29.9%	28.7%	26.3%	0.32	0.35	0.34	9.6%	10.3%	9.1%	4.8	6.1	5.5	46%	62%	50%	13%	14%	12%
Avg/Sum	28.4%	27.7%	26.4%	0.30	0.33	0.32	6.9%	9.3%	8.6%	3.3	3.6	3.3	28%	33%	28%	9%	12%	11%
Parcel/Airfreight - Analyst: Ravi Shanker																		
FDX	4.0%	5.5%	4.5%	0.82	0.83	0.81	3.4%	4.6%	3.7%	4.2	4.0	3.8	14%	18%	14%	5%	6%	5%
UPS	10.9%	10.9%	9.2%	1.64	1.65	1.49	18.4%	18.2%	13.8%	4.1	3.1	2.9	NM	NM	NM	31%	26%	19%
Avg/Sum	7.5%	8.2%	6.8%	1.23	1.24	1.15	10.9%	11.4%	8.7%	4.2	3.5	3.3	14%	18%	14%	18%	16%	12%
Logistics - Analyst: Ravi, Shanker																		
CHRW	3.7%	4.1%	2.8%	3.41	3.53	3.35	14.5%	15.1%	8.8%	3.3	3.0	2.6	42%	43%	25%	24%	27%	14%
EXPD	8.6%	7.3%	6.3%	2.30	2.24	2.09	24.0%	16.6%	10.9%	2.1	1.8	1.4	40%	30%	19%	30%	21%	12%
HUBG	4.1%	6.1%	5.0%	1.86	2.11	1.98	8.1%	13.9%	9.3%	1.7	1.6	1.2	13%	20%	12%	11%	19%	11%
JBHT	6.3%	6.6%	6.0%	1.89	1.88	1.72	12.6%	13.4%	10.7%	2.1	2.0	1.9	24%	25%	20%	18%	19%	15%
LSTR	5.8%	5.7%	4.8%	3.58	3.67	3.82	23.6%	21.9%	16.8%	2.1	1.9	1.3	44%	40%	23%	43%	39%	24%
XPO	3.8%	5.3%	4.4%	1.95	1.60	1.51	5.5%	8.2%	6.7%	7.4	3.9	3.1	54%	33%	21%	7%	12%	9%
Avg/Sum	5.4%	5.8%	4.9%	2.50	2.50	2.41	14.7%	14.8%	10.6%	3.1	2.4	1.9	36%	32%	20%	22%	23%	14%
Intelligent Trucking - Analyst: Ravi Shanker																		
TSP	NM	NM	NM	0.11	0.19	0.69	-608.5%	NM	NM	0.0	0.1	0.1	-	-	-	-61%	-35%	-29%
Truckload - Analyst: Ravi Shanker																		
HTLD	13.1%	9.5%	6.7%	0.79	0.60	0.76	9.9%	7.6%	5.3%	1.1	1.9	2.0	11%	11%	10%	11%	9%	7%
KNX	13.1%	11.7%	10.0%	0.58	0.70	0.71	8.4%	8.3%	7.0%	1.6	1.6	1.4	12%	13%	10%	12%	12%	9%
SNDR	7.3%	7.0%	6.3%	1.59	1.84	1.77	12.5%	13.1%	11.2%	1.5	1.3	1.2	17%	17%	13%	16%	17%	13%
USX	0.4%	-0.2%	0.4%	1.54	1.54	1.53	0.7%	-0.3%	0.7%	4.5	5.1	4.7	3%	-1%	3%	1%	0%	1%
WERN	8.6%	7.5%	6.9%	1.07	1.22	1.07	10.0%	9.3%	7.7%	1.9	1.8	1.8	17%	17%	13%	15%	13%	10%
TFII	6.9%	8.3%	8.0%	1.26	1.59	1.61	10.4%	13.2%	12.5%	2.6	2.0	1.6	22%	27%	20%	15%	19%	15%
Avg/Sum	8.3%	7.3%	6.5%	1.1	1.24	1.22	8.8%	8.7%	7.5%	2.1	2.2	2.1	14%	14%	12%	12%	12%	9%
Less-Than-Truckload - Analyst: Ravi Shanker																		
ARCB	5.6%	6.7%	5.8%	2.00	2.35	2.12	13.2%	16.9%	12.3%	2.1	1.9	1.6	24%	30%	20%	18%	26%	18%
ODFL	19.7%	21.1%	20.7%	1.21	1.23	1.19	24.8%	28.1%	24.9%	1.2	1.2	1.0	28%	32%	26%	29%	33%	27%
SAIA	10.9%	13.1%	11.3%	1.32	1.31	1.14	15.3%	19.0%	13.7%	1.4	1.4	1.3	20%	23%	17%	20%	24%	16%
Avg/Sum	12.1%	13.7%	12.6%	1.51	1.63	1.48	17.8%	21.3%	17.0%	1.6	1.5	1.3	24%	28%	21%	22%	27%	21%

Source: Company data, Refinitiv, Morgan Stanley Research. See notes for details

Exhibit 6: Capital Structure Metrics

9/29/2022 MW Ticker	Mkt Cap ^a (\$Bil.)	Debt (\$Bil.)	Total Cash (\$Bil.)	EV (\$Bil.)	Adj. Debt (\$Bil.)	Adj. Net Debt (\$Bil.)	Adj. EV (\$Bil.)	Total Assets (\$Bil.)	Adj. Assets (\$Bil.)	BV Total Liab. (\$Bil.)	BV Equity (\$Bil.)
Rails - Analyst: Ravi Shanker											
CNR	\$104.1	\$12.9	\$0.8	\$116.2	\$15.3	\$14.4	\$118.5	\$48.5	\$50.9	\$25.8	\$22.7
CSX	\$58.2	\$16.8	\$2.2	\$72.8	\$20.1	\$17.9	\$76.1	\$40.5	\$43.8	\$27.0	\$13.5
NSC	\$50.4	\$13.3	\$0.8	\$62.8	\$15.5	\$14.7	\$65.1	\$38.5	\$40.7	\$24.9	\$13.6
UNP	\$124.4	\$31.5	\$1.0	\$154.9	\$37.5	\$36.5	\$160.9	\$63.5	\$69.5	\$49.4	\$14.2
Avg/Sum	\$451.3	\$74.5	\$4.9	\$520.9	\$88.4	\$83.5	\$534.7	\$191.1	\$204.9	\$127.0	\$64.0
Parcel/Airfreight - Analyst: Ravi Shanker											
FDX	\$39.6	\$22.2	\$8.8	\$53.0	\$54.7	\$45.9	\$85.5	\$84.8	\$117.3	\$58.7	\$26.1
UPS	\$143.8	\$25.5	\$10.3	\$159.1	\$25.5	\$15.3	\$159.1	\$69.4	\$69.4	\$55.1	\$14.3
Avg/Sum	\$183.4	\$47.7	\$19.0	\$212.1	\$80.2	\$61.2	\$244.6	\$154.2	\$186.7	\$113.9	\$40.4
Logistics - Analyst: Ravi, Shanker											
CHRW	\$12.2	\$1.7	\$0.3	\$13.7	\$1.7	\$1.4	\$13.7	\$7.0	\$7.0	\$5.0	\$2.0
EXPD	\$14.8	\$0.5	\$1.7	\$13.5	\$1.8	\$0.0	\$14.8	\$7.6	\$8.9	\$4.1	\$3.5
HUBG	\$2.5	\$0.3	\$0.2	\$2.6	\$0.3	\$0.2	\$2.6	\$2.4	\$2.4	\$1.1	\$1.3
JBHT	\$17.2	\$1.5	\$0.4	\$18.3	\$1.5	\$1.1	\$18.3	\$6.8	\$6.8	\$3.7	\$3.1
LSTR	\$5.3	\$0.1	\$0.2	\$5.2	\$0.1	-\$0.1	\$5.2	\$2.0	\$2.0	\$1.2	\$0.9
XPO	\$5.2	\$0.1	\$0.3	\$5.0	\$0.1	-\$0.2	\$5.0	\$8.7	\$8.7	\$7.6	\$1.1
Avg/Sum	\$57.1	\$4.2	\$3.0	\$58.3	\$5.5	\$2.5	\$59.6	\$34.6	\$35.9	\$22.6	\$12.0
Intelligent Trucking - Analyst: Ravi Shanker											
TSP	\$1.7	\$0.0	\$1.3	\$0.4	\$0.0	-\$1.3	\$0.4	\$1.4	\$1.4	\$0.1	\$1.3
Truckload - Analyst: Ravi Shanker											
HTLD	\$1.2	\$0.0	\$0.2	\$1.0	\$0.0	-\$0.2	\$1.0	\$0.9	\$0.9	\$0.2	\$0.7
KNX	\$8.0	\$0.7	\$0.3	\$8.4	\$0.7	\$0.4	\$8.4	\$10.7	\$10.7	\$4.1	\$6.5
SNDR	\$3.8	\$0.3	\$0.4	\$3.6	\$0.3	-\$0.1	\$3.6	\$3.9	\$3.9	\$1.5	\$2.4
USX	\$0.1	\$0.7	\$0.0	\$0.8	\$0.7	\$0.7	\$0.8	\$1.3	\$1.3	\$1.0	\$0.3
WERN	\$2.5	\$0.5	\$0.1	\$2.9	\$0.5	\$0.4	\$2.9	\$2.6	\$2.6	\$1.2	\$1.4
TFII	\$11.4	\$1.6	\$0.0	\$13.0	\$1.6	\$1.6	\$13.0	\$5.8	\$5.8	\$3.5	\$2.2
Avg/Sum	\$4.2	\$0.6	\$0.1	\$4.6	\$0.6	\$0.5	\$4.6	\$4.0	\$4.0	\$1.8	\$2.1
Less-Than-Truckload - Analyst: Ravi Shanker											
ARCB	\$1.8	\$0.3	\$0.1	\$2.0	\$0.3	\$0.2	\$2.0	\$2.1	\$2.1	\$1.2	\$0.9
ODFL	\$28.4	\$0.1	\$0.5	\$28.0	\$0.1	-\$0.4	\$28.0	\$4.8	\$4.8	\$1.1	\$3.7
SAIA	\$5.1	\$0.2	\$0.1	\$5.2	\$0.2	\$0.1	\$5.2	\$1.8	\$1.8	\$0.6	\$1.2
Avg/Sum	\$35.4	\$0.6	\$0.7	\$35.3	\$0.6	-\$0.1	\$35.3	\$8.8	\$8.8	\$3.0	\$5.8

Source: Company data, Refinitiv, Morgan Stanley Research. See notes for details

Exhibit 7: Credit and Leverage Metrics (MS Estimates)

9/29/2022	Adj. Debt ^c / EBITDA(R) ^f			EBITDA(R) ^f / Net Int Exp ^g			Adj. Net Debt ^c as % of Adj. EV ^c			Total Cash as % of Adj. EV ^c			Total Cash / Sales		
MW Ticker	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Rails - Analyst: Ravi Shanker															
CNR	2.0	1.9	1.9	5.5	6.1	6.3	12%	13%	12%	1%	0%	1%	6%	1%	10%
CSX	2.8	2.5	2.5	3.7	4.1	3.8	23%	19%	16%	3%	6%	9%	18%	33%	46%
NSC	2.6	2.6	2.8	3.7	3.7	3.7	22%	24%	24%	1%	0%	1%	8%	0%	4%
UNP	3.0	3.0	3.4	3.9	3.9	3.5	22%	24%	23%	1%	0%	2%	4%	1%	12%
Avg/Sum	2.6	2.5	2.6	4.2	4.5	4.3	19%	20%	19%	1%	2%	3%	9%	9%	18%
Parcel/Airfreight - Analyst: Ravi Shanker															
FDX	3.7	4.0	4.3	2.9	2.7	2.6	52%	54%	55%	10%	12%	12%	10%	11%	11%
UPS	1.6	1.4	1.9	-	-	-	10%	8%	8%	6%	7%	6%	11%	11%	11%
Avg/Sum	2.6	2.7	3.1	2.9	2.7	2.6	31%	31%	31%	8%	9%	9%	10%	11%	11%
Logistics - Analyst: Ravi, Shanker															
CHRW	1.4	1.1	1.9	19.6	-	16.3	10%	8%	6%	2%	4%	6%	1%	2%	4%
EXPD	0.8	1.0	1.6	12.1	9.4	6.2	0%	-1%	-7%	11%	14%	20%	10%	13%	26%
HUBG	0.9	0.5	0.7	-	-	-	6%	-1%	-17%	6%	14%	33%	4%	6%	14%
JBHT	0.9	0.8	0.8	-	-	-	5%	6%	6%	2%	1%	1%	3%	2%	1%
LSTR	0.2	0.2	0.2	-	-	-	-2%	-4%	-14%	4%	6%	15%	3%	4%	12%
XPO	0.1	1.4	0.0	6.8	6.7	7.3	-2%	11%	-13%	3%	4%	14%	2%	3%	10%
Avg/Sum	0.7	0.8	0.9	12.8	8.0	9.9	3%	3%	-7%	5%	7%	15%	4%	5%	11%
Intelligent Trucking - Analyst: Ravi Shanker															
TSP	0.0	0.0	0.0	-	-	-	-401%	-113%	-104%	403%	113%	104%	NM	NM	NM
Truckload - Analyst: Ravi Shanker															
HTLD	0.0	1.8	1.9	-	16.9	7.6	-16%	27%	26%	16%	2%	2%	26%	3%	3%
KNX	0.4	0.4	0.5	-	-	-	5%	2%	1%	3%	6%	8%	4%	7%	9%
SNDR	0.3	0.2	0.1	-	-	-	-4%	-19%	-34%	11%	25%	38%	7%	12%	16%
USX	6.4	8.2	5.3	3.6	2.7	4.2	84%	85%	85%	1%	3%	7%	0%	1%	3%
WERN	0.8	0.8	1.0	-	-	-	13%	9%	12%	2%	7%	6%	2%	6%	6%
TFII	1.6	1.0	0.9	-	-	-	15%	12%	3%	0%	3%	11%	0%	3%	12%
Avg/Sum	1.5	1.9	1.5	3.6	9.8	5.9	16%	18%	15%	5%	7%	11%	6%	5%	8%
Less-Than-Truckload - Analyst: Ravi Shanker															
ARCB	0.8	0.5	0.5	-	-	-	10%	5%	0%	6%	9%	11%	3%	4%	5%
ODFL	0.1	0.0	0.0	-	-	-	-1%	-1%	-4%	2%	1%	4%	9%	6%	17%
SAIA	0.3	0.2	0.3	-	-	-	1%	0%	-1%	2%	3%	4%	5%	6%	7%
Avg/Sum	0.4	0.3	0.3	-	-	-	3%	1%	-1%	3%	5%	6%	6%	5%	10%

Source: Company data, Refinitiv, Morgan Stanley Research. See notes for details

Exhibit 8: Sources & Uses of Cash

9/29/2022 MW Ticker	MS CFO (\$ Mil.)			MS Capex (\$ Mil.)			MS Capex / D&A Ratio			MS Capex as % of Sales			MS FCF (\$ Mil.)			FCF Yield %		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Rails - Analyst: Ravi Shanker																		
CNR	\$6,971	\$5,807	\$7,741	\$2,891	\$2,850	\$2,984	1.8	1.8	1.8	20.0%	17.0%	17.0%	\$4,080	\$2,957	\$4,757	3.9%	2.8%	4.6%
CSX	\$5,099	\$5,804	\$5,241	\$1,791	\$2,202	\$2,174	1.3	1.5	1.4	14.3%	15.0%	15.0%	\$3,308	\$3,601	\$3,067	5.7%	6.2%	5.3%
NSC	\$4,255	\$1,819	\$4,545	\$1,470	\$1,804	\$1,884	1.2	1.5	1.5	13.2%	14.5%	15.2%	\$2,785	\$15	\$2,661	5.5%	0.0%	5.3%
UNP	\$9,032	\$9,816	\$8,968	\$2,936	\$3,350	\$3,295	1.3	1.5	1.4	13.5%	13.5%	13.5%	\$6,096	\$6,467	\$5,673	4.9%	5.2%	4.6%
Avg/Sum	\$4,226	\$5,813	\$6,251	\$1,515	\$1,701	\$1,723	1.4	1.6	1.5	13.7%	14.3%	14.6%	\$2,712	\$2,173	\$4,040	3.3%	3.8%	5.0%
Parcel/Airfreight - Analyst: Ravi Shanker																		
FDX	\$10,572	\$8,963	\$7,526	\$6,535	\$6,549	\$6,592	1.6	1.5	1.4	7.3%	7.1%	7.3%	\$4,037	\$2,414	\$935	10.2%	6.1%	2.4%
UPS	\$15,007	\$14,480	\$11,678	\$4,194	\$5,437	\$5,355	1.4	1.8	1.7	4.3%	5.4%	5.8%	\$10,813	\$9,043	\$6,324	7.5%	6.3%	4.4%
Avg/Sum	\$12,789	\$11,722	\$9,602	\$5,365	\$5,993	\$5,973	1.5	1.6	1.5	5.8%	6.2%	6.5%	\$7,425	\$5,728	\$3,629	8.9%	6.2%	3.4%
Logistics - Analyst: Ravi, Shanker																		
CHRW	\$95	\$1,231	\$1,132	\$34	\$95	\$97	0.4	1.0	1.0	0.1%	0.4%	0.5%	\$61	\$1,136	\$1,035	0.5%	9.3%	8.5%
EXPD	\$868	\$1,292	\$1,865	\$36	\$55	\$75	0.7	1.0	1.3	0.2%	0.3%	0.7%	\$832	\$1,237	\$1,790	5.6%	8.4%	12.1%
HUBG	\$298	\$466	\$572	\$133	\$300	\$250	1.0	2.2	1.8	3.1%	5.3%	5.2%	\$165	\$166	\$322	6.7%	6.8%	13.1%
JBHT	\$1,294	\$1,686	\$1,715	\$948	\$1,600	\$1,430	1.7	2.5	2.2	7.8%	11.0%	10.0%	\$347	\$86	\$285	2.0%	0.5%	1.7%
LSTR	\$280	\$360	\$505	\$23	\$28	\$32	0.5	0.5	0.5	0.4%	0.4%	0.5%	\$256	\$332	\$473	4.8%	6.3%	8.9%
XPO	\$788	\$974	\$754	\$313	\$532	\$457	0.5	6.4	1.0	1.9%	4.2%	3.8%	\$475	\$442	\$297	9.2%	8.5%	5.7%
Avg/Sum	\$518	\$859	\$1,090	\$212	\$373	\$334	0.8	2.3	1.3	2.3%	3.6%	3.4%	\$305	\$486	\$700	4.1%	5.7%	8.3%
Intelligent Trucking - Analyst: Ravi Shanker																		
TSP	\$13	\$30	\$37	\$13	\$30	\$37	1.4	2.7	2.4	NM	NM	NM	\$0	\$0	-	-	-	-
Truckload - Analyst: Ravi Shanker																		
HTLD	\$254	\$329	\$317	\$133	\$100	\$125	1.3	0.9	1.2	21.8%	10.9%	9.7%	\$121	\$229	\$192	10.5%	19.8%	16.7%
KNX	\$1,442	\$1,187	\$1,026	\$534	\$650	\$700	0.9	1.1	1.1	8.9%	8.6%	9.4%	\$908	\$537	\$326	11.4%	6.7%	4.1%
SNDR	\$740	\$1,002	\$857	\$2,524	\$500	\$475	8.5	1.5	1.4	NM	7.5%	7.2%	-\$1,784	\$502	\$382	Neg.	13.4%	10.2%
USX	\$174	\$97	\$188	\$192	\$180	\$150	2.4	2.3	1.3	9.9%	8.4%	7.2%	-\$18	-\$83	\$38	Neg.	Neg.	29.4%
WERN	\$511	\$876	\$556	\$371	\$375	\$415	1.4	1.4	1.5	13.6%	11.6%	13.3%	\$140	\$501	\$141	5.7%	20.3%	5.7%
TFII	\$968	\$810	\$1,355	\$269	\$350	\$360	0.8	0.8	0.7	3.7%	3.8%	4.1%	\$699	\$460	\$995	6.1%	4.0%	8.7%
Avg/Sum	\$657	\$740	\$693	\$628	\$361	\$377	2.4	1.3	1.2	11.9%	8.9%	9.2%	\$29	\$378	\$316	7.9%	14.1%	11.5%
Less-Than-Truckload - Analyst: Ravi Shanker																		
ARCB	\$337	\$388	\$386	\$58	\$200	\$230	0.5	1.7	1.9	1.5%	3.8%	4.7%	\$279	\$188	\$156	15.3%	10.3%	8.6%
ODFL	\$1,232	\$1,556	\$1,878	\$550	\$825	\$725	2.1	3.0	2.6	10.5%	13.0%	11.5%	\$682	\$731	\$1,153	2.4%	2.6%	4.1%
SAIA	\$391	\$573	\$498	\$286	\$515	\$475	2.0	3.2	2.8	12.5%	18.3%	17.0%	\$105	\$58	\$23	2.0%	1.1%	0.4%
Avg/Sum	\$653	\$839	\$921	\$298	\$513	\$477	1.5	2.6	2.4	8.1%	11.7%	11.1%	\$355	\$326	\$444	6.6%	4.7%	4.4%

Source: Company data, Refinitiv, Morgan Stanley Research. See notes for details

Exhibit 9: Capital Returns Summary (MS Estimates)

9/29/2022	Div. Payout Ratio			Dividend (\$ Mil.)			Div. Yield %			Share Buyback (\$ Mil.)			Share Buyback %			Total Yield % (Div. + Buyback)		
MW Ticker	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Rails - Analyst: Ravi Shanker																		
CNR	41.3%	34.0%	34.9%	\$1,740	\$1,691	\$1,820	1.7%	1.6%	1.7%	\$1,583	\$3,150	\$2,071	1.5%	3.0%	2.0%	3.2%	4.7%	3.7%
CSX	23.8%	0.0%	0.0%	\$839	\$0	\$0	1.4%	0.0%	0.0%	\$2,886	\$0	\$0	5.0%	0.0%	0.0%	6.4%	0.0%	0.0%
NSC	35.0%	37.0%	37.0%	\$1,028	\$1,172	\$1,135	2.0%	2.3%	2.3%	\$3,373	\$3,190	\$1,431	6.7%	6.3%	2.8%	8.7%	8.7%	5.1%
UNP	42.9%	41.5%	41.5%	\$2,800	\$2,950	\$2,664	2.3%	2.4%	2.1%	\$7,291	\$6,975	\$2,300	5.9%	5.6%	1.8%	8.1%	8.0%	4.0%
Avg/Sum	35.7%	28.1%	28.3%	\$915	\$830	\$1,124	1.2%	1.1%	1.5%	\$2,162	\$3,388	\$1,243	3.2%	2.5%	1.7%	4.4%	3.5%	3.2%
Parcel/Airfreight - Analyst: Ravi Shanker																		
FDX	19.0%	13.2%	15.8%	\$684	\$672	\$660	1.7%	1.7%	1.7%	\$517	\$1,466	\$626	1.3%	3.7%	1.6%	3.0%	5.4%	3.2%
UPS	32.3%	48.7%	NM	\$3,437	\$5,321	\$5,263	2.4%	3.7%	3.7%	\$249	\$538	\$1,629	0.2%	0.4%	1.1%	2.6%	4.1%	4.8%
Avg/Sum	25.6%	30.9%	15.8%	\$2,060	\$2,996	\$2,962	2.1%	2.7%	2.7%	\$383	\$1,002	\$1,128	0.7%	2.0%	1.4%	2.8%	4.7%	4.0%
Logistics - Analyst: Ravi Shanker																		
CHRW	32.8%	25.0%	45.0%	\$277	\$266	\$266	2.3%	2.2%	2.2%	\$511	\$511	\$511	4.2%	4.2%	4.2%	6.4%	6.4%	6.4%
EXPD	13.8%	14.2%	25.4%	\$196	\$171	\$174	1.3%	1.2%	1.2%	\$408	\$618	\$895	2.8%	4.2%	6.0%	4.1%	5.3%	7.2%
HUBG	0.0%	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	0.0%	\$0	-\$9	-\$23	0.0%	-0.4%	-0.9%	0.0%	-0.4%	-0.9%
JBHT	16.4%	0.0%	0.0%	\$124	\$0	\$0	0.7%	0.0%	0.0%	\$180	\$186	\$370	1.1%	1.1%	2.2%	1.8%	1.1%	2.2%
LSTR	29.3%	8.8%	11.8%	\$112	\$37	\$37	2.1%	0.7%	0.7%	\$0	\$190	-\$27	0.0%	3.6%	-0.5%	2.1%	4.3%	0.2%
XPO	0.2%	0.4%	0.0%	\$1	\$3	\$0	0.0%	0.1%	0.0%	-\$385	\$0	\$0	-7.4%	0.0%	0.0%	-7.4%	0.1%	0.0%
Avg/Sum	15.4%	8.1%	13.7%	\$101	\$68	\$80	0.9%	0.6%	0.7%	\$102	\$214	\$288	0.1%	1.8%	1.8%	1.0%	2.4%	2.5%
Intelligent Trucking - Analyst: Ravi Shanker																		
TSP	0.0%	0.0%	NM	\$0	\$0	-	0.0%	0.0%	-	\$0	\$0	-	0.0%	0.0%	-	0.0%	0.0%	-
Truckload - Analyst: Ravi Shanker																		
HTLD	57.9%	7.2%	9.1%	\$46	\$6	\$8	4.0%	0.5%	0.7%	\$0	\$9	\$11	0.0%	0.8%	1.0%	4.0%	1.3%	1.6%
KNX	8.1%	7.0%	8.6%	\$64	\$61	\$65	0.8%	0.8%	0.8%	\$57	\$323	\$76	0.7%	4.0%	0.9%	1.5%	4.8%	1.8%
SNDR	12.2%	10.2%	11.6%	\$50	\$48	\$48	1.3%	1.3%	1.3%	\$0	\$0	-	0.0%	0.0%	-	1.3%	1.3%	1.3%
USX	0.0%	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
WERN	12.4%	13.9%	15.0%	\$29	\$34	\$32	1.2%	1.4%	1.3%	\$4	\$111	\$29	0.2%	4.5%	1.2%	1.4%	5.9%	2.5%
TFII	17.1%	12.5%	13.5%	\$85	\$95	\$94	0.7%	0.8%	0.8%	\$0	\$0	\$0	0.0%	0.0%	-	0.7%	0.8%	0.8%
Avg/Sum	17.2%	9.3%	10.4%	\$43	\$40	\$40	1.3%	0.9%	0.9%	\$9	\$79	\$24	0.2%	2.0%	0.8%	1.5%	2.9%	1.5%
Less-Than-Truckload - Analyst: Ravi Shanker																		
ARCB	3.6%	2.4%	3.3%	\$8	\$9	\$9	0.4%	0.5%	0.5%	\$83	\$68	\$54	4.6%	3.8%	3.0%	5.0%	4.2%	3.5%
ODFL	8.9%	10.2%	10.8%	\$92	\$137	\$141	0.3%	0.5%	0.5%	\$536	\$650	\$299	1.9%	2.3%	1.1%	2.2%	2.8%	1.5%
SAIA	0.0%	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	0.0%	-\$4	-\$4	-\$4	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Avg/Sum	4.2%	4.2%	4.7%	\$34	\$49	\$50	0.3%	0.3%	0.3%	\$205	\$238	\$116	2.1%	2.0%	1.3%	2.4%	2.3%	1.7%

Source: Company data, Refinitiv, Morgan Stanley Research. Note XPO dividend includes preferred dividend. See notes for details

Freight Thesis Overview

Exhibit 10: Freight Thesis Overview

Ticker	Investment Thesis	Investment Positives	Investment Negatives
ARCB.O OW	The mgmt. team has overseen strong EBIT improvement in recent years (amongst the best in the group) and we believe the stock is not getting the credit for recent OR gains that it should. It's diversification and focus on asset-heavy vs. asset-light balance makes it well-positioned among peers. The valuation is the most attractive amongst LTLs and while earnings volatility has been an overhang on the multiple for some time, mgmt.'s newfound focus on consistency should help re-rate the multiple to at least close some of the vast gap to peers.	<ol style="list-style-type: none"> 1. Recent operating focus has driven margin improvement 2. Regional LTL network expansion still an opportunity for growth 3. Asset heavy vs. asset light balance is the right approach for the future 	<ol style="list-style-type: none"> 1. Growing asset-light footprint needs to account for emerging competitive pressure 2. Operating metrics lag peers 3. Macro trends weigh on volume growth
CHRW.O UW	We believe CHRW faces cyclical challenges from the spot-contract rate spread in the near-term as well as shippers structurally moving away from brokers toward asset-based carriers. More significantly, we see secular headwinds from the digitization of the brokerage function including the "uberization" of freight, blockchain and autonomous trucks, which we expect to play out over the next 2-3 years, together with the entry of well-funded new entrants in the space.	<ol style="list-style-type: none"> 1. Truck brokerage share leader (~15%) with 115 years of history 2. Potential to deploy balance sheet to serve as tailwind to earnings growth 	<ol style="list-style-type: none"> 1. Cyclical and structural risk from shippers moving from brokers to asset based carriers 2. Digitization of brokerage driving highly competitive environment, hurting gross margins 3. The need to keep up with tech investments could hurt op. margins
CSX.O UW	We believe the rising macro tide is offset by several key end markets facing cyclical and secular threats (auto, coal, intermodal), pricing gains may be decelerating, low hanging cost opportunities may have already been taken, OR is likely stable but hard to improve from here. Sentiment is not as frothy as other US Rails (UNP and NSC) but valuation is significantly higher than history. The combination of topline headwinds, high bar on cons. EPS and high multiple keeps us UW.	<ol style="list-style-type: none"> 1. Management team successfully works around secular and cyclical challenges 2. Improving operating efficiencies and exceeding targets 3. Share gains vs. regional peer 	<ol style="list-style-type: none"> 1. Unsustainable items boost OR potentially unwind 2. Higher than average exposure to challenged end markets (IM, auto and coal) 3. Investor focus shifts away to more attractive stories
EXPD.O UW	The two debates for EXPD in 2022 are: (1) will 2022 be a mean reversion year on Air/Ocean over earning (2) will the market care if that happens? We believe the stock is facing an incredibly difficult comp where it will be hard to sustain 2021 levels if/when Ocean and Air bottlenecks normalize. At current valuations, it appears the current level of earnings is being treated as normal which we believe is far too generous. Though EXPD tends to be a resilient stock we think that: (a) this may change in 2022/23 given the potential magnitude of the unwind and current valuation (b) EXPD can be a good relative UW even if the stock does not sharply correct.	<ol style="list-style-type: none"> 1. Non-asset, variable cost model offers more downside protection in a market correction 2. Potential for increased dividends / accelerated share buybacks to enhance shareholder returns 	<ol style="list-style-type: none"> 1. Geopolitical uncertainty could challenge global trade flows 2. Gross margins likely to face secular pressure in coming years from digitization and new entrants
FDX.N EW	We see secular competitive risks to Parcels from a triple threat of (1) Insourcing by e-commerce giants, (2) Omnichannel shift enabling last mile competition from mid-size retailers, and (3) Platformization of small-shipper volumes. Together, these trends could erode returns in the B2C space, which has been a major driver of growth for the legacy Parcels in recent years. We see FDX as relatively better positioned than UPS due to its smaller eCommerce exposure, lack of AMZN business and unionization, an outsourced Ground operation, and potentially more self-help opportunities. In addition to the secular risks, tough macro conditions and execution are likely to keep earnings under pressure.	<ol style="list-style-type: none"> 1. Variable cost structure better positions FDX vs. UPS in secular battle for B2C and in choppy macro 2. Cost cutting efforts should support improved returns 3. Investor sentiment is low, multiple has reset lower 	<ol style="list-style-type: none"> 1. As one of the international trade exposed companies we cover, FDX is exposed to macro/tariff risks 2. After the breakup with AMZN, FDX is reliant on others for eCommerce growth 3. Potential USPS reform

Source: Company Data, Morgan Stanley Research

Exhibit 11: Freight Thesis Overview (Cont'd)

<p>HTLD.O EW</p>	<p>We see risk to HTLD's ongoing acquisition integrations and high valuation for the stock. While we see HTLD as a strong operator with good margins relative to peers, HTLD is the most expensive stock vs. direct peers in our coverage which puts focus on its small size, mixed M&A record and high percentage of earnings from gains on sale.</p>	<ol style="list-style-type: none"> 1. Strong operator with high margins 2. GTI and IDC acquisitions create idiosyncratic growth opportunity 3. Unique footprint may bring advantages if TL secular concerns weigh on stocks 4. Some defensive traits in a tough macro 	<ol style="list-style-type: none"> 1. Most expensive stock in our coverage trading at a premium to history 2. Company experiences road bumps as they integration acquisitions 3. We see risk to near-term consensus estimates
<p>HUBG.O EW</p>	<p>HUBG is one of the few 3PLs with a major presence in intermodal, but it lacks JBHT's favorable rail partnership and earnings execution has been uneven. That said, the potential for diversification through potential M&A optionality keeps risk-reward of shares relatively balanced.</p>	<ol style="list-style-type: none"> 1. Tight TL market leads to greater than expected volume and pricing growth 2. Accretive growth through potential M&A 3. Company specific initiatives to support gross margins (satellite tracking system, price optimization tools, load acceptance optimization, etc.) 	<ol style="list-style-type: none"> 1. Though HUBG has significant intermodal share, it lacks JBHT-like contract 2. History of inconsistent execution 3. Increasing IM competition broadly
<p>JBHT.O EW</p>	<p>As the premier intermodal (IM) carrier with favorable rail contracts, JBHT should continue to take share in IM from other intermodal carriers (IMCs). However, this could come at the expense of price and margin as we believe IM faces structural challenges from trucking. Furthermore, the ICS business faces digital disruption and mgmt. will have to invest heavily in JB360* to keep up with new entrants. However, we believe the Dedicated business is the new leader within JBHT and is underappreciated by investors. Risk-reward/valuation is somewhere between TLs (positive) and Rails (negative). We remain EW.</p>	<ol style="list-style-type: none"> 1. •Favorable contracts with BNSF provides long-term competitive advantage 2. Dedicated is a fast growing part of Transportation 3. Improving rail service should aid intermodal volume growth and margins 4. Clean balance sheet with minimal leverage 	<ol style="list-style-type: none"> 1. Valuation not cheap relative to history 2. We expect IM to lose share to truck in the long term 3. New digital entrants to pressure ICS results
<p>KNX.N OW</p>	<p>KNX is our overall Top Pick. We believe KNX's scale and exposure can make them the biggest beneficiary of ELD /regulatory benefits, where our expectations are above consensus. The SWFT merger has also been a success with more upside to come and we believe KNX can be a fast follower with new intelligent trucking technologies. Valuation is very attractive vs. historical levels as well. KNX is the best way to play cyclical TL upside and secular tailwinds from intelligent trucks.</p>	<ol style="list-style-type: none"> 1. As the largest TL by far and one of the most exposed to the spot market, KNX could be the single biggest beneficiary of ELDs 2. Post merger synergies and cost opportunities abound 3. KNX can be a game-changer with intelligent trucks – if it so chooses 	<ol style="list-style-type: none"> 1. Benefits of ELD to the whole TL industry and KNX in particular could be overestimated 2. Driver shortage could mitigate ELD benefits
<p>LSTR.O UW</p>	<p>Exposure to more cyclical flatbed markets drives more downside at LSTR vs. 3PL peers. 100% spot exposure also leaves LSTR more cyclically exposed than peers. While flatbed (30% of the business) may be somewhat more protected from secular/digital disruption than the rest of the business, new entrants are about to target this area as well. Valuation is also expensive.</p>	<ol style="list-style-type: none"> 1. Unique business model an advantage over other 3PLs during periods of tight capacity 2. ROE among the best in its peer group 3. Share buybacks represent significant potential tailwind to earnings 	<ol style="list-style-type: none"> 1. Difficult case for improving margins and returns at core franchise 2. As a larger, more mature 3PL, LSTR more directly faces industry headwinds than smaller peers
<p>NSC.N UW</p>	<p>We believe NSC has a topline issue instead of a cost issue, with revenues significantly eroded by the decline of coal and a highly competitive IM market in the East. We expect the revenue headwinds to continue. The market is focused on PSR cost gains but we believe consensus expectations may be too high for NSC, esp. given the need to grow topline to deliver PSR gains.</p>	<ol style="list-style-type: none"> 1. NSC can achieve operating leverage when volumes rebound 2. Efficiency savings could exceed consensus and our expectations 3. NSC's cash return is relatively strong with the highest dividend yield and a stable stock buyback 	<ol style="list-style-type: none"> 1. Cost cutting potential exists but may not be as large as some believe 2. NSC will continue to experience top line headwinds given end market exposure
<p>ODFL.O EW</p>	<p>We favor ODFL the most among the LTLs as superior execution and cost advantage vs. peers should continue to drive market share gains as well as class-leading profitability. With the LTL cycle showing signs of upward inflection, ODFL's traditional share gains vs. peers should resume. We also see defensiveness in the case of a macro downside. While valuation is rich, it is deservedly so and the stock has been very resilient in a choppy market YTD.</p>	<ol style="list-style-type: none"> 1. Structural advantages drive attractive EBIT growth vs. peers 2. Scale and attractive balance sheet could make ODFL an early beneficiary of intelligent trucks 	<ol style="list-style-type: none"> 1. Peak margins limit degree of margin expansion opportunity 2. New competition from regional entrants becoming national 3. Extreme cycle deterioration has driven significant industry competition in the past

Source: Company Data, Morgan Stanley Research

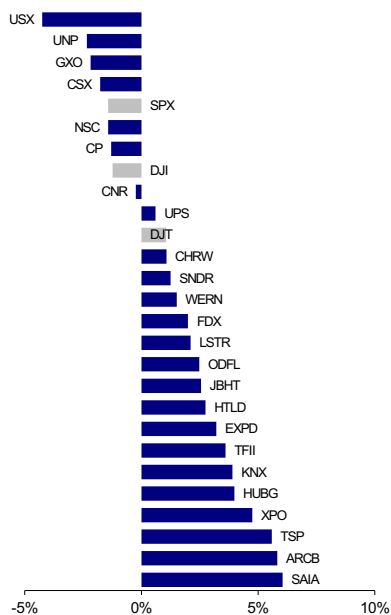
Exhibit 12: Freight Thesis Overview (Cont'd)

Ticker	Investment Thesis	Investment Positives	Investment Negatives
SAIA.O UW	We believe Saia falls in between its LTL peers – it does not approach the operating quality of ODFL or the diversification and valuation of ARCB. While Saia is a good executor with a good strategy, we believe the market has been too generous with pricing in OR gains in the implied multiple when there is a long way to go.	1. Investor positioning can drive stock volatility in both directions 2. Northeast expansion should help drive growth	1. Not the same quality as ODFL 2. Not as cheap or as diversified as ARCB 3. Macro improvement could drive upside
SNDR.N OW	We see SNDR as well positioned to benefit from an improving truckload demand environment, structural supply tightening, IMC gains, the secret sauce of the Quest system, and technology leadership taking advantage of secular gains from intelligent trucks. Lapping the losses of the now-shuttered FTFM business in 2020 gives SNDR some of the easiest margin comps in the group. Further, its below-peer valuation remains attractive.	1. Large, diversified trucking company with strong, stable management team 2. Technology focus should help drive operating superiority (Quest system) as well as longer term competitive advantage (intelligent trucks)	1. Trucking cycle is deeply cyclical and macro visibility remains poor 2. Diversification is a good thing but our LT view on Intermodal and Logistics is somewhat bearish
TFII.N OW	We believe TFII offers an attractive entry point for a high quality asset-right transportation business. The company's roll up strategy has driven impressive returns over the last decade, and while leverage appears high versus peers, we believe the level is sustainable. With ample white space for accretive M&A, we see room for multiple expansion toward its peers, closing a multi-turn discount that drives our Overweight rating.	1. Continued M&A accretion (not included in Mse) could drive significant upside to our model if full FCF deployment 2. As the largest TL carrier in Canada, TFI serves to benefit from a continued push toward intelligent trucking (given balance sheet capacity)	1. Acquisition uncertainty may cause investors to award a discount to stock. If a deal falls through/weak execution, story can be negatively affected.
TSP.O OW	We view TSP as a leader in commercial AV trucking, with access to an \$800 bn+ TAM in US alone and relatively few competitors, which it looks to be leading. The company has a clear and somewhat binary catalyst ahead of it in the "Driver Out" test but once successfully cleared, the event path to commercial launch in 2024 is straight forward and the value proposition of the product (60%+ savings on truck op. costs + adjacent gains) is clear. The risk-reward is wide but at a 4:1 ratio, is strongly skewed to the upside. For now, TSP is the only non-hardware, services-driven pure-play on AV driving in the public markets, certainly in commercial trucking but likely including passenger cars, too.	1. Market does not apply as steep of an execution discount 2. Commercial production ramps faster than we expect 3. Market consolidation accelerates & pricing power is even stronger	1. Driver Out test fails 2. Market applies a larger execution discount until Driver Out or some execution discount persists after Driver Out 3. Competitor launches a superior product (incl. L5) / gets to commercial production faster
UNP.N EW	We have a bearish outlook on several end markets including intermodal and coal. We also worry about PSR implementation during a potential macro slowdown and high investor expectations on LT sustainable OR. While UNP's mgmt. team is highly accomplished, revenue headwinds may overwhelm.	1. Franchise is highly diverse and relatively defensive (PRB coal, longer length of haul intermodal, and MX exposure) 2. Very strong operator behind Canadian rails 3. PSR turnaround improves margins	1. Though defensive vs. the Eastern rails, UNP still has high coal and auto exposure 2. Western rail peers and trucks become more competitive which further closes gap between price and inflation 3. PSR execution risk
UPS.N UW	We see competitive secular threats to the Parcel business as a triple threat of (1) Insourcing by eCommerce giants (2) Omnichannel shift enabling last mile competition from mid-size retailers and (3) Platformization of small-shipper volumes. Together, these trends could erode returns in the B2C space, which has been a huge driver of growth for the legacy parcels in recent years. Despite its strong operating metrics, UPS could be more at risk of disruption given its larger B2C business (and AMZN exposure), fewer self-help initiatives than FDX and more expensive valuation.	1. A strong balance sheet with leading ROIC and FCF 2. Industry leading position and strong operating quality continues to drive industry-leading margins 3. Valuation is relatively attractive vs. U.S. peers based on MSe	1. Most exposed to potentially growing competition in the Parcel space 2. Exposed to macro risk, especially in the Ground business 3. Absolute valuation higher than FDX
USX.N EW	2022 will be a pivotal year for USX as they juggle the continued rollout of Variant, the transition of Logistics to a growth platform and the potential end of the cycle in 2H22. While we continue to believe in the story and the Variant opportunity, the big reset and cycle risk mean that it appears unlikely that USX will demonstrate its \$1 normalized EPS potential any time soon. In the meanwhile, the management team has stated that they are running the business for the long term vs. quarterly results (which is the right call) but probably implies that the stock remains range bound in the \$4-6 range for the medium term.	1. Strong franchise, #5 market position and segment footprint make USX a beneficiary of TL market structural strength 2. Potential to close the OR gap vs. peers as operating execution and market conditions improve	1. Trucking cycle is deeply cyclical and macro visibility remains poor 2. Higher than peer leverage could weigh on investor sentiment in the event of a macro downturn
WERN.O OW	WERN's high Dedicated exposure (60% of trucking business) provides them relative stability and defensiveness among TL peers given LT contracts and relatively sticky pricing. However, this does not mean WERN cannot capitalize on cyclical upside from demand improvement as well as regulatory driven supply tightness in the coming years. We also believe WERN can be a fast follower in the truck technology race.	1. As one of the largest TLs we cover, WERN is a scale and trucking technology play 2. Large dedicated segment helps near term defensibility 3. Benefit from tightening capacity due to regulatory driven supply rationalization	1. Macro weakness leads to lower rates, lower miles, and higher empty miles 2. Trucking cycle deeply cyclical and visibility remains poor
XPO.N OW	The "new" XPO is a relatively rare combination of asset-heavy LTL combined with asset-light brokerage and a European business. The range of peer quality/multiples is very wide and it may be a while before market determines XPO's true place on its new block. Further asset sales/spins later this year will simplify the story into a pure-play LTL.	1. Exposure to secular growth in multiple outsourced transportation markets by leveraging the use of technology 2. Potential to reach industry-leading LTL margins 3. SOTP strategy could unlock significant value	1. SOTP/breakup strategy could result in share-loss and value destruction 2. Execution risk / Key man risk 3. Relatively high leverage vs. peers though FCF is defensive

