

CARGO E-CHARTBOOK

Q1 2011

OVERVIEW

- Developments since December have been mixed. Confidence in economic growth, outside Europe, has improved. But margins are being squeezed as capacity grows, hampering yields, and fuel costs surge.

HEADLINES BY SECTION

Economic Outlook (page 2)

- Economic growth is slowing in 2011 as monetary and fiscal policies are tightening. However, the slowdown is less than previously expected. Emerging economies continue to be the fastest growth regions. Europe and Japan continue to be the weakest.

Demand Environment (page 4)

- Leading indicators for cargo demand, such as the purchasing managers' index, have risen to new highs, having slipped back in the second half of 2010. The restocking cycle has clearly ended but there are signs that expanding final demand is again boosting air shipment intentions.

Revenue and Yields (page 6)

- Cargo yields peaked in mid-2010 before softening through the rest of the year as load factors slipped. Average yields were stable during the second half of the year, but the SE Asia-Europe market saw a significant fall back. Cargo revenue growth likely to be in single figures this year.

Capacity (page 8)

- Capacity is starting to become an issue for the cargo business. The freighter fleet is unchanged but capacity from twin-aisle aircraft has risen and 8% is due to be added this year. Many of these new aircraft will replace existing fleet but there is an excess capacity risk developing.

Profitability (page 10)

- Cargo margins are still good but are showing signs of being squeezed between stabilizing yields and rising fuel costs. Heads of cargo report confidence in volume growth but much less confidence in gains in yields.

Traffic Growth (page 3)

- Air freight volumes had peaked in May 2010, as the business inventory cycle came to an end. Companies no longer needed rapid air shipment to restock. However, final demand continues to expand and a sharp upturn in January air freight points to a second leg to the upturn.

Demand Drivers (page 5)

- World trade expanded once more at the end of 2010, having paused during the middle of the year. Prospects for further trade expansion look good. Domestic drivers remain mixed. The cash-rich corporate sector is spending on capital goods. Consumer confidence has been rising in the US.

Costs (page 7)

- The cargo industry has passed the low point in unit costs. Utilization of aircraft is back to pre-recession levels. Wage pressures are starting to build. Jet fuel prices have risen significantly. \$10-15/b of current \$110+ oil prices is geopolitical risk. Even if tensions subside fuel prices still high.

Competition (page 9)

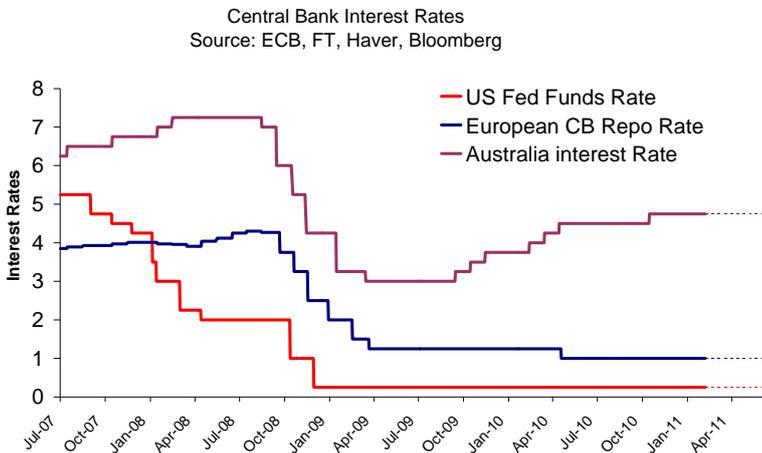
- Falls in the Baltic index and sharp slowdowns in the growth freight rates reflect emerging capacity not demand weakness. However, air freight is now starting to lose share to ocean as the economic cycle shifts from restocking to consumer and business capital spending growth.

Economic Outlook

Key points:

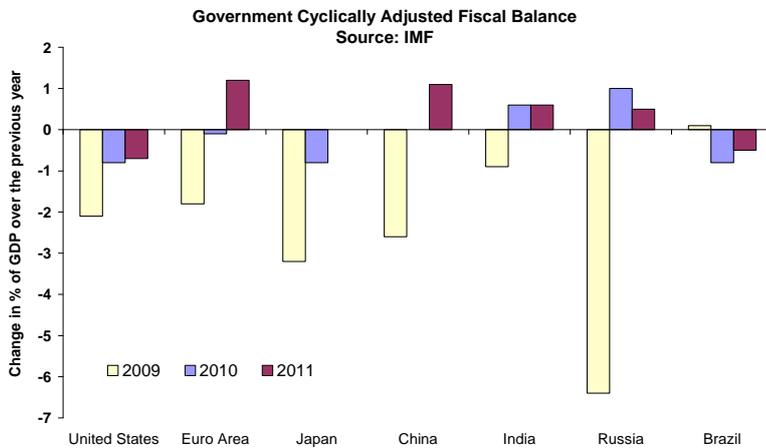
- Economic growth is slowing in 2011 as monetary and fiscal policies are tightening in a number of countries. However, the slowdown is less than previously expected which is positive for cargo demand. Emerging economies continue to be the fastest growth regions. Europe and Japan continue to be the weakest.

Monetary stimulus to growth reversing or coming to an end



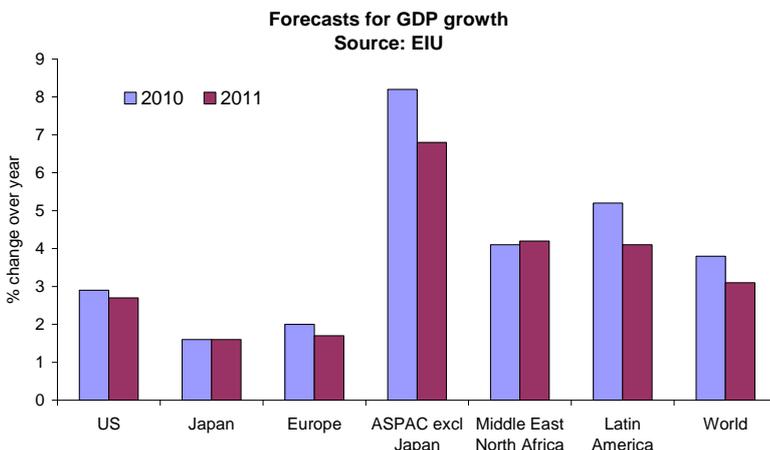
- Having loosened monetary policy around the world at the onset of recession in late 2008, central banks are now dealing with different problems and are taking different actions.
- In Australia, China and many emerging economies interest rates are being raised and credit restricted to suppress emerging inflation. This will slow cargo demand growth and there is always a risk that the brakes could be applied too hard. Policy remains loose in the US and Europe but bond markets already anticipate rising interest rates.

