OLIVER WYMAN

AIRLINE ECONOMIC ANALYSIS

2016-2017 Edition

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CONTENTS

US CARRIERS INCLUDED AND METHODOLOGY

All US value carriers and network carriers are included in this analysis.[1]

Our set of value carriers (low-cost):

1. Allegiant
2. Frontier
3. JetBlue
4. Southwest
5. Spirit

Our set of network carriers:

6. Alaska/Virgin America
7. American
8. Delta
9. Hawaiian
10. United

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. Over the past several years, the ability to divide US airlines into two categories has become increasingly difficult. The lines that once divided US carriers continue to blur with structural changes to both groups.

Differences in unit revenue on domestic segments again narrowed during 2016 between the two groups, while differences in unit cost on domestic segments remained near recent lows. Value carriers continue to add international service, especially to Latin America and the Caribbean, as they expand and diversify their service to compete to against both network and value counterparts with a shorter haul, near-international value proposition.

The convergence of financial and operational differences will eventually force the industry to redefine air carrier groupings. An argument could be made that there are three groups of airlines today: Ultra-low cost (Spirit, Allegiant, Frontier), traditional network (Delta, American, United) and a third group comprised of Southwest, Alaska/Virgin America, JetBlue and Hawaiian. However, we believe our traditional groupings remain valid for the current analysis.

1 The primary category excluded is regional carriers, which provide most of their capacity under capacity purchase agreements (CPAs). Regional carriers operated about 12% of domestic available seat miles (ASMs) in 2016 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 misleading.

The report combines data for merged airlines including American/US Airways, Southwest/AirTran, Delta/Northwest and United/Continental. This year, our report combines data for the announced Alaska/Virgin America merger.

This report focuses largely on US carriers based on the reported regulatory data that is available. In the World Capacity section, we have provided expanded sections by geographic region as well as additional analyses on US carrier international share and a RASK/CASK analysis for select non-US carriers.

A substantial part of our financial analysis is based on US DOT Form 41 data. This data includes transport-related revenue/expense. The transport category mainly comprises revenue and expense attributable to regional partner operations and codeshares. This report attempts to closely compare the operating airlines in the US and therefore excludes transport-related categories.

Throughout the report we refer to the non-standard terms RASMxT and CASMxT. The "xT" portion of the term indicates that we have eliminated the transport-related revenue or expense referenced above.

INTRODUCTION AND EXECUTIVE SUMMARY

In recent years, the airline industry in the United States produced improved balance sheets, increased valuations, and generated 13 consecutive quarters of profitability with operating margins near or above 10% – all testament to the quality and discipline of the management of this hyper-competitive industry.

But just as domestic airlines are enjoying record profits, a patch of turbulence ahead could threaten their bottom-line gains. The most compelling piece of evidence that cracks are developing in the industry's outwardly successful façade is the recent slide in quarterly revenue among US network carriers.

During the past 18 months, total airline revenue has fallen to 1.10% of US gross domestic product (GDP) from 1.17%. While the percentage drop seems miniscule, it translated for legacy airlines into more than $1.1 billion in lost quarterly revenue in the second quarter of 2016, when compared with the same three months a year earlier. In contrast, value airlines saw a revenue gain of $300 million for the three months.

The culprit behind the decline is a familiar one to legacy carriers: too much capacity coming online at discount prices when the economy is still growing in the low single digits. This trend has been particularly evident when it comes to routes between the US and Latin America, where value carriers have been aggressively expanding. Since 2011, total seat capacity to the region has increased 86%, reflecting substantial growth in short-haul flights to Mexico and the Caribbean.

While network players would argue for a greater degree of discipline, the added capacity has meant more market share and revenue for value carriers. While legacy airlines saw international revenue decline by $800 million in the second quarter, the revenue for value carriers actually rose slightly. The non-US capacity is becoming an increasingly important part of the value carriers' network strategy, increasing from 1% in 2007 to 8% today.

In Asia Pacific, where total seat capacity rose 29% during those same years, the competition has come primarily from non-US carriers, which are expanding in the region faster than their US counterparts. That's not to say US airlines added nothing; they added to the region's available seat miles (ASM) – the industry's traditional measure of passenger capacity – by substituting new generation aircraft and overflying traditional Asia-Pacific regional hubs in favor of more nonstop flights between both large and secondary US cities and a wider variety of Asia-Pacific destinations.

For US network airlines, the domestic market represents their strongest region, but even here revenue is being whittled away with passenger yield – the measure of average fare paid per mile, per passenger – declining 4.5% during the second quarter as again capacity discipline waned. While the network carrier group held growth in available seat miles to 3.3% between April 1 and the end of June of 2016, their value counterparts pushed capacity up 8.2%.

Further compounding the network carriers' top-line problem has been a dip in ancillary revenue from such items as excess-baggage fees and ticket-change charges during the second quarter of 2016 – the first such decline since 2007. Again, this was not the case for the value players, although the overall gain was much less than it has been in past quarters.

Not all current trends are bad news. The industry has been benefitting mightily from the dip in oil prices that began in 2014. Fuel costs in the second quarter averaged $1.53 per gallon, 24.5% below 2015's second quarter. And overall, expenses for the industry once again fell during the second quarter, with the unit cost at network airlines declining 3.4% over the previous year and 6.0% for value carriers.

That said, this rosy scenario may not persist. After more than three years of profitability, the industry faces the prospect of its most expensive line items – fuel, labor, and maintenance – becoming more dear in the foreseeable future, which would augur higher operating costs for carriers.

Toward the end of 2016, the Organization of Petroleum Countries (OPEC) and several large non-OPEC producers, including Russia, agreed to cut back production. This could push the price of crude per barrel substantially above $50 in the foreseeable future, but so far the move has not produced the higher prices OPEC hoped for. Among other things, a sizable rise in prices would depend on OPEC's ability to keep producers in line as well as continued strength in global economic activity, especially in the US and China. US oil producers also would have to resist the temptation to take advantage of the higher prices by supplying more.

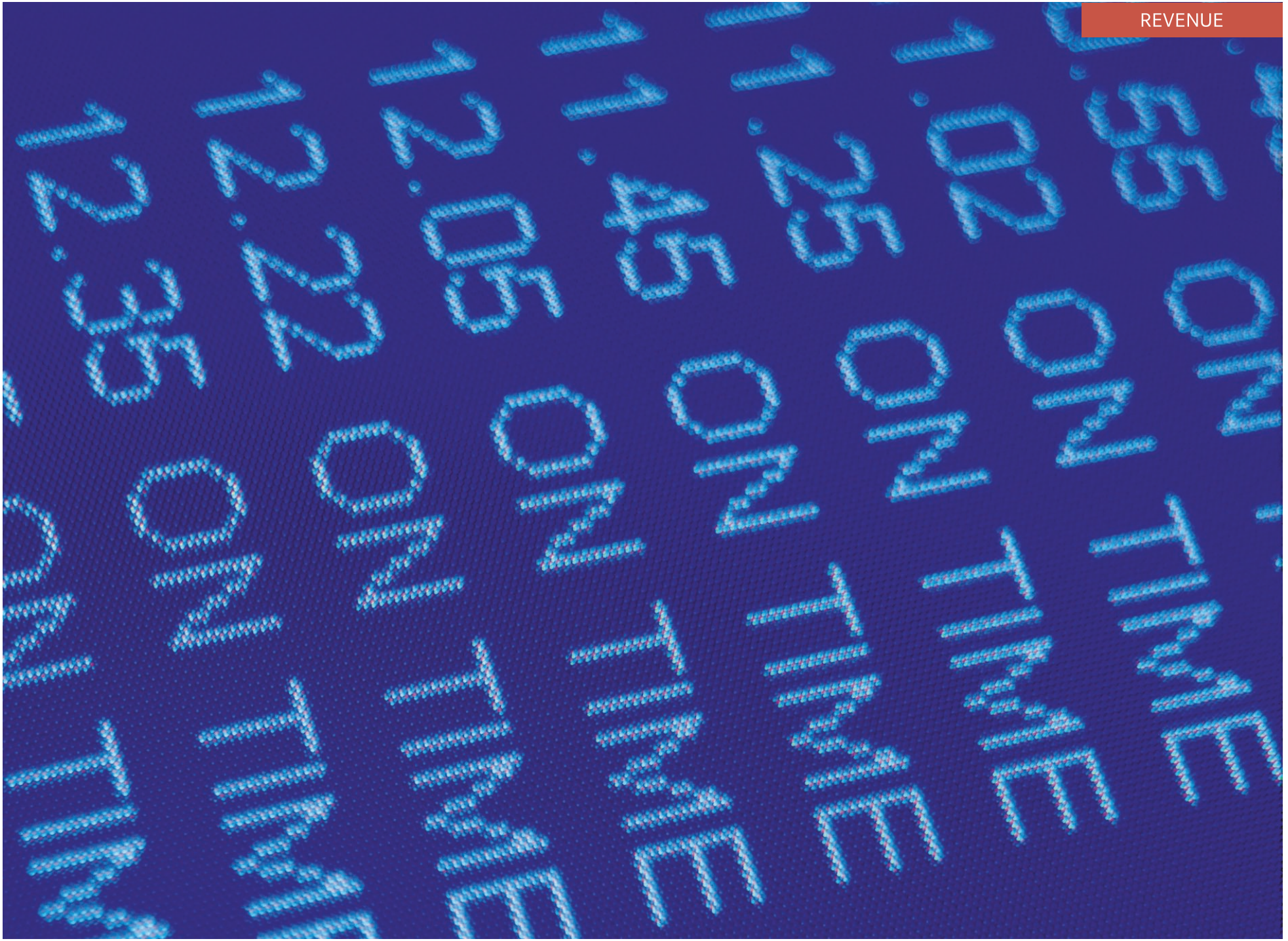
Labor costs at network airlines also are rising. They were 5.4% higher in 2016's second quarter than in the same period the previous year. Additionally, many network carriers have inked new, more expensive labor contracts over the past year, the consequences of which may push payroll costs even higher as the provisions come into effect and become fully baked into expenses.

Value airlines will eventually be affected by the pressure on wages as well. While their labor costs decreased 3.5% in the second quarter, recent contract ratifications at Southwest, the largest of the value carriers, and ongoing negotiations at other airlines are likely to make life and payrolls more expensive for the discounters as well in the not too distant future.

Finally, some aging aircraft fleets are slated to see a wave of life-limited parts (LLPs) coming due on the horizon. Carriers with these older fleets will need to determine how they deal with replacement of these usually critical and expensive pieces of equipment. One option, of course, is to retire portions of the fleet – a strategy some carriers are already pursuing in an effort to incorporate more fuel-efficient aircraft and upgrade the customer flying experience.

After several years of a successful comeback from the 2008-2009 global financial melt-down, carriers are facing stronger headwinds on both the cost and revenue sides of the ledger, with legacy airlines already struggling with higher break-even load factors, both domestically and internationally, than their discount competitors.

The bottom line? Protecting hard-won profitability will likely depend on each carrier's ability to prevent the erosion of unit revenue this year, recognizing that there may be fewer opportunities to cut costs.



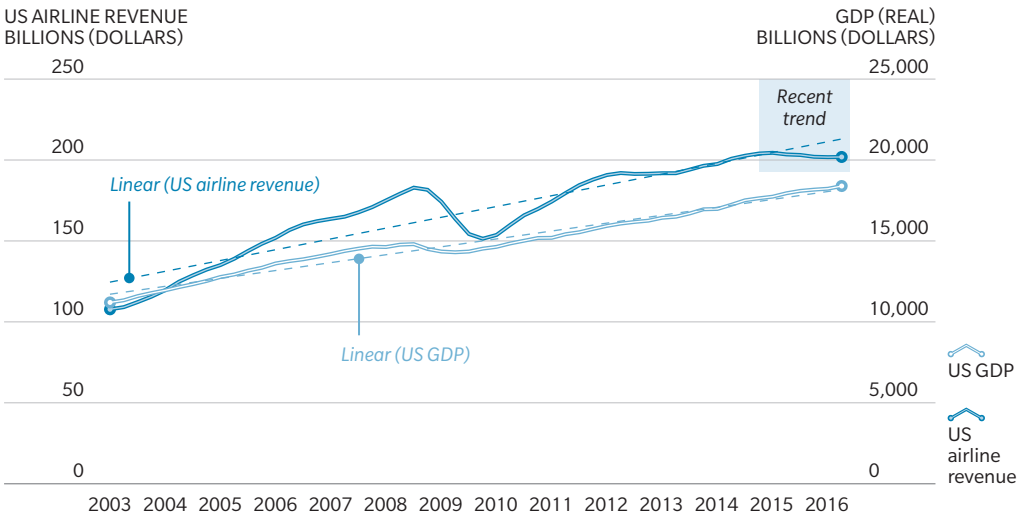
REVENUE

1. AIRLINE REVENUE VERSUS GROSS DOMESTIC PRODUCT

Falling fuel costs have largely masked a fundamental weakness facing US airlines during 2016 – a declining revenue market. Despite reporting sustained, near-record operating profits over the past 24 months, total operating revenue fell 2.2% year over year in the second quarter 2016, equating to a loss of more than $750 million in operating revenue for the quarter.

The US aviation market is relatively mature compared to other world regions, making comparisons to Gross Domestic Product relevant, and deviations from the trends are indicators of strengths or weakness in the industry.

Exhibit 1: US Airline Revenue and GDP, Q1 2003-Q2 2016



Source: Planestats.com > Form 41 Financials > P 1.2 Income Statement, US Bureau of Economic Analysis; GDP in billions of current dollars

After the global economic crisis of 2008, nominal US GDP has risen at a compound annual growth rate (CAGR) of 3.67%. We continue to postulate that a positive revenue environment depends on capacity discipline at or below GDP growth. That theory seems to be proven true over the past 12 months.

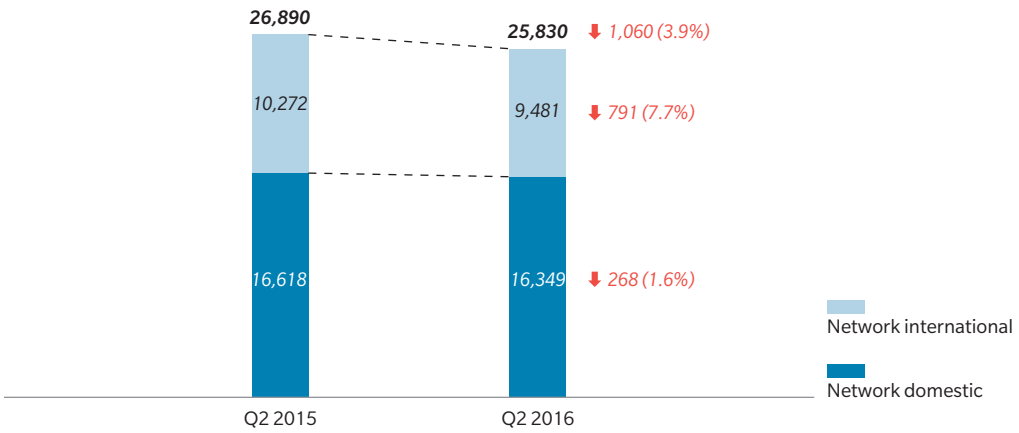
Between December 2012 and June 2014, US airline revenue mirrored the growth trend of US GDP. During that time, US airline capacity (ASMs for all US airlines) remained below 3 percent per year. Beginning in the second quarter 2014, the relationship began to diverge, with GDP growing at a consistent rate and airline revenue declining. During the recent period, US airline capacity grew at an annual rate of 3.9% and a YE Q2 2016 rate of 4.4% per year.

From 2012 to 2014, US airline revenue represented approximately 1.17% of the US GDP. As of the second quarter 2016, that percentage had fallen to 1.10%, the lowest percentage since 2010.

2. CHANGE IN OPERATING REVENUE

The decline in total US airline revenue over the past 12 months was partially offset by revenue gains from the value airline sector. Additionally, there were substantial differences between domestic and international revenue performance, with the second quarter 2016 domestic revenue increasing slightly over the second quarter 2015 for the combined group.

Exhibit 2: Network Carriers Change in Operating Revenue, Q2 2015/Q2 2016



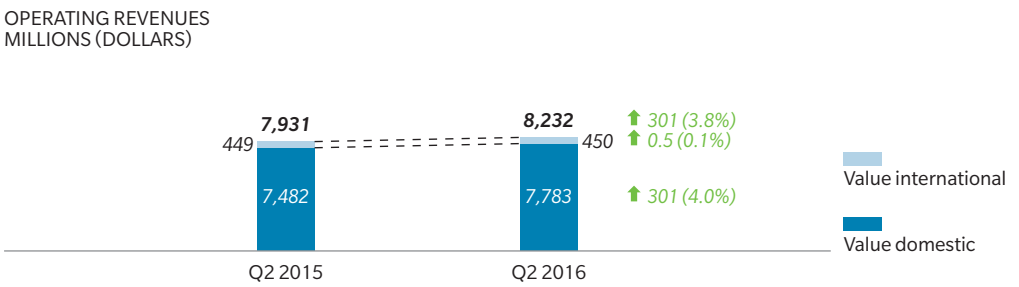
Source: PlaneStats.com
Note: Mainline operations only, excludes transport-related revenue (regionals)

Operating revenue at US network carriers declined $1.1 billion for the second quarter 2016 from the second quarter 2015 (down 3.9%). Nearly 75% of the decline can be attributed to network carriers' international operations. Total operating revenue generated by network carrier international operations declined 7.7% for the second quarter, representing a reduction of $791 million for the quarter.

Domestic revenue was somewhat more stable for network carriers, declining only 1.6% between the second quarter 2016 and the second quarter 2015. Domestic operations accounted for 63.3% of network carrier revenue during the second quarter 2016.

Unlike the network group, value airlines were able to produce total operating revenue growth during the second quarter 2016. The group increased quarterly revenue 3.8%, or $301 million.

