

AIRLINE ECONOMIC ANALYSIS

NOVEMBER 2014

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INTRODUCTION

For US carriers operating in the wake of what is likely the final major US airline merger, the combination of healthy demand, stable fuel prices, capacity restraint, and an ample supply of slim-line seats resulted in very strong financial performance over the past year. Although industry watchers remain concerned about clouds on the horizon, this upturn was sufficient to raise the question of whether the airline business was becoming a "regular" business with sustainable profits.

Around the world, these same factors were in operation, but subject to variations in levels of regional demand and capacity growth. Australia, for example, has become the new poster child for the financial consequences of excessive capacity growth.

We have divided airlines into two broad groups – network carriers and value carriers – recognizing that each group includes airlines with a range of business models. Especially within the value carrier grouping, there is a divide between more traditional value carriers and those with lower revenue and costs increasingly referred to as ultra-low-cost carriers. This divide is covered in our analysis.

As in past years, this report focuses largely on US carriers because – to paraphrase legendary bank robber Willie Sutton – that's where the data is.¹ We do, however, devote more space than ever to international carriers, focusing on capacity growth and other topics where the data permits us to make comparisons among carriers and regions. We also include our ranking of international airlines by RASK and CASK,² which requires adjustments for foreign exchange, financial reporting and other differences.

Among the most important conclusions discussed in this year's report:

COST

Fuel prices, while high, were less volatile than they've been for a decade. With fuel comprising over $30\%^3$ of airline operating costs – the largest airline cost component – this helped significantly in stabilizing overall costs for both network and value carriers. During the year ending June 2014, unit costs increased only 1.4% for network carriers and 0.7% for value carriers.

The carriers with the lowest costs, Spirit and Allegiant, were able to sustain their cost advantage in part by operating with very high seat density. Other carriers, while operating the same aircraft with fewer seats, have been progressively adding seats to help lower their costs as well.

¹ For readers not familiar with the original quotation, famous gangster Willie Sutton was reportedly asked why he robbed banks and replied "because that's where the money is."

² Revenue per available seat kilometer and cost per available seat kilometer.

³ Many of the figures throughout this report, in the text and charts, are rounded.

REVENUE

Domestic revenue growth in 2014 was unusually strong, halting the trend of network carriers relying largely on their international operations for revenue growth. This revenue growth was achieved with just slightly more domestic capacity in 2014 than the year before, with US carriers increasing their ASMs by 1.4%.

Ancillary revenue – often described as the difference between airline profitability and loss – continues to grow at double digit rates. Miscellaneous revenue, ranging from priority boarding to in-flight entertainment, has become the largest source of ancillary revenue and ancillary revenue growth, displacing reservations change fees and baggage fees.

MARGIN

Both network and value carriers achieved the best margin performance in the past decade. Although value carriers continued to substantially outperform network carriers in margin in the domestic market, network carriers made substantial progress in turning their domestic service, which has lagged behind their international service over the past decade, into a profitable business – a major accomplishment.

CAPACITY

In the domestic market, value carriers continued to grow at higher rates than network carriers, with 3.0% growth in 2014, compared with 1.1% for network carriers. The once fast-growing regional carriers experienced a third straight year of flat or declining capacity.

Both network and value carriers increased their average load factor during the past several years primarily by operating at higher load factors during the off-peak months. Historically, network carriers have operated with less load factor variability than value carriers, as they have more closely matched demand with capacity throughout the year. However, since 2011, value carriers have reduced their load factor variability to approximately the same level as network carriers as they too have adopted more sophisticated pricing and revenue management systems.

GLOBAL TRENDS

For US carriers, the Atlantic still ranks as the largest source of international revenue, but Latin America moved into second place last year, displacing the Pacific. Overall, international revenue is still a small portion of value carrier revenue, although revenue from Latin America is growing rapidly.

In terms of seats added, Asian growth drove 47.5%, or nearly half, of the world's growth between September 2013 and September 2014. Asia, Europe, the Middle East, and South America all added more seats than the US.

Value carriers are gaining market share nearly everywhere, with the greatest increases during the past five years in Central America (Mexico) and the Caribbean. Oceania has the highest percentage of ASMs provided by value carriers.

US CARRIERS INCLUDED AND METHODOLOGY

All US value carriers and network carriers are included in this analysis.4

Our set of value carriers (low-cost):

- 1. Allegiant
- 2. Frontier
- 3. JetBlue
- 4. Southwest (including AirTran)
- 5. Spirit
- 6. Virgin America

Our set of network carriers:

- 1. Alaska
- 2. American (including US Airways)5
- 3. Delta
- 4. Hawaiian
- 5. United (including Continental)

At least by one measure, there is a strong divide between three value carriers, Allegiant, Frontier, and Spirit, and the rest of the value and network carrier sets. *Exhibit 1* takes the top 100 domestic markets served by each carrier and plots the number in which the carrier obtains a fare premium along with its average fare premium or discount. The three value carriers have a sharply different profile from other airlines. We discuss other differences that set them apart in the sections on Cost and Revenue.

⁴ The primary category not included is regional carriers, which provide most of their capacity under capacity purchase agreements (CPAs). Regional carriers operated about 12% of domestic ASMs in 2014, and have different expense payment arrangements in the CPAs with their mainline partners. The number of expense categories paid directly by mainlines and not appearing in the regional carriers' costs has increased over time. Fuel and aircraft ownership were among the first to be directly paid in some CPAs; more recently some mainlines have taken over payment for ground handling and engine maintenance. As a result, comparing total CASM across regional carriers and aircraft may be very misleading.

⁵ In most cases, results for American and US Airways are reported separately, as the carriers were separate entities during the prior comparison period. Consolidated results are also provided.

Exhibit 1: Market Fare Premium/Discount in Top 100 Domestic Markets by Carrier, Q1 2014

OF MARKETS WITH PREMIUM



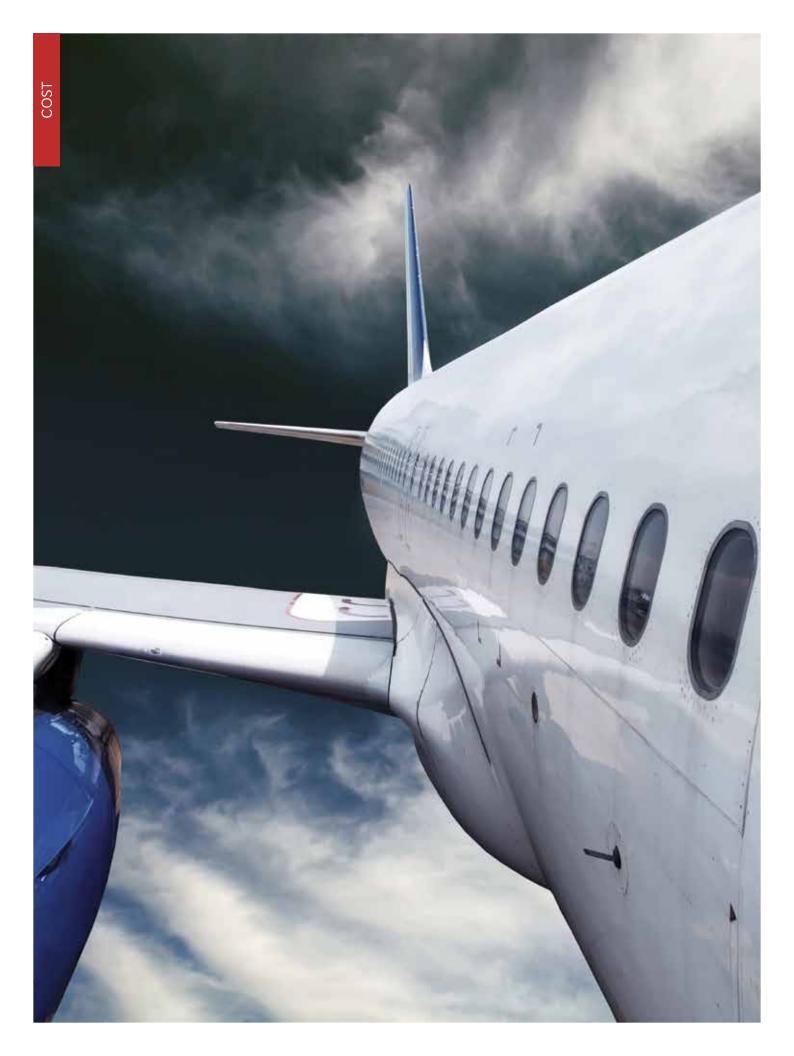
Source: PlaneStats.com

 $\textbf{Note:} \ \textbf{US Domestic DB1A analysis of carriers' top 100 origin and destination markets}.$

We have based most of the analysis on Q2 2014 data, the most recent US Department of Transportation (Form 41) data available. DOT data was used instead of Securities and Exchange Commission filings to permit comparisons of specific equipment types and ensure that non-airline-related costs did not dilute the specific focus on airline costs. In some cases, where indicated, we have used data from the most recent four quarters to provide a longer period for comparison. For carriers outside the US, we have used the most recent reporting period available on a comparative basis.

Unless indicated otherwise, the revenues and costs provided are for mainline domestic operations only. We have removed the revenues and costs associated with the carriers' regional affiliates by correcting for their transport-related revenues and costs, although it is impossible to do so with absolute precision.

⁶ On occasion, DOT releases revisions or corrections to its data after the original date of issuance. This report relies on the data released by the US DOT on September 22, 2014.



COST

SYSTEM CASM INCREASE

Strong US industry financial performance during the period Q2 2013 to Q2 2014 was the result of favorable trends on both the cost and revenue sides. On the cost side, US carrier CASM was nearly flat. The average network carrier CASM increased by only 1.4% from 13.3¢ to 13.5¢, while the average value carrier CASM increased by only 0.7%, from 11.8¢ to 11.8¢ (or more precisely, from 11.75¢ to 11.83¢). Both groups incurred labor cost increases that were partially offset by fuel cost decreases.

Exhibit 2: System CASM by Group (Excluding Regional Affiliates), Q2 2013/2014 COST PER ASM (CENTS) 15 13.5 13.3 13.0 13.1 11.8 11.8 10 5 Other Fuel 0 Labor O2 2013 O2 2014 Q2 2013 Q2 2013 Q2 2014 Q2 2014 Our airline Average for network carriers Average for value carriers (Allegiant, Frontier, JetBlue, sample overall (Alaska, American, Delta, Hawaiian, United, US Airways) Southwest, Spirit, Virgin America)

Source: PlaneStats.com

Note: Mainline operations only, excludes transport-related revenue and cost (regionals).

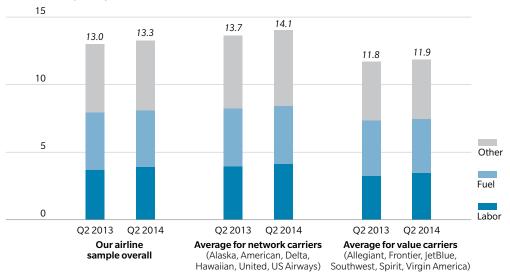
DOMESTIC CASM INCREASE

Because network carriers and value carriers devote very different amounts of capacity to international service and support different types of international markets, it is useful to compare the CASMs for domestic operations. From Q2 2013 to Q2 2014, the average network carrier domestic CASM increased by 2.8% from 13.7¢ to 14.1¢, while the average value carrier CASM increased by 1.0% from 11.8¢ to 11.9¢. (In both cases, the increases were slightly more than their system CASM increases.) The value carrier results are heavily impacted by Southwest, which provided 62.3% of value carrier domestic ASMs and collected 65.7% of value carrier domestic revenue.

Of the three cost categories shown – Labor, Fuel, and Other – Labor was the only category to increase for the value carrier group. Labor rose 6.8%, offset by a 2.4% decline in Fuel. (Other costs remained flat.) For the network carrier group, Labor increased 5.4%, and Other costs rose 4.1%, offset by a 1.1% decline in Fuel.

Exhibit 3: Domestic CASM by Group (Excluding Regional Affiliates), Q2 2013/2014





Source: PlaneStats.com

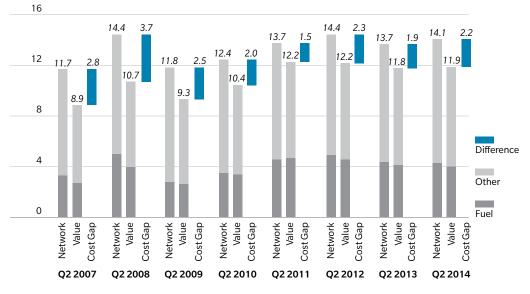
Note: Mainline operations only, excludes transport-related revenue and cost (regionals).

3. LONG-TERM DOMESTIC CASM TRENDS

Exhibit 4 shows the domestic CASM differential between network and value carriers over time. For each group, CASM is divided into Fuel and all other costs for the second quarter of each year, from 2007 through 2014.