Fiscal policy boost to growth increasing in some countries but reversing in others



- Fiscal policy also differs around the world today, following the large stimulus provided in response to recession in 2009.
- The sharpest change is taking place in Europe where budget deficits are being cut very sharply – partly driven by sovereign debt crises. This will clearly depress growth. China and India are tightening in order to slow overheating economies. By contrast fiscal policies in the US and Brazil continue to boost growth and cargo demand.

Producing a little slower but still varied economic growth in 2011



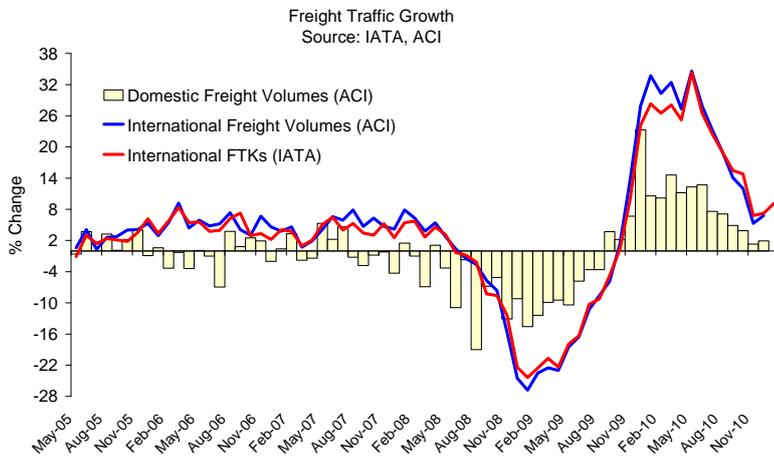
- The outlook for economic growth this year has improved. A slowdown from the post-recession rebound of 2010 is still expected, but that slowdown is now expected to be less severe than previously thought.
- Asia-Pacific remains the faster growing region, followed by Latin American and the Middle East. The US, with supportive monetary and fiscal policies, is not far behind. The weakest economies for 2011 remain in Europe and Japan.

Traffic Growth

Key points:

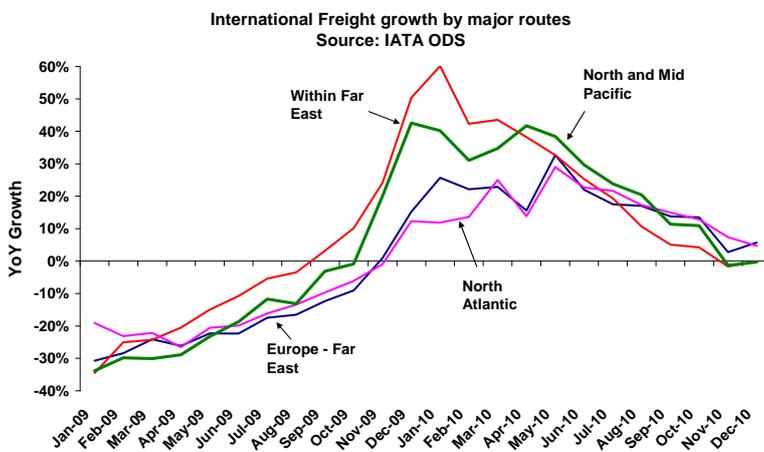
- Air freight volumes had peaked in May 2010, as the business inventory cycle came to an end. Companies no longer needed rapid air shipment to restock. However, final demand from consumers and capital goods demand continues to expand and a sharp upturn in January air freight points to a second leg to the upturn.

Post-recession rebound over but air freight volumes starting renewed upturn



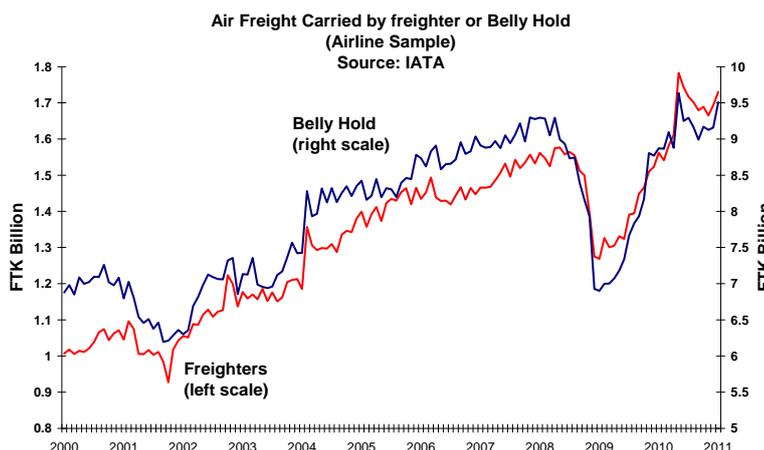
- The business inventory cycle typically causes a lot of volatility for the air freight industry. That brought benefits in 2009 and early 2010 with restocking leading to a strong recovery in air freight volumes. But the inventory cycle ended early last year, causing air freight volumes to peak in May.
- January 2011 brought signs that continued growth in consumer spending and business capital spending is generating a second leg to the upturn in air freight volumes.

Growth rates continue to converge across major trade lanes



- The first year of the freight market recovery, from the lows at the start of 2009, saw very divergent performance across trade lanes.
- However, growth rates converged across trade lanes during 2010. European economies and inbound demand remains weak but the fall in the Euro and strong non-European markets is boosting outbound freight. Outbound freight growth from Asia is being dampened by weak European demand and, to a lesser extent, by a cautious US consumer.