Exhibit 3: Value Carriers Change in Operating Revenue, Q2 2015/Q2 2016



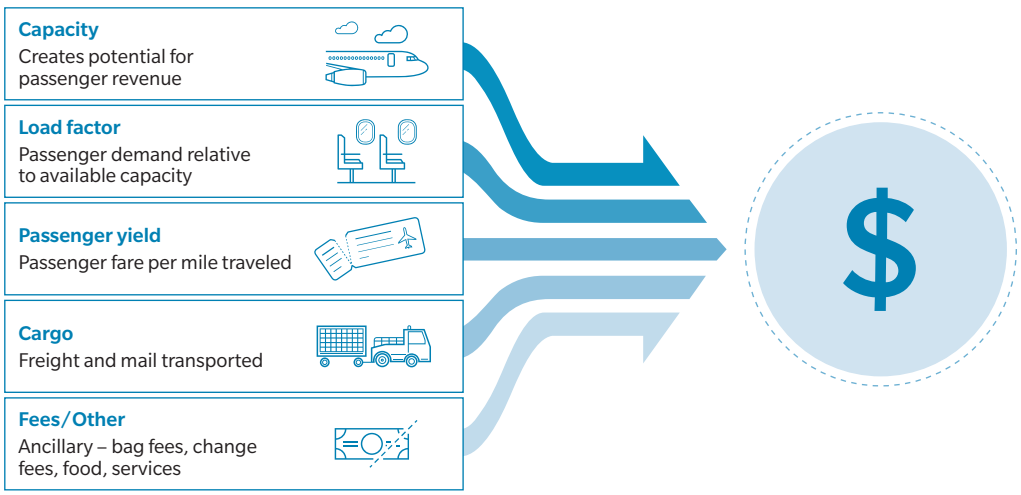
Source: PlaneStats.com

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

Both domestic (+4.0%) and international (+0.1%) operations produced year over year revenue gains in the second quarter 2016. Similar to network carrier operations, the international region lagged behind domestic performance. International revenue represents only 5.5% of the total value airline operating revenue.

A number of drivers impact revenue production for airlines. The following exhibits and sections quantify the impact each driver has on total operating revenue. In reality, each of these drivers is highly dependent upon one another. For example (as detailed later in this report), increased capacity can potentially drive passenger yield downward.

Exhibit 4: Revenue Drivers



Analyzing each of these drivers individually is somewhat theoretical; however, the analysis produces valuable insight into factors impacting revenue change over time.

Increased capacity represented the only positive revenue driver for network carriers' domestic service during the second quarter 2016. Increased ASMs (up 3.3%) resulted in a positive impact of nearly $500 million. Falling passenger yields more than offset capacity gains, reducing network carrier domestic revenue production by nearly $700 million during the second quarter. The remaining drivers (load factor, cargo and fees/other) all had a negative impact on revenue, representing a collective decline of $65 million for the quarter.

Exhibit 5: Network Carrier Domestic Revenue Decrease – Price and Volume Drivers, Q2 2015/Q2 2016

REVENUE DRIVERS		MILLIONS (DOLLARS)
Capacity	ASMs up 3.3%	⬆ 494
Load factor	Percent of seats filled-down 0.2 point	⬇ 27
Yield	Yield down 0.7¢	⬇ 697
Cargo	Domestic cargo remains 40% below 2007	⬇ 37
Fees/Other	Baggage/Reservation & cancel fees decline	⬇ 1
Revenue change Q2 2015/Q2 2016		⬇ **268**

Source: PlaneStats.com, Oliver Wyman analysis

Network airlines added 0.8% more international ASMs, resulting in a revenue boost of $70 million. Despite the decline in passenger yield, demand did not keep pace with the added capacity, reducing load factor by 0.5 point and reducing potential revenue production by $55 million.

Possibly the largest story of the second quarter is the significant decline in international passenger yield for the network carriers. Passenger yield fell 1.2 cents per passenger mile, equating to nearly $750 million for the quarter. The decline amounts to more than 8% of quarterly international passenger revenue for the group.

Revenue from belly cargo was down $40 million during the second quarter 2016, and fees and other revenue sources declined an additional $17 million.

Exhibit 6: Network Carrier International Revenue Decrease – Price and Volume Drivers, Q2 2015/Q2 2016

REVENUE DRIVERS		MILLIONS (DOLLARS)
Capacity	ASMs up 0.8%	↑ 70
Load factor	Percent of seats filled-down 0.5 point	↓ 55
Yield	Yield down 1.2¢	↓ 749
Cargo	Cargo remains 30% below 2007	↓ 40
Fees/Other	Baggage fees are down	↓ 17
Revenue change Q2 2015/Q2 2016		**↓ 791**

Source: PlaneStats.com, Oliver Wyman analysis

Unlike the network carrier group, value carriers were able to produce revenue growth in domestic segments despite deteriorating passenger yield. Value carriers increased ASMs by 8.2% during the second quarter, driving an additional $568 million in revenue.

Passengers capitalized on the lower fare offerings during the quarter and demand, measured by Revenue Passenger Miles (RPMs), outpaced capacity, increasing load factor by a half a point.

Domestic passenger yield declined 1.2 cents during the second quarter 2016, resulting in a $617 million reduction in revenue for the value carriers' domestic operations. Also, as reported, fees/other increased $308 million for the group.

However, a significant accounting change relating to Southwest Airlines' reward travel makes accurate analysis of the two categories more difficult. Southwest reports that the accounting change reduced passenger revenue by $66 million for the second quarter 2016 compared with the second quarter 2015 and increased miscellaneous (part of fees/other) by $203 million during the same period. The net result is an increase of $137 million in operating revenue for the quarter. Please refer to Southwest's second quarter 2016 Securities and Exchange Commission (SEC) 10Q filing for more information relating to the accounting change. For the most part, the accounting change does not impact the analysis in this report. However, specific analyses of the impact on passenger yield change and other (ancillary) revenue will be considered later in the report.

Exhibit 7: Value Carrier Domestic Revenue Increase – Price and Volume Drivers, Q2 2015/Q2 2016

REVENUE DRIVERS		MILLIONS (DOLLARS)
Capacity	ASMs up 8.2%	↑ 568
Load factor	Percent of seats filled-up 0.5 point	↑ 48
Yield	Yield down 1.2¢	↓ 617
Cargo	Cargo remains 30% below 2007	↓ 6
Fees/Other	Driven largely by Southwest accounting change	↑ 308
Revenue change Q2 2015/Q2 2016		↑ **301**

Source: PlaneStats.com, Oliver Wyman analysis
Note: Yield and Fees/Other are impacted by Southwest accounting change detailed above.

International revenue remained at 2015 levels for value airlines despite capacity increasing more than 17%. As with the domestic region, Southwest's accounting change had an impact on the analysis of passenger yield and fees/other, albeit to a much smaller degree. Including the accounting change, passenger yield declined 2.0 cents, reducing revenue by $81 million.

Exhibit 8: Value Carrier International Revenue Decrease – Price and Volume Drivers, Q2 2015/Q2 2016

REVENUE DRIVERS		MILLIONS (DOLLARS)
Capacity	ASMs up 17%	↑ 70
Load factor	Load factor essentially flat	0
Yield	Yield down 2.0¢	↓ 81
Cargo	Insignificant volume	↓ 1
Fees/Other	Baggage fees up	↑ 13
Revenue change Q2 2015/Q2 2016		**0**

Source: PlaneStats.com, Oliver Wyman analysis
Note: Sum not equal to total due to rounding

3. REVENUE DRIVER: CAPACITY

Increasing airline capacity creates the potential for increased operating revenue. To understand the impact of adding or subtracting capacity, our analysis calculates the revenue impact using the change in capacity and the previous period's demand and yield data. The resulting impact is hypothetical because all other drivers are changing at the same time, yet the analysis provides valuable insight on carrier growth initiatives.

Combined, US network and value carriers increased capacity (ASMs) by 3.8% during the second quarter 2016. Departures increased 3.4%, and stage length fell slightly, indicating a growth in average seats per departure.

Exhibit 9: Percent Change in Capacity (ASMs), Q2 2015/Q2 2016

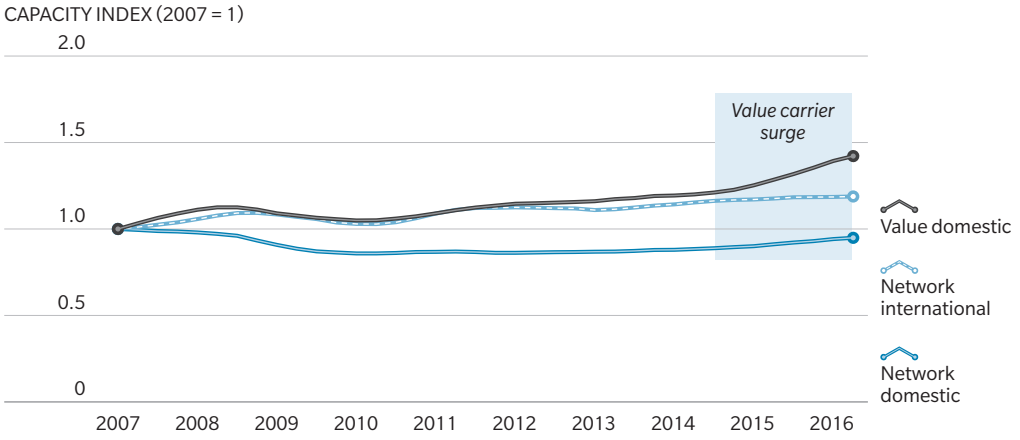
	% CHANGE
Network domestic	3.3%
Network international	0.8%
Value domestic	8.2%
Value international	17.0%
Total	**3.8%**

Source: PlaneStats.com > Form 41 T2 Traffic
Note: Mainline operations only

Domestically, US network airlines added 3.3% ASMs during the second quarter 2016 over the previous year. The increased capacity resulted in the potential for $494 million in additional passenger revenue for the group. However, network carriers seemed reluctant to add international capacity during the second quarter 2016, a result of a softer yield environment. The group added less than 0.8% ASMs internationally, or $70 million in potential revenue.

Value airlines increased domestic ASMs 8.2% during the quarter, providing the potential for an additional $568 million in passenger revenue. Value airlines continue to aggressively enter the Latin American market, specifically Mexico and the Caribbean. Despite rapidly falling passenger yields, values airlines added 17.0% more ASMs internationally during the second quarter, amounting to $70 million in potential passenger revenue.

Exhibit 10: Long-term Capacity Index, 2007-2016



Source: PlaneStats.com > Form 41 T2 Traffic, Capacity = ASMs

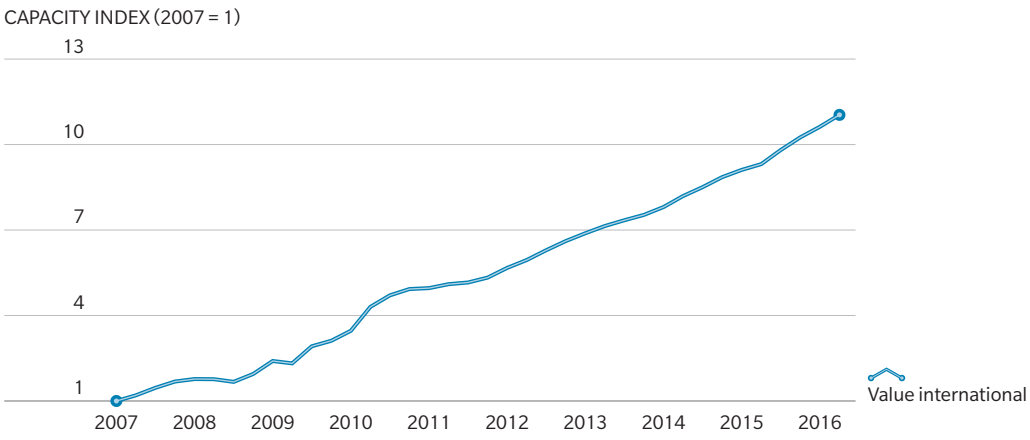
Note: Mainline operations only

After five years of little to no growth, network airlines began cautiously adding capacity to the domestic US market beginning with the second quarter 2014. During the no-growth period, the group maintained capacity levels about 15% below 2007 levels. Quarterly growth of 3% to 4% has returned the group's domestic capacity to within 5% of 2007 levels.

Value airlines have seemingly capitalized on declining fuel prices over the past 24 months and have rapidly increased domestic capacity. Domestic capacity for value airlines is nearly 40% greater than 2007 levels.

International capacity growth slowed somewhat over the past 24 months for network carriers. In contrast, value airlines have continued double-digit growth over the past five years. During 2007, international capacity represented only 1% of total value airline capacity. That percentage has grown to nearly 8%.

Exhibit 11: Long-term Capacity Index – Value International, 2007-2016



Source: PlaneStats.com > Form 41 T2 Traffic, Capacity = ASMs

Note: Mainline operations only

4. REVENUE DRIVER: LOAD FACTOR

This analysis measures the load factor impact on revenue by combining the change in load factor with yield data measured against current capacity. The result is hypothetical, given that current fare levels (passenger yield) affect demand.

Exhibit 12: Change in Load Factor, Q2 2015/Q2 2016

	Q2 2015	Q2 2016	PTS CHANGE
Network domestic	86.9%	86.7%	-0.2
Network international	80.8%	80.3%	-0.5
Value domestic	85.3%	85.8%	0.5
Value international	82.1%	82.2%	0.1

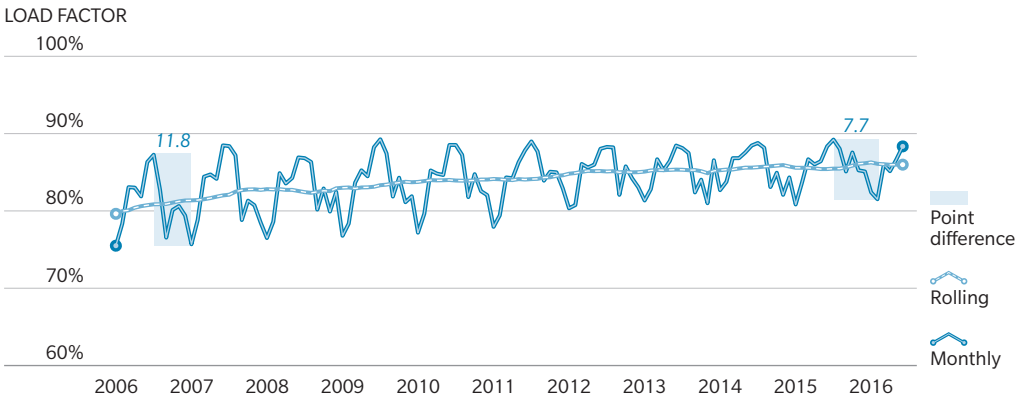
Source: PlaneStats.com > Form 41 T2 Traffic
Note: Mainline operations only

US industry load factors are largely unchanged year over year. Load factor fell less than 0.1 point for the combined systemwide operations of the two carrier groups during the second quarter 2016. Network airlines reported small load factor reductions in both domestic and international operations. Value airlines were able to slightly improve load factors on domestic segments, yet the group remains nearly a full point behind the network group. Value airlines have been successful in growing international operations (up 17%) without eroding load factor but with declining yield.

Long-term analysis of network carriers' domestic load factor indicates that average annual load factor may have peaked. On a rolling 12-month basis, domestic load factor has remained between 84.9% and 86.1% since the beginning of 2012.

Exhibit 13 demonstrates the network airlines' ability to improve capacity utilization lows that occur during the first quarter of each year while maintaining seasonal peaks. During 2006, the seasonal peak differential was nearly 12 points. That differential has been reduced 4.1 points to 7.7 today.

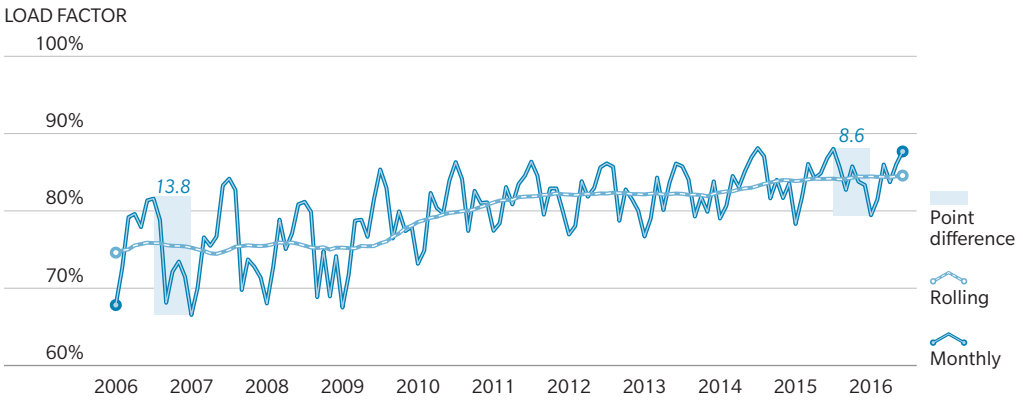
Exhibit 13: Network Carrier Domestic Load Factors, January 2006-June 2016



Source: US DOT T100, PlaneStats.com

Similarly, value carriers have been able to improve off-peak load factors since 2006 to reduce seasonal differentials to 8.6 points in 2016, down from 13.8 points in 2006. Unlike their network counterparts, value airlines have improved peak season load factors, resulting in a larger load factor improvement over 2006, as shown in Exhibit 14.

