

SEABURY



11.Mar.14 _____

IATA World Cargo Symposium

Mode shift: impact and how to
respond?

Mode shift: everyone talks about it...

Mode shift is a hot topic in cargo - extensive coverage in the press points to mode shift as one of the key reasons for air cargo underperformance

Extracts from press:

"Over the past three years we have seen an increase in sea freight and a reduction in air freight as a result of enhancements in production and logistics planning with factories"

- A sports manufacturer¹

"Many customers are looking at options to combine ocean and air freight. A sea-air or rail-air service can be the right choice for a number of reasons"

- Panalpina website

"Customers in different sectors look for different modes of transportation. Even though rates are not the highest, some move from air to ocean"

- Charles Kaufman²
Head of air freight, DHL

"I loved that volcano, we had to go from air to surface in one day [...] it forced us to think differently"

- Robert Mellin¹
Head of supply & logistics, Ericsson



What is the actual impact? What is the outlook, and what are the response modes?

1) From Airline Cargo Management, September 2013 ; 2) From Cargo News Asia, September 2012

How does mode shift impact air trade?

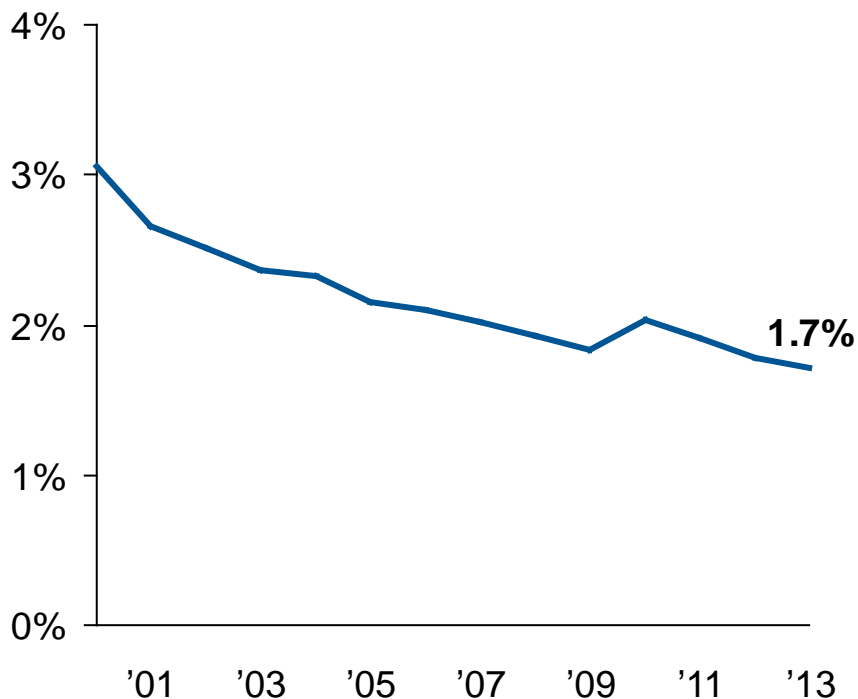
What is the outlook, and how to respond?

Air freight has lost “market share” to ocean freight

Air trade represents ~1.7% of containerized trade weight, after having lost more than 1 point over the last 13 years; average growth in ocean trade far exceeds expansion in air trade

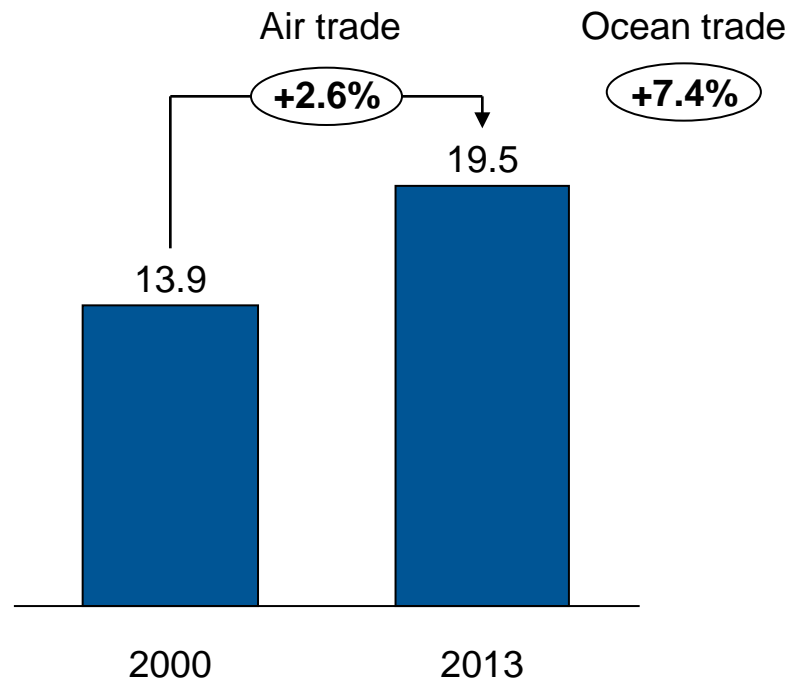
Air weight share, 2000-2013

% of air + ocean



Air trade growth, 2000-2013

Million tonnes and 13-year CAGR (%)



Ocean trade has outgrown air trade, but is this entirely driven by mode shift?

Note: limited to containerized trade (excluding bulk and liquid)

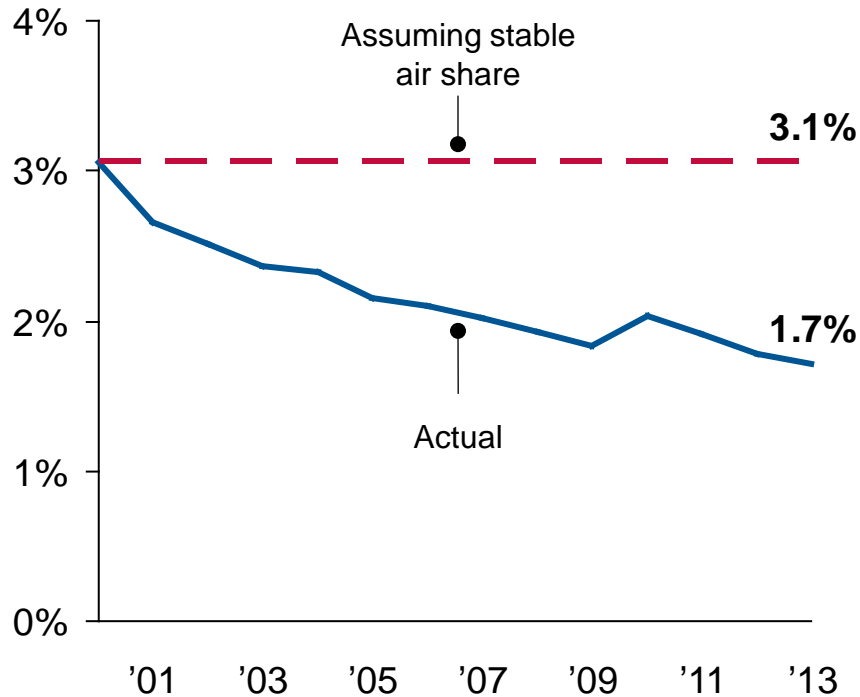
Source: Seabury Global Trade Database

Decrease in air share caused a “loss” in air cargo volumes

Had air trade not lost weight share since 2000, it would have been ~15M tonnes larger in 2013 and gained ~7.3% p.a. on average in the past 13 years (instead of 2.6% p.a.)