Exhibit 4: Comparison of Domestic CASM Between Network and Value Carriers, Q2 2007– O2 2014

COST PER ASM (CENTS)



Source: PlaneStats.com

 $\textbf{Note:}\ Main line\ operations\ only,\ excludes\ transport-related\ revenue\ and\ cost\ (regionals).$

After declining from a high of nearly 35% in 2008, the domestic CASM gap between network and value carriers remained at 19.3% or below since 2010. From Q2 2013 to Q2 2014, the domestic CASM gap increased from 16.3% to 18.4%. The table in *Exhibit 4a* shows the historical gap:

Exhibit 4a: Gap Between Network Carrier and Value Carrier CASM, Q2 2007–Q2 2014

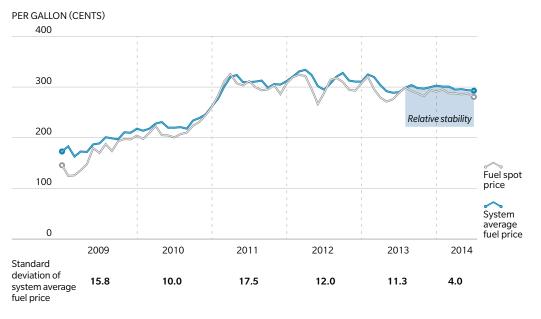
	% HIGHER		% HIGHER			
Q2 2007	32.1%	Q2 2011	12.3%			
Q2 2008	34.6%	Q2 2012	18.8%			
Q2 2009	27.1%	Q2 2013	16.3%			
Q2 2010	19.3%	Q2 2014	18.4%			
Source: PlaneStats.com						

4. FUEL PRICES

Fuel prices as reported on DOT Form 41 were unusually stable for the year ending Q2 2014, remaining in the \$3-per-gallon range during this period. This is high compared with historic levels, but in line with the prices paid since early 2011 and slightly lower than in 2013. Perhaps more important, fuel prices were less volatile for the year ended June 2014 than at any other time in the past decade. The system average price band for the twelve months through June 2014 has only been about 14 cents per gallon, or about 5%. Even during the prior 12-month period, which was also characterized by relative fuel price stability, the price band was about triple that of the current time frame. Expressed in different terms, the standard deviation of the average jet fuel price was only 4.0% for the year ending June 2014, compared with 11.3% during the prior 12-month period.

In this environment, hedging has not been a substantial factor in fuel cost management, and carriers have taken different approaches to fuel hedging. Southwest reports using derivative contracts to hedge a significant portion of its fuel consumption. Since the merger of American and US Airways, the now-largest US carrier reported it no longer hedges fuel. Other US and European carriers have reported reduced fuel hedging this year.

Exhibit 5: System Average Fuel Price (US Carriers) and Fuel Spot Price, January 2009-June 2014



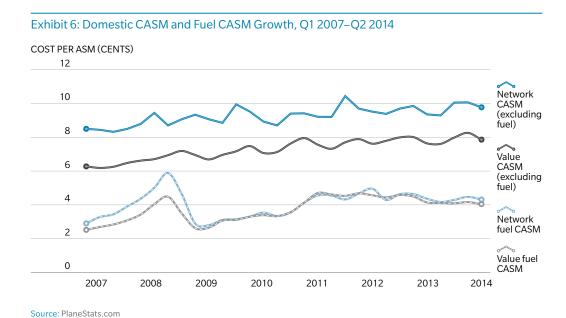
Source: Oliver Wyman research based on US Energy Information Administration data

Exhibit 5 shows the system average fuel price paid by US carriers in comparison with the average spot (market) price. In general, where the system average is significantly lower than the spot price, carriers are benefiting from effective hedging, and vice versa. This occurred most dramatically during the January 2008 through June 2009 period as the price of fuel peaked and then dropped sharply; as this occurred, the carriers first benefited from their hedges and then incurred losses as spot prices fell far below the hedge prices. During the 12 months ending June 2014, however, the system average fuel price has been slightly higher than the spot price, and the result is that some carriers have been buying hedging "insurance" that has not been called upon.

From Q2 2013 to Q2 2014, the average domestic fuel CASM decreased by about 1% for both network and value carriers to 4.2 $^{\circ}$. During Q2 2014, fuel costs amounted to 34% of the average value carrier domestic CASM and 31% of the average network carrier domestic CASM. In a report released in June 2014, the International Air Transport Association (IATA) estimated that the global airline industry's 2014 fuel bill would amount to 30% of its operating expenses.

VALUE VS. NETWORK CARRIER DOMESTIC CASM COMPARISON, WITHOUT FUEL

Exhibit 6 compares CASM excluding Fuel (CASMxF) for network and value carriers. Putting aside seasonal swings, the trends for both groups have been flat since the beginning of 2012, and the gap between the groups has been relatively constant. As noted, the value carrier results are heavily influenced by Southwest's large proportion of value carrier ASMs.



Note: Mainline operations only, excludes transport-related cost (regionals)

The fuel cost difference between the two groups is no longer significant. What may become significant in the future, and is not the subject of this year's report, is the effect of Delta's oil refinery acquisition on the carrier's own fuel costs.

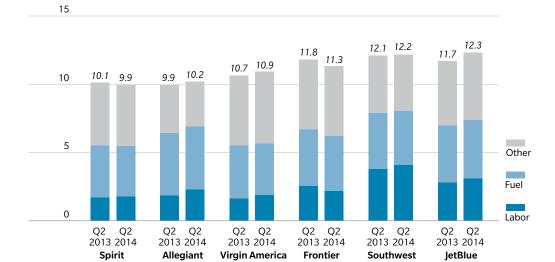
6. INDIVIDUAL VALUE CARRIER DOMESTIC CASMS

Domestic CASM changes at the five value carriers ranged from a decline of 4.1% at Frontier to an increase of 5.3% at JetBlue for the period Q2 2013 to Q2 2014. Spirit's domestic CASM declined 1.9%; Southwest's – which drives the overall average for this group – increased 0.7%; Allegiant's increased 2.4%; and Virgin America's increased 2.5%. Of the three categories Labor, Fuel, and Other, Labor varied the most widely among carriers, ranging from a 14.2% decline at Frontier to a 23.9% increase at Allegiant. Spirit's Labor CASM increased 4.1%, Southwest's increased 7.9%, JetBlue's increased 8.7%, and Virgin America's increased 13.5%. Labor CASMs ranged from 1.8¢ at Spirit to 4.1¢ at Southwest.

Fuel CASM changes ranged from a decline of 3.9% at Southwest to an increase of 3.6% at JetBlue. Changes in Other CASM ranged from a decline of 6.0% at Allegiant to an increase of 4.9% at JetBlue.

Exhibit 7 shows the domestic CASM for each of the value carriers, ranked from low to high. These rankings are not stage-length adjusted.

Exhibit 7: Domestic CASM Breakdown by Airline — Value Carriers, Q2 2012/2013 COST PER ASM (CENTS)



Source: PlaneStats.com

 ${\bf Note: Main line \, operations \, only, \, excludes \, transport-related \, revenue \, and \, cost \, (regionals).}$

Exhibit 7a: Domestic CASM Details for Individual Carriers, Q2 2013/2014

						YOY CHANGE	
AIRLINE	YEAR	CASM (CENTS)	LABOR (CENTS)	FUEL (CENTS)	OTHER (CENTS)	CENTS	%
Spirit	Q2 2013	10.1	1.7	3.8	4.6	-0.3	-2.7%
	Q2 2014	9.9	1.8	3.7	4.5	-0.2	-1.9%
Allegiant	Q2 2013	9.9	1.8	4.6	3.5	-0.3	-3.2%
	Q2 2014	10.2	2.3	4.6	3.3	0.2	2.4%
Virgin	Q2 2013	10.7	1.6	3.9	5.2	-0.2	-1.7%
America	Q2 2014	10.9	1.8	3.8	5.3	0.3	2.5%
Frontier	Q2 2013	11.8	2.5	4.2	5.1	-1.1	-8.7%
	Q2 2014	11.3	2.2	4.0	5.1	-0.5	-4.1%
Southwest	Q2 2013	12.1	3.8	4.1	4.2	-0.4	-3.5%
	Q2 2014	12.2	4.1	4.0	4.2	0.1	0.7%
JetBlue	Q2 2013	11.7	2.8	4.2	4.7	0.0	-0.3%
	Q2 2014	12.3	3.0	4.4	4.9	0.6	5.3%

Source: PlaneStats.com

Note: Mainline operations only, excludes transport-related revenue and cost (regionals).

Frontier and Spirit had CASM declines in both of the past two years, with Frontier declining 12.5% and Spirit declining 4.5% since Q2 2012.

Of the value carriers, Spirit had the lowest Labor and Fuel CASM, and Allegiant had the lowest Other CASM. Southwest had the highest Labor CASM, Allegiant had the highest Fuel CASM, and Virgin American had the highest Other CASM.

7. INDIVIDUAL NETWORK CARRIER DOMESTIC CASMs

Domestic CASM changes at the six network carriers ranged from a decline of 2.0% at US Airways to an increase of 6.5% at American for the one-year period. (The consolidated American/US Airways increase was 3.0%.) Alaska's domestic CASM increased 0.7%, Delta's increased 2.4%, United's increased 2.9%, and Hawaiian's increased 4.0%.

Of the three categories, Labor, Fuel, and Other, Other varied the most widely, ranging from a 5.3% decline at US Airways to an 11.8% increase at American (which reported merger-related expenses in Q2 2014). (The consolidated American/US Airways increase was 4.8%.) Delta's Other CASM increased 0.3%, Hawaiian's increased 3.5%, and United's increased 8.2%.

Fuel CASM changes ranged from a decline of 4.3% at Delta to an increase of 2.0% at Hawaiian. American's Fuel CASM declined 1.9%, US Airways' increased 0.7%, United's increased 1.2%, and Alaska's increased 1.3%.

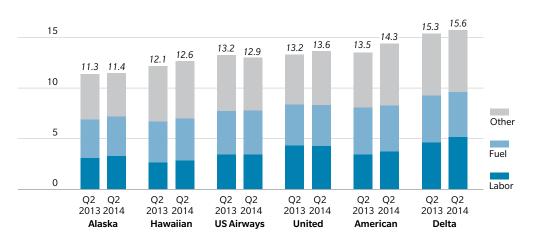
Of the network carriers, Hawaiian had the lowest Labor CASM, and Alaska had the lowest Fuel and Other CASM. Delta had the highest Labor and Other CASM, and American had the highest Fuel CASM.

As with the value carriers, these are not stage-length adjusted CASMs.

Exhibit 8: Domestic CASM Breakdown by Airline — Network Carriers, Q2 2013/2014

COST PER ASM (CENTS)

20



Source: PlaneStats.com

 ${\bf Note:}\ Main line\ operations\ only,\ excludes\ transport-related\ revenue\ and\ cost\ (regionals).$

Individual carrier details are shown in Exhibit 8a:

Exhibit 8a: Domestic CASM Details for Individual Carriers, Q2 2013/2014

						YOY CHANGE	
AIRLINE	YEAR	CASM (CENTS)	LABOR (CENTS)	FUEL (CENTS)	OTHER (CENTS)	CENTS	%
Alaska	2013	11.3	3.1	3.8	4.4	-0.6	-5.0%
	2014	11.4	3.3	3.8	4.3	0.1	0.7%
Hawaiian	2013	12.1	2.6	4.0	5.5	-1.4	-10.4%
	2014	12.6	2.8	4.1	5.6	0.5	4.0%
US Airways	2013	13.2	3.4	4.3	5.5	-0.4	-2.6%
	2014	12.9	3.4	4.3	5.2	-0.3	-2.0%
United	2013	13.2	4.3	4.0	4.9	0.0	-0.2%
	2014	13.6	4.2	4.1	5.3	0.4	2.9%
American	2013	13.5	3.4	4.6	5.4	-1.1	-7.8%
	2014	14.3	3.7	4.5	6.1	0.9	6.5%
Delta	2013	15.3	4.6	4.6	6.1	-1.3	-7.9%
	2014	15.6	5.1	4.4	6.1	0.4	2.4%

Source: PlaneStats.com

Note: Mainline operations only, excludes transport-related revenue and cost (regionals).

8. STAGE-LENGTH ADJUSTED INDIVIDUAL CARRIER DOMESTIC CASMS

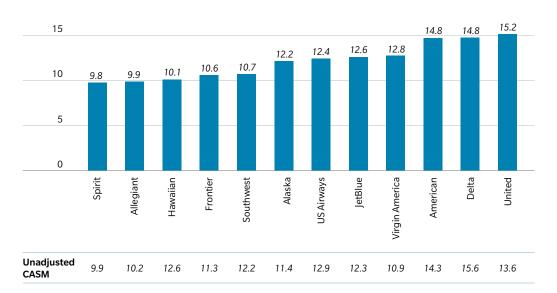
Using a common stage-length adjustment method calibrated based on the most recent data, we recomputed the Q2 2014 domestic CASM for each carrier based on a standardized stage-length of 1,000 miles. We caution that no standard stage-length adjustment method accurately reflects the many differences in airline operating economics among a diverse set of carriers.

Exhibit 9 shows the results: Spirit and Allegiant remain the lowest-cost carriers, closely followed by Hawaiian. Then, Frontier and Southwest are a small step higher, followed by the group of Alaska, US Airways, JetBlue, and Virgin America. Finally, the three largest network carriers have similar CASMs, with United at the top. The consolidated American/US Airways CASM is 13.8¢. For ease of comparison, the unadjusted CASMs are also listed.