For valuation methodology and risks associated with any price targets, ratings or recommendations referenced in this research report, please contact the Client Support Team as follows: US/Canada +1 800 303-2495; Hong Kong +852 2848-5999; Latin America +1 718 754-5444 (U.S.); London +44 (0)20-7425-8169; Singapore +65 6834-6860; Sydney +61 (0)2-9770-1505; Tokyo +81 (0)3-5424-4349. Alternatively you may contact your investment representative at Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY 10036 USA.
Source: Company Data, Morgan Stanley Research

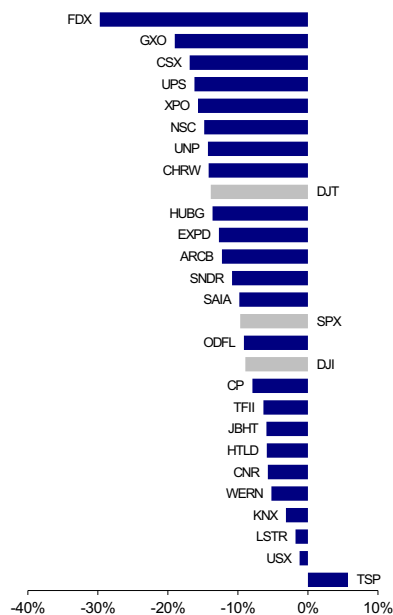
Performance Review

Exhibit 13: One-Week Return



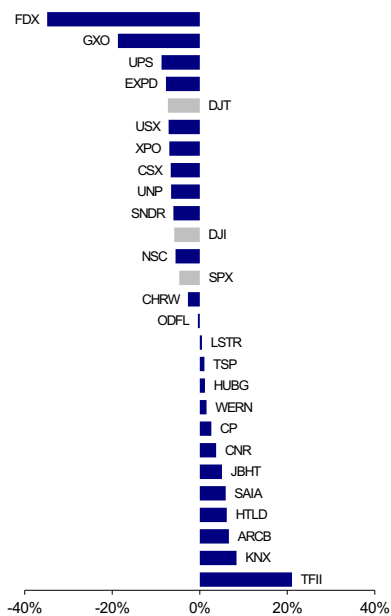
Source: Refinitiv

Exhibit 14: One-Month Return



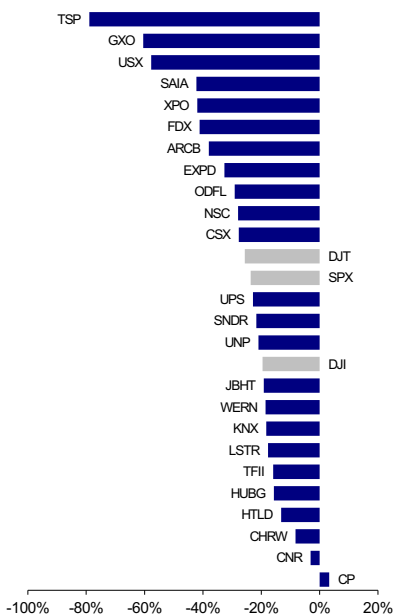
Source: Refinitiv

Exhibit 15: Three-Month Return



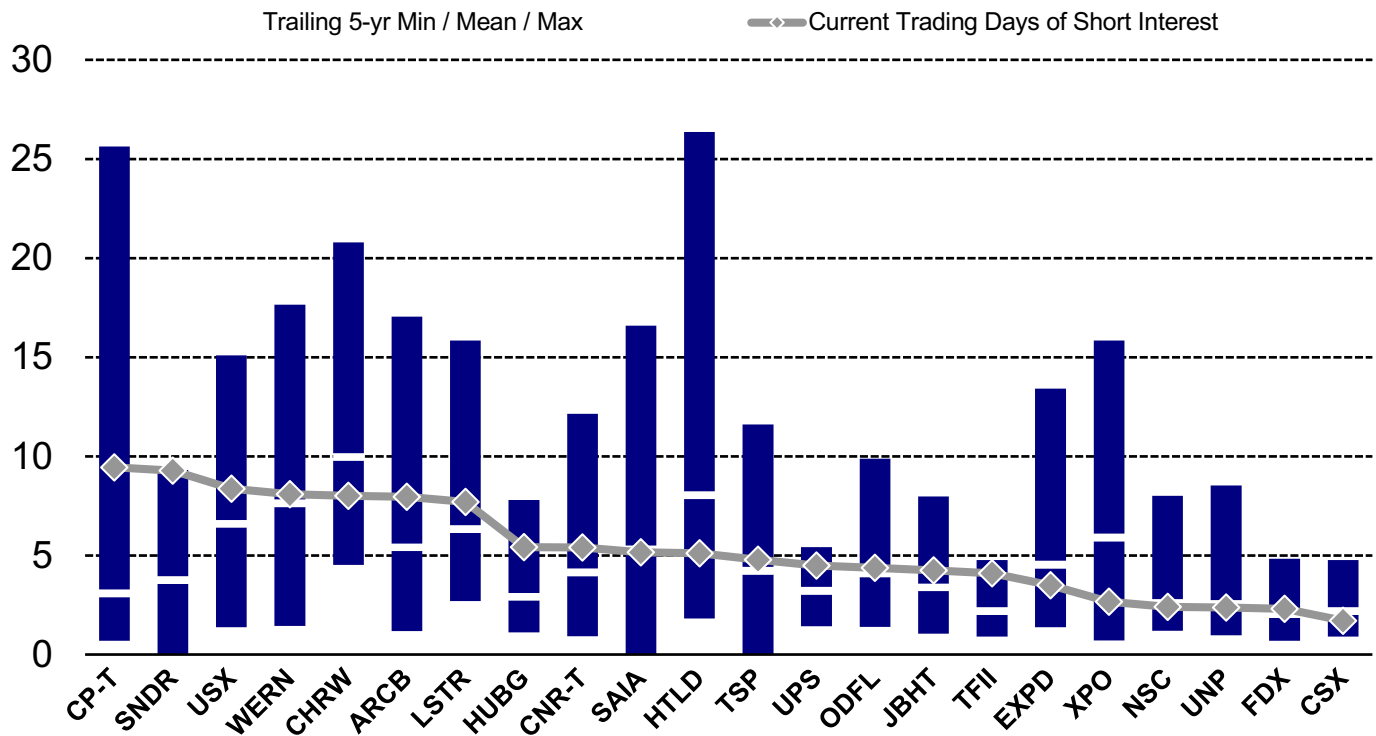
Source: Refinitiv

Exhibit 16: Year-To-Date Returns



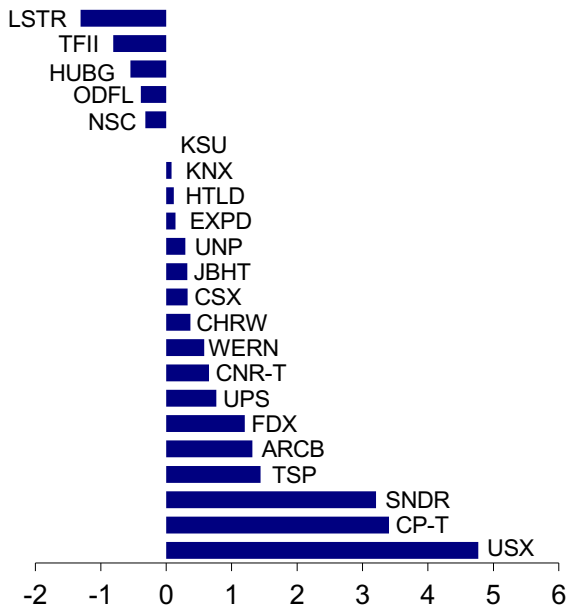
Source: Refinitiv

Exhibit 17: Current Short Interest Days Outstanding



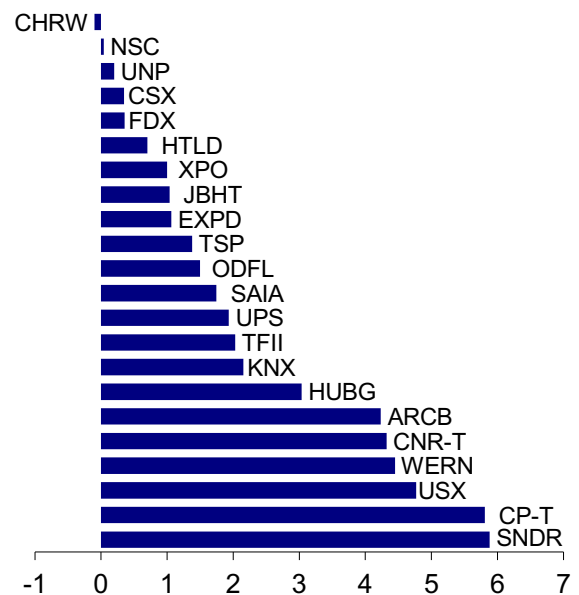
Source: Refinitiv; *Short Interest Days outstanding is calculated as the current Short Interest Shares Outstanding / the Avg Daily Volume over the last month.

Exhibit 18: Short Interest Days 1-Mo. Change



Source: Refinitiv; *Short Interest Days outstanding is calculated as the current Short Interest Shares Outstanding / the Avg Daily Volume over the last month

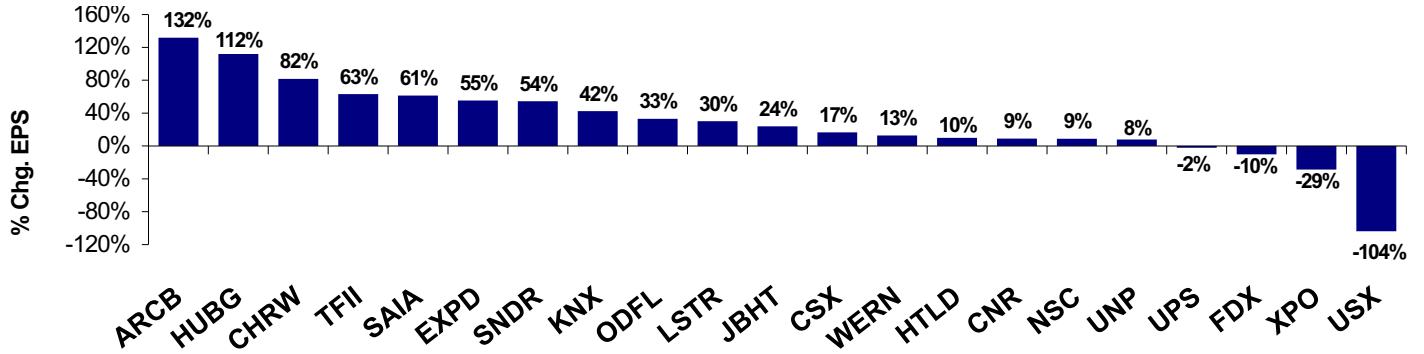
Exhibit 19: Short Interest Days 3-Mo. Change



Source: Refinitiv; *Short Interest Days outstanding is calculated as the current Short Interest Shares Outstanding / the Avg Daily Volume over the last 3 months

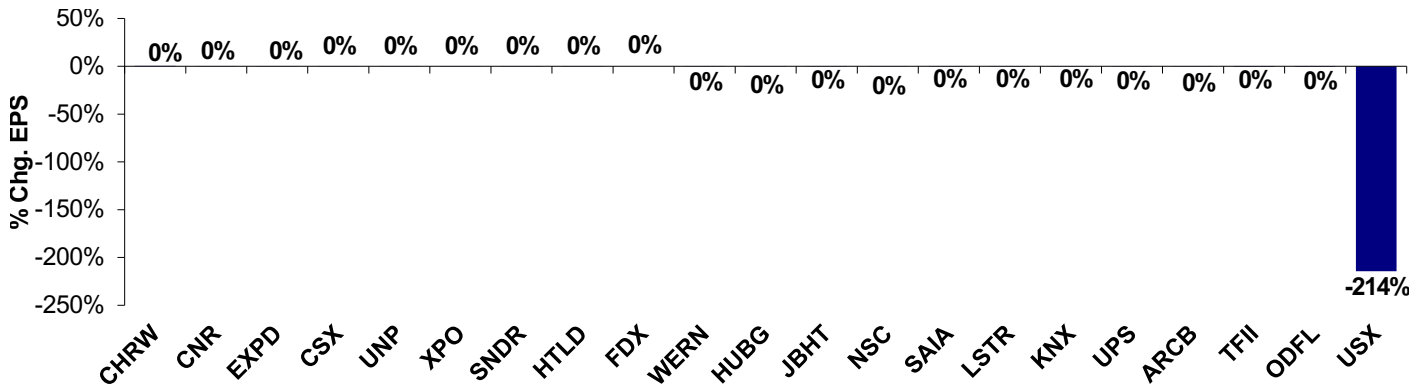
2022 Consensus Earnings Revision Trends

Exhibit 20: 3Q22 QTD Consensus Earnings Revisions



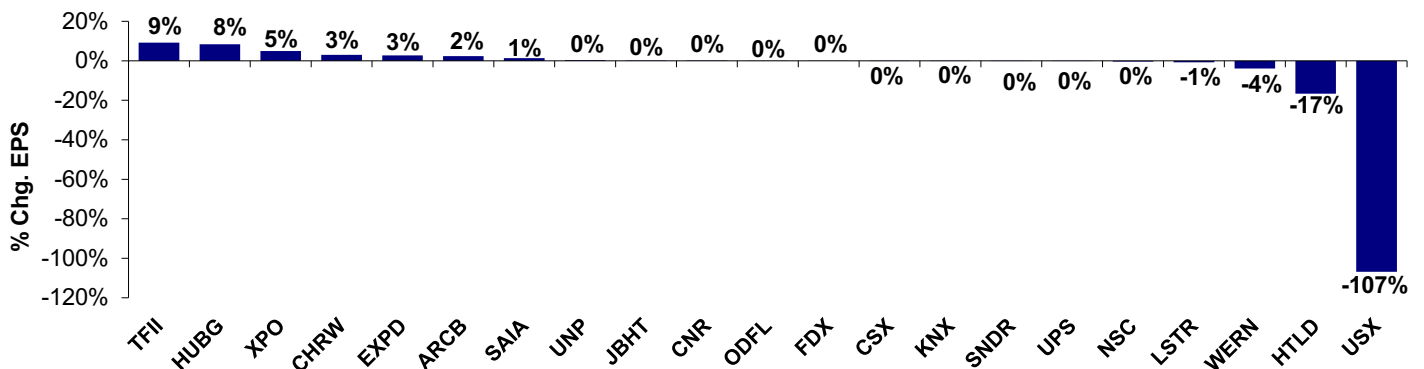
Source: Refinitiv, Morgan Stanley Research

Exhibit 21: 1-Month 2022 Consensus Earnings Revisions: Impact on EPS



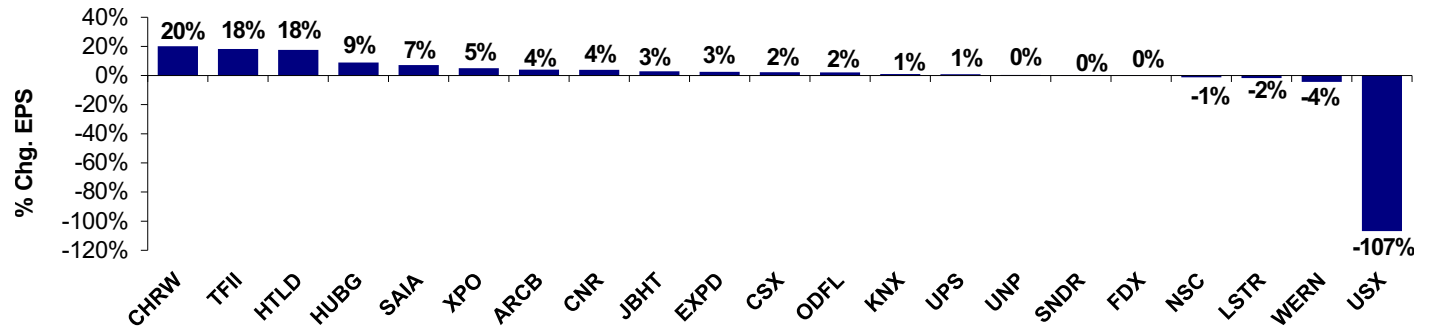
Source: Morgan Stanley Research, Refinitiv

Exhibit 22: 2-Month 2022 Consensus Earnings Revisions: Impact on EPS



Source: Morgan Stanley Research, Refinitiv

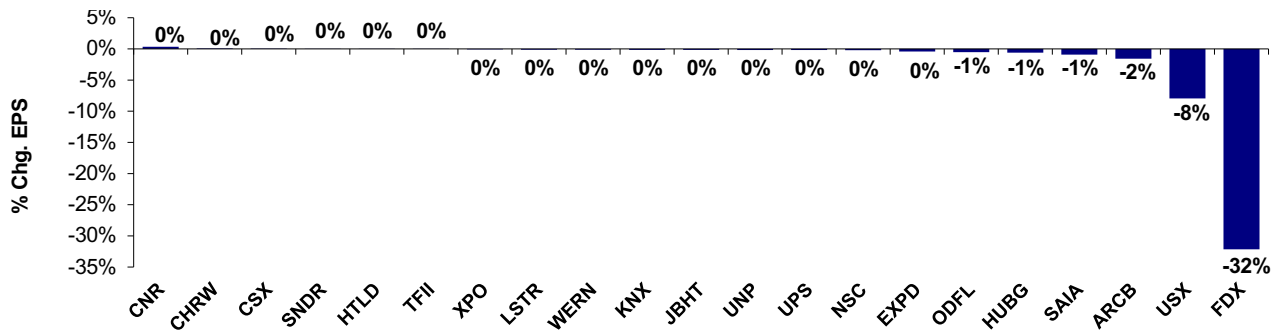
Exhibit 23: 3-Month 2022 Consensus Earnings Revisions: Impact on EPS



Source: Morgan Stanley Research, Refinitiv

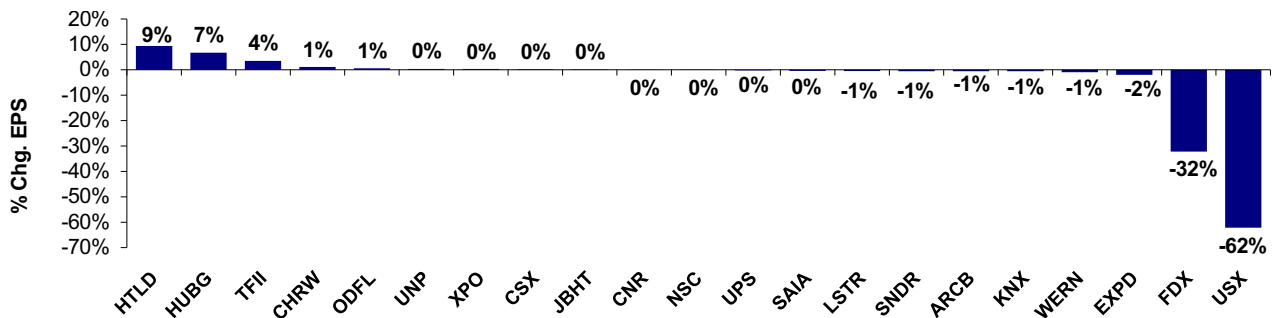
2022 Consensus Earnings Revision Trends

Exhibit 24: 1-Month 2022 Consensus Earnings Revisions: Impact on EPS



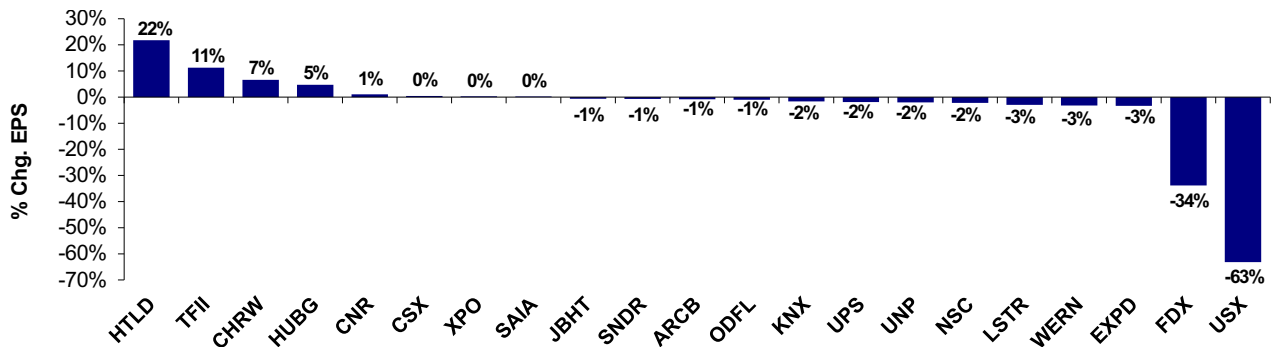
Source: Morgan Stanley Research, Refinitiv

Exhibit 25: 2-Month 2022 Consensus Earnings Revisions: Impact on EPS



Source: Morgan Stanley Research, Refinitiv

Exhibit 26: 3-Month 2022 Consensus Earnings Revisions: Impact on EPS



Source: Morgan Stanley Research, Refinitiv

Freight Valuation Overview

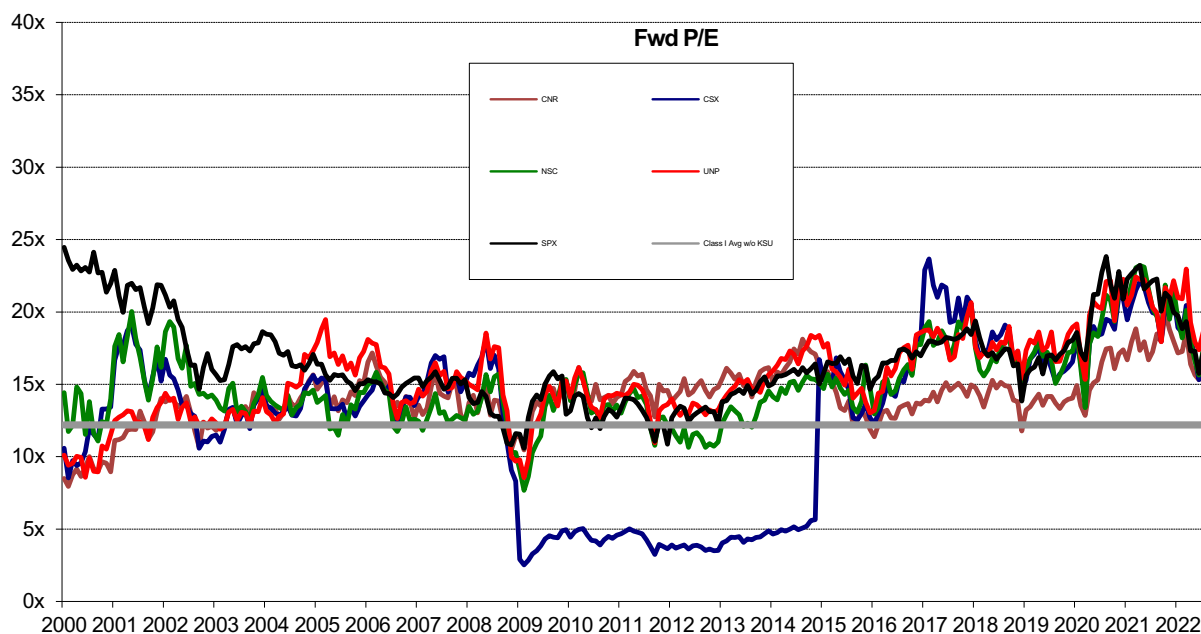
Exhibit 27: Current vs. 10-Year Historical Twelve-Month Forward P/E and Twelve-Month Forward P/E Relative to S&P 500

9/29/2022		9/30/2022		TMF P/E				TMF P/E Relative to S&P				
Company	Ticker	Current Based on MSe	Current Based on Cons.	10-Yr Hist.				Current Based on MSe	10-Yr Hist.			
				Trough	Median	Avg.	Peak		Trough	Median	Avg.	Peak
Rails		Rails										
Canadian National	CNR-T	19.8x	19.6x	14.1x	18.6x	18.9x	25.0x	125%	77%	108%	106%	124%
CSX	CSX	15.8x	14.0x	10.5x	16.8x	16.8x	23.7x	100%	70%	93%	94%	131%
Norfolk Southern	NSC	16.2x	14.8x	10.6x	16.5x	16.7x	23.9x	102%	74%	93%	93%	108%
Union Pacific	UNP	18.7x	16.3x	12.9x	17.6x	17.7x	23.6x	118%	73%	101%	99%	114%
Class I Rail Average		16.9x	19.6x	12.7x	17.5x	17.8x	25.7x	106%	59%	100%	100%	135%
Parcel		Parcel										
FDX	FDX	12.1x	9.6x	8.9x	13.8x	13.9x	20.7x	76%	47%	82%	82%	113%
UPS	UPS	15.8x	12.9x	11.5x	17.5x	16.9x	22.7x	100%	61%	99%	98%	122%
Parcel Average		13.9x	11.2x	10.2x	15.7x	15.4x	21.7x	88%	54%	90%	90%	117%
Logistics		3PLs										
C.H. Robinson	CHRW	17.7x	13.0x	13.0x	19.0x	19.2x	26.5x	111%	66%	114%	112%	152%
Expeditors	EXPD	18.1x	13.3x	13.2x	20.9x	20.9x	26.7x	114%	66%	124%	123%	164%
Hub Group	HUBG	10.1x	8.1x	7.9x	17.6x	17.2x	24.3x	64%	45%	103%	102%	141%
JB Hunt	JBHT	19.4x	17.0x	14.4x	21.5x	21.2x	27.5x	122%	78%	118%	122%	164%
Landstar	LSTR	15.9x	14.5x	13.4x	19.1x	19.5x	27.9x	100%	64%	115%	114%	143%
XPO Logistics	XPO	9.1x	7.7x	7.7x	22.6x	21.5x	34.9x	57%	NM	NM	NM	NM
Logistics Average		15.1x	12.3x	11.6x	20.1x	19.9x	28.0x	95%	64%	115%	115%	153%
Truckload		TL										
Heartland	HTLD	13.2x	12.4x	12.4x	20.7x	21.1x	32.7x	83%	60%	129%	124%	173%
Knight	KNX	10.2x	10.1x	9.1x	17.0x	17.8x	33.6x	64%	42%	110%	107%	186%
Schneider	SNDR	8.7x	8.5x	9.9x	15.9x	16.5x	25.8x	55%	46%	79%	84%	135%
US Xpress	USX	21.2x	130.5x	9.9x	15.9x	16.5x	25.8x	133%	-1060%	43%	33%	712%
Werner	WERN	11.3x	10.4x	9.9x	15.9x	16.5x	25.8x	71%	46%	100%	97%	142%
TL Average		12.9x	34.4x	10.3x	17.4x	17.9x	29.5x	68%	49%	104%	103%	159%
Less-Than-Truckload		LTL										
Arkansas Best	ARCB	6.2x	5.7x	5.4x	13.2x	13.6x	31.3x	39%	32%	76%	81%	144%
Old Dominion	ODFL	21.9x	21.2x	13.8x	21.0x	22.1x	36.2x	138%	91%	120%	121%	161%
Saia	SAIA	15.9x	14.1x	9.1x	17.4x	18.6x	34.5x	100%	68%	102%	103%	139%
LTL Average		14.7x	13.7x	9.4x	17.2x	18.1x	34.0x	92%	64%	100%	101%	148%
S&P 500		.SPX-UT		15.9x	13.1x	16.9x	18.0x	29.9x				

Source: Company data, Refinitiv, Morgan Stanley Research, Note: FDX TMF P/E multiple is based on calendarized EPS.

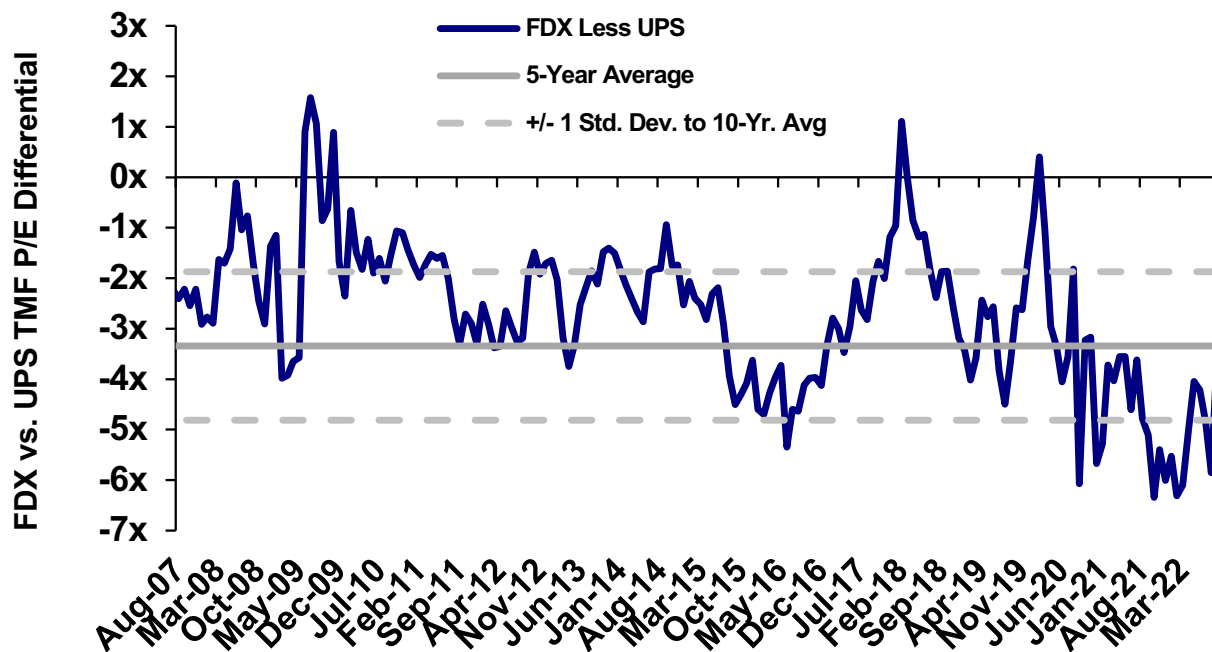
Valuation

Exhibit 28: Rail Valuation: Twelve-Month Forward P/E by Entity



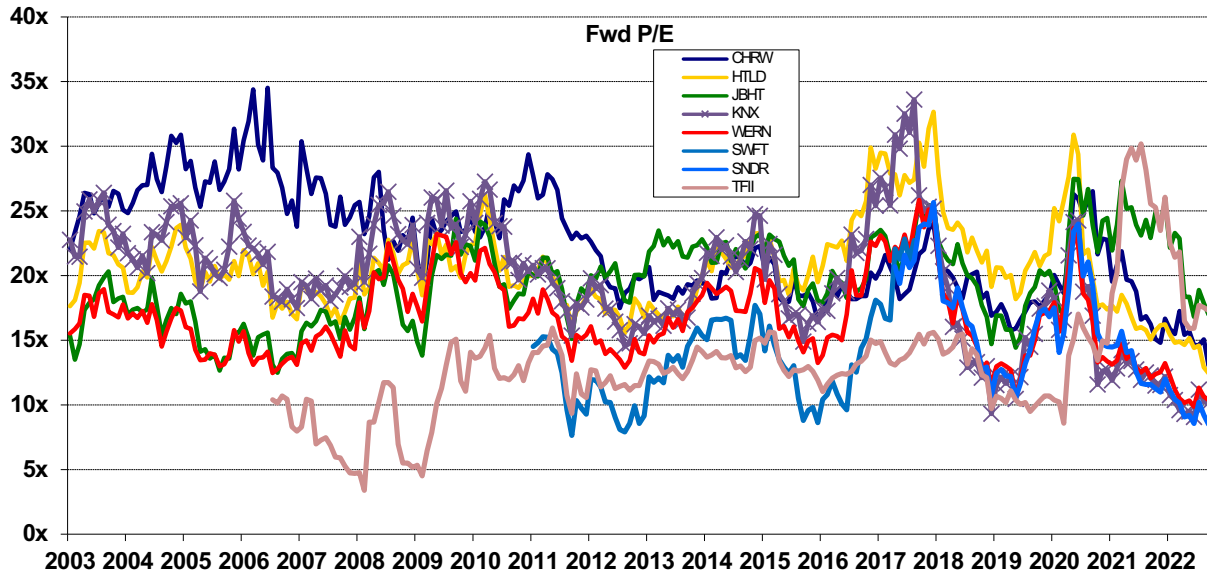
Source: Company data, Morgan Stanley Research, Refinitiv

Exhibit 29: Parcel Valuation: FDX vs. UPS TMF P/E Differential



Source: Refinitiv, Morgan Stanley Research

Exhibit 30: Truck Valuation: Twelve-Month Forward P/E by Entity



Source: Refinitiv, Morgan Stanley Research

Rail Industry Trends

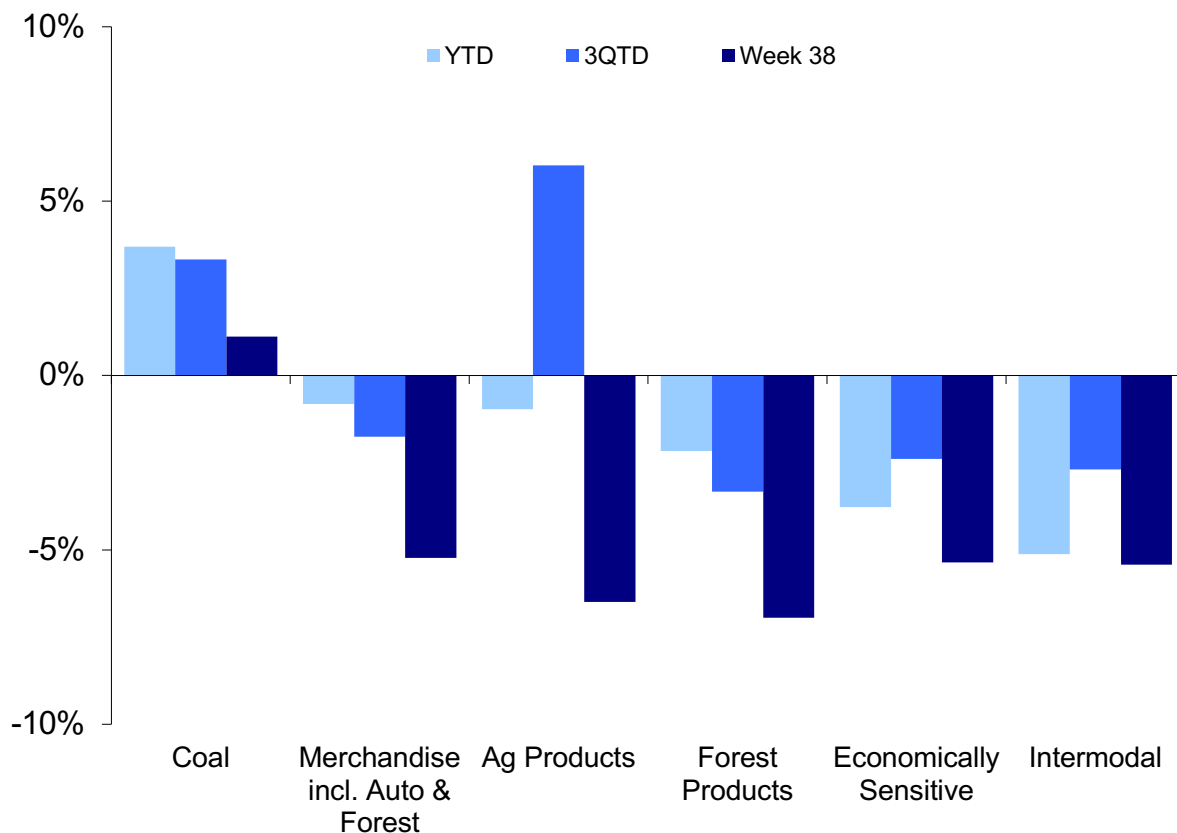
Exhibit 31: AAR Weekly Traffic Data

Other Farm Products September-24-22																													
ALL CLASS1 RAILROADS																													
CARLOADS ORIGINATEE																													
		2018				2019				2020					2021				2022				4 Week	Week	% of				
BY COMMODITY:		1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	YTD	Trend	38	traffic		
Grain		-3.8%	4.4%	13.9%	-1.6%	-4.4%	-5.8%	-7.7%	-5.0%	-5.7%	-6.0%	-5.7%	4.4%	26.2%	4.9%	25.5%	13.2%	-13.4%	-7.9%	4.4%	-7.8%	-7.9%	5.6%	-4.4%	3.6%	-10.4%	4.4%		
Other Farm Products		-1.4%	-0.8%	-0.8%	-12.2%	-8.6%	-6.4%	0.3%	-10.4%	-6.5%	15.8%	17.8%	3.3%	12.4%	12.3%	-3.8%	-5.9%	-23.1%	-17.9%	0.1%	-13.6%	-16.0%	16.8%	-6.9%	14.9%	9.3%	0.1%		
Metallic Ores		26.7%	-3.6%	-1.5%	-2.5%	-8.4%	4.0%	0.5%	1.3%	-0.7%	6.9%	-52.4%	-44.5%	-13.0%	-26.4%	7.3%	161.4%	74.2%	22.8%	0.8%	-2.2%	-10.5%	-6.5%	-6.5%	-13.3%	-32.3%	0.8%		
Coal		-1.0%	0.1%	-2.3%	1.5%	-8.1%	-2.1%	-9.5%	-15.7%	-9.0%	-16.2%	-37.8%	-26.8%	-17.9%	-24.7%	-6.0%	34.4%	12.1%	8.3%	13.3%	10.2%	-1.9%	3.3%	3.7%	3.0%	1.1%	13.3%		
Crushed Stone, Sand		6.1%	9.9%	0.5%	-9.5%	-6.3%	-11.9%	-6.1%	-7.7%	-8.2%	-9.9%	-20.2%	-23.7%	-14.5%	-17.4%	-17.3%	4.9%	9.6%	13.5%	4.0%	15.1%	5.1%	7.8%	8.9%	11.4%	10.5%	4.0%		
Nonmetallic Minerals		-16.3%	-16.3%	-11.5%	0.6%	9.3%	4.7%	8.1%	-1.6%	5.0%	-7.8%	-6.7%	-16.2%	-14.6%	-11.4%	-11.6%	3.3%	7.4%	1.0%	0.7%	4.1%	-6.7%	-2.6%	-2.1%	-9.3%	-17.3%	0.7%		
Grain Mill Products		0.7%	5.4%	7.3%	-1.7%	-3.9%	-5.9%	-5.5%	-2.6%	-4.5%	3.0%	-6.8%	1.1%	3.0%	0.1%	0.5%	7.9%	-2.6%	3.8%	1.9%	1.3%	1.6%	4.9%	2.5%	3.0%	-4.1%	1.9%		
Food & Kindred Products		-3.1%	0.9%	3.8%	2.3%	-1.7%	-1.4%	-4.1%	-4.3%	-2.9%	-1.1%	-13.0%	-0.1%	2.6%	-2.8%	1.3%	14.7%	0.4%	5.2%	1.3%	8.6%	6.7%	8.0%	7.8%	4.0%	2.2%	1.3%		
Primary Forest Products		-8.1%	-5.2%	-4.1%	-9.0%	0.8%	6.4%	6.0%	8.9%	5.5%	-2.5%	-12.9%	-16.6%	-14.8%	-11.8%	-7.6%	3.1%	5.2%	8.7%	0.2%	9.2%	17.5%	17.6%	14.7%	24.4%	30.2%	0.2%		
Lumber & Wood		6.7%	5.3%	8.0%	1.3%	-3.4%	-5.8%	-8.5%	-6.0%	-5.9%	1.3%	-13.1%	-0.5%	4.2%	-2.2%	-0.1%	23.6%	-1.4%	4.5%	0.7%	1.7%	-8.5%	1.1%	-2.2%	-3.9%	-3.5%	0.7%		
Pulp & Paper		-0.6%	2.1%	5.1%	2.4%	1.8%	-7.2%	-8.8%	-7.7%	-5.6%	-5.4%	-8.0%	-7.2%	-1.3%	-5.4%	4.4%	15.9%	14.8%	3.7%	1.1%	-2.0%	-4.2%	-9.4%	-5.2%	-12.7%	-15.2%	1.1%		
Chemicals		3.0%	4.5%	5.8%	1.8%	-1.0%	0.7%	-0.4%	-2.1%	-0.7%	3.2%	-12.8%	-5.5%	1.7%	-3.4%	-3.7%	17.1%	5.0%	5.5%	6.7%	9.4%	0.6%	0.1%	3.4%	2.0%	-5.6%	6.7%		
Petroleum		3.3%	10.3%	32.1%	28.0%	22.0%	24.4%	4.8%	1.1%	12.2%	3.6%	-25.1%	-15.2%	-18.2%	-14.0%	-14.4%	8.8%	-2.2%	-7.0%	1.9%	-15.3%	-10.9%	-5.6%	-10.8%	-5.4%	-10.0%	1.9%		
Stone, Clay, Glass		-0.1%	3.7%	6.7%	-3.8%	1.0%	-2.6%	3.9%	3.8%	1.6%	3.5%	-5.2%	-8.1%	2.3%	-2.2%	-2.6%	12.5%	4.0%	0.9%	1.5%	2.0%	-6.1%	-6.8%	-3.9%	-7.0%	-11.1%	1.5%		
Coke		-6.8%	1.7%	0.6%	-7.1%	-9.6%	-11.2%	-13.3%	-12.7%	-11.7%	3.3%	-25.6%	-22.5%	-18.0%	-16.1%	-10.2%	21.0%	28.2%	18.6%	0.7%	-0.4%	-4.8%	-2.0%	-2.4%	-5.7%	-10.3%	0.7%		
Metals		1.6%	7.2%	10.2%	8.3%	3.0%	-6.2%	-12.0%	-14.1%	-7.4%	-6.8%	-30.5%	-18.0%	-3.1%	-14.7%	-1.5%	51.4%	27.1%	8.3%	1.7%	-1.6%	-11.0%	-17.0%	-9.8%	-16.2%	-19.5%	1.7%		
Motor Vehicles		-6.2%	1.2%	3.4%	-1.9%	-1.0%	-3.4%	-1.9%	-5.6%	-3.0%	-6.8%	-65.4%	-1.2%	-1.0%	-19.2%	-3.5%	90.1%	-22.2%	-14.3%	2.6%	-10.9%	8.6%	9.1%	1.3%	17.8%	13.1%	2.6%		
Iron & Steel Scrap		-1.3%	6.4%	4.3%	9.0%	0.5%	-9.2%	-9.9%	-15.3%	-8.4%	1.1%	-24.9%	-1.7%	18.1%	-2.3%	3.1%	53.6%	22.8%	14.0%	0.8%	1.6%	3.9%	-6.2%	-0.1%	-7.9%	-6.0%	0.8%		
Waste & Scrap		-9.8%	-6.8%	4.1%	4.1%	5.7%	-1.5%	-11.1%	-13.5%	-5.6%	-2.3%	-11.2%	-0.1%	8.1%	-1.3%	0.0%	18.9%	11.6%	4.9%	0.8%	5.1%	4.6%	-5.9%	1.2%	-10.2%	-14.8%	0.8%		
All Other		0.7%	-0.3%	6.2%	9.5%	-4.6%	-0.6%	7.9%	2.5%	1.3%	10.1%	3.0%	-11.0%	-1.6%	-0.2%	-8.5%	10.1%	-0.2%	-6.6%	1.1%	-10.2%	-20.3%	-15.9%	-15.6%	-15.1%	-9.0%	1.1%		
TOTAL COMMODITY		-0.3%	2.7%	3.9%	1.0%	-3.1%	-2.6%	-5.4%	-8.2%	-4.8%	-6.1%	-25.1%	-14.5%	-5.5%	-12.9%	-2.8%	23.6%	4.8%	3.3%	46.5%	2.8%	-2.3%	0.9%	0.4%	0.9%	-3.6%	46.5%		
Excluding Coal		0.1%	3.9%	6.5%	0.8%	-0.7%	-2.8%	-3.4%	-4.5%	-2.9%	-1.6%	-19.5%	-9.9%	0.0%	-7.6%	-1.6%	19.9%	2.1%	1.4%	33.2%	0.2%	-2.5%	-0.1%	-0.9%	0.1%	-5.5%	33.2%		
Excluding Coal & Ag		0.9%	3.9%	5.8%	1.8%	0.2%	-2.1%	-2.6%	-4.5%	-2.3%	-1.3%	-23.1%	-12.0%	-4.7%	-10.4%	-6.1%	22.7%	5.6%	3.2%	25.5%	1.6%	-2.1%	-1.8%	-0.8%	-0.9%	-5.2%	25.5%		
INTERMODAL																													
Trailers		15.3%	23.7%	19.6%	5.6%	-0.9%	-15.7%	-18.9%	-23.2%	-14.9%	-25.3%	-13.8%	11.5%	20.0%	-2.7%	27.1%	16.7%	-12.1%	-9.5%	3.4%	-12.1%	-23.9%	-26.9%	-20.6%	-26.9%	-28.0%	3.4%		
Containers		4.6%	5.1%	4.8%	3.8%	-0.5%	-4.7%	-4.5%	-6.6%	-4.1%	-6.9%	-12.5%	1.9%	10.1%	-1.8%	12.1%	22.6%	-2.5%	-8.4%	50.1%	-6.4%	-4.0%	-0.7%	-3.8%	-1.3%	-3.6%	50.1%		
TOTAL INTERMODAL		5.8%	6.9%	6.0%	3.9%	-0.6%	-5.7%	-5.8%	-8.2%	-5.1%	-8.6%	-12.6%	2.6%	10.9%	-1.8%	13.2%	22.1%	-3.3%	-8.5%	53.5%	-6.9%	-5.5%	-2.7%	-5.1%	-3.1%	-5.4%	53.5%		
TOTAL VOLUME		2.6%	4.7%	4.8%	2.8%	-1.8%	-4.2%	-5.6%	-8.2%	-5.0%	-7.4%	-18.7%	-5.7%	3.1%	-7.2%	5.8%	22.8%	0.3%	-3.3%	100.0%	-2.6%	-4.1%	-1.1%	-2.6%	-1.2%	-4.6%	100%		

