

# CARGO E-CHARTBOOK

Q2 2010

## KEY POINTS

- Before the volcanic ash plume interrupted progress in April cargo markets had been rebounding very strongly in the first quarter. Load factors are back to pre-9/11 utilization rates, yields are rising and the threat of a capacity surge appears to be diminishing. Cargo profitability is back to pre-recession levels in the US and heads of cargo report a high level of confidence. Risks and geographical differences remain, but the overall situation for the air cargo business looks better than it has done for two years.

## HEADLINES BY SECTION

### Economic Outlook (page 2)

- Government support for economic growth is starting to be withdrawn. Interest rates are rising in Asia and fiscal policy will be tightened sharply in Europe. But, outside Europe, private spending is now driving and should sustain growth in 2010.

### Demand Environment (page 4)

- Shipper confidence rose to very high levels in April and the key semi-conductor sector continues to expand shipments at a 50%+ rate. But the end of the business inventory cycle will put a brake on freight growth in the second half of this year.

### Revenue and Yields (page 6)

- Cargo yields continued to improve into the first quarter of this year, boosting revenues by an estimated 30-40%. But the fall in early 2009 was very severe so cargo revenues are still around 5% below pre-recession levels.

### Capacity (page 8)

- Falling utilization rates for wide bodied aircraft, including freighters, has been causing concern as it declined in the second half of 2009. But the situation now looks to be improving with a stable fleet, lower deliveries and rising load factors.

### Profitability (page 10)

- The financial situation for the air cargo business appears to be improving significantly. US cargo airlines saw profitability return to pre-recession levels in 2009Q4. Confidence in future revenues remains strong.

### Traffic Growth (page 3)

- The importance of cargo markets in Asia meant strong economic growth in that region helped generate very rapid freight growth in Q1, temporarily interrupted by the ash plume; most regions are now showing growth at a 20%+ pace.

### Demand Drivers (page 5)

- Air freight has stopped gaining market share from ocean but a sharp acceleration in world trade growth has taken over to boost volumes. Consumer confidence is mixed but business investment intentions are surprisingly strong.

### Costs (page 7)

- Fuel prices have dipped lower in recent weeks following the economic uncertainties created by the Greek debt crisis. Unions are resisting change in some regions but wage pressures are easing and unit costs should moderate or fall.

### Competition (page 9)

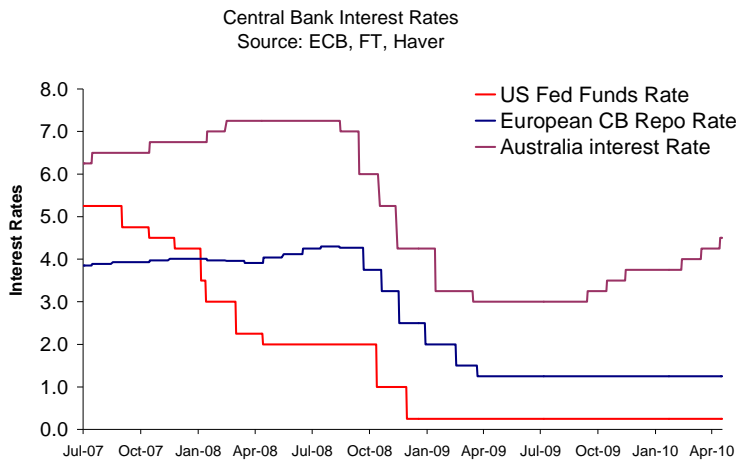
- Ocean freight is now fully competing in the recovery with 20% volume increases and 60%+ yield gains. All ocean transport modes show that world trade was rising very strongly during the first quarter of 2010.

## Economic Outlook

### Key Issue:

↗ Government support for economic growth is starting to be withdrawn. Interest rates are rising in Asia and fiscal policy will be tightened sharply in Europe. But, outside Europe, private spending is now driving growth.

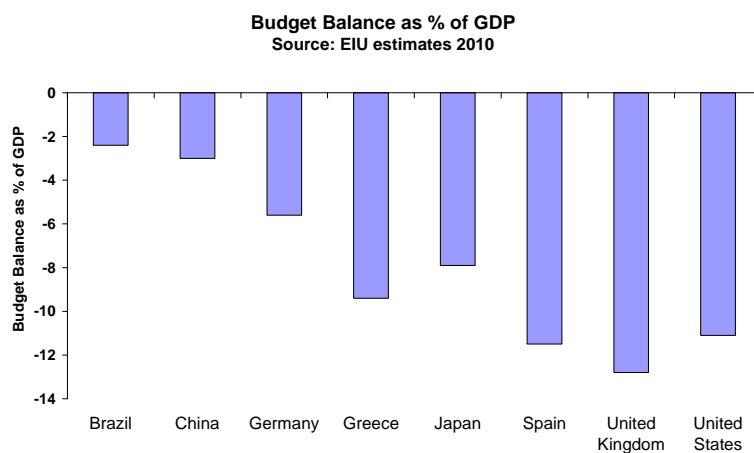
### Interest rates remaining low in Western economies but already rising in Asia-Pacific



↗ Interest rates are reflecting the very different paths of economic growth across the world.

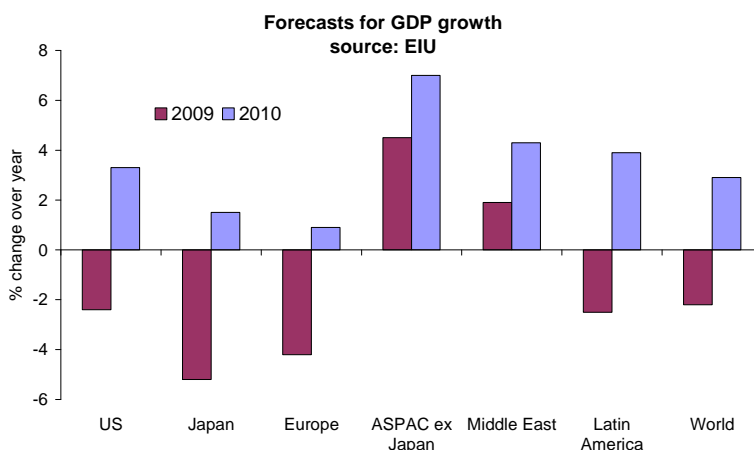
↗ Monetary policy remains loose in most 'developed' economies where industrial production is still 10% below pre-recession levels. In the 'emerging' economies and others such as Australia industrial production is now 10% higher than pre-recession levels. Interest rates and monetary policy are tightening in these economies. This situation is not likely to change in 2010.