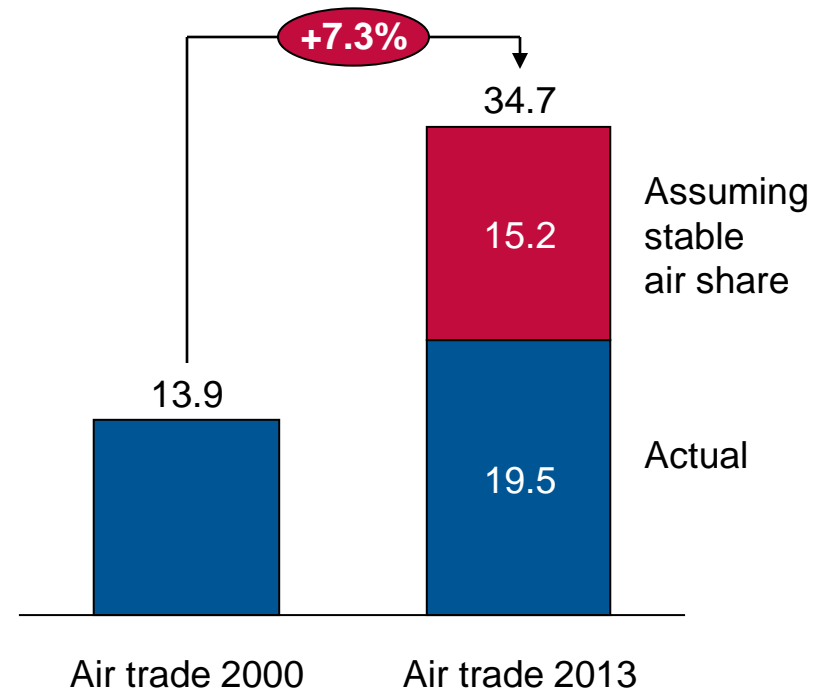
Air weight share, 2000-2013

% of air + ocean



Air trade growth, 2000-2013

Million tonnes and 13-year CAGR (%)



How much can be attributed to mode shift?

Note: limited to containerized trade (excluding bulk and liquid)

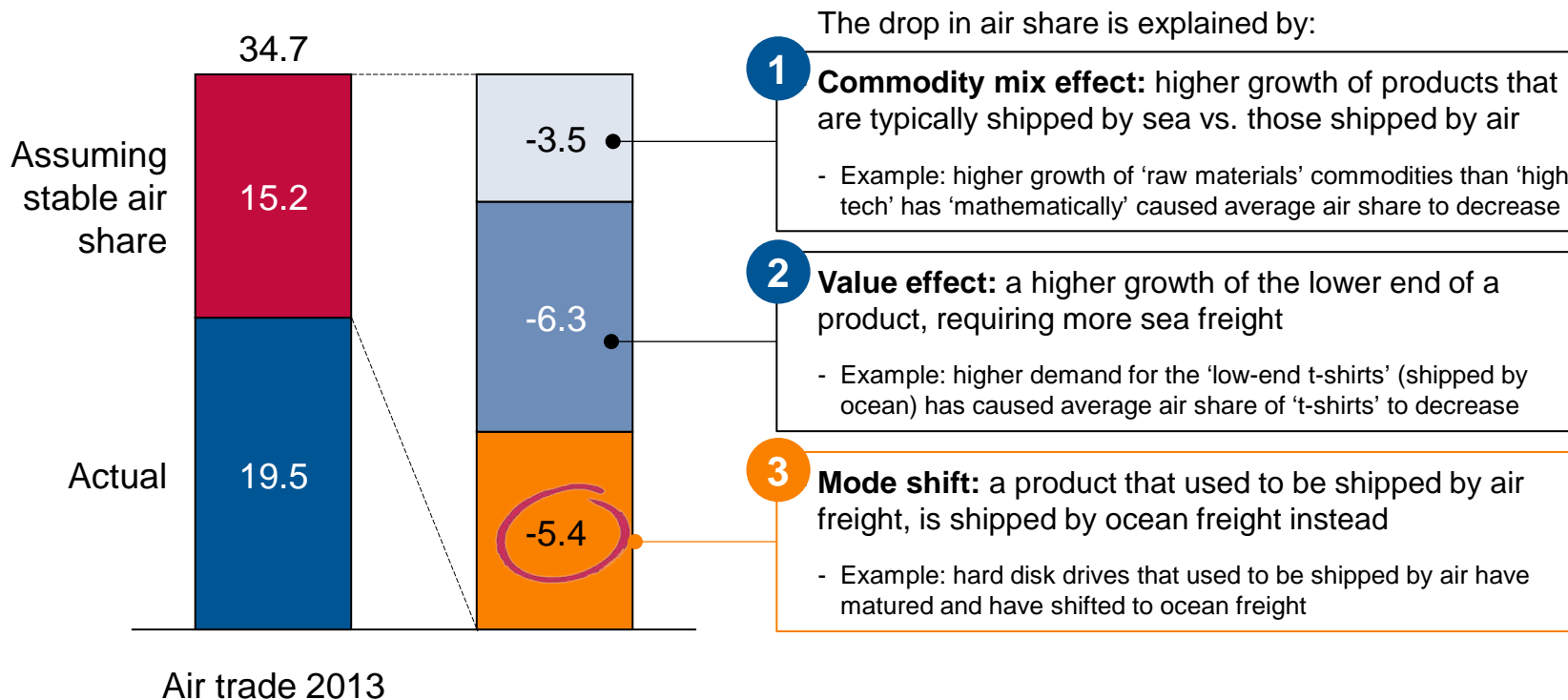
Source: Seabury Global Trade Database

Mode shift is not the only factor that impacts air share

Air share loss can either be caused by mode shift, or by natural growth in demand for products that have a higher propensity to be shipped by ocean freight