Exhibit 9: Domestic CASM by Airline – Stage-Length Adjusted to 1,000 Miles, Q2 2014

SLA DOMESTIC COST PER ASM (CENTS)

20



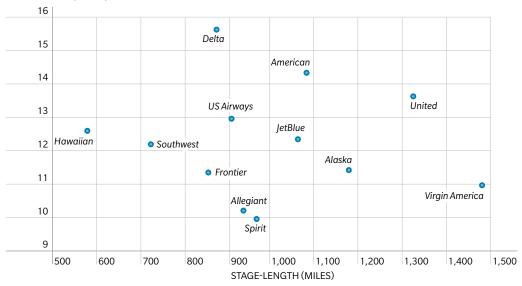
Source: PlaneStats.com

 $\textbf{Note:}\ Main line\ operations\ only,\ excludes\ transport-related\ revenue\ and\ cost\ (regionals).$

Although carriers and analysts devote considerable effort to comparing airline costs on an adjusted basis, in reality, airlines compete based on their actual CASM and stage-length. *Exhibit 10* shows each carrier's actual CASM and stage-length. If the reader draws downward sloping curves on the graph, it is easy to see how the carriers group together in different cost bands.

Exhibit 10: Average Stage-Length vs. CASM, Q2 2014

COST PER ASM (CENTS)



Source: PlaneStats.com Note: Mainline operations only.

Note: We briefly review international CASM and RASM for US carriers in section 20, and system CASK/RASK for carriers around the world in section 31.

DIRECT CASMS FOR NARROW-BODY AIRCRAFT

Exhibits 11, 12, and 13 make direct cost comparisons between narrow-body aircraft operated by different carriers. This type of comparison has been of interest to our highly knowledgeable readers, despite data limitations due to small sample sizes and the effects of early-year maintenance holidays and other cost differences. A fleet size of ten is the minimum for inclusion of any aircraft-operator combination. Because of the number of aircraft-operator combinations, the exhibits are categorized by number of seats and divided into three groups: Fewer than 130 seats, 130-160 seats, and more than 160 seats.

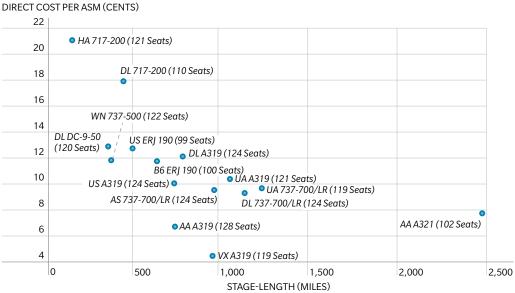
The values plotted are for direct CASM only, the direct operating costs reported by the carriers on DOT Form 41, including pilots, fuel, aircraft ownership, maintenance, and insurance. Indirect costs are not included because the carriers may allocate these in different ways. To diminish the effect of quarterly variations caused primarily by maintenance requirements, the data is for the full year ended Q2 2014. Seat counts are derived from Form 41 data and, therefore, may not reflect the latest seat configurations for carriers that are in the process of adding more seats to their aircraft.

The graphs generally show the expected correlation between longer stage-length or greater number of seats and lower CASM. To help achieve lower CASM and accommodate higher demand, US carriers have increased the number of seats per aircraft by both increasing seat density and transitioning their fleets to the larger models of the same aircraft. For example, the average seats per domestic departure on 737-family aircraft increased from 141 in 2009 to 145 in 2014. Similarly, the average number of seats on a domestic A320-family aircraft increased from 140 to 147 for this same period. Globally, the average seats per departure on a 737-family aircraft increased from 148 to 160 for this period, while the average seats per departure on an A320-family aircraft increased from 154 to 160.

The graphs also show that individual carriers assign specific aircraft types to specific missions. For example, both JetBlue and US Airways use the ERJ-190 for short routes requiring fewer seats and the A320 for long, high density routes. Aircraft used on routes averaging fewer than 500 miles are the DC-9-50, 717-200, 737-500, and ERJ-190. At the other end of the scale, aircraft used on routes averaging more than 1,500 miles include the A320, 737-800, A321 (in American's special trans-continental configuration of 102 seats), and most notably, the 757-200.

For the same aircraft, there are some large differences among the carriers in both stage-length and, as discussed in the next section, number of seats. For example, Delta's A320 has an average stage-length of 894 miles, while Virgin America's is 1,695 miles.

Exhibit 11: Direct CASM of Narrow-Bodies (Under 130 Seats) vs. Average Stage-Length by Aircraft Type, YE Q2 2014



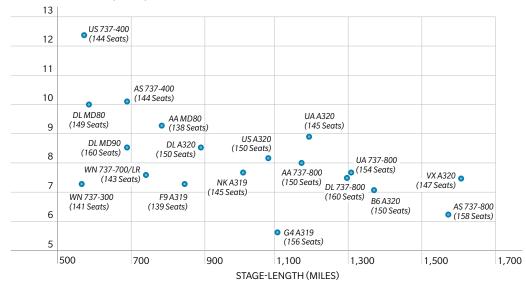
Source: PlaneStats.com

Note: Mainline operations only. Costs include direct aircraft operating expenses. Direct costs include pilots, aircraft ownership, maintenance, and insurance. Indirect expenses not reported by aircraft type.

^{7 737} family includes -300/400/500 and -700 800/900: A320 family includes A319 A320 and A321

Exhibit 12: Direct CASM of Narrow-Bodies (130 to 160 Seats) vs. Average Stage-Length by Aircraft Type, YE Q2 2014





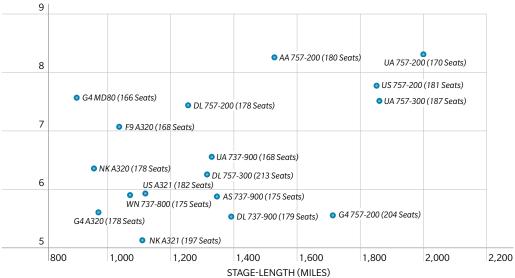
Source: PlaneStats.com

Note: Mainline operations only. Costs include direct aircraft operating expenses. Direct costs include pilots, aircraft ownership, maintenance, and insurance. Indirect expenses not reported by aircraft type.

Exhibit 13 shows the high direct CASMs of 757-200s despite long stage-lengths, making it easy to understand why some carriers are retiring these aircraft. It also illustrates the benefits of operating the larger version of the same aircraft, as shown by the CASM comparisons between Delta's 757-200 and 757-300 and Spirit's A320 and A321.

Exhibit 13: Direct CASM of Narrow-Bodies (Over 160 Seats) vs. Average Stage-Length by Aircraft Type, YE Q2 2014

DIRECT COST PER ASM (CENTS)



Source: PlaneStats.com

Note: Mainline operations only. Costs include direct aircraft operating expenses. Direct costs include pilots, aircraft ownership, maintenance, and insurance. Indirect expenses not reported by aircraft type.

10. SEAT DENSITY

Airlines have studied seat density issues for many years, and, over time, have added more coach seats by reducing seat pitch and using slim-line seats. For example, in 2012 and 2013, Southwest increased the number of seats on its 737-700 from 137 to 143.

One of the defining characteristics of the three lowest CASM carriers, Allegiant, Frontier, and Spirit, is their high seat density. As shown in *Exhibit 14*, both Allegiant and Spirit have 178 seats in their A320s, just slightly below the maximum of 180 seats for the world's scheduled operators. (Spirit announced plans to add one more seat to its A320s in the next 18 months). Frontier, with 168 seats currently, said it is reconfiguring its aircraft with approximately 180 seats.

In contrast, other US carriers operate the A320 with only 150 seats. Some carriers, such as United, are in the process of reconfiguring A320s with 150 seats from a lower number. The difference between 150 seats and 178-180 is not entirely the result of coach seating differences, but also the inclusion of a first-class section and extra-legroom rows in coach. These more widely spaced seats are expected to, and generally do, produce higher RASM that corresponds to the higher CASM they generate. One example of a configuration with relatively few seats, which has a dramatic effect on CASM that is expected to be offset by much higher RASM, is American's premium transcontinental service operated with A321 aircraft with only 102 seats.

Exhibit 14: A320 Seating Configurations

HIGH DENSITY			TYPICAL DEN	TYPICAL DENSITY		
	TOTAL		COACH	FIRST	TOTAL	
Allegiant	178	American	138	12	150	
Spirit	178	Delta	138	12	150	
Frontier	168*	JetBlue	150	0	150	
		US Airways	138	12	150	
		United	138	12	150	
* Expected to increase to 180						

Around the world, value carriers such as Vueling, IndiGo, AirAsia, EasyJet, and Wizzair operate A320s with 178-180 seats, while network carriers operate much closer to the 150-seat level.

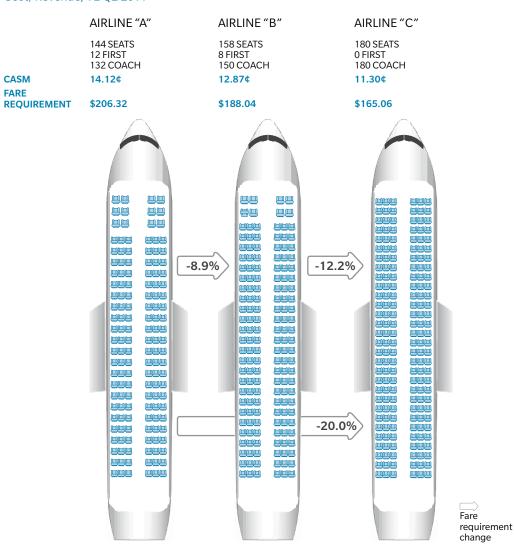
The math of higher seat density is straightforward. As more seats are added, an airline's CASM decreases very nearly in direct proportion, because the cost is minimal to carry the additional passengers. To operate an A320 with 150 seats, as the network carriers do, means approximately a 19% higher CASM relative to carriers such as Allegiant and Spirit, all other things being equal.

In the case of another commonly used aircraft, the 737-800, American announced that it is increasing seats in these planes to 160 from 150 currently, in comparison with Delta at 160, United at up to 166, and Southwest at 175. Thus, Southwest has 5% to 9% more seats than the three network carriers. By comparison, Ryanair's 737-800s have 189 seats, or 14% to 18% more than the three US network carriers.

Because Southwest does not fly the Airbus A320, it is difficult to make direct equipment density comparisons between Southwest and Allegiant and Spirit. By analogy, however, we see the seating density difference between Southwest and the network carriers on the 737-800 is only 5% to 9%, in comparison with the much larger 19% difference in seating density between Allegiant and Spirit and the network carriers on the A320.

Using the example of an A320 operated with average US carrier costs and revenue for the year ended first quarter 2014, *Exhibit 15* illustrates how changes in seat density alone would change both CASM and the required break-even fare level. Using a 180-seat configuration produces CASM of 11.3¢ and requires an average one-way fare of \$165, while the same aircraft configured with 144 seats has a CASM of approximately 14.1¢ and requires an average one-way fare of \$206. The example ignores the small incremental cost for carrying the extra passengers and seats within the same aircraft shell.

Exhibit 15: A320 Seat Density Comparison Calculated Based on US Carrier Average Cost/Revenue, YE Q2 2014



Source: PlaneStats.com

Note: Mainline operations only. Costs include direct aircraft operating expenses. Direct costs include pilots, aircraft ownership, maintenance, and insurance. Indirect expenses not reported by aircraft type.

Arrivals

Time

5:57a

6:18a

6:18a

6:22a

6:25a

6:29a

6:40a

6:45a

6:50a

5.52a

No.

403

841

322

505

870

300

843

890

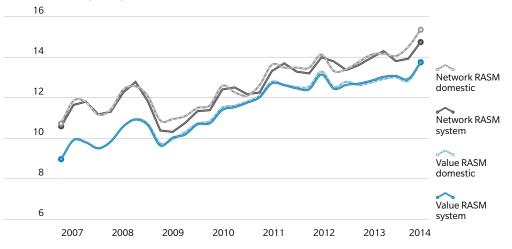
407

REVENUE

11. RASM INCREASE

RASM has been trending upward for both network and value carriers since early 2009. From Q2 2013 to Q2 2014, system RASM for the average network carrier increased 5.6%, which was less than the average value carrier RASM increase of 7.1% (domestic RASM increased 8.8% and 7.9%, respectively). Looking closely at the graph, we see part of the reason for the greater percentage increase for value carriers is that, unlike the network carriers, they did not experience the typical second quarter RASM peak last year. For both network and value carriers, the RASM upturn in Q2 2014 compared with Q1 2014 was particularly large. System RASM closely tracks domestic RASM for both sets of carriers. The network carriers, however, experienced a particularly strong increase in domestic RASM in Q2 2014, vs their international RASM, as domestic capacity remained tight in comparison with the large increase in international capacity to and from the US. See *Exhibit 16*.





Source: PlaneStats.com

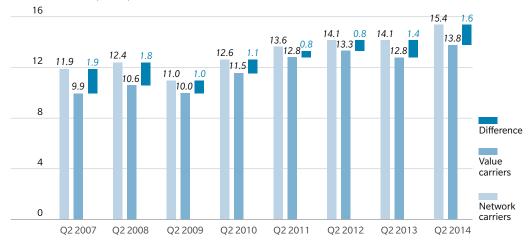
Note: Mainline operations only, excludes transport-related revenue (regionals).

12. NETWORK/VALUE CARRIER DOMESTIC RASM GAP

As shown in *Exhibit 17*, the gap in domestic RASM between network and value carriers, which narrowed to as little as 0.8¢ in Q2 2012, has widened to 1.4¢ in Q2 2013 and to 1.6¢ in Q2 2014.