### Fiscal policy may tighten earlier than expected as a result of bond market pressures



↗ The €750 billion EU/IMF rescue package averts the immediate prospect of a government debt default in Europe. It has not solved the underlying problem of uncompetitiveness and Greek, Portuguese and Spanish credit default swap spreads have risen again. The impact of the bond and currency market pressures is likely to cause earlier and larger withdrawals of fiscal stimulus in Europe. Major emerging economies appear less vulnerable to these bond market pressures.

### European economic growth weak but US and 'emerging' economies look promising



↗ In spite of the problems facing Europe, most analysts have upgraded their forecasts for world economic growth in 2010, including the IMF who now expect growth of more than 4%.

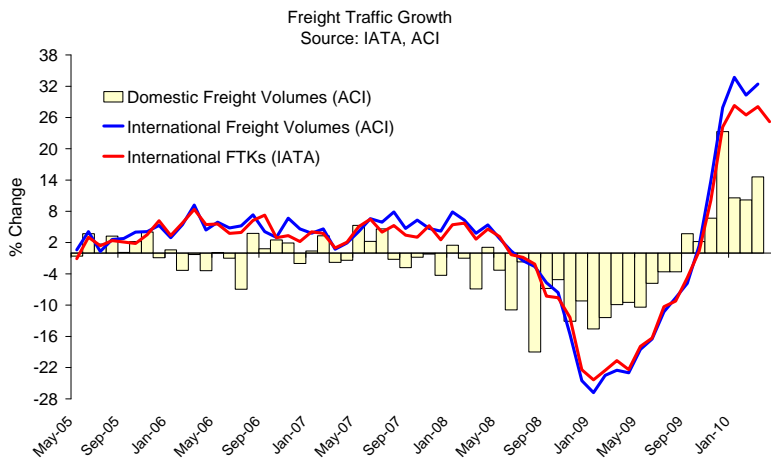
↗ The 'emerging' economies of Asia, China and India in particular, continue to be the world's growth hotspots in 2010. But other regions such as South America and the Middle East are expected to generate 4-5% growth. Prospects for the US economy have been improving. Europe is forecast to be the weakest region in 2010.

## Traffic Growth

### Key Changes in the data this quarter:

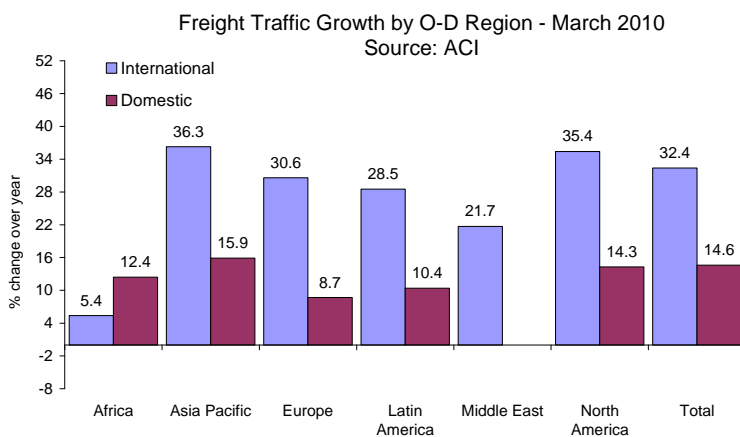
- The importance of cargo markets in Asia meant strong economic growth in that region helped generate very rapid freight growth in Q1, interrupted by the ash plume; most regions are now showing fast growth.

### Air freight volume expansion interrupted by ash-induced European airspace closures



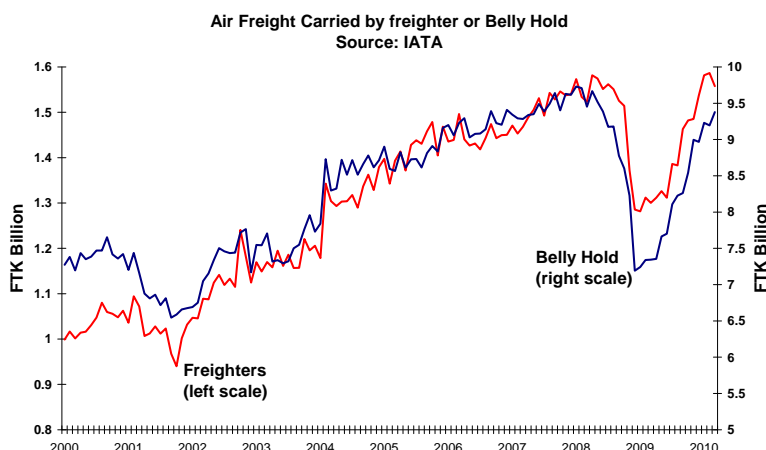
- International air freight volumes were down 0.5% (m-o-m) in April as a result of European airspace closures from the Icelandic volcanic ash plume. However, considerable momentum was evident in the first quarter when international FTKs were growing at an annualized pace of 26%. Even after the ash damage the level of air freight in April was over 25% higher than a year earlier. Domestic air freight, less than 20% of total FTKs, is also expanding but at half the pace.

### Regional data on air freight flows show solid growth in most regions



- All regions except Africa saw 20%+ growth in freight volumes in the first quarter. However, these average inbound/outbound figures disguise a lot of difference in directional markets.
- Asia-Pacific remains the fastest growing region, driven by rapid regional economic growth. The 30%+ growth of air freight in Europe contrasts with the 11.7% growth in FTKs carried by European airlines suggesting most of the market growth is in the Asia to Europe direction, and carried by Asia-Pacific airlines.

### Biggest cycle seen for freight carried in passenger aircraft bellies



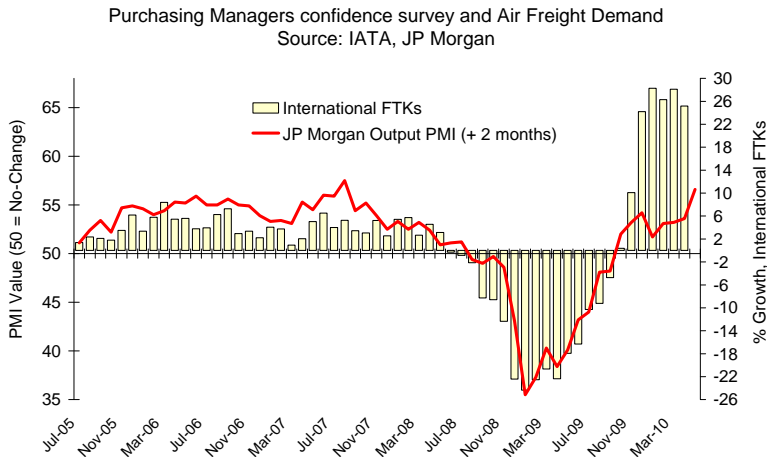
- Air freight carried on freighters regained pre-recession levels in February, although there was a small dip back in March. Freight in the bellies of passenger aircraft continued to rise throughout the first quarter, but has another 3-4% to go before regaining pre-recession levels.
- The data on this capacity split is a sample, rather than the whole industry. Nonetheless the marginal nature of belly capacity supports the picture shown by the data of a smaller cycle in the freighter segment of the business.