Exhibit 14: Value Carrier Domestic Load Factors, January 2006-June 2016

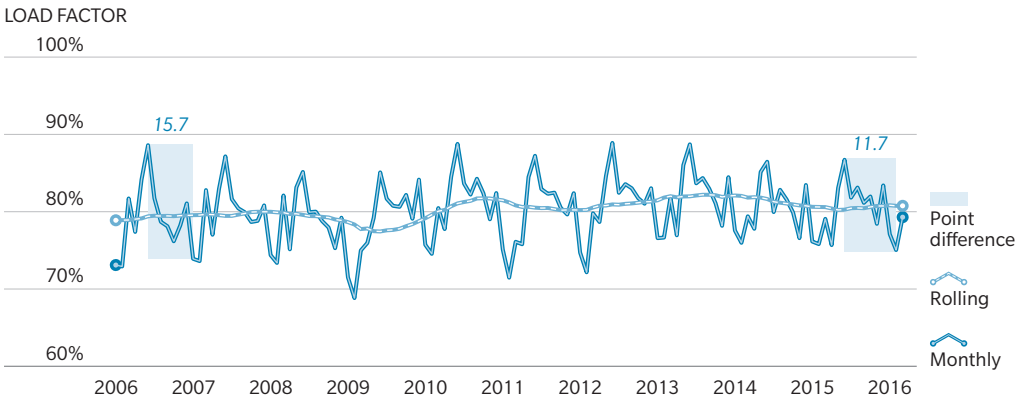


Source: US DOT T100, PlaneStats.com

Combined, the network and value airline groups have had similar success in reducing seasonality on international segments, reducing seasonal differentials by 4 load factor points. However, international load factors seem to be weakening. On a rolling 12-month basis, average international load factor reached a peak of 82.2% during 2013 and has since fallen to 80.8%.

International load factor performance may indicate overcapacity on international segments. As seen in Exhibit 15, both peak and off-peak load factors have declined over the past 24 to 36 months.

Exhibit 15: International Load Factors, January 2006-March 2016



Source: US DOT T100, PlaneStats.com
Note: All carriers in study

5. REVENUE DRIVER: PASSENGER YIELD

Systemwide passenger yield (fare per revenue passenger mile) declined 6.7% during the second quarter 2016 for network and value carriers. The decline in yield equates to an estimated $2 billion in lost quarterly revenue for the second quarter.

Exhibit 16: Change in Passenger Yield, Q2 2015/Q2 2016

	Q2 2015	Q2 2016	PTS CHANGE
Network domestic	15.1	14.5	-4.5%
Network international	14.1	12.9	-8.2%
Value domestic	14.3	13.1	-8.3%
Value international	11.6	9.6	-17.0%

Source: PlaneStats.com
Note: Mainline operations only

Network carriers' domestic operations produced a passenger yield of 14.5 cents per passenger mile, 4.5% below 2015 levels. International passenger yield declined at a much greater rate, falling 8.2% to 12.9 cents per passenger mile.

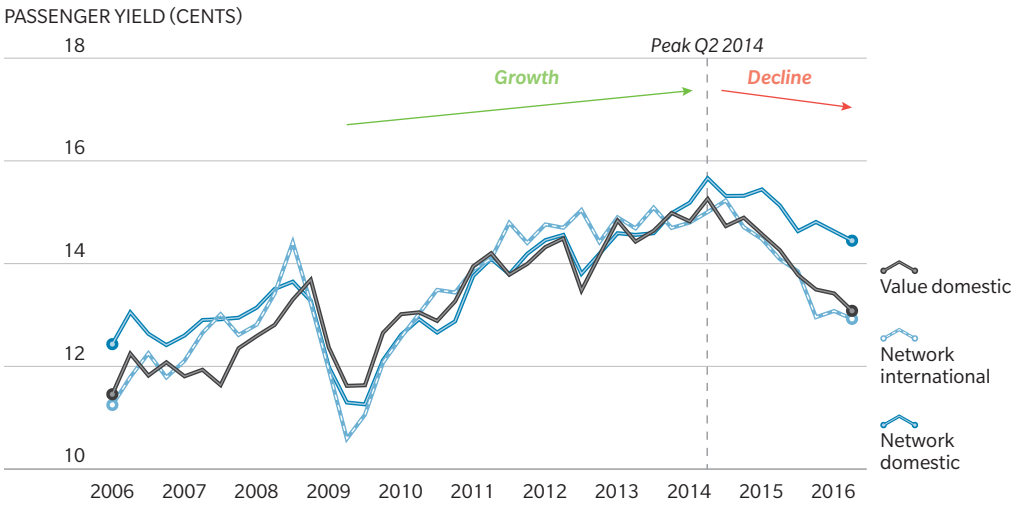
As discussed earlier in the report, a change in Southwest's accounting beginning in the third quarter 2015 has an impact on year over year yield analysis. (Southwest represents more than one-third of all value carrier domestic operating revenue.) Unadjusted for the accounting change, passenger yield on domestic segments fell 8.3% to 13.1 cents. International passenger yield (unadjusted for Southwest) for the group fell 17.0%.

Since the worldwide economic downturn in 2008, US passenger yield for the combined carriers in the study falls into two distinct periods.

- Growth: Between the third quarter 2009 and the second quarter 2014, passenger yield increased 34.2% to 15.3 cents per passenger mile.
- Decline: Since the second quarter 2014 peak, passenger yield has fallen 11.3% to 13.6 cents.

Certainly, a significantly lower cost basis provided by rapidly falling fuel prices has afforded US airlines the ability to lower fares to capture or, in most cases, maintain market share. However, not all of the decline in passenger yield should be attributed to lower fuel costs.

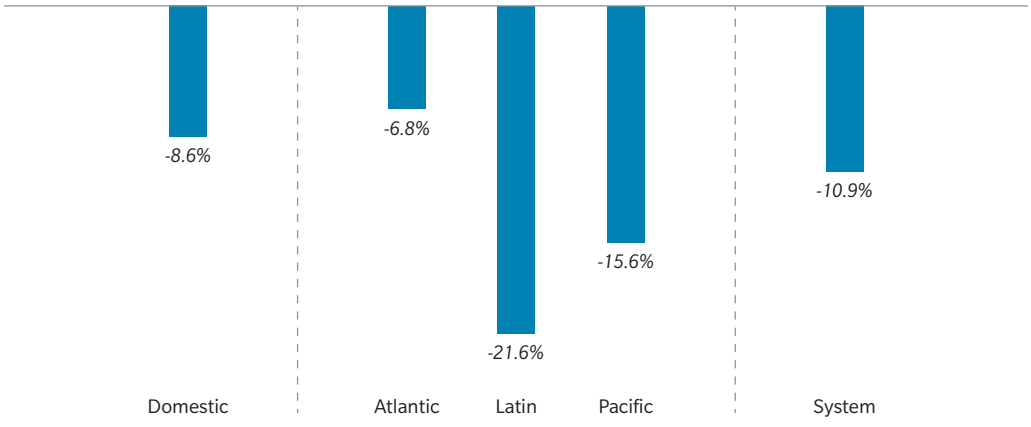
Exhibit 17: Long-term Passenger Yield Trend, Q1 2006-Q2 2016



Source: PlaneStats.com
Note: Mainline operations only

As demonstrated in Exhibit 18, passenger yield has not declined equally by region for the network group. Passenger yields to Latin America/Caribbean have fallen an astounding 21.6 percent during the decline period (stage-length adjusted). Analysis shows the decline in Latin region yield began in 2013, earlier than the much larger domestic region. As of the second quarter 2016, Latin passenger yield has declined to third quarter 2009 levels (see Exhibit 19). Weakening economic conditions within the Latin American region, especially Brazil, Argentina, and Ecuador, have hurt airlines' ability to improve passenger yields. This early decline in the Latin market is likely the result of capacity expansion by the network airline group (up 27% since 2009, as shown in Exhibit 19), combined with increasing competition from the value airline sector within the region. GDP for the Latin American region fell 1.2% in the first quarter 2016 and 1.0% in the second quarter.

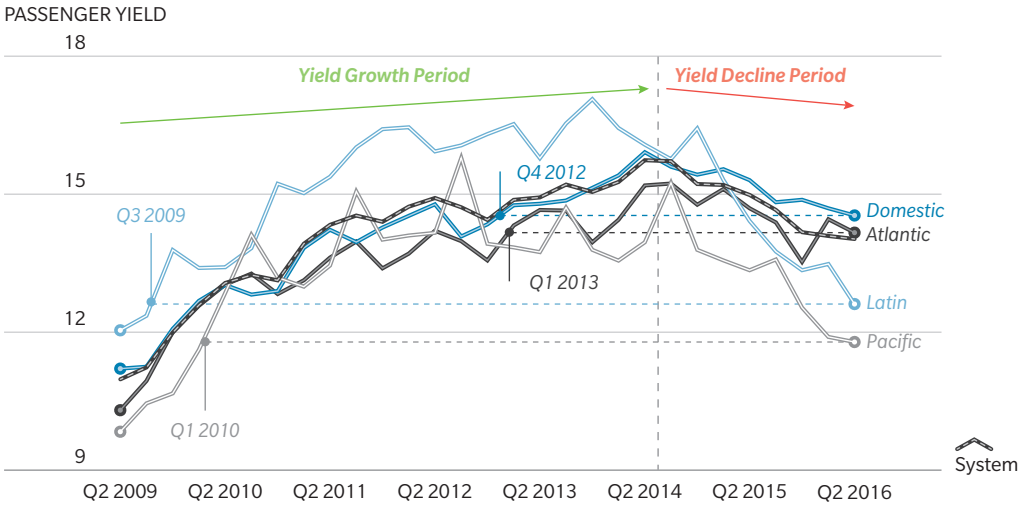
Exhibit 18: Network Passenger Yield Decline – Q2 2014/2016



Source: PlaneStats.com
Note: Mainline operations only

The Pacific region passenger yield fell 15.6% since the second quarter 2014. But passenger yields in the Pacific began to soften even earlier than Latin America beginning in mid-2012. Passenger yield in the Pacific region has regressed to early 2010 levels for network airlines. After rapid capacity expansion of 23% from 2009 to 2012, network carrier capacity is up 27.6% over 2009 levels. Including all airlines, foreign and domestic, capacity to the Pacific region is up more than 47% since 2009.

Exhibit 19: Network Passenger Yield Trend by Region (Stage-length Adjusted)

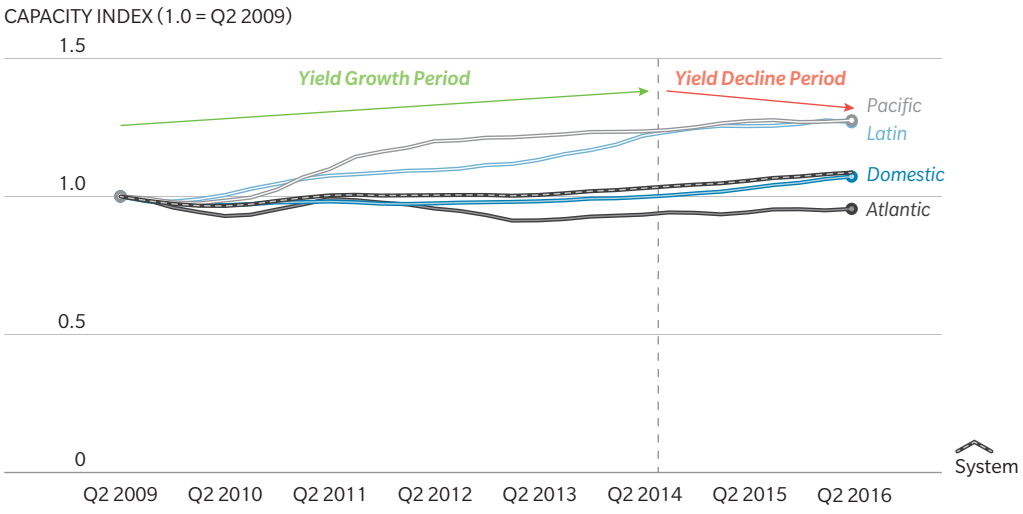


Source: PlaneStats.com
Note: Mainline operations only

Domestic yield fell 8.6% for network carriers during the recent yield decline period. As of the second quarter, domestic passenger yield has returned to 2012 levels. From 2009 to 2014, network airlines maintained capacity discipline, keeping total ASMs at or below 2009 levels. Since mid-2014, network airlines have increased domestic capacity 7.3%, creating downward pressure on passenger yields.

Capacity discipline has possibly aided passenger yields in the Atlantic region, with passenger yield falling only 6.8%, the lowest among network regions during the decline period. Network carrier capacity remains below 2009 levels.

Exhibit 20: Network Capacity Index by Region

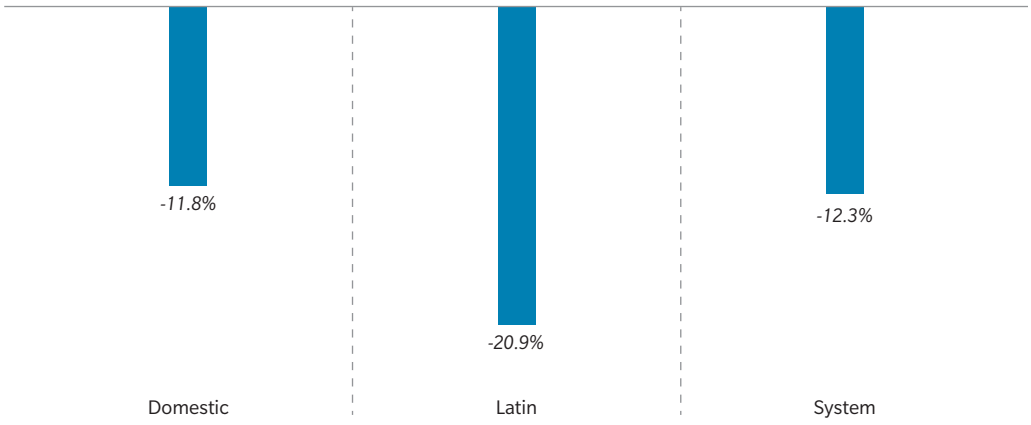


Source: PlaneStats.com

Note: Mainline operations only; rolling 12-month basis

Like the network carriers, value airlines have seen passenger yield erode quickly in the Latin market, dropping 20.9% since mid-2014 (not adjusted for Southwest accounting change). Again, some of this yield deterioration is self-inflicted by expanding capacity and lowering passenger fares to capture market share. Capacity to Latin America has grown 376% since 2009, introducing competition on markets once served only by network airlines and their foreign counterparts.

Exhibit 21: Value Passenger Yield Decline – Q2 2014/2016 (Decline Period)

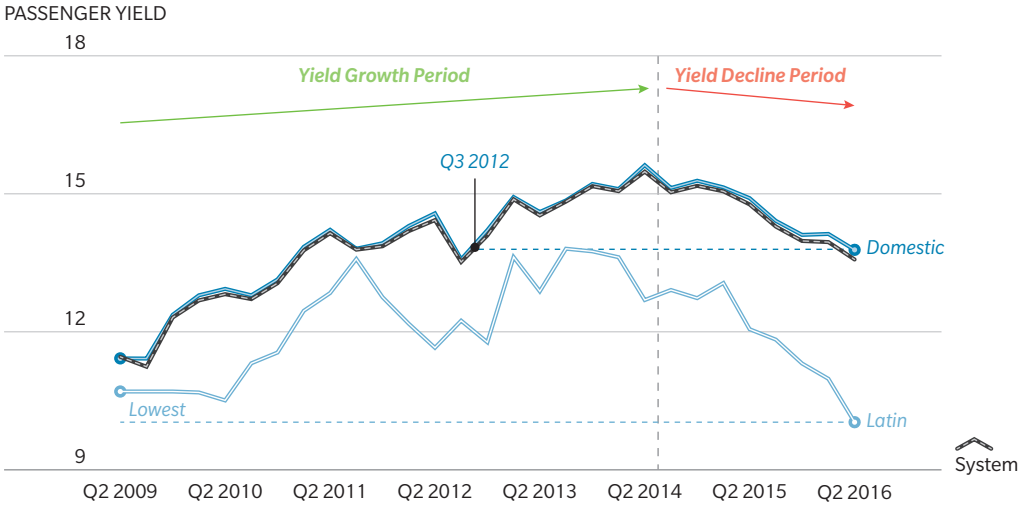


Source: PlaneStats.com

Note: Mainline operations only

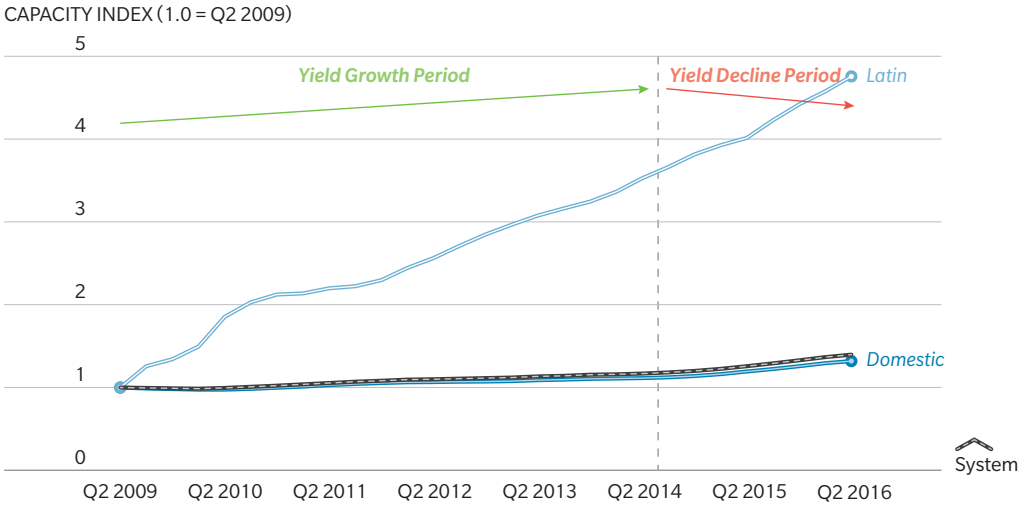
Domestic yield is down 11.8% over the past 24 months for value airlines (not adjusted for Southwest accounting change). Value airlines have expanded domestic capacity by 32.0% since 2009 (4.04% CAGR). Since mid-2014, capacity has jumped 18.5%, indicating that the value airlines have capitalized on lower fuel cost to try to capture domestic market share.