Source: Company data, Morgan Stanley Research, AAR

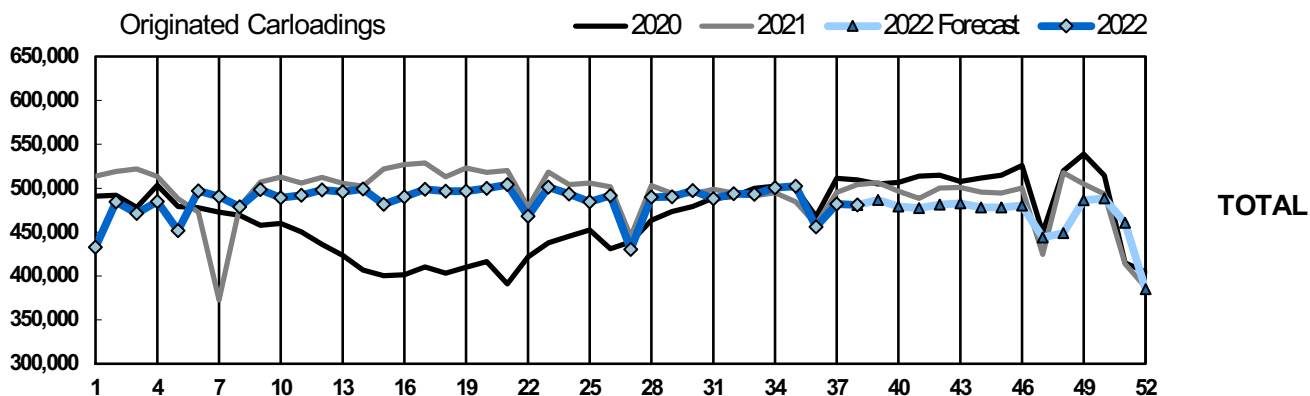
Total Industry Volume Trends

Exhibit 32: YoY % Traffic Growth



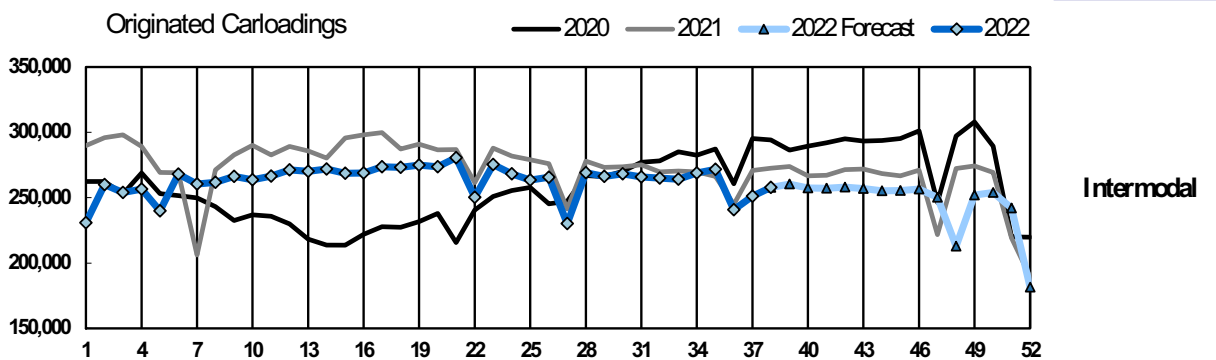
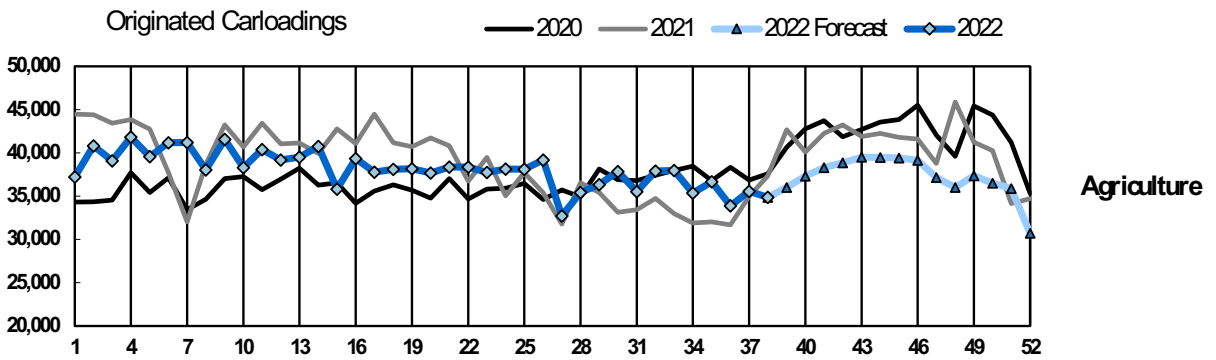
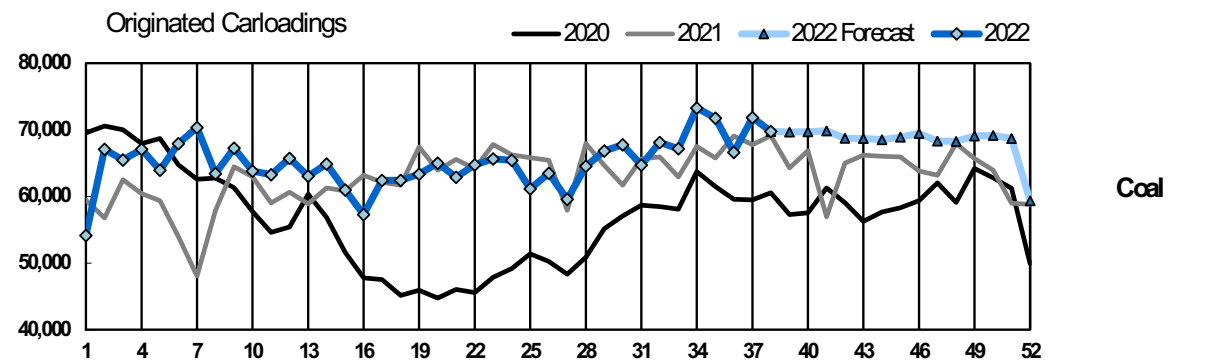
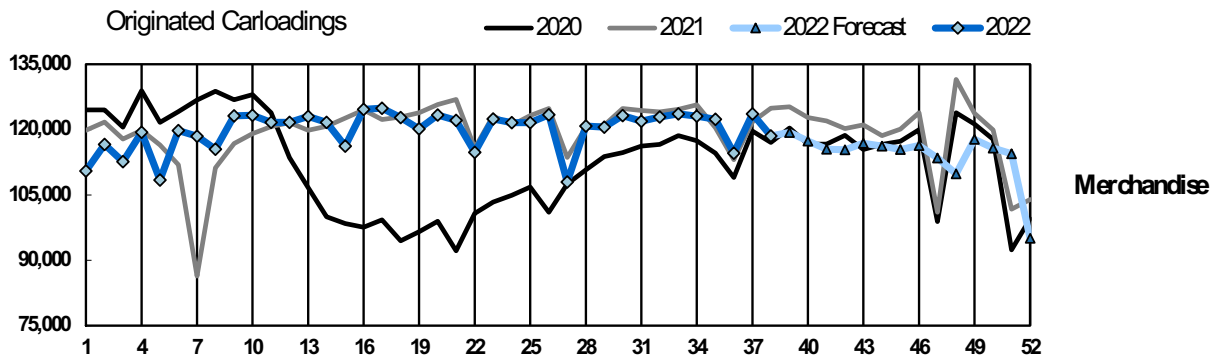
Source: Company data, Morgan Stanley Research, AAR, Current as of Week 35. Merchandise is carloads excluding coal, agricultural products and intermodal.

Exhibit 33: Class I Traffic Forecast



Source: Company data, Morgan Stanley Research, AAR, Current as of Week 35

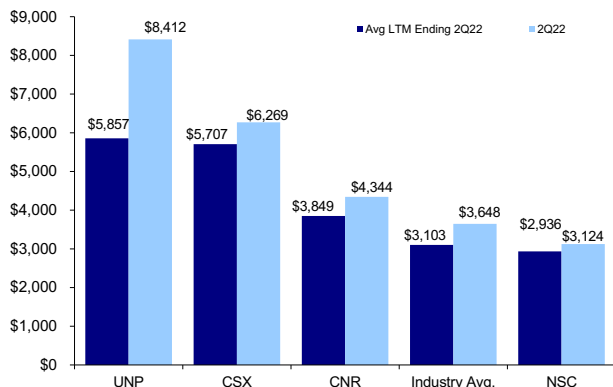
Exhibit 34: Class I Traffic Forecast



Source: Company data, Morgan Stanley Research, AAR, Current as of Week 35

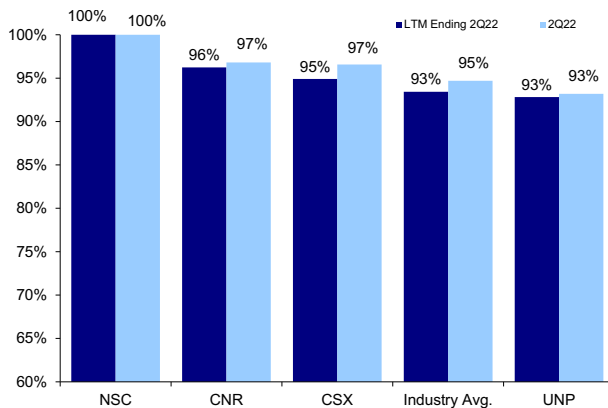
2Q22 Financial Review

Exhibit 35: Total Revenue (Millions)



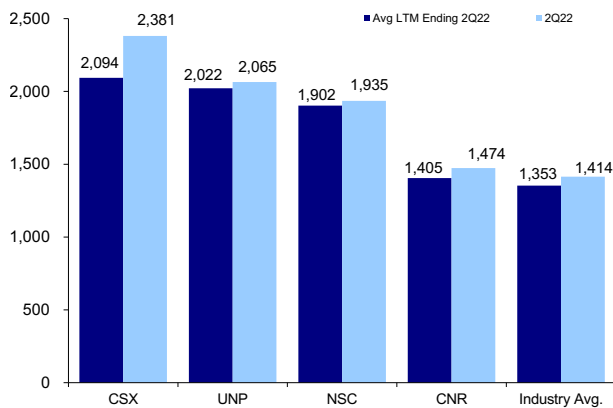
Source: Company data

Exhibit 36: Freight Revenue as % of Total Revenue



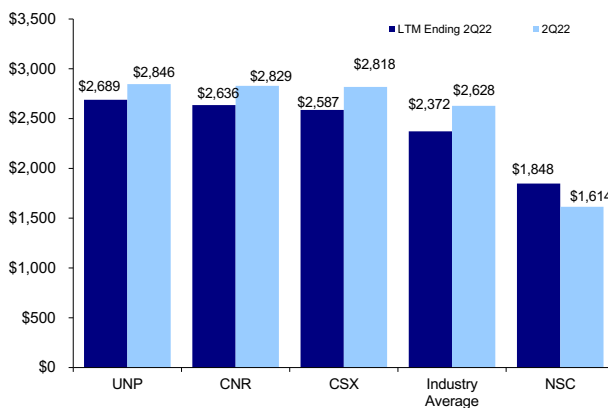
Source: Company data

Exhibit 37: Carloads (Thousands)



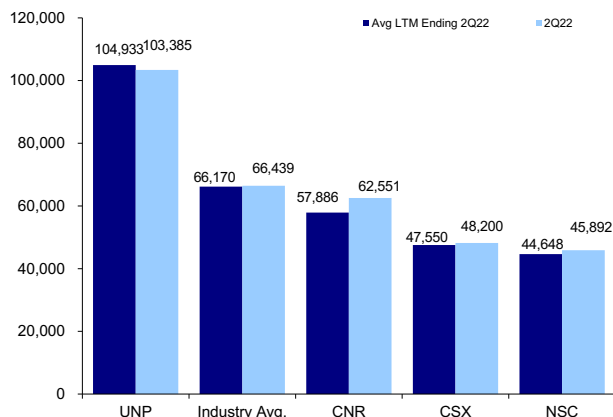
Source: Company data as reported in earnings releases.

Exhibit 38: Freight Revenue / Carload



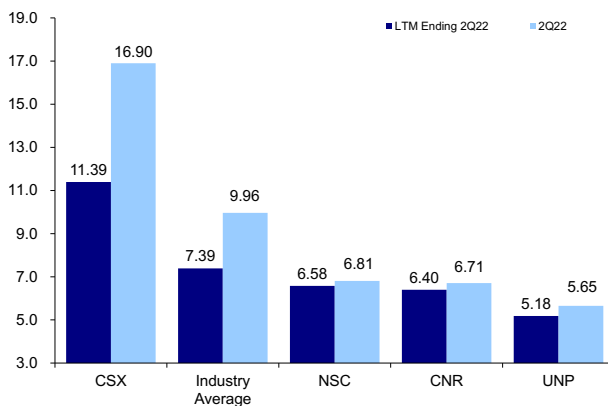
Source: Company data

Exhibit 39: Revenue Ton-Miles (Millions)



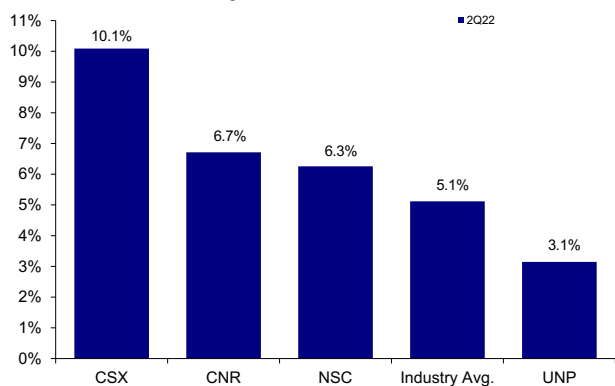
Source: Company data

Exhibit 40: Freight Revenue / Revenue Ton-Mile (Cents)



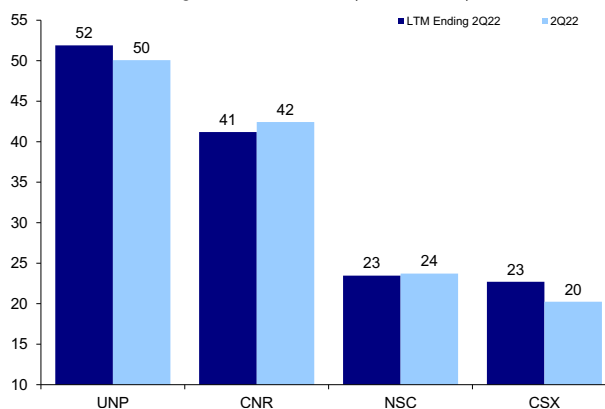
Source: Company data

Exhibit 41: Core Pricing Growth



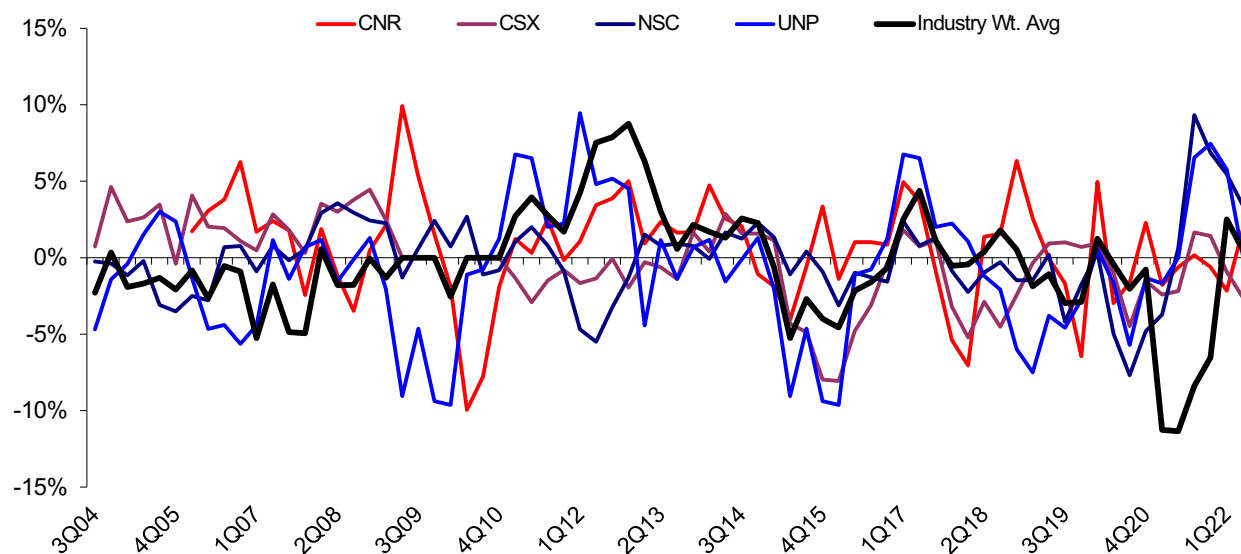
Source: Company data, Core Pricing growth data taken as most relevant core pricing metric provided by the company. CSX is reported on a same-store basis.

Exhibit 42: Average RTM / Carload (Thousands)



Source: Company data

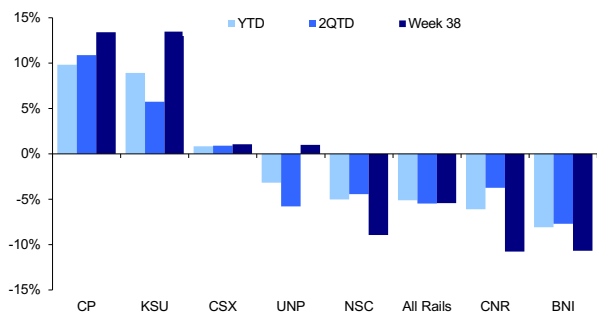
Exhibit 43: Average RTM / Carload YoY % Change



Source: Company data

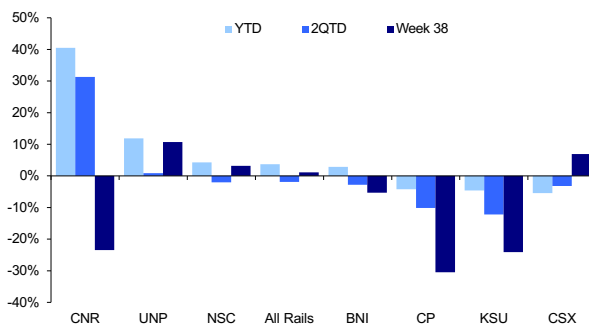
Intermodal and Coal Volume Trends

Exhibit 44: Intermodal YoY % Traffic Growth



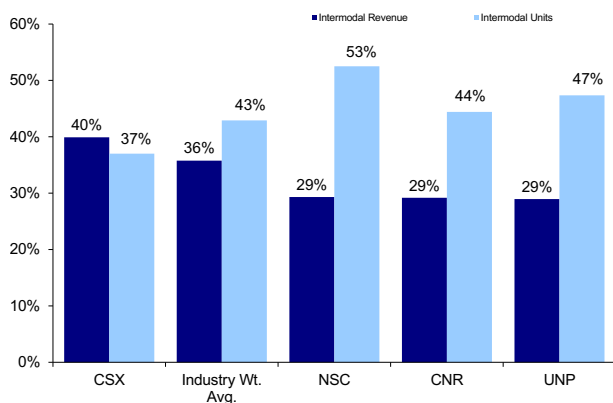
Source: Company data, AAR

Exhibit 45: Coal YoY % Traffic Growth



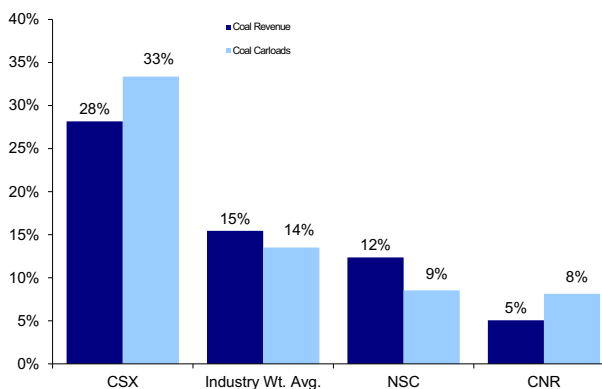
Source: Company data, AAR

Exhibit 46: Intermodal as % of Total



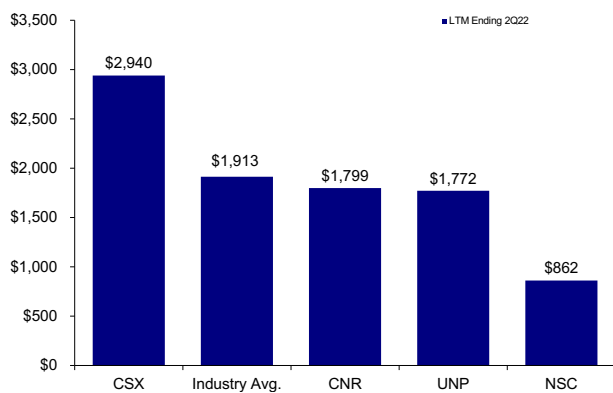
Source: Company data

Exhibit 47: Coal Revenue as % of Total Revenue



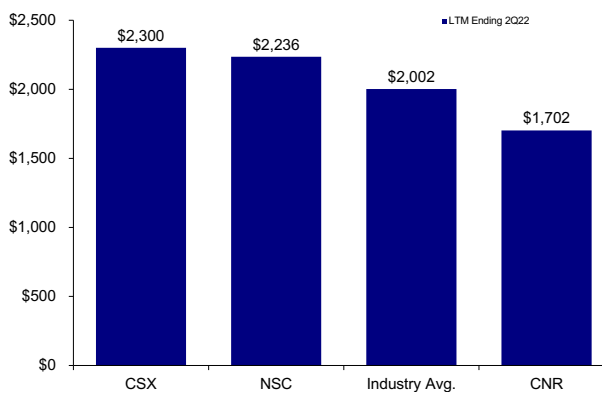
Source: Company data

Exhibit 48: Intermodal Rev/Unit



Source: Company data, CNR has been adjusted to US\$

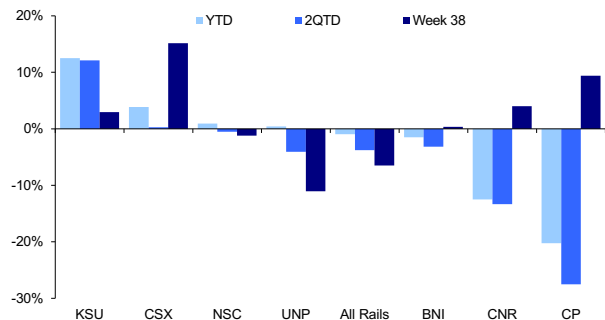
Exhibit 49: Coal Rev/Carload



Source: Company data, CNR has been adjusted to US\$

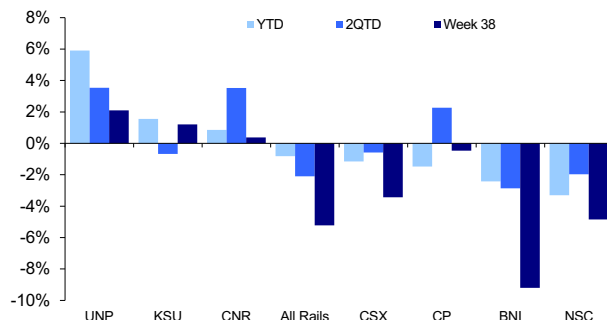
Ag Products and Merchandise Volume Trends

Exhibit 50: Ag Products YoY % Traffic Growth



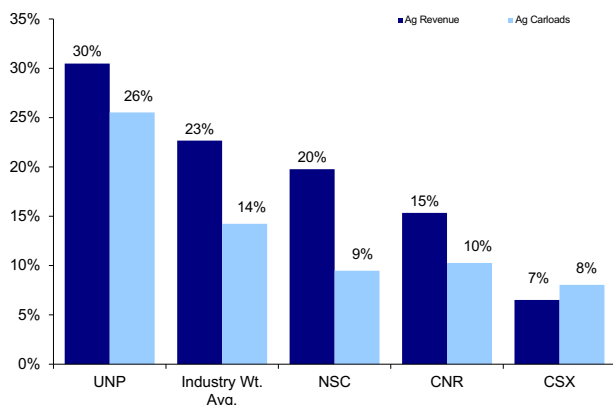
Source: Company data, AAR

Exhibit 51: Merchandise YoY % Traffic Growth



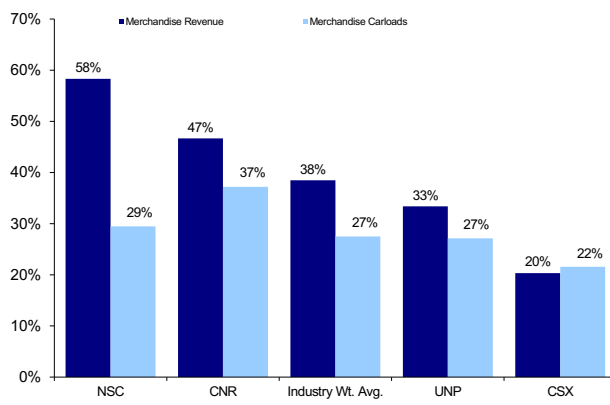
Source: Company data, AAR, Merchandise is carloads excluding coal, agricultural products and intermodal.

Exhibit 52: Ag Products as % of Total



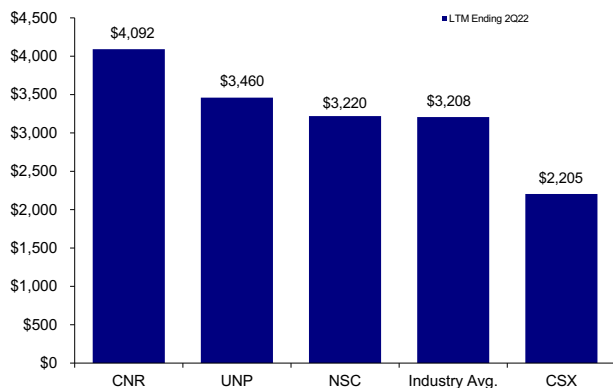
Source: Company data

Exhibit 53: Merchandise as % of Total



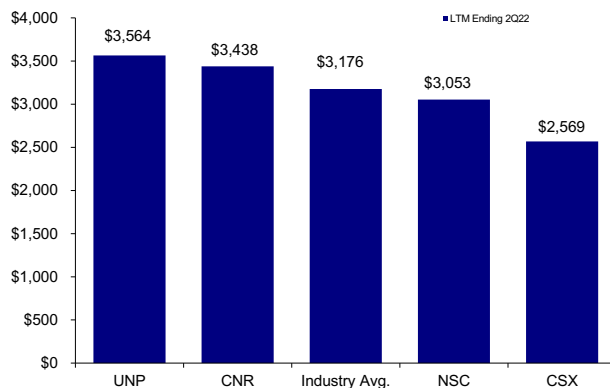
Source: Company data, Merchandise is carloads excluding coal, agricultural products and intermodal.

Exhibit 54: Ag Products Rev/Carload



Source: Company data, CNR has been adjusted to US\$, Merchandise is carloads excluding coal, agricultural products and intermodal

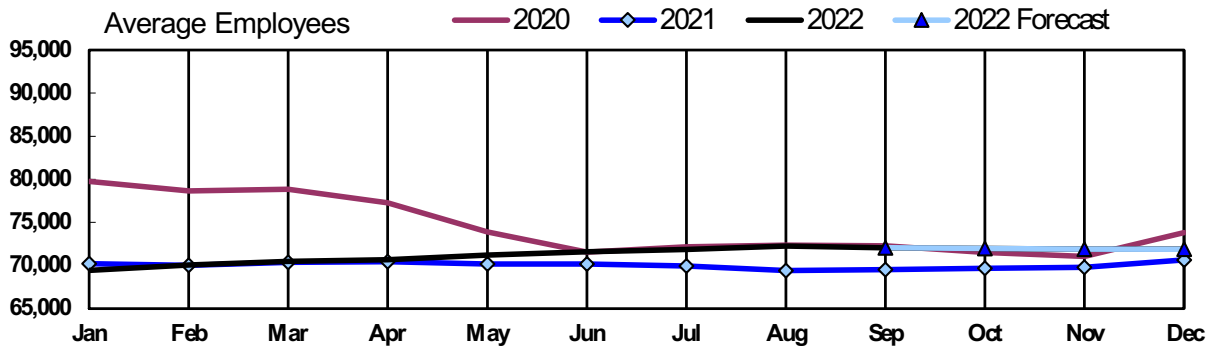
Exhibit 55: Merchandise Rev/Carload



Source: Company Data

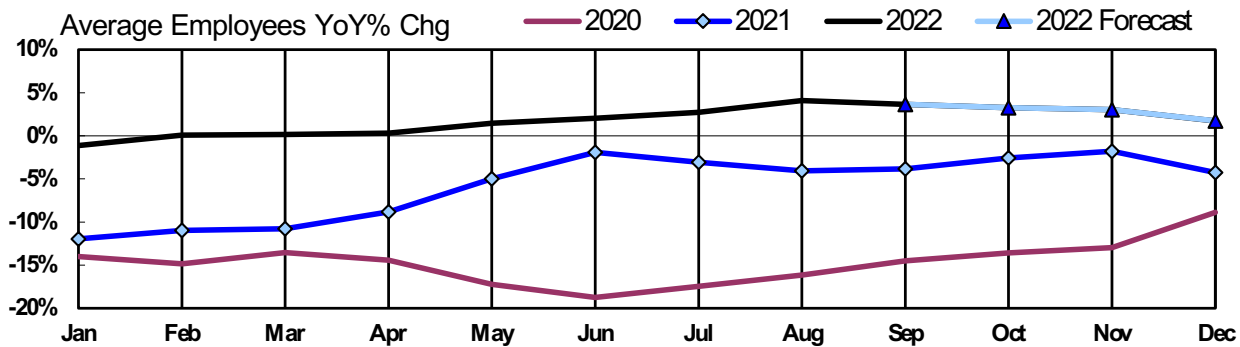
STB Employment Data

Exhibit 56: US Class I's Data



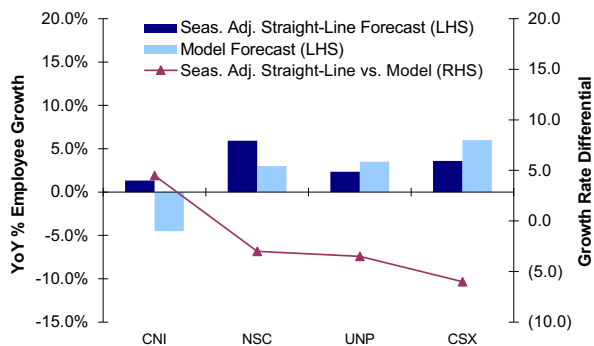
Source: Morgan Stanley Research, STB Data, US Class I's exclude BNI and Mexico operations of KSU

Exhibit 57: US Class I's Employment Data YoY % Change



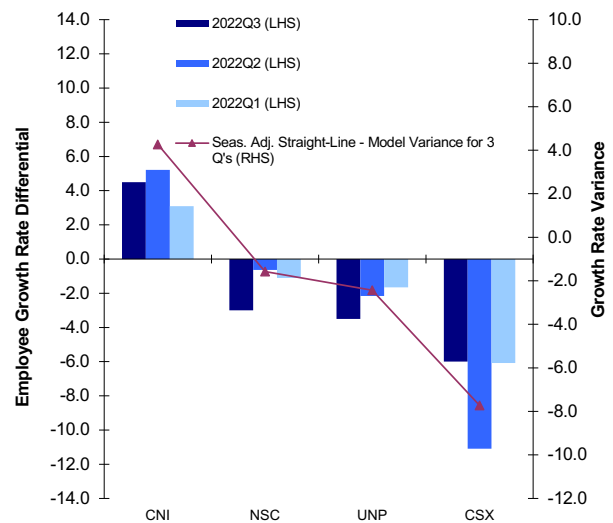
Source: Morgan Stanley Research, STB Data, US Class I's exclude BNI and Mexico operations of KSU

Exhibit 58: 2Q22 YoY % Chg Employee Forecast



Source: Company data, Morgan Stanley Research, STB Data

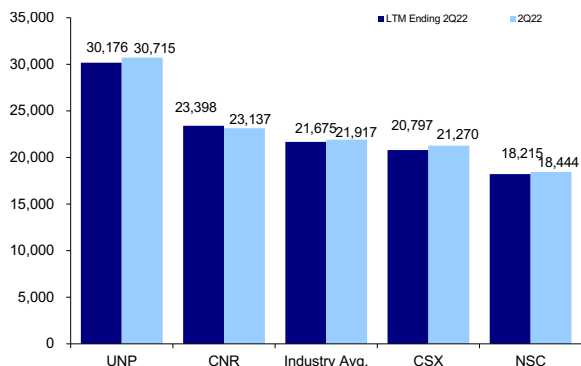
Exhibit 59: STB Employee YoY Growth Forecast vs. Actual Results for Last 3 Quarters



Source: Company data, Morgan Stanley Research, STB Data, The growth rate differential is calculated as the difference between STB and Model growth rates averaged over the last 3 quarters

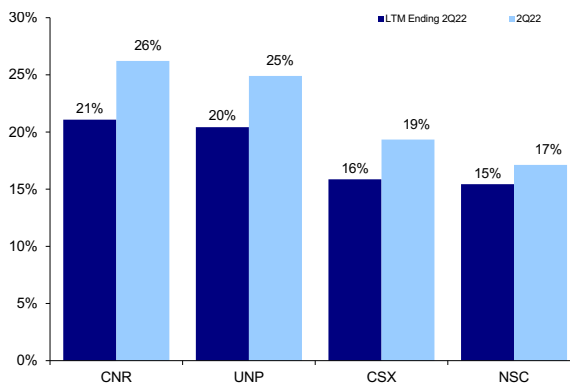
Productivity

Exhibit 60: Average Number of Employees



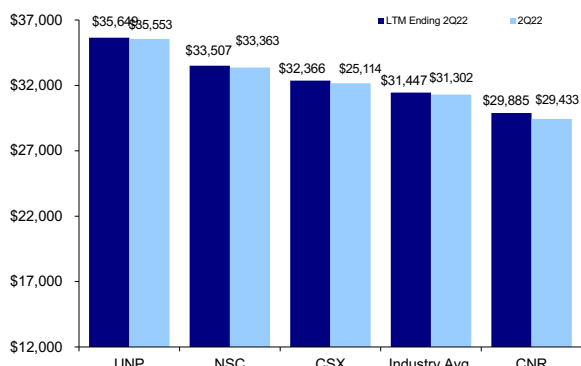
Source: Company data, reflects information given from company releases and shown as average of LTM

Exhibit 61: Rail Fuel as % of Total Expense



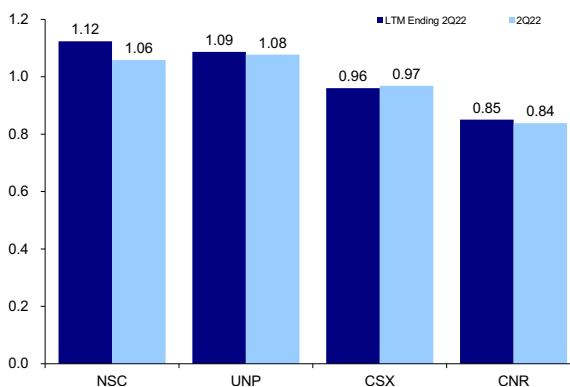
Source: Company data

Exhibit 62: Compensation / Employee



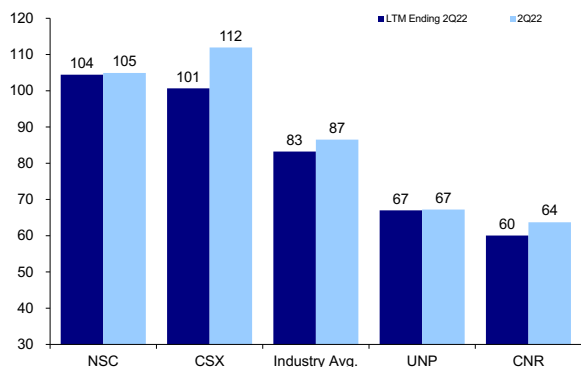
Source: Company data, reflects average over LTM, CNR has been adjusted to US\$

Exhibit 63: Rail Average Gallons Consumed / Thousand GTM



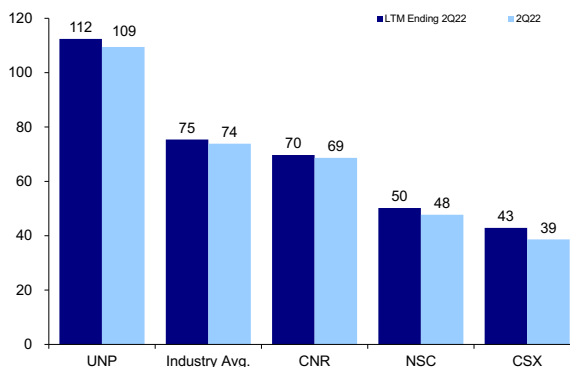
Source: Company data

Exhibit 64: Carloads / Average Employee



Source: Company data, Average Employee numbers reflect an average of LTM

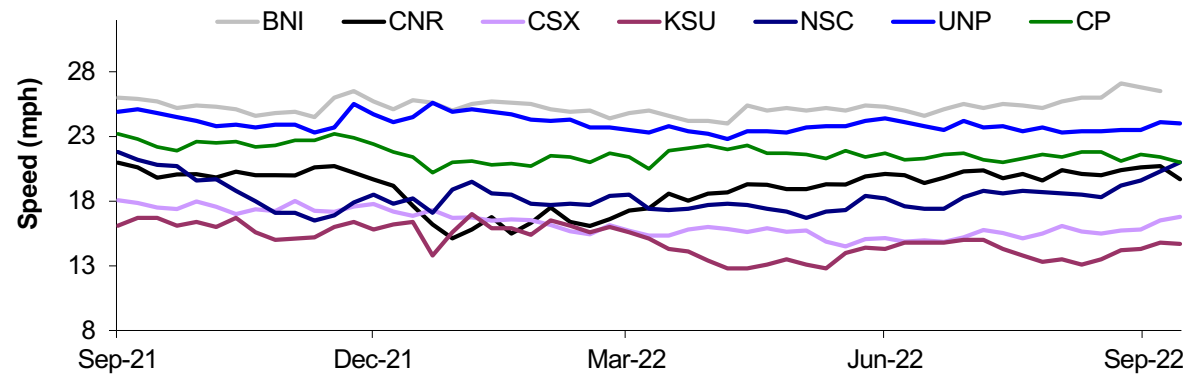
Exhibit 65: Rail Avg Gallons Consumed / Carload (Thousands)



Source: Company data

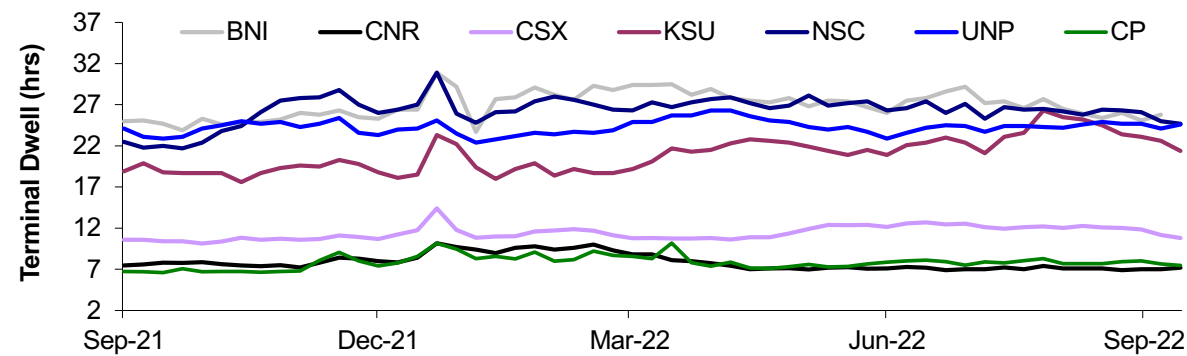
Performance Measurements

Exhibit 66: Class I Average Train Speed History



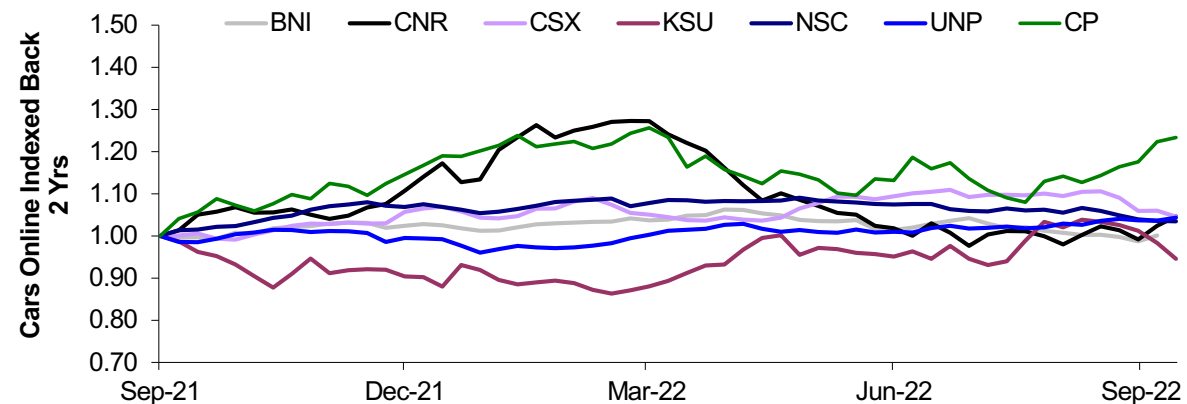
Source: Company data

Exhibit 67: Class I Average Terminal Dwell Time History



Source: Company data

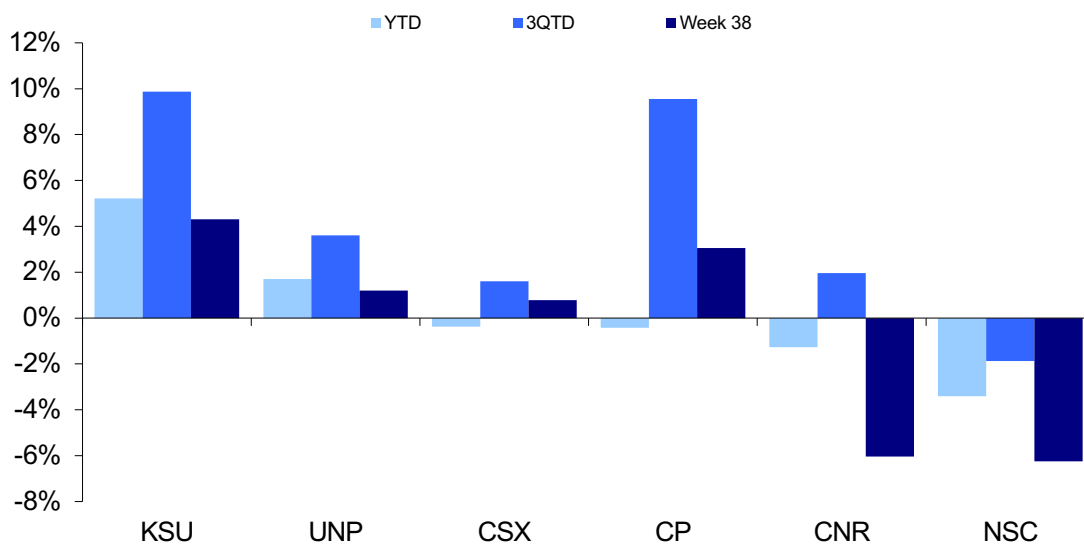
Exhibit 68: Class I Freight Cars On Line History



Source: Company data. Beginning on 3/14/14, the Ulmer system, the N. American rail industry's registry of freight equipment, started to report a previously excluded portion of the industry's rail car fleet. The system is unable to restate historical data; hence, the data shows an increase in freight cars on line for all carriers.