Air trade in 2013, impact of air share loss

Million tonnes



Mode shift is responsible for ~5.4 million tonnes lost over a 13-year period

Source: Seabury Global Trade Database; Seabury analysis

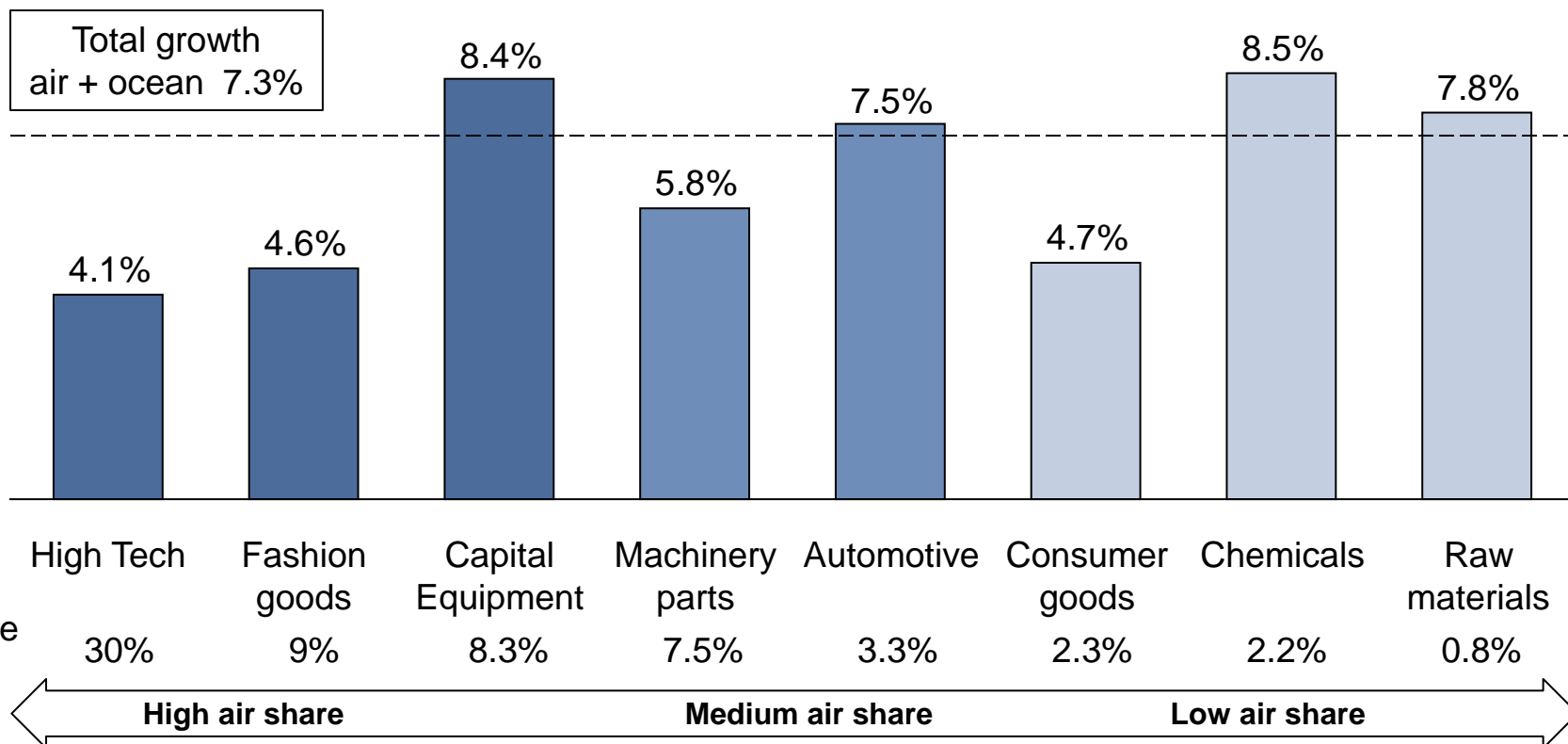
1 Commodity mix effect

Industries that are relevant for air trade (high tech, fashion) have seen slow growth over the past 13 years vis-à-vis industries that are less relevant for air trade

Growth by product types, air + ocean

2000-2013 CAGR (%)

Ranked by air share



High growth of product types with a low air share (raw materials, chemicals, etc.) has contributed to the overall decrease in air share

Note: limited to containerized trade (excluding bulk and liquid) . Source: Seabury Global Trade Database

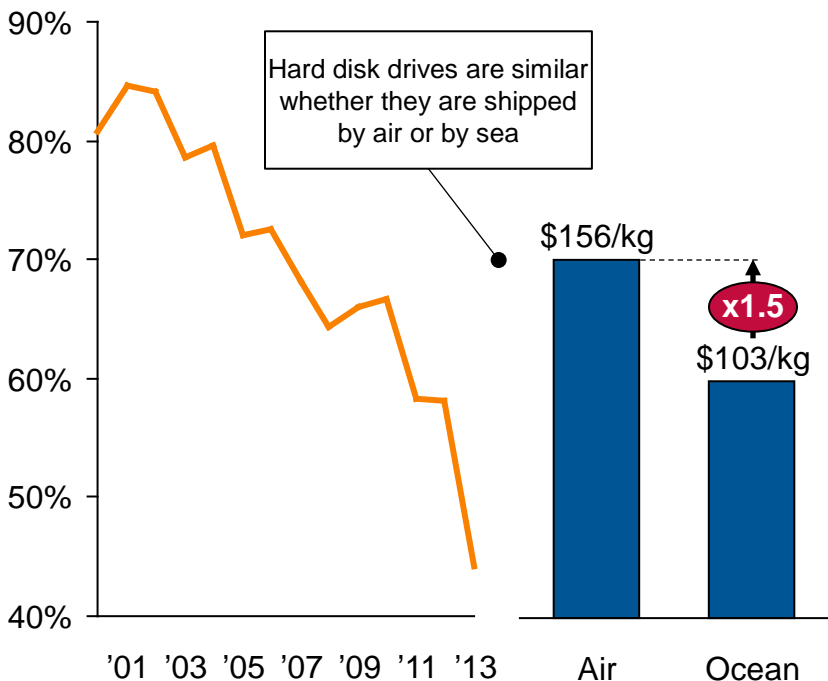
2 Value effect – Example

“Hard disk drives” and “integrated circuits” are examples of goods that saw a significant loss of air share; loss can be linked to mode shift for the hard drives, but not for the integrated circuits

Hard disk drives

Air share (%)

Unit Value (2013)



Strong mode shift

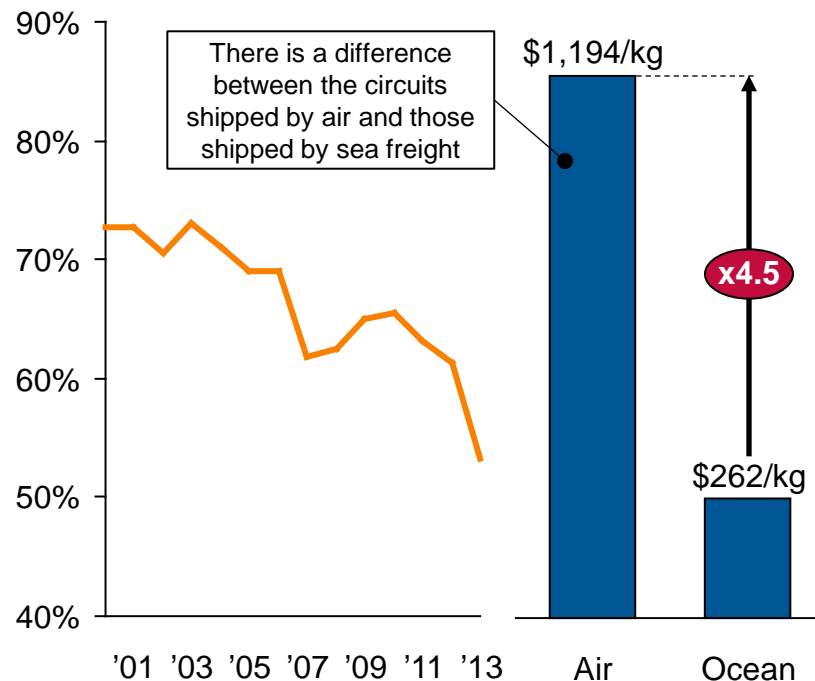


The drop in air share is mostly due to mode shift

Integrated circuits

Air share (%)

Unit Value (2013)



Limited mode shift



The drop in air share is due to a higher demand for low-grade integrated circuits

Note: limited to containerized trade (excluding bulk and liquid)