Exhibit 17: Comparison of Domestic RASM Between Network and Value Carriers, Q2 2007–Q2 2014





Source: PlaneStats.com

Note: Mainline operations only, excludes transport-related revenue (regionals).

From Q2 2013 to Q2 2014, the RASM gap increased from 10.6% to 11.6%. The table in Exhibit 17a shows the historical gap.

Exhibit 17a: Gap Between Network Carrier and Value Carrier, RASM Q2 2007-Q2 2014

	% HIGHER		% HIGHER		
Q2 2007	19.6%	Q2 2011	6.6%		
Q2 2008	17.1%	Q2 2012	6.2%		
Q2 2009	10.0%	Q2 2013	10.6%		
Q2 2010	9.3%	Q2 2014	11.6%		
Source: PlaneStats.com					

13. RASM ADJUSTED FOR STAGE-LENGTH

Exhibit 18 shows the stage-length adjusted domestic RASM for all carriers in the study, similar to the domestic CASM ranking in the cost section. The highest unit revenue performance, by Delta at 16.5¢, is 37% greater than the lowest unit revenue generator, Allegiant at 12.1¢.8 The next three lowest RASM carriers have very similar RASMs: Hawaiian at 12.2¢, Frontier at 12.2¢, Spirit at 12.3¢. Among this group, the relatively high RASM performance for Spirit, which stresses its low fares above nearly everything else, is notable. Southwest is 12.7¢. JetBlue is next at 13.2¢, Virgin America at 14.2¢, and Alaska at 14.6¢. The larger network carriers are US Airways at 15.0¢, United at 15.3¢, and American at 15.5¢. On a consolidated basis, American/US Airways would be 15.3¢, just below United. For ease of comparison, the unadjusted RASMs are also included in the exhibit.

⁸ Allegiant's RASM has been adjusted upward from 10.5¢ to 12.1¢ because the raw DOT data appears to understate Allegiant's passenger-related ancillary revenue. See discussion of ancillary revenue issues in the following section.

Exhibit 18: Domestic RASM by Airline — Stage-Length Adjusted to 1,000 Miles, Q2 2014

SLA DOMESTIC RASM (CENTS)



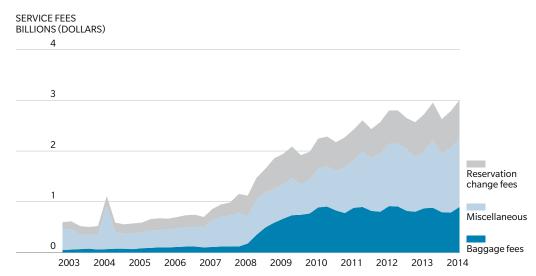
Source: PlaneStats.com

Note: Mainline operations only, excludes transport-related revenue (regionals).

14. ANCILLARY FEES

During the past several years, airlines captured increasing amounts of revenue for non-ticket charges such as baggage fees, reservation change fees, and other fees, most of which are not included in DOT-reported average airfares. Airlines have found that passengers are less price-sensitive when it comes to ancillary fees. In some cases, the charges are also subject to more favorable tax treatment than the base airfare. *Exhibit 19* focuses on the three major categories of fees, baggage, reservation change, and miscellaneous, to show the growth to date. Miscellaneous is a broad category including buy-on-board meals, in-flight entertainment,

Exhibit 19: System Baggage, Reservation Change and Miscellaneous Fees, Q1 2003-Q2 2014



 $Source: Plane Stats.com > Form \ 41 \ Financials > P1.2 \ Income \ Statement \ for \ all \ reporting \ carriers$

Note: Adjustment made to Allegiant miscellaneous revenue, which is reported differently.

Wi-Fi, priority boarding, blankets and pillows, and other fees. For some ultra-low-cost carriers, miscellaneous fees include credit card fees, passenger "usage" charges, and boarding pass printing charges.

Based on airline reports to DOT, these ancillary fees generated \$11.4 billion in the year ended Q2 2014, which amounts to 7.0% of base passenger revenue. The much larger ancillary revenue figures often reported in the press include the sale of frequent flyer program miles (the largest source of airline ancillary revenue) and travel services such as hotel bookings and car rentals. Neither of these categories is included in the three DOT ancillary revenue categories.

Miscellaneous fees, at \$5.1 billion, generated the largest share of ancillary revenue for the year ended Q2 2014, followed by baggage fees at \$3.4 billion, and reservation change fees at \$2.9 billion. For the three-year period ended Q2 2014, miscellaneous fee revenue grew 50.8%, compared with reservation change fees at 22.4%, and baggage fees, which declined 1.2%.

Comparing Q2 2013 with Q2 2014, fees in the three ancillary revenue categories increased 10.5% for all reporting carriers. Fees collected by value carriers increased 12.6% compared with a 10.3% increase for network carriers. For the period, miscellaneous fees increased 19.7%, reservation and change fees increased 4.7%, and baggage fees decreased 3.3%.

Exhibit 20 below shows the different composition of fees collected by value and network carriers (the charts are drawn to different scales), with value carriers generating only 12.0% of their total ancillary revenue from reservation changes (due largely to Southwest's policy of not charging) and 57.9% of their total ancillary revenue from miscellaneous fees. For value carriers, miscellaneous fee revenue increased 23.9% year-over-year, while reservation change fees grew 7.4% and baggage fees declined 2.6%.

ANCILLARY REVENUE ANCILLARY REVENUE MILLIONS (DOLLARS) MILLIONS (DOLLARS) 700 2,200 2.130 660 1,906 1,931 570 1,637 1,664 525 523 1,650 507 428 350 1,100 Miscellaneous 175 550 Reservation fees 0 0 Baggage fees Q2 Q2 Q2 2010 2011 2012 2013 2014 2010 2011 2012 2013 2014 **VALUE CARRIERS NETWORK CARRIERS**

Exhibit 20: System Baggage, Reservation Change and Miscellaneous Fees, Q2 2010-Q2 2014

Source: PlaneStats.com > Form 41 Financials > P1.2 Income Statement

 ${\bf Note:}\ Adjustment\ made\ to\ Allegiant\ miscellaneous\ revenue,\ which\ is\ reported\ differently.$

Network carriers, on the other hand, generated approximately equal proportions of revenue from each of the three fee categories. For network carriers, miscellaneous fee revenue increased 23.3% year-over-year, while reservation change fees grew 4.4% and baggage fees grew 4.9%.

The percentage of revenue collected in fares and fees from each segment passenger is broken out in *Exhibits 21 and 21a* for each carrier. Spirit leads the group with 36.2% of passenger revenue from ancillary fees, followed by Allegiant with 24.2% (based on our adjustment explained subsequently). Southwest, which has taken a very different approach, collects only 3.9% of passenger revenue from ancillary fees, while the other carriers collect from 4.7% (JetBlue) to 12.2% (Alaska).

As noted, ancillary revenue reported to the DOT may be less – and in some cases substantially less – than what some individual carriers report in their financial statements. The most important difference between the financial statements and DOT results is that carrier reports to the DOT include only fees directly related to the provision of air transportation. One peculiarity of the DOT reporting requirement is that it is difficult to isolate miscellaneous ancillary revenue for all value carriers. The DOT results for Allegiant in the graph have been adjusted, as explained in the footnote, because the original results appear to significantly understate Allegiant's actual passenger-related charges. The DOT results of the DOT results appear to significantly understate Allegiant's actual passenger-related charges.

Exhibit 21: System Service Fees and Ticketed Revenue, YE Q2 2014 REVENUE PER SEGMENT PASSENGER (DOLLARS) 280 240 200 160 Miscellaneous 120 Baggage fees മറ Reservation change fees 40 Ticketed JetBlue Alaska Delta United Frontier Spirit JS Airways Virgin America American Hawaiian Allegiant

 ${\color{red} \textbf{Source:} Plane Stats.com > Form \, 41 \, Financials > P1.2 \, Income \, Statement}$

Note: Adjustment made to Allegiant miscellaneous revenue, which is reported differently.

⁹ As further explanation, our definition of DOT reported ancillary revenue is limited to baggage fees, reservation change fees, and miscellaneous. We do not include transport-related revenue, which is, for the most part, revenue collected by carriers operating under capacity purchase agreements (CPAs) for network carriers. For example, the revenue associated with flights operated by SkyWest operating as United Express is reported by United as transport-related revenue. Other revenue sources are included in the transport-related revenue category, but they are insignificant in comparison with the CPA revenue and cannot be separately identified. Some value carriers do not have CPA contracts, however, and use the transport-related revenue category largely to report ancillary revenue. In the case of Allegiant, the airline reported a figure for transport-related revenue that is 21.3% of its passenger revenue. Most of this amount is likely miscellaneous passenger-related revenue, which should be added to its passenger revenue. Doing so would raise Allegiant's revenue per segment passenger to \$131.50 and would mean that 24.2% of Allegiant's passenger revenue came from ancillary fees.

¹⁰ In its financial results for Q2 2014, Allegiant reported an average fare of \$89.63, plus ancillary revenue of \$45.23 per passenger, which it classified as 90% air-related and 10% third-party.

Exhibit 21a: Service Fees as Percent of Total Revenue, YE Q2 2014

	SERVICE FEES (\$)	% REVENUE
Spirit	48.6	36.2%
Allegiant	31.8	24.2%
Alaska	22.4	12.2%
Delta	24.1	11.6%
US Airways	18.9	11.1%
Virgin America	18.9	9.1%
Frontier	9.9	8.0%
United	14.3	5.4%
Hawaiian	6.8	5.3%
American	11.4	5.2%
JetBlue	7.6	4.7%
Southwest	4.7	3.9%

Source: PlaneStats.com > Form 41 Financials > P1.2 Income Statement

Looking outside the US, we find widely varying results. In general, global network carriers collect less ancillary fee revenue than US carriers and do not report the results, although many European carriers are adopting baggage fees for intra-Europe service. Other carriers, such as Singapore, focus on marketing additional travel services, such as hotel and rental car options. At the other end of the spectrum, carriers that have traditionally focused on ancillary revenue often do report the results. For example, in Q2 2014, ancillary revenue made up 24.8% of reported operating revenue for Ryanair and 21.7% for Tigerair.

15. REVENUE GROWTH DRIVERS

The charts in this section identify the sources of revenue growth for value and network carriers from Q2 2013 to Q2 2014, divided into five categories:

- Capacity
- Load factor
- Yield
- Cargo
- · Fees and other

During this period, value carriers increased revenue by \$1.983 billion. Network carriers increased revenue by \$4.548 billion from their domestic operations and \$1.140 billion from their international operations. These domestic revenue growth numbers are much larger than last year's.

The sources of domestic revenue growth are similar for the value and network carrier groups as yield increases were the primary driver. Among the other factors, increased capacity was slightly more important for value carriers than for network carriers, as were load factor increases (although this was not a major factor for either group). Network carriers continued to add fee revenue while value carriers did not. This one-time decline in value carrier Fees and Other revenue for the period YE Q2 2014 is largely the result of Southwest's reclassification of frequent flyer redemption revenue as passenger revenue instead of miscellaneous revenue beginning in Q1 2013. See *Exhibits 22* to 24.

Exhibit 22: Value Carrier System Revenue Increase – Price and Volume Drivers, YE Q2 2013/2014

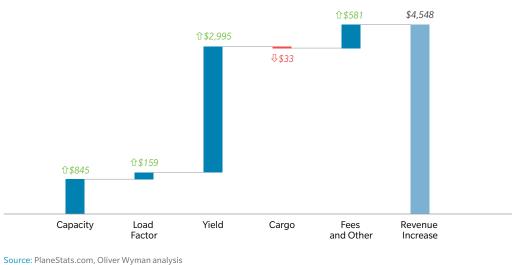
MILLIONS (DOLLARS)



Source: PlaneStats.com, Oliver Wyman analysis

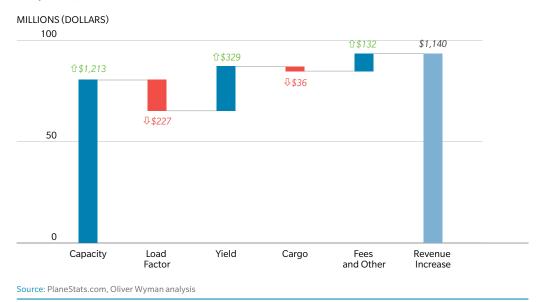
Exhibit 23: Network Carrier Domestic Revenue Increase – Price and Volume Drivers, YE Q2 2013/2014

MILLIONS (DOLLARS)



For network carriers' international operations, the primary driver of increased revenue was increased capacity, as load factor declines offset a majority of the yield increases. Ancillary fees helped drive some additional revenue.