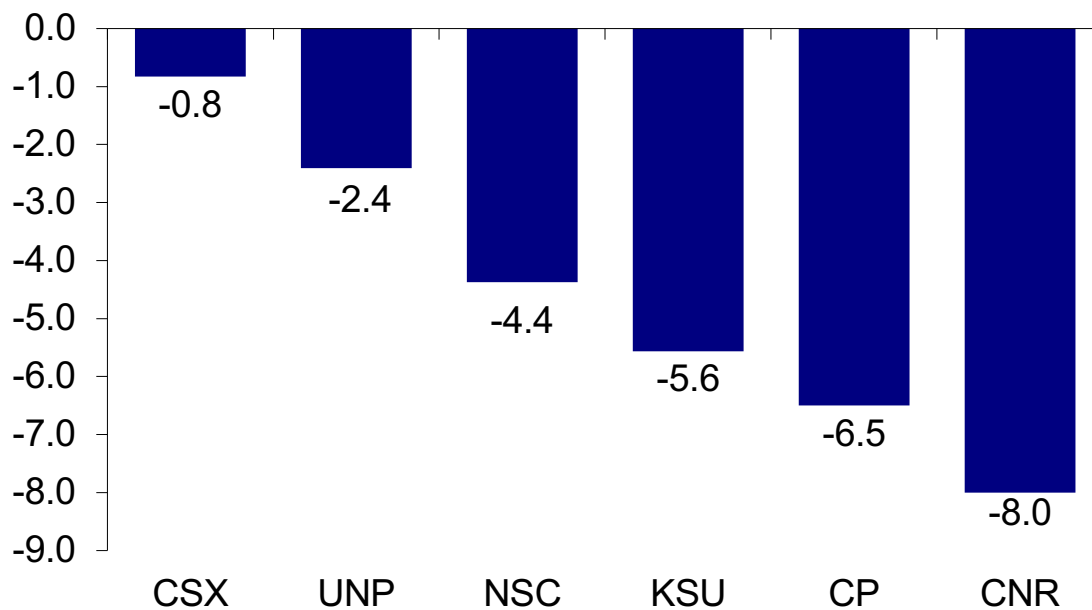
Rail Trends by Company

Exhibit 69: Volume Growth YoY by Rail



Source: Company data, AAR

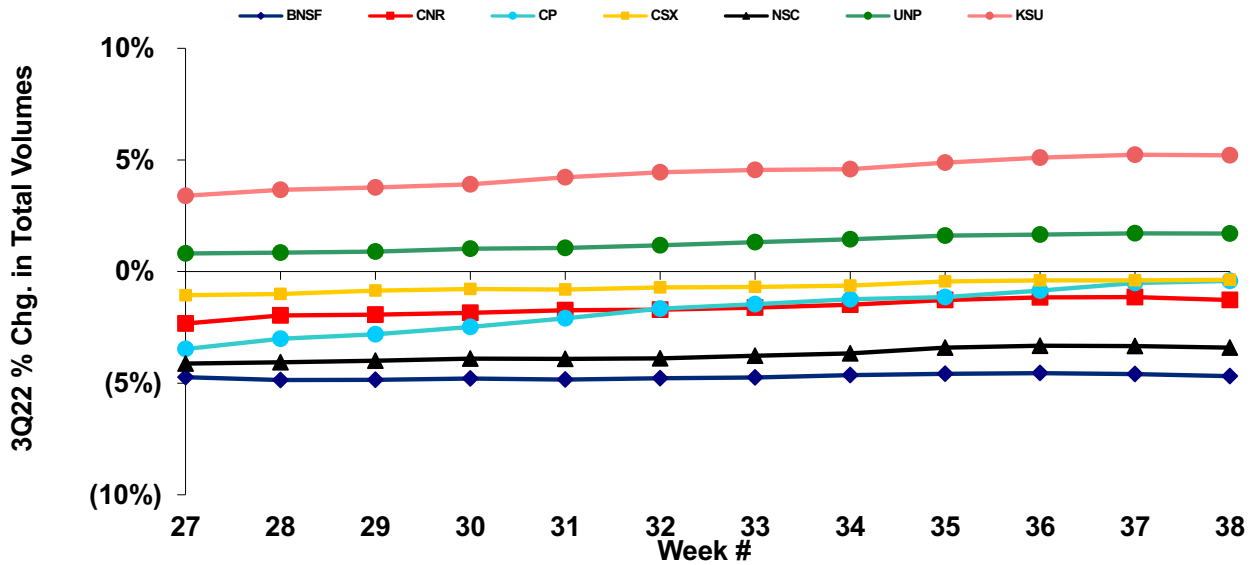
Exhibit 70: Growth Rate Differential: Week 38 vs. 3QTD



Source: Company data, AAR

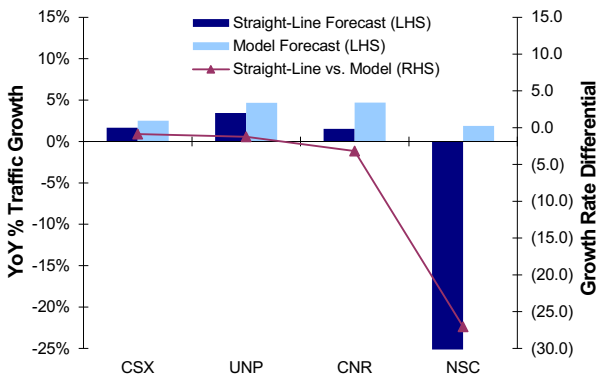
Rail Trends vs. MS Models

Exhibit 71: Cumulative QTD Total Traffic Trends by Class I Rail



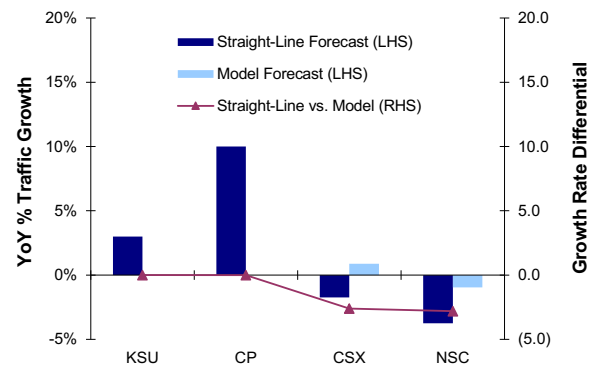
Source: Company data, AAR

Exhibit 72: Total Volume Forecast for 2Q22 vs. Model



Source: Company data, Morgan Stanley Research, AAR

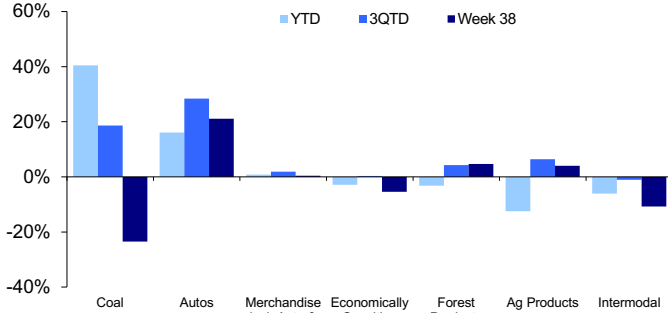
Exhibit 73: Total Volume Forecast for 2022 vs. Model



Source: Company data, Morgan Stanley Research, AAR

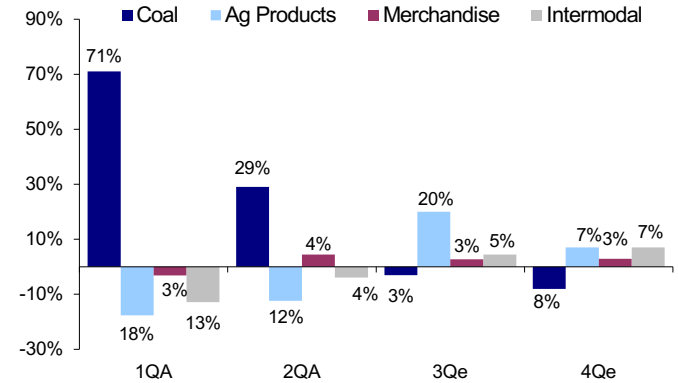
CNR Volume Trends

Exhibit 74: YoY % Traffic Growth



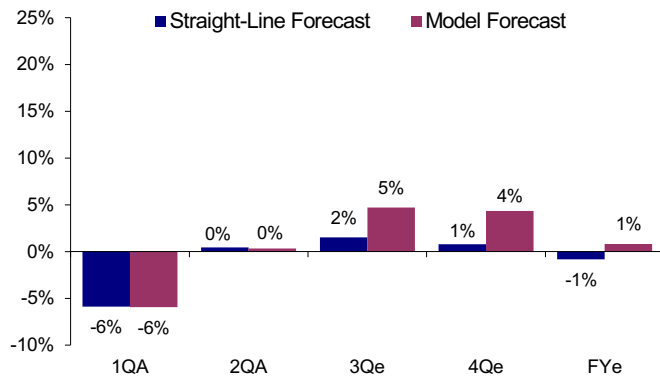
Source: Company data, Morgan Stanley Research, AAR. Merchandise is carloads excluding coal, agricultural products and intermodal.

Exhibit 75: MSe Quarterly YoY % Traffic Growth by Type



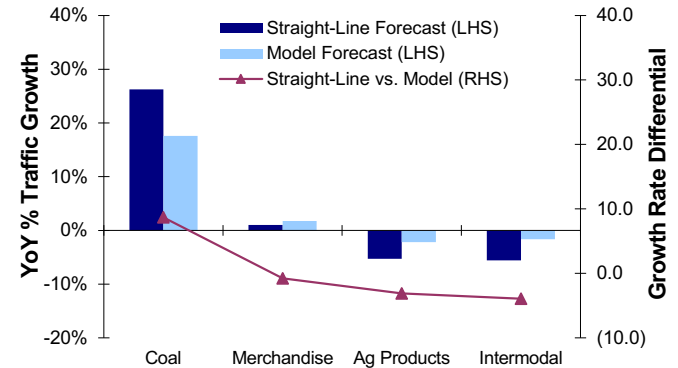
Source: Company data, Morgan Stanley Research estimates

Exhibit 76: YoY % Total Traffic Growth by Q and FY



Source: Company data, Morgan Stanley Research estimates, AAR

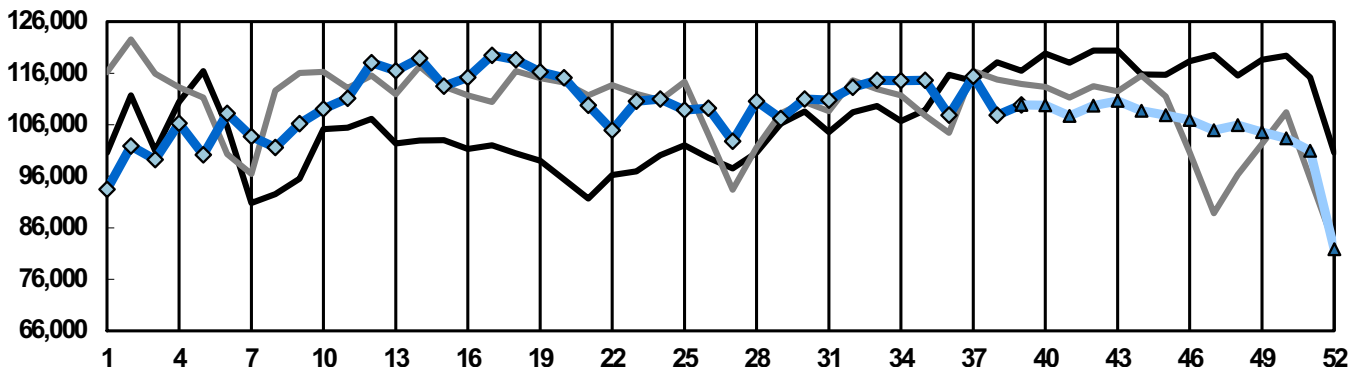
Exhibit 77: 2022 YoY % Chg Forecast by Commodity Group



Source: Company data, Morgan Stanley Research, AAR, Merchandise is carloads excluding coal, agricultural products and intermodal.

Exhibit 78: Total Traffic Forecast

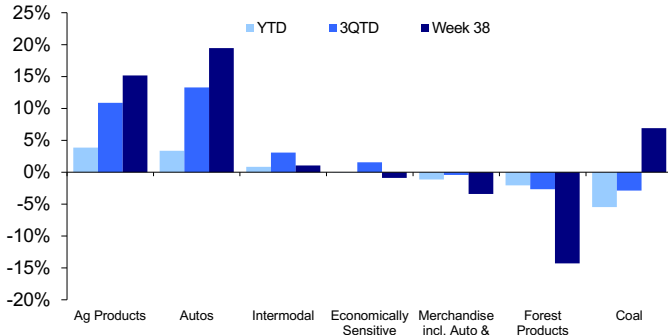
Originated and Received Carloadings



Source: Company data, Morgan Stanley Research, AAR

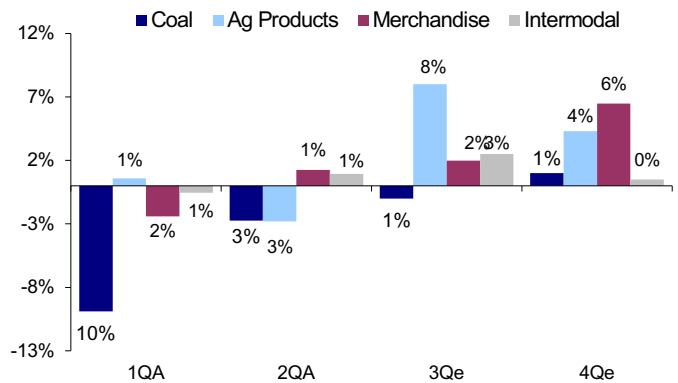
CSX Volume Trends

Exhibit 79: YoY % Traffic Growth



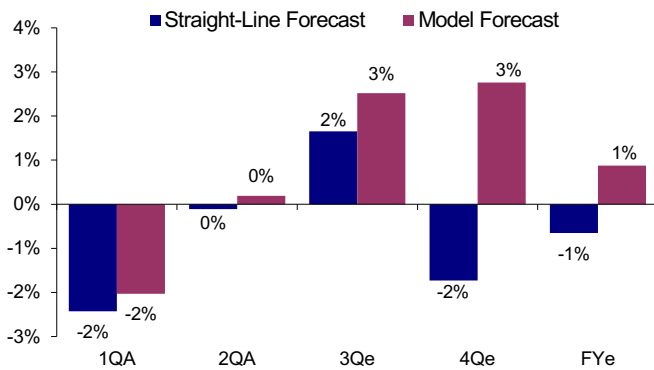
Source: Company data, Morgan Stanley Research, AAR. Merchandise is carloads excluding coal, agricultural products and intermodal.

Exhibit 80: MSe Quarterly YoY % Traffic Growth by Type



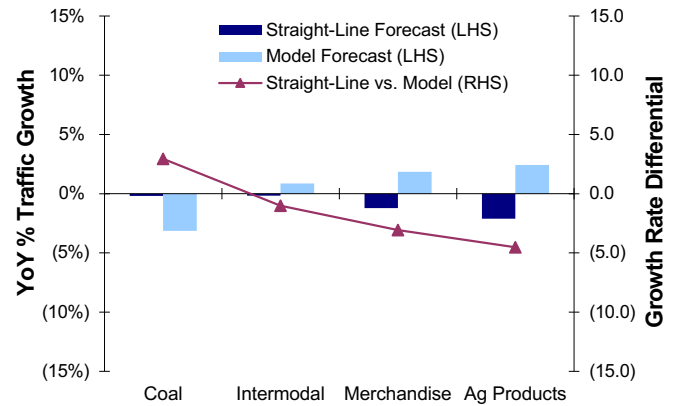
Source: Company data, Morgan Stanley Research estimates

Exhibit 81: YoY % Total Traffic Growth by Q and FY



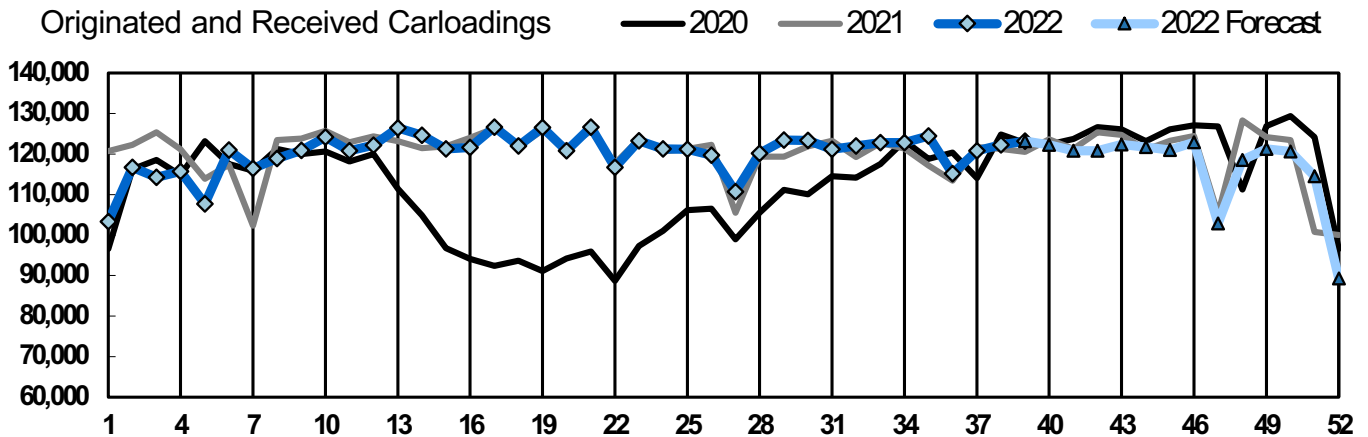
Source: Company data, Morgan Stanley Research estimates, AAR

Exhibit 82: 2022 YoY % Chg Forecast by Commodity Group



Source: Company data, Morgan Stanley Research, AAR, Merchandise is carloads excluding coal, agricultural products and intermodal.

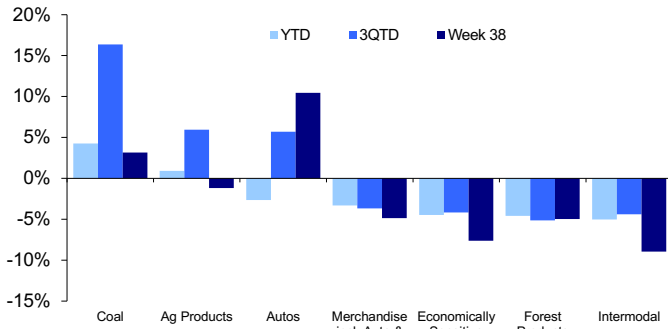
Exhibit 83: Total Traffic Forecast



Source: Company data, Morgan Stanley Research, AAR

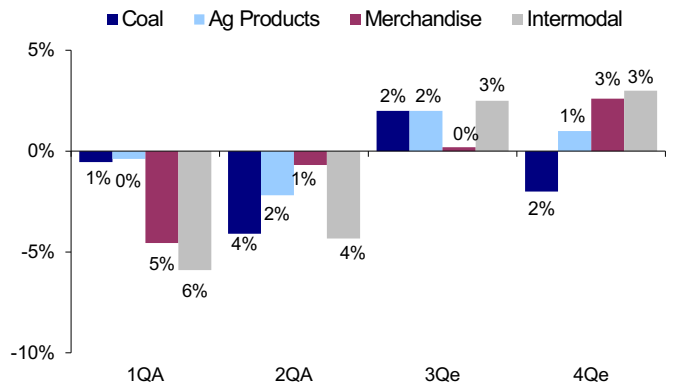
NSC Volume Trends

Exhibit 84: YoY % Traffic Growth



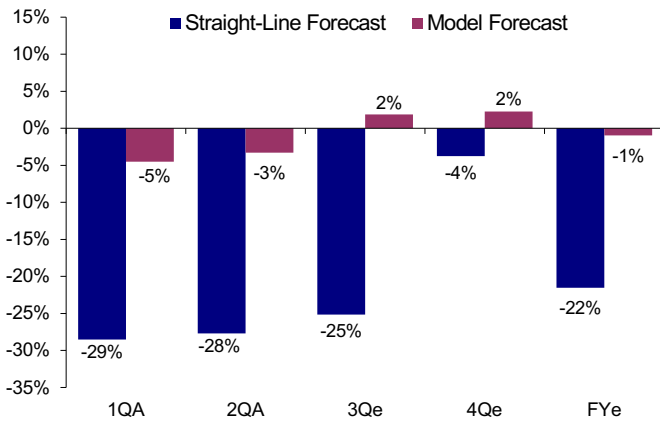
Source: Company data, Morgan Stanley Research, AAR. Merchandise is carloads excluding coal, agricultural products and intermodal.

Exhibit 85: MSe Quarterly YoY % Traffic Growth by Type



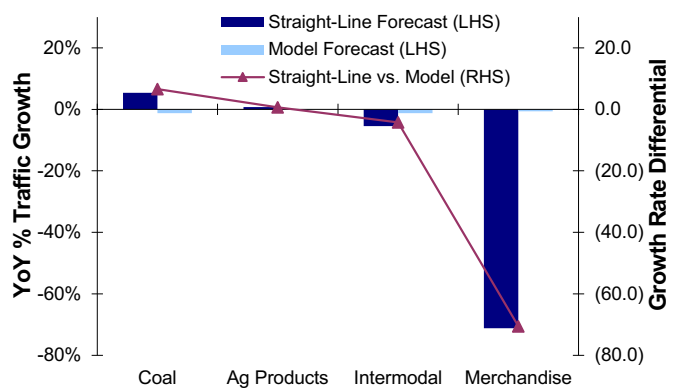
Source: Company data, Morgan Stanley Research estimates

Exhibit 86: YoY % Total Traffic Growth by Q and FY



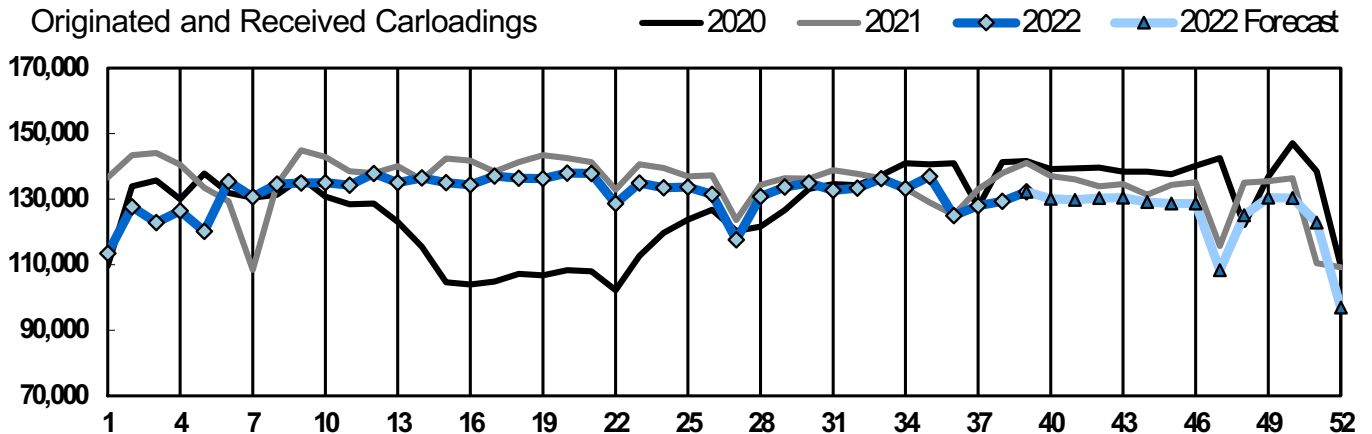
Source: Company data, Morgan Stanley Research estimates, AAR

Exhibit 87: 2022 YoY % Chg Forecast by Commodity Group



Source: Company data, Morgan Stanley Research, AAR. Merchandise is carloads excluding coal, agricultural products and intermodal.

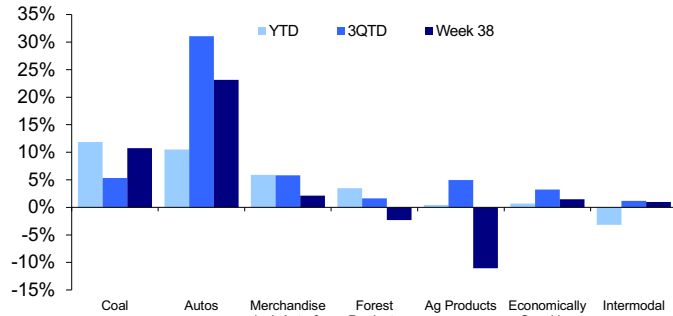
Exhibit 88: Total Traffic Forecast



Source: Company data, Morgan Stanley Research, AAR

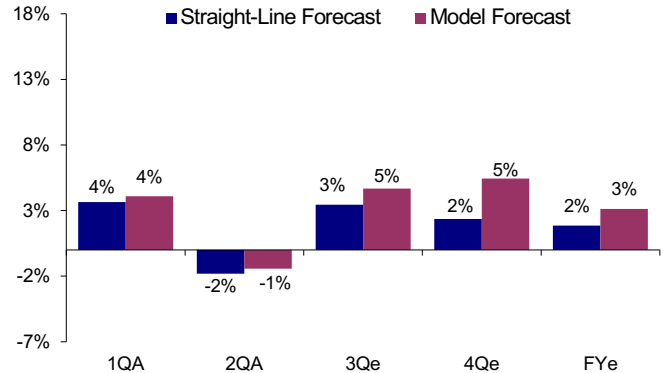
UNP Volume Trends

Exhibit 89: YoY % Traffic Growth



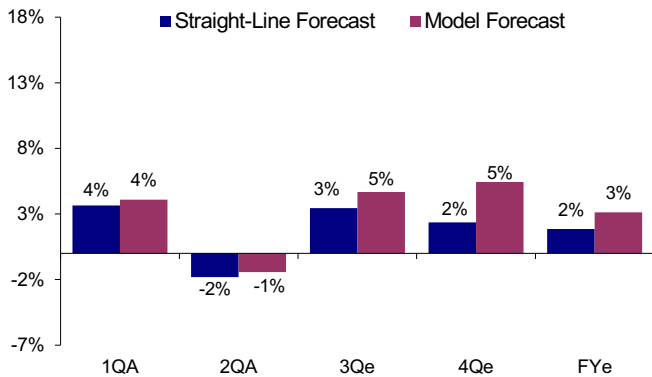
Source: Company data, Morgan Stanley Research, AAR. Merchandise is carloads excluding coal, agricultural products and intermodal.

Exhibit 90: MSe Quarterly YoY % Traffic Growth by Type



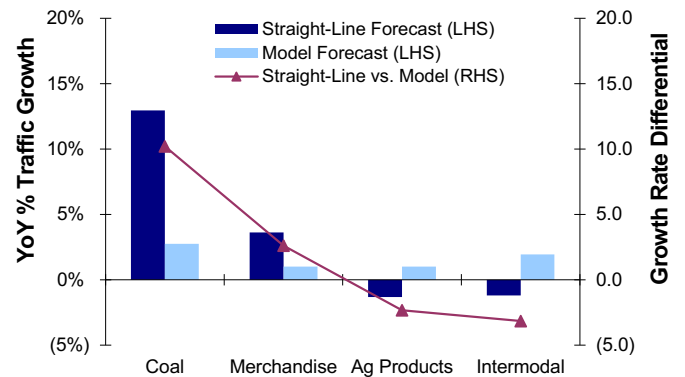
Source: Company data, Morgan Stanley Research estimates

Exhibit 91: YoY % Total Traffic Growth by Q and FY



Source: Company data, Morgan Stanley Research estimates, AAR

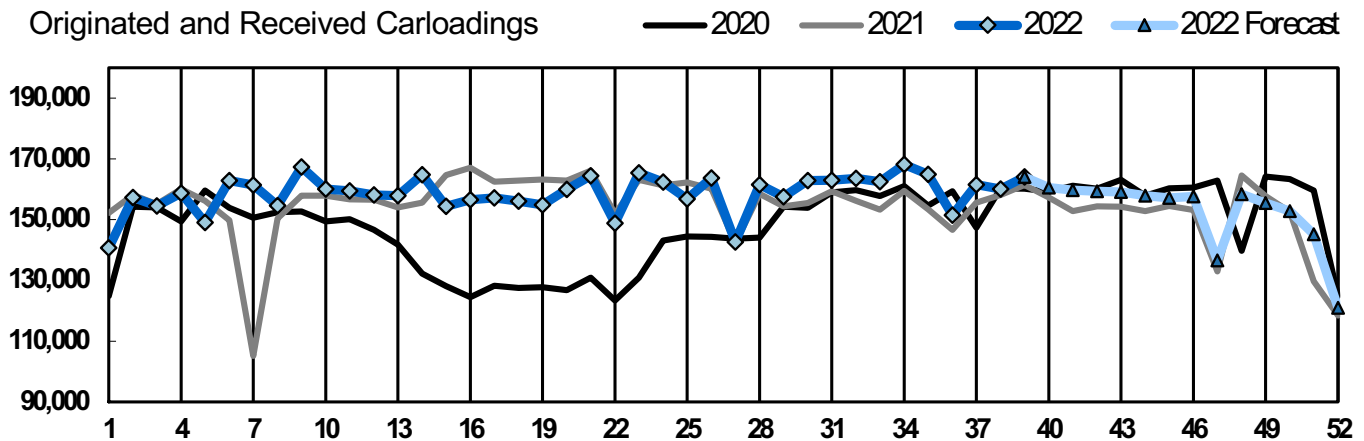
Exhibit 92: 2022 YoY % Chg Forecast by Commodity Group



Source: Company data, Morgan Stanley Research, AAR. Merchandise is carloads excluding coal, agricultural products and intermodal.

Exhibit 93: Total Traffic Forecast

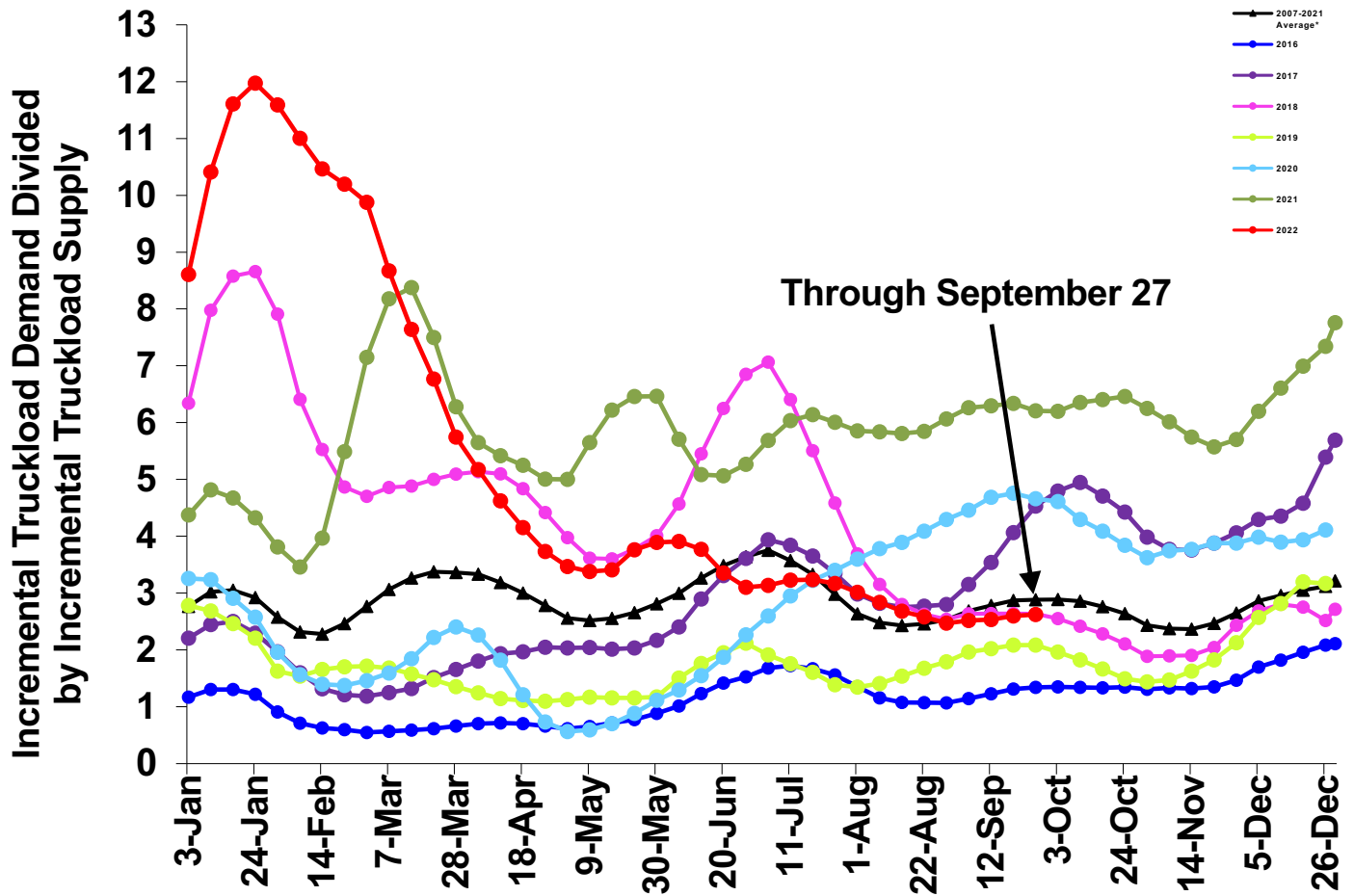
Originated and Received Carloadings



Source: Company data, Morgan Stanley Research, AAR

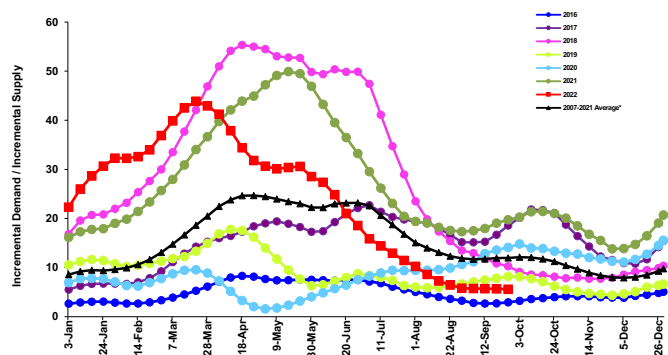
MS Dry Van, Flatbed & Reefer Truckload Freight Index Trends

Exhibit 94: Morgan Stanley Dry Van ONLY Truckload Freight Index



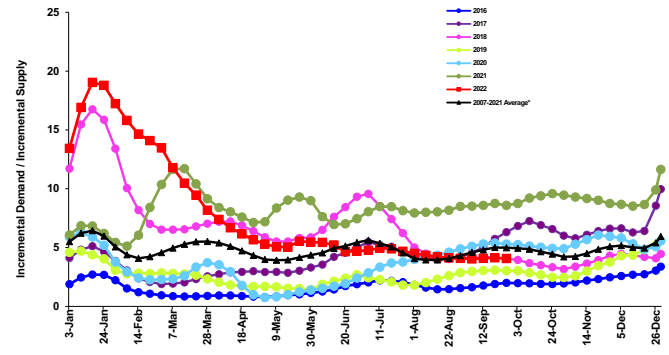
Source: Morgan Stanley Research. The index measures the demand for Dry-Van Truckload services compared to the supply. When a given reading is above prior years' level, it means there is more freight demand relative to available capacity. When a given reading is below prior years' level, it means there is less freight demand relative to capacity. *2007-2021 average trend line excludes financial crisis years of 2008 and 2009.

