

TAC Index: Lifting the Veil on Air Freight Pricing

**Air Freight & Surface Transportation Equity Research
Susquehanna Financial Group**

Bascome Majors, CFA | (212) 510-4407 | bascome.majors@sig.com

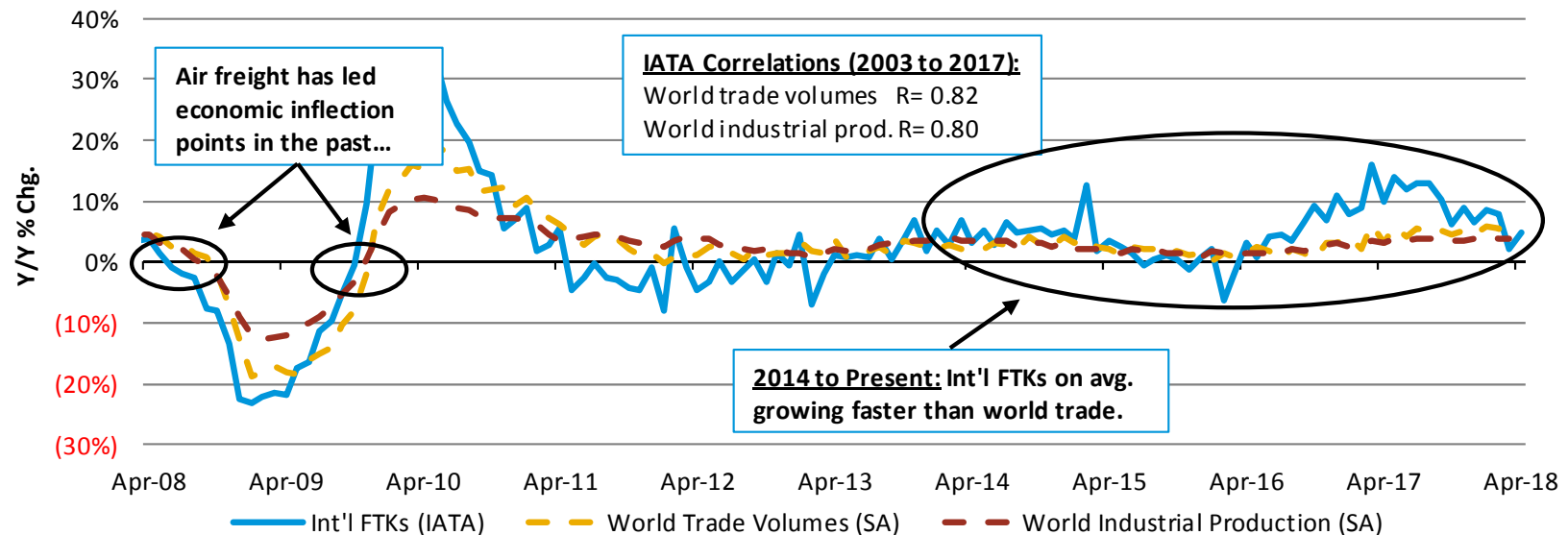
Chris Stathoulopoulos | (212) 510-4408 | christopher.stathoulopoulos@sig.com

Susquehanna International Group, LLP (SIG) is comprised of affiliated entities, including Susquehanna Financial Group, LLLP (SFG). SFG is a provider of research and execution services. SFG is a member of FINRA.

Please refer to page 7 for important disclosures and certifications.