## Demand Environment

### Key Changes in the data this quarter:

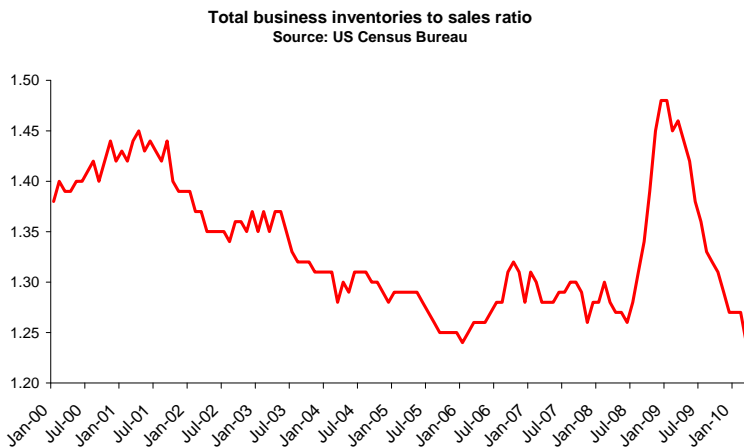
- Shipper confidence rose to very high levels in April and the key semi-conductor sector continues to expand shipments at a 50%+ rate. But the end of the business inventory cycle will put a brake on freight growth.

### Purchasing managers' confidence reaches second highest level recorded in April



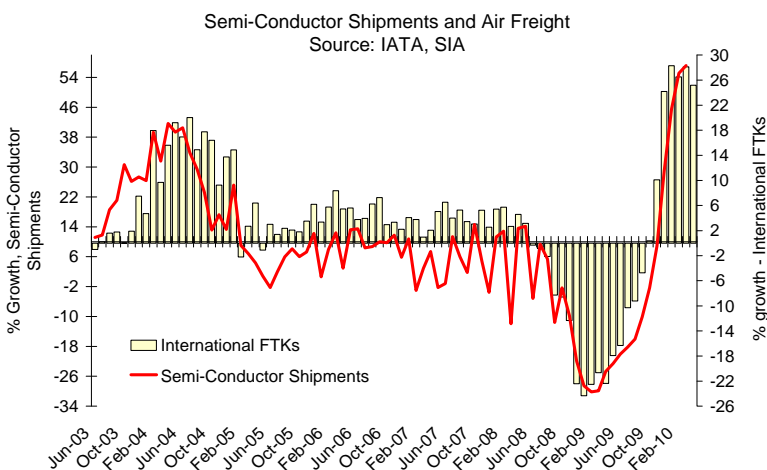
- Purchasing managers in manufacturing industries across the world recorded their second highest level of confidence in April. Clearly the economic expansion, outside Europe, is still strong and likely to generate further growth in air freight shipments.
- Air freight growth ran ahead of the confidence index in late 2009. The fit is not perfect but the lead indication given on direction is still pretty good. That suggests stronger freight growth for the next few months at least.

### Now that the business inventory cycle is over shipments by air are likely to slow



- But it now looks as though the dominant impetus to the recent air freight recovery – the business inventory cycle – has come to an end.
- Business inventories now look much more in line with sales. Manufacturers and retailers no longer need to ship goods to restock shelves and warehouses. Freight growth in the second half of 2010 will slow and will depend on how fast consumer and business capital spending grows.

### Semi-conductors are still boosting the rise in air freight



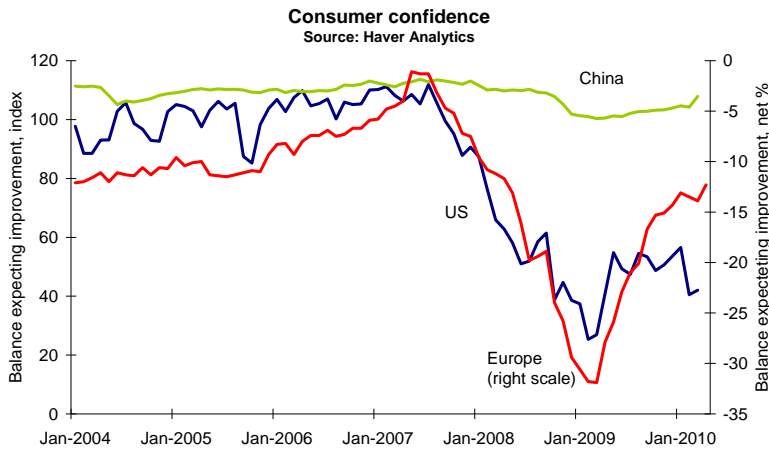
- Semi-conductors are still one of the important low-volume/high-value goods that get shipped by air, particularly when manufacturers of computers and other electronic goods need to restock at the start of an economic recovery. The shipment of these components is growing at a pace of over 50%, but will slow as the inventory cycle ends.
- Falling prices mean more semi-conductors are being shipped by sea. Other electronic goods, whose high values have yet to fall, will start to take over as the dominant high-value/low volumes goods shipped by air.

## Demand Drivers

### Key Changes in the data this quarter:

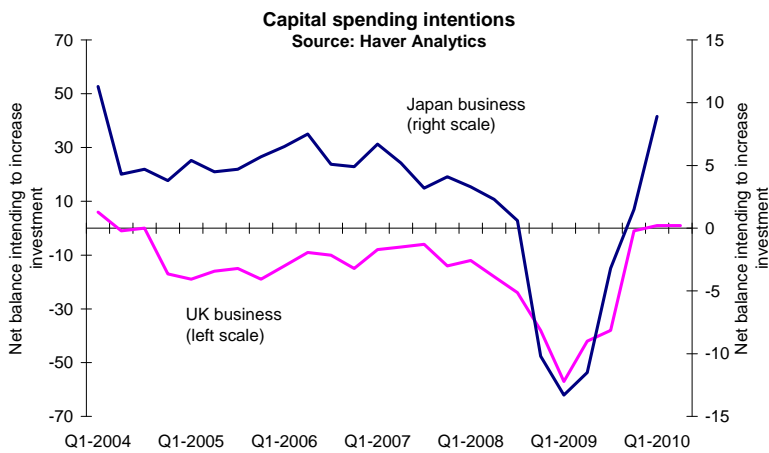
- Air freight has stopped gaining market share from ocean but a sharp acceleration in world trade growth has boosted volumes. Consumer confidence is mixed but business investment intentions are surprisingly strong.