Exhibit 95: Morgan Stanley Flatbed Truckload Freight Index



Source: Morgan Stanley Research; *2007-2021 average trend line excludes financial crisis years of 2008 and 2009

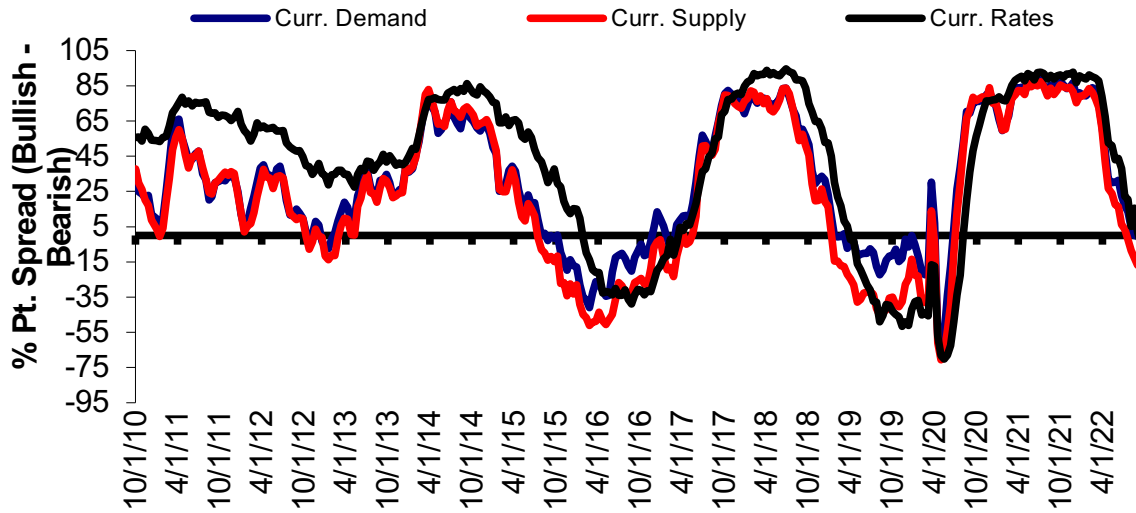
Exhibit 96: Morgan Stanley Reefer Truckload Freight Index



Source: Morgan Stanley Research; *2007-2021 average trend line excludes financial crisis years of 2008 and 2009

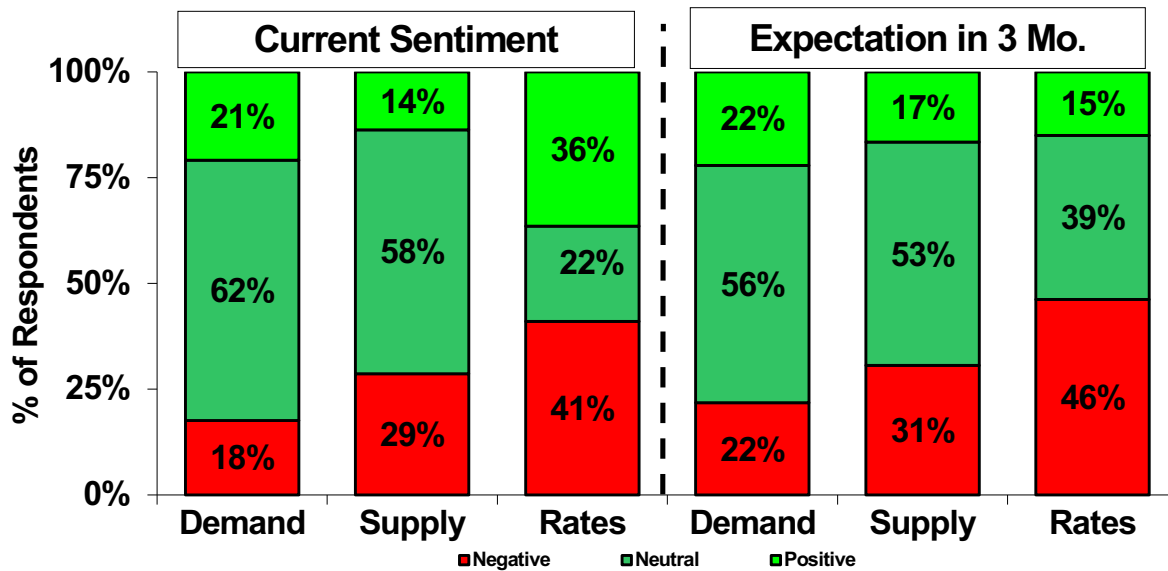
Morgan Stanley Truckload Sentiment Survey Trends

Exhibit 97: Morgan Stanley Truckload Sentiment Survey



Note: Response % Pt. Spread (Bullish - Bearish) for current TL Demand, Supply and Rates defined as: Current Demand – the % of respondents describing current demand as “strong” less the % of respondents describing current demand as “weak”; Current Supply – the % of respondents describing current supply as “tight” less the % of respondents describing current supply as “abundant”; Current Rates – the % of respondents saying current TL rates are “Higher” vs. a year ago less the % of respondents saying current TL rates are “Lower” vs. a year ago. Source: Morgan Stanley Research

Exhibit 98: Latest Truckload Sentiment Survey Results



Note: “Negative”, “Neutral” and “Positive” responses or TL Demand, Supply and Rate trends correspond with: the % of respondents describing current and 3 Mo. forward Demand as “Weak”, “Neutral” and “Strong”; the % of respondents describing current and 3 Mo. forward Supply as “Abundant”, “Neutral” and “Tight”; and the % respondents describing current and 3 Mo. forward rates as “Lower”, “Unchanged” and “Higher” vs. a year ago, respectively. Source: Morgan Stanley Research

Truckload Sentiment Survey Methodology

Representative commentary provided by respondents between 9/14/2022 and 9/20/2022

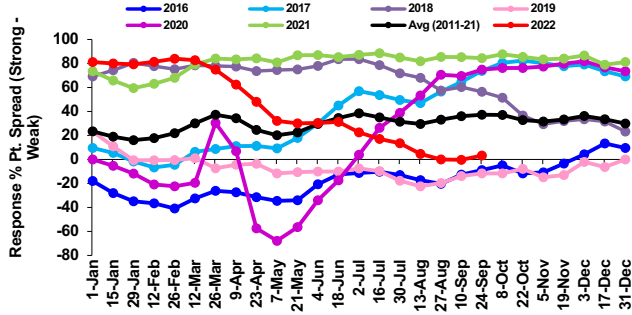
Exhibit 99: MS Truckload Sentiment Survey (TLSS) Respondent Commentary

CARRIERS	SHIPPERS	BROKERS / OTHER
Capacity is still extremely tight with drivers demographic and parts supply chain issues	The potential rail strike will have a major impact on capacity as intermodal shippers will shift to over-the-road truckload	Pending rail strike will disrupt trucking capacity and drive rates up if not resolved quickly
<p>Refrigerated capacity is still tight</p> <p>Feedback relative to demand being strong and capacity being tight is relative to the current rail labor situation and possible strike. While it may yet be avoided, there has been a significant amount of volume shifted from intermodal to truck. Additionally, a number of shippers are advising they may continue this for another week or so even if the strike is averted to help escape as much congestion as possible during a full restart by the rail companies.</p>	<p>It is difficult to balance spot vs contract pricing. But as the difference between the 2 became greater, I would assume there will be more of a shift to spot or contract pricing will need to come down.</p> <p>I feel like carriers that have rates up for review the remainder of 2022 will ask for increases, but think rates for 2023 will be down 2-4%.</p>	<p>Impending Rail strike is having a short term effect on capacity and demand. Duration of that event may change the dynamics over a longer period of time.</p> <p>Ask 10 people what the market is going to do and you'll get 12 different answers! 4 decades in the business...I believe it's the most challenging I've witnessed trying to "crystal ball" the future.</p>
<p>We are 100% refrigerated trucking company. We had a slight softening in rates June/July and now the demand is going crazy again. Back to turning down 300+ loads a day. Shippers are paying deadhead charges again on the refrigerated movements.</p> <p>Seeing flatbed holding steady rates still are strong</p>	<p>We continue to see significant reductions in rates across all regions, both contract and spot. New contract rates are coming in significantly lower and I do not believe that the current market indicators are accurately reflecting reality.</p> <p>Segmented rates</p>	<p>Still sitting at equilibrium from a RPM standpoint. The potential of a rail strike did lead to a handful of band aid scenarios, most of which had little impact outside of some small regional blips. At this point, we expect rates to remain essentially flat throughout the Holidays and then a further contraction of rates until we get into the summer months next year. Inflation/recession is still a looming headwind that could potentially drive rates down sooner and faster, but that's more of a TBD scenario.</p> <p>Supply still unstable</p>
<p>Equipment shortages are keeping capacity tight. We are also having to run equipment longer and downtime is extensive.</p> <p>Rates continue to normalize, returning to the usual seasonal cycle.</p> <p>There is no way to gauge anything in this environment.</p> <p>Rates seem to be leveling off. Finding and keeping drivers is our biggest challenge right now. We need to increase rates.</p>		<p>As rates fall, brokerages are doing all they can to bring "collaborative pricing" to the table for shippers while picking up small volume crumbs to fill their gaps in revenue.</p> <p>Capacity and pricing are getting back to pre-pandemic levels.</p> <p>Still soft, shippers are getting capacity and lower rates consistently</p>
Still pockets of imbalance, but overall plenty of capacity and volumes are weaker		

Source: Morgan Stanley Research; Note: Green = Optimistic, Orange = Neutral, Red = Bearish

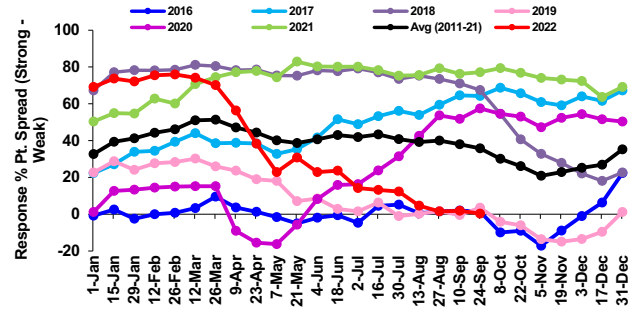
Morgan Stanley Truckload Sentiment Survey Trends

Exhibit 100: What is your appraisal of current TL Demand?



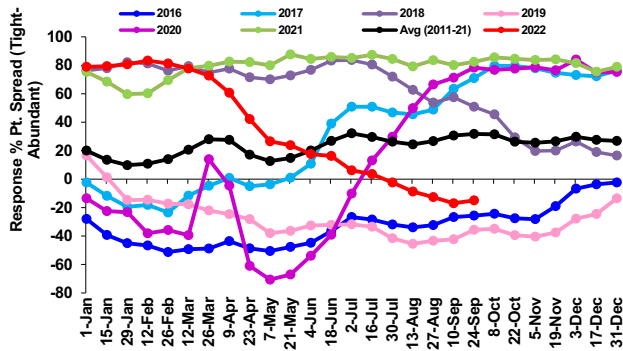
Note: Response % Pt. Spread defined as the % of respondents describing current demand as "strong" less the % of respondents describing current demand as "weak" Source: Morgan Stanley Research

Exhibit 101: What is your expectation for TL demand in 3 Mo.?



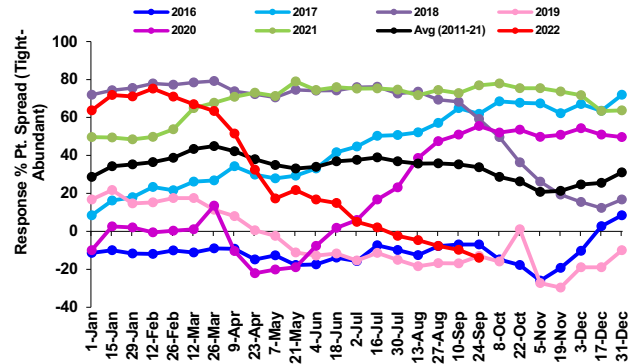
Note: Response % Pt. Spread defined as the % of respondents expecting forward demand to be "strong" less the % of respondents expecting forward demand to be "weak"; Source: Morgan Stanley Research

Exhibit 102: What is your appraisal of current TL Supply?



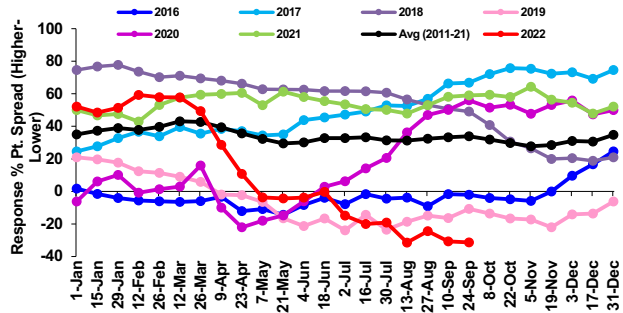
Note: Response % Pt. Spread defined as the % of respondents describing current supply as "tight" less the % of respondents describing current supply as "abundant"; Source: Morgan Stanley Research

Exhibit 103: What is your expectation for TL supply in 3 Mo.?



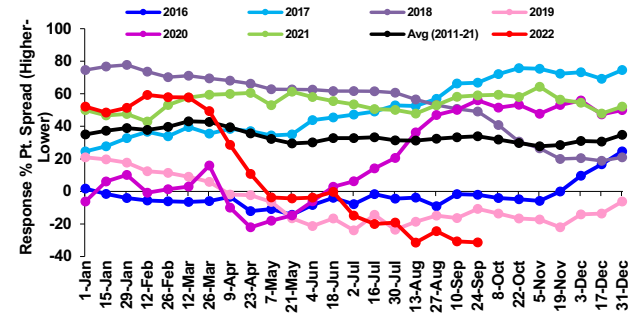
Net Survey Response % Pt. Spread defined as the % of respondents expecting forward supply to be "tight" less the % of respondents expecting forward supply to be "abundant"; Source: Morgan Stanley Research

Exhibit 104: How do your current TL rates compare to your rates 1 year ago?



Note: Response % Pt. Spread defined as the % of respondents saying current TL rates are "Higher" vs. a year ago less the % of respondents saying current TL rates are "Lower" vs. a year ago; Source: Morgan Stanley Research

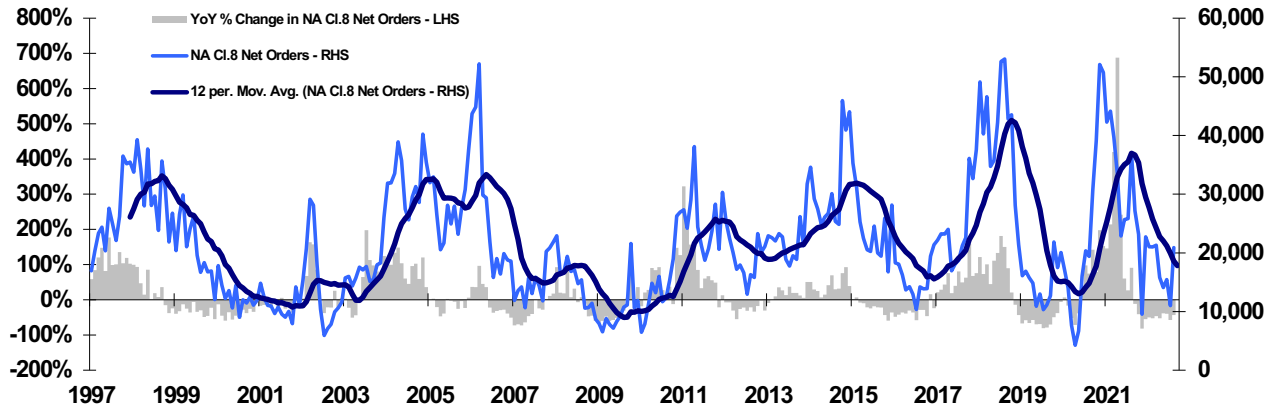
Exhibit 105: What is your expectation for TL rates 3 months from now?



Note: Response % Pt. Spread defined as the % of respondents expecting TL rates to be "Higher" 3 Mo. from now less the % of respondents expecting TL rates to be "Lower" 3 Mo. from now; Source: Morgan Stanley Research

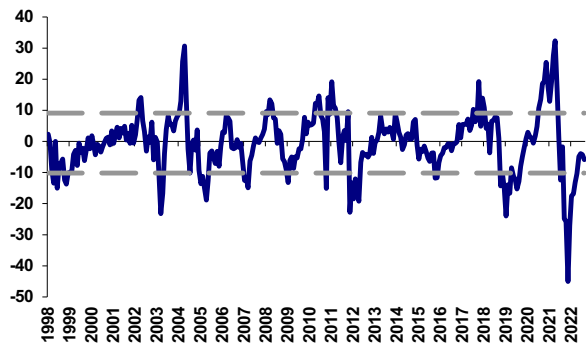
ACT N.A. Class 8 Truck Net Orders, Builds & Retail Sales Trends

Exhibit 106: NA Total Cl.8 Net Orders Long-Term Trends



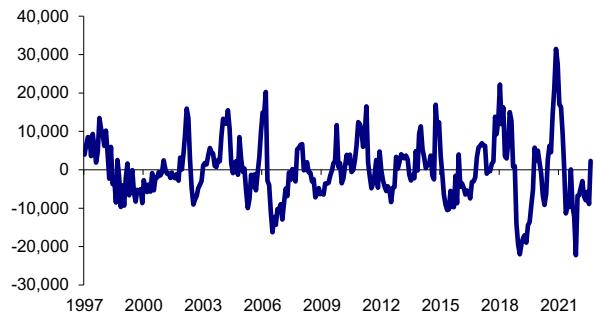
Source: ACT; Morgan Stanley Research

Exhibit 107: Acceleration in LTM NA Total Cl.8 Net Orders



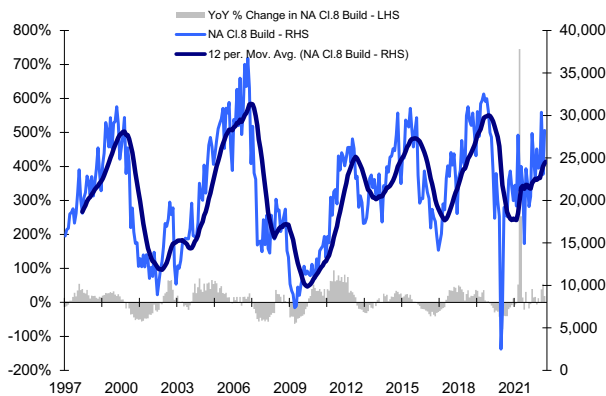
Source: ACT; Morgan Stanley Research

Exhibit 108: Prelim. Cl.8 Net Orders vs. 12M Mov. Avg.



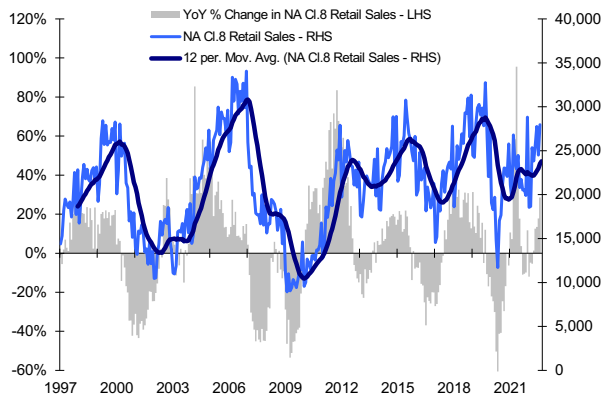
Source: ACT; Morgan Stanley Research

Exhibit 109: NA Total Cl.8 Builds Long-Term Trends



Source: ACT; Morgan Stanley Research

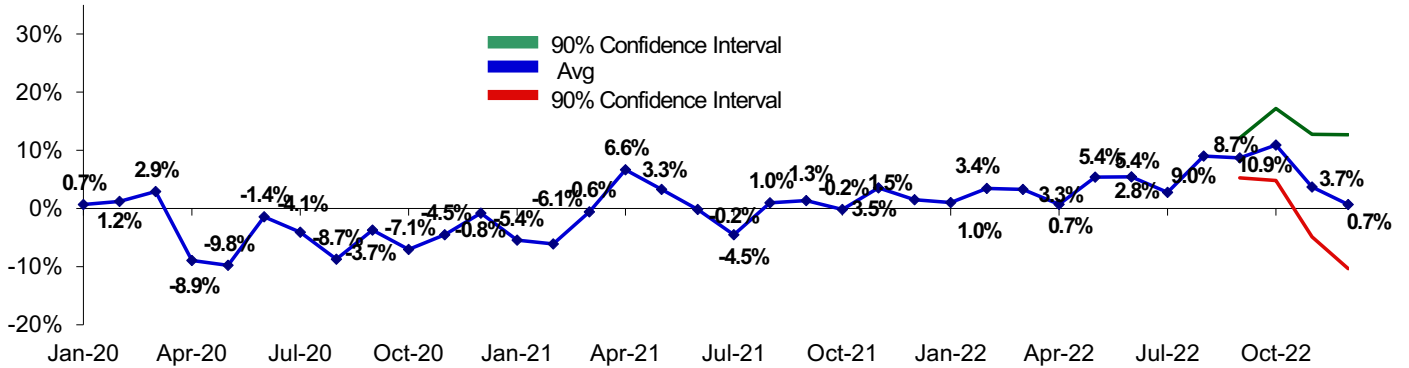
Exhibit 110: NA Total Cl.8 Retail Sales Long-Term Trends



Source: ACT; Morgan Stanley Research

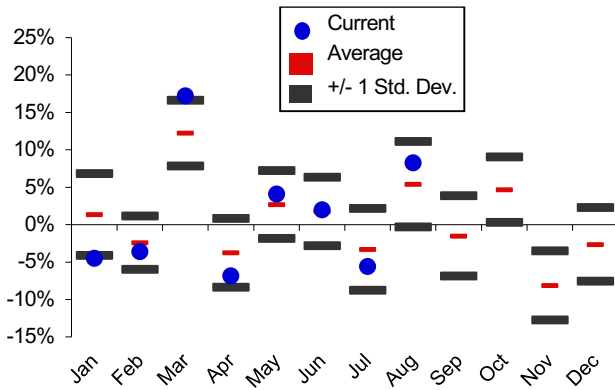
ATA Not-Seasonally Adjusted (NSA) Truck Tonnage Index Trends

Exhibit 111: Straight-Line Forecast for Monthly YoY % Change in ATA NSA Truck Tonnage Index



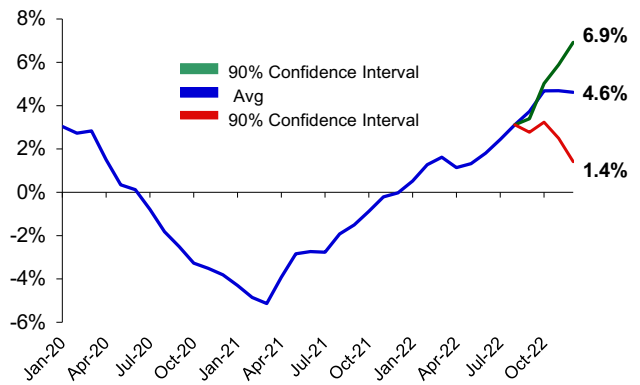
Source: ATA Truck Tonnage, Morgan Stanley Research

Exhibit 112: Sequential Change in NSA Tonnage Index



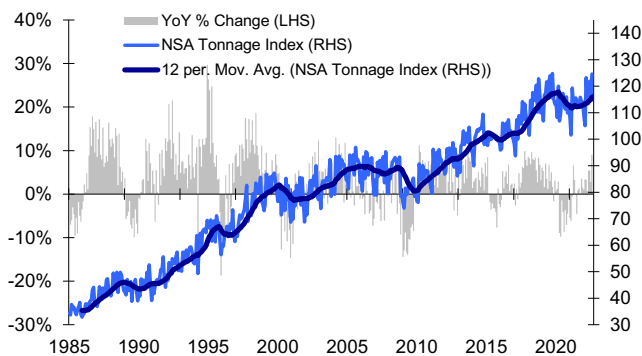
Source: ATA, Morgan Stanley Research; Based on data from 1985 onwards

Exhibit 113: Straight-Line Forecast for LTM ATA NSA Truck Tonnage Index



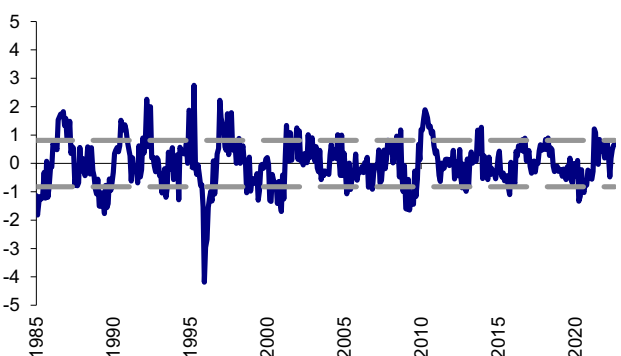
Source: ATA, Morgan Stanley Research

Exhibit 114: NSA Tonnage Index Long-Term Trends



Source: ATA, Morgan Stanley Research

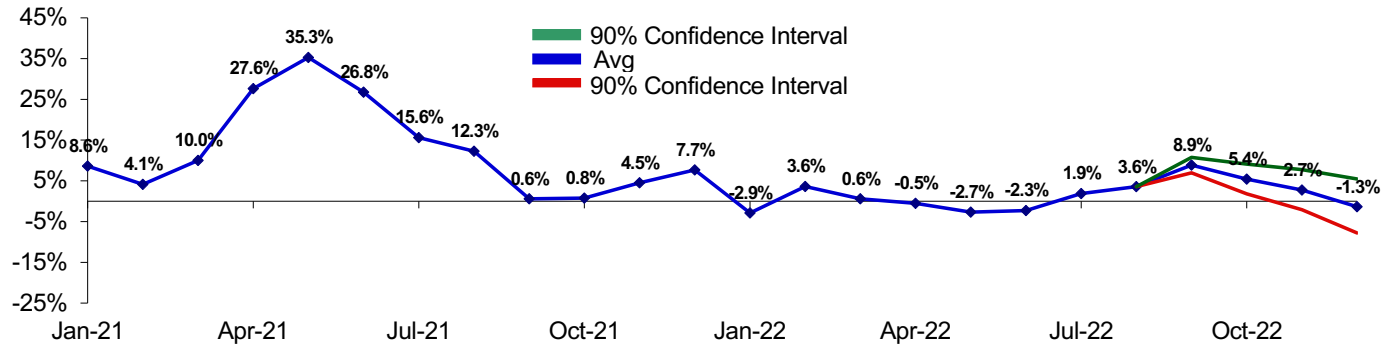
Exhibit 115: Accel. in 12-Month Moving Avg NSA Tonnage Index



Source: ATA, Morgan Stanley Research; +/-1 Standard Deviation lines based on data from 1985 onwards

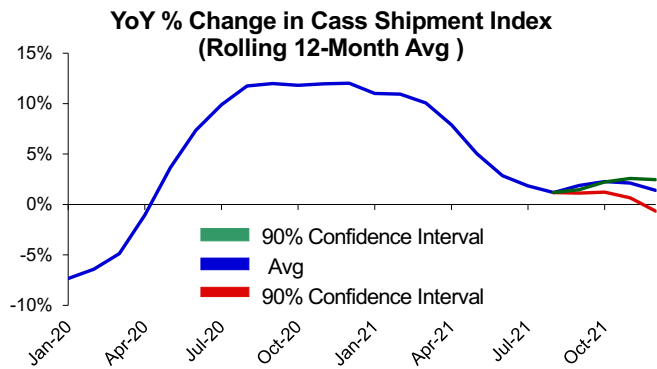
Cass Shipment Index Trends & Straight-Line Forecast

Exhibit 116: Straight-Line Forecast for Monthly YoY % Change in Cass Shipment Index



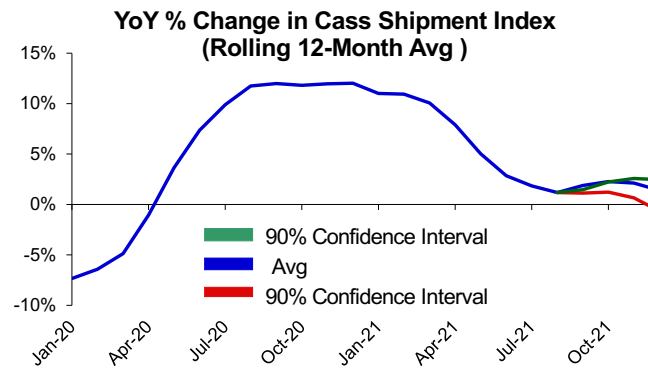
Source: Cass Freight Index, Morgan Stanley Research

Exhibit 117: Sequential Change in Cass Shipment Index



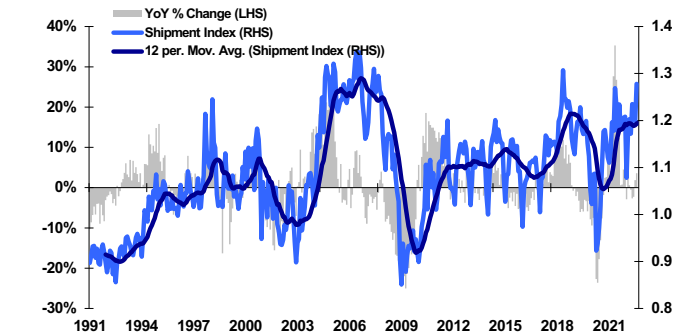
Source: Cass Freight Index, Morgan Stanley Research

Exhibit 118: Straight-Line Forecast for LTM Cass Shipment Index



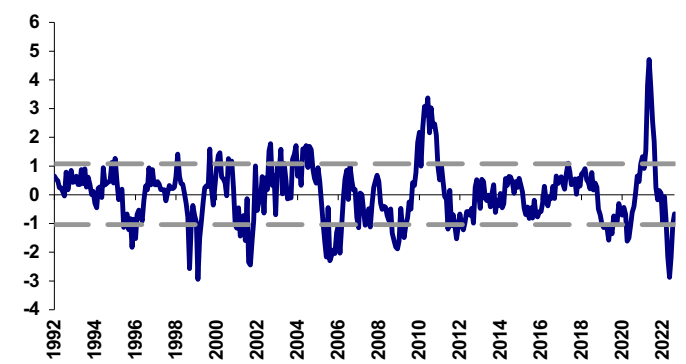
Source: Cass Freight Index, Morgan Stanley Research

Exhibit 119: Cass Shipment Index Long-Term Trends



Source: Cass Freight Index, Morgan Stanley Research

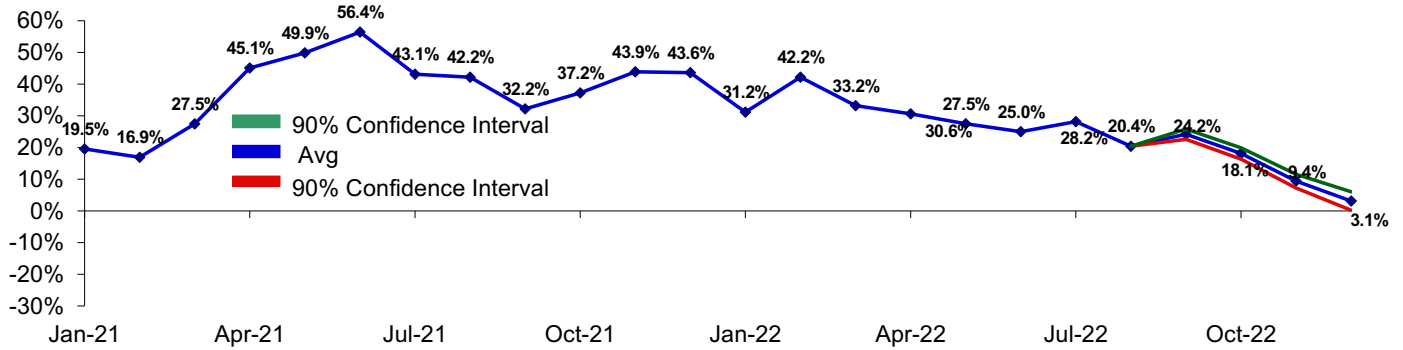
Exhibit 120: Acceleration in LTM Cass Shipment Index



Source: Cass Freight Index, Morgan Stanley Research

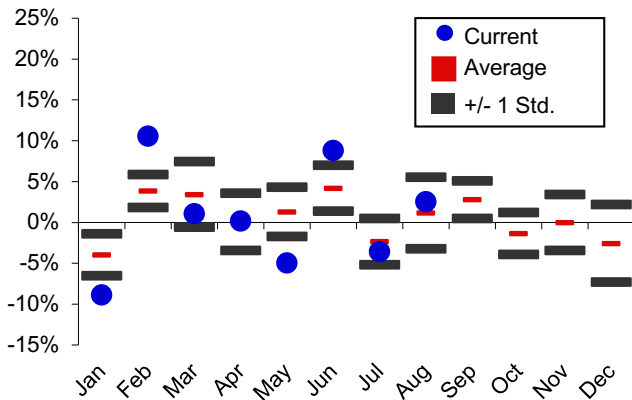
Cass Expenditure Index Trends & Straight-Line Forecast

Exhibit 121: Straight-Line Forecast for Monthly YoY % Change in Cass Expenditure Index



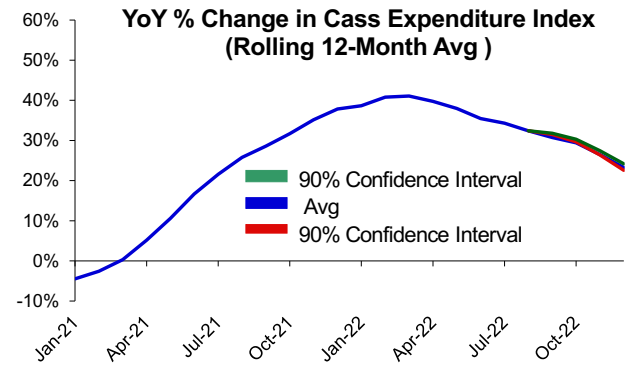
Source: Cass Freight Index, Morgan Stanley Research

Exhibit 122: Sequential Change in Cass Expenditure Index



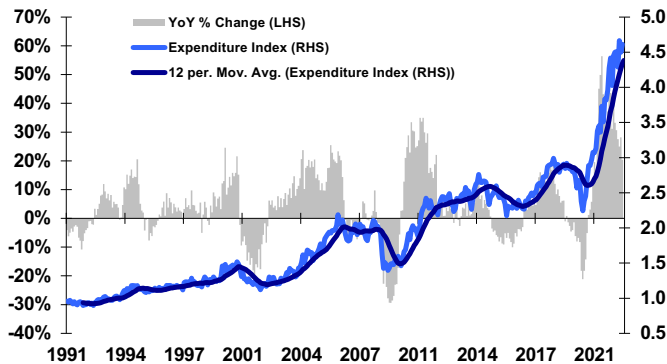
Source: Cass Freight Index, Morgan Stanley Research

Exhibit 123: Straight-Line Forecast for LTM Cass Expenditure Index



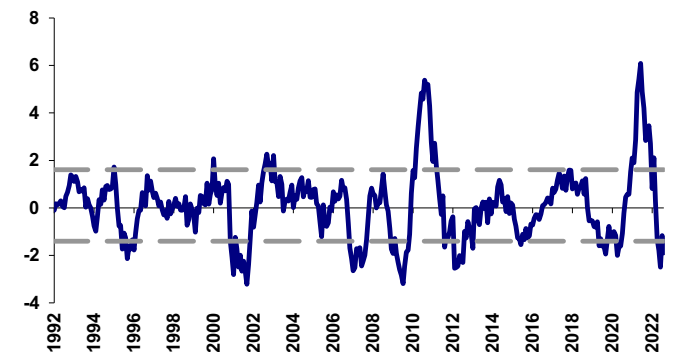
Source: Cass Freight Index, Morgan Stanley Research

Exhibit 124: Cass Expenditure Index Long-Term Trends



Source: Company data, Morgan Stanley Research

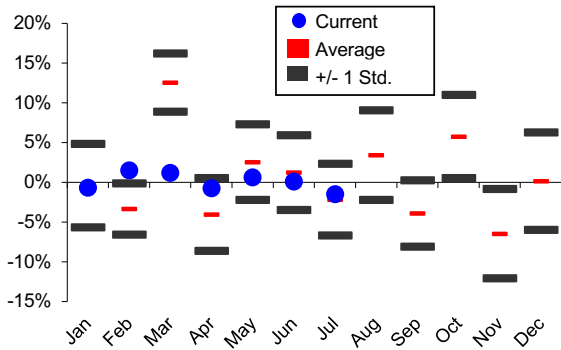
Exhibit 125: Acceleration in LTM Cass Expenditure Index



Source: Cass Freight Index, Morgan Stanley Research

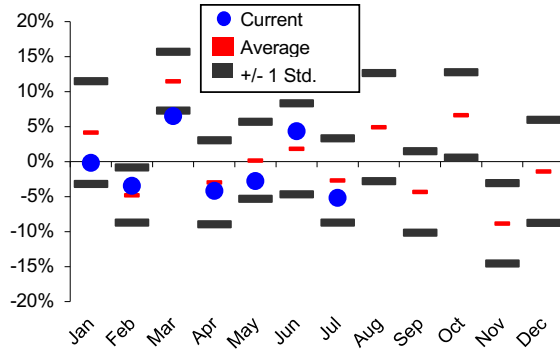
ATA TRAC Volume Index Seq. Change Analysis by Carrier Type

Exhibit 126: Seq. Chg. In ATA NSA Large TL Loads Index



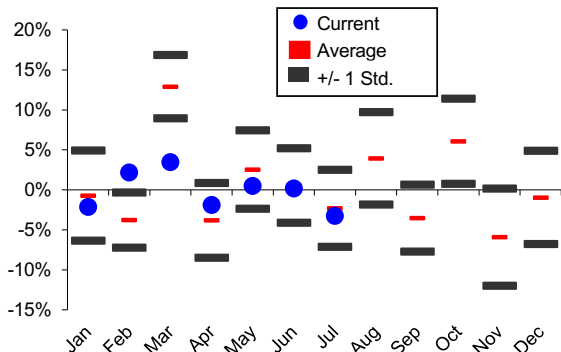
Source: ATA TRAC, Morgan Stanley Research

Exhibit 127: Seq. Chg. In ATA NSA Small TL Loads Index



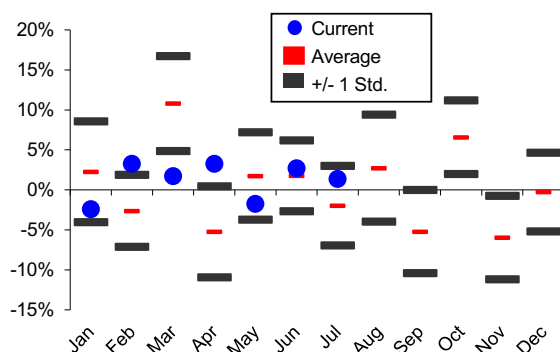
Source: ATA TRAC, Morgan Stanley Research

Exhibit 128: Seq. Chg. In ATA NSA Dry Van Loads Index



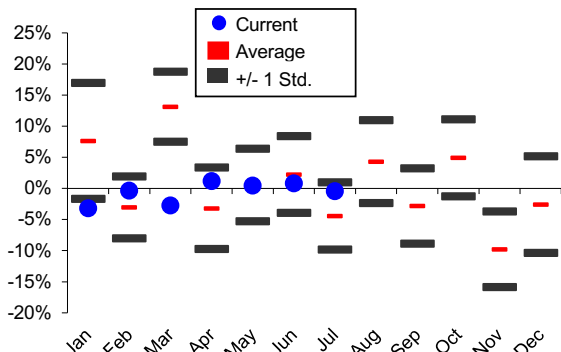
Source: ATA TRAC, Morgan Stanley Research

Exhibit 129: Seq. Chg. In ATA NSA Refrigerated Loads Index



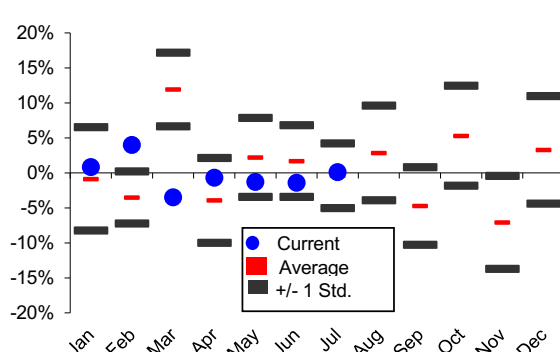
Source: ATA TRAC, Morgan Stanley Research

Exhibit 130: Seq. Chg. In ATA NSA Flatbed Loads Index



Source: ATA TRAC, Morgan Stanley Research

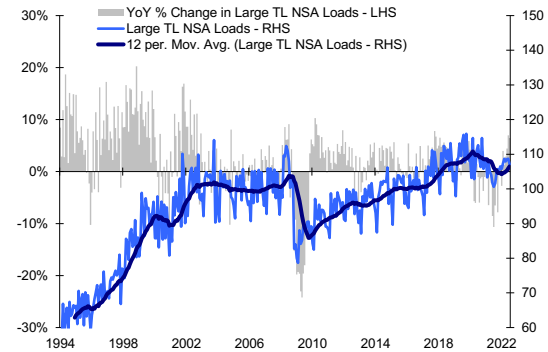
Exhibit 131: Seq. Chg. In ATA NSA Bulk / Tank Loads Index



Source: ATA TRAC, Morgan Stanley Research

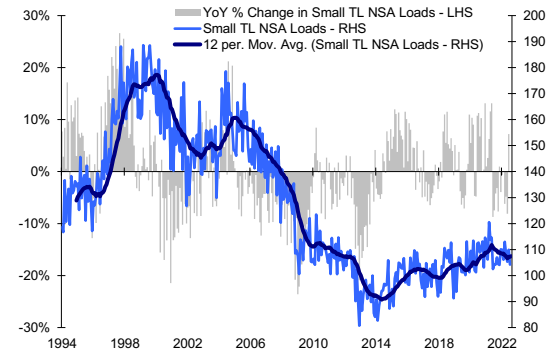
ATA TRAC Long-Term Volume Index Trends by Carrier Type

Exhibit 132: ATA NSA Large TL Loads Index Long-Term Trends



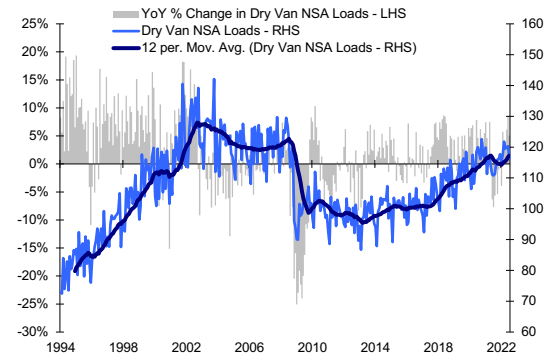
Source: ATA TRAC, Morgan Stanley Research

Exhibit 133: ATA NSA Small TL Loads Index Long-Term Trends



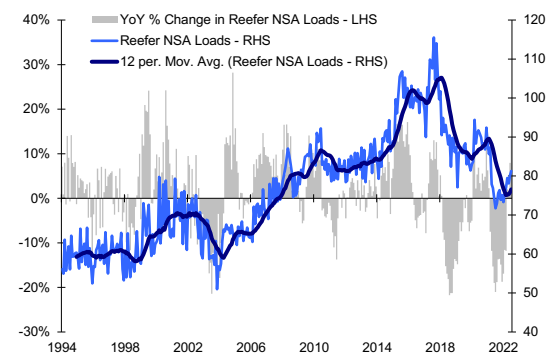
Source: ATA TRAC, Morgan Stanley Research

Exhibit 134: ATA NSA Dry Van Loads Index Long-Term Trends



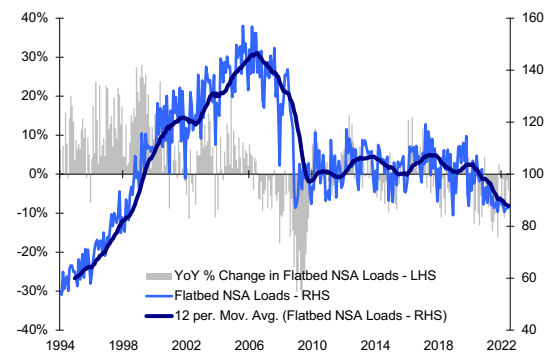
Source: ATA TRAC, Morgan Stanley Research

Exhibit 135: ATA NSA Refrigerated Loads Index LT Trends



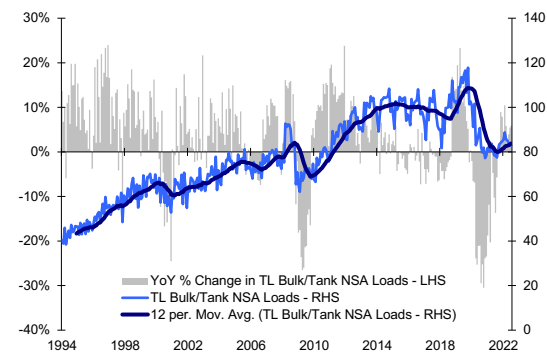
Source: ATA TRAC, Morgan Stanley Research

Exhibit 136: ATA NSA Flatbed Loads Index Long-Term Trends



Source: ATA TRAC, Morgan Stanley Research

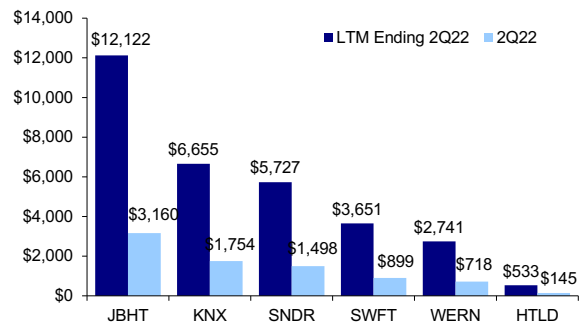
Exhibit 137: ATA NSA Bulk/Tank Loads Index LT Trends