Exhibit 24: Network Carrier International Revenue Increase – Price and Volume Drivers, YE Q2 2013/2014

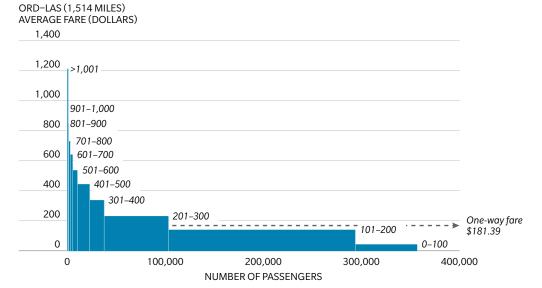


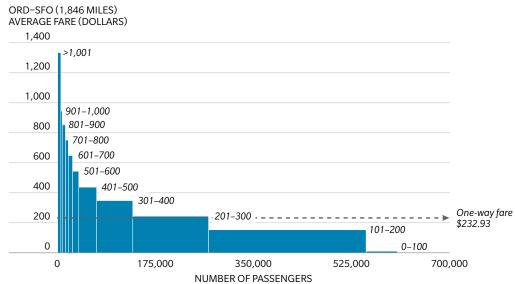
16. REVENUE PROFILE – BUSINESS/LEISURE ROUTE COMPARISON

In Exhibit 25, we provide examples of the passenger distribution by fare band on one leisure-oriented route and one business-oriented route with similar stage-lengths. The leisure route is Chicago O'Hare to Las Vegas (ORD-LAS), which had an average one-way fare of \$181.39 in the year ending Q1 2014; the business route is Chicago O'Hare to San Francisco (ORD-SFO), which had an average fare of \$232.93 over the same period.

The higher average fare from ORD-SFO is indicative of a more business-oriented route that has a greater proportion of high-fare paying passengers. This is reflected by the 5.9% of passengers paying fares of \$500 or more from ORD-SFO and contributing 19.5% of total revenue, in comparison with the 2.9% of passengers paying these fares from ORD-LAS who contribute only 10.8% of revenue. In addition, about 55.7% of passengers from ORD-SFO paid fares of less than \$200 (30.9% of revenue), in comparison with the 71.1% of passengers from ORD-LAS who paid these lower fares (48.9% of revenue). In determining total revenue and average fares, the distribution of passengers by fare level is the biggest driver, as relatively few high-fare passengers have a large effect on revenue.

Exhibit 25: Domestic Passenger Mix in Business and Leisure Markets, YE Q1 2014





Source: PlaneStats.com > US O&D Survey

Exhibit 25a: Domestic Passenger Fare and Revenue Mix, YE Q1 2014

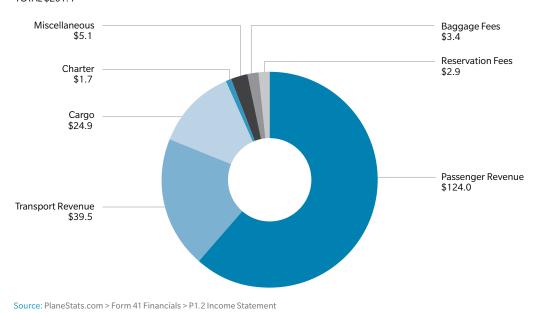
	≤\$200 PASSENGERS REVENUE		≥\$500	
			PASSENGERS	REVENUE
Chicago O'Hare – Las Vegas	71.1%	48.9%	2.9%	10.8%
Chicago O'Hare – San Fransisco	55.7%	30.9%	5.9%	19.5%
Source: PlaneStats.com>US O&D Survey				

17. US AIRLINE REVENUE AS PROPORTION OF GDP

Exhibit 26 shows the composition of total revenue for US carriers for the year ended Q2 2014, including revenue from cargo, transport revenue (which is, for the most part, revenue collected by regional carriers operating under capacity purchase agreements for network carriers), and service fees. Revenue from both passenger and cargo carriers is included.

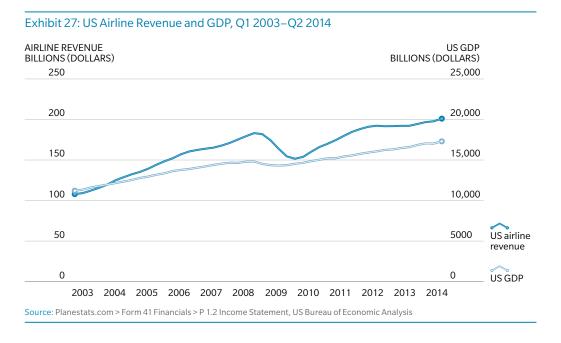


BILLIONS (DOLLARS) TOTAL \$201.4

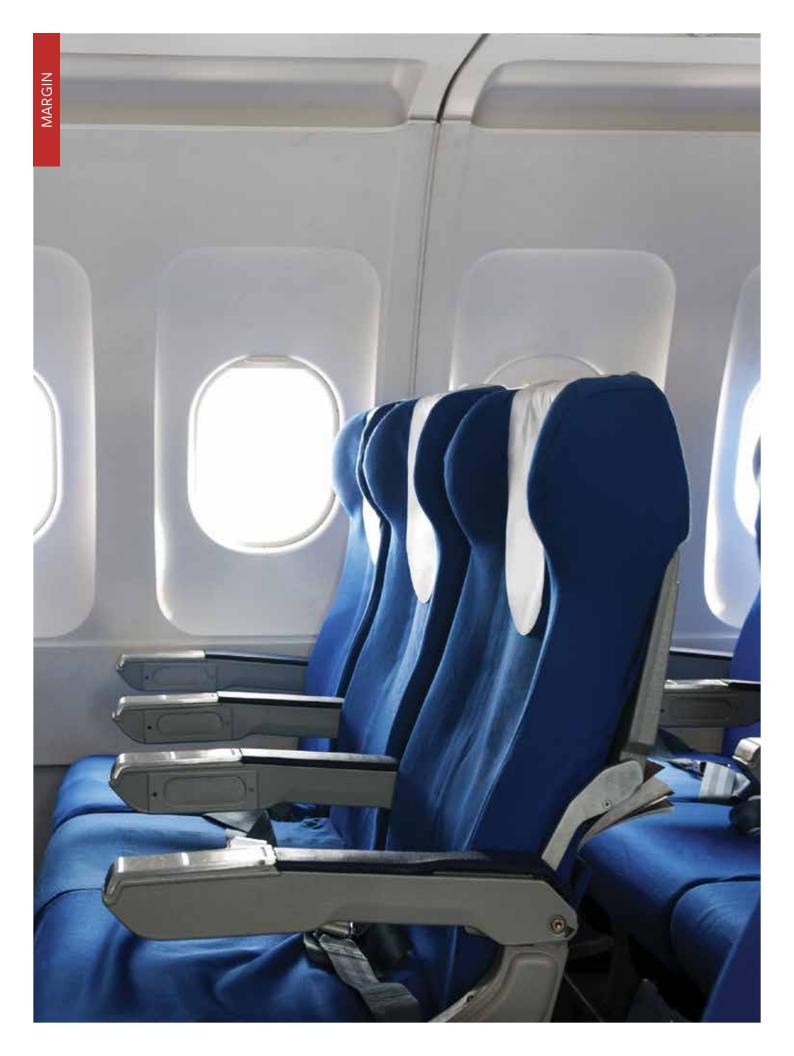


As shown in *Exhibit 27*, in 2011, total revenue for US carriers finally exceeded the previous peak of YE Q3 2008, and revenue has continued to grow since then, reaching a total of \$201.4 billion for YE Q2 2014. That figure exceeds the 2008 peak by 9.7% and the prior year total by 4.6%. Excluding cargo and charter revenue, total airline revenue increased by 5.9% over the prior year.

Exhibit 27 also shows the relationship between US airline revenue and nominal GDP, with airline revenue having grown slightly more than GDP over the period from 2003 to YE Q2 2014 and tracking GDP growth quite closely over the past 18 months. Over this recent period, US airline revenue has ranged from 1.15% to 1.17% of GDP, while over the past ten years, it has ranged from a high of 1.25% for YE Q4 2008 to a low of 1.03% for YE Q2 2004.



Industry analysts have pointed to sub-GDP domestic capacity growth (ASMs) as a primary driver of airline yield increases, and airline executives are deliberately gauging their capacity growth against GDP growth. The theory is that domestic airline revenue is largely a function of GDP and, therefore, unit revenue (yield) will be diluted to the extent that capacity increases at a more rapid rate than GDP. This theory will continue to be tested over the longer term.



MARGIN

18. SYSTEM RASM/CASM MARGIN

Exhibit 28 compares RASM and CASM for network vs. value carriers on a system basis for Q2 2013 and Q2 2014. Comparing RASM with CASM provides an approximate measure of operating profitability.¹¹ As the second quarter is traditionally strong, these results may not represent revenue or margin results for the full year. However, DOT data for Q2 2014 is the most recent available, and it is useful for comparisons over time and between different carriers.

CENTS PER ASM 16 14.8 145 14.0 13.8 13 7 13.5 13.3 13.1 13.0 128 12 11.8 11.8 8 Other 4 Fuel 0 Labor **RASM CASM** RASM CASM RASM CASM RASM CASM RASM CASM RASM CASM Q2 2013 Q2 2014 Q2 2013 Q2 2014 Q2 2013 Q2 2014 Our airline Average for network carriers Average for value carriers sample overall (Alaska, American, Delta, (Allegiant, Frontier, JetBlue, Southwest, Spirit, Virgin America) Hawaiian, United, US Airways)

Exhibit 28: Comparison of System RASM and CASM, Q2 2013/Q2 2014

Source: PlaneStats.com

Note: Mainline operations only, excludes transport-related revenue and cost (which is mostly regional operations)

From Q2 2013 to Q2 2014 the RASM/CASM margin for our sample of carriers nearly doubled, increasing from 5.5% to 9.6%. In cents, the margin increased from 0.74 to 1.44, an 87% increase.

Most US carriers experienced substantial margin increases during this Goldilocks period of healthy economic demand, stable fuel prices, and limited capacity growth.

The network carrier group increased its average margin from 0.6¢ to 1.2¢, a 94% rise, as the average margin increased from 4.6% to 8.4%.

The value carrier group increased its average margin from 1.1¢ to 1.9¢, a 78% rise, as the average margin increased from 8.5% to 14.1%.

¹¹ As used here, RASM includes all carrier operating revenue – passenger, cargo, and ancillary. CASM includes all operating costs. Excluded from CASM is interest expense.

19. DOMESTIC RASM/CASM MARGIN

Exhibit 29 compares domestic RASM and CASM for network vs. value carriers in Q2 2013 and Q2 2014. As with the system comparison, both groups experienced substantial increases in margin.

CENTS PER ASM 16 15.4 14.8 14.1 13.8 13.7 13.7 13.3 13.0 12.8 12 11.9 11.8 8 Other 4 Fuel 0 Labor RASM CASM RASM CASM RASM CASM RASM CASM RASM CASM RASM CASM 2013 2014 2013 2014 2013 2014

Average for network carriers

(Alaska, American, Delta,

Hawaiian, United, US Airways)

Average for value carriers

(Allegiant, Frontier, JetBlue, Southwest, Spirit, Virgin America)

Exhibit 29: Comparison of Domestic RASM and CASM, Q2 2013/Q2 2014

Source: PlaneStats.com

Our airline

sample overall

 ${\color{red}Note:} \ Main line operations \ only, excludes \ transport-related \ revenue \ and \ cost \ (which \ is \ mostly \ regional \ operations).$

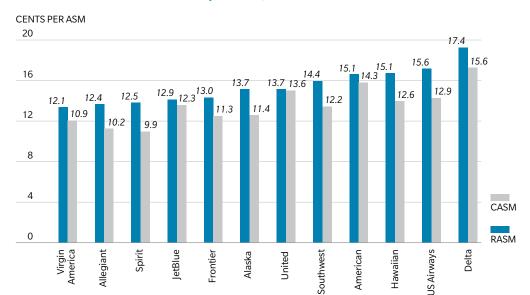
The network carrier group increased its average domestic margin from 0.5¢ to 1.3¢, a 191% increase, as the average margin increased from 3.2% to 8.5%.

The value carrier group increased its average domestic margin from 1.0¢ to 1.9¢, an 87% increase, as the average margin increased from 8.0% to 13.8%.

Two conclusions stand out from this data: First, the network carrier group has made substantial progress in turning domestic service, which has been much less successful than international service for network carriers during the past decade, into a profitable business. Second, the value carrier group continues to substantially outperform the network carrier group on margin in the domestic market.

Exhibit 30 compares domestic RASM and CASM for each of the carriers in our set, ranging from Virgin America with the lowest RASM to Delta with the highest. As noted, Allegiant's RASM has been adjusted to incorporate its passenger-related ancillary revenue.

Exhibit 30: Domestic RASM/CASM by Airline, Q2 2014



Source: PlaneStats.com

Note: Mainline operations only, excludes transport-related revenue and cost (which is mostly regional operations).

All carriers listed had positive domestic margins, ranging from 0.9% for United to 20.6% for Spirit. The table below lists domestic RASM, CASM, and margin information for each carrier. These figures are not stage-length adjusted.

Exhibit 30a: Domestic RASM/CASM by Airline, Q2 2014

	RASM (CENTS)	CASM (CENTS)	MARGIN (CENTS)	MARGIN %
Spirit	12.5	9.9	2.6	20.6%
Allegiant	12.4	10.2	2.2	17.9%
Alaska	13.7	11.4	2.3	16.9%
US Airways	15.5	12.9	2.6	16.9%
Hawaiian	15.1	12.6	2.6	16.9%
Southwest	14.4	12.2	2.2	15.6%
Frontier	13.0	11.3	1.7	13.0%
Delta	17.4	15.6	1.8	10.4%
Virgin America	12.1	10.9	1.2	9.7%
American	15.1	14.3	0.7	4.9%
JetBlue	12.9	12.3	0.6	4.3%
United	13.7	13.6	0.1	0.9%

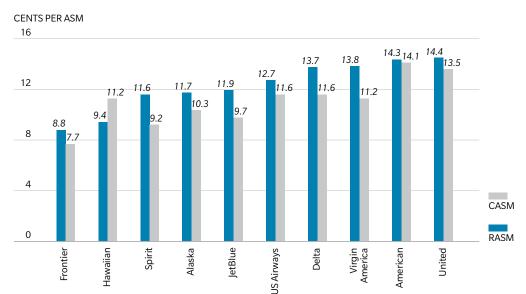
Source: PlaneStats.com

 $\textbf{Note:} \ \textbf{Mainline} \ \textbf{operations} \ \textbf{only,} \ \textbf{excludes} \ \textbf{transport-related} \ \textbf{revenue} \ \textbf{and} \ \textbf{cost} \ (\textbf{which} \ \textbf{is} \ \textbf{mostly} \ \textbf{regional} \ \textbf{operations}).$

20. INTERNATIONAL RASM/CASM MARGIN

Exhibit 31 compares international RASM and CASM for the carriers in our set, ranging from Frontier with the lowest international RASM to United with the highest.