Freighter capacity picking up an increasing share of cargo traffic



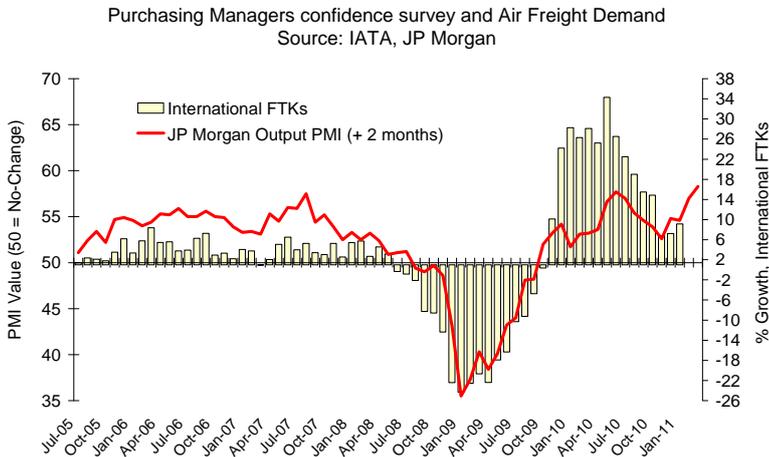
- The data suggests that cargo-only operations are picking up a larger share of the air freight business over time. Both belly and freighter operations have seen the traffic they carry rise 37% from the lows of 2009 until January this year. But recession caused a bigger slump in freight carried in the bellies of passenger aircraft than on freighters. As a result freighters are now carrying volumes 10% above pre-recession peaks, compared with 2% for belly hold.

Demand Environment

Key points:

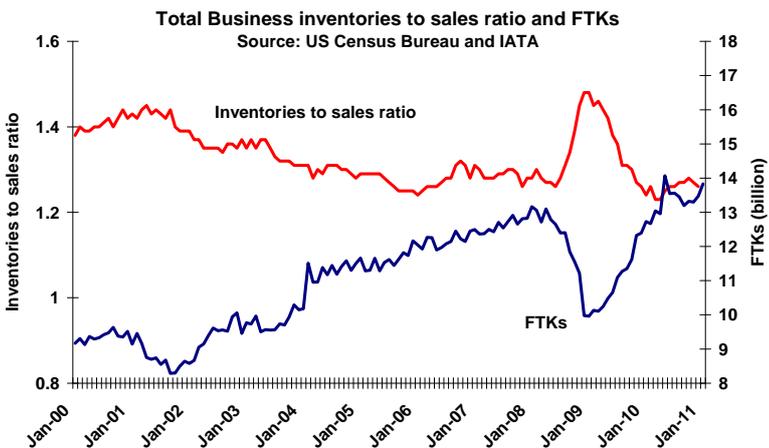
- Leading indicators for cargo demand, such as the purchasing managers' index, have risen to new highs, having slipped back in the second half of 2010. The restocking cycle has clearly ended but there are signs that expanding final demand by consumers and firms is once more boosting air shipment intentions.

Purchasing managers optimism reaches new highs in January, following a soft patch



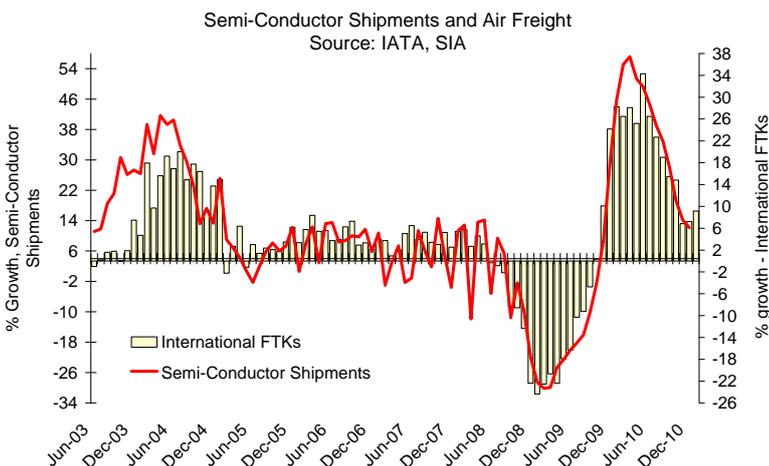
- Purchasing managers reported new highs in January 2011 for output and new orders, according to the JP Morgan/Markit global index. New levels of optimism were reached in major developed economies and in India, Brazil and Russia. China was the exception with February data showing that the economy is slowing.
- Overall this leading indicator points to renewed growth in air freight volumes during the first quarter of 2011.

Business restocking cycle boost to air freight has ended



- The 20%+ growth rates of 2009 and early 2010 were driven by a sharp turnaround in business inventories and the need to use air freight to quickly restock depleted inventories as the economic recovery gathered pace. That cyclical boost to air freight ended in early 2010 as inventories returned to normal levels, relative to sales.
- The mirror image of this cycle in air freight shows that the May 2010 peak reflected the end of the stock cycle. Growth in final sales now appears to be generating a renewed upturn in air freight volumes.

Semiconductor demand continues to be a coincident indicator of customer demand



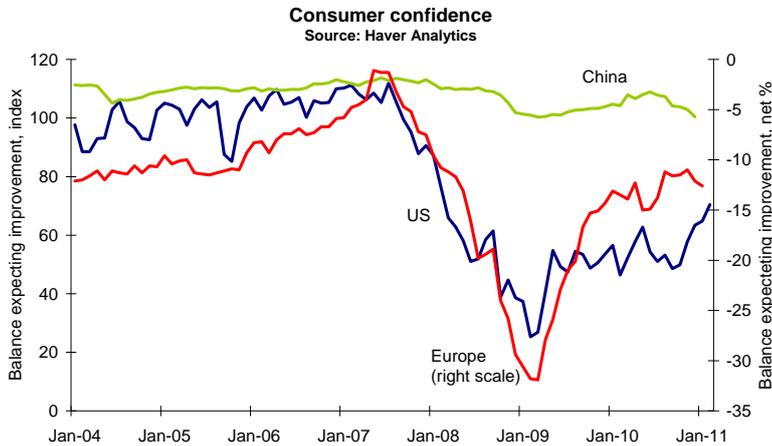
- Semi-conductors have become a lot cheaper relative to their weight and volume. As a result ocean shipment is taking an increasing share from air freight. Nevertheless, this customer segment continues to be a good proxy for the electronic components and goods shipped by air.
- This year the Semiconductors Industry Association is forecasting modest single figure growth, in line with our forecast for cargo volumes to grow closer to trend at 6.1%.