Source: ATA TRAC, Morgan Stanley Research

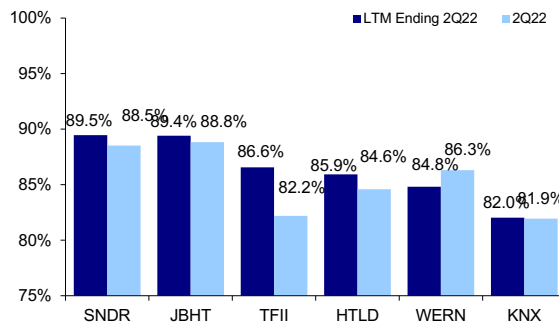
TL Carrier Operating Metrics

Exhibit 138: Total Revenues (Ex. FS)



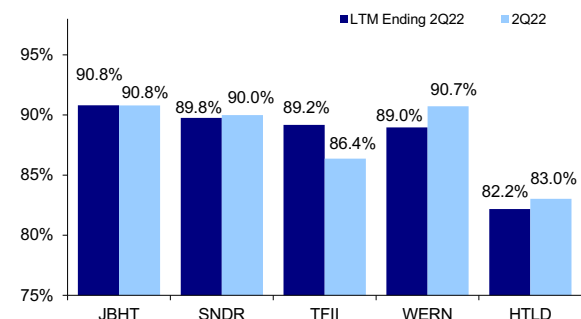
Source: Company data, Morgan Stanley Research

Exhibit 139: Net Debt as a % of LTM Total Revs. Ex. FS



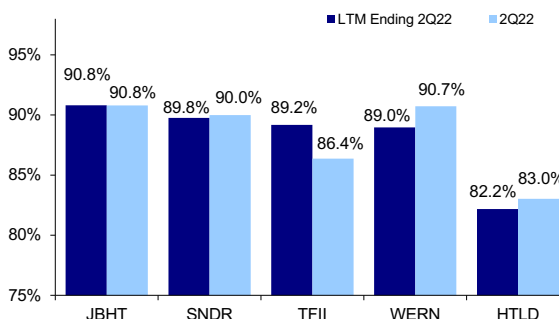
Source: Company data, Morgan Stanley Research

Exhibit 140: Operating Ratio % (Ex. FS & Gains)



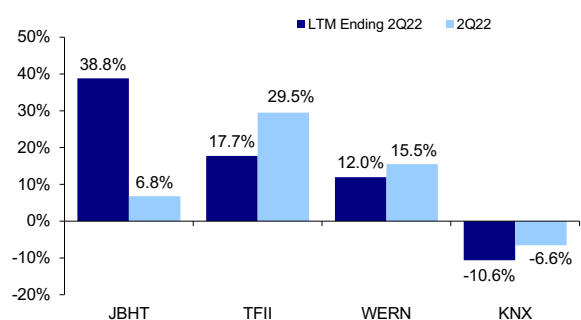
Source: Company data, Morgan Stanley Research

Exhibit 141: Total Operating Ratio %



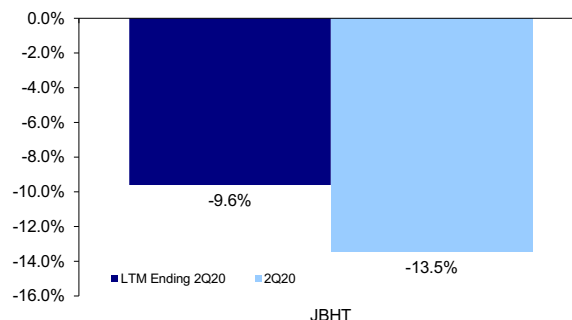
Source: Company data, Morgan Stanley Research

Exhibit 142: Avg. Rev/Tractor: YoY % Change



Source: Company Data, Morgan Stanley Research

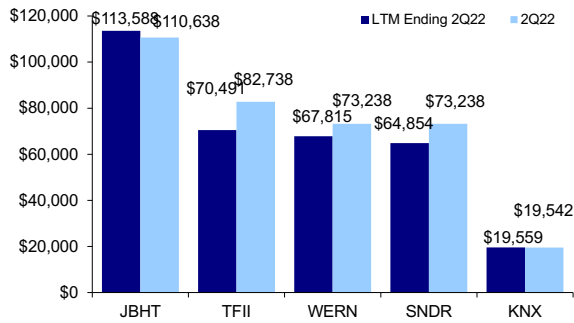
Exhibit 143: Avg. Revenue/Total Mile (Ex. FS): YoY % Chg



Source: Company data, Morgan Stanley Research, Note: JBHT includes FS

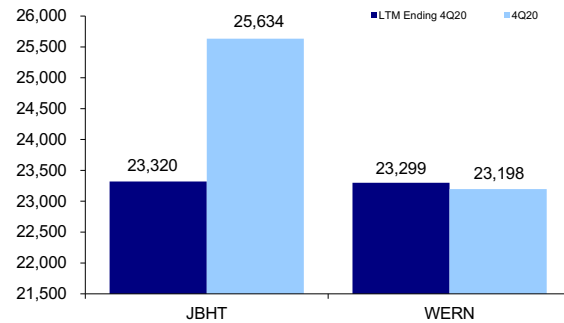
TL Carrier Operating Metrics (Cont'd)

Exhibit 144: Avg. Revenue per Tractor



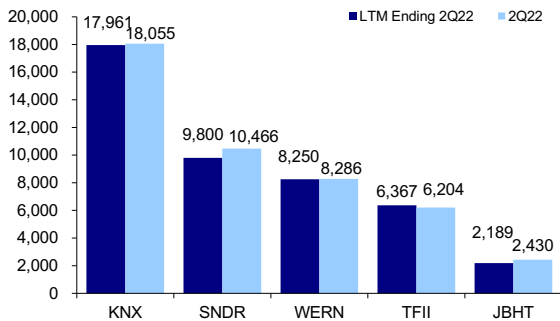
Source: Company data, Morgan Stanley Research

Exhibit 145: Avg. Loaded Miles per Tractor



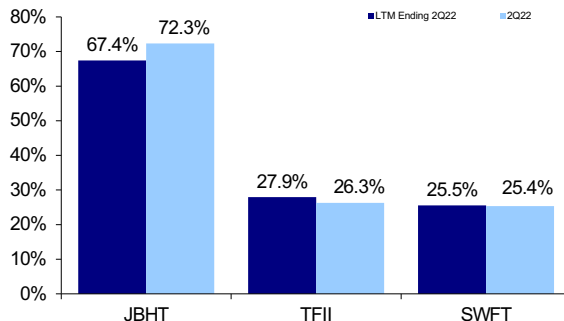
Source: Company data, Morgan Stanley Research; JBHT data for JBT Segment Only

Exhibit 146: Avg. Tractor Fleet Size



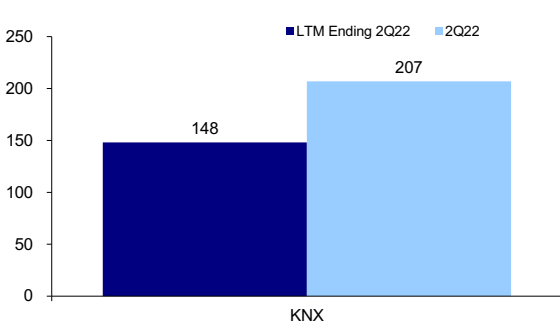
Source: Company data, Morgan Stanley Research; JBHT data for JBT Segment Only

Exhibit 147: Owner Operator % of Total Fleet



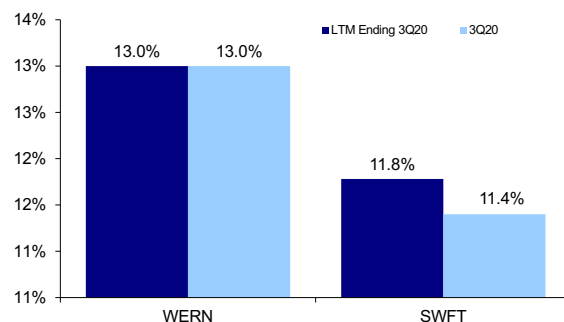
Source: Company data, Morgan Stanley Research; JBHT data for JBT Segment Only

Exhibit 148: Avg. Length of Haul (Miles)



Source: Company data, Morgan Stanley Research; JBHT data for JBT Segment Only

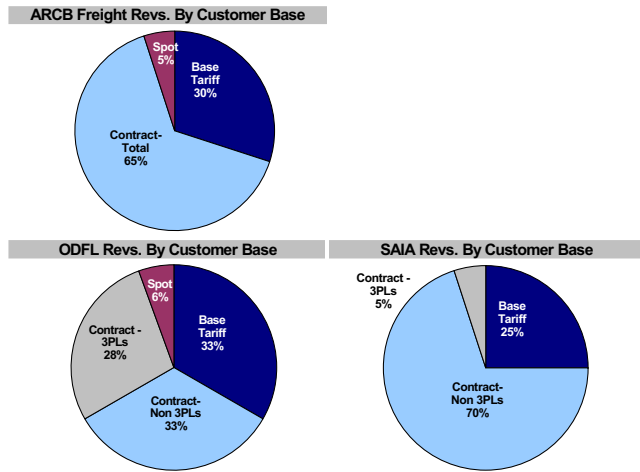
Exhibit 149: Avg. Empty Mile %



Source: Company data, Morgan Stanley Research; JBHT data for JBT Segment Only

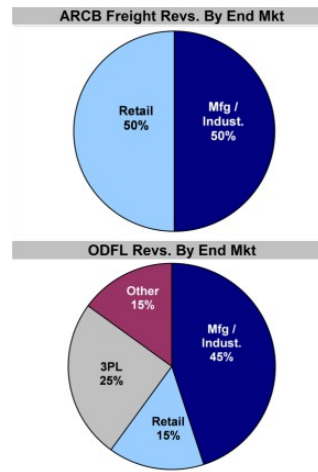
LTL Industry Trends

Exhibit 150: LTL Revenue Mix by Rate Paid



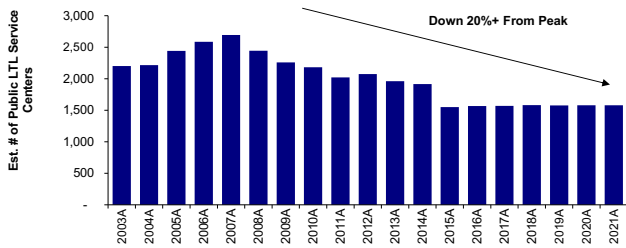
Note: ARCB 3PL exposure minimal; ODFL pie chart does not reflect revenues from Value-Added Logistics services (~8% of total revs). Source: Company Management, Company Data, Morgan Stanley Research Estimates

Exhibit 151: LTL Revenue Mix by End Market



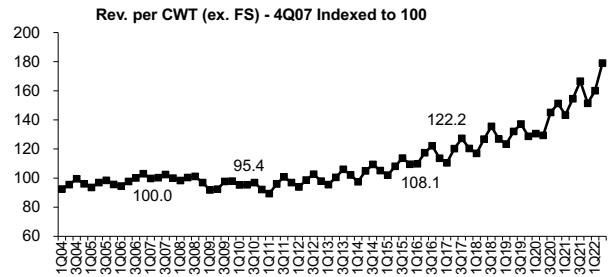
Note: ODFL pie chart does not reflect revenues from Value-Added Logistics services (~8% of total revs). Source: Company Management, Company Data, Morgan Stanley Research Estimates

Exhibit 152: Public LTL Service Capacity Reduction Since Peak



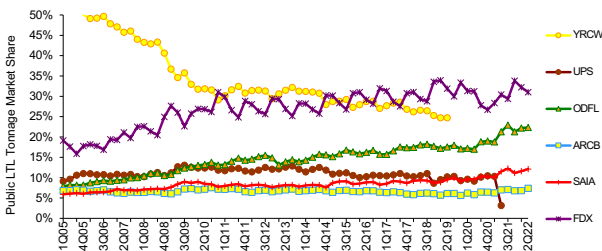
Note: Includes ABFS, ODFL, FDX Freight, UPS Freight (Overnite data used for Pre-2004 periods), YRCW (Regional + National), SAIA and VTNC Source: Company data, Morgan Stanley Research Estimates

Exhibit 153: LTL Pricing Inline with Prior Peak Levels



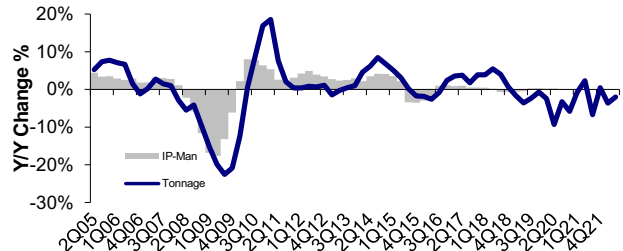
Note: Index includes ABFS, YRCW, SAIA, ODFL, FDX Freight and UPS Freight. Source: Company data, Morgan Stanley Research Estimates

Exhibit 154: Public LTL Tonnage Market Share Trends



Note: Percentages reflect % of total tonnage of public LTLs only; Source: Company Data, Morgan Stanley Research Estimates. On 12/30/2013, VTNC entered into a definitive agreement to be acquired by Transforce.

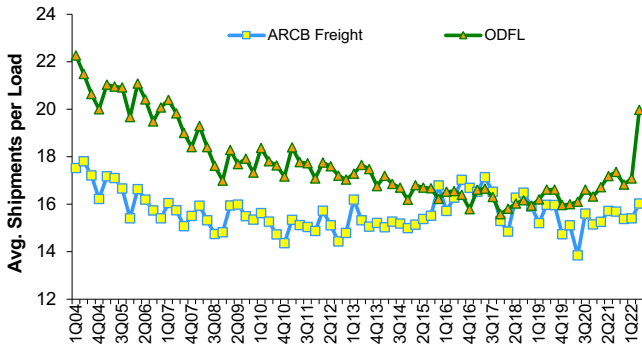
Exhibit 155: Public LTL Truck Tonnage vs. IP: Manufacturing



Note: Includes ABFS, ODFL, FDX Freight, UPS Freight, YRCW, SAIA, VTNC. Source: Company Data, Morgan Stanley Research Estimates

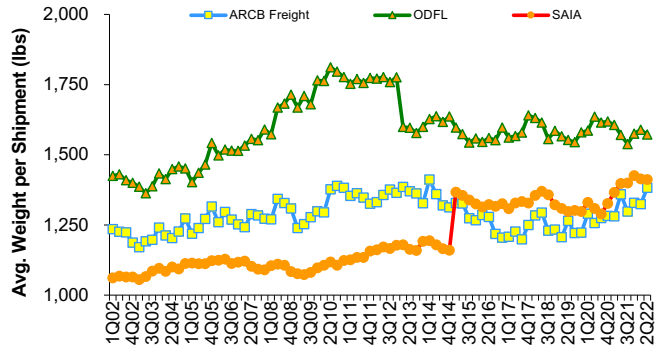
LTL Carrier Operating Metrics

Exhibit 156: Avg. Shipments per Load



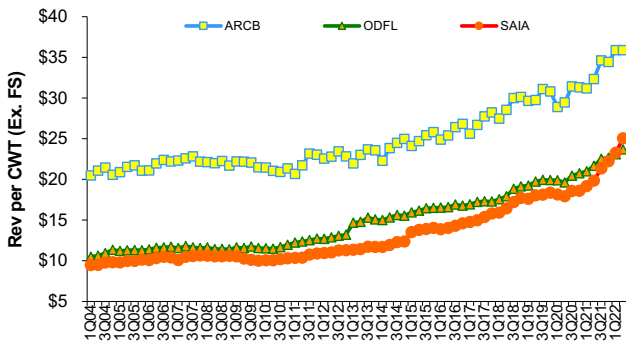
Source: Company data, Morgan Stanley Research Estimates

Exhibit 157: Avg. Weight per Shipment



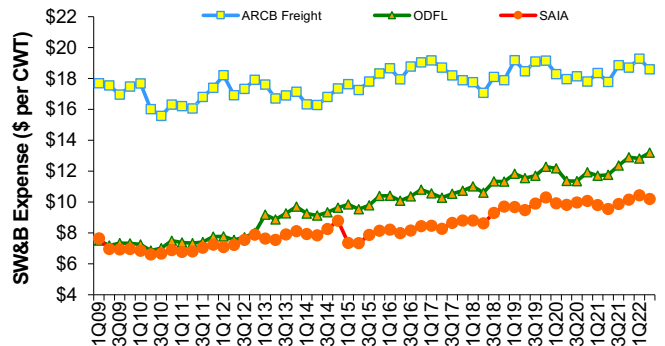
Source: Company data, Morgan Stanley Research Estimates

Exhibit 158: Revenue per Hundredweight (Ex. FS)



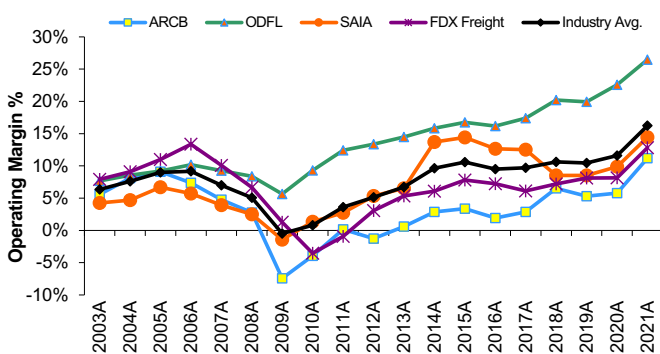
Source: Company data, Morgan Stanley Research Estimates

Exhibit 159: Relative SW&B \$ per Hundredweight



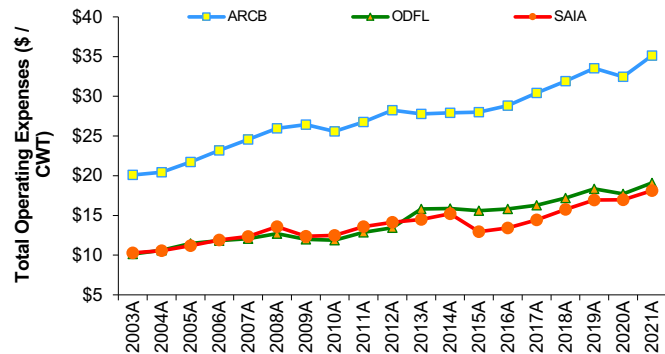
Source: Company data, Morgan Stanley Research Estimates

Exhibit 160: LTL Operating Margin Trends



Source: Company data, Morgan Stanley Research Estimates

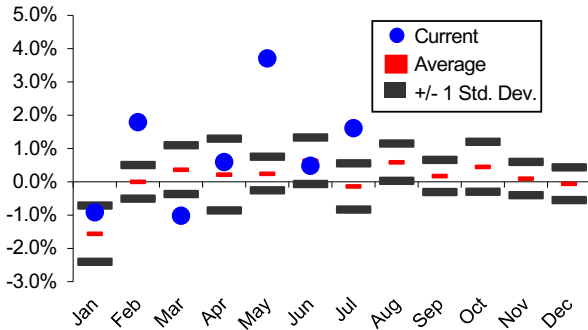
Exhibit 161: Total Opex \$ per Hundredweight



Source: Company data, Morgan Stanley Research Estimates

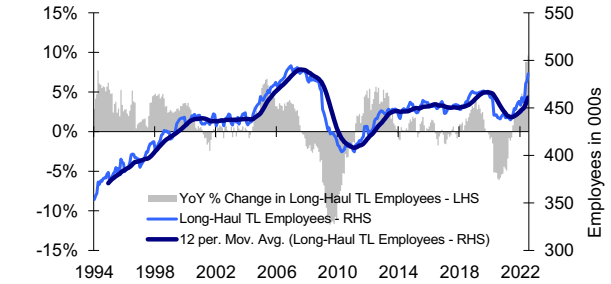
TL, LTL & Parcel Employment Trends

Exhibit 162: Seq. Change in Long-Haul TL Employment



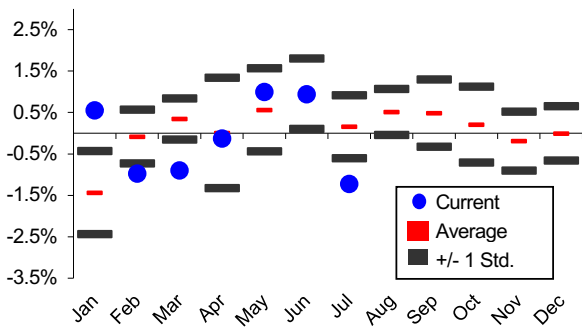
Source: BLS, Morgan Stanley Research

Exhibit 163: Long-Haul TL Employment Long-Term Trends



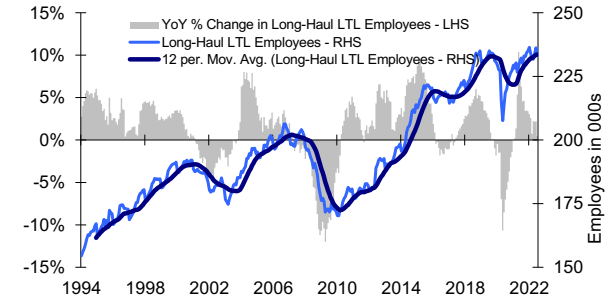
Source: BLS, Morgan Stanley Research

Exhibit 164: Seq. Change in Long-Haul LTL Employment



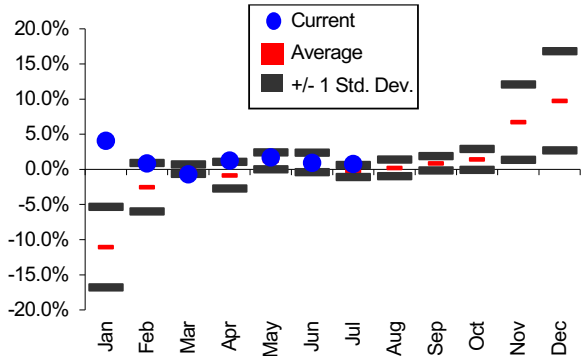
Source: BLS, Morgan Stanley Research

Exhibit 165: Long-Haul LTL Employment Long-Term Trends



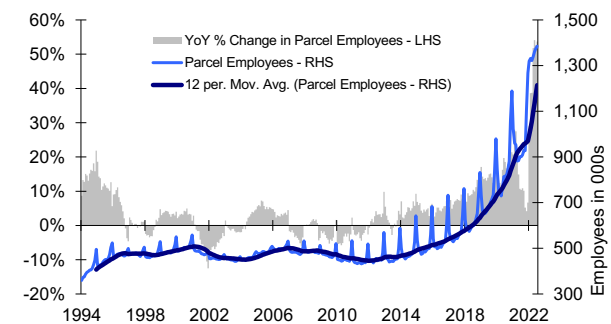
Source: BLS, Morgan Stanley Research

Exhibit 166: Seq. Change in Parcel Employment



Source: BLS, Morgan Stanley Research; Note: Data for couriers and messengers

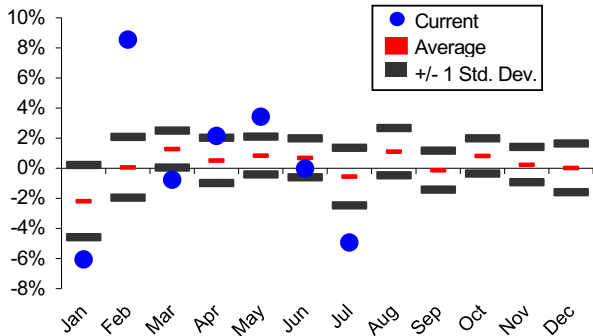
Exhibit 167: Parcel Employment Long-Term Trends



Source: BLS, Morgan Stanley Research; Note: Data for couriers and messengers

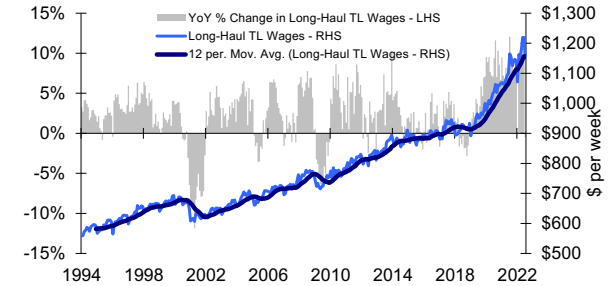
TL, LTL & Parcel Employee Wage Trends

Exhibit 168: Seq. Change in Long-Haul TL Employee Wages



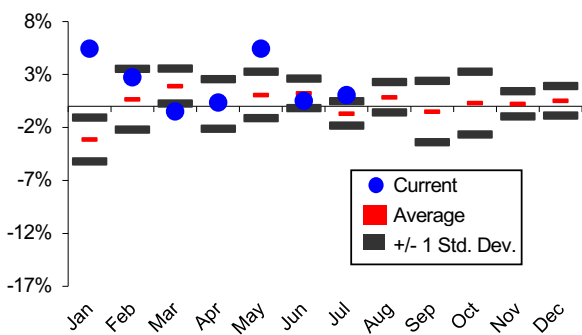
Source: BLS, Morgan Stanley Research

Exhibit 169: Long-Haul TL Employee Long-Term Wage Trends



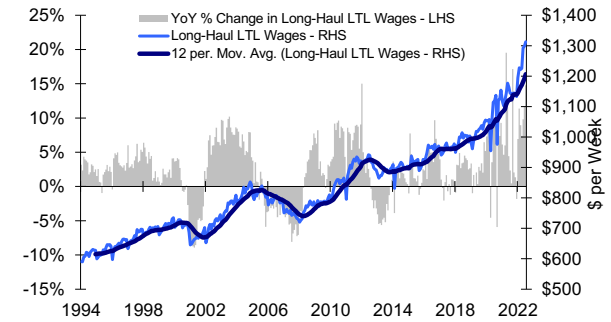
Source: BLS, Morgan Stanley Research

Exhibit 170: Seq. Change in Long-Haul LTL Employee Wages



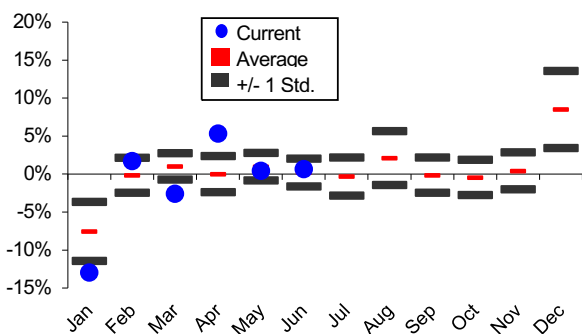
Source: BLS, Morgan Stanley Research

Exhibit 171: Long-Haul LTL Employee Long-Term Wage Trends



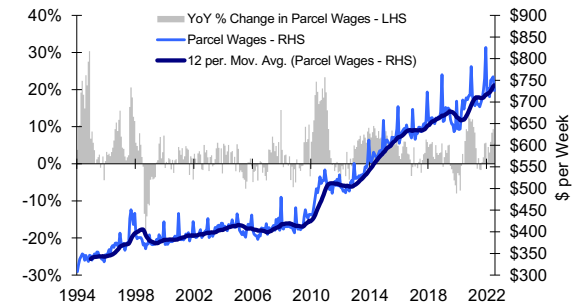
Source: BLS, Morgan Stanley Research

Exhibit 172: Seq. Change in Parcel Employee Wages



Source: BLS, Morgan Stanley Research; Note: Data for couriers and messengers

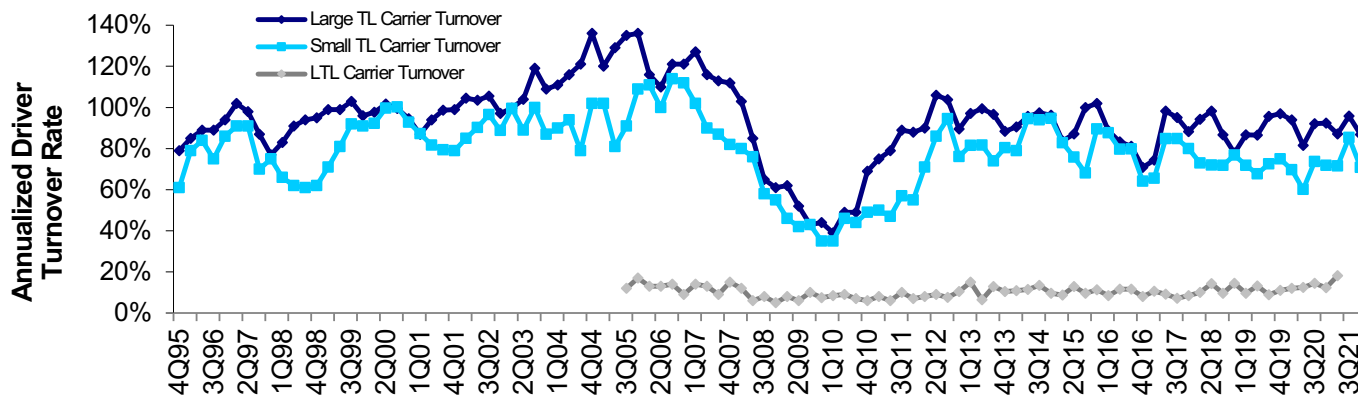
Exhibit 173: Parcel Employee Long-Term Wage Trends



Source: BLS, Morgan Stanley Research; Note: Data for couriers and messengers

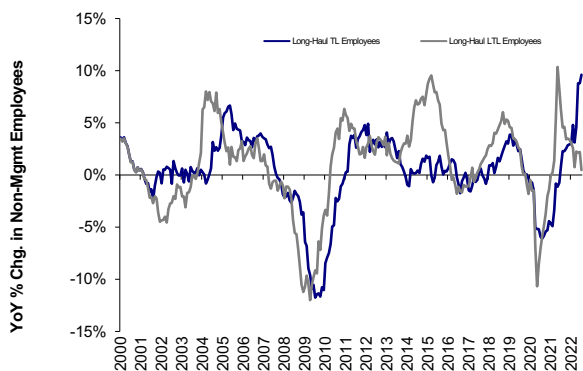
TL & LTL Turnover, Wage and Employment Trends

Exhibit 174: TL & LTL Carrier Driver Turnover Trends



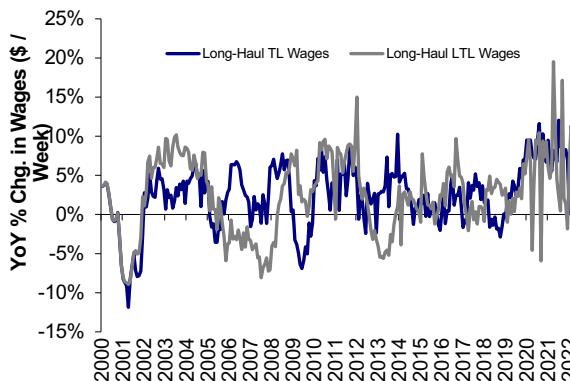
Source: ATA, Morgan Stanley Research; Large TL Carriers >\$30M annual revs, Small TL Carriers <\$30M annual revs.

Exhibit 175: YoY % Chg. in Long-Haul TL & LTL Employees



Source: BLS, Morgan Stanley Research; Note: Includes all non-mgmt employees

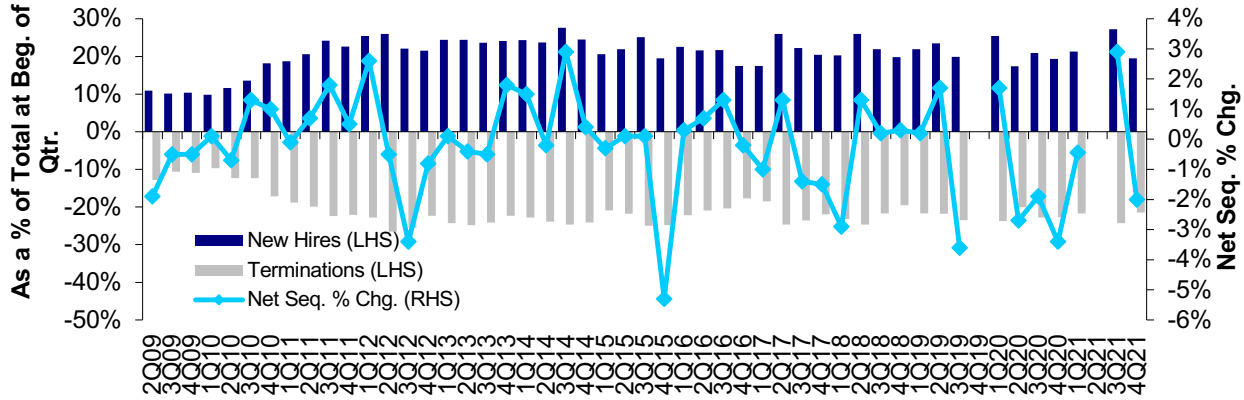
Exhibit 176: YoY % Chg. in Long-Haul TL & LTL Wages



Source: BLS, Morgan Stanley Research; Note: Wages for all non-mgmt employees

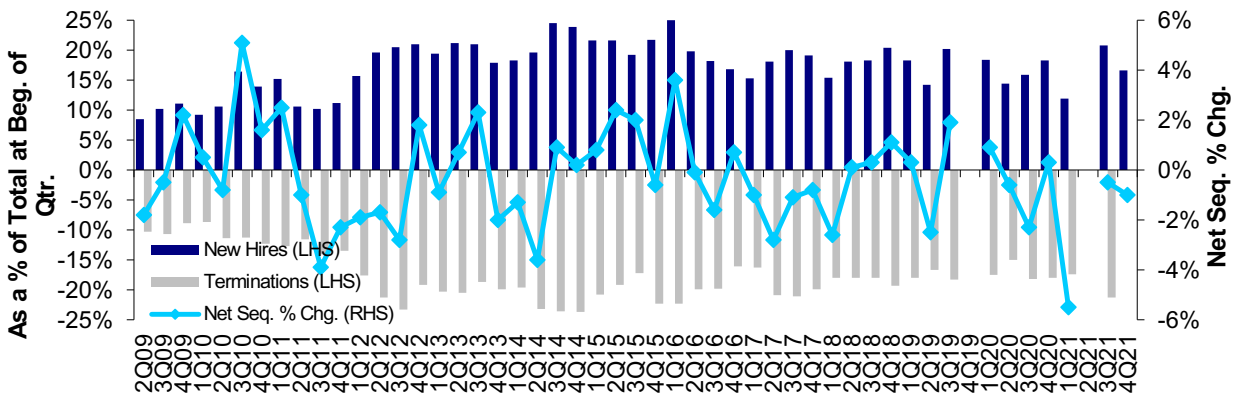
TL & LTL Driver New Hire & Termination Trends

Exhibit 177: Large TL Carrier Driver New Hire & Termination Trends



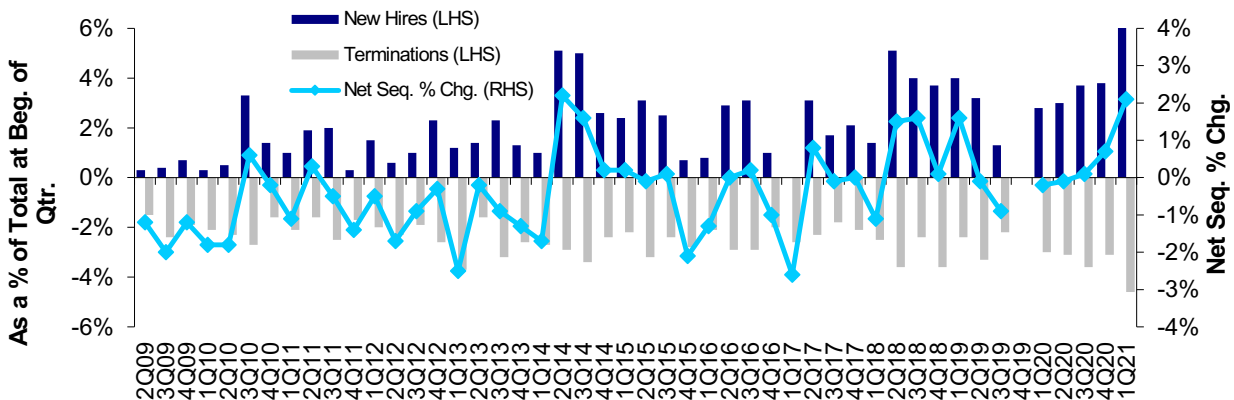
Source: ATA, Morgan Stanley Research; Note: Includes Line-Haul drivers only

Exhibit 178: Small TL Carrier Driver New Hire & Termination Trends



Source: ATA, Morgan Stanley Research; Note: Includes Line-Haul drivers only

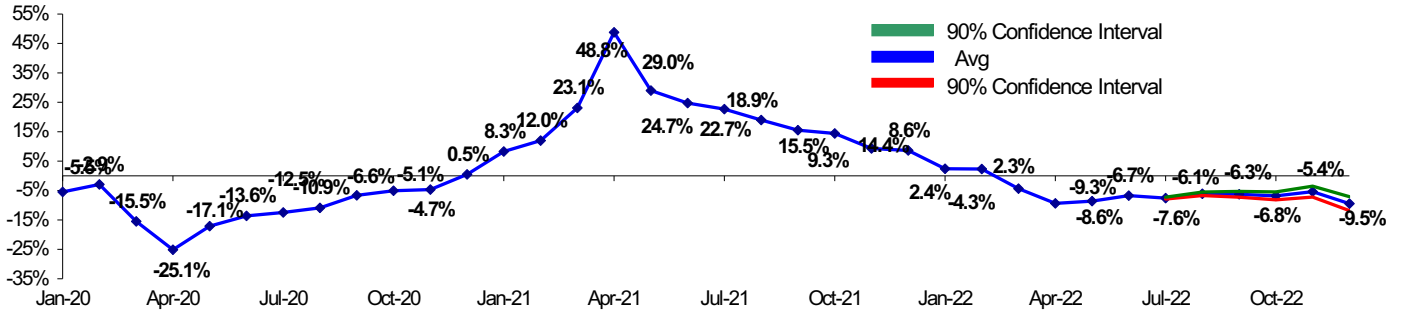
Exhibit 179: LTL Carrier Driver New Hire & Termination Trends



Source: ATA, Morgan Stanley Research; Note: Includes Line-Haul drivers only

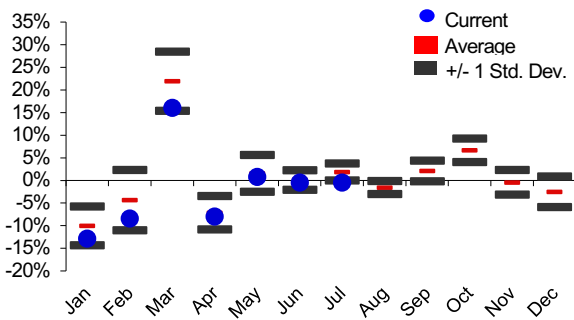
IATA Global Straight-Line Forecasts & Long-Term Trends

Exhibit 180: Straight-Line Forecast for Monthly YoY % Change in Global FTK



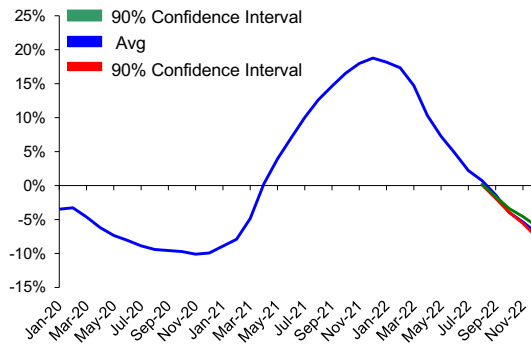
Source: IATA, Morgan Stanley Research, Adjusted for Leap Year and Chinese New Year

Exhibit 181: Seq. Change in Monthly Global FTK



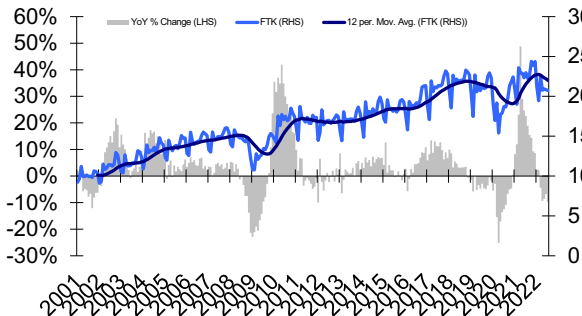
Source: IATA, Morgan Stanley Research, Based on data starting in 2000, Adjusted for Leap Year and Chinese New Year

Exhibit 182: Straight-Line Forecast for LTM Global FTK



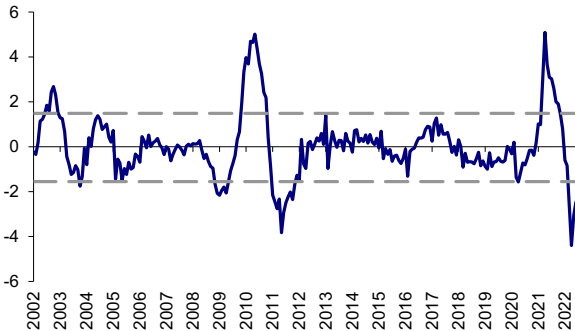
Source: IATA, Morgan Stanley Research, Adjusted for Leap Year and Chinese New Year

Exhibit 183: Long-Term Global FTK Trends



Source: IATA, Morgan Stanley Research, Adjusted for Leap Year

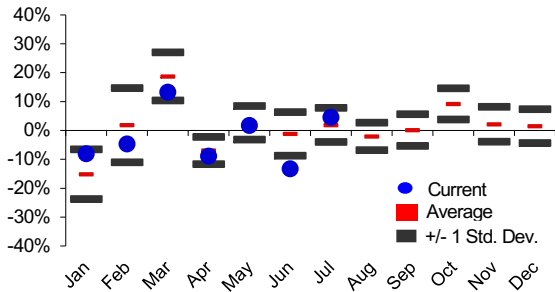
Exhibit 184: Acceleration in LTM Global FTK



Source: IATA, Morgan Stanley Research, Adjusted for Leap Year

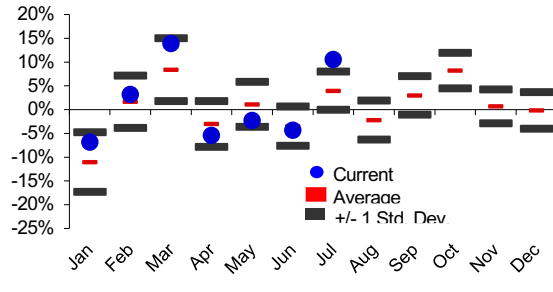
IATA Sequential Change Analysis by Region

Exhibit 185: Seq. Change in Monthly Africa FTK



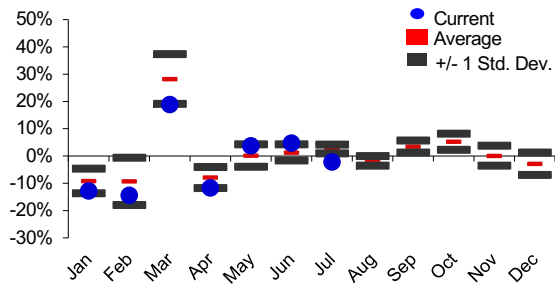
Source: IATA, Morgan Stanley Research, Based on data starting in 2000, Adjusted for Leap Year and Chinese New Year