Exhibit 22: Value Passenger Yield Trend by Region (Stage-length Adjusted)



Source: PlaneStats.com
Note: Mainline operations only

Exhibit 23: Value Capacity Index by Region



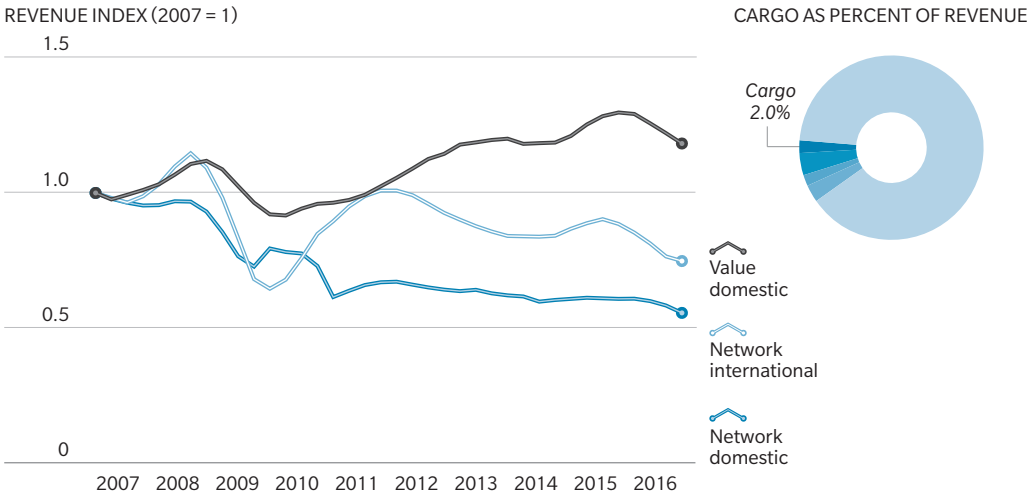
Source: PlaneStats.com
Note: Mainline operations only; rolling 12-month basis

6. REVENUE DRIVER: CARGO

Cargo revenue declined approximately $84 million during the second quarter 2015 collectively for the network and value airlines. Cargo revenue generated from freight and mail services accounts for only 2.0% of total airline revenue.

International cargo revenue represents more than 70% of total cargo revenue for network airlines, and it continues to fluctuate at a greater rate than domestic cargo revenue. Domestic cargo revenue began a downward trend in 2008 and is more than 30% below 2006 levels.

Exhibit 24: Long-term Cargo Revenue Index, YE 2007-2016



Source: PlaneStats.com

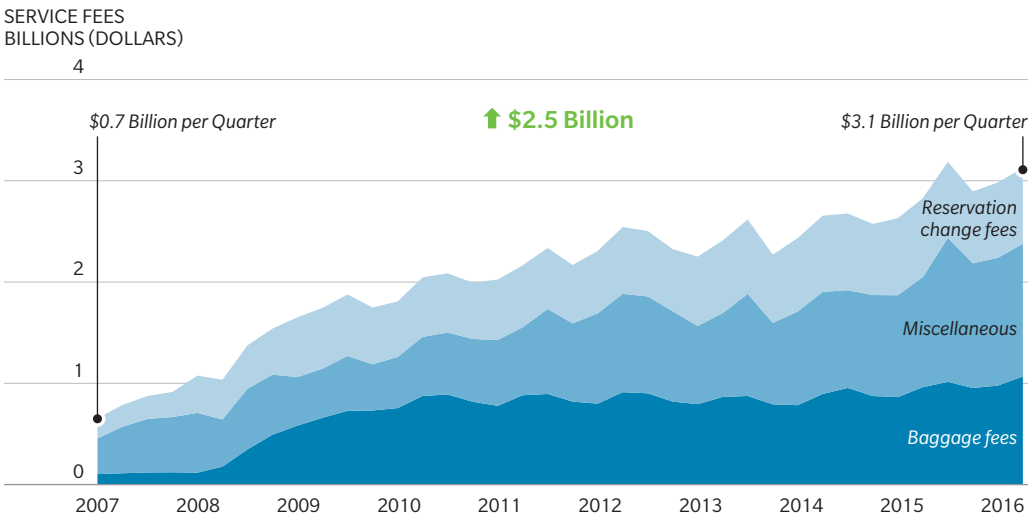
Note: Mainline operations only. Cargo includes freight and mail.

7. REVENUE DRIVER: ANCILLARY REVENUE

Ancillary revenue is revenue generated from onboard sales, ticket change charges, excess baggage fees, and other miscellaneous charges. As reported, these fees contributed an additional $302 million in revenue during the second quarter. Southwest reports that $203 million of this increase is the result of its accounting change. Since 2007, the fees and other category has increased approximately $2.5 billion ($2.3 billion adjusted for Southwest) per quarter. Service fees and other represent 9.3% of total operating revenue for US airlines.

Network carrier ancillary revenue declined $18 million year over year in the second quarter 2016 after making significant gains over the past 11 years. Unadjusted for Southwest, ancillary revenue increased $321 million over second quarter 2015 ($106 million estimated after the Southwest adjustment).

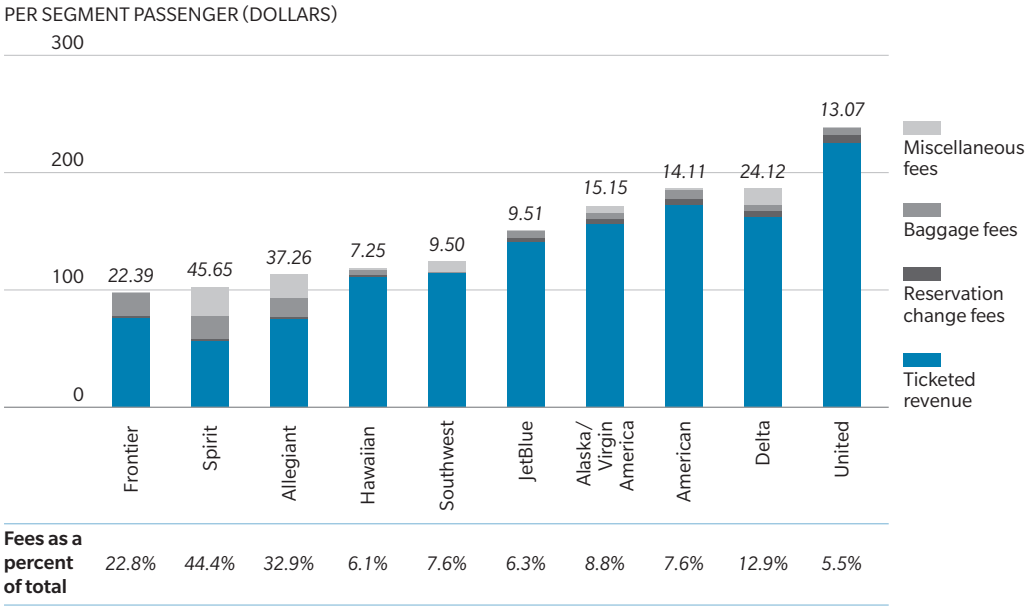
Exhibit 25: System Baggage, Reservation Change and Miscellaneous Fees, Q1 2007-Q2 2016



Source: PlaneStats.com > Form 41 Financials > P1.2 Income Statement for all carriers in study

Note: Adjustment made to Allegiant miscellaneous revenue, which is reported differently. Ancillary revenue as reported to DOT differs from ancillary revenue reported on SEC filings.

Exhibit 26: System Service Fees and Ticketed Revenue, Q2 2016



	Frontier	Spirit	Allegiant	Hawaiian	Southwest	JetBlue	Alaska/ Virgin America	American	Delta	United
Fees as a percent of total	*22.8%*	*44.4%*	*32.9%*	*6.1%*	*7.6%*	*6.3%*	*8.8%*	*7.6%*	*12.9%*	*5.5%*

Source: PlaneStats.com

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

There are significant differences between US airlines in revenue generated from ancillary fees. The ultra-low-cost business models of Allegiant, Frontier, and Spirit rely on extremely low fares and higher service fees. For example, more than 44% of Spirit's segment passenger revenue is generated from non-airfare fees ($45.65 per segment passenger). With the exception of Delta, the remainder of the industry collects 5% to 10% per passenger segment. Delta collects $24.12 per segment passenger in nonairfare fees.

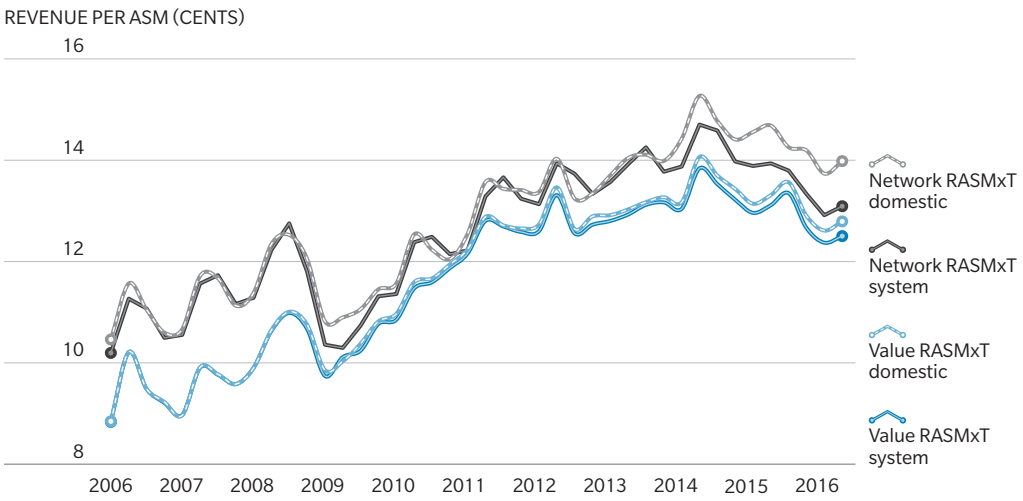
8. UNIT REVENUE COMPARISON

Unit revenue, or total operating revenue per ASM, for US network carriers again declined during the second quarter 2016, falling 6.1% to 13.1 cents per seat mile. Domestically, unit revenue declined 4.8%.

Value airlines performed somewhat better in part because they rely less on international traffic. Systemwide unit revenue declined 4.7% for value carriers during the second quarter 2016. Unit revenue on domestic segments was down 3.9% for the group.

As discussed earlier, load factors for the network carrier group have not increased substantially over the past two years. Additionally, both cargo and ancillary revenue have declined somewhat. This indicates that any unit revenue improvement would depend heavily on passenger yield improvement.

Exhibit 27: RASM Growth by Carrier Group, Q1 2007-Q2 2014



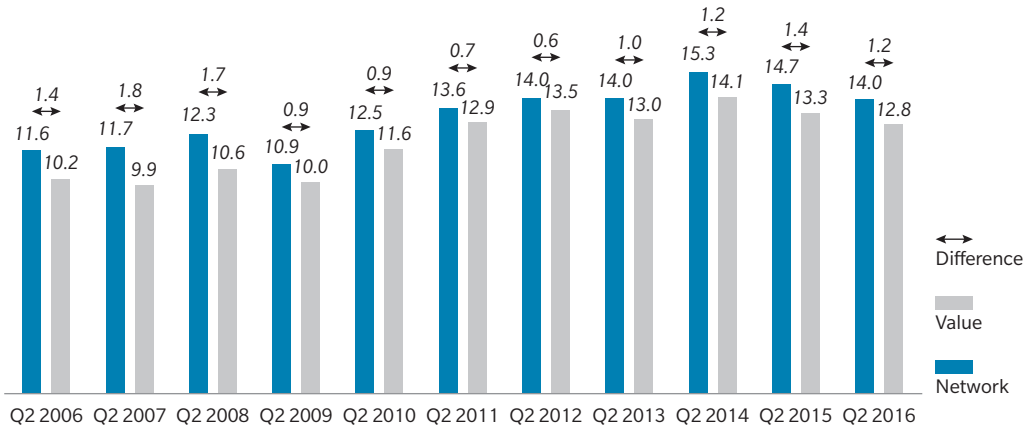
Source: PlaneStats.com

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

The domestic RASM gap between network and value airlines fell 0.2 cent per seat mile in the second quarter 2016. Since 2006, the differential has ranged from a high of 1.8 cents to a low of 0.6 cent.

Exhibit 28: Comparison of Domestic RASM between Network and Value Carriers, Q2 2006-Q2 2016

REVENUE PER ASM (CENTS)



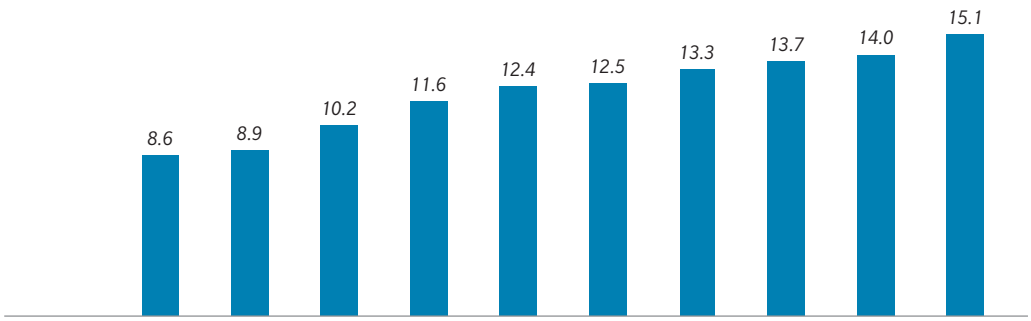
Source: PlaneStats.com

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

Many factors impact an airline's unit revenue. For the most part, the ranking of stage-length adjusted RASM defines our airline groups. The only exception is Hawaiian Airlines, which produces a lower RASM than Southwest and JetBlue. Hawaiian's concentrated short-haul inter-island flying and mid- to long-haul continental US flying produces an anomaly that occurs when applying a stage-length adjustment. Delta produces the highest domestic unit revenue among the US airlines on stage-length adjusted basis. Delta's higher ancillary revenue contributes to its industry-leading RASM. Frontier reported the lowest domestic unit revenue, followed by Spirit and Allegiant.

Exhibit 29: Domestic RASM by Airline – Stage-length Adjusted to 1,000 Miles, Q2 2016

SLA DOMESTIC RASM (CENTS)



	Frontier	Spirit	Allegiant	Hawaiian	Southwest	JetBlue	Alaska/ Virgin America	American	United	Delta
RASM (not SLA)	8.5	9.1	10.7	14.5	14.2	12.1	11.8	13.5	12.6	16.5

Source: PlaneStats.com

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

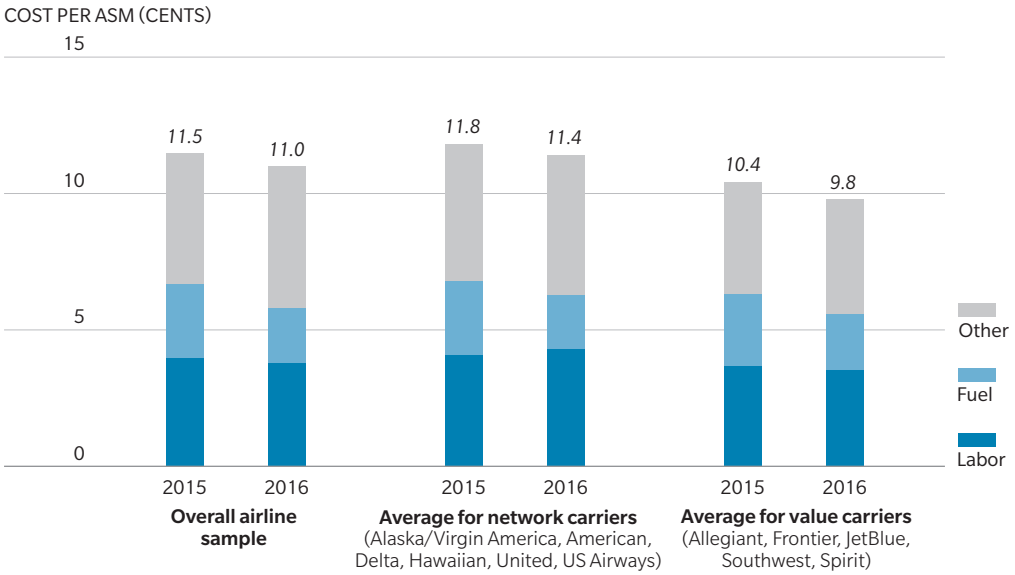
COST

9. DECLINE IN AIRLINE COSTS

US airline systemwide unit cost (excluding transport-related costs) declined 4.1% year over year to 11.0 cents during the second quarter 2016, continuing the multi-year trend of declining unit costs. Network carrier system cost was down 3.4%, falling from 11.8 cents to 11.4 cents.

Value carriers reduced systemwide costs from 10.4 cents in 2015 to 9.8 cents in 2016, down 6.0%.