Exhibit 31: International RASM/CASM by Airline, Q2 2014



Source: PlaneStats.com

 $\textbf{Note:} \ \textbf{Mainline} \ \textbf{operations} \ \textbf{only,} \ \textbf{excludes} \ \textbf{transport-related} \ \textbf{revenue} \ \textbf{and} \ \textbf{cost} \ (\textbf{which} \ \textbf{is} \ \textbf{mostly} \ \textbf{regional} \ \textbf{operations}).$

All carriers listed, except Hawaiian, had positive international margins, ranging from 1.7% for American to 20.5% for Spirit. Hawaiian's negative international margin of 19.4% reflects its recent aggressive expansion into new international markets. In the past, network carriers' international performance routinely exceeded their domestic performance; however, the current relative domestic/international performance is more balanced. The table below lists international RASM, CASM, and margin information for each carrier.

Exhibit 31a: International RASM/CASM by Airline, Q2 2014

Q2 2014	RASM (CENTS)	CASM (CENTS)	MARGIN (CENTS)	MARGIN %
Spirit	11.6	9.2	2.4	20.5%
Virgin America	13.8	11.2	2.5	18.4%
JetBlue	11.9	9.7	2.2	18.2%
Delta	13.7	11.6	2.2	15.8%
Frontier	8.8	7.7	1.1	12.7%
Alaska	11.7	10.3	1.4	11.9%
US Airways	12.7	11.6	1.1	9.0%
United	14.4	13.5	0.9	6.2%
American	14.3	14.1	0.2	1.7%
Hawaiian	9.4	11.2	-1.8	-19.4%

Source: PlaneStats.com

 $\textbf{Note:} \ \textbf{Mainline} \ \textbf{operations} \ \textbf{only,} \ \textbf{excludes} \ \textbf{transport-related} \ \textbf{revenue} \ \textbf{and} \ \textbf{cost} \ (\textbf{which} \ \textbf{is} \ \textbf{mostly} \ \textbf{regional} \ \textbf{operations}).$

21. BREAK-EVEN LOAD FACTORS

The average network carrier domestic load factor was 85.6% for the year ended Q2 2014. The average value carrier domestic load factor was a few points lower, at 82.9% for the year ended Q2 2014. With load factors this high, boosting profitability will depend heavily on the combination of yield increases and ancillary revenue growth, along with cost control and capacity discipline, as there is little room for additional load factor growth.

Exhibit 32 provides a historical perspective on network carrier domestic load factors and break-even requirements. Since 2009, there has been very little change in peak quarterly load factors. Yet, for the better part of the past decade network carriers have been unable to reach break-even on their domestic operations. (The charts do not capture the impact of ancillary revenue, which would shift the break-even load factor curve downward.) During the past year, however, network carriers have substantially improved their financial performance. Network carrier performance during Q2 2014, with a load factor of 87.6% and a break-even load factor of 79.2%, was the most successful for the entire ten-year period, primarily the result of fare increases and flat costs. (Additional analysis is provided in section 22.)

100% 95% 90% 85% 80% 02 2014 75% Load Factor: 87.6% Load Factor Break-even Load Factor: 79.2% 70% Break-even 65% Load Factor 2004 2005 2011 2012 2013 2014 2006 2007 2008 2009 2010

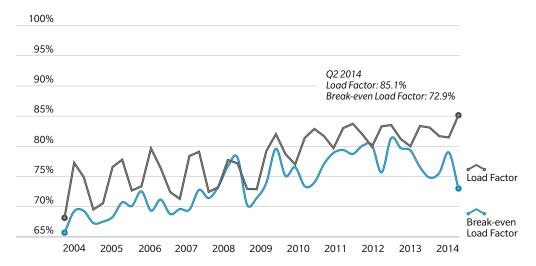
Exhibit 32: Network Carrier Domestic Load Factor and Break-even Load Factor, Q1 2004-Q2 2014

Source: PlaneStats.com

Note: Break-even load factor calculated without transport (which is mostly regional operations), ancillary revenue not included in calculation of BELF.

Exhibit 33 shows the value carrier experience for the same period. It looks very different from the network carrier chart. Value carriers have operated at load factors above the break-even level for nearly the entire 10-year period. (As with network carriers, the charts do not capture the impact of ancillary revenue, which would shift the break-even load factor curve downward somewhat.) For value carriers as well, the past year, and especially the current quarter, has been exceptional. Value carrier performance during Q2 2014, with a load factor of 85.1% and a break-even load factor of 72.9%, was the most successful for the entire 10-year period, primarily the result of fare increases and flat costs, just like the network carriers.

Exhibit 33: Value Carrier Domestic Load Factor and Break-even Load Factor, Q1 2004-Q2 2014



Source: PlaneStats.com

Note: Break-even load factor calculated without transport (which is mostly regional operations), ancillary revenue not included in calculation of BELF.

Using seat maps, *Exhibit 34* compares the number of seats that must be sold for network carriers and value carriers to break even.

For network carriers, the illustration assumes the same break-even load factor for first and business cabin and coach, and that any differences between actual and break-even passenger levels are distributed between the two cabins in proportion to the number of seats in each. Although not precise, this provides a useful conceptual illustration.

During Q2 2014, the average network carrier was 13 passengers ahead of break-even on aircraft averaging 160 seats – an unprecedented result during at least the past decade – with 20 seats available for additional revenue generation.

For value carriers, the illustration is more representative as they typically have only one class of service, although that is no longer the case for all value carriers. During Q2 2014, the average value carrier had nearly 18 passengers per trip that were profitable on aircraft averaging 144 seats – also an unprecedented result for the past decade – with slightly more than 21 empty seats available for additional revenue generation.

Exhibit 34: Seats Needed to Break-Even, and Those Still Available for Sale by Carrier Type, O2 2014

NETWORK CARRIER



Source: PlaneStats.com

Note: Break-even load factor calculated without transport (regional) revenue/expense.

24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

Exhibit 35 below shows the break-even load factors for individual carriers on their domestic operations and the opportunities for additional revenue provided by the percentage of unfilled seats. The results are consistent with the previous analysis of domestic RASM/CASM margins for individual carriers. Spirit had the highest percentage of domestic seats filled in excess of its break-even load factor, while United had the lowest. Profitable Southwest had the highest percentage of seats that still could be filled.

Exhibit 35: Domestic Break-Even Load Factor vs. Actual Load Factor, Q2 2014 100% 90% 80% Revenue 70% opportunity 60% Loss (LF<BELF) 50% 40% Gain (LF>BELF) 30% 20% Break-even load factor 10% 0% Load factor Alaska JetBlue Delta United Virgin America Frontier **US Airways** Allegiant American Southwest Hawaiian Spirit

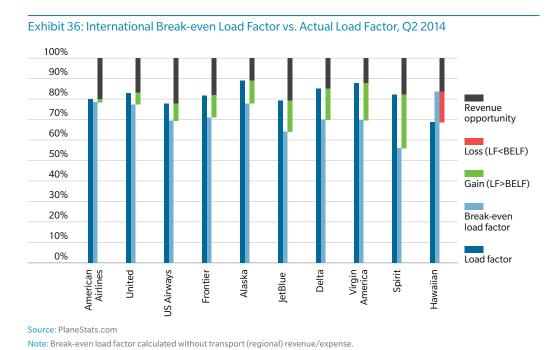
Source: PlaneStats.com

 ${\bf Note:} \ {\bf Break-even\, load\, factor\, calculated\, without\, transport\, (regional)\, revenue/expense.}$

Revenue

opportunity

Exhibit 36 below shows the same results for individual carriers on their international operations. Spirit had the highest percentage of international seats in excess of its break-even load factor, while American had the fewest. Hawaiian's international operations operated significantly below the break-even level.



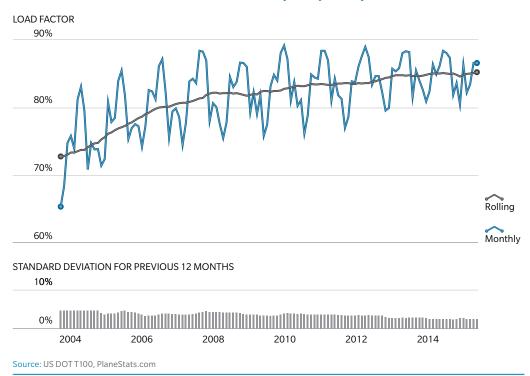
22. LOAD FACTOR SEASONALITY

Both network and value carriers increased their average load factor during the past several years primarily by filling more seats in the traditional off-peak months as opposed to further increasing load factors in the peak months. They accomplished this through greater seasonal capacity reductions, especially during January and February, and overall capacity discipline, which also contributed to higher load factors during the off-peak months. The results are illustrated in *Exhibits 37* and *38*, which show that, for both network and value carriers, the peak-month load factor each year has not grown from 2009 to the present, but the low-month load factor has risen substantially (approximately 4 percentage points for network carriers and 9 points for value carriers).

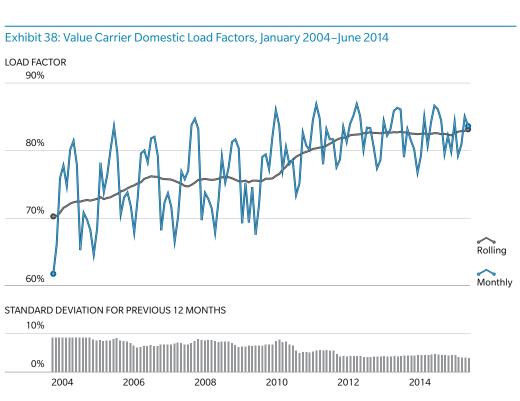
Historically, network carriers operated with less load factor variability as reflected in their lower load factor standard deviations. This is the expected result of their traditionally more sophisticated demand management tools. However, since 2011, value carriers have reduced their load factor variability to approximately the same level as network carriers, as they too have employed increasingly sophisticated pricing and revenue management systems.

The trend lines for both groups show the impact of actions taken first by the network carriers and subsequently by the value carriers. For network carriers, load factors (peak, low, and average) generally increased through 2009. From that point forward, the reduction in variability was used to continue the growth in average load factor, as the standard deviation declined from 3.5% to 2.5%. In other words, the carriers operated at load factors that were more consistently high, with shallower dips in load factor. Most of the load factor increase for network carriers occurred prior to Q2 2009. Since then, load factors have increased by only 2.5 points, from 83.8% to 85.6% (for a rolling 12-month period).

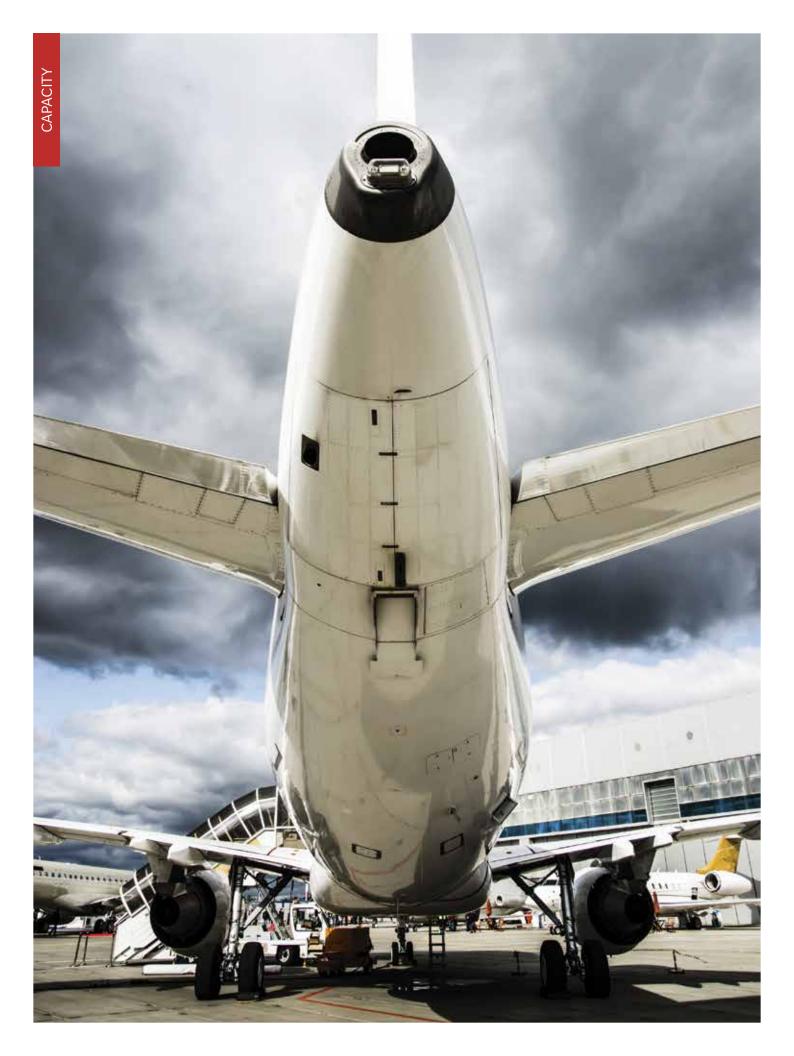




Value carriers, in contrast, have experienced their greatest increase in average load factors since Q2 2009, increasing about 7 points, from 75.6% to 82.7%, by filling more seats during peak months and many more seats during off-peak months.