### Consumers show varying degrees of confidence across geographical regions



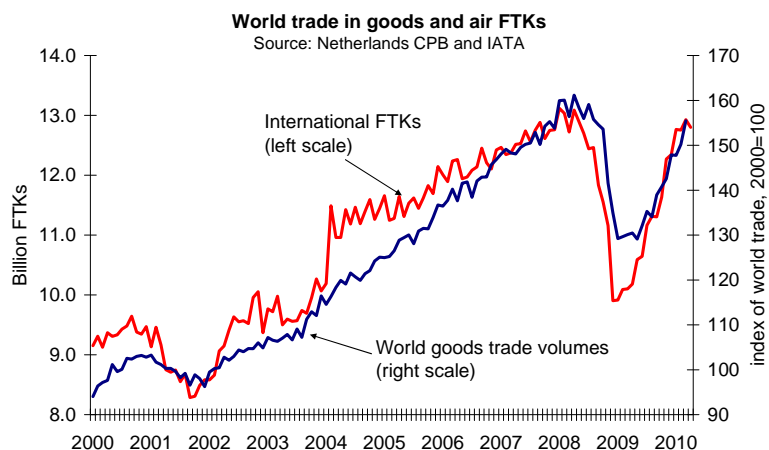
- Now that the business inventory cycle has run its course, the growth of air freight for the second half of this year will depend more on the growth of consumer spending and business investment.
- For consumer spending the picture is very mixed. Consumers are confident and increasing spending in the 'emerging' economies but in Western economies confidence is fragile. High unemployment, consumer debt and rising taxes look set to keep spending growth weak in these economies in 2010.

### Business investment plans surprisingly positive given spare capacity



- The business investment spending surveys we follow are limited in geographical coverage but still show a surprisingly positive picture for future spending by business on investment.
- The 'Great Recession' has left much existing capacity underutilized in the developed economies. However, rising investment intentions may suggest some of that capital (ICT especially) may need to be replaced as technology changes. This could add to air freight shipments over the next year.

### Air freight is no longer expanding share but world trade growth has accelerated



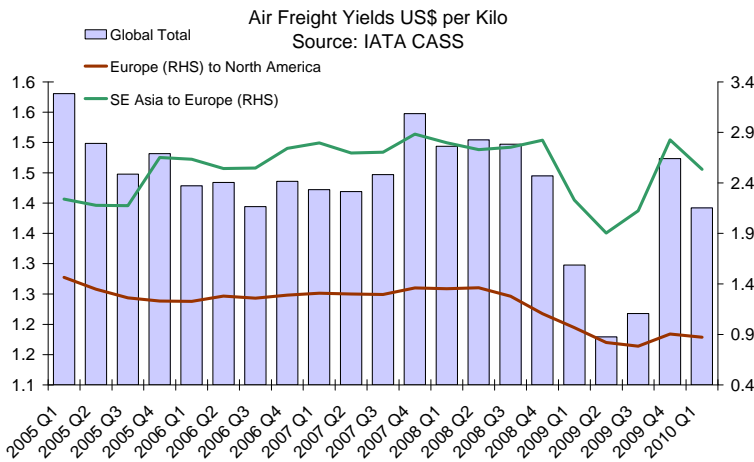
- International trade in goods has been expanding rapidly in recent months. In Q1 world trade rose at an annualized pace of 22%. The first part of the recovery cycle when air freight rises at a much faster pace than world trade, as shippers shift from ocean to air, appears now to be over. However, it is promising for air freight growth that this has occurred through overall world trade accelerating rather than air freight slowing. Considerable momentum appears to remain for the near term.

## Revenues and Yields

### Key Changes in the data this quarter:

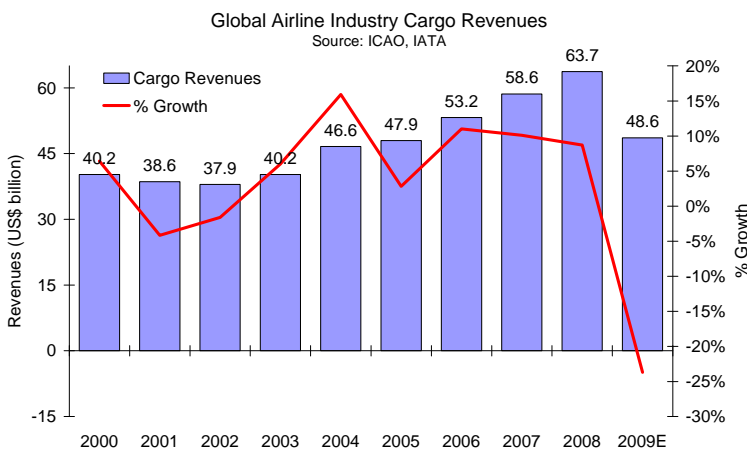
- ↗ Cargo yields continued to improve in the first quarter of this year, boosting revenues by an estimated 30-40% (y-o-y). But the fall in early 2009 was severe so cargo revenues are still 5% below pre-recession levels.

### Cargo yields in 2010Q1 are up 15% on last year and 20% above 2009 lows



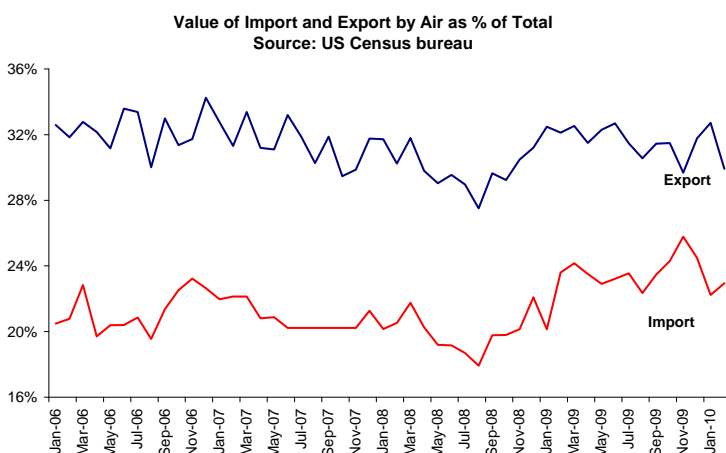
- ↗ First quarter cargo yields are always a bit down on the previous quarter for seasonal reasons. Compared to the first quarter of 2009 average cargo yields were up 15%. Compared to the 2009Q2 low they were 20% up, though still down on pre-recession levels.
- ↗ Moreover, wide geographical differences remain. Supply-demand conditions are tight on markets out of Asia but looser elsewhere and yield performance reflects this lack of pricing power in these markets.