Demand Drivers

Key points:

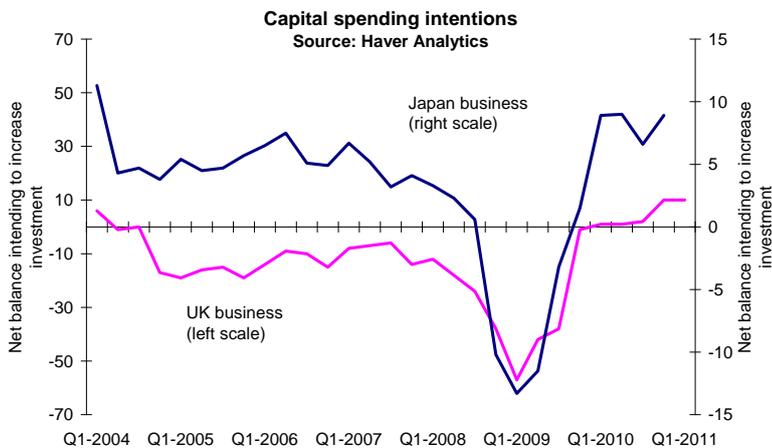
- World trade expanded once more at the end of 2010, having paused during the middle of the year. Prospects for further trade expansion look good. Domestic demand drivers remain mixed. The cash-rich corporate sector is spending on capital goods. Consumer confidence has been rising in the US.

Consumers getting more confident in the US but Chinese demand is softening



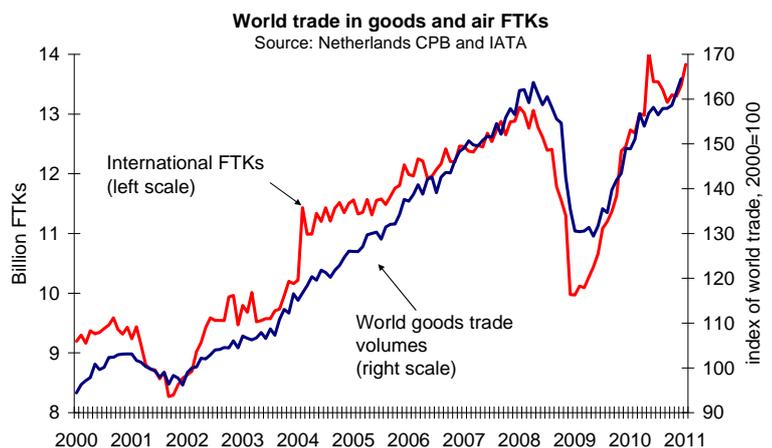
- Loose policies and the start of job creation in the US is now feeding through to improved consumer confidence, which is good news for air freighted consumer goods demand.
- However, the recent anti-inflationary tightening of fiscal and monetary policy in China is weakening the confidence of Chinese consumers. Purchasing managers in China have also reported a sharp fall in their confidence in January and February. Worth watching in case Chinese growth is slowed more than intended this year.

Cash rich corporate sector begins to spend on capital goods and jobs



- Leading indicators of business capital spending – another important driver of air freight volumes – are hard to come by. The business confidence surveys are an indirect leading indicator. Aside from a weakening of confidence in China these are positive.
- More direct indicators are the capital spending intention surveys in Japan and the UK. These economies are amongst the weakest at present, yet companies are intending to increase capital spending. Elsewhere spending on capital goods is likely to be stronger.

World trade recovery starts a new upward leg



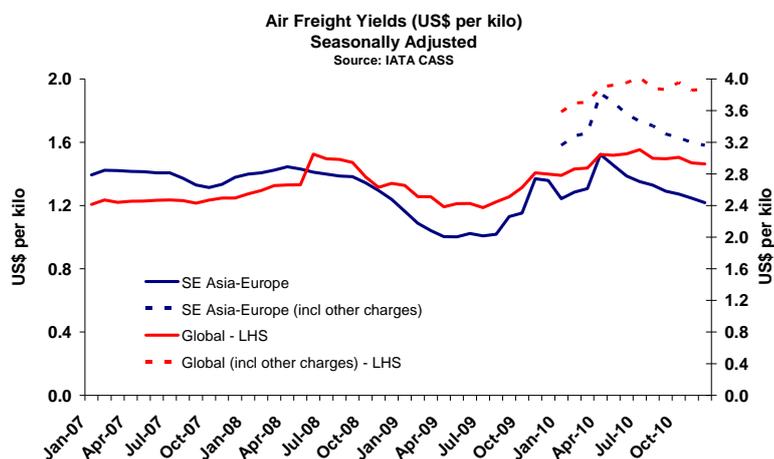
- The most direct measure of demand for air freight services is world trade in goods. Following the very strong post-recession rebound, world trade growth paused during Q2 and Q3 of 2010. However, during the fourth quarter trade growth accelerated once more at an annualised pace of 10%.
- It seems there was still plenty of momentum in world trade volume growth in December, which is expected to provide a solid boost to air freight growth during the first quarter of 2011.

Revenues and Yields

Key points:

- ↗ Cargo yields peaked in mid-2010 before softening through the rest of the year as load factors slipped. Including fuel surcharges average yields were stable during the second half of the year, but the SE Asia-Europe market saw a significant fall back. Cargo revenue growth likely to be in single figures this year.

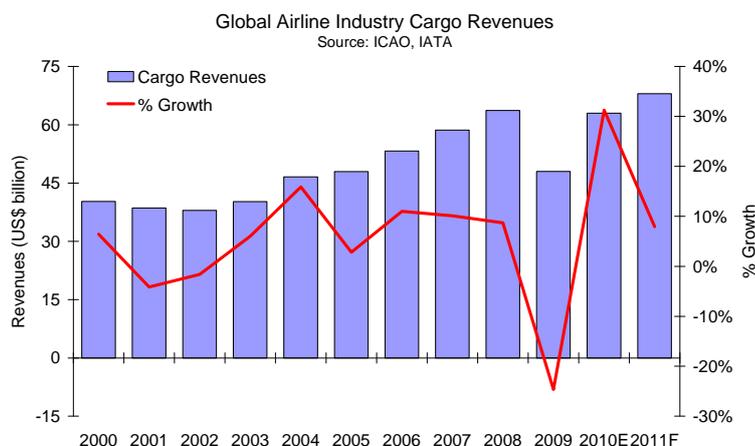
Cargo rates slipped in 2010H2 but average yields stabilized by fuel surcharges



Note: Other charges include handling charges, dangerous good fees, special charges, fuel surcharges, security etc