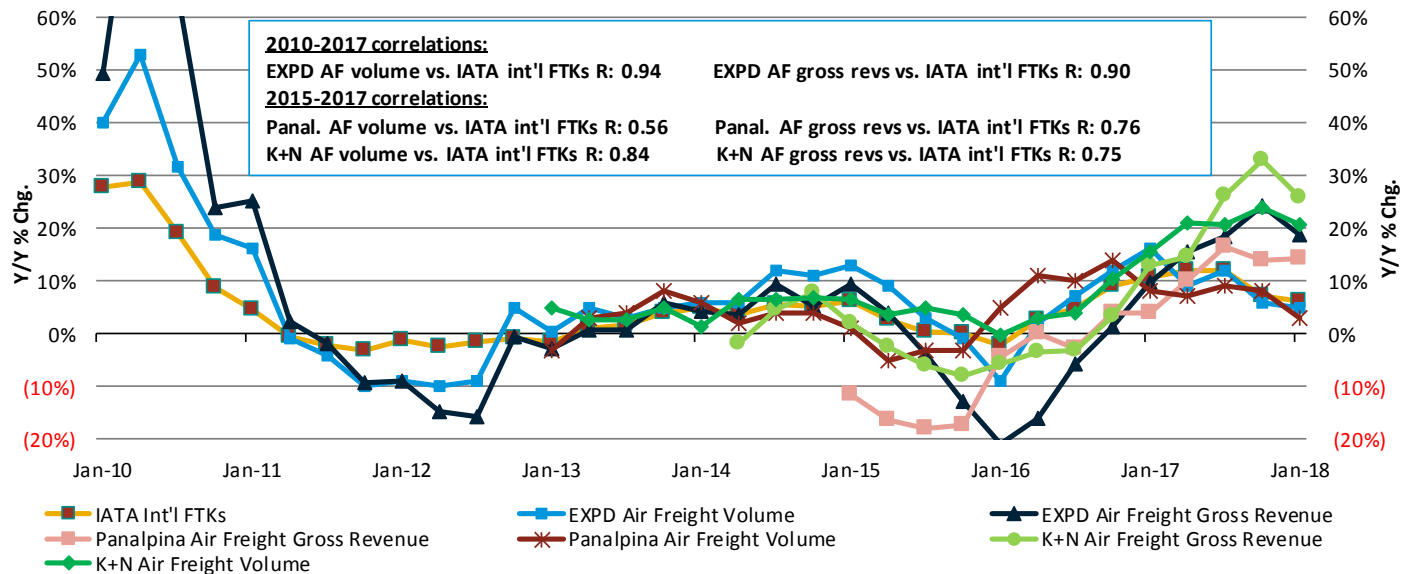


Air Freight Industry Overview



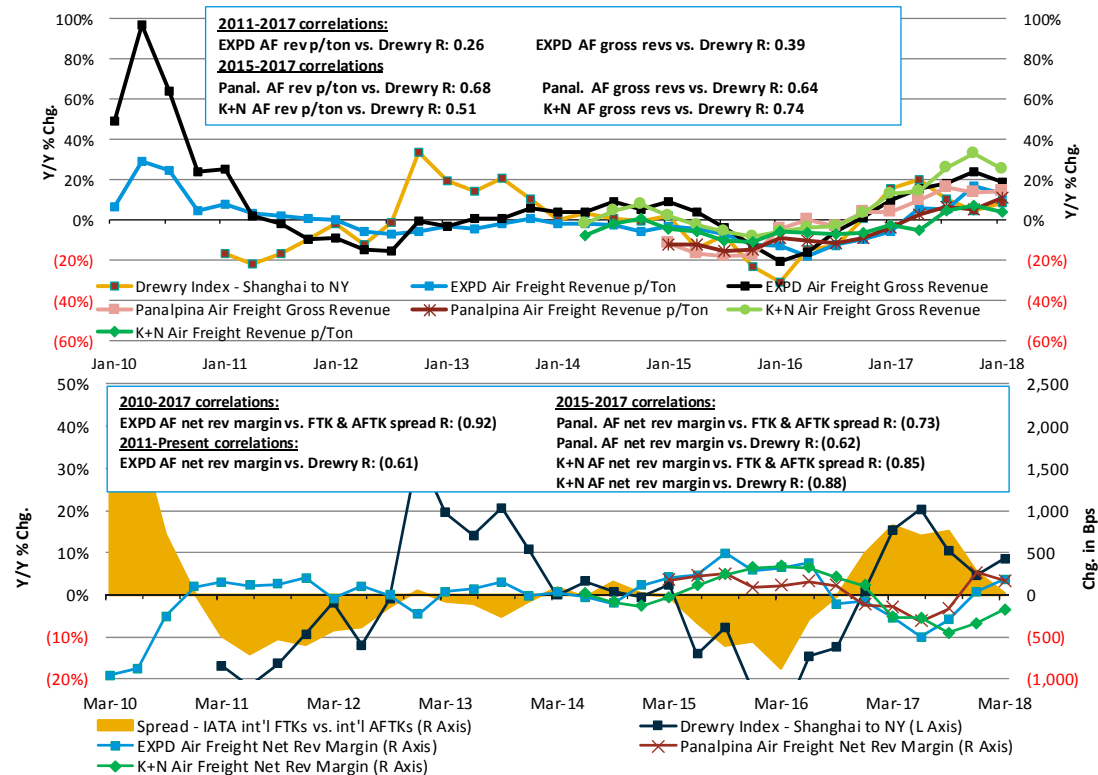
- Air freight makes up ~1% of global trade tonnage, but ~35% of the related total value
 - Commodities are typically high-value and time-sensitive items
- Int'l airfreight volumes (FTKs) show a high correlation with world trade and industrial production
 - Can be useful in gauging broader macro trends
- Since June 2016, int'l FTKs have grown on avg. ~8% Y/Y
 - Best stretch of growth since 2010 (when recovery was comparing vs. recessionary volumes)