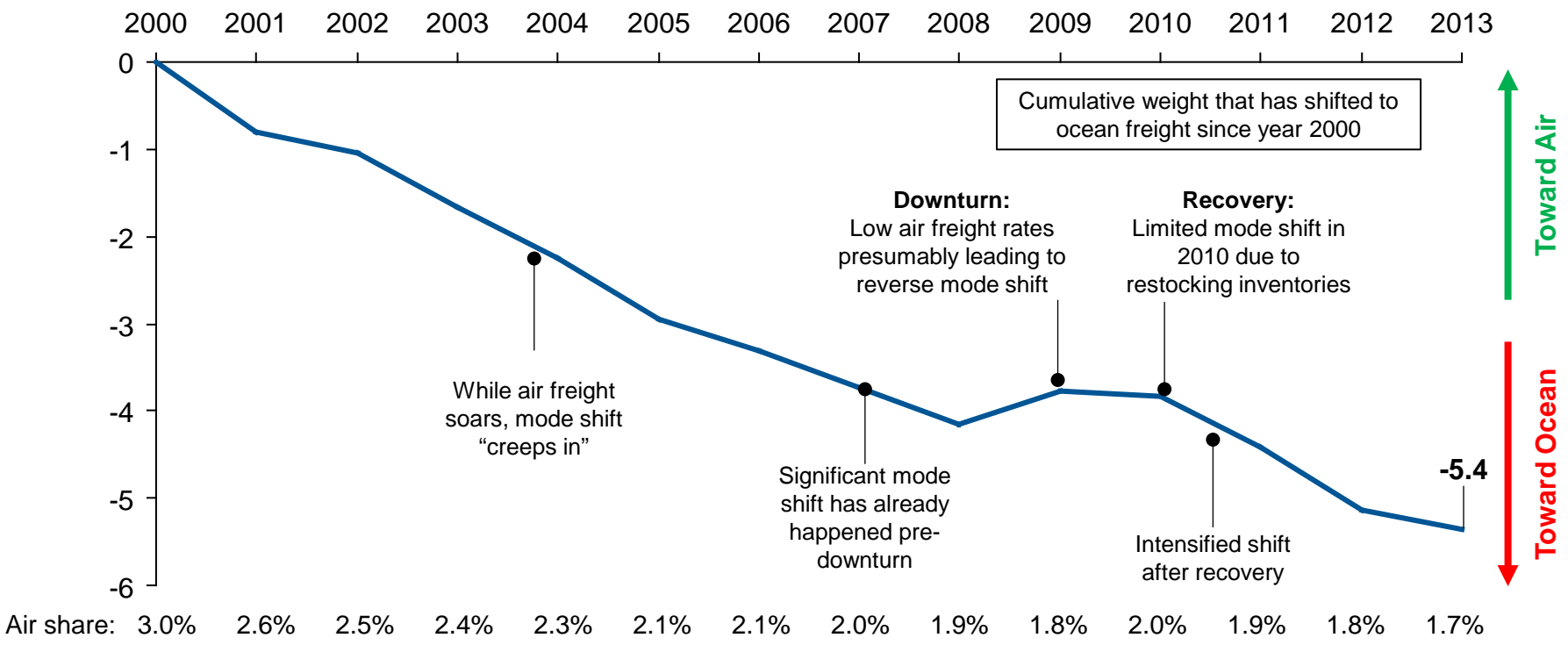
Source: Seabury Global Trade Database

3 Mode shift is a longer-term phenomenon

Because of continuously decreasing air share of certain product categories, the mode shift has caused a loss of ~5.4M tonnes over 13 years (average of ~413,000 tonnes per year)

Cumulative mode shift weight, by year

Million tonnes



Recovery in 2010 has been counter-balanced with strong shifts to ocean in 2011 and 2012

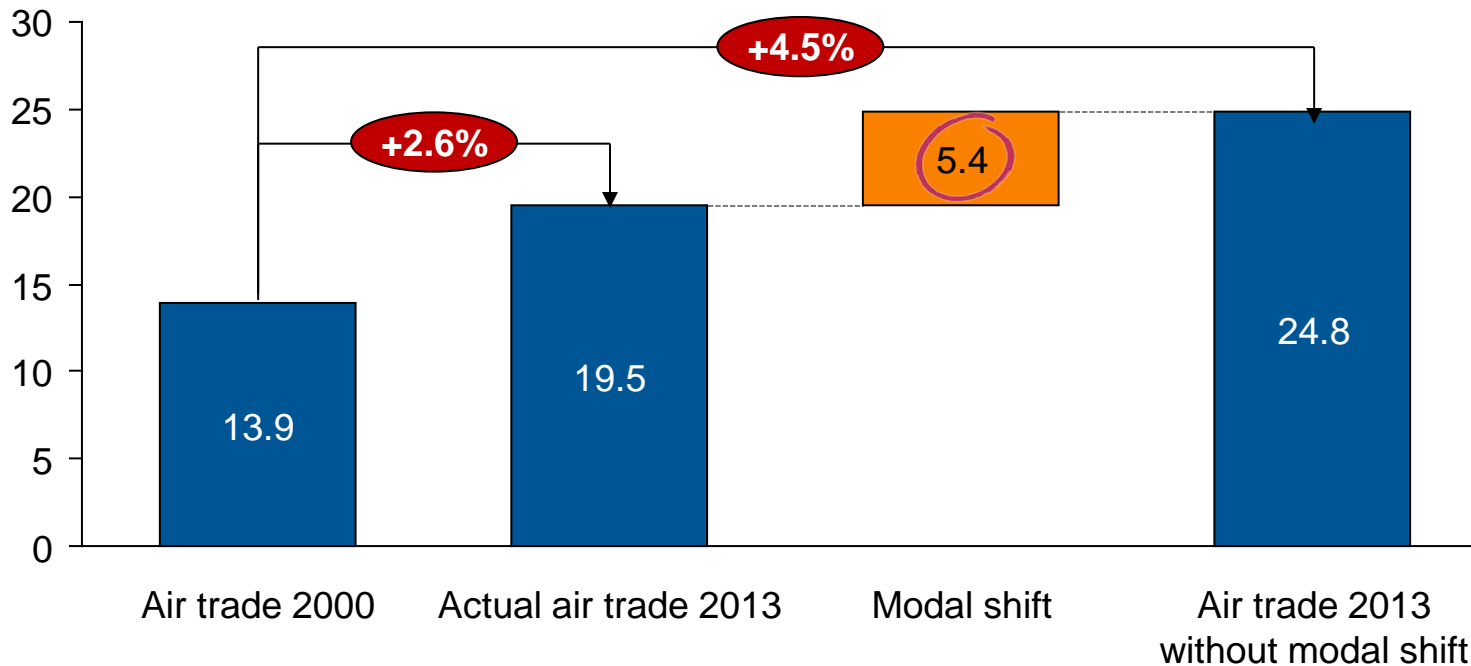
Note: limited to containerized trade (excluding bulk and liquid)
Source: Seabury Global Trade Database

3 Impact of modal shift on air trade growth 2 point p.a.

Without modal shift, annual air trade growth between 2000 and 2013 would have been 2 percentage points higher per year (on average)

Air trade¹ growth 2000-2013

Million tonnes and 13-year CAGR (%)



Modal shift of 5.4 million tonnes over 13 years corresponds to an average of ~413,000 tonnes shifting to ocean every year

Note: limited to containerized trade (excluding bulk and liquid)