### Cargo revenues in 2009 reflect the disastrous first half of the year



- ↗ Cargo revenues were rising by an estimated 30-40% in the first quarter of this year, but this comes after shrinkage of about one quarter in 2009.
- ↗ Last year's decline was dominated by the 25% collapse in volumes at the very start of last year and a 10-15% fall of yields. Since the low point in the first half of last year cargo revenues have been growing once more. But despite the exceptional rebound in the past six months, Q1 revenues were probably still 5% short of pre-recession levels.

### Air freight regains lost market share at the start of the upturn in economic activity



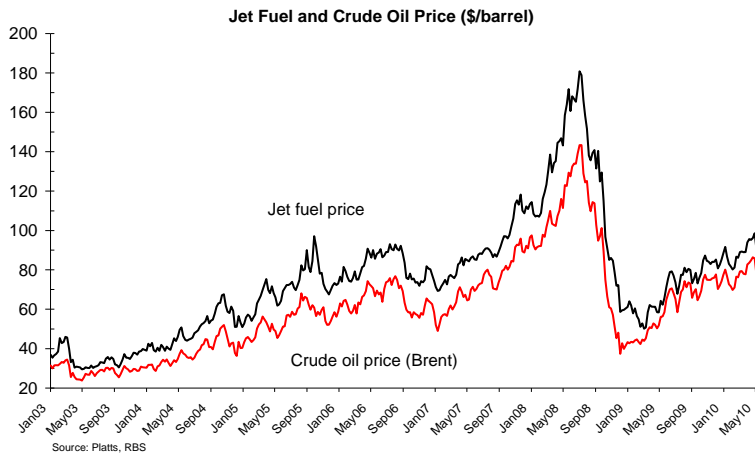
- ↗ The US economy shipped around 30% of its exports by value using air transport during the first quarter. US imports, which are more oriented towards low-value/high volume commodities, were a lesser proportion by value at around 22%.
- ↗ Rising oil prices have been raising the unit value of ocean trade but air cargo has nonetheless maintained its share of value due to the recent strength of volumes, as shippers have switched from ocean to air as time became more important as the economy recovered.

## Costs

### Key Changes in the data this quarter:

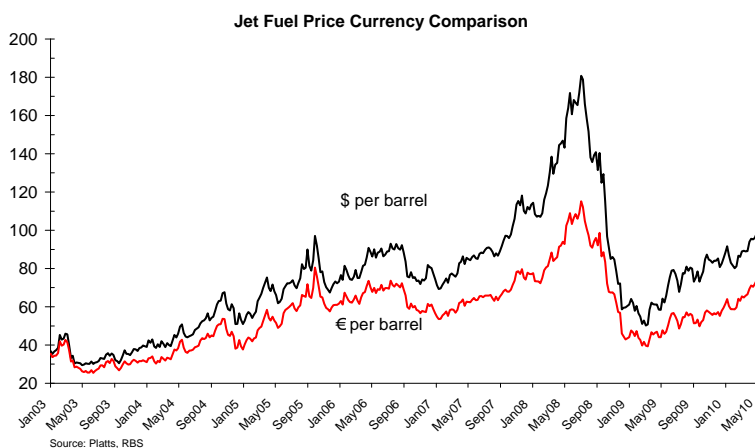
- Fuel prices have dipped in recent weeks following the economic uncertainties created by the Greek debt crisis. Unions are resisting change in some regions but wages are easing and unit costs should moderate.

### Jet fuel price remains volatile but the trend rise seems to have slowed



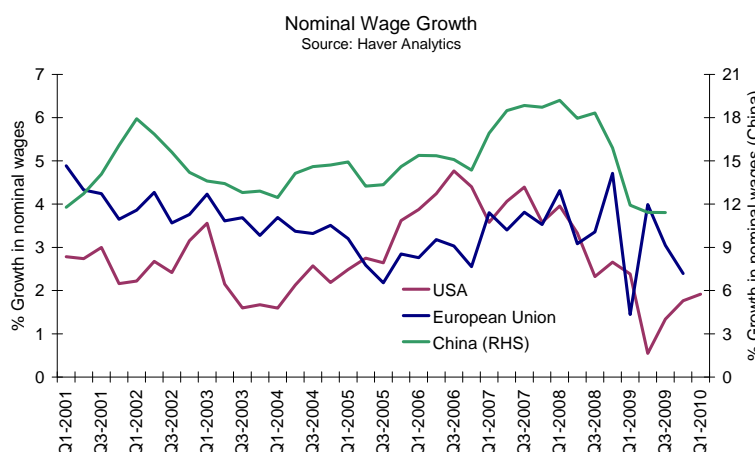
- Jet kerosene prices slipped back towards US\$80 a barrel level in recent weeks as the Greek debt crisis caused a downgrading in European economic growth and oil demand.
- Even so the US\$88 average for jet and \$78 average so far this year for crude are still considerably higher than fuel prices in early 2009. The rising trend slowed as economic uncertainty rose but the economic environment does not look likely to support much weaker fuel prices.

### Inverse correlation with US\$ has smoothed and moderated path for € fuel prices



- Fluctuations in the US\$ oil and jet price are often inversely correlated to the US\$ exchange rate. That certainly seems true for the past year and the chart opposite shows a smoother path for € fuel prices than \$ prices. But the recent weakness of the € will now be raising costs relative to the US\$ price.
- Oil producers want to compensate for exchange rate impacts on their local currency oil revenues. But more immediate fluctuations are driven by oil derivative markets. The upward trend is only partly due to fundamentals. Economic growth has recovered but so has oil supply as inventories show.