Tracking the Air Freight Market – Volumes



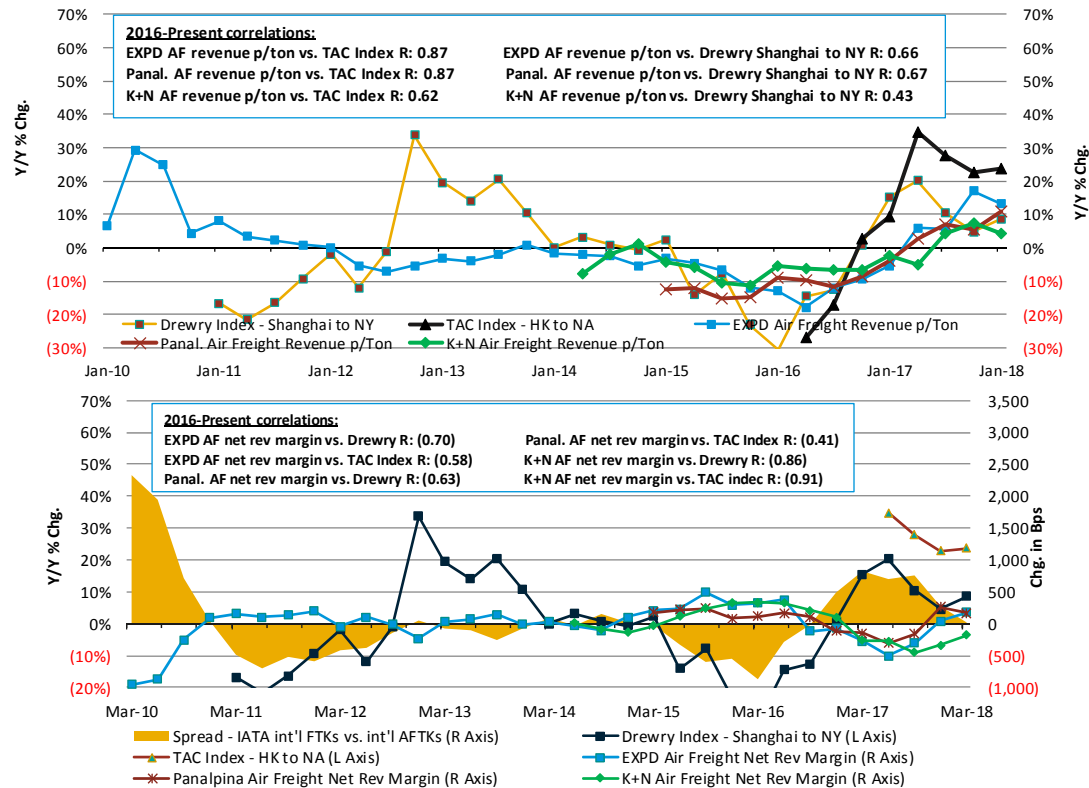
- **The Good News?** IATA volumes historically predict volumes & revenue for large, global forwarders
 - Our examples use actual quarterly reported financial data for the air freight segments for Expeditors, Panalpina, and Kuehne Nagel
- **The Bad News?** IATA's broader data sets lack:
 - Timeliness (~5 week lag)
 - Lane specific detail for benchmarking
 - Pricing information