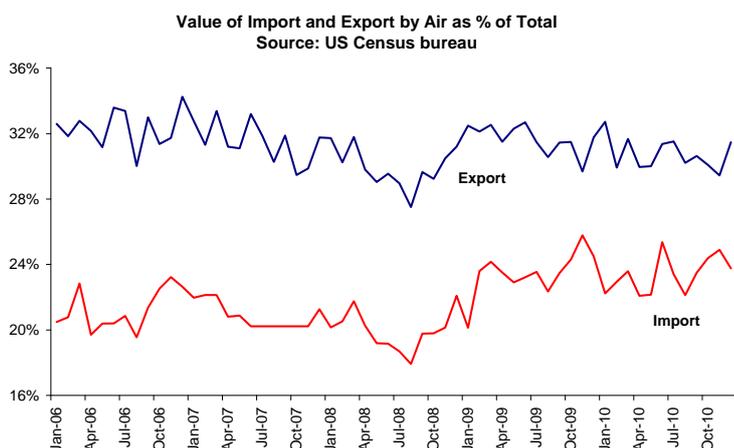
- ↗ Cargo yields rose by 30% from the lows of 2009 through to the second quarter of 2010. There was a subsequent increase in surcharges as fuel prices rose. However, underlying cargo rates slipped in line with the peaking of traffic volumes and load factors.
- ↗ One of the strongest markets in 2009 and early 2010, SE Asia-Europe, saw a significant setback in yields as supply-demand conditions deteriorated. This was just offset by improvement in other trade lanes.

Revenues to rise above pre-recession levels this year but growth will slow



- ↗ Growth in cargo revenues in 2010, boosted by very strong increases in volumes and yields, of 30% almost recovered pre-recession levels.
- ↗ This year, barring a renewed economic crisis, we expect that cargo revenues will rise above pre-recession levels but the growth rate will slow. Volumes have started to rise again but single figure growth only is expected. Yields stopped improving last year, as capacity growth ran ahead of demand. Only a small gain is expected in 2011.

Air cargo share of international trade remains at relatively high levels



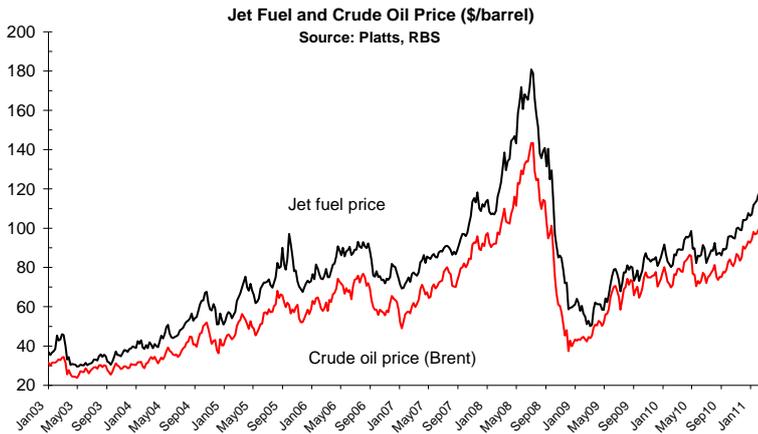
- ↗ US data on the value of goods shipped by mode of transport shows that air cargo continues to carry a relatively high share of US exports and imports, given its higher cost than other modes.
- ↗ Partly driven by the post-recession switch to air freight as the transport mode of choice to restock, the share of US exports by value rose to around 32% in early 2009. Air cargo's value share has fluctuated around that level ever since. Air's share of imports followed a similar pattern.

Costs

Key points:

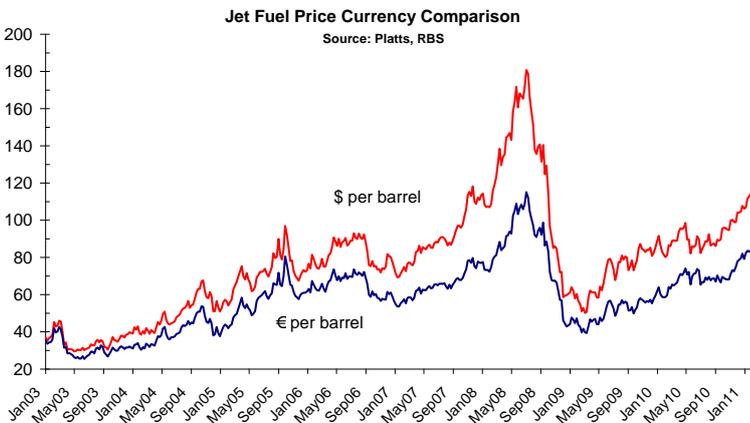
- ↗ The cargo industry has passed the low point in unit costs. Utilization of aircraft is back to pre-recession levels. Wage pressures are starting to build. Most importantly oil and jet fuel prices have risen significantly. \$10-15/b of current \$110+ oil prices is geopolitical risk. Even if tensions subside fuel prices remain high.

Stronger economies have boosted oil prices but recent surge is a supply shock



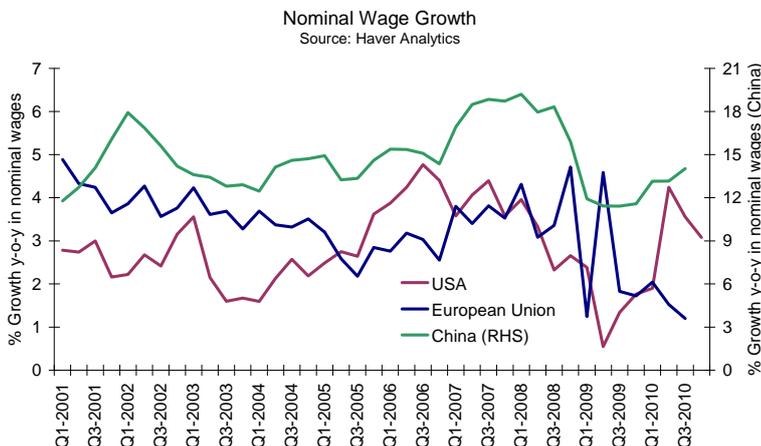
- ↗ A significant part of the rise in oil prices over the past year has been due to increasing demand, as forecasts of economic growth have successively been revised higher – with the exception of Europe.
- ↗ However, at least \$10-15/b of the recent surge over \$100/b is due to geopolitical risk with unrest in Libya and elsewhere. If tensions in the region diminish, oil prices are expected to fall below \$100/b, but not by far.

Exchange rate providing little offset to rise in US\$ oil prices for non-\$-based airlines



- ↗ In the 2008 oil price spike some offset was provided to non-US\$-based airlines by a 20% or so fall in the US\$ exchange rate against European and other currencies.
- ↗ There have been no such protection against the rise in US\$ oil and jet kerosene prices in the past year. In fact the Euro has weakened 5% against the US\$ in the past year adding to cost pressures for Euro-based airlines.