### High unemployment has brought wage growth down but unions are resisting change



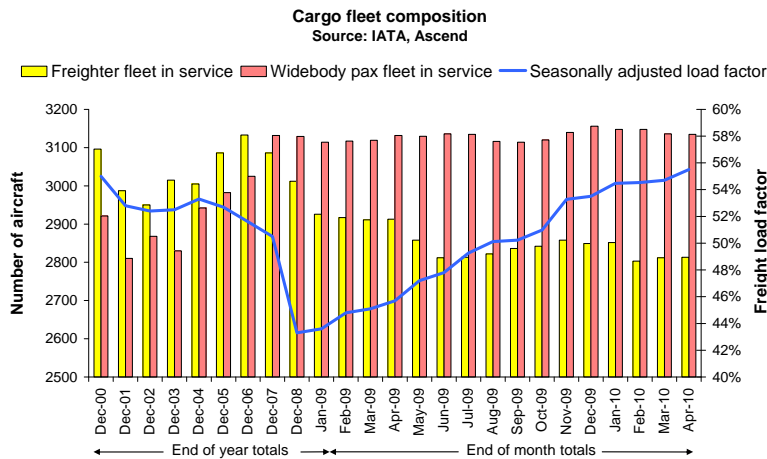
- Unemployment has reached 9% in the US and is over 8% in Germany as labour markets reflect the excess capacity caused by the 'Great Recession'. Wage growth has slowed sharply in most major economies across the world as a result.
- However, labor markets are not very flexible and skilled labor continue to be in relative shortage in some industries. Strike action has increased in Europe as unions resist change. Unit labor costs should moderate.

## Capacity

### Key Changes in the data this quarter:

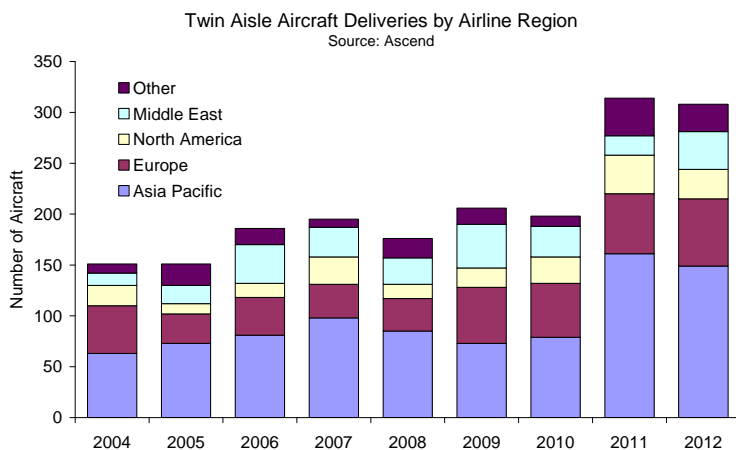
- Falling utilization rates for wide bodied aircraft, including freighters, had caused concern in the second half of 2009. But the situation now looks to be improving with a stable fleet, lower deliveries and rising load factors.

### Load factors now back to pre-9/11 levels and aircraft numbers stabilizing



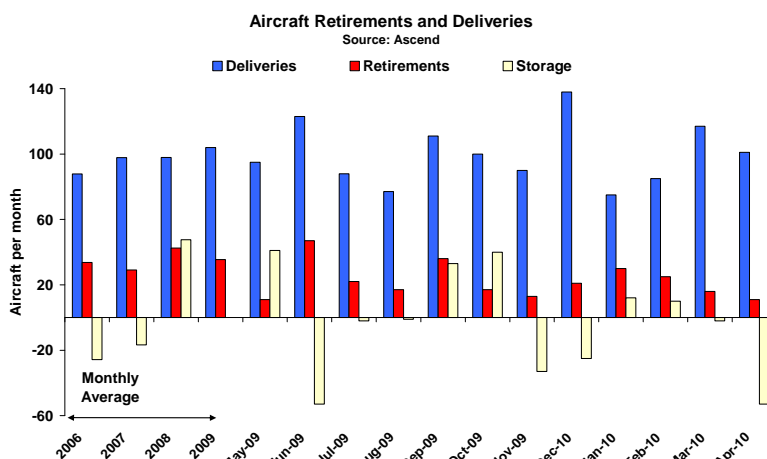
- Load factors on international markets have continued to rise, reaching almost 56% on a seasonally-adjusted basis in April in spite of the European airspace closures. This utilization of hold capacity is back to pre-911 levels.
- Aircraft utilization had not been as good but looks to have improved recently. The wide-body fleet has dipped back to its average 3,130 of the past few years, while the freighter fleet at 2,810 remains 200 lower than the pre-recession fleet size.

### Wide body deliveries are getting pushed back into later years



- There was an increase in wide body deliveries in 2009, which caused a sharp fall in aircraft utilization in order to reduce available capacity. This year deliveries are planned to be slightly lower, as more aircraft have been rescheduled for later delivery in 2011 or 2012.
- Since the first quarter Chartbook, planned deliveries for 2010 have fallen from 224 aircraft to 198, a 12% decline which goes some way to easing the latent capacity threat to yields.

### Aircraft being taking out of storage may offset stabilizing delivery rates



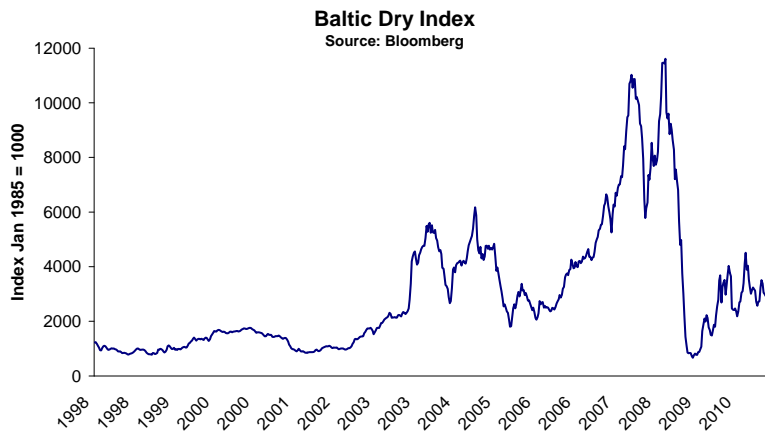
- Deliveries of new aircraft may be levelling off, at a rate of 17 a month for widebodies and around 100 in total for jets and turboprops, as shown in the chart opposite. But retirements are low and, in April, there was a marked increase in the number of aircraft being taken out of storage.
- Judging by the fleet numbers in the chart above much of this movement is in narrow bodies and so may not have added too much to freight capacity. However, it does illustrate the ease with which capacity can return.