Exhibit 186: Seq. Change in Monthly Latin America FTK



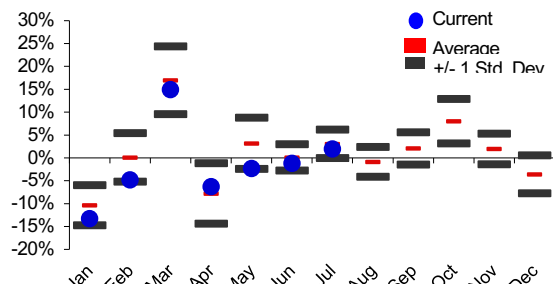
Source: IATA, Morgan Stanley Research, Based on data starting in 2000, Adjusted for Leap Year and Chinese New Year

Exhibit 187: Seq. Change in Monthly Asia FTK



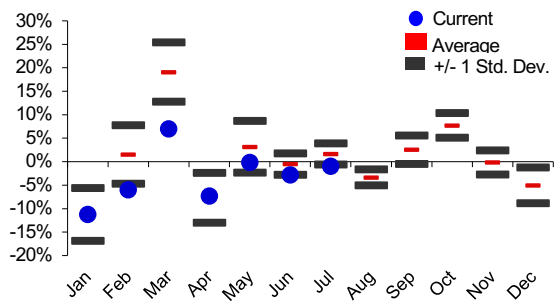
Source: IATA, Morgan Stanley Research, Based on data starting in 2000, Adjusted for Leap Year and Chinese New Year

Exhibit 188: Seq. Change in Monthly Middle East FTK



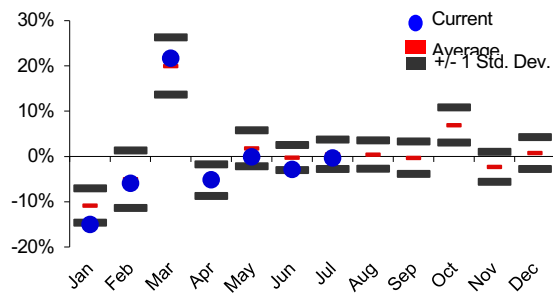
Source: IATA, Morgan Stanley Research, Based on data starting in 2000, Adjusted for Leap Year and Chinese New Year

Exhibit 189: Seq. Change in Monthly Europe FTK



Source: IATA, Morgan Stanley Research, Based on data starting in 2000, Adjusted for Leap Year and Chinese New Year

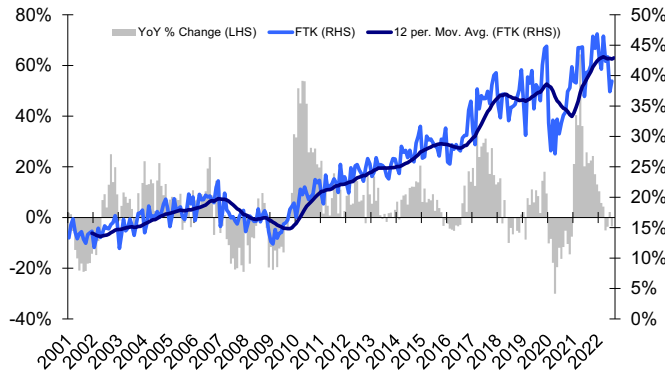
Exhibit 190: Seq. Change in Monthly N. Ame. FTK



Source: IATA, Morgan Stanley Research, Based on data starting in 2000, Adjusted for Leap Year and Chinese New Year

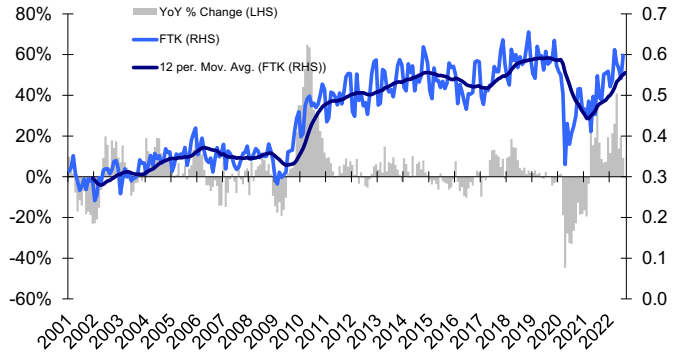
IATA FTK Long-Term Trends by Region

Exhibit 191: Long-Term Africa FTK Trends



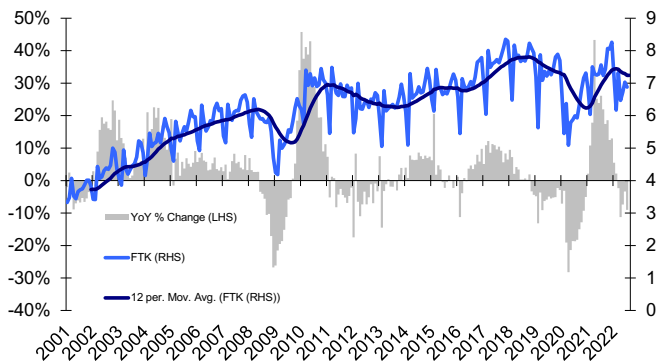
Source: IATA, Morgan Stanley Research, Adjusted for Leap Year

Exhibit 192: Long-Term Latin America FTK Trends



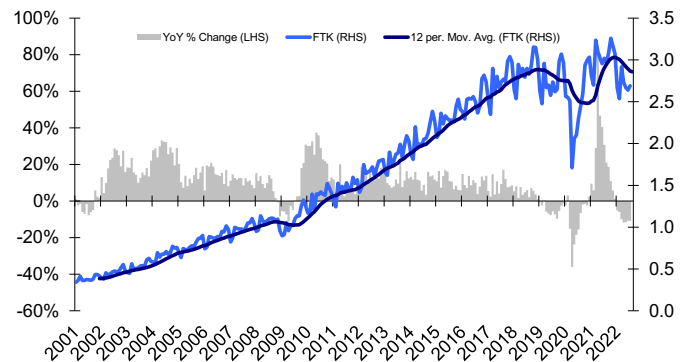
Source: IATA, Morgan Stanley Research, Adjusted for Leap Year

Exhibit 193: Long-Term Asia FTK Trends



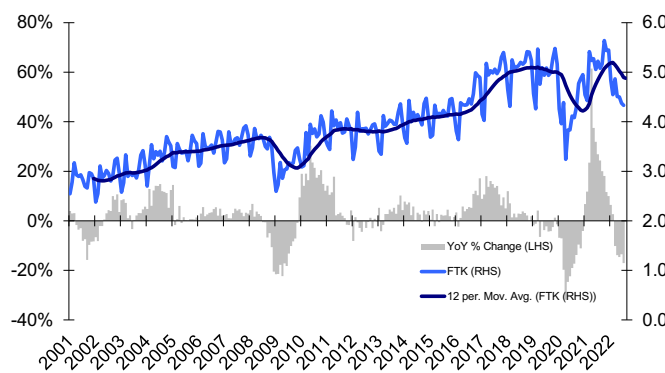
Source: IATA, Morgan Stanley Research, Adjusted for Leap Year

Exhibit 194: Long-Term Middle East FTK Trends



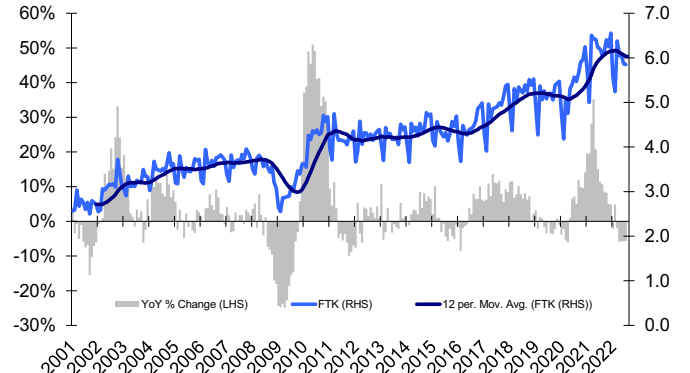
Source: IATA, Morgan Stanley Research, Adjusted for Leap Year

Exhibit 195: Long-Term Europe FTK Trends



Source: IATA, Morgan Stanley Research, Adjusted for Leap Year

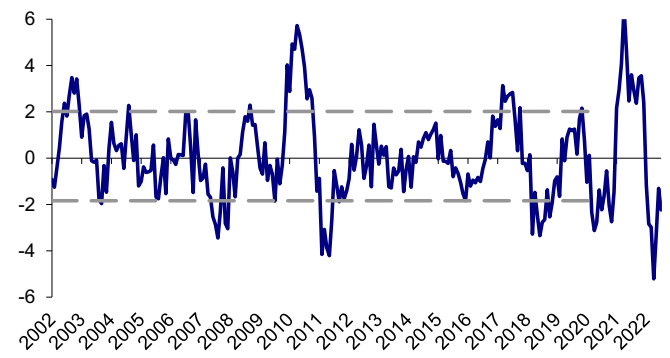
Exhibit 196: Long-Term North America FTK Trends



Source: IATA, Morgan Stanley Research Adjusted for Leap Year

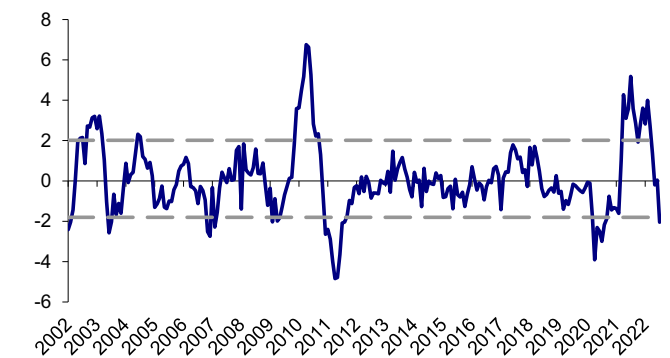
IATA FTK Momentum Indicators by Region

Exhibit 197: Acceleration in LTM Africa FTK



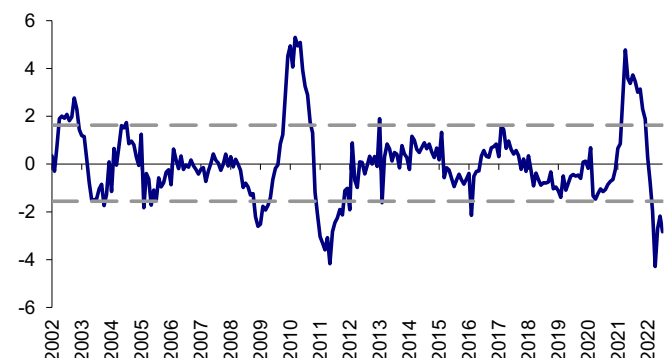
Source: IATA, Morgan Stanley Research; +1/-1 St. Dev. lines based on 2002 onwards, Adjusted for Leap Year

Exhibit 198: Acceleration in LTM Latin America FTK



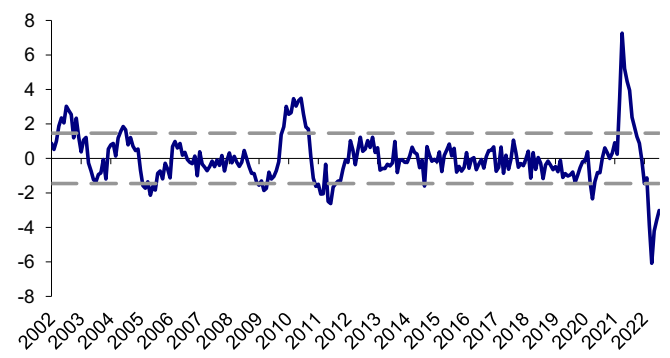
Source: IATA, Morgan Stanley Research; +1/-1 St. Dev. lines based on 2002 onwards, Adjusted for Leap Year

Exhibit 199: Acceleration in LTM Asia FTK



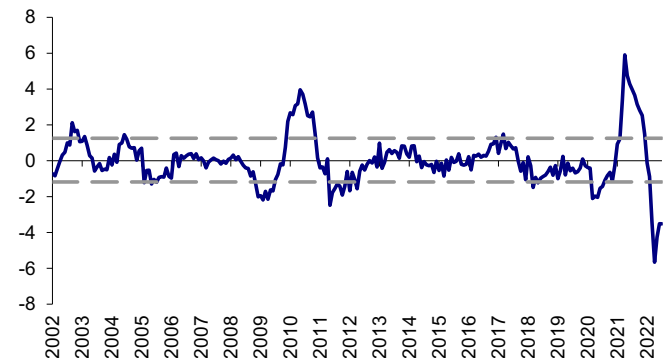
Source: IATA, Morgan Stanley Research; +1/-1 St. Dev. lines based on 2002 onwards, Adjusted for Leap Year

Exhibit 200: Acceleration in LTM Middle East FTK



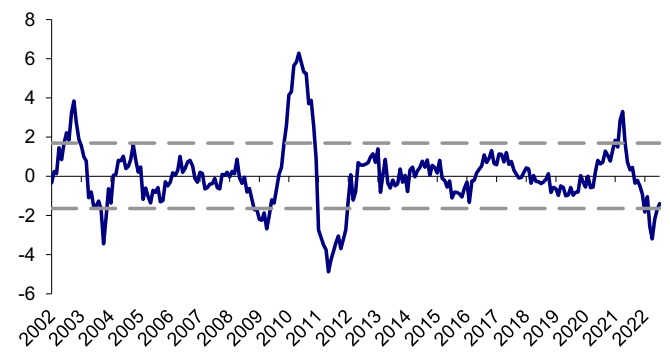
Source: IATA, Morgan Stanley Research; +1/-1 St. Dev. lines based on 2002 onwards, Adjusted for Leap Year

Exhibit 201: Acceleration in LTM Europe FTK



Source: IATA, Morgan Stanley Research; +1/-1 St. Dev. lines based on 2002 onwards, Adjusted for Leap Year

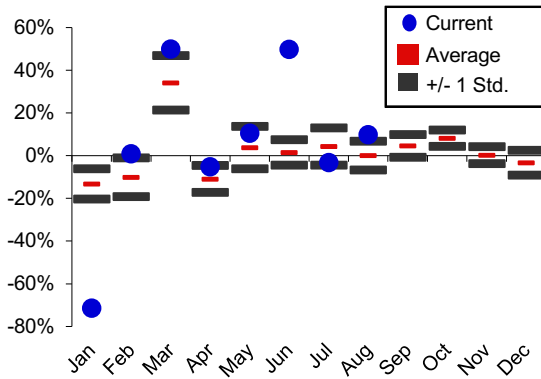
Exhibit 202: Acceleration in LTM North America FTK



Source: IATA, Morgan Stanley Research; +1/-1 St. Dev. lines based on 2002 onwards, Adjusted for Leap Year

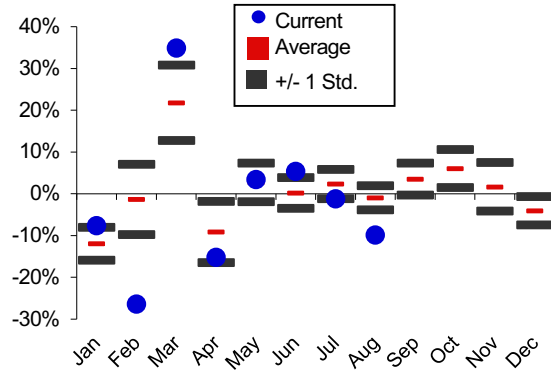
Cathay Pacific and Singapore Airlines Cargo Trends

Exhibit 203: Sequential Change in Cathay Pacific FTK



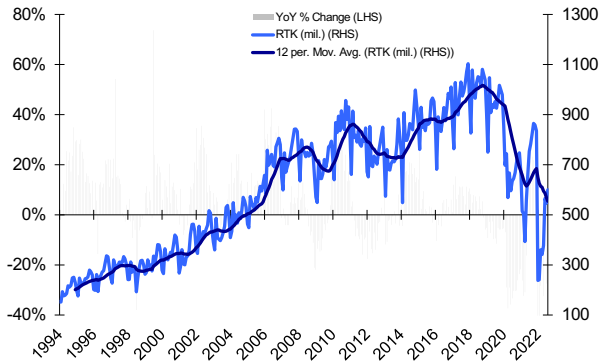
Source: Cathay Pacific, Morgan Stanley Research, Note: Adjusted for CNY and Leap year

Exhibit 204: Sequential Change in Singapore Airlines FTK



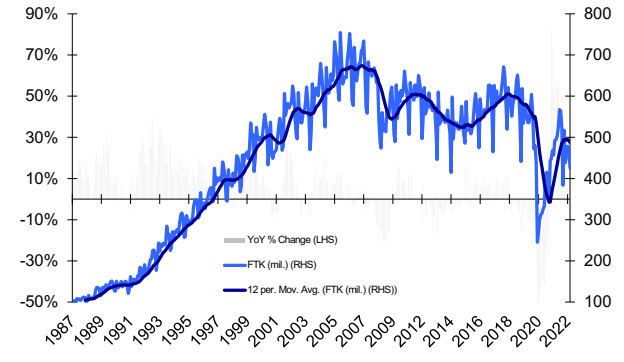
Source: Singapore Airlines, Morgan Stanley Research. Note: Adjusted for CNY and Leap year

Exhibit 205: Cathay Pacific FTK Long-Term Trends



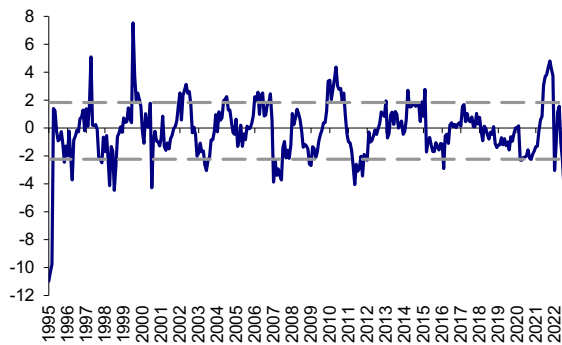
Source: Cathay Pacific, Morgan Stanley Research, Note: Adjusted for CNY and Leap year

Exhibit 206: Singapore Airlines FTK Long-Term Trends



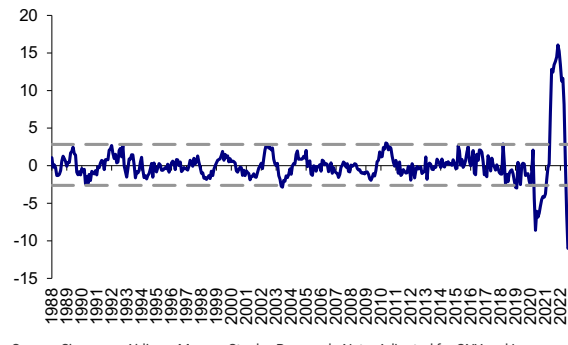
Source: Singapore Airlines, Morgan Stanley Research. Note: Adjusted for CNY and Leap year

Exhibit 207: Acceleration in LTM Cathay Pacific FTK



Source: Cathay Pacific, Morgan Stanley Research, Note: Adjusted for CNY and Leap year

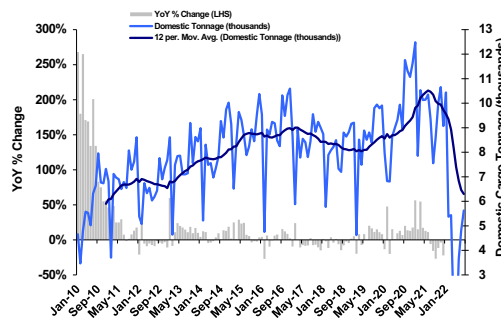
Exhibit 208: Acceleration in LTM Singapore Airlines FTK



Source: Singapore Airlines, Morgan Stanley Research. Note: Adjusted for CNY and Leap year

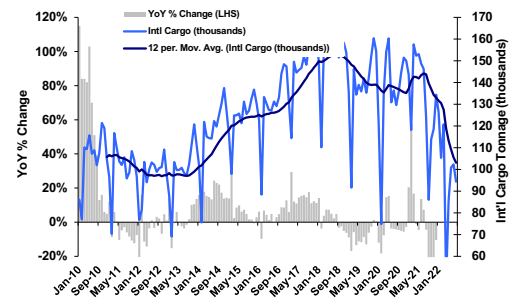
Shanghai Pudong International Airport Cargo and Drewry Freight Index Trends

Exhibit 209: PACTL Domestic Cargo Tonnage Long-Term Trends



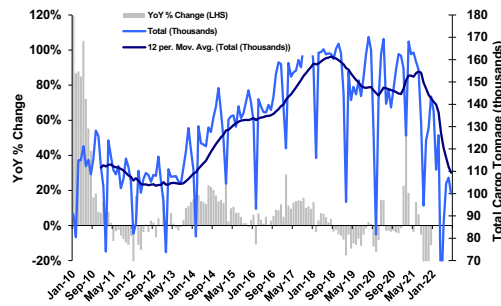
Source: PACTL, Morgan Stanley Research

Exhibit 210: PACTL Int'l Cargo Tonnage Long-Term Trends



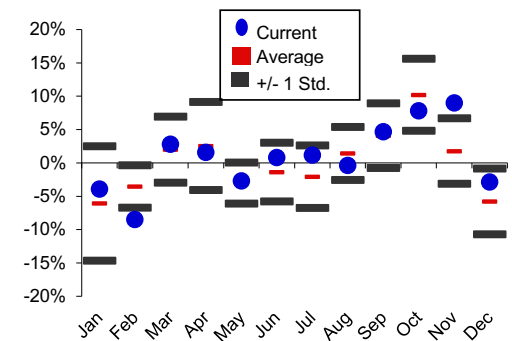
Source: PACTL, Morgan Stanley Research

Exhibit 211: PACTL Total Cargo Tonnage Long-Term Trends



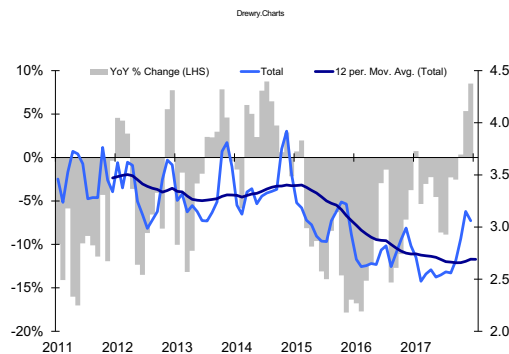
Source: PACTL, Morgan Stanley Research

Exhibit 212: Sequential Change in Monthly Drewry Freight Rates



Source: Drewry, Bloomberg, Company data, Morgan Stanley Research

Exhibit 213: Drewry Freight Rates Long Term Trends

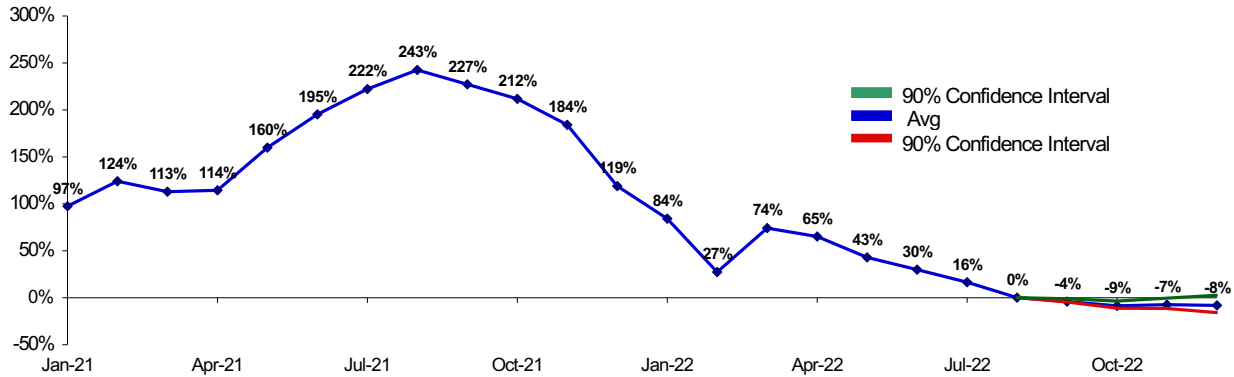


Page 1

Source: Drewry, Bloomberg, Company data, Morgan Stanley Research

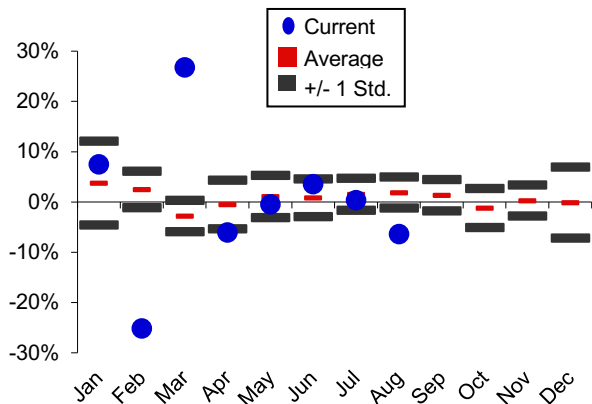
China Containerized Freight Index Trends & Straight-Line Forecast

Exhibit 214: Straight-Line Forecast for Monthly YoY % Change in CCFI Index



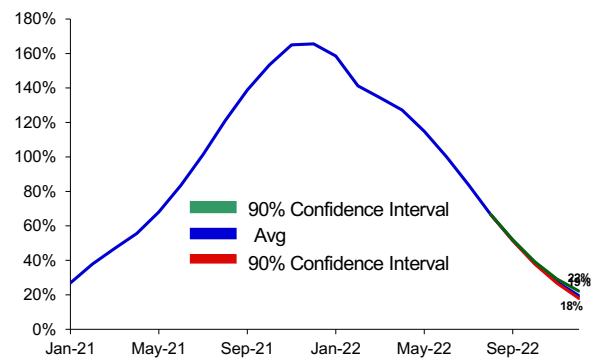
Source: Shanghai Shipping Exchange, Morgan Stanley Research

Exhibit 215: Sequential Change in CCFI



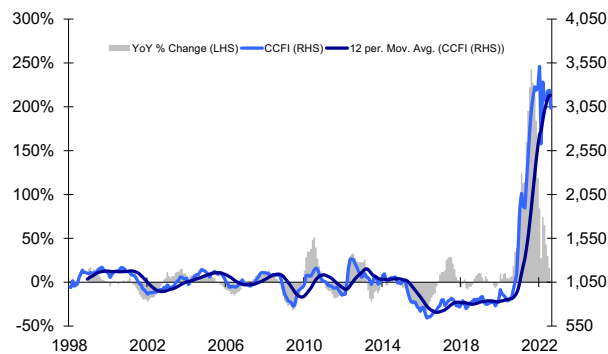
Source: Shanghai Shipping Exchange, Morgan Stanley Research

Exhibit 216: Straight-Line Forecast for LTM CCFI



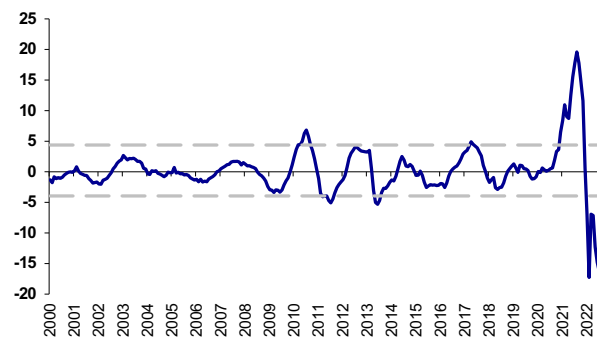
Source: Shanghai Shipping Exchange, Morgan Stanley Research

Exhibit 217: CCFI Long-Term Trends



Source: Shanghai Shipping Exchange, Morgan Stanley Research

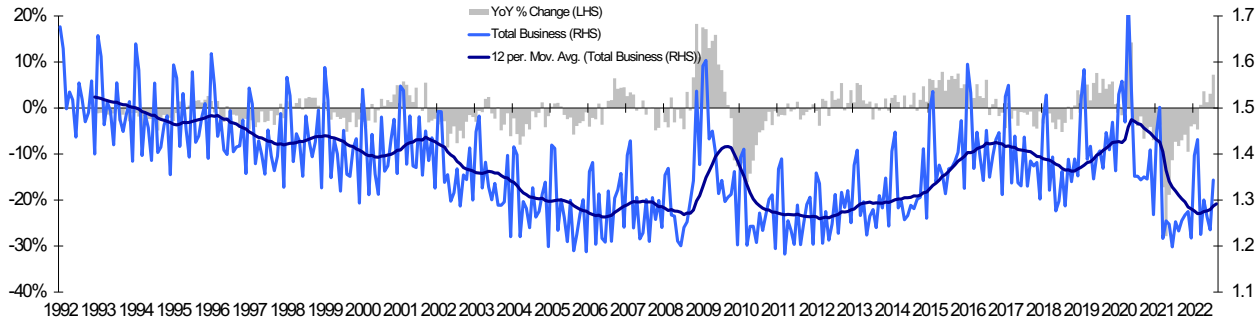
Exhibit 218: Acceleration in LTM CCFI



Source: Shanghai Shipping Exchange, Morgan Stanley Research

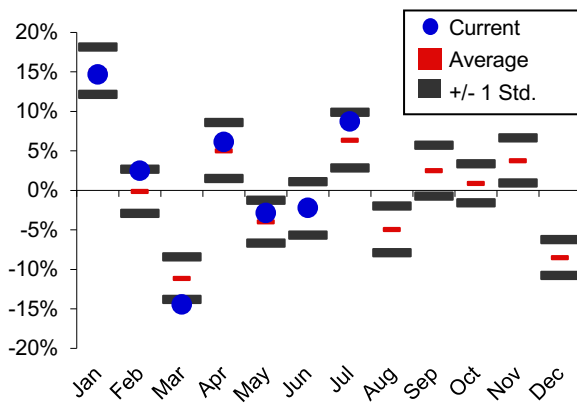
Total Business Inventory/Sales Ratio Trends

Exhibit 219: Business Inv/Sales Ratio Long-Term Trends



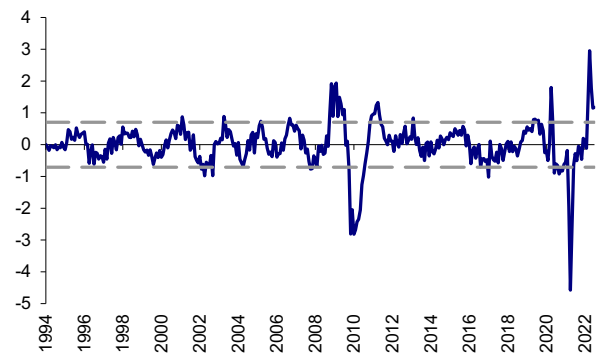
Source: US Census Bureau, Morgan Stanley Research. Note: adjusted for Leap year

Exhibit 220: Sequential Change in Business Inv/Sales Ratio



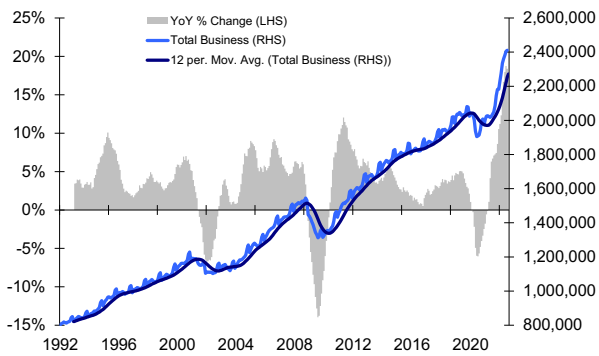
Source: US Census Bureau, Morgan Stanley Research. Note: adjusted for Leap year

Exhibit 221: Acceleration in LTM Business Inv/Sales Ratio



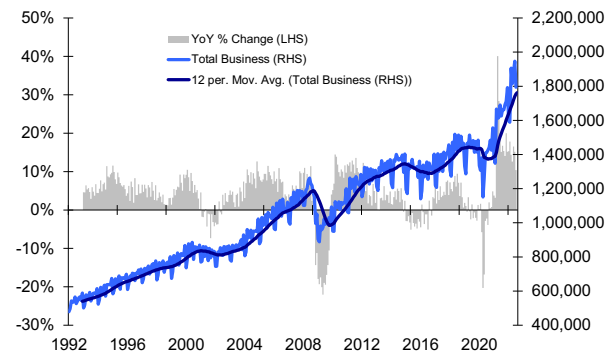
Source: US Census Bureau, Morgan Stanley Research. Note: adjusted for Leap year

Exhibit 222: Total Business Inventories Long-Term Trends



Source: US Census Bureau, Morgan Stanley Research. Note: adjusted for Leap year

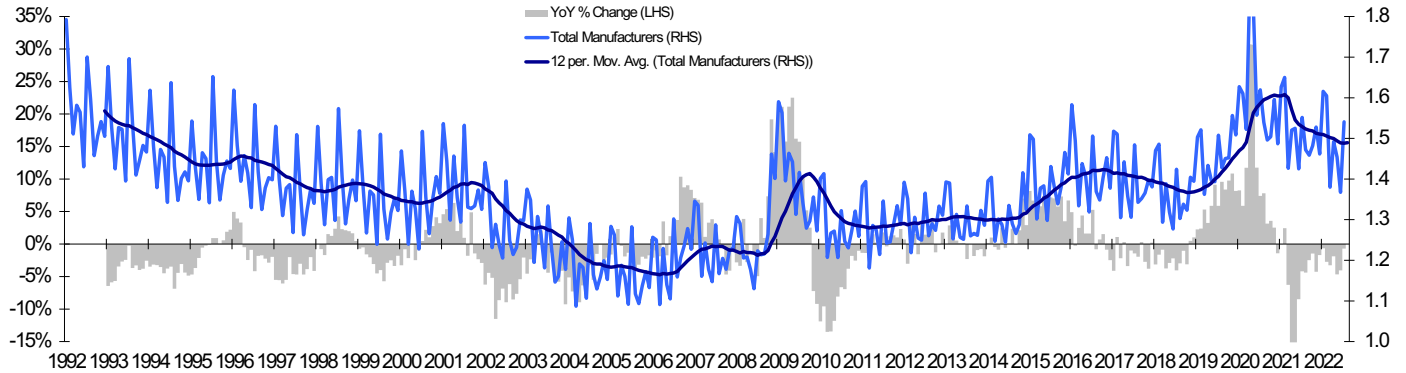
Exhibit 223: Total Business Sales Long-Term Trends



Source: US Census Bureau, Morgan Stanley Research. Note: adjusted for Leap year

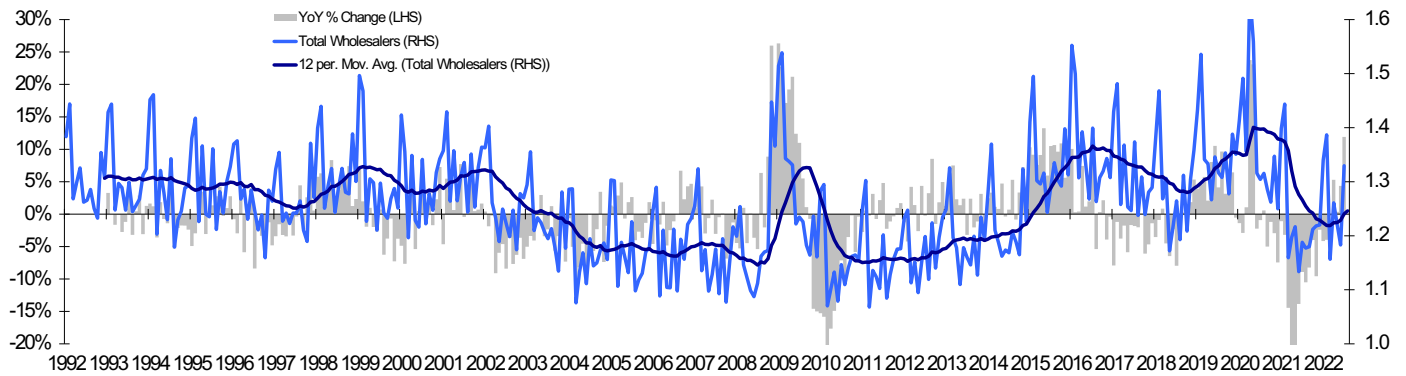
Inventory/Sales Ratio Trends

Exhibit 224: Manufacturer Inv/Sales Ratio Long-Term Trends



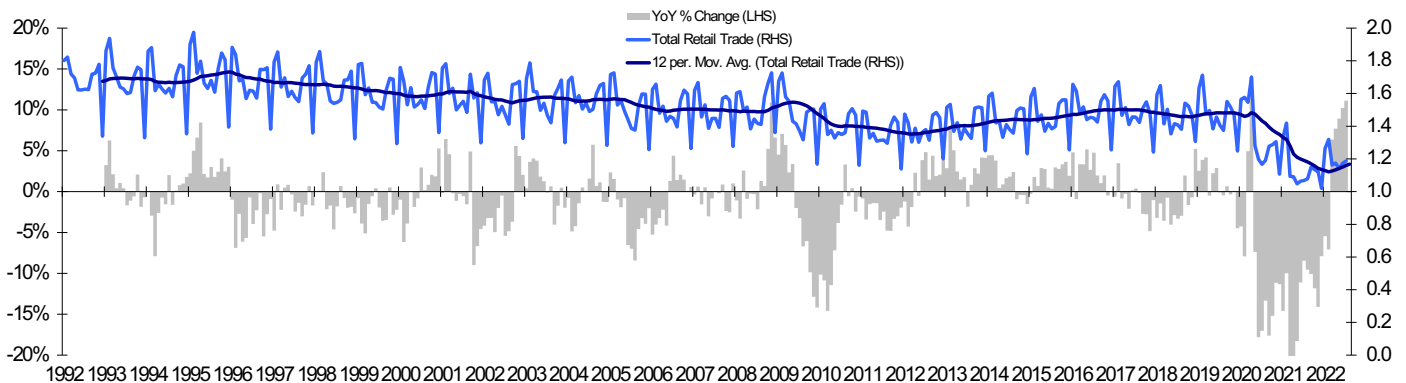
Source: US Census Bureau, Morgan Stanley Research. Note: adjusted for Leap year

Exhibit 225: Wholesaler Inv/Sales Ratio Long-Term Trends



Source: US Census Bureau, Morgan Stanley Research. Note: adjusted for Leap year

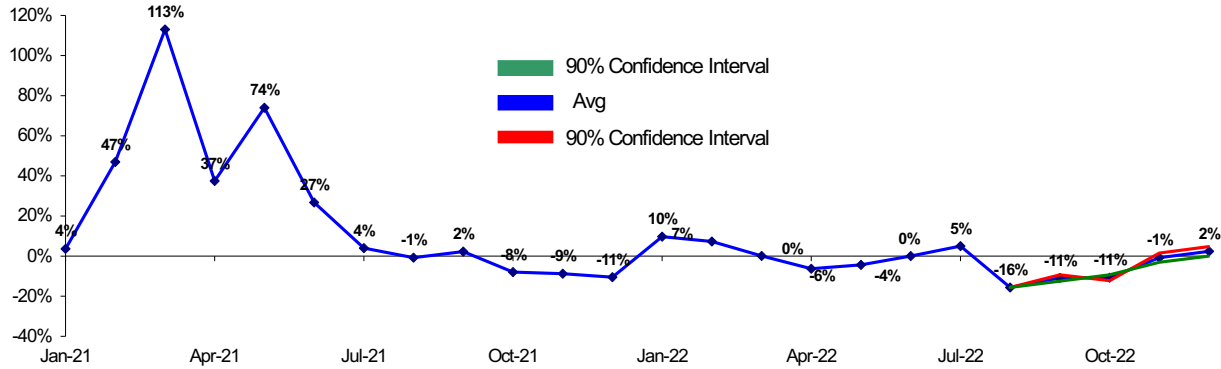
Exhibit 226: Retailer Inv/Sales Ratio Long-Term Trends



Source: US Census Bureau, Morgan Stanley Research. Note: adjusted for Leap year

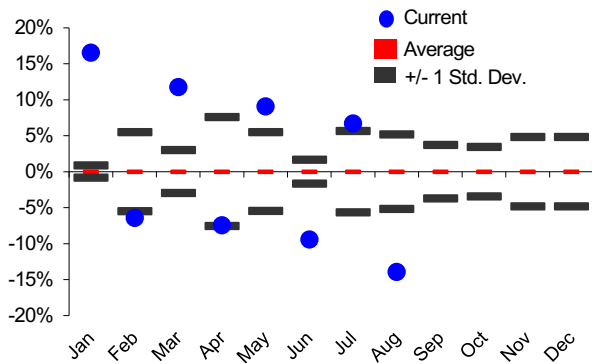
Los Angeles Port Trends & Straight-Line Forecast

Exhibit 227: Straight-Line Forecast for Monthly YoY % Change in Total (TEUs)



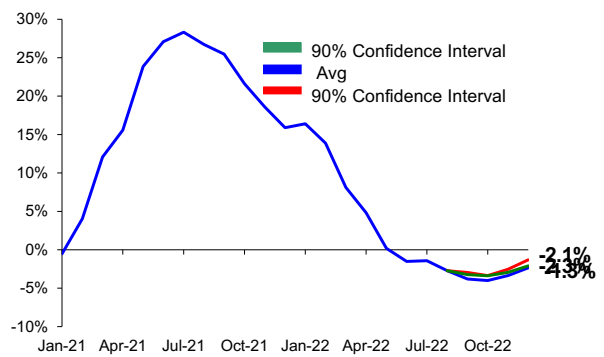
Source: Port of Los Angeles, Morgan Stanley Research

Exhibit 228: Sequential Change in Total (TEUs)



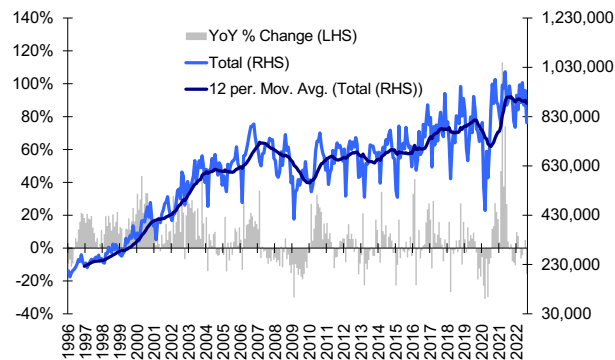
Source: Port of Los Angeles, Morgan Stanley Research

Exhibit 229: Straight-Line Forecast for LTM Total (TEUs)



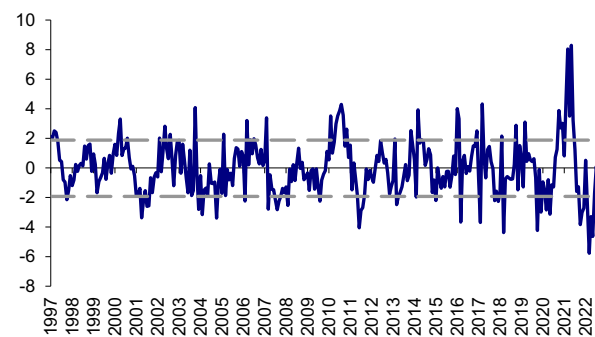
Source: Port of Los Angeles, Morgan Stanley Research

Exhibit 230: Total (TEUs) Long-Term Trends



Source: Port of Los Angeles, Morgan Stanley Research

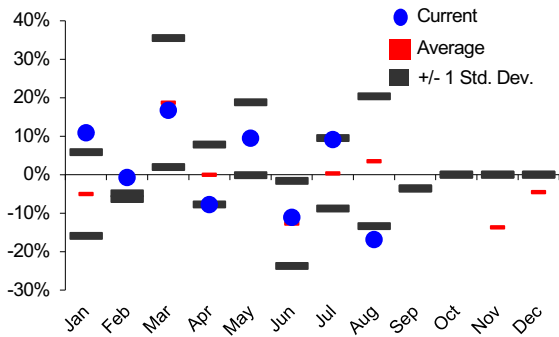
Exhibit 231: Acceleration in LTM Total (TEUs)