Source: US DOT T100, PlaneStats.com



CAPACITY

23. DOMESTIC CAPACITY INCREASE IN THE US MARKET

The degree of capacity restraint in the US domestic market is illustrated by *Exhibit 39*, which shows annual changes in domestic capacity since 2011. Comparing scheduled domestic ASMs in 2014 with 2011, total growth for the three-year period has been 2.5%. Domestic growth amounted to 1.4% in calendar year 2014 compared with 0.8% in 2013 and 0.4% in 2012.

The three carrier groups show different ASM trends. Most conspicuous is the decline of the once fast-growing regional carriers, down 1.4% in 2014, following declines of 0.1% in 2013 and 3.7% in 2012. Network carriers grew domestic capacity 1.1% in 2014, following growth of 0.5% in 2013 and 0.1% in 2012. Value carriers continue to grow at higher rates than network carriers, with 3.0% growth in 2014, following growth of 1.7% in 2013 and 2.8% in 2012.

In 2014, the percentage of domestic ASMs carried by value carriers reached 29.8% vs. 57.9% by network carriers and 12.3% by regional carriers. Since 2011, the value carrier share has increased by 1.4%, the mainline network carrier percentage has decreased by 0.4%, and the regional carrier portion has dropped by 0.9%.

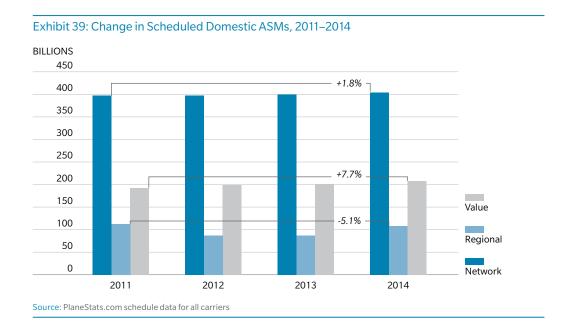


Exhibit 39a: Year-Over-Year Change in Scheduled Domestic US ASMs, 2012–2014

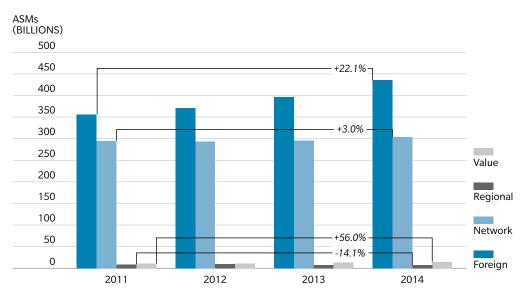
	NETWORK	REGIONAL	VALUE
2012	0.1%	-3.7%	2.8%
2013	0.5%	-0.1%	1.7%
2014	1.1%	-1.4%	3.0%

Source: PlaneStats.com schedule data for all carriers

24. INTERNATIONAL CAPACITY INCREASE TO AND FROM THE US

Both network and value carriers continue to look overseas for growth opportunities. As shown in *Exhibit 40*, value carriers continued to increase their international capacity rapidly, growing ASMs by 56.0% over the three-year period from 2011 to 2014 in comparison with US network carrier international growth of 3.0% and foreign carrier growth of 22.1% to and from the US.

Exhibit 40: Change in Scheduled International ASMs to/from the US, 2011–2014



Source: PlaneStats.com schedule data for all carriers

As shown in *Exhibit 40a*, value carriers increased their international capacity by 16.1% from 2013 to 2014, the third year of growth greater than 14%, albeit from a small base. During the same period, US network carriers increased their international capacity by 2.9% and foreign carriers increased capacity to and from the US by 9.9%.

Exhibit 40a: Year-Over-Year Change in Scheduled International ASMs to/from the US, 2012-2014

	FOREIGN	NETWORK	REGIONAL	VALUE
2012	4.2%	-0.6%	-7.6%	17.2%
2013	6.7%	0.7%	-5.2%	14.6%
2014	9.9%	2.9%	-2.0%	16.1%

Source: PlaneStats.com schedule data for all carriers

As shown in Exhibit 40b, foreign carriers provide the majority of the international capacity (57.0%) to and from the US. Their rapid expansion has meant that capacity discipline has not taken hold with regard to international service to and from the US.

Exhibit 40b: Share of Total International ASMs to/from US, 2014

FOREIGN	NETWORK	VALUE	REGIONAL	TOTAL
57.0%	39.9%	2.1%	1.1%	100.0%

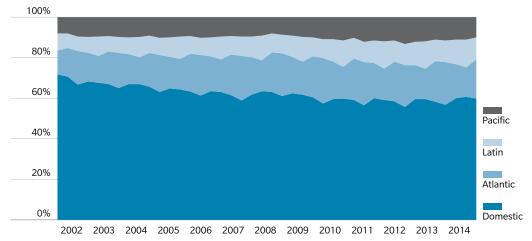
Source: PlaneStats.com schedule data for all carriers

25. INTERNATIONAL PORTION OF US NETWORK CARRIER REVENUE

As US network carriers continue to look overseas for revenue opportunities, the proportion of total revenue contributed by their domestic operations is declining. As shown in *Exhibit 41*, the share of network carrier system revenue contributed by domestic operations dropped by 11 percentage points between Q2 2002 and Q2 2014, from 70.6% of total revenue to 59.7%.

Exhibit 41: US Network Carrier Share of Operating Revenue by Geographic Area, Q1 2002–Q2 2014





 ${\color{red} \textbf{Source:} Plane States.com > Form 41 Financials > P1.2 Income Statement for all reporting carriers (excluding transport revenue)}$

As shown in *Exhibit 41a*, however, since 2009, the domestic portion of total revenue has largely stabilized and has risen this past year to a three-year high. The Atlantic remains the largest source of international revenue for US carriers, while Latin America passed the Pacific this past year to become the second-largest international segment.

Exhibit 41a: US Network Carrier Share of Operating Revenue by Geographic Area, YE Q2 2009/2013/2014

YE Q2	DOMESTIC	ATLANTIC	LATIN	PACIFIC
YE Q2 2009	61.6%	19.1%	10.2%	9.2%
YE Q2 2013	58.2%	18.2%	11.5%	12.1%
YE Q2 2014	59.3%	18.0%	11.7%	10.9%

 $\textbf{Source:} \ Plane Stats.com > Form \ 41 \ Financials > P1.2 \ Income \ Statement \ for \ all \ reporting \ carriers \ (excluding \ transport \ revenue)$

For US carriers, the strong increase in domestic revenue outpaced their increase in international revenue for the year ended Q2 2014. Among the three international regions that US carriers are required to report separately to the DOT, Latin America revenue grew the most at 8.6%. Meanwhile, Atlantic revenue grew at a slower pace, 5.3%, than domestic revenue, and Pacific revenue declined by 3.7%.

The revenue change for each of the four regions during the past year is shown in Exhibit 41b.

Exhibit 41b: Revenue Change, YE Q2 2013/2014

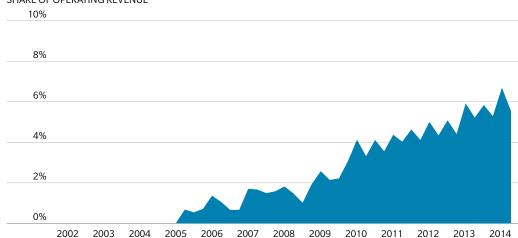
LATIN	PACIFIC	ATLANTIC	DOMESTIC	TOTAL
8.6%	-3.7%	5.3%	8.3%	6.3%

Source: PlaneStats.com > Form 41 Financials > P1.2 Income Statement for all reporting carriers (excluding transport revenue)

Value carriers are growing internationally, with the focus on Latin America. During the past four quarters, Latin American revenue as a share of total value carrier revenue ranged from 5.3% during Q3 2013 to 6.7% during Q1 2014. Those figures have grown considerably since 2008, when Latin American revenue represented only 1.5% of value carrier revenue.

Exhibit 42: US Value Carrier Share of Operating Revenue Serving Latin America, Q1 2002–Q2 2014

SHARE OF OPERATING REVENUE

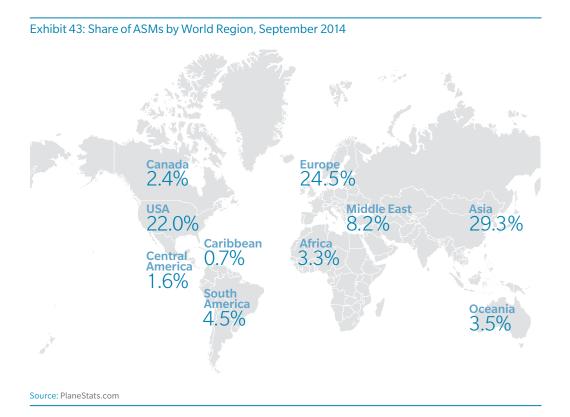


 ${\color{red} \textbf{Source:} Plane Stats.com > Form 41 Financials > P1.2 Income Statement for all reporting carriers (excluding transport revenue)}}$

GLOBAL TRENDS

26. CAPACITY AND GROWTH BY WORLD REGION

A view of world capacity is provided in *Exhibit 43* below. For several years now, Asia has been the largest aviation market, with 29.3% of departing ASMs in September 2014, followed by Europe, at 24.5%, and the US at 22.0%. The three regions account for more than 75% of departing ASMs.



As shown in *Exhibit 44*, Asia's seat share (32.4% of departing world seats) is larger than its ASM share, reflecting a stage-length that is shorter than the world average. Europe's seat share of 24.6% closely matches its ASM share, while the US seat share of 20.4% is less than its ASM share, reflecting a longer-than-average stage-length. In September 2014, the numbers of US and Asian operations were approximately equal, despite Asia's much greater ASMs, due to both the longer US stage-length and the smaller average US aircraft size. For perspective on the size of the Asian air transportation market, consider that airlines now operate 33.2% more departing ASMs from Asia than from the US and 58.8% more seats.

Exhibit 44: Capacity Share by World Region, September 2014

	OPERATIONS	SEATS	ASMs	
Asia	26.5%	32.4%	29.3%	
Europe	23.5%	24.6%	24.5%	
USA	26.2%	20.4%	22.0%	
Middle East	4.9%	6.5%	8.2%	
South America	5.8%	5.9%	4.5%	
Oceania	3.2%	2.9%	3.5%	
Africa	3.1%	2.9%	3.3%	
Canada	3.4%	2.0%	2.4%	
Central America	2.4%	1.7%	1.6%	
Caribbean	1.0%	0.6%	0.7%	

Looking at the growth by region from September 2013 to September 2014, shown in Exhibit 45, we see that the Middle East once again had the highest ASM growth rate at 12.1%. Central America, home to several fast-growing carriers in Mexico and Panama, had the second-highest growth rate of 9.7%, and Canada, where both Air Canada and WestJet grew strongly in 2014, came in third at 7.6%.

As in the past, Asia grew more quickly than Europe or the US, although this year's Asian ASM growth rate of 7.3% was more moderate than in the prior year. Both Europe and the US had higher growth compared with the previous year's. The greatest changes in growth rates from the prior year were Oceania, which basically stopped growing in 2014 (0.5%) after 7.3% growth in 2013, and the Caribbean, which grew again in 2014 (4.0%) after declining 3.9% the prior year. Interestingly, US ASM growth of 4.4% in 2014 was accomplished with 1.3% fewer operations.

Exhibit 45: Growth in Operations, Seats, ASMs, September 2009/2012/2013/2014

6.0% 6.9% 3.1% 7.3%	8.6% 8.9% 5.9% 7.4%
6.9% 3.1% 7.3%	8.9% 5.9% 7.4%
3.1% 7.3%	5.9% 7.4%
7.3%	7.4%
2.6%	4.2%
3.7%	3.0%
-1.3%	1.4%
4.4%	5.5%
4.5%	5.5%
-1.5%	0.2%
2.00/	4.9%

Exhibit 46: Share of World ASM Growth, September 2014

	2009/2014	2012/2013	2013/2014
Asia	40.0%	47.4%	34.3%
Europe	21.1%	14.8%	22.7%
USA	9.1%	6.7%	16.0%
Middle East	13.9%	17.9%	15.3%
South America	5.6%	1.9%	3.2%
Canada	2.0%	1.4%	2.9%
Africa	2.7%	4.5%	2.5%
Central America	1.8%	1.4%	2.4%
Caribbean	0.4%	-0.5%	0.5%
Oceania	3.4%	4.7%	0.3%

Source: PlaneStats.com

In terms of ASMs added, Exhibit 46 shows that Asia, Europe, and the US contributed most of the world's ASM growth from September 2013 to September 2014. However, Middle Eastern ASM growth made up 15.3% of this growth, nearly equal to the US (16%). During the prior 12-month period, Middle Eastern ASM growth made up 17.9% of the world's ASM growth compared with only 6.7% by the US.