Tracking the Air Freight Market – Pricing & Gross Margin



- **The Good News?** Drewry's price index available for years, offers some lane-specific detail
- **The Bad News?** Drewry's price index lacks:
 - Timeliness (1-month lag)
 - Bespoke lane-specific options for forwarder benchmarking
 - Relationship with reported data from large forwarders fairly weak

Enter TAC Index – Lifting the Veil on Air Freight Pricing

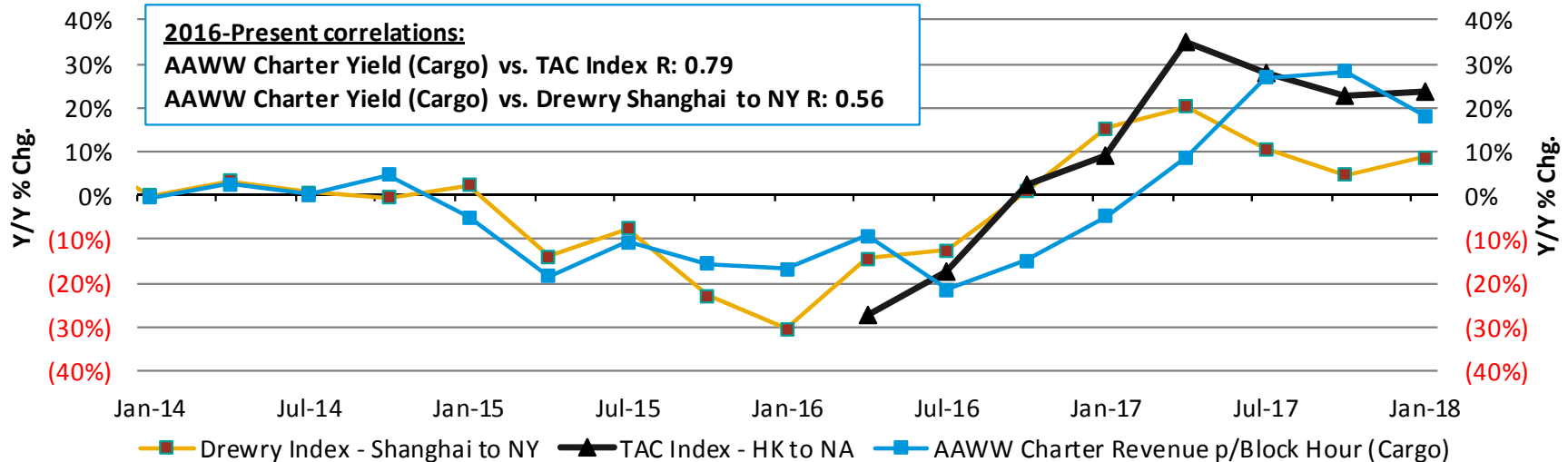


• What does TAC Bring to the Table for Freight Forwarders?