## Competition

### Key Changes in the data this quarter:

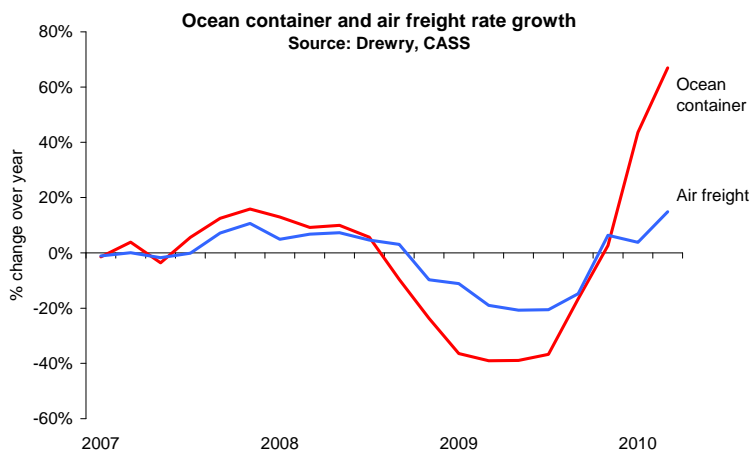
- Ocean freight is now fully competing in the recovery with 20% volume increases and 50%+ yield gains. All ocean transport modes now show that world trade was rising very strongly during the first quarter of 2010.

### Cost of shipping bulk commodities trending higher but volatility from new capacity



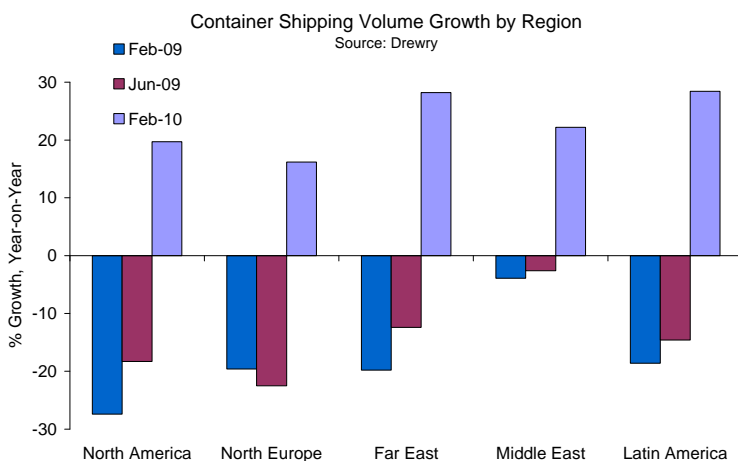
- The cost of transporting bulk commodities, measured by the Baltic Dry Index, is way below pre-recession peaks but is clearly trending higher.
- The rise since early 2009 reflects the 20% rise in world trade volumes from the low point. The extremely volatile path upwards reflects considerable new ship capacity coming on stream. The index is now 4 times its low – but is still only one quarter of its 2008 peak.

### Ocean container freight rates up 60%+ while air freight yields rise 15%



- Ocean container rates are now surging with increases in excess of 60% over the past year. Ocean freight is now equally benefiting, with air freight, from the 20% pace of world trade expansion, and its pricing power has increased.
- Air freight rates are also rising but the slower 15% increase represents an improvement in competitiveness relative to ocean. Now that the business inventory cycle is over, timeliness may become less important and price competitiveness relatively more important.

### Container demand rise now fully benefiting from the strong rise in world trade



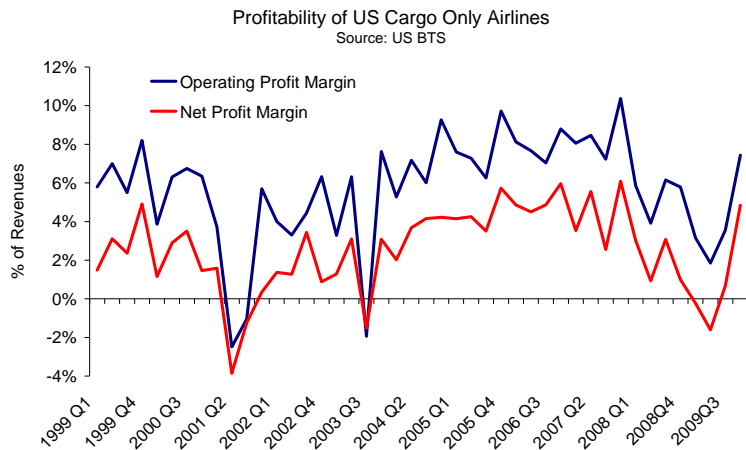
- Ocean freight has lagged the recovery in air freight, as the former benefited from the initial impetus from business restocking. But by February this year this freight mode was fully benefiting from the revival in world trade, with average growth of around 20% in sea freight volumes in all regions.
- As with air freight these totals are likely to disguise considerable variation in directional markets. However, they do suggest the economic expansion and demand for freight is widening.

## Profitability

### Key Changes in the data this quarter:

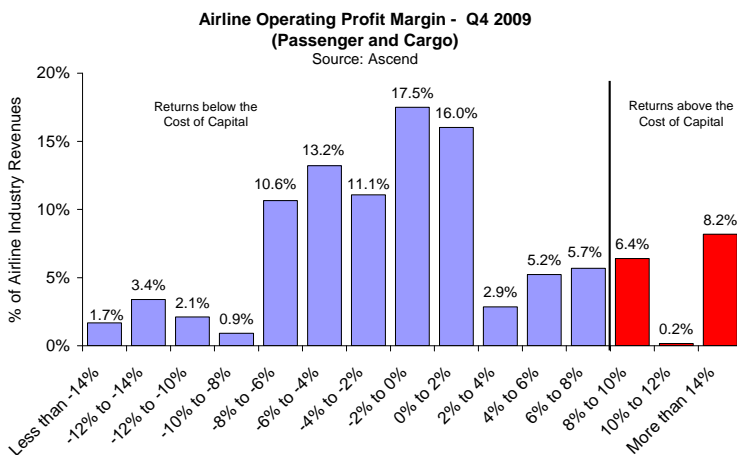
- The financial situation for the air cargo business appears to be improving fast. US cargo airlines saw their profitability return to pre-recession levels in 2009Q4, while confidence in future revenues remains strong.

### Cargo profitability back to pre-recession levels in the US



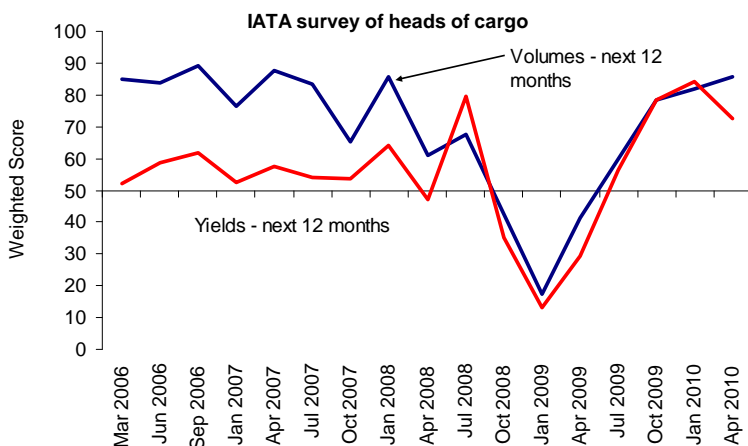
- Cargo profitability in the US is dominated by the express segment. Nevertheless, the return to pre-recession operating margins of 7-8% by the fourth quarter of last year was an impressive rebound.
- Much of the improvement in profits took place on the Pacific segments of most airlines, reflecting the strong economic growth and freight demand being generated by these economies. Airlines in the Asia-Pacific region are likely to be seeing at least an equivalent improvement.