In terms of seats added, Asian growth generated 47.5%, or nearly half, of the world's growth in seats between September 2013 and September 2014. Asia, Europe, the Middle East, and South America all added more seats than the US.

Canada 2.4%

USA 6.2%
Central America 3.0%

South America 6.5%

Coceania 0.1%

South America 6.5%

Coceania 0.1%

Coceania 0.1%

27. GLOBAL TRAFFIC FLOWS

Within each of the three largest regions and most others, service within the region constituted a majority of the ASMs. Three exceptions to this are Africa, the Middle East, and the Caribbean, where the largest destination region was outside the home region.

The world's top 15 largest capacity flows are listed in the next chart and made up more than 85% of world ASMs. By far the three largest intra-regional flows were those within Asia, followed by the US and Europe. The largest flows from one region to another are between Europe and Asia, Europe and the US, and Europe and the Middle East.

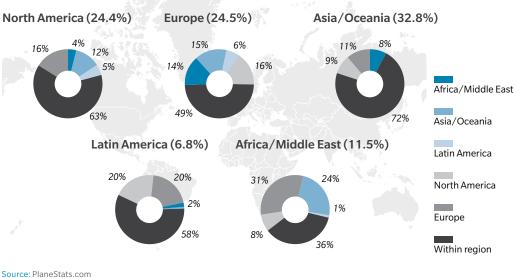
Exhibit 48: Top World Traffic Flows (Percent of World ASMs), September 2014

REGIONS (NON-DIRECTIONAL)	PERCENT OF WORLD ASMS	REGIONS (NON-DIRECTIONAL)	PERCENT OF WORLD ASMS
Within Asia	19.7%	Within South America	2.7%
Within USA	13.8%	Europe – Africa	2.3%
Within Europe	12.1%	Asia – Oceania	2.2%
Asia-Europe	7.1%	Within Middle East	1.8%
USA-Europe	6.7%	Within Oceania	1.7%
Middle East–Europe	4.7%	Within Africa	1.1%
Middle East–Asia	4.5%	Within Canada	0.9%
USA-Asia	4.4%	All Others	14.5%
Source: PlaneStats.com			

Capacity flows are illustrated on the map below for each of the following five world regions: North America, Latin America, Europe, Africa/Middle East, Asia/Oceania.

Exhibit 49: Traffic Flows by Major World Regions, September 2014

ASMs



Note: Regional share of world total in parentheses

28. CAPACITY PROVIDED BY VALUE CARRIERS AROUND THE WORLD

Value carrier market shares vary by region, but the business model is firmly established everywhere. As shown in *Exhibit 50*, the highest share of air service provided by value carriers in any region is in Oceania – home to Virgin Australia, Jetstar, and Tigerair Australia – where 29.8% of ASMs are flown by value carriers. Central America, home to Volaris, Interjet, and VivaAerobus, is second, as 27.8% of ASMs are flown by value carriers. However, all of the value carriers in Central America are in Mexico. The next-highest shares belong to Europe with 21.9% and the US with 19.8%. The lowest percentages of service provided by value carriers are in South America with 6.0% and Africa with 6.6%.

In all regions of the world, value carriers have increased their share during the past five years, although only marginally in Africa and Canada. The most dramatic share gain by far for the past five years has been in Central America, with an 11.2% change in value carrier ASM share. During the past year (September 2013 to September 2014), value carriers gained market share of 1.0 point or more in the Caribbean, Europe, and Oceania, while losing 1.9 points in Central America, primarily due to long-haul traffic growth from network carriers AeroMexico and Copa Airlines.

Exhibit 50: Value Carrier Share of ASMs, September 2009/2013/2014

	SHARE	SHARE			
	2009	2013	2014	2009-2014	2013-2014
Oceania	25.1%	28.9%	29.8%	4.7%	1.0%
Central America	16.6%	29.7%	27.8%	11.2%	-1.9%
Europe	17.0%	20.9%	21.9%	4.9%	1.0%
USA	17.9%	19.6%	19.8%	1.9%	0.2%
Canada	16.3%	17.1%	17.0%	0.7%	-0.1%
Caribbean	6.9%	13.4%	15.2%	8.3%	1.8%
Asia	8.8%	11.9%	11.8%	3.0%	-0.2%
Middle East	4.0%	9.1%	9.3%	5.3%	0.2%
Africa	6.5%	6.6%	6.6%	0.1%	0.0%
South America	2.0%	5.8%	6.0%	3.9%	0.2%

Source: PlaneStats.com

29. GLOBAL ALLIANCES

The three global alliances generated 61.4% of the world's ASMs in September 2014, down 0.5 percentage point from September 2013 (see *Exhibit 51*). From a different perspective, more than 38% of the world's ASMs are provided by airlines that are not members of an alliance. Global scheduled ASMs increased 6.1% during the one-year period, with non-aligned airlines growing at a faster rate (7.6%) than the alliance airlines (5.3%).

Star Alliance remains the largest of the three alliances, making up 24.1% of total ASMs in September 2014 (down from 27.2% in September 2013). Star ASMs declined 6.0% from September 2013 to September 2014.

SkyTeam ranks second with 19.4% of total ASMs (up from 19.2% in September 2013). SkyTeam ASMs grew by 7.5% from September 2013 to September 2014.

Exhibit 51: Alliance Growth and Share, September 2013/2014

ASM GROWTH	% OF WORLD ASMS			
SEPT 2013/2014	SEPT 2013	SEPT 2014	POINT CHANGE	LARGEST ALLIANCE
-6.0%	27.2%	24.1%	-3.1	Africa, Asia, Canada, Europe, Middle East
7.5%	19.2%	19.4%	0.2	Central America, Caribbean
22.2%	15.5%	17.9%	2.4	Oceania, South America, USA
7.6%	38.1%	38.6%	0.5	
6.1%	100.0%	100.0%		
	SEPT 2013/2014 -6.0% 7.5% 22.2% 7.6%	SEPT 2013/2014 SEPT 2013 -6.0% 27.2% 7.5% 19.2% 22.2% 15.5% 7.6% 38.1%	SEPT 2013/2014 SEPT 2013 SEPT 2014 -6.0% 27.2% 24.1% 7.5% 19.2% 19.4% 22.2% 15.5% 17.9% 7.6% 38.1% 38.6%	SEPT 2013/2014 SEPT 2013 SEPT 2014 POINT CHANGE -6.0% 27.2% 24.1% -3.1 7.5% 19.2% 19.4% 0.2 22.2% 15.5% 17.9% 2.4 7.6% 38.1% 38.6% 0.5

Source: PlaneStats.com

Oneworld ranks third with 17.9% of total ASMs (up from 15.5% in September 2013). Oneworld ASMs grew 22.2% from September 2013 to September 2014, aided by the membership of US Airways, which switched from Star as part of the airline's merger with American.

30. CHANGING FLEET DEPLOYMENT

Another perspective on how the aviation industry is meeting changes in demand can be seen in the deployment of different aircraft types. As shown in *Exhibit 52*, over the past three years (September 2011 to September 2014), the percentage of worldwide operations flown with narrow-bodies has increased from 58.0% to 61.3%, and the percentage flown by large regional jets has increased from 8.9% to 10.5%. During the same period, the percentage flown with small regional jets has declined from 10.4% to 7.4%, and the percentage flown by turboprops has declined from 15.0% to 12.9%. Additionally, wide-body operations inched up only slightly from 7.7% to 7.9%. An example of the decline in use of regional jets is Delta's announcement in a 2013 investor presentation that it would cut 50-seat regional aircraft from nearly 500 in 2008 to 125 in 2015.

Exhibit 52: Operations by Aircraft Type, September 2011/2014 8.9% 10.5% Wide-bodies 7.7% 7.9% Turboprops 15.0% 58.0% 61.3% Small RJs 2011 2014 12.9% Narrow-bodies 7.4% 10.4% Large RJs Source: PlaneStats.com

Exhibit 52a: Change in Departures by Aircraft Type, September 2011/2014

	% GROWTH IN DEPARTURES
Large RJs	25.5%
Narrow-bodies	12.3%
Wide-bodies	9.4%
Turboprops	-8.7%
Small RJs	-24.9%
Total	6.2%

As shown in Exhibit 52a, total worldwide departures increased 6.2% during the three-year period, with the largest growth in large regional jet departures and the largest decline in small regional jet departures. The average number of seats per departure increased from 128 in January 2011 to 135 in January 2014.

Aircraft type usage varies by world region, as seen in *Exhibit 53*, which shows the proportion of total departures by world region in September 2014 by aircraft type. Asia and the Middle East have higher percentages of wide-bodies. While not shown in the exhibit, the US has a higher percentage of smaller regional jets, and Canada has a higher percentage of turboprops.

There are multiple reasons for these regional differences, including differing levels of demand and length of hauls, although the growth and decline of small regional jets has a strong basis in changing labor economics and fuel prices.

Exhibit 53: Departures by World Region and Aircraft Type, September 2014

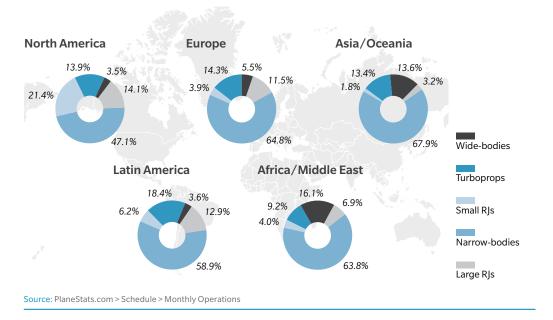


Exhibit 54, which compares departures by aircraft type for each region in September 2014 vs. September 2011, shows that the two clear recent trends in most regions are the growth of larger regional jets and the decline of smaller regional jets and turboprops.

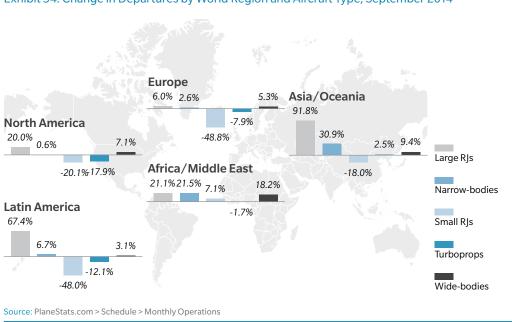


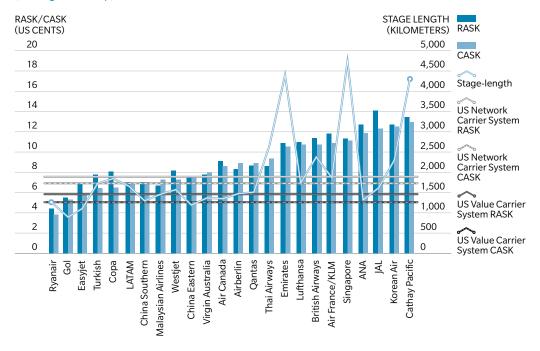
Exhibit 54: Change in Departures by World Region and Aircraft Type, September 2014

31. STAGE-LENGTH ADJUSTED COSTS FOR INTERNATIONAL CARRIERS

In Exhibit 55, RASK (kilometers instead of miles) and CASK are provided on a stage-length adjusted basis for selected European, Asian, and South American carriers. The gray line shows the average stage-length for each carrier. To help compare these results with those provided for US carriers, the average RASK and CASK for US network and value carriers are also shown. Due to differences in time periods (for example, fiscal years that end on different months) and other factors, this information is most useful in showing the relative differences in RASK/CASK between the carriers, and should not be relied on for precise benchmarking or other analysis.

In all regions, the value carriers produce lower RASK and CASK than their network carrier rivals. Both Europe and Asia, in addition to having typical value carriers, have successful ultra-low-cost carriers in Ryanair and Air Asia, which have CASKs that are a step lower than even the value carriers in those regions.

Exhibit 55: RASK/CASK For International Carriers Stage-length Adjusted to 2,126 Km (Average of Group), FY 2013



Source: Company reports

Note: Fiscal year end varies by carrier.

CONCLUSION

This past year has been unusually successful by airline industry standards, with demand and profit growth in most world regions. US carriers achieved their highest RASM/CASM margins of the past decade. Mature carriers, both network and value, maintained tight cost discipline, as they increased revenue through price and ancillary revenue increases. The lowest-cost value carriers, increasingly referred to as ultra-low-cost carriers, continued to grow rapidly.

The two fastest-growing world regions in 2013, the Middle East and Asia, moderated their growth rates slightly in 2014. Interestingly, both regions have low market shares for value carriers. All other world regions grew more quickly than the year before except for Oceania, which effectively stopped growing as it attempted to recover from too much capacity added during prior years.

Asia has surpassed and is increasingly outdistancing the other major global air travel markets. The Middle East, while a distant fourth in total global capacity, handily beat the US in capacity growth during the past five years.

Members of the three major airline alliances continue to provide the majority of global traffic, although capacity provided by non-aligned carriers, including all value carriers, has been growing more rapidly.

Two trends that we will continue to watch closely are the challenges posed by the ultra-low-cost carriers to more traditional value carriers and the challenges both will pose to network carriers in short-haul and, ultimately, longer-haul international markets.

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