Exhibit 30: System CASM by Group (Excluding Regional Affiliates), Q2 2015/2016

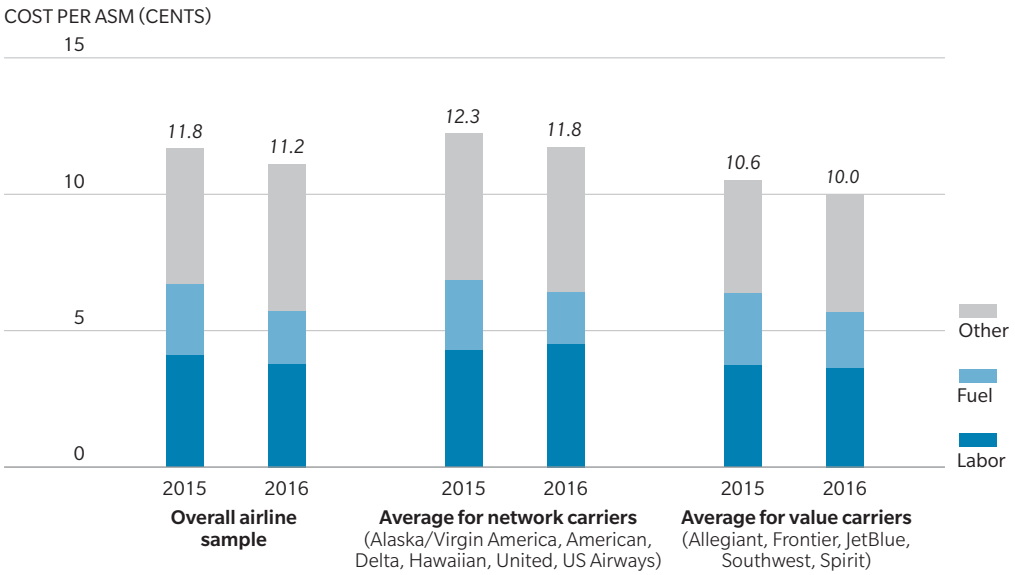


Source: PlaneStats.com

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

Network carrier domestic unit cost declined 4.1% from 12.3 cents to 11.8 cents during the second quarter 2016. Value carrier costs declined at a slightly slower rate (5.8%), falling from 10.6 cents during the second quarter 2015 to 10.0 cents in 2016.

Exhibit 31: Domestic CASM by Group (Excluding Regional Affiliates), Q2 2015/2016



Source: PlaneStats.com

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

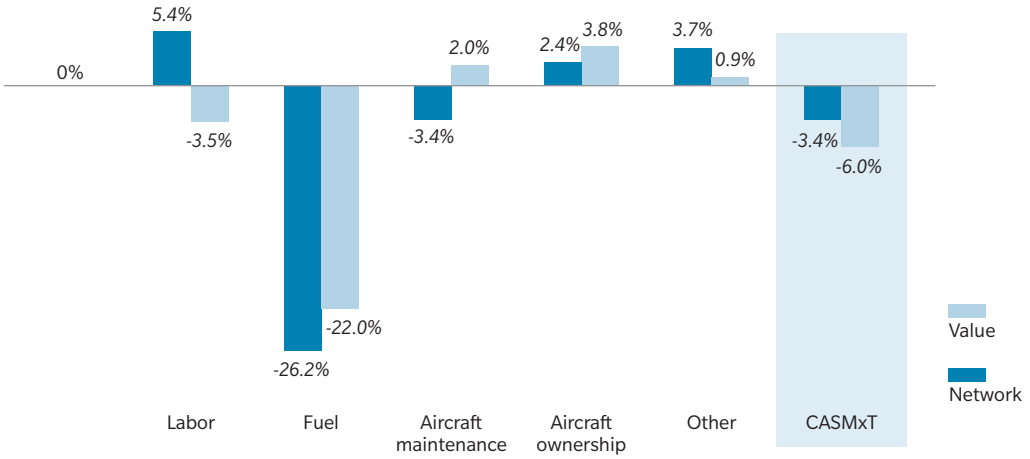
Falling fuel prices drove the continued decline in system cost, with network carrier unit fuel cost falling 26.2% and value carrier unit fuel cost down 22.0%. Following two years of decline, fuel costs now represent 17.5% and 21.0% of unit cost for network and value carriers, respectively. Fuel cost represents the second-largest cost category for US airlines, behind labor costs.

For the second year in a row, labor represents the largest cost category for US airlines. It accounts for 37.8% of network carrier systemwide unit cost and 36.2% of value carrier cost. Network carrier unit labor cost increased 5.4% year over year. During the same period, value carrier unit labor cost decreased 3.5%.

Network carriers reduced aircraft maintenance unit cost 3.4%, while aircraft ownership unit cost increased 2.4% as network carriers took deliveries of new aircraft. For network carriers, aircraft maintenance represents 10.0% of total unit cost, and aircraft ownership is 7.6%.

For value carriers, aircraft maintenance unit cost increased 2.0%, and aircraft ownership unit cost increased 3.8%. Aircraft maintenance unit cost now represents 10.4% of value carriers' total unit cost, and ownership is 8.3%.

Exhibit 32: Change in System Unit Costs, Q2 2015/2016

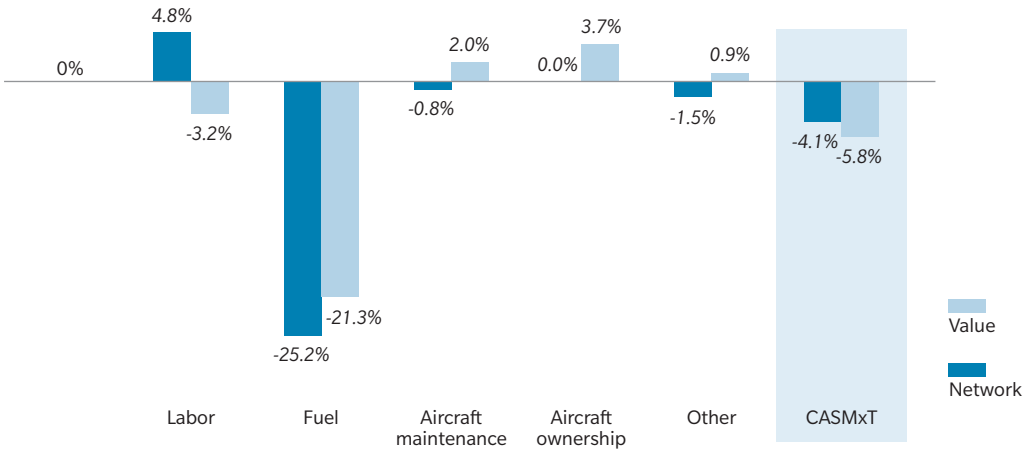


	Labor	Fuel	Aircraft maintenance	Aircraft ownership	Other
Percent of total costs	*37.8%/36.2%*	*17.5%/21.0%*	*10.0%/10.4%*	*7.6%/8.3%*	*27.1%/23.9%*

Source: PlaneStats.com

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

Exhibit 33: Change in Domestic Unit Costs, Q2 2015/2016



	Labor	Fuel	Aircraft maintenance	Aircraft ownership	Other
Percent of total costs	*38.4%/36.6%*	*16.3%/21.0%*	*10.3%/10.4%*	*7.6%/8.3%*	*27.4%/23.7%*

Source: PlaneStats.com

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

Reversing last year's trend of declining other unit costs (which include catering, advertising, and landing fees), network carriers reported an increase of 3.7% year over year for other unit costs, and value carriers reported a 0.9% increase in the category. All other costs represent 27.1% of network carrier total unit cost and 23.9% of value carrier total unit cost.

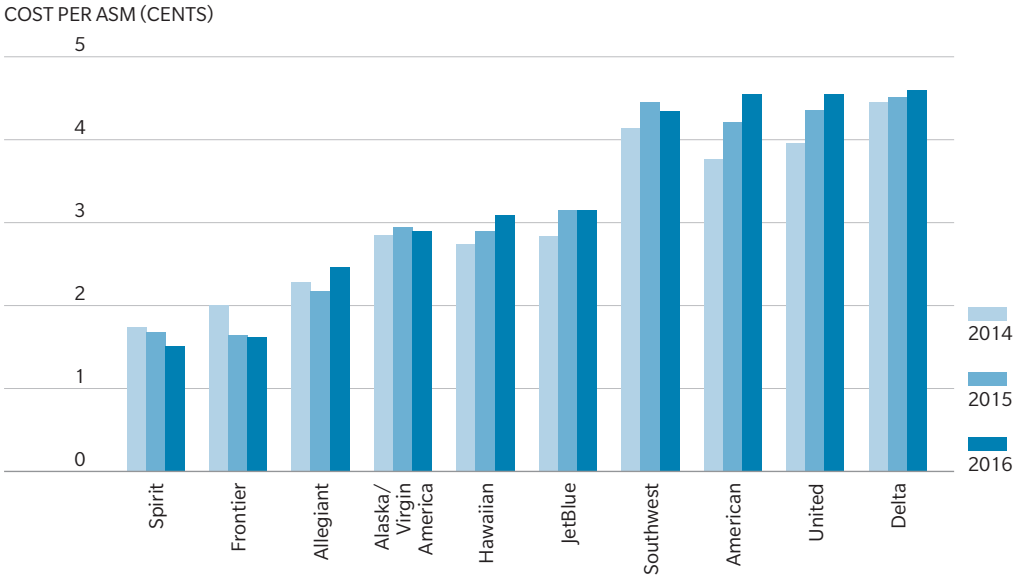
10. COST DRIVER: LABOR

As noted earlier, labor unit cost is currently the highest single cost category for US airlines. The highest cost category can change from year to year between fuel and labor. Fuel costs are more volatile – in 2015, fuel costs fluctuated nearly 40% year over year – while labor costs are controlled by negotiated contracts. Several US airlines are negotiating pilot and flight attendant contracts at peak profitability and low fuel prices. It is expected that new contracts will further increase labor costs.

Of the network carriers, American and United have seen a large increase in labor cost since 2014. Unit labor cost increased 20.7% for American in 2016 compared with 2014 and 14.9% for United over the same period. Both American and United reached new labor agreements with pilot and flight attendant unions during this period. Delta, which has experienced a 3.1 increase in unit labor cost since 2014, recently ratified a new contract with its pilots.

For value carriers, Spirit's unit labor cost has declined 13.2% since 2014 and 10.1% year over year because of increased ASMs from Spirit's rapidly growing operation (over 30%). Spirit is negotiating with its pilot group. Frontier's unit labor cost has declined 19.4% since 2014 and 1.2% year over year. Southwest, which recently completed new pilot and flight attendant contracts, experienced a 2.5% decline in unit labor costs year over year. Southwest unit labor cost now ranks fourth among US airlines compared with 2015, when it was the highest among US airlines.

Exhibit 34: US Carrier System Labor Unit Costs, Q2 2014/2015/2016



	Spirit	Frontier	Allegiant	Alaska/ Virgin America	Hawaiian	JetBlue	Southwest	American	United	Delta
2016/2015	*-10.1%*	*-1.2%*	*13.4%*	*-1.7%*	*6.6%*	*0.0%*	*-2.5%*	*8.1%*	*4.4%*	*1.8%*
2016/2014	*-13.2%*	*-19.4%*	*7.9%*	*1.8%*	*12.8%*	*10.9%*	*5.1%*	*20.7%*	*14.9%*	*3.1%*

Source: PlaneStats.com
Note: Mainline operations only

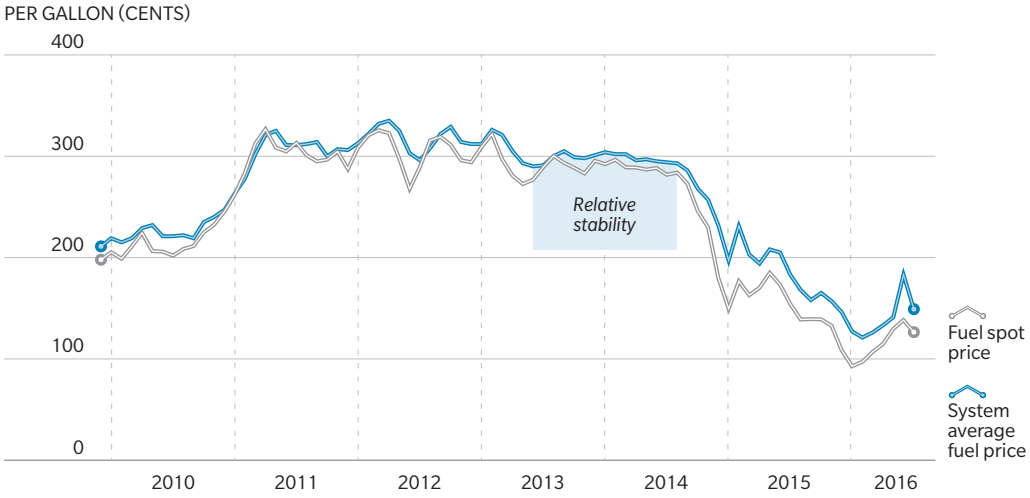
11. COST DRIVER: FUEL

The price of jet fuel continued to decline and remained low. According to the US Department of Transportation, US airlines paid $1.53 per gallon of jet fuel during the second quarter of 2016, 24.5% below what they paid 12 months prior.

Over the past 24 months, US airlines have benefited from lower jet fuel prices. Prior to September 2014, fuel cost remained virtually flat for a 15-month period. While still high based on recent historical standards, and higher than today, the airlines enjoyed relatively stable fuel costs. Still, airline executives certainly prefer current levels over a high, but stable price.

Since the period of relative stability in 2013 and 2014, fuel hedging programs have been less favorable to airlines. Spot fuel prices have averaged nearly 16% below what US carriers have reported paying. The system average fuel price has consistently exceeded spot prices since 2009.

Exhibit 35: System Average Fuel Price (US Carriers) and Fuel Spot Price, December 2009-June 2016



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

12. OTHER COST DRIVERS

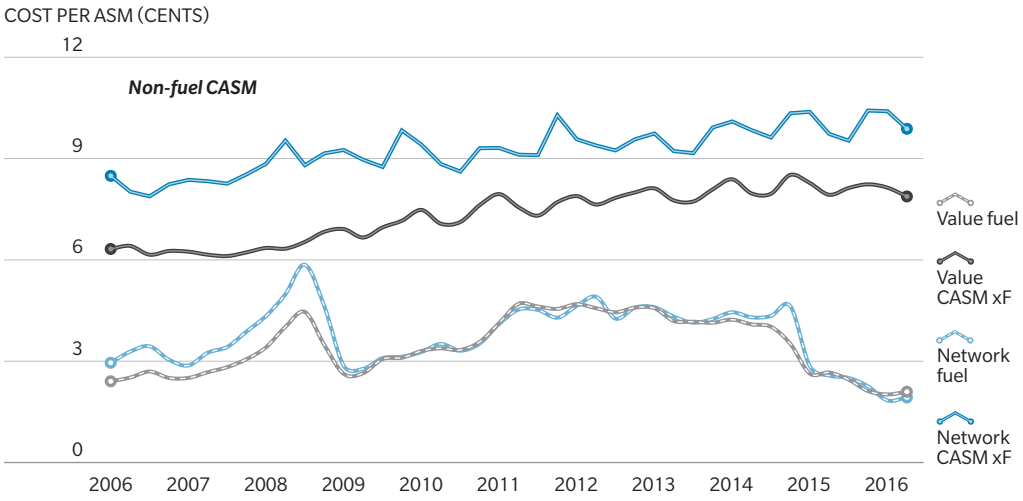
Both US network and value carriers have added newer and larger aircraft to their domestic networks. As a result, average seats per domestic departure have increased 1 percent for network carriers and over 2 percent for value carriers. Both network and value carriers minimized maintenance cost variability on a unit basis. Maintenance unit cost declined nearly 1 percent for network carriers, while value airlines saw their maintenance unit cost increase 2 percent.

At a system level, all other costs, which include food, insurance, commissions, advertising, non-aircraft rentals, landing fees and other minor categories, increased nearly 4 percent for network carriers in the second quarter 2016. Other costs increased less than 1 percent for value carriers.

13. UNIT COST TREND AND GAP

Non-fuel unit costs have increased but remained relatively stable for US airlines' domestic operations. From 2011 to 2016, non-fuel domestic costs increased 8% for network carriers (1.6% CAGR). Value carrier non-fuel costs increased 4% during the same period (0.8% CAGR).

Exhibit 36: Domestic CASM and Fuel CASM Growth, Q1 2006-Q2 2016



Source: PlaneStats.com

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

Since 2011, network carrier non-fuel costs have increased at a slightly higher rate. Fuel costs for network and value carriers have tracked together. The domestic unit cost gap has increased modestly from 1.7 cents to 1.8 cents. Despite the increase, the domestic cost differential remains significantly lower than before the global financial crisis.

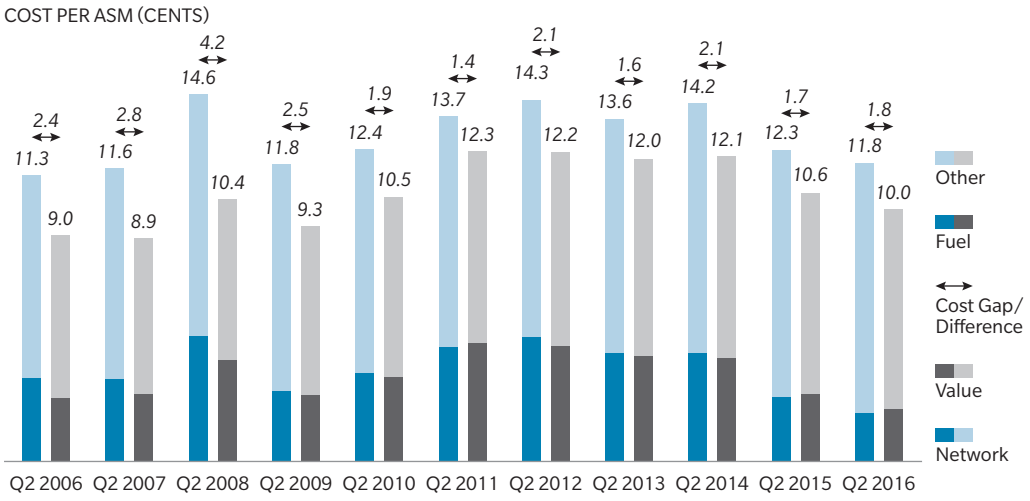
Looking at total cost (fuel and non-fuel), network carrier domestic unit cost of 14.6 cents during the second quarter 2008 was 40.3% higher than the value carrier group at 10.4 cents. During the second quarter 2016, network domestic costs had fallen to 11.8 cents, 18.4% higher than the value group.