Upward wage pressures starting to build with the exception of European markets



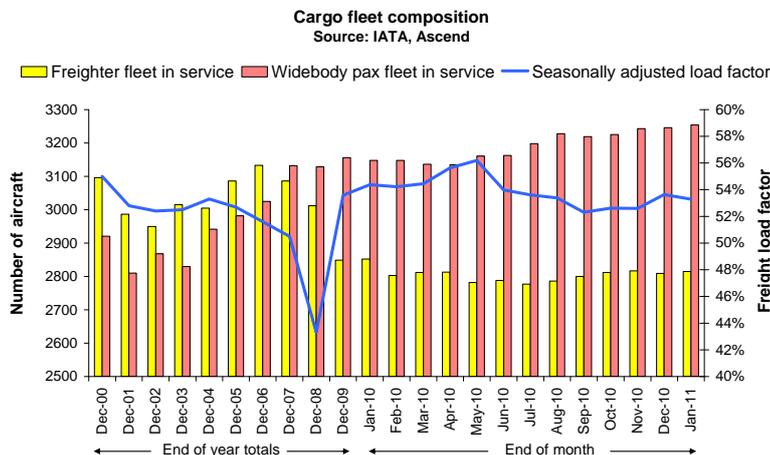
- ↗ Two years into the economic recovery period jobs are beginning to grow, albeit at a glacial pace in western economies, and labor markets are tightening. With the exception of European markets, where the 'PIIGS' economies remain extremely weak, wage growth is on the increase.
- ↗ Given the recent growth in the industry, markets for skilled airline labour such as pilots and engineers will be even tighter than the wider economy. With utilization at pre-recession levels the pressure on unit costs is now rising.

Capacity

Key points:

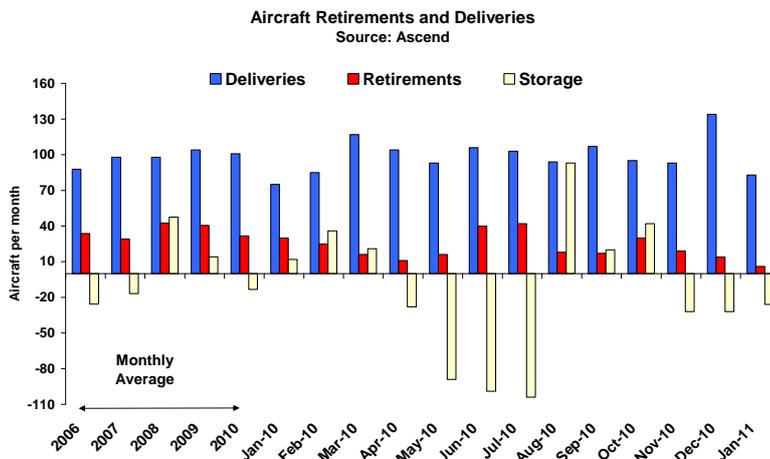
- Capacity is starting to become an issue for the cargo business. The freighter fleet is unchanged but capacity from twin-aisle aircraft has risen and, without retirements, 8% is due to be added this year by new deliveries. Many of these new aircraft will replace existing fleet but there is an excess capacity risk developing.

Freighter fleet smaller and stable but twin aisle capacity up 3%



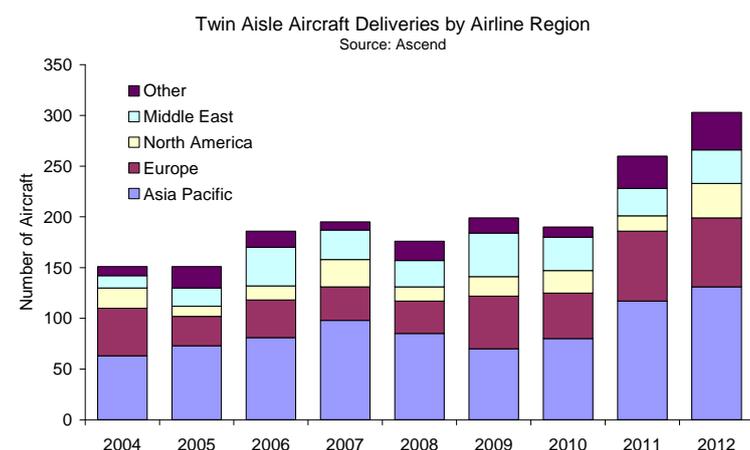
- Cargo load factors recovered so sharply during 2009 largely because of a 10% reduction in the freighter fleet (and, not so positively, because of reduced aircraft utilization). Belly capacity in the twin aisle fleet stabilized over this period.
- Since May last year the freighter fleet has been kept more or less unchanged but the twin aisle fleet has expanded 3%. Unfortunately this coincided with a pause in market expansion. Load factors have slid 3% points as a result.

New freighter deliveries being offset by retirements



- A significant change in fleet movements during 2010 was an increase in aircraft coming out of storage. The chart opposite shows all jets and turboprops. Some of these aircraft returned to active service but a large number were scrapped.
- There were 35 new freighters delivered last year. There are also a large number of freighters in storage. Many of these are being scrapped. The net effect on the freighter fleet was to keep it more or less unchanged throughout 2010.

Twin aisle deliveries to rise but by less than previously planned



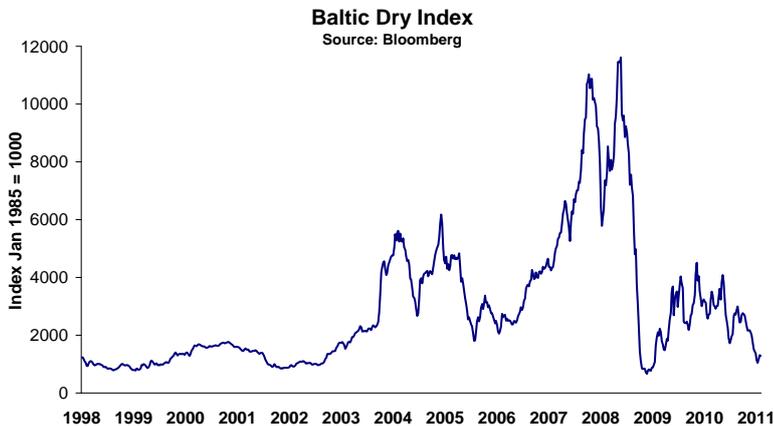
- Capacity has already risen a little ahead of cargo demand, due to twin aisle deliveries and increased utilization. However, a bigger threat for a new capacity overhang comes from planned deliveries of twin aisle aircraft this year and in 2012.
- Delays to B787 deliveries cut expected 2011 deliveries but these remain 30% up on 2010 with 260 aircraft now on the books for delivery – a gross addition of 8% to the existing fleet.