- Timeliness – available weekly with a 1 week lag
- Lane-specificity – largest lanes published on Bloomberg, far more detailed/bespoke lane pricing information available direct from TAC
- Predictive of key financial metrics for large forwarders...so far



Enter TAC Index – Lifting the Veil on Air Freight Pricing



- **What does TAC Bring to the Table for Cargo Airlines?**

- Timeliness – available weekly with a 1 week lag
- Lane-specificity – largest lanes published on Bloomberg, far more detailed/bespoke lane pricing information available direct from TAC
- Predictive of lessors' Charter / short-term wet lease yields...so far



Disclosure

Analyst Certification

The research analyst primarily responsible for this report attests that the views expressed accurately reflect his or her personal views and that no part of his or her compensation was, is, or will be related to any specific views in any research report.

Important Disclosures

Susquehanna International Group, LLP (SIG) is comprised of a number of trading and investment related entities under common control, including Susquehanna Financial Group, LLLP (SFG). SIG, its affiliates and/or its principals may have long or short positions in securities or related issues mentioned here. SIG, in its capacity as specialist and/or market maker may execute orders on a principle basis in the subject securities. Information presented is from sources believed to be reliable, but is not guaranteed to be accurate or complete. Hyperlinks provided in this report are for your convenience. Please be aware that the products and information supplied on these pages are not endorsed or approved by SFG.

The following data elements on this report were sourced from Bloomberg LP: Price (yesterday's close), 52-week high, 52-week low, Shares outstanding, Average daily trading volume, Volume (contracts). Any others will be specifically sourced.

SFG employs the following rating system:

Positive: We expect this stock to appreciate by at least 15% over the next 12 months. Upon the initiation of a Positive rating, we expect this stock to appreciate by at least 20% over the next 12 months.

Neutral: We expect this stock to perform within a range of +/-15 percentage points over the next 12 months.

Negative: We expect this stock to depreciate by at least 15% over the next 12 months. Upon the initiation of a Negative rating, we expect this stock to depreciate by at least 20% over the next 12 months.

Suspended: The previously published rating and/or estimates are currently suspended and under review.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or related investment mentioned in this report. In addition, investors in securities such as ADRs, whose values are influenced by the currency of the underlying security, effectively assume currency risk. ADR/ADS represent shares and/or receipts of a non-US issuer held by a depository institution. Investors in ADR/ADS should be aware of the following: ADR/ADS may have restrictions on exchange privileges. ADR/ADS may have dividend payments or voting rights that differ from the ordinary shares. Please check with the depository to determine the specific terms. ADR/ADS may also be subject to exchange rate risk, certain fees and expenses, and additional taxation.

This is a proprietary SFG product prepared, and intended, solely for the use of sophisticated and professional institutional traders and managers and not for the general investing public. Unauthorized redistribution of this report, by any means, represents a violation of US copyright laws and could result in legal action and the suspension of the intended recipient's privileges. If you have any questions regarding this transmission please contact ResearchDistribution@sig.com. The information in this communication is not intended for distribution to, or use by, any person or entity in any jurisdiction or country where such distribution or use would be contrary to law or regulation or which would subject Susquehanna Financial Group, LLLP or its affiliates to any registration requirement within such jurisdiction or country. In the UK, this communication is issued and approved for distribution only to, and directed at, (a) persons who have professional experience in matters relating to investments falling within Article 19(1) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2001 (the "Order"); or (b) high net worth entities, and other persons to whom it may otherwise lawfully be communicated, falling within Article 49(1) of the Order (all such persons together being referred to as "relevant persons"). This communication must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this communication relates is only available to relevant persons and will be engaged in only with relevant persons.

Copyright © 2018 Susquehanna Financial Group, LLLP. All rights reserved.

Ratings Distribution & Investment Banking Disclosure

Covered companies in each Category	Investment banking client in each category
Positive (Buy) 54.51% (139)	Positive (Buy) 0.00% (0)
Neutral (Hold) 42.75% (109)	Neutral (Hold) 0.00% (0)
Negative (Sell) 2.75% (7)	Negative (Sell) 0.00% (0)