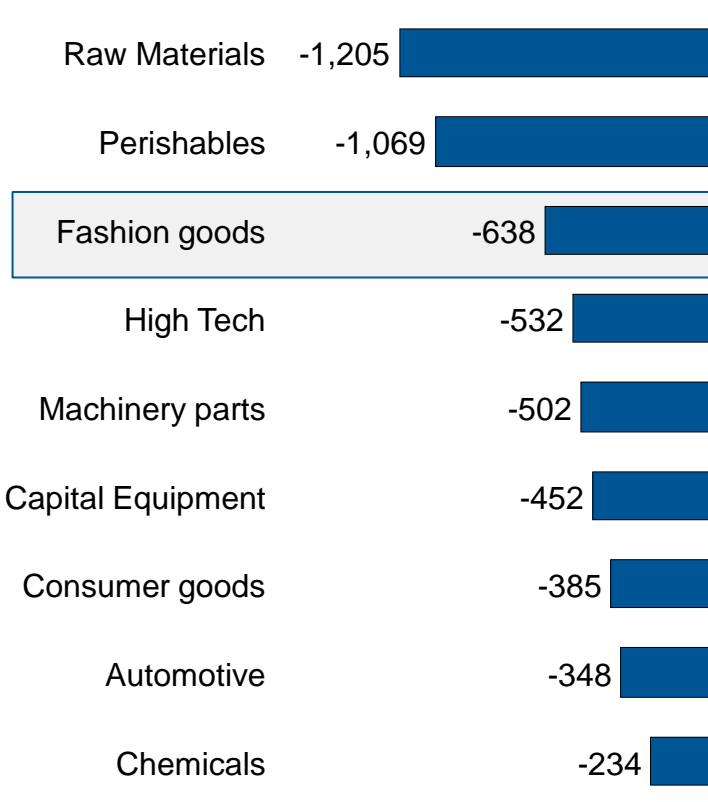
Source: Seabury Global Trade Database

Raw materials and perishables experienced the most shift

Over the last 13 years, all product groups have experienced modal shift to Ocean, of varying magnitude

Cumulative mode shift, 2000-2013

Thousand tonnes and indicative drop per year (%)



Example: cumulative mode shift of Fashion

Thousand tonnes (since 2000)



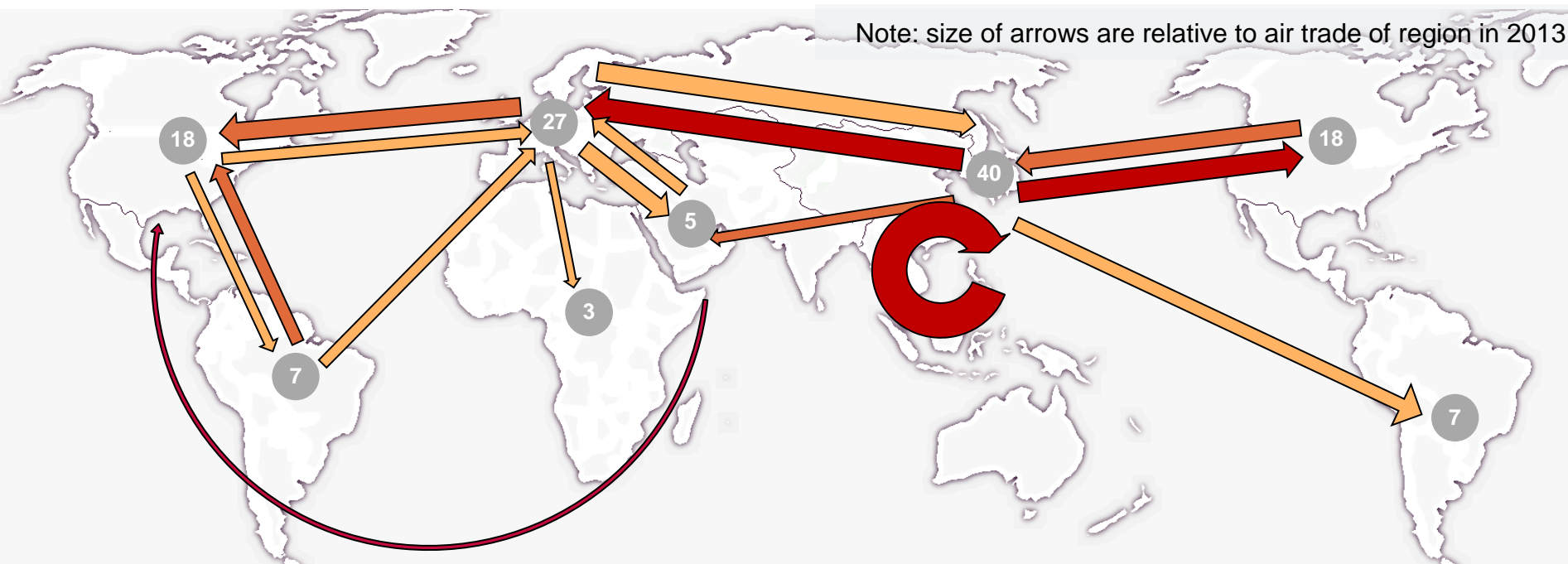
Fashion goods have been shifting to/from Air over the past 13 years with high volatility, but are ~600,000 tonnes short from their 2000 level

Source: Seabury Global Trade Database; Seabury analysis

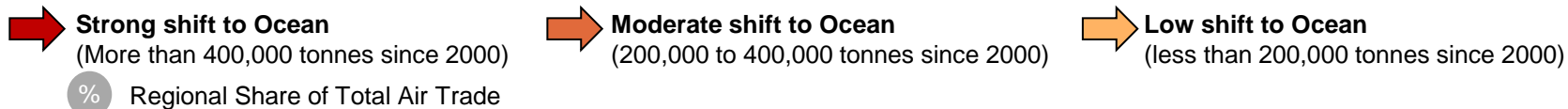
Trade lanes originating in Asia have seen the strongest shifts

Intra-Asia, Transpacific and Asia-Europe have seen substantial volumes shifting to ocean; emerging trade lanes such as Latin America or M. East & S. Asia are relatively less affected

Total mode shift since 2000 by weight



Intensity of mode shift (average shift per year):



Source: Seabury Global Trade Database; Seabury analysis

How does mode shift impact air trade?

What is the outlook, and how to respond?

Mode shift survey process

IATA and Seabury have conducted a survey in order to understand industry's views on modal shift and prepare for a panel discussion on the topic

Respondents

- A survey was addressed to global heads of air freight procurement of ~40 shippers, as well as the majority of the major air freight forwarders
- Surveyed shippers represent ~12-14% of global air freight (estimation), and a variety of industries

Questions

- Questions centered around:
 - How have you experienced mode shift in the past?
 - What are the main factors leading to mode shift, and what will they be in the future?
 - What is the future of mode shift? What is the expected intensity? What trade lanes and what industries will be impacted?
 - And more importantly, what can the air cargo industry do in order to limit, stop or reverse mode shift?