Competition

Key points:

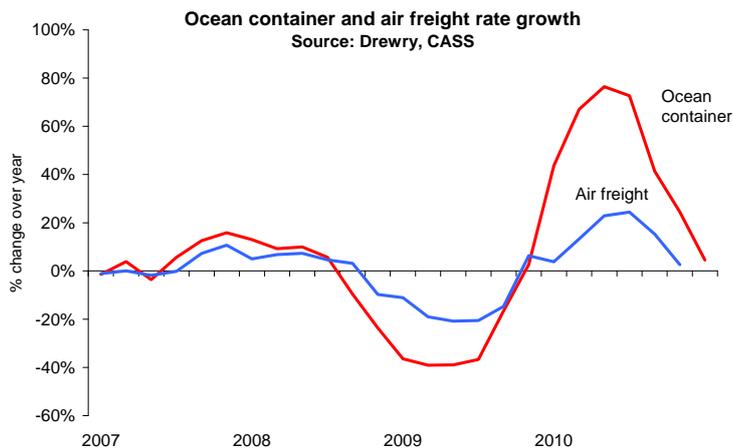
- ↗ Falls in the Baltic index and sharp slowdowns in the growth of ocean and air freight rates reflect emerging capacity not demand weakness. However, air freight is now starting to lose share to ocean as the economic cycle shifts from restocking – which benefits air – to consumer and business capital spending growth.

Fall in cost of bulk ocean transport reflects excess capacity not world trade weakness



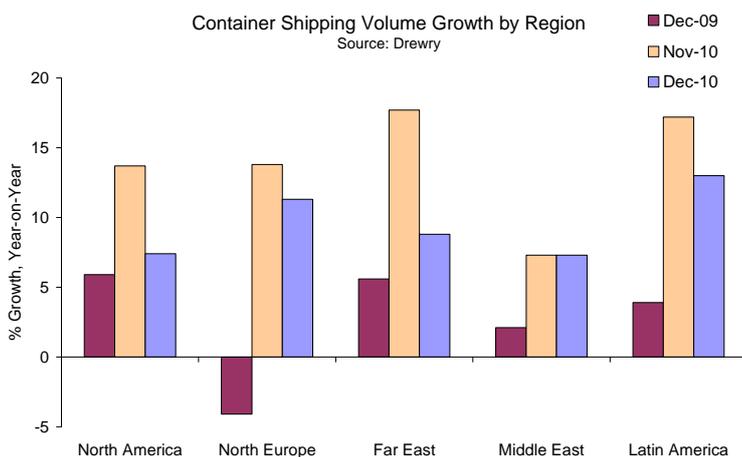
- ↗ The cost of shipping bulk goods, like iron ore and grain, has slipped back close to record lows at the start of 2011 following the modest rise in the immediate post-recession period.
- ↗ This does not reflect any weakness in world trade. Demand for bulk shipping is estimated to have risen 10% in 2010. But the shipping fleet expanded 17% as the building cycle led to many new vessels being delivered last year, depressing bulk transport prices.

The entry of new capacity is also holding down rise in container and air freight rates



- ↗ Ocean freight is much cheaper than air but the gap closed a little during the immediate post-recession period as ocean container rates surged 60-80%, compared to increases of 20% in air freight rates.
- ↗ Both have since stabilized since mid-2010 leading to a sharp slowdown in the year-on-year comparisons. Capacity had lagged demand but now load factors are starting to slip as new capacity arrives, weakening the upward support to freight rates. The reduced gap between air and ocean rates has stabilized in recent months.

Shipping volume growth shows world trade remains robust in most regions



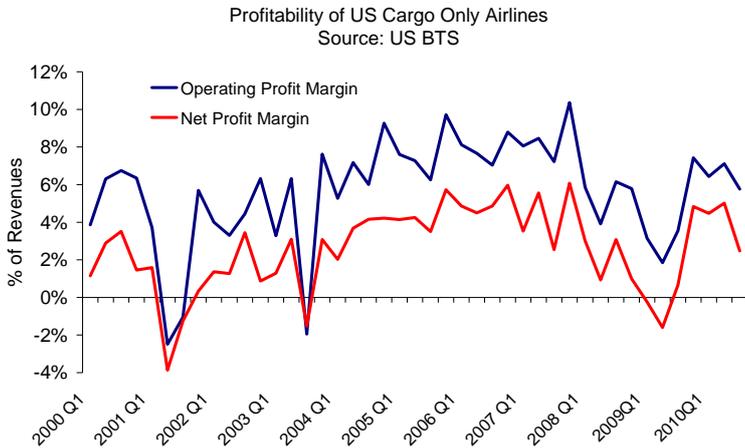
- ↗ Container shipping volume data for the end of 2010 emphasize that cargo demand remains strong. Yields are being impacted by rising capacity and not falling traffic volumes.
- ↗ Ocean freight growth averaged 10% at the end of last year, a faster growth than air freight reflecting the end of the business inventory cycle. The time advantage air freight had during restocking is now being lost. At this stage of the cycle ocean freight will be gaining market share from air.

Profitability

Key points:

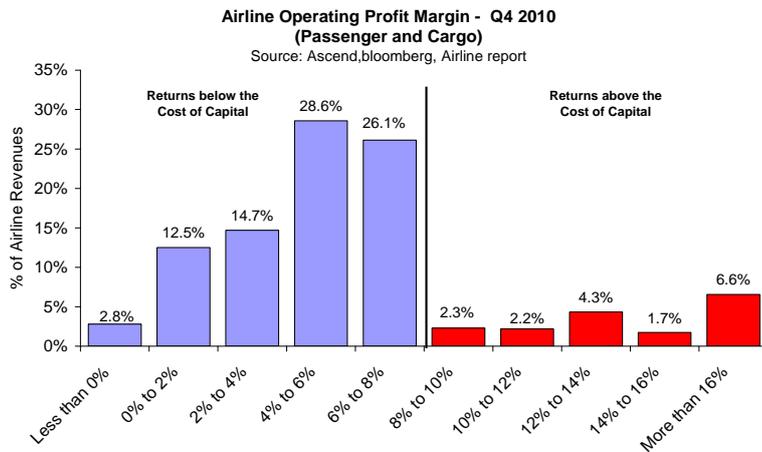
- Cargo margins are still good but are showing signs of being squeezed between stabilizing yields and rising fuel costs. Heads of cargo report confidence in volume growth but much less confidence in gains in yields.