Exhibit 37: Gap Between Network and Value Carriers' Domestic CASM, Q2 2006-Q2 2016

	% HIGHER
Q2 2006	26.7%
Q2 2007	31.2%
Q2 2008	40.3%
Q2 2009	26.3%
Q2 2010	18.0%
Q2 2011	11.3%
Q2 2012	17.0%
Q2 2013	13.4%
Q2 2014	17.2%
Q2 2015	16.2%
Q2 2016	18.4%

Source: PlaneStats.com

Exhibit 38: Comparison of Domestic CASM between Network and Value Carriers, Q2 2006-Q2 2016



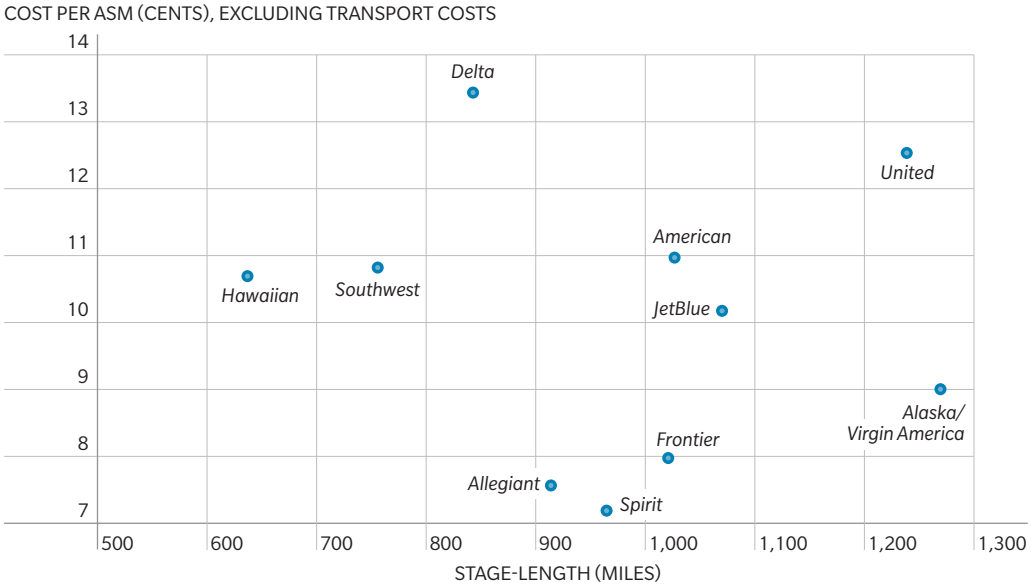
Source: PlaneStats.com

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

14. DOMESTIC AIRLINE COST PERFORMANCE

There is a significant amount of variation in domestic operations of US airlines. The three largest network airlines continued to report the highest domestic unit costs during the second quarter 2016.

Exhibit 39: Average Stage-length vs. CASM, Q2 2016

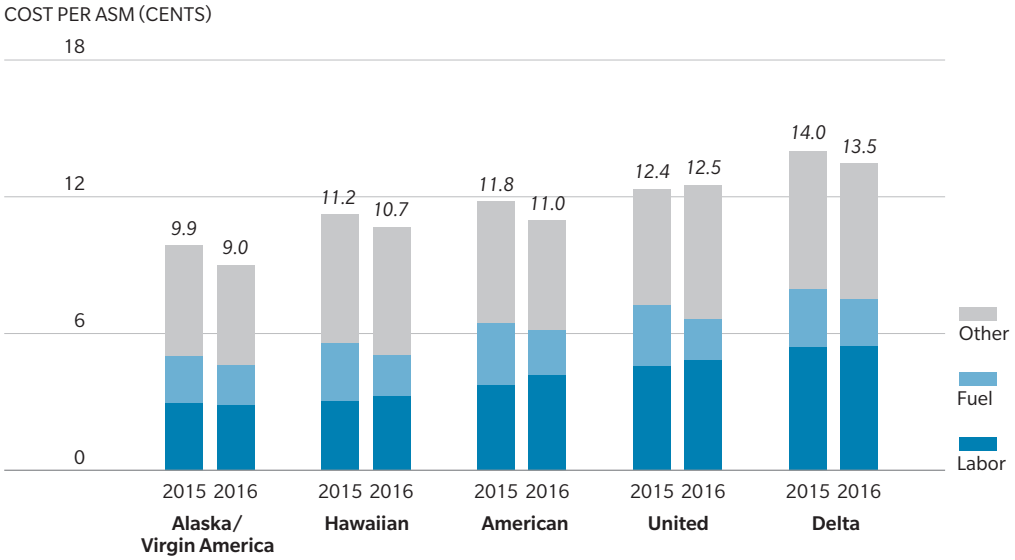


Source: PlaneStats.com
Note: Mainline operations only

The combined Alaska Airlines/Virgin America entity has the lowest domestic unit cost of the US network carriers (not stage-length adjusted). Unit costs fell 8.8% from 9.9 cents to 9.0 cents for Alaska after fuel cost fell 16% and other cost fell nearly 10% in one year. Alaska had the smallest unit cost reduction in fuel of all the network carriers, while United had the largest unit cost reduction in fuel (32%).

While Delta continues to have the highest unit cost for the group (and the highest unit revenue), its unit cost decreased 3.8% to 13.5 cents. American had the largest unit labor increase of 11%. United was the only network carrier that experienced an increase in unit cost despite the largest unit cost reduction in fuel. The increase in unit cost was driven by labor (5.2%) and other costs (19.9%).

Exhibit 40: Domestic CASM Breakdown by Airline – Network Carriers, Q2 2015/2016



Source: PlaneStats.com

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

Exhibit 41: Domestic CASM Details for Network Carriers, Q2 2015/2016

AIRLINE	YEAR	CASMxT	LABOR	FUEL	OTHER	CHANGE	%
Alaska/ Virgin America	2015	9.9	3.0	2.1	4.9	-1.4	-12.3%
	2016	9.0	2.9	1.7	4.4	-0.9	-8.8%
Hawaiian	2015	11.2	3.1	2.5	5.6	-1.4	-10.8%
	2016	10.7	3.3	1.8	5.6	-0.5	-4.7%
American	2015	11.8	3.8	2.7	5.3	-2.0	-14.3%
	2016	11.0	4.2	2.0	4.8	-0.8	-7.0%
United	2015	12.4	4.6	2.7	5.1	-1.2	-9.1%
	2016	12.5	4.8	1.8	5.9	0.2	1.5%
Delta	2015	14.0	5.4	2.5	6.1	-2.6	-15.6%
	2016	13.5	5.5	2.1	5.9	-0.5	-3.8%

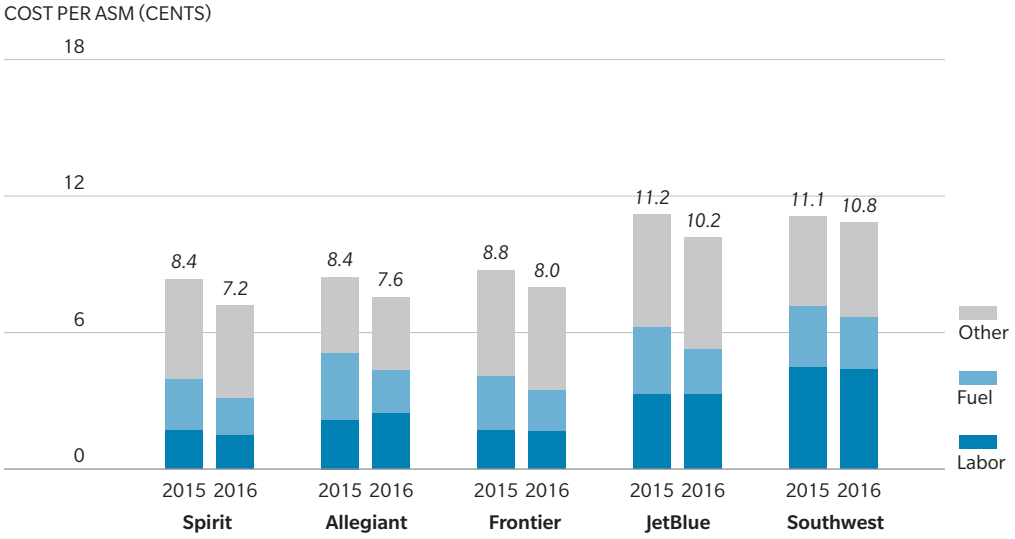
Source: PlaneStats.com

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

Spirit Airlines remains the lowest cost domestic operator during the second quarter 2016 with a unit cost of 7.2 cents. The carrier's unit cost was down 14.1% year over year.

Southwest replaced JetBlue having the highest unit cost (not adjusted for stage length) among value airlines during the second quarter at 10.8 cents. Southwest reported fuel cost reductions of 14% year over year, while all other value carriers reported fuel cost reductions in excess of 24% year over year. Allegiant reported the largest fuel cost reduction of 35%.

Exhibit 42: Domestic CASM Breakdown by Airline – Value Carriers, Q2 2015/2016



Source: PlaneStats.com

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

Exhibit 43: Domestic CASM Details for Value Carriers, Q2 2015/2016

AIRLINE	YEAR	CASMxT	LABOR	FUEL	OTHER	CHANGE	%
Spirit	2015	8.4	1.7	2.3	4.4	-1.6	-15.8%
	2016	7.2	1.5	1.6	4.1	-1.2	-14.1%
Allegiant	2015	8.4	2.2	3.0	3.3	-1.8	-17.2%
	2016	7.6	2.5	1.9	3.2	-0.9	-10.3%
Frontier	2015	8.8	1.7	2.4	4.7	-2.6	-22.7%
	2016	8.0	1.7	1.8	4.5	-0.8	-8.9%
JetBlue	2015	11.2	3.3	3.0	5.0	-1.1	-9.0%
	2016	10.2	3.3	2.0	4.9	-1.0	-9.2%
Southwest	2015	11.1	4.5	2.7	3.9	-1.4	-10.9%
	2016	10.8	4.4	2.3	4.1	-0.3	-2.5%

Source: PlaneStats.com

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

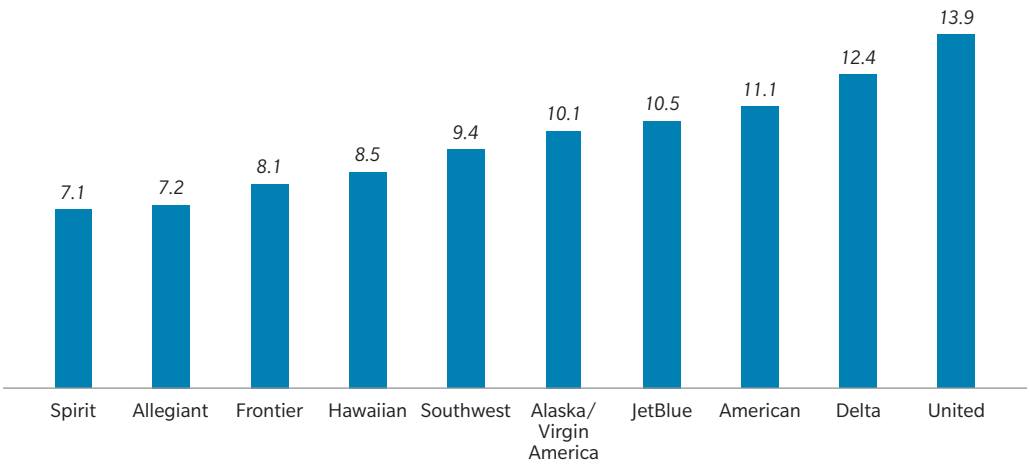
On a stage-length adjusted basis calculated in the report as (average stage length/ 1,000 miles)$^{0.5}$, Spirit's 7.1 cents CASM makes the airline the lowest cost producer in the US. Allegiant, which was the lowest cost producer in the US the year prior, ranks a close second at 7.2 cents, followed by Frontier (8.1 cents) and Hawaiian (8.5 cents).

Southwest's stage-length adjusted CASM (9.4 cents) is 1.1 cents less than JetBlue's CASM (10.5 cents).

United remains the highest cost US domestic airline. The carrier's stage-length adjusted CASM of 13.9 cents is 12.7% higher than the next highest airline, Delta at 12.4 cents.

Exhibit 44: Domestic CASM Details for Individual Carriers, Q2 2015/2016

SLA COST PER ASM (CENTS)



Source: PlaneStats.com

Note: Mainline operations only, excludes transport-related revenue and cost (regionals). Stage-length adjustment = CASM × (airline stage length/1000)$^{0.5}$. Stage-length adjusting attempts to normalize airline unit costs based on the stage length flown.

PROFIT

15. OPERATING PROFIT AND MARGIN – SUSTAINED PROFITABILITY?

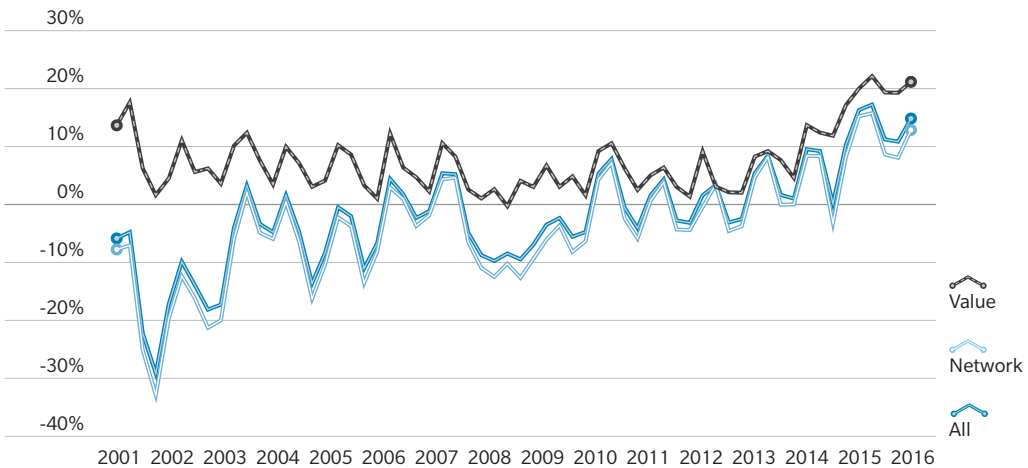
The second quarter 2016 marks the thirteenth consecutive quarter of profitability for the combined network and value group. This limited but sustained profitability is in large part the result of:

- Strong passenger yield growth from 2009 to 2014.
- Increased revenue generation from ancillary revenue.
- Improved capacity discipline and off-season load factors.
- Rapidly decreasing fuel cost from 2014 to 2016.
- Strong overall focus on cost discipline.

Several factors threaten the sustainability of strong profit margins. Declining passenger yields, particularly in the Latin American and Pacific regions, have eroded positive gains prior to 2014. Fuel spot prices have begun to rise since reaching recent lows in early 2016. Additionally, several large labor contract renewals will cause costs to increase.

Long-term profitability will depend on the industry's ability to return to positive unit revenue growth and maintain focus on controllable cost discipline.

Exhibit 45: System Long-term Operating Margin Trend



Source: PlaneStats.com

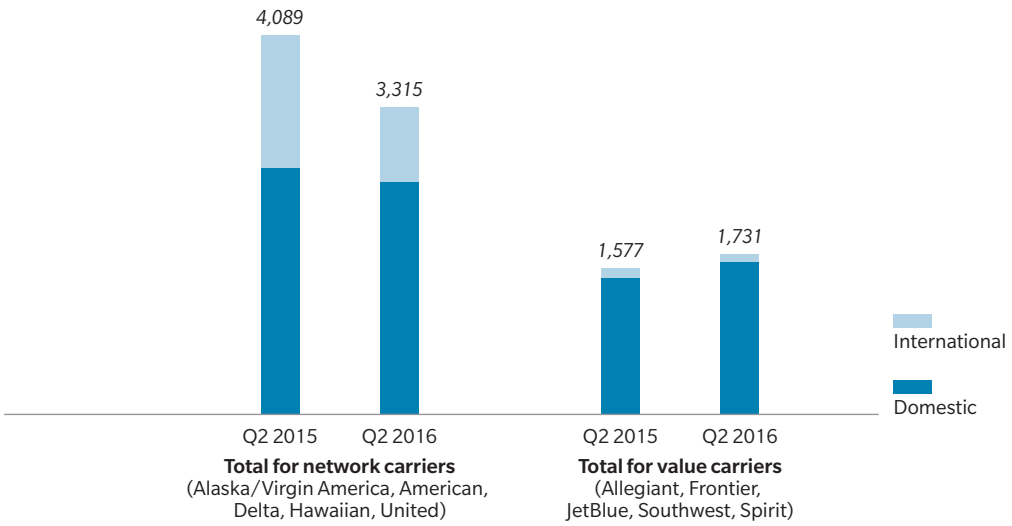
Note: Mainline operations only, excludes transport-related revenue and cost (which is mostly regional operations)

Network carrier operating profit fell 18.9% to $3.3 billion during the second quarter 2016. Systemwide operating margin declined 2.4 points to 12.8%. Domestic operating profit remained relatively strong for the network group, falling only 0.6 point to 15.4% ($2.5 billion).

International results were substantially weaker. International operating profit fell $629 million for the quarter, down 43.9%. International operating margin for the network carriers was 8.5% for the quarter, down 5.5 points from 2015.