### Operating profits beginning to emerge after 2009Q1 low point



- Another indication on profitability is given by the corporate results of airlines worldwide, as shown in the chart opposite. The fourth quarter is seasonally weak due to the passenger business. Even so, there were more airlines with an operating margin of more than 8% in the fourth quarter than in the third – 15% versus 9%. Early results for 2010Q1 show a further improvement for airlines in America and Asia-Pacific, but deterioration in Europe.

### Business confidence over future cargo revenues remained high in April survey



- Heads of cargo reported that they remained confident that revenues would continue to expand strongly over the next 12 months. In fact their confidence over volumes improved even further to the highs of the pre-recession period, partly conditioned perhaps by the exceptional Q1 FTK growth.
- Confidence in yields was not quite as high as in the January survey but remains very high compared to the level of confidence expressed in 2006 and 2007.

## Air Freight Routes and Direction

## International Freight Volume Growth by Route Area (Source: IATA ODS statistics)

Route Area	% Growth in Freight Tonnes, year-on-year					
	Oct 2009	Nov 2009	Dec 2009	Jan 10	Feb 10	Mar 10
Africa - Middle East	15.2%	14.7%	20.9%	6.6%	14.2%	4.7%
Europe - Far East	-9.0%	0.9%	15.2%	5.8%	49.8%	79.9%
Europe - Middle East	4.6%	12.2%	23.5%	19.8%	20.7%	19.2%
Within Far East	10.2%	24.1%	50.4%	-26.8%	-7.7%	5.9%
Within Middle East	6.5%	4.8%	10.4%	7.4%	11.5%	8.4%
Within South America	-6.9%	14.0%	21.5%	93.5%	57.7%	59.8%
Mid Atlantic	4.9%	10.4%	19.0%	30.5%	25.5%	35.0%
Middle East - Far East	13.6%	20.7%	25.2%	31.7%	32.8%	30.3%
North Atlantic	-6.1%	-1.0%	12.3%	18.8%	12.7%	26.3%
North America-Central America	-14.5%	-2.7%	-2.0%	0.7%	9.5%	14.9%
Europe - Africa	-4.7%	-2.9%	-1.8%	-1.5%	2.8%	5.1%
North America- South America	12.1%	28.3%	49.6%	-1.5%	2.8%	5.1%
Far East - Southwest Pacific	0.4%	7.8%	20.4%	9.8%	6.4%	-1.5%
North and Mid Pacific	-0.9%	20.0%	42.6%	40.9%	32.2%	35.6%
South Atlantic	4.3%	13.4%	22.9%	35.3%	28.4%	38.7%
Within Europe	-7.3%	-3.5%	9.7%	9.4%	5.4%	9.1%

## Outbound CASS Market Revenues

Origin Region	US\$m Q1 2010	% Growth in Air Freight Revenues, year-on-year					
		Q4 2008	Q1 2009	Q2 2009	Q3 2009	Q4 2009	Q1 2010
Africa	48.0	2.2	-8.0	-18.2	-18.4	-1.5	43.2
Caribbean	4.0	-6.8	-7.3	-4.2	-11.3	1.6	-12.5
Central America	50.1	-19.9	-15.8	-17.5	-8.5	28.3	24.3
Europe	1124.7	-23.9	-37.0	-39.9	-30.4	0.8	23.2
Japan & Korea	873.1	-41.6	-55.6	-39.5	-12.9	45.0	109.2
Middle East	90.2	23.2	49.4	19.4	-1.5	26.7	28.5
North America	647.1	-15.1	-23.7	-32.2	-25.2	6.2	27.3
South America	218.6	-6.1	-20.8	-30.0	-20.1	-2.8	27.7
South East Asia	1045.3	-2.3	-27.2	-30.3	-22.3	29.0	85.7
South West Pacific	135.3	-27.2	-30.0	-29.9	-13.1	26.8	31.6

## Inbound CASS Market Revenues

Destination Region	US\$m Q1 2010	% Growth in Air Freight Revenues, year-on-year					
		Q4 2008	Q1 2009	Q2 2009	Q3 2009	Q4 2009	Q1 2010
Africa	269.5	-5.9	-12.5	-19.5	-13.5	9.8	13.0
Caribbean	33.2	-10.2	-27.9	-22.1	-22.9	-1.1	31.8
Central America	82.9	-25.4	-37.1	-42.3	-34.0	9.4	41.0
Europe	1247.5	-17.3	-33.6	-35.8	-25.6	21.5	51.9
Japan & Korea	262.1	-31.8	-41.2	-35.3	-23.9	17.4	56.6
Middle East	272.3	-2.4	-12.3	-16.3	-13.3	10.1	12.5
North America	823.8	-31.0	-45.6	-43.9	-28.7	29.9	69.6
South America	303.9	-14.1	-33.9	-38.7	-29.8	17.1	51.8
South Asia	164.3	-3.9	-16.0	-23.6	-11.5	24.3	62.6
South East Asia	574.2	-26.7	-42.4	-33.5	-15.0	29.2	73.9
South West Pacific	205.4	-25.1	-34.9	-39.4	-24.7	17.3	29.6

## Glossary

- ↗ ACI: Airport Council International
- ↗ AFTK: Available Freight Tonne Kilometers
- ↗ European CB: European Central Bank
- ↗ EIU: Economist Intelligence Unit
- ↗ CASS: Cargo Accounts Settlement System
- ↗ FT: Financial Times
- ↗ FTK: Freight Tonne Kilometers
- ↗ PMI: Purchasing Managers Index
- ↗ Netherlands CPB: Netherlands Bureau for Economic Policy Analysis
- ↗ ODS: Origin-Destination Statistics
- ↗ SIA: Semiconductors Industry Association
- ↗ US BTS: US Bureau of Transportation Statistics
- ↗ M-o-m Month over month percentage change
- ↗ Y-o-y Year over year percentage change

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