Profit margins starting to be squeezed between stable yields and rising fuel costs



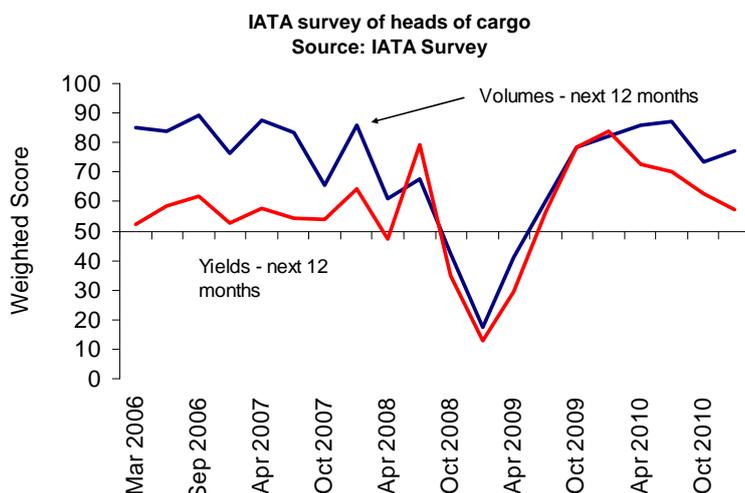
- Cargo profitability had bounced back to pre-recession levels by the middle of last year, as load factors and aircraft utilization rose sharply.
- Towards the end of last year margins started to be squeezed between stabilizing yields and rising fuel costs. Rising capacity also started to add to costs in the second half of the year. Nevertheless, end year average operating margins of 6% were still good by historic standards.

Q4 profits OK but fall versus Q3 reflects seasonal lows in the passenger business



- Partial results for the fourth quarter of 2010 show the majority of airlines generating an EBIT margin between 4 and 8%. This was another profitable quarter for the industry, but only 17% of the airlines in this sample generated sufficient return to create shareholder value.
- However, this relative deterioration from Q3 reflects the seasonal weakness in the passenger business in Q4. Cargo profitability in Q4 likely a little better for seasonal reasons.

Less optimistic but still more optimists than pessimists



- January's survey of heads of cargo by IATA showed that the industry remains confident in further growth of demand during the coming year. However, that confidence has diminished since the middle of last year.
- More significant is the reduction in confidence over yield growth. There is now just a small majority expecting an improvement in cargo yields over the next 12 months.

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					
	Jul 10	Aug 10	Sep 10	Oct 10	Nov 10	Dec 10
Africa - Middle East	11.1%	7.5%	8.8%	4.0%	-3.2%	4.7%
Europe - Far East	17.6%	17.0%	13.8%	13.5%	2.8%	5.7%
Europe - Middle East	14.9%	14.0%	14.2%	9.9%	-7.7%	-5.2%
Within Far East	19.3%	10.7%	5.1%	4.2%	-1.7%	0.0%
Within Middle East	4.5%	2.5%	5.8%	6.4%	-8.9%	-0.9%
Within South America	32.7%	24.8%	14.2%	5.5%	-10.7%	-15.0%
Mid Atlantic	36.5%	35.1%	30.6%	24.3%	16.1%	10.3%
Middle East - Far East	24.2%	20.0%	13.3%	17.2%	1.4%	9.7%
North Atlantic	21.7%	17.3%	14.9%	12.8%	7.4%	4.7%
North America-Central America	14.8%	41.3%	44.8%	34.4%	10.2%	17.5%
Europe - Africa	-8.4%	0.9%	-2.2%	1.3%	-2.6%	-6.6%
North America- South America	11.2%	15.0%	2.8%	5.4%	3.0%	3.5%
Far East - Southwest Pacific	3.3%	7.8%	2.1%	4.1%	3.2%	-4.8%
North and Mid Pacific	23.8%	20.4%	11.4%	10.9%	-1.4%	-0.3%
South Atlantic	6.8%	4.3%	2.8%	-0.1%	-11.1%	15.6%
Within Europe	-1.5%	9.5%	2.3%	-1.1%	-10.6%	-2.9%

Outbound CASS Market Revenues (excl. fuel surcharges)

Origin Region	US\$m Q4 2010	% Growth in Air Freight Revenues, Year-on-Year					
		Q3 2009	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010
Africa	62.2	-18.4	-1.5	-12.4	55.4	58.2	48.4
Caribbean	5.3	-11.3	1.6	-18.4	7.0	23.3	25.8
Central America	70.2	-8.5	28.3	32.7	65.6	44.1	42.2
Europe	1571.6	-30.4	0.8	24.0	33.9	41.0	28.5
Japan & Korea	1030.9	-12.9	45.0	110.1	100.2	55.4	13.0
Middle East	74.4	-1.5	26.7	4.3	89.1	69.3	2.6
North America	811.4	-25.2	6.2	30.2	56.1	42.1	31.9
South America	327.5	-20.1	-2.8	1.2	67.2	49.4	48.9
South East Asia	1573.9	-22.3	29.0	82.7	130.3	87.1	32.9
South West Pacific	157.4	-13.1	26.8	32.2	20.3	10.3	12.5

Inbound CASS Market Revenues (excl. fuel surcharges)

Destination Region	US\$m Q4 2010	% Growth in Air Freight Revenues, year-on-year					
		Q3 2009	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010
Africa	370.5	-13.5	9.8	14.6	29.4	24.6	16.9
Caribbean	36.4	-22.9	-1.1	32.8	5.1	10.6	8.6
Central America	122.0	-34.0	9.4	43.1	73.5	65.7	39.3
Europe	1584.7	-25.6	21.5	53.8	82.6	54.8	13.2
Japan & Korea	372.0	-23.9	17.4	58.4	74.2	70.0	44.4
Middle East	332.4	-13.3	10.1	15.2	18.1	14.1	12.5
North America	1170.3	-28.7	29.9	71.2	108.6	84.7	22.5
South America	453.1	-29.8	17.1	54.7	85.7	60.5	35.2
South Asia	178.9	-11.5	24.3	65.7	67.6	47.7	22.7
South East Asia	769.9	-15.0	29.2	76.7	71.1	56.3	35.8
South West Pacific	297.3	-24.7	17.3	31.7	46.5	34.5	26.2

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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