Exhibit 46: Operating Profit and Operating Margins

MILLIONS (DOLLARS)



Operating margins	2015	2016	2015	2016
System	15.2%	12.8%	20.0%	21.2%
International	13.9%	8.5%	24.3%	18.5%
Domestic	16.0%	15.4%	19.7%	21.3%

Source: PlaneStats.com

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

Value airlines improved operating results in the second quarter 2016. Operating profit grew 9.8% to $1.7 billion. The improvement was driven by domestic region operations where operating margin grew 1.6 points to 21.3%. International operating margin fell 5.8 points yet remained strong at 18.5%, but international is still a small overall part of the operation.

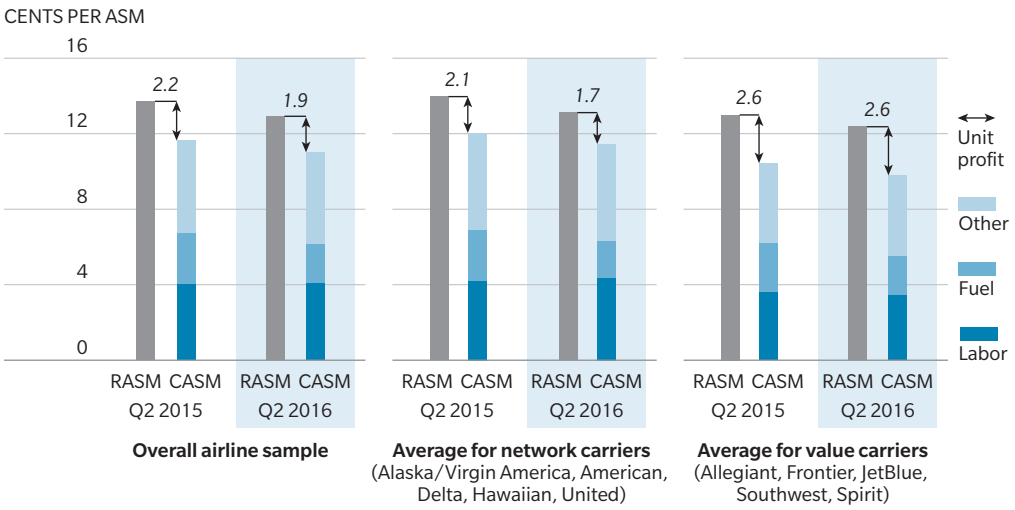
16. UNIT RESULTS

Unit profitability (profit in cents per seat mile) fell 0.3 cent to 1.9 cents during the second quarter 2016. Systemwide, unit revenue fell 0.8 cent per ASM for US airlines. Unit cost fell at a slower rate, down 0.5 cent per ASM. Fuel cost savings of 0.7 cent were partially offset by increases in labor cost (up 0.1 cent) and other cost.

Systemwide, network carrier unit profitability declined 0.4 cent per ASM. Unit revenue fell 0.9 cent per ASM, or 6.1%, for the quarter. Unit cost was down 0.4 cent per ASM, again with fuel cost savings being partially offset by labor and other cost increases.

Value carriers' systemwide unit profitability remained flat at 2.6 cents per ASM. As unit profitability was unchanged, the group's $154 million increase in operating profit was the result of increased flying. Both unit revenue and expense declined 0.6 cent during the second quarter.

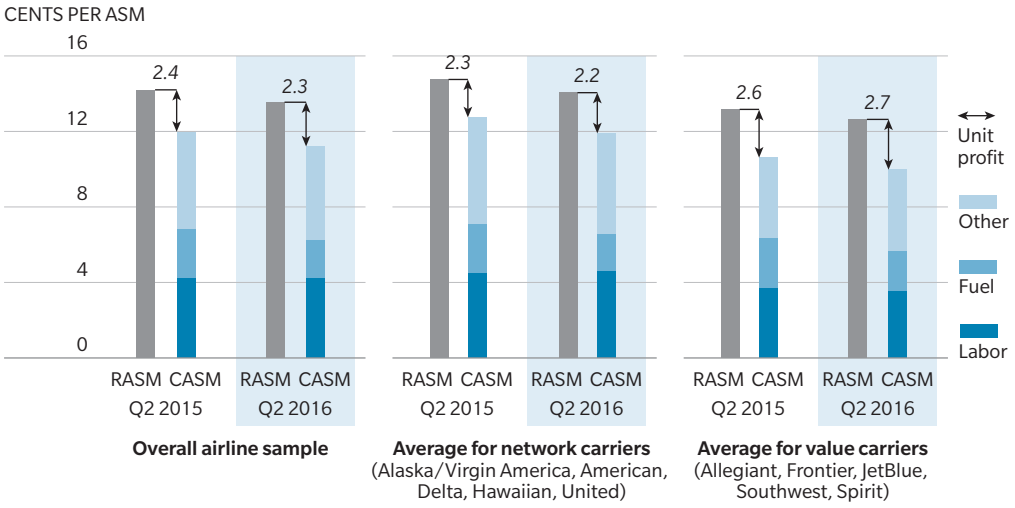
Exhibit 47: Comparison of System RASM and CASM, Q2 2015/Q2 2016



Source: PlaneStats.com

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

Exhibit 48: Comparison of Domestic RASM and CASM, Q2 2015/Q2 2016



Source: PlaneStats.com

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

Domestic unit profitability was down 0.1 cent per ASM for the combined group, with RASM falling only slightly more than CASM. Network carriers' domestic profit fell 0.1 cent per ASM, and value airlines increased domestic profit by 0.1 cent per ASM.

Southwest Airlines posted the highest operating margin for the second quarter 2016 at 23.9%. Southwest produced a profit of 3.4 cents per seat mile flown. Alaska/Virgin America reported the highest operating margin (23.5%) among the network carrier group and had an operating profit of 2.8 cents per seat mile.

United reported the smallest operating margin at 1.9% or 0.2 cent per seat mile. It is important to note that United reported an 11.3% operating profit on its second quarter 2016 SEC filing. The 11.3% operating margin aligns with United's operating margin including transports (Form 41).

Frontier had the lowest operating margin in the value carrier group. United and Frontier were the only two carriers reporting an operating margin under 10%.

Exhibit 49: System RASM/CASM by Airline, Q2 2016

	RASM (CENTS)	CASM (CENTS)	MARGIN (CENTS)	MARGIN %
Southwest	14.0	10.7	3.4	23.9%
Alaska/Virgin America	11.7	9.0	2.8	23.5%
Spirit	9.0	7.1	1.9	20.8%
Delta	14.5	11.5	3.0	20.6%
Hawaiian	12.5	10.2	2.2	18.0%
Allegiant	9.0	7.6	1.5	16.4%
JetBlue	11.7	9.8	1.9	16.1%
American	12.8	11.3	1.5	11.8%
Frontier	8.3	7.7	0.5	6.3%
United	12.4	12.2	0.2	1.9%

Source: PlaneStats.com

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

Hawaiian, Southwest, and Alaska/Virgin America were the only three airlines to improve operating margin year over year. Hawaiian's margin increased 0.5 cent per ASM (up 32.5%). Frontier and United both had large declines in operating margins.

Exhibit 50: Change in Unit Profit, Q2 2016/2015

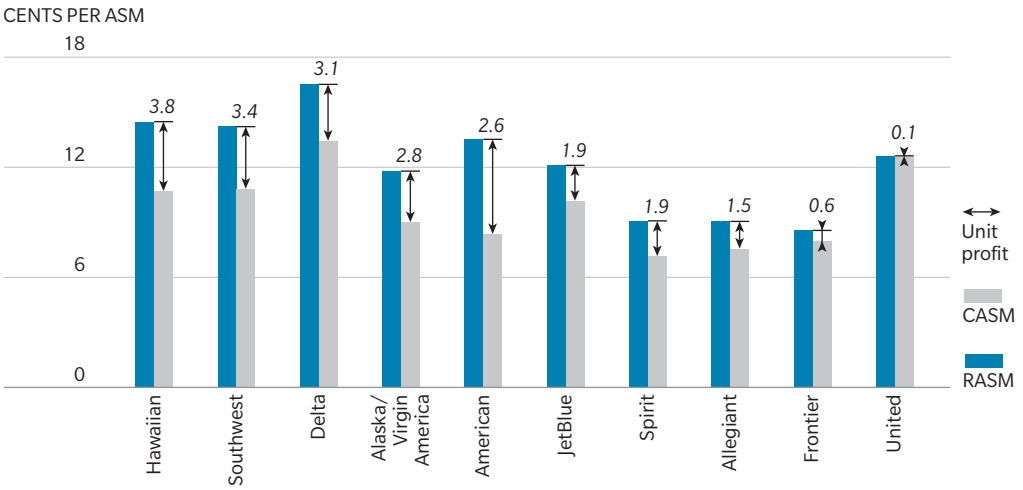
	Q2 2015	Q2 2016	DIFFERENCE IN CENTS
Hawaiian	1.7	2.2	0.5
Southwest	3.0	3.4	0.4
Alaska/Virgin America	2.7	2.8	0.0
Allegiant	1.6	1.5	-0.1
JetBlue	2.0	1.9	-0.1
Delta	3.2	3.0	-0.2
American	2.0	1.5	-0.5
Spirit	2.3	1.9	-0.5
United	1.1	0.2	-0.9
Frontier	2.1	0.5	-1.6

Source: PlaneStats.com

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

Hawaiian, Southwest, and Delta all reported domestic operating margins above 3.0 cents per ASM. United and Frontier reported the lowest operating margins on domestic US segments. United's domestic operating margin of 0.1 cent per ASM was down 0.8 cent from the previous year.

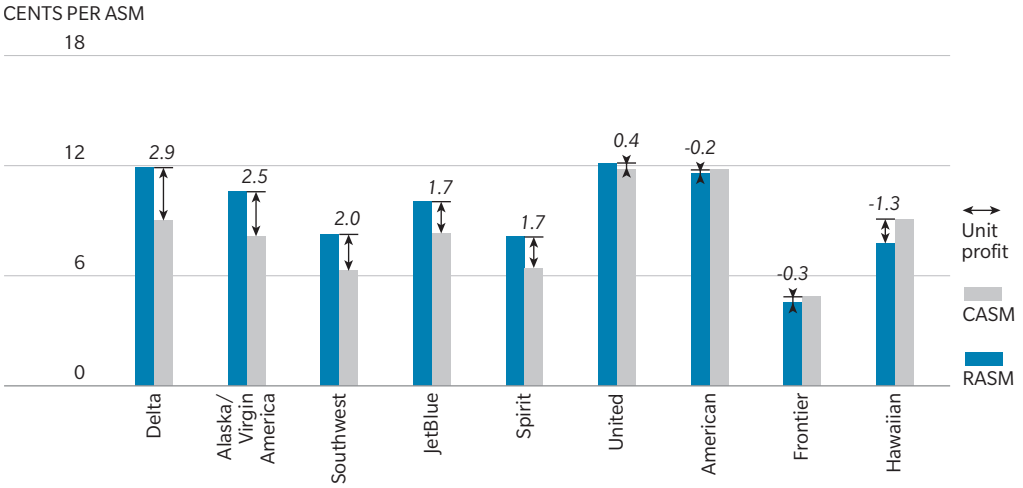
Exhibit 51: Domestic RASM/CASM by Airline, Q2 2016



Source: PlaneStats.com

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

Exhibit 52: International RASM/CASM by Airline, Q2 2016



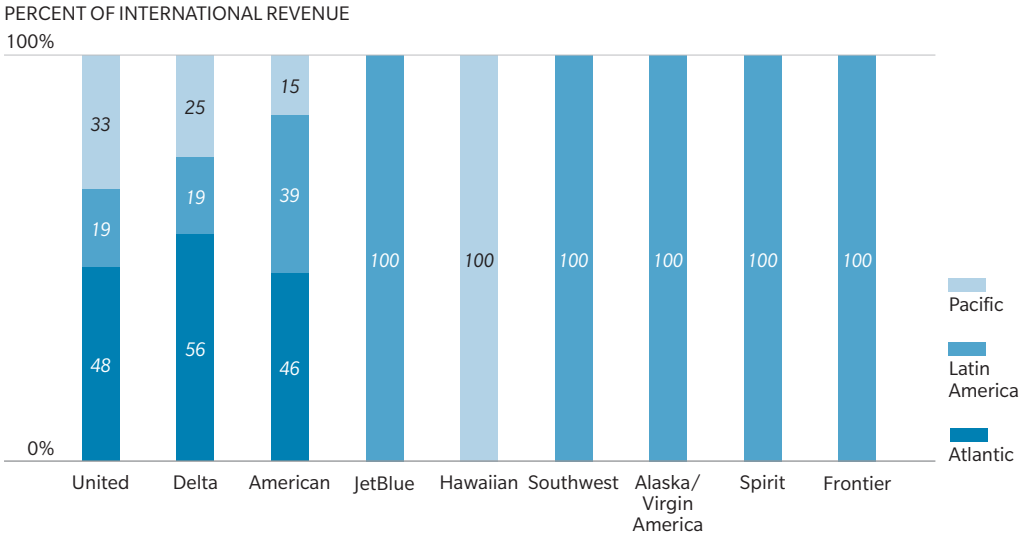
Source: PlaneStats.com

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

International operating margins showed the greatest variance across the carriers in our study. Delta reported the largest international operating margin, including strong profitability results in the weaker Latin American and Pacific regions.

Hawaiian's Pacific region operation continues to struggle with a loss of 1.3 cents per ASM during the second quarter 2016 after losing 0.5 cent per ASM the previous year. American reported a loss of 2.9 cents per ASM in the Pacific region.

Exhibit 53: Revenue Exposure by International Region



Source: PlaneStats.com

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

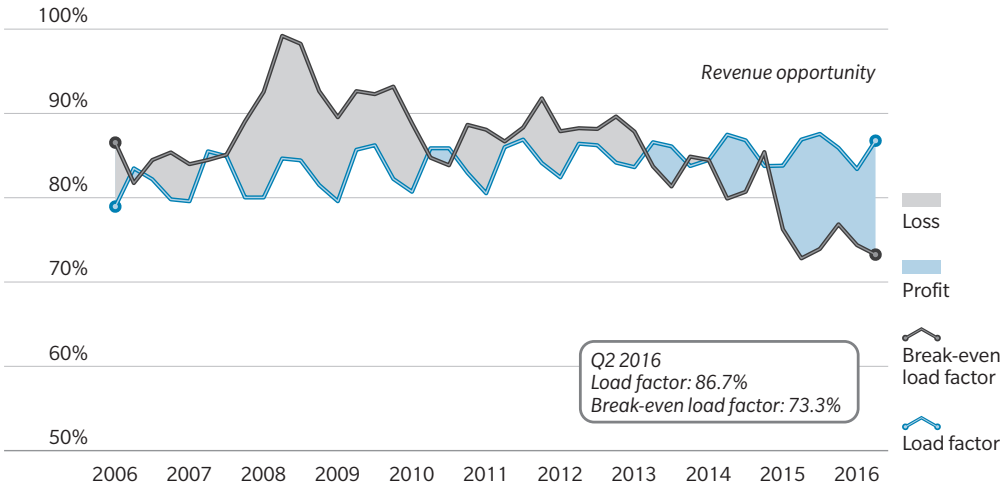
17. PROFITABILITY TRENDS

US network carriers have been consistently profitable over the past six quarters in domestic markets. Network carriers' actual load factor has exceeded the break-even load factor (the percent of seats that need to be filled to cover expenses) with a current differential of more than 13 points.

Network carriers' domestic break-even load factor was 73.3% during the second quarter 2016, up slightly from the second quarter 2015 (72.8%). As noted in the revenue section, actual load factors have flattened recently after trending up over the past ten years.

Given the recent flattening of actual load factor, continuation of the network carriers' domestic success will depend on their ability to maintain low break-even load factors with a combination of controlled costs and positive revenue trends (passenger yields).

Exhibit 54: Network Carrier Domestic Load Factor and Break-even Load Factor, Q1 2006-Q2 2016

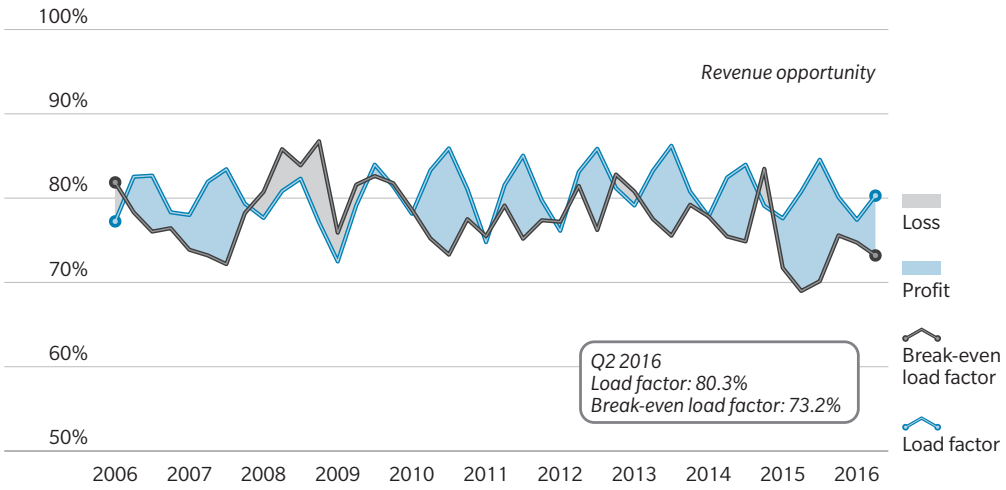


Source: PlaneStats.com

Note: Break-even load factor calculated without transport (which is mostly regional operations); ancillary revenue is included in calculation of BELF.

For international segments, network carrier break-even load factor was 73.2% during the second quarter 2016, 7.1 points below actual load factor. Break-even load factor increased 4.2 points over the second quarter 2015.