Analysis

- Analysis aims at validating outcome of the quantitative study, as well as providing an indication for the outlook of mode shift
- Panel discussion will focus on discussing insights and potential action points for the air cargo industry



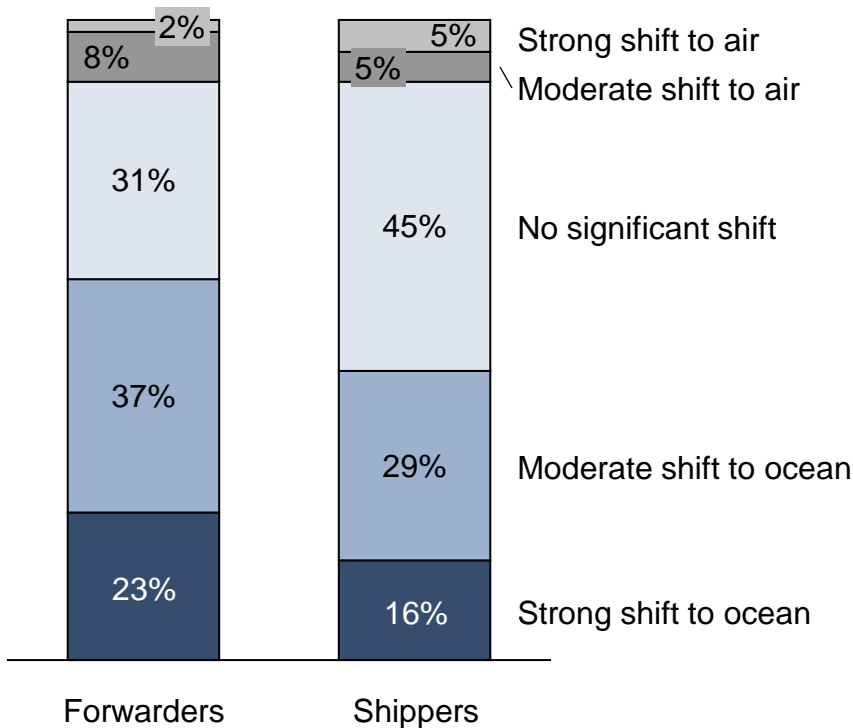
IATA and Seabury would like to thank all participants for their valuable inputs

How did the industry experience mode shift?

A majority of respondents have experienced a mode shift to ocean in the past few years, especially between 2010 and 2013

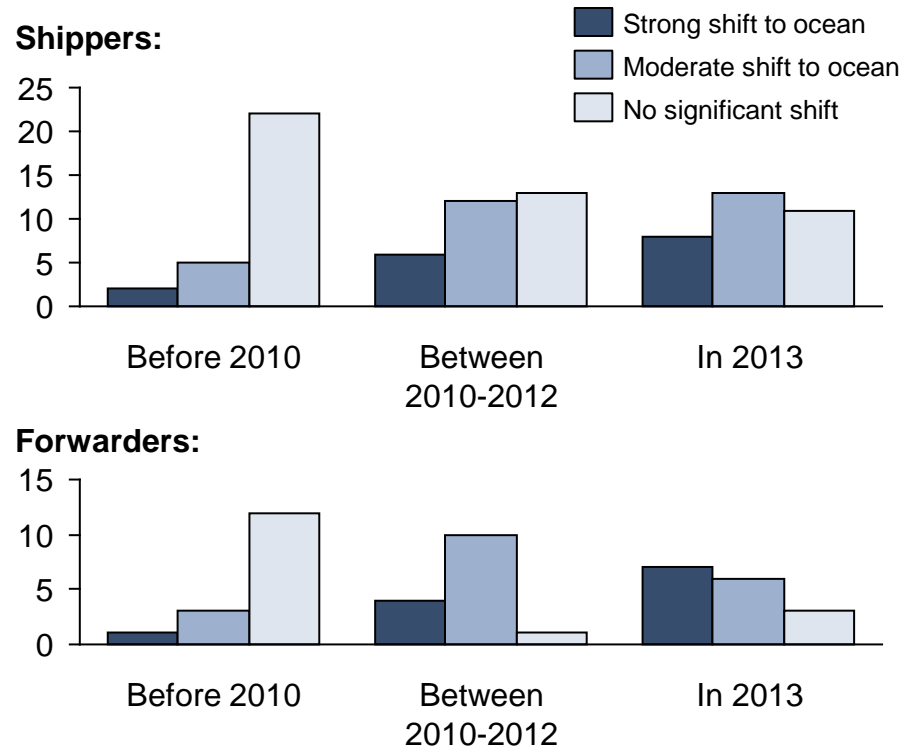
Have you experienced a mode shift in the past?

% of respondents



When did mode shift occur?

of respondents (forwarders & shippers)



Forwarders generally perceive a higher impact of mode shift in the past years

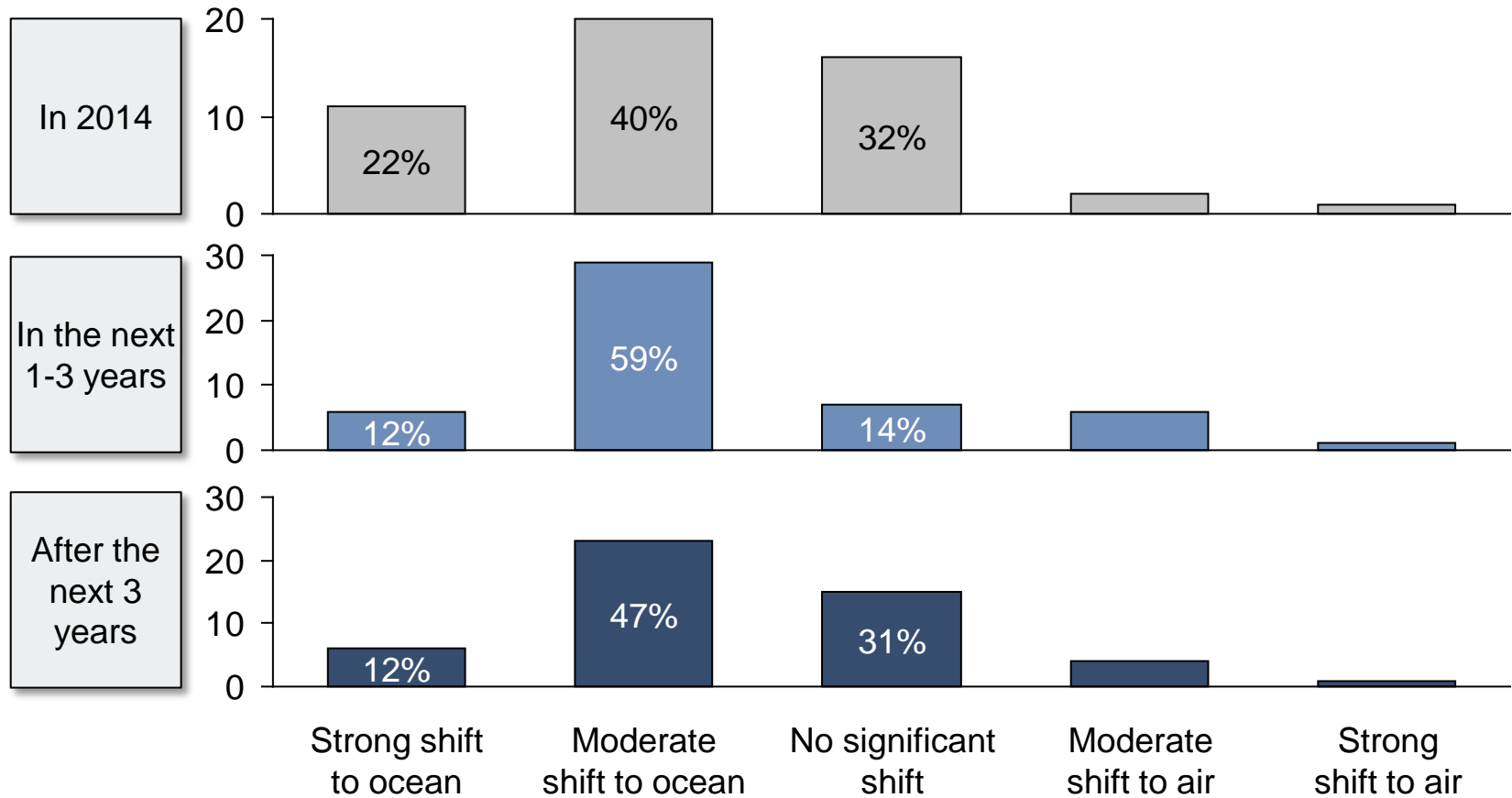
Source: IATA & Seabury survey of industry

What is the future of mode shift?