Source: Port of Los Angeles, Morgan Stanley Research

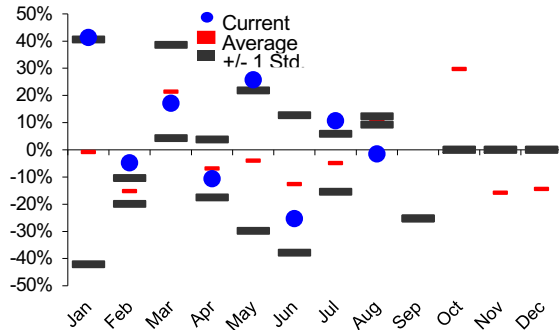
Los Angeles Port Import & Export Trends

Exhibit 232: Sequential Change in Imports (TEUs)



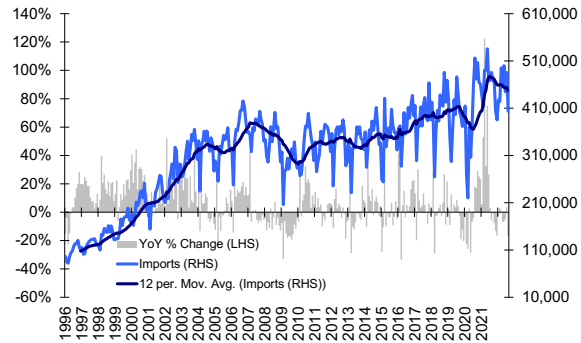
Source: Port of Los Angeles, Morgan Stanley Research. Note: adjusted for Leap year and CNY

Exhibit 233: Sequential Change in Exports (TEUs)



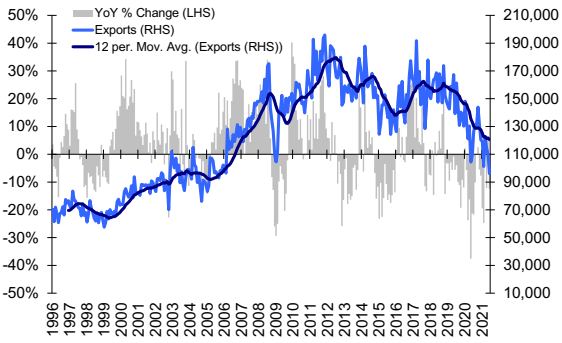
Source: Port of Los Angeles, Morgan Stanley Research. Note: adjusted for Leap year and CNY

Exhibit 234: Imports (TEUs) Long-Term Trends



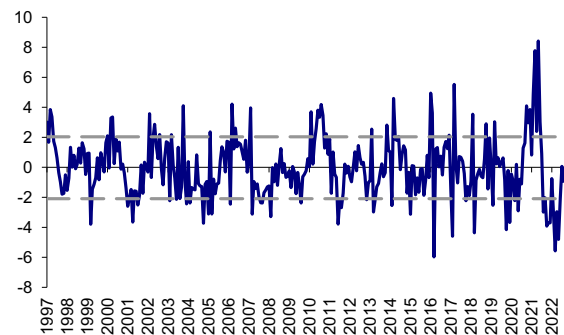
Source: Port of Los Angeles, Morgan Stanley Research. Note: adjusted for Leap year and CNY

Exhibit 235: Exports (TEUs) Long-Term Trends



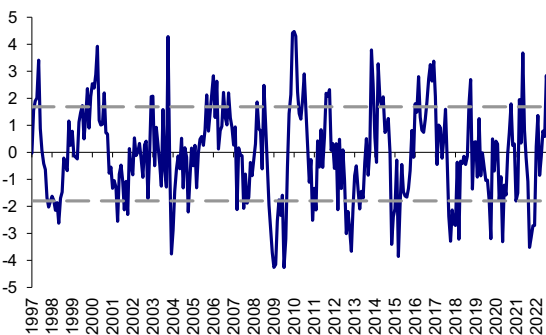
Source: Port of Los Angeles, Morgan Stanley Research. Note: adjusted for Leap year and CNY

Exhibit 236: Acceleration in LTM Imports (TEUs)



Source: Port of Los Angeles, Morgan Stanley Research. Note: adjusted for Leap year and CNY

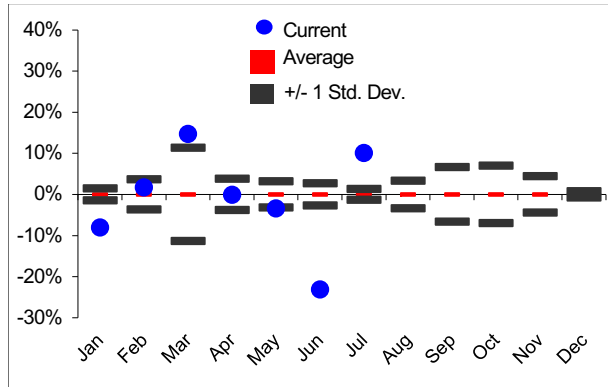
Exhibit 237: Acceleration in LTM Exports (TEUs)



Source: Port of Los Angeles, Morgan Stanley Research. Note: adjusted for Leap year and CNY

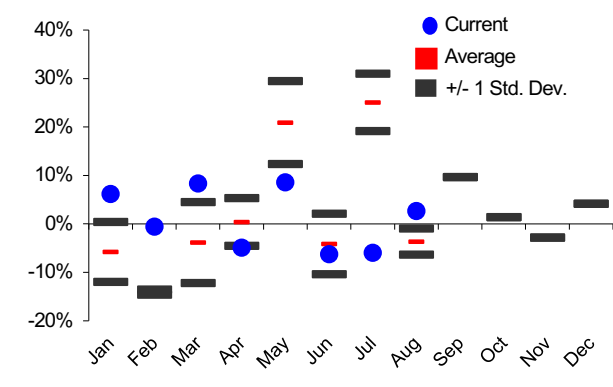
Charleston & Long Beach Port Trends

Exhibit 238: Sequential Change in Charleston Total (TEUs)



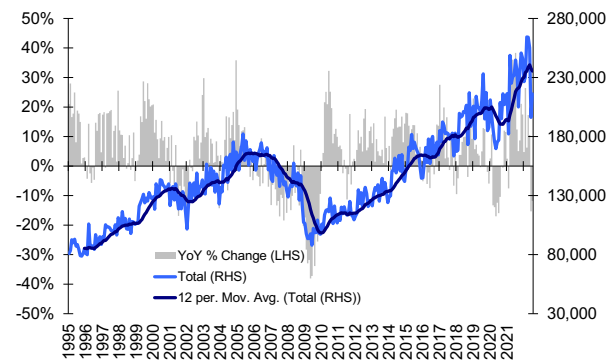
Source: Port of Charleston Morgan Stanley Research. Note: adjusted for Leap year and CNY

Exhibit 239: Sequential Change in Long Beach Total (TEUs)



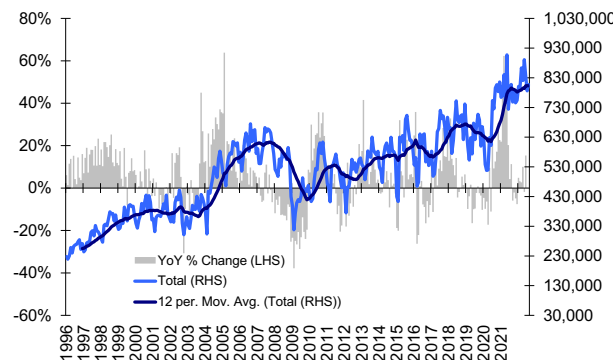
Source: Port of Long Beach, Morgan Stanley Research. Note: adjusted for Leap year and CNY

Exhibit 240: Charleston Total (TEUs) Long-Term Trends



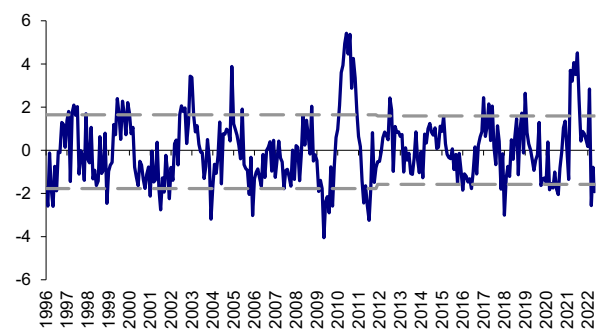
Source: Port of Charleston, Morgan Stanley Research. Note: adjusted for Leap year and CNY

Exhibit 241: Long Beach Total (TEUs) Long-Term Trends



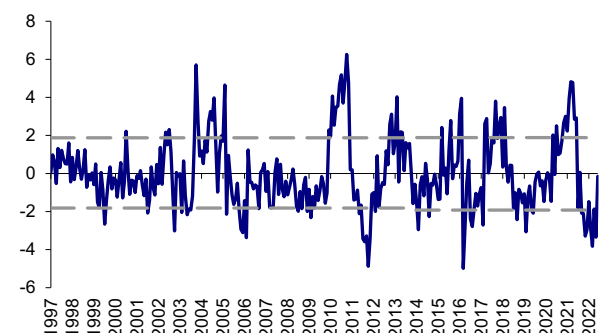
Source: Port of Long Beach, Morgan Stanley Research. Note: adjusted for Leap year and CNY

Exhibit 242: Acceleration in LTM Charleston Total (TEUs)



Source: Port of Charleston, Morgan Stanley Research. Note: adjusted for Leap year and CNY

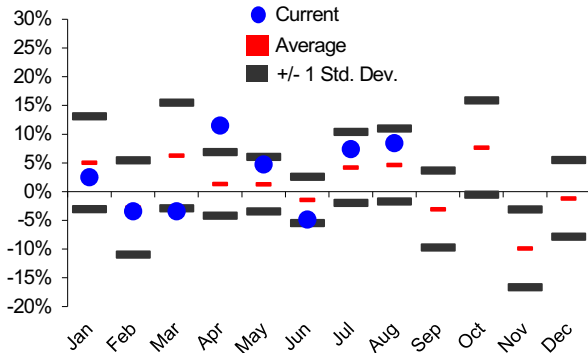
Exhibit 243: Acceleration in LTM Long Beach Total (TEUs)



Source: Port of Long Beach, Morgan Stanley Research. Note: adjusted for Leap year and CNY

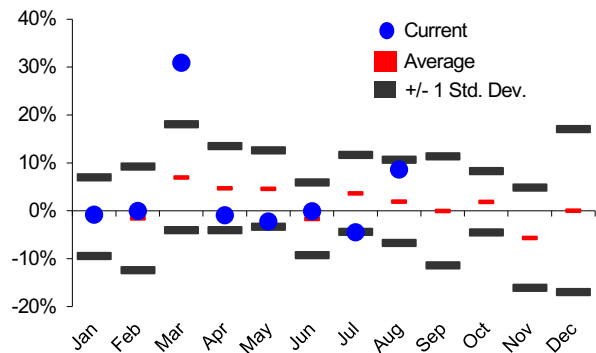
Savannah & Vancouver Port Trends

Exhibit 244: Sequential Change in Savannah Total (TEUs)



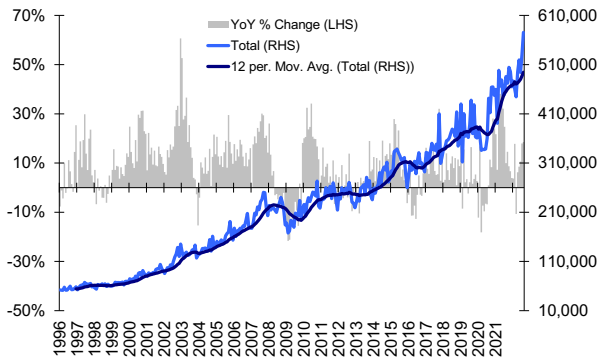
Source: Port of Savannah, Morgan Stanley Research. Note: adjusted for Leap year and CNY

Exhibit 245: Sequential Change in Vancouver Total (TEUs)



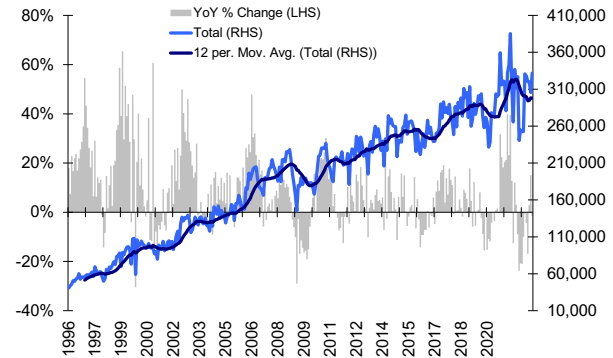
Source: Port of Vancouver, Morgan Stanley Research. Note: adjusted for Leap year and CNY

Exhibit 246: Savannah Total (TEUs) Long-Term Trends



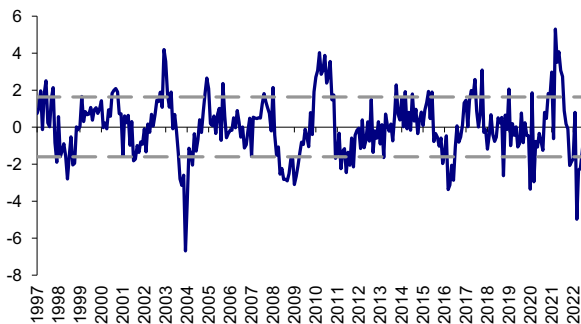
Source: Port of Savannah, Morgan Stanley Research. Note: adjusted for Leap year and CNY

Exhibit 247: Vancouver Total (TEUs) Long-Term Trends



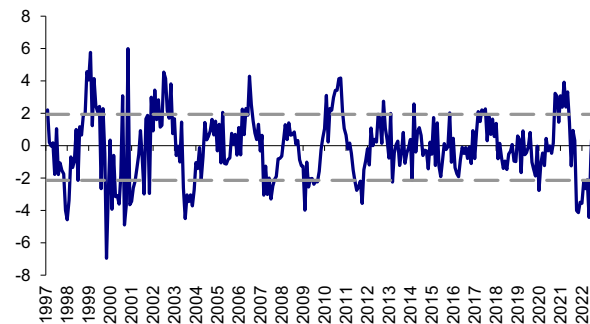
Source: Port of Vancouver, Morgan Stanley Research. Note: adjusted for Leap year and CNY

Exhibit 248: Acceleration in LTM Savannah Total (TEUs)



Source: Port of Savannah, Morgan Stanley Research. Note: adjusted for Leap year and CNY

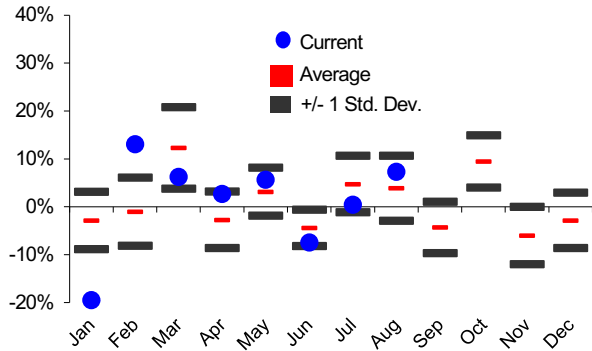
Exhibit 249: Acceleration in LTM Vancouver Total (TEUs)



Source: Port of Vancouver, Morgan Stanley Research. Note: adjusted for Leap year and CNY

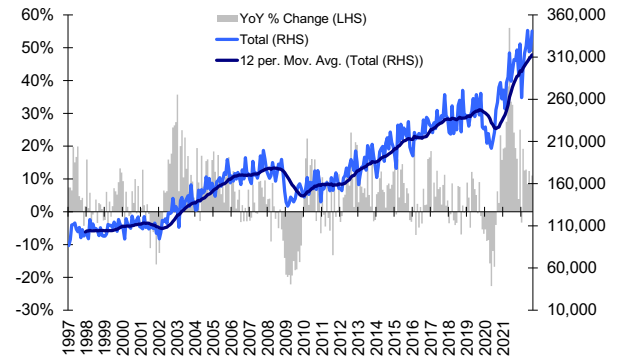
Virginia Port Trends

Exhibit 250: Sequential Change in Virginia Total (TEUs)



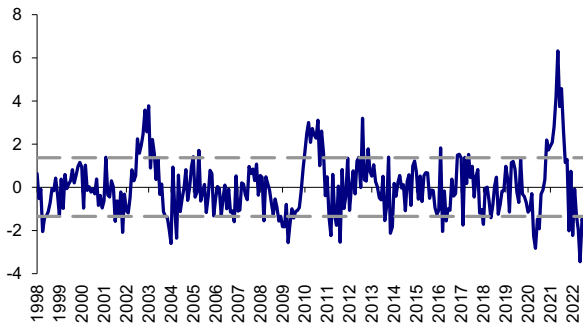
Source: Port of Virginia, Morgan Stanley Research. Note: adjusted for Leap year and CNY

Exhibit 251: Virginia Total (TEUs) Long-Term Trends



Source: Port of Virginia, Morgan Stanley Research. Note: adjusted for Leap year and CNY

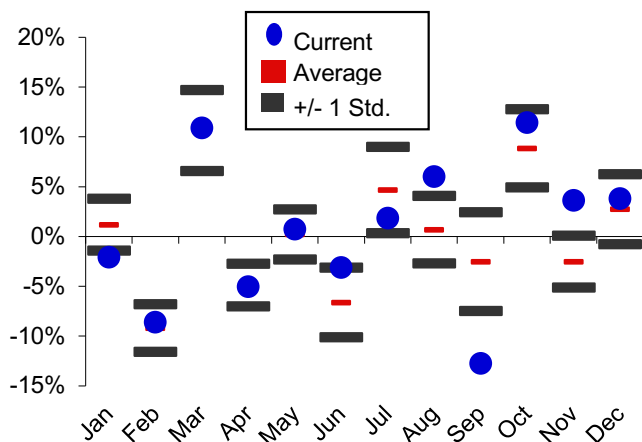
Exhibit 252: Acceleration in LTM Virginia Total (TEUs)



Source: Port of Virginia, Morgan Stanley Research. Note: adjusted for Leap year and CNY

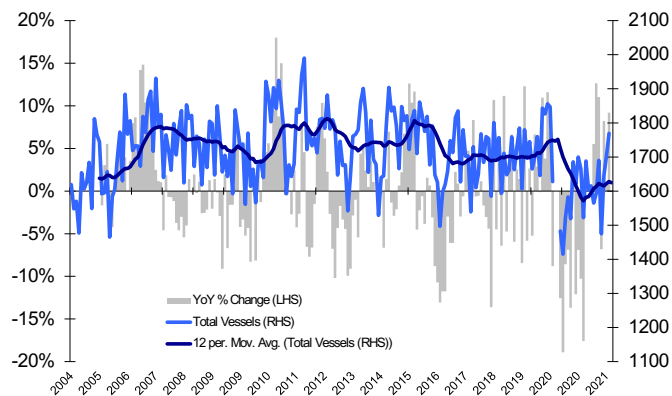
Panama Canal Trends

Exhibit 253: Sequential Change in Panama Total Vessels



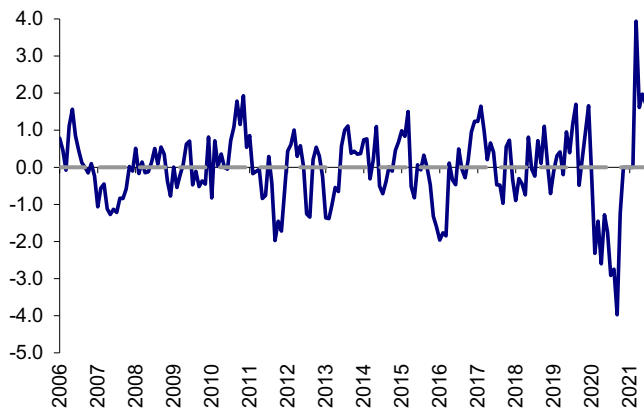
Source: Panama Canal Authority, Morgan Stanley Research. Note: adjusted for Leap year

Exhibit 254: Panama Total Vessels Long-Term Trends



Source: Panama Canal Authority, Morgan Stanley Research. Note: adjusted for Leap year

Exhibit 255: Acceleration in LTM Panama Total Vessels



Source: Panama Canal Authority, Morgan Stanley Research. Note: adjusted for Leap year

Morgan Stanley is currently acting as financial advisor to XPO Logistics, Inc. ("XPO") with respect to its proposed plan to separate the company's brokered freight transportation operations from its less-than-truckload (LTL) business in North America, as announced on March 8, 2022. The proposed separation is subject to various conditions, including the effectiveness of a Form 10 registration statement, receipt of a tax opinion from counsel, the refinancing of XPO's debt on terms satisfactory to the XPO board of directors, and final approval by the XPO board of directors. XPO has agreed to pay fees to Morgan Stanley for its services, including transaction fees that are contingent upon the consummation of the proposed transaction. Please refer to the notes at the end of the report.

Morgan Stanley & Co. International plc ("Morgan Stanley") is acting as financial advisor to Bomi Italia S.p.A. ("Bomi") in relation to the proposed acquisition of Bomi by United Parcel Service as announced on 8th August 2022. Bomi has agreed to pay fees to Morgan Stanley for its financial services. Please refer to the notes at the end of the report.

Morgan Stanley is acting as financial advisor to Kansas City Southern ("Kansas City Southern") in relation to its proposed sale to Canadian Pacific Railway Limited ("Canadian Pacific Railway") as announced on March 21, 2021. The proposed transaction is subject to approval by Kansas City Southern and Canadian Pacific Railway shareholders, regulatory approval and other customary closing conditions. This report and the information provided herein is not intended to (i) provide voting advice, (ii) serve as an endorsement of the proposed transaction, or (iii) result in the procurement, withholding or revocation of a proxy or any other action by a security holder. Kansas City Southern has agreed to pay fees to Morgan Stanley for its financial services including transaction fees which are contingent upon the consummation of the transaction. Please refer to the notes at the end of the report.

Disclosure Section

The information and opinions in Morgan Stanley Research were prepared by Morgan Stanley & Co. LLC, and/or Morgan Stanley C.T.V.M. S.A., and/or Morgan Stanley Mexico, Casa de Bolsa, S.A. de C.V., and/or Morgan Stanley Canada Limited. As used in this disclosure section, "Morgan Stanley" includes Morgan Stanley & Co. LLC, Morgan Stanley C.T.V.M. S.A., Morgan Stanley Mexico, Casa de Bolsa, S.A. de C.V., Morgan Stanley Canada Limited and their affiliates as necessary.

For important disclosures, stock price charts and equity rating histories regarding companies that are the subject of this report, please see the Morgan Stanley Research Disclosure Website at www.morganstanley.com/researchdisclosures, or contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY, 10036 USA.

For valuation methodology and risks associated with any recommendation, rating or price target referenced in this research report, please contact the Client Support Team as follows: US/Canada +1 800 303-2495; Hong Kong +852 2848-5999; Latin America +1 718 754-5444 (U.S.); London +44 (0)20-7425-8169; Singapore +65 6834-6860; Sydney +61 (0)2-9770-1505; Tokyo +81 (0)3-6836-9000. Alternatively you may contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY 10036 USA.

Analyst Certification

The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: Ravi Shanker.

Global Research Conflict Management Policy

Morgan Stanley Research has been published in accordance with our conflict management policy, which is available at www.morganstanley.com/institutional/research/conflict/policies. A Portuguese version of the policy can be found at www.morganstanley.com.br

Important Regulatory Disclosures on Subject Companies

As of August 31, 2022, Morgan Stanley beneficially owned 1% or more of a class of common equity securities of the following companies covered in Morgan Stanley Research: ArcBest Corp, C.H. Robinson Worldwide Inc., CSX Corporation, Expeditors International of Washington I, FedEx Corporation, GXO Logistics, Inc, Heartland Express Inc., Hub Group Inc, J.B. Hunt Transport Services Inc., Knight-Swift Transportation Holdings Inc, Landstar System Inc, Norfolk Southern Corp., Saia, Inc., Schneider National Inc., Union Pacific Corp., United Parcel Service, XPO Logistics, Inc..

Within the last 12 months, Morgan Stanley managed or co-managed a public offering (or 144A offering) of securities of CSX Corporation, Norfolk Southern Corp., Union Pacific Corp..

Within the last 12 months, Morgan Stanley has received compensation for investment banking services from ArcBest Corp, C.H. Robinson Worldwide Inc., Canadian Pacific Railway Ltd., CSX Corporation, FedEx Corporation, GXO Logistics, Inc, J.B. Hunt Transport Services Inc., Norfolk Southern Corp., Union Pacific Corp., United Parcel Service, XPO Logistics, Inc..

In the next 3 months, Morgan Stanley expects to receive or intends to seek compensation for investment banking services from ArcBest Corp, C.H. Robinson Worldwide Inc., Canadian National Railway Co., Canadian Pacific Railway Ltd., CSX Corporation, FedEx Corporation, GXO Logistics, Inc, Heartland Express Inc., Hub Group Inc, J.B. Hunt Transport Services Inc., Landstar System Inc, Norfolk Southern Corp., Old Dominion Freight Line Inc, Saia, Inc., Schneider National Inc., TFI International Inc, TuSimple Holdings Inc, Union Pacific Corp., United Parcel Service, US Xpress Enterprises Inc, Werner Enterprises, XPO Logistics, Inc..

Within the last 12 months, Morgan Stanley has received compensation for products and services other than investment banking services from Canadian Pacific Railway Ltd., CSX Corporation, GXO Logistics, Inc, Hub Group Inc, J.B. Hunt Transport Services Inc., Norfolk Southern Corp., Old Dominion Freight Line Inc, Union Pacific Corp., United Parcel Service, XPO Logistics, Inc..

Within the last 12 months, Morgan Stanley has provided or is providing investment banking services to, or has an investment banking client relationship with, the following company: ArcBest Corp, C.H. Robinson Worldwide Inc., Canadian National Railway Co., Canadian Pacific Railway Ltd., CSX Corporation, FedEx Corporation, GXO Logistics, Inc, Heartland Express Inc., Hub Group Inc, J.B. Hunt Transport Services Inc., Landstar System Inc, Norfolk Southern Corp., Old Dominion Freight Line Inc, Saia, Inc., Schneider National Inc., TFI International Inc, TuSimple Holdings Inc, Union Pacific Corp., United Parcel Service, US Xpress Enterprises Inc, Werner Enterprises, XPO Logistics, Inc..

Within the last 12 months, Morgan Stanley has either provided or is providing non-investment banking, securities-related services to and/or in the past has entered into an agreement to provide services or has a client relationship with the following company: ArcBest Corp, C.H. Robinson Worldwide Inc., Canadian National Railway Co., Canadian Pacific Railway Ltd., CSX Corporation, FedEx Corporation, GXO Logistics, Inc, Hub Group Inc, J.B. Hunt Transport Services Inc., Norfolk Southern Corp., Old Dominion Freight Line Inc, Union Pacific Corp., United Parcel Service, XPO Logistics, Inc..

Morgan Stanley & Co. LLC makes a market in the securities of ArcBest Corp, C.H. Robinson Worldwide Inc., Canadian National Railway Co., Canadian Pacific Railway Ltd., CSX Corporation, Expeditors International of Washington I, FedEx Corporation, Heartland Express Inc., Hub Group Inc, J.B. Hunt Transport Services Inc., Knight-Swift Transportation Holdings Inc, Landstar System Inc, Norfolk Southern Corp., Old Dominion Freight Line Inc, Saia, Inc., Schneider National Inc., TuSimple Holdings Inc, Union Pacific Corp., United Parcel Service, US Xpress Enterprises Inc, Werner Enterprises, XPO Logistics, Inc..

The equity research analysts or strategists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors, firm revenues and overall investment banking revenues. Equity Research analysts' or strategists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

Morgan Stanley and its affiliates do business that relates to companies/instruments covered in Morgan Stanley Research, including market making, providing liquidity, fund management, commercial banking, extension of credit, investment services and investment banking. Morgan Stanley sells to and buys from customers the securities/instruments of companies covered in Morgan Stanley Research on a principal basis. Morgan Stanley may have a position in the debt of the Company or instruments discussed in this report. Morgan Stanley trades or may trade as principal in the debt securities (or in related derivatives) that are the subject of the debt research report.

Certain disclosures listed above are also for compliance with applicable regulations in non-US jurisdictions.

STOCK RATINGS

Morgan Stanley uses a relative rating system using terms such as Overweight, Equal-weight, Not-Rated or Underweight (see definitions below). Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold and sell. Investors should carefully read the definitions of all ratings used in Morgan Stanley Research. In addition, since Morgan Stanley Research contains more complete information concerning the analyst's views, investors should carefully read Morgan Stanley Research, in its entirety, and not infer the contents from the rating alone. In any case, ratings (or research) should not be used or relied upon as investment advice. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations.

Global Stock Ratings Distribution

(as of September 30, 2022)

The Stock Ratings described below apply to Morgan Stanley's Fundamental Equity Research and do not apply to Debt Research produced by the Firm. For disclosure purposes only (in accordance with FINRA requirements), we include the category headings of Buy, Hold, and Sell alongside our ratings of Overweight, Equal-weight, Not-Rated and Underweight. Morgan Stanley does not assign ratings of Buy, Hold or Sell to the stocks we cover. Overweight, Equal-weight, Not-Rated and Underweight are not the equivalent of buy, hold, and sell but represent recommended relative weightings (see definitions below). To satisfy regulatory requirements, we correspond Overweight, our most positive stock rating, with a buy recommendation; we correspond Equal-weight and Not-Rated to hold and Underweight to sell recommendations, respectively.

STOCK RATING CATEGORY	COVERAGE UNIVERSE		INVESTMENT BANKING CLIENTS (IBC)			OTHER MATERIAL INVESTMENT SERVICES CLIENTS (MISC)	
	COUNT	% OF TOTAL	COUNT	% OF TOTAL IBC	% OF RATING CATEGORY	COUNT	% OF TOTAL OTHER MISC
Overweight/Buy	1342	38%	295	41%	22%	590	39%
Equal-weight/Hold	1582	45%	335	47%	21%	702	46%
Not-Rated/Hold	0	0%	0	0%	0%	0	0%
Underweight/Sell	610	17%	84	12%	14%	219	14%
TOTAL	3,534		714			1511	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

Analyst Stock Ratings

Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

Important Disclosures for Morgan Stanley Smith Barney LLC & E*TRADE Securities LLC Customers

Important disclosures regarding the relationship between the companies that are the subject of Morgan Stanley Research and Morgan Stanley Smith Barney LLC or Morgan Stanley or any of their affiliates, are available on the Morgan Stanley Wealth Management disclosure website at www.morganstanley.com/online/researchdisclosures. For Morgan Stanley specific disclosures, you may refer to www.morganstanley.com/researchdisclosures.

Each Morgan Stanley research report is reviewed and approved on behalf of Morgan Stanley Smith Barney LLC and E*TRADE Securities LLC. This review and approval is conducted by the same person who reviews the research report on behalf of Morgan Stanley. This could create a conflict of interest.

Other Important Disclosures

Morgan Stanley & Co. International PLC and its affiliates have a significant financial interest in the debt securities of C.H. Robinson Worldwide Inc., CSX Corporation, FedEx Corporation, GXO Logistics, Inc, Norfolk Southern Corp., Union Pacific Corp., United Parcel Service, XPO Logistics, Inc..

Morgan Stanley Research policy is to update research reports as and when the Research Analyst and Research Management deem appropriate, based on developments with the issuer, the sector, or the market that may have a material impact on the research views or opinions stated therein. In addition, certain Research publications are intended to be updated on a regular periodic basis (weekly/monthly/quarterly/annual) and will ordinarily be updated with that frequency, unless the Research Analyst and Research Management determine that a different publication schedule is appropriate based on current conditions. Morgan Stanley is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Morgan Stanley produces an equity research product called a "Tactical Idea." Views contained in a "Tactical Idea" on a particular stock may be contrary to the recommendations or views expressed in research on the same stock. This may be the result of differing time horizons, methodologies, market events, or other factors. For all research available on a particular stock, please contact your sales representative or go to Matrix at <http://www.morganstanley.com/matrix>.

Morgan Stanley Research is provided to our clients through our proprietary research portal on Matrix and also distributed electronically by Morgan Stanley to clients. Certain, but not all, Morgan Stanley Research products are also made available to clients through third-party vendors or redistributed to clients through alternate electronic means as a convenience. For access to all available Morgan Stanley Research, please contact your sales representative or go to Matrix at <http://www.morganstanley.com/matrix>.

Any access and/or use of Morgan Stanley Research is subject to Morgan Stanley's Terms of Use (<http://www.morganstanley.com/terms.html>). By accessing

and/or using Morgan Stanley Research, you are indicating that you have read and agree to be bound by our Terms of Use (<http://www.morganstanley.com/terms.html>). In addition you consent to Morgan Stanley processing your personal data and using cookies in accordance with our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy_pledge.html), including for the purposes of setting your preferences and to collect readership data so that we can deliver better and more personalized service and products to you. To find out more information about how Morgan Stanley processes personal data, how we use cookies and how to reject cookies see our Privacy Policy and our Global Cookies Policy (http://www.morganstanley.com/privacy_pledge.html).

If you do not agree to our Terms of Use and/or if you do not wish to provide your consent to Morgan Stanley processing your personal data or using cookies please do not access our research.

Morgan Stanley Research does not provide individually tailored investment advice. Morgan Stanley Research has been prepared without regard to the circumstances and objectives of those who receive it. Morgan Stanley recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of an investment or strategy will depend on an investor's circumstances and objectives. The securities, instruments, or strategies discussed in Morgan Stanley Research may not be suitable for all investors, and certain investors may not be eligible to purchase or participate in some or all of them. Morgan Stanley Research is not an offer to buy or sell or the solicitation of an offer to buy or sell any security/instrument or to participate in any particular trading strategy. The value of and income from your investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in securities/instruments transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. If provided, and unless otherwise stated, the closing price on the cover page is that of the primary exchange for the subject company's securities/instruments.

The fixed income research analysts, strategists or economists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues (which include fixed income trading and capital markets profitability or revenues), client feedback and competitive factors. Fixed Income Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

The "Important Regulatory Disclosures on Subject Companies" section in Morgan Stanley Research lists all companies mentioned where Morgan Stanley owns 1% or more of a class of common equity securities of the companies. For all other companies mentioned in Morgan Stanley Research, Morgan Stanley may have an investment of less than 1% in securities/instruments or derivatives of securities/instruments of companies and may trade them in ways different from those discussed in Morgan Stanley Research. Employees of Morgan Stanley not involved in the preparation of Morgan Stanley Research may have investments in securities/instruments or derivatives of securities/instruments of companies mentioned and may trade them in ways different from those discussed in Morgan Stanley Research. Derivatives may be issued by Morgan Stanley or associated persons.

With the exception of information regarding Morgan Stanley, Morgan Stanley Research is based on public information. Morgan Stanley makes every effort to use reliable, comprehensive information, but we make no representation that it is accurate or complete. We have no obligation to tell you when opinions or information in Morgan Stanley Research change apart from when we intend to discontinue equity research coverage of a subject company. Facts and views presented in Morgan Stanley Research have not been reviewed by, and may not reflect information known to, professionals in other Morgan Stanley business areas, including investment banking personnel.

Morgan Stanley Research personnel may participate in company events such as site visits and are generally prohibited from accepting payment by the company of associated expenses unless pre-approved by authorized members of Research management.

Morgan Stanley may make investment decisions that are inconsistent with the recommendations or views in this report.

To our readers based in Taiwan or trading in Taiwan securities/instruments: Information on securities/instruments that trade in Taiwan is distributed by Morgan Stanley Taiwan Limited ("MSTL"). Such information is for your reference only. The reader should independently evaluate the investment risks and is solely responsible for their investment decisions. Morgan Stanley Research may not be distributed to the public media or quoted or used by the public media without the express written consent of Morgan Stanley. Any non-customer reader within the scope of Article 7-1 of the Taiwan Stock Exchange Recommendation Regulations accessing and/or receiving Morgan Stanley Research is not permitted to provide Morgan Stanley Research to any third party (including but not limited to related parties, affiliated companies and any other third parties) or engage in any activities regarding Morgan Stanley Research which may create or give the appearance of creating a conflict of interest. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation or a solicitation to trade in such securities/instruments. MSTL may not execute transactions for clients in these securities/instruments.

Morgan Stanley is not incorporated under PRC law and the research in relation to this report is conducted outside the PRC. Morgan Stanley Research does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors shall have the relevant qualifications to invest in such securities and shall be responsible for obtaining all relevant approvals, licenses, verifications and/or registrations from the relevant governmental authorities themselves. Neither this report nor any part of it is intended as, or shall constitute, provision of any consultancy or advisory service of securities investment as defined under PRC law. Such information is provided for your reference only.

Morgan Stanley Research is disseminated in Brazil by Morgan Stanley C.T.V.M. S.A. located at Av. Brigadeiro Faria Lima, 3600, 6th floor, São Paulo - SP, Brazil; and is regulated by the Comissão de Valores Mobiliários; in Mexico by Morgan Stanley México, Casa de Bolsa, S.A. de C.V which is regulated by Comisión Nacional Bancaria y de Valores. Paseo de los Tamarindos 90, Torre 1, Col. Bosques de las Lomas Floor 29, 05120 Mexico City; in Japan by Morgan Stanley MUFG Securities Co., Ltd. and, for Commodities related research reports only, Morgan Stanley Capital Group Japan Co., Ltd; in Hong Kong by Morgan Stanley Asia Limited (which accepts responsibility for its contents) and by Morgan Stanley Bank Asia Limited; in Singapore by Morgan Stanley Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore (which accepts legal responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research) and by Morgan Stanley Bank Asia Limited, Singapore Branch (Registration number T14FC0118J); in Australia to "wholesale clients" within the meaning of the Australian Corporations Act by Morgan Stanley Australia Limited A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents; in Australia to "wholesale clients" and "retail clients" within the meaning of the Australian Corporations Act by Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813, which accepts responsibility for its contents; in Korea by Morgan Stanley & Co International plc, Seoul Branch; in India by Morgan Stanley India Company Private Limited; in Canada by Morgan Stanley Canada Limited; in Germany and the European Economic Area where required by Morgan Stanley Europe S.E., authorised and regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin) under the reference number 149169; in the US by Morgan Stanley & Co. LLC, which accepts responsibility for its contents. Morgan Stanley & Co. International plc, authorized by the Prudential Regulatory Authority and regulated by the Financial Conduct Authority and the Prudential Regulatory Authority, disseminates in the UK research that it has prepared, and approves solely for the purposes of section 21 of the Financial Services and Markets Act 2000, research which has been prepared by any of its affiliates. RMB Morgan Stanley Proprietary Limited is a member of the JSE Limited and A2X (Pty) Ltd. RMB Morgan Stanley Proprietary Limited is a joint venture owned equally by Morgan Stanley International Holdings Inc. and RMB Investment Advisory (Proprietary) Limited, which is wholly owned by FirstRand Limited. The information in Morgan Stanley Research is being disseminated by Morgan Stanley Saudi Arabia, regulated by the Capital Market Authority in the Kingdom of Saudi Arabia, and is directed at Sophisticated investors only.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (DIFC Branch), regulated by the Dubai Financial Services Authority (the DFSA), and is directed at Professional Clients only, as defined by the DFSA. The financial products or financial services to

which this research relates will only be made available to a customer who we are satisfied meets the regulatory criteria to be a Professional Client. A distribution of the different MS Research ratings or recommendations, in percentage terms for Investments in each sector covered, is available upon request from your sales representative.

The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (QFC Branch), regulated by the Qatar Financial Centre Regulatory Authority (the QFCRA), and is directed at business customers and market counterparties only and is not intended for Retail Customers as defined by the QFCRA.

As required by the Capital Markets Board of Turkey, investment information, comments and recommendations stated here, are not within the scope of investment advisory activity. Investment advisory service is provided exclusively to persons based on their risk and income preferences by the authorized firms. Comments and recommendations stated here are general in nature. These opinions may not fit to your financial status, risk and return preferences. For this reason, to make an investment decision by relying solely to this information stated here may not bring about outcomes that fit your expectations.

The trademarks and service marks contained in Morgan Stanley Research are the property of their respective owners. Third-party data providers make no warranties or representations relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages relating to such data. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P.

Morgan Stanley Research, or any portion thereof may not be reprinted, sold or redistributed without the written consent of Morgan Stanley.

Indicators and trackers referenced in Morgan Stanley Research may not be used as, or treated as, a benchmark under Regulation EU 2016/1011, or any other similar framework.

The issuers and/or fixed income products recommended or discussed in certain fixed income research reports may not be continuously followed. Accordingly, investors should regard those fixed income research reports as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or individual fixed income products.

Morgan Stanley may hold, from time to time, material financial and commercial interests regarding the company subject to the Research report.

INDUSTRY COVERAGE: Freight Transportation

COMPANY (TICKER)	RATING (AS OF)	PRICE* (09/30/2022)
Ravi Shanker		
ArcBest Corp (ARCB.O)	O (12/10/2020)	\$72.73
C.H. Robinson Worldwide Inc. (CHRW.O)	U (06/09/2013)	\$96.31
Canadian National Railway Co. (CNR.TO)	E (12/02/2021)	C\$149.18
Canadian Pacific Railway Ltd. (CP.TO)	++	C\$92.21
CSX Corporation (CSX.O)	U (12/10/2020)	\$26.64
Expeditors International of Washington I (EXPD.O)	U (12/02/2021)	\$88.31
FedEx Corporation (FDX.N)	E (06/20/2013)	\$148.47
GXO Logistics, Inc (GXO.N)	E (08/12/2021)	\$35.06
Heartland Express Inc. (HTLD.O)	E (03/15/2022)	\$14.31
Hub Group Inc (HUBG.O)	E (02/13/2018)	\$68.98
J.B. Hunt Transport Services Inc. (JBHT.O)	E (05/06/2011)	\$156.42
Knight-Swift Transportation Holdings Inc (KNXN)	O (12/13/2017)	\$48.93
Landstar System Inc (LSTR.O)	U (02/23/2016)	\$144.37
Norfolk Southern Corp. (NSC.N)	U (06/03/2016)	\$209.65
Old Dominion Freight Line Inc (ODFL.O)	E (11/09/2021)	\$248.77
Saia, Inc. (SAIA.O)	U (02/23/2016)	\$190.00
Schneider National Inc. (SNDR.N)	O (05/01/2017)	\$20.30
TFI International Inc (TFII.N)	O (06/10/2020)	\$90.48
TuSimple Holdings Inc (TSP.O)	O (05/10/2021)	\$7.60
Union Pacific Corp. (UNP.N)	E (03/23/2020)	\$194.82
United Parcel Service (UPS.N)	U (02/23/2016)	\$161.54
US Xpress Enterprises Inc (USX.N)	E (12/02/2021)	\$2.46
Werner Enterprises (WERN.O)	O (02/23/2016)	\$37.60
XPO Logistics, Inc. (XPO.N)	O (07/08/2022)	\$44.52

Stock Ratings are subject to change. Please see latest research for each company.

* Historical prices are not split adjusted.