Majority of respondents expect a continuation of a moderate shift going forward, in particular in the medium term (1-3 years)

Are you expecting a mode shift, in the next few years?

of respondents (shippers & forwarders)



Source: IATA & Seabury survey of industry

What is the future of mode shift?

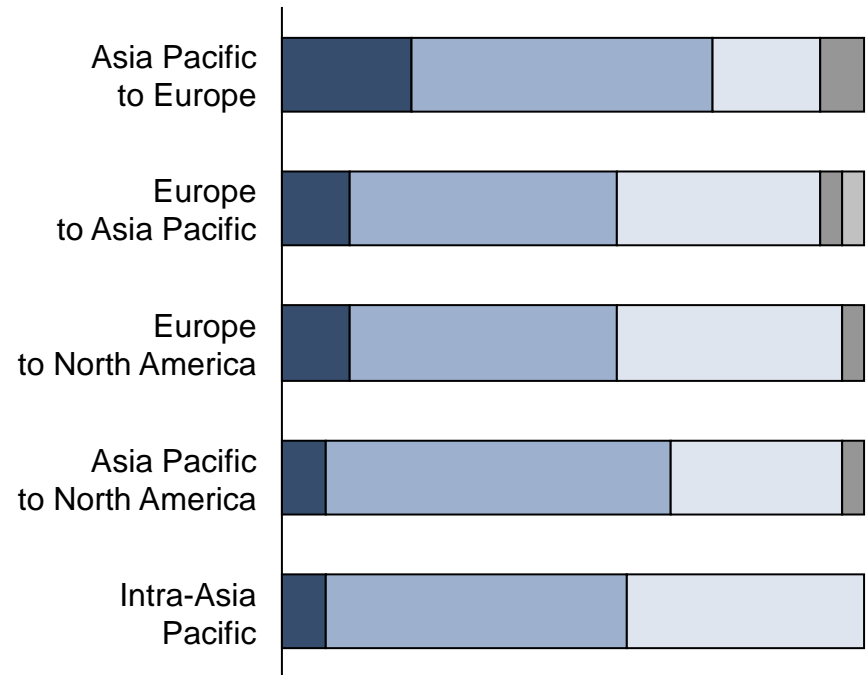
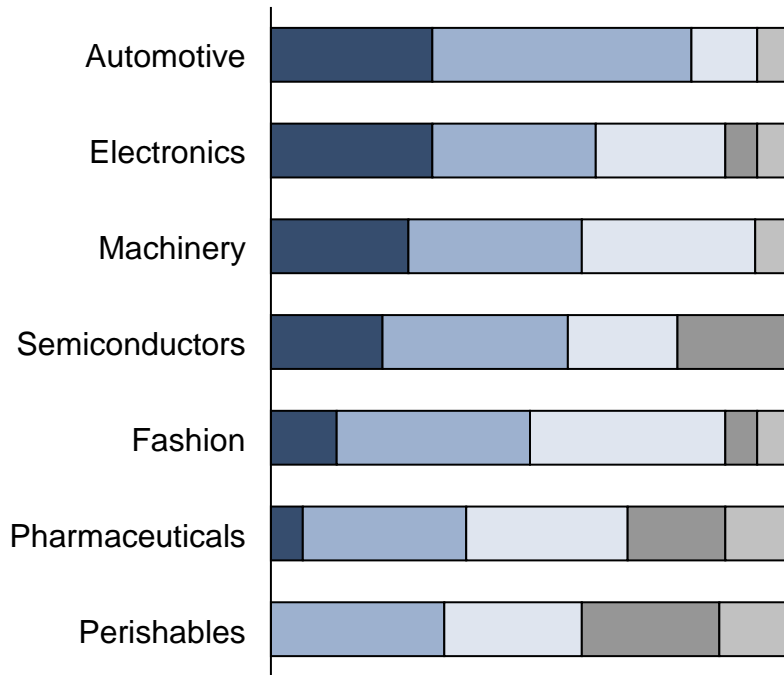
Industry expects a moderate shift to ocean, on no specific trade lane; impact of mode shift is expected to be higher for automotive, electronics and machinery goods

What industries will be impacted by mode shift?

respondents (forwarders)

Where will mode shift occur?

respondents (shippers)



While perishables have largely shifted to Ocean over the past decade (according to trade data analysis), forwarders do not expect this trend to continue

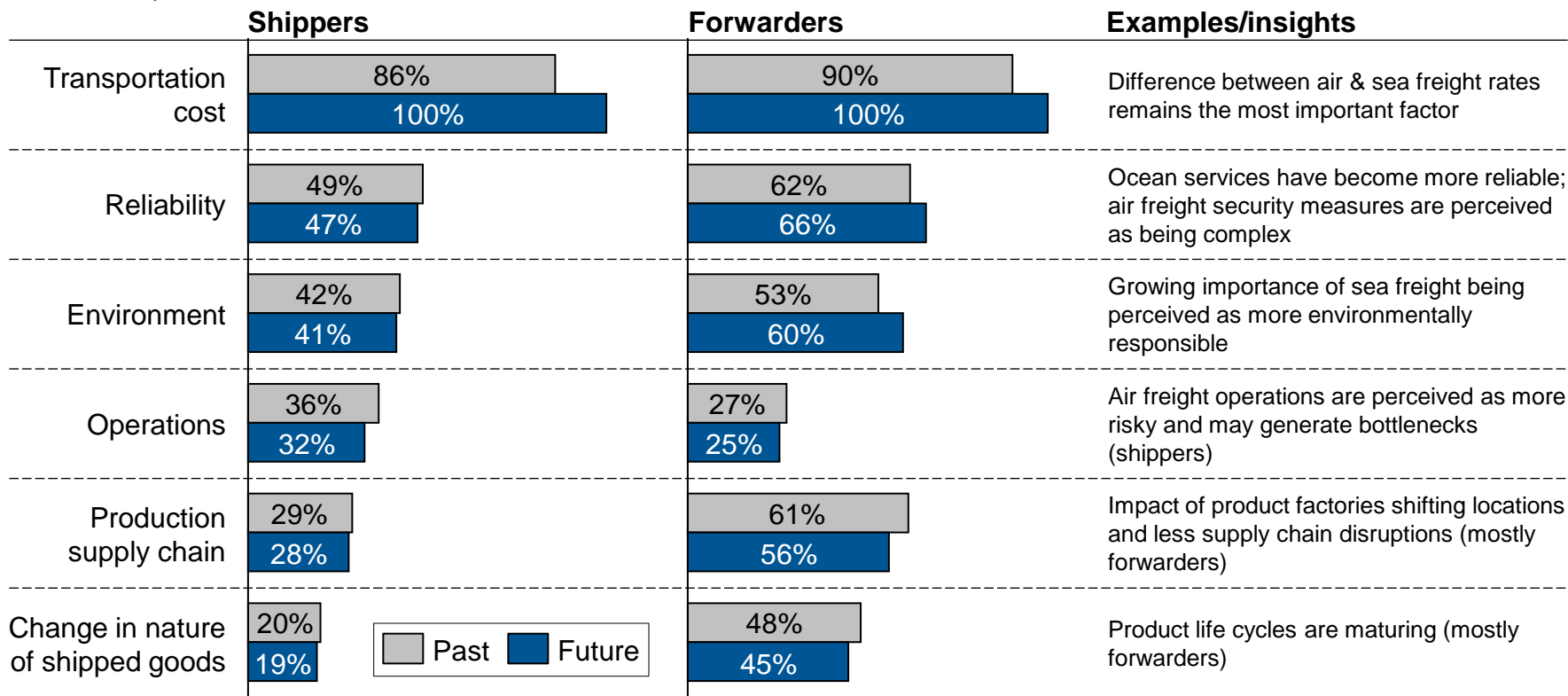
Source: IATA & Seabury survey of industry

What factors will be driving mode shift?

Industry believes transportation cost has been and will remain the number one factor; shippers and forwarders alike place reliability and environment next in importance

What factors have caused/will cause a mode shift to ocean?

Relative importance¹



Transportation cost remains the primary deciding factor, for both shippers and forwarders

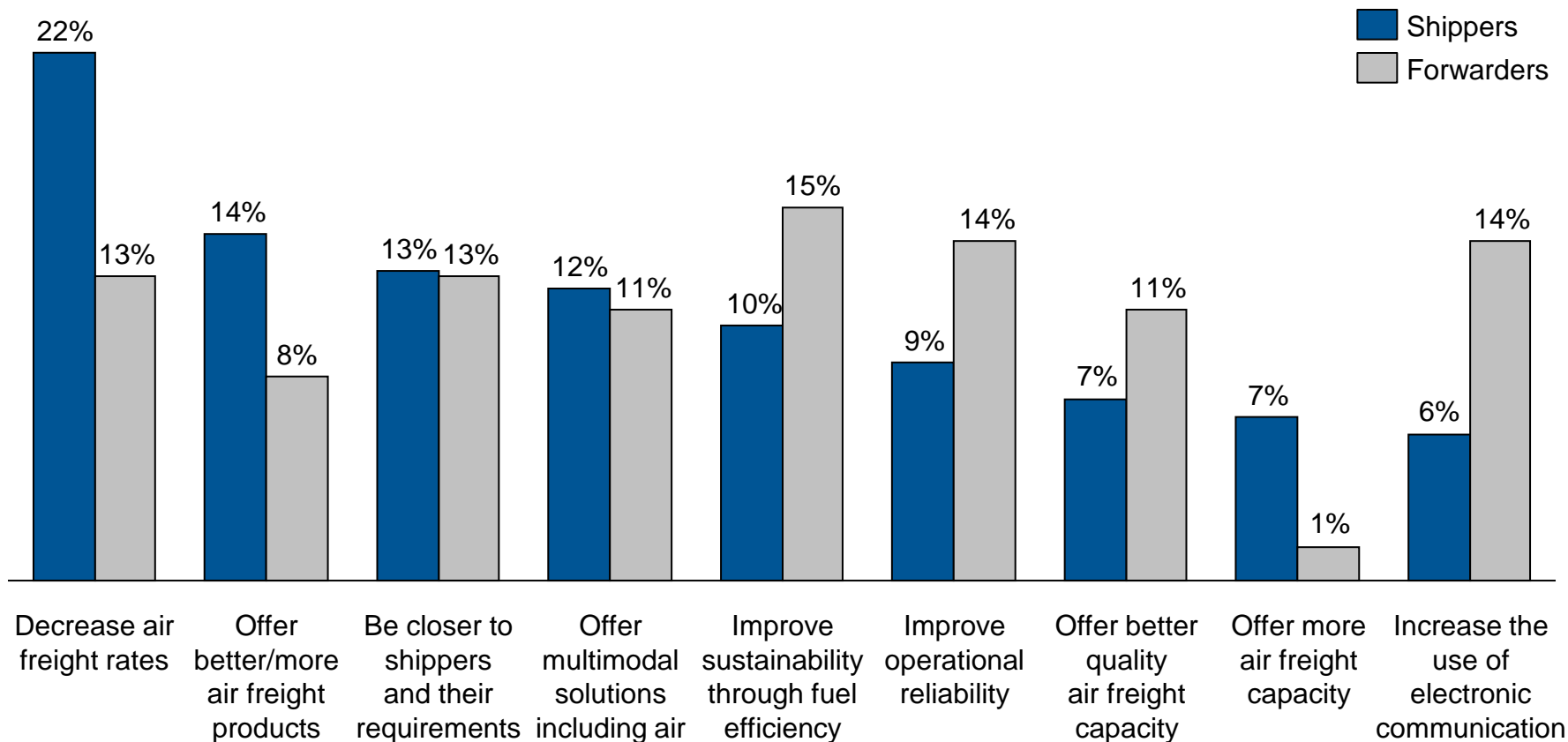
1) Based on ranking of multiple factors
Source: IATA & Seabury survey of industry

What does the industry need to do?

While shippers would like to focus attention on air freight rates, forwarders require improvements in terms of fuel efficiency, reliability and use of e-communication

What does the air cargo industry need to achieve in order to stop shift towards ocean trade?

% of responses¹



1) Note: respondents were able to select more than one response

Source: IATA & Seabury survey of industry

Mode shift: what the industry says...

Shippers and forwarders point at development areas that could potentially limit the impact of mode shift in the future

Transportation cost

Key is to reduce the cost of air freight along the supply chain end to end

From our perspective, the key is cost. As long as the lead time allows it, we will leverage ocean over air.

Reliability

Improve d-t-d transit time...Still average of 6 days for 20 years.

Offer better temperature control and ensure everyone is on the same page (from operations managers down to ground handlers).

Supply Chain

There is a shift also in "close sourcing". A recent change in production location for a mobile phone company will impact the need for air freight by over 40%.

More long-term planning with longer fixed period [on the question: what factors, other than mode shift, may explain a stronger growth in Ocean]

Regulations

If the security regulations become stricter in future, this could increase shift from air to ocean.

IATA should regulate the fuel surcharge as there is no rule and airlines are imposing surcharges in total opacity

Forwarders

Shippers

Transportation cost is key, but there is more to it...

Extracts from shippers and forwarders feedback
Source: IATA & Seabury survey of industry

Summary

- Air freight has lost ground to Ocean as the “market share” of air has dropped from ~3% of total international containerized trade in 2000 to ~1.7% in 2013
- Mode shift is responsible for a third of the loss in air share, representing a shift of ~5.4 million tonnes over 13 years (more than 7x the cargo handled at LAX airport every year)
 - Without this modal shift, average air freight growth could have been 4.5% instead of 2.6% (e.g. roughly 2 points higher per year on average)
- Mode shift has intensified post-2010 recovery, although the phenomenon is not new; in reality, air cargo has steadily shifted to Ocean from 2000 onwards (and perhaps before)
- Fresh foods have been affected the most, but fashion, high-tech and machinery parts also experienced significant shifts to Ocean; trade lanes from Asia have been hit hardest
- Mode shift will not end, as air freight shippers and forwarders expect a moderate continuation of this trend; automotive and electronics to be the most impacted industries
- Even though transportation cost will remain the main deciding factor for both shippers and forwarders, reliability and environmental considerations play an important role as well



**Mode shift is real and is expected to continue in the next years;
industry needs to act if it wants to limit or even reverse the trend**

Contact details

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