Exhibit 55: Network Carrier International Load Factor and Break-even Load Factor, Q1 2006-Q2 2016



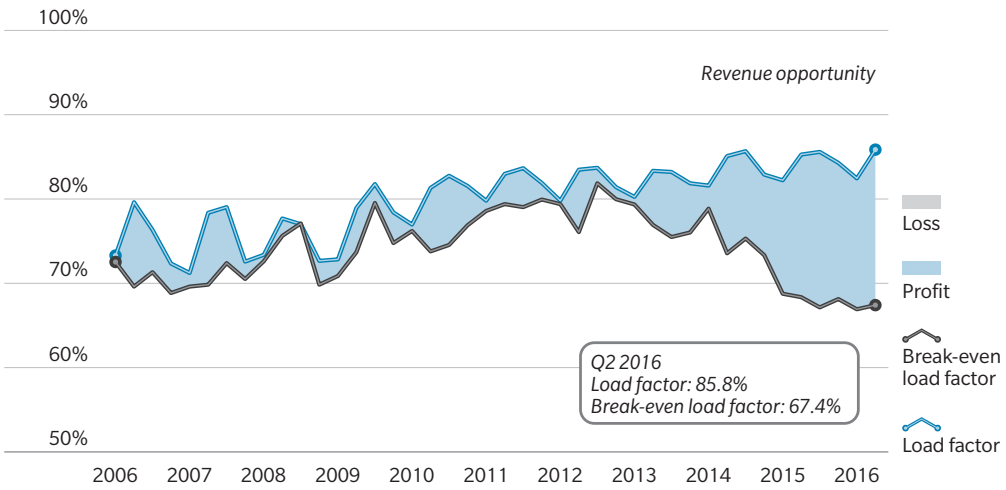
Source: PlaneStats.com

Note: Break-even load factor calculated without transport (which is mostly regional operations); ancillary revenue is included in calculation of BELF.

With the exception of two quarters, value airlines' domestic operations have been profitable on an operating basis since 2006. Second quarter 2016 results produced the highest differential between actual and break-even load factor (18.4 points) in the past ten years.

Unlike their network counterparts, value airlines appear to have a much greater revenue opportunity with increased average actual load factors.

Exhibit 56: Value Carrier Domestic Load Factor and Break-even Load Factor, Q1 2006-Q2 2016

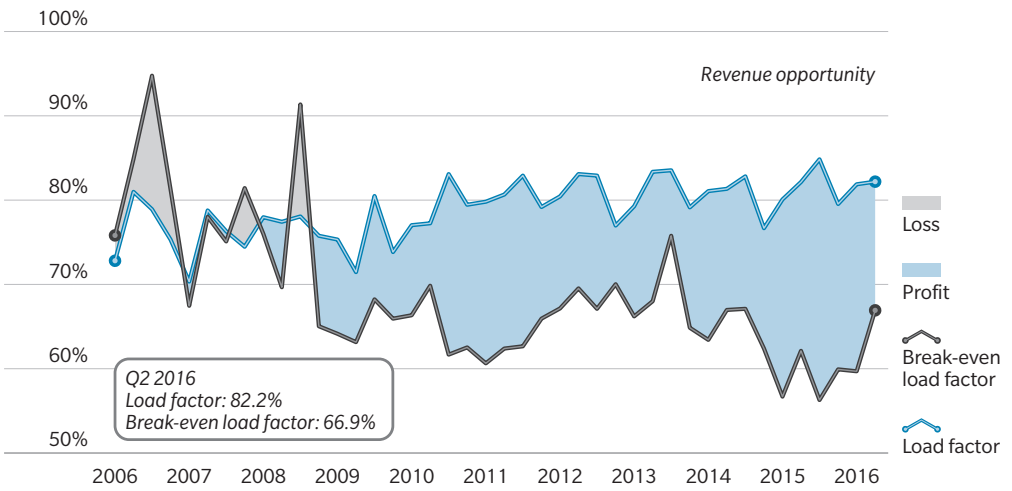


Source: PlaneStats.com

Note: Break-even load factor calculated without transport (which is mostly regional operations); ancillary revenue is included in calculation of BELF.

US value carriers continue to operate relatively small international operations that continue to grow. Analysis of the differential between actual and break-even load factors reveals why value carriers continue to aggressively expand international operations. The seemingly low cost of entry for the group has provided an extremely profitable growth segment.

Exhibit 57: Value Carrier International Load Factor and Break-even Load Factor, Q1 2006-Q2 2016



Source: PlaneStats.com

Note: Break-even load factor calculated without transport (which is mostly regional operations); ancillary revenue is included in calculation of BELF.

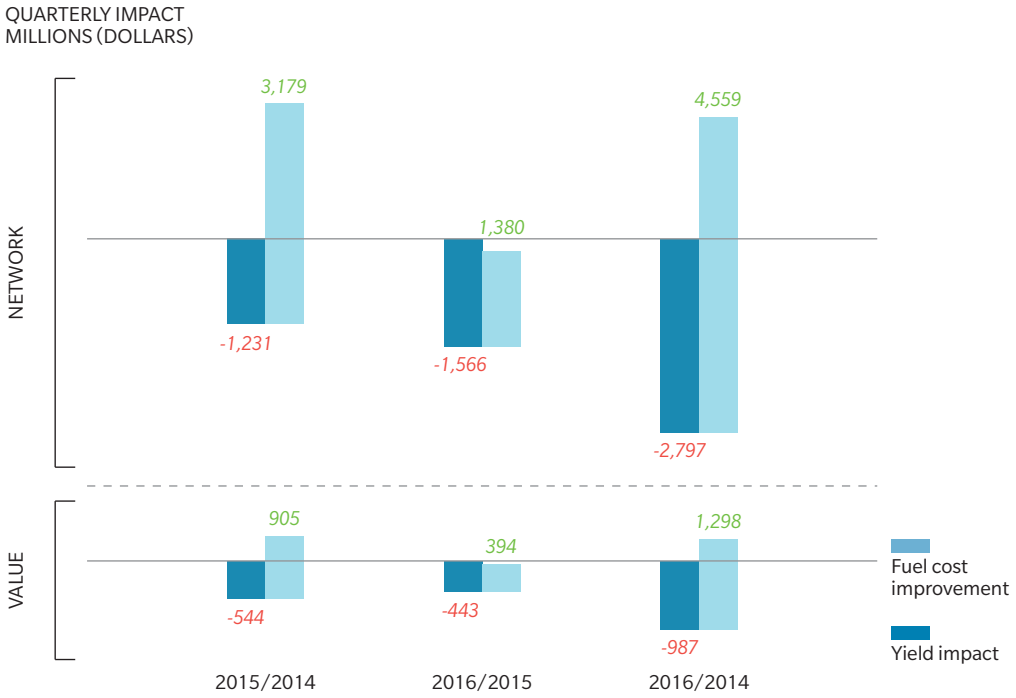
18. TRAFFIC CONSTANT ANALYSIS

The two largest factors impacting profitability over the past 24 months has been fuel cost and passenger yield. Although the passenger yield impact is quantified in the revenue section, it is more telling to examine the two factors side by side. To get a meaningful analysis, second quarter 2016 revenue passenger miles and fuel gallons (traffic constant) are used to measure the impact of the changing costs and passenger yields.

The reduction in passenger yield between the second quarter 2015 and second quarter 2014 represented approximately $1.2 billion in quarterly revenue for the network carriers. Further reductions in passenger yield between 2016 and 2015 represented about $1.6 billion for a cumulative two-year reduction of about $2.8 billion in quarterly revenue.

This estimated reduction in quarterly revenue for network carriers was more than offset by fuel cost savings amounting to $4.6 billion in quarterly revenue.

Exhibit 58: Traffic Constant Fuel Cost and Yield Impact



Methodology: Yield impact = SLA passenger yield × Q2 2016 RPMs
Fuel cost improvement = cost per gallon × Q2 2016 gallons

Value airlines' quarterly revenue has been reduced by about $1.0 billion as a result of the two-year decline in passenger yield. Fuel cost reductions over the past two years has resulted in quarterly savings of approximately $1.3 billion.

The relationship between these two factors has defined the profitability of US network and value airlines. Other factors (increased capacity, increasing labor cost) have had an impact on profitability but have been dwarfed by the dramatic changes in yields and fuel costs.

Over the past 10 years, the US airline industry has improved several underlying fundamentals that, combined with falling fuel cost, has produced a healthy and profitable industry. Falling passenger yields could potentially undermine those fundamentals and destabilize the current profitable environment enjoyed by US airlines.

CAPACITY

19. WORLD CAPACITY

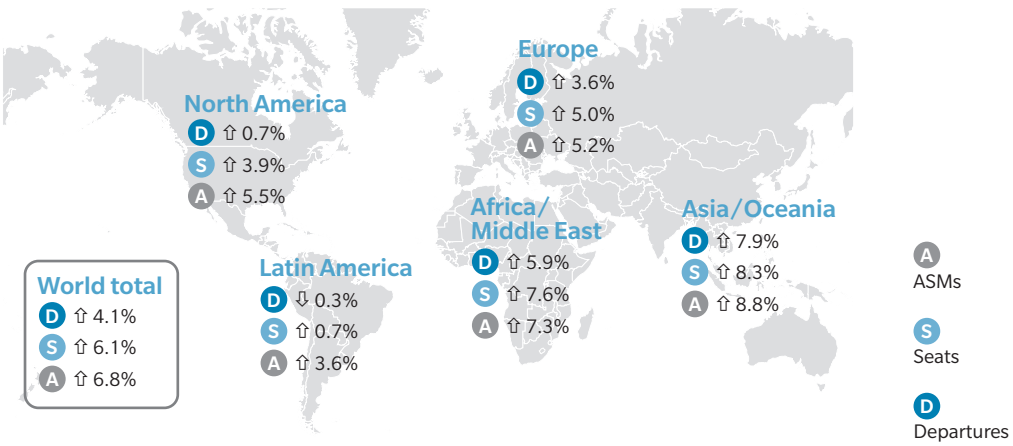
Capacity analysis can indicate the strength of the airlines within a region. However, healthy growth rates vary greatly by region, driven by differences in the maturity of the air travel market. The following sections analyze capacity growth by world region. Each region is analyzed for overall growth as well as capacity to/from the US to assess the impact of capacity growth on passenger yield (with the understanding that many other factors could impact passenger yield).

In addition, this section contains aircraft fleet forecasts by region from Oliver Wyman's *Global Fleet & MRO Market Forecast*. The fleet forecasts are an indicator of carrier plans to continue regional growth.

Strong worldwide capacity growth has continued during 2016. For the 12 months ended October 2016, ASMs increased 6.8% from the year ended October 2015. Departures grew 4.1% worldwide, 1% faster than the previous year. Seats increased 6.1% during the same period.

Aircraft seating capacity grew again in 2016, with aircraft size increasing to an average of 140 seats per departure, up 2.2% from 137 in 2015. Average segment length increased 1.1% to 824 miles. North American departures grew only 0.9%, but because of the increased aircraft size and stage length, carriers were able to lift overall capacity (ASMs) by 5.6%.

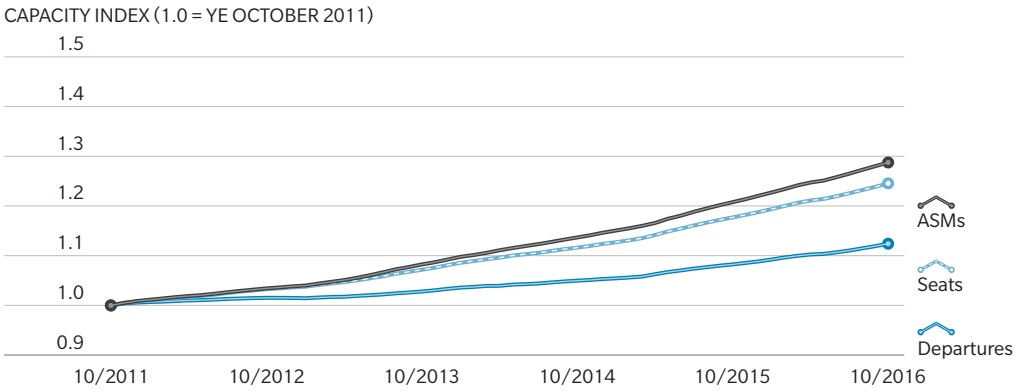
Exhibit 59: World Capacity Change, Year-end October 2015/2016



Source: PlaneStats.com

Since October 2011, worldwide departures have risen 12.4%, while increased seating capacity has pushed up worldwide seats at a much greater rate, up 24.5% over 2011. Additionally, an increasing stage length over the period boosts ASMs by 28.7% (5.2% CAGR).

Exhibit 60: World Capacity Index



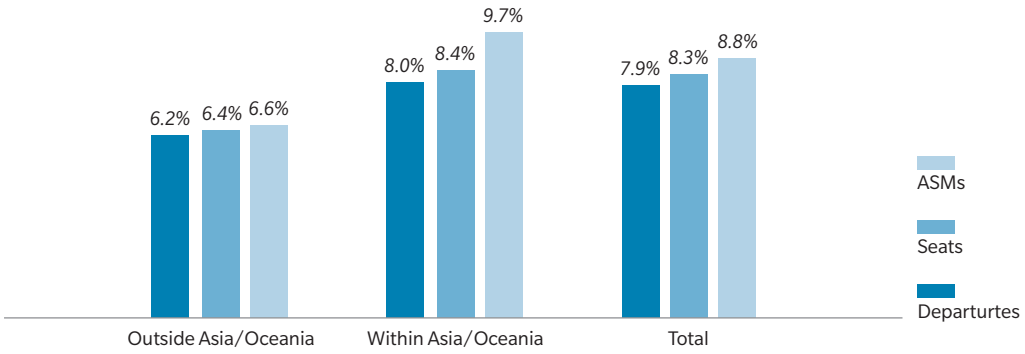
Source: PlaneStats.com

20. CAPACITY – ASIA/OCEANIA

Asia/Oceania continues to grow faster than any other region of the world. The region accounts for slightly more than one-third of worldwide ASMs, a fact that makes the growth rate even more impressive. Asia/Oceania capacity grew 8.8% year over year.

Capacity within the Asia/Oceania region grew 9.7% year over year, and departures grew at a slightly slower rate of 8.0%. Airlines are deploying larger aircraft within the region.

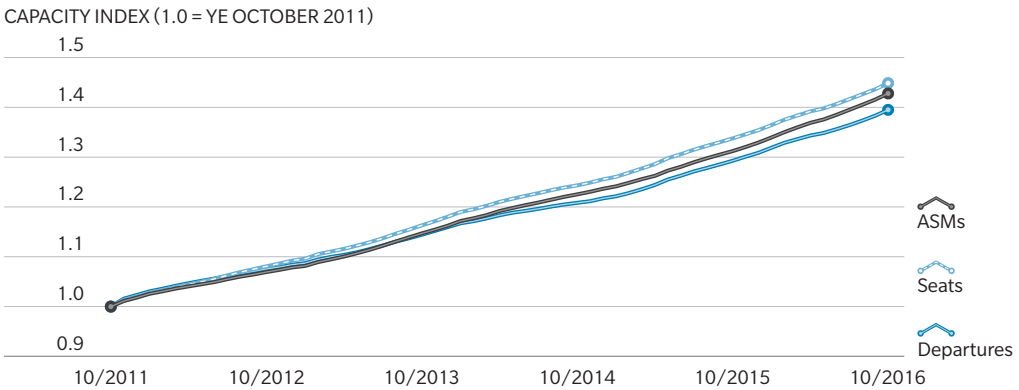
Exhibit 61: Asia/Oceania Capacity Changes, Year-end October 2015/2016



Source: PlaneStats.com

Asia/Oceania capacity has grown 42.8% since 2011 (7.4% CAGR). Departures and seats have grown at a slightly slower rate, indicating larger aircraft flying longer distances.

Exhibit 62: Asia/Oceania Capacity Index

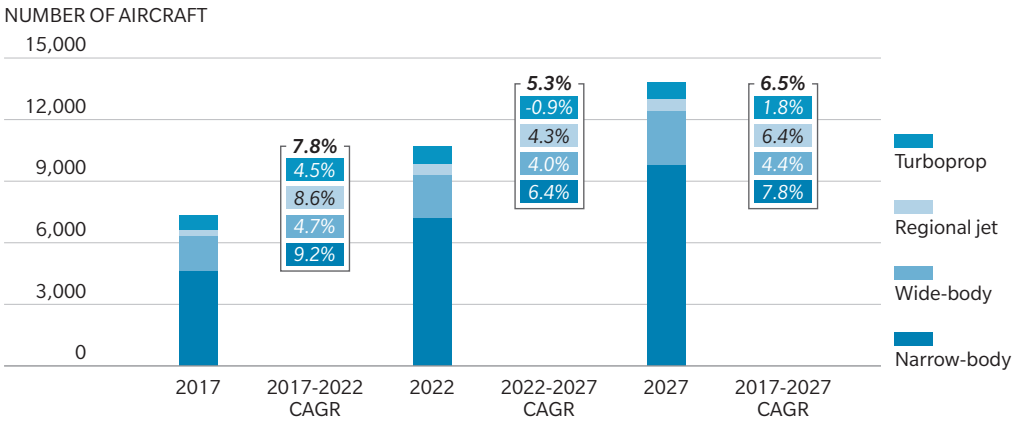


Source: PlaneStats.com

Oliver Wyman's Global Fleet & MRO Forecast predicts the regional growth will continue at a similar pace. The number of aircraft in the region is expected to grow 7.8% per year from 2017 to 2022. Fleet growth in the region slows somewhat between 2022 and 2027 to 5.3% per year.

Narrow-body aircraft are predicted to grow at the greatest rate, indicating travel within the region will increase at a faster rate than long-haul international (widebody). Regional jets are currently growing at the fastest rate, again confirming a concentration of growth within the region.

Exhibit 63: Aircraft Fleet Forecast 2017 to 2027 – Asia/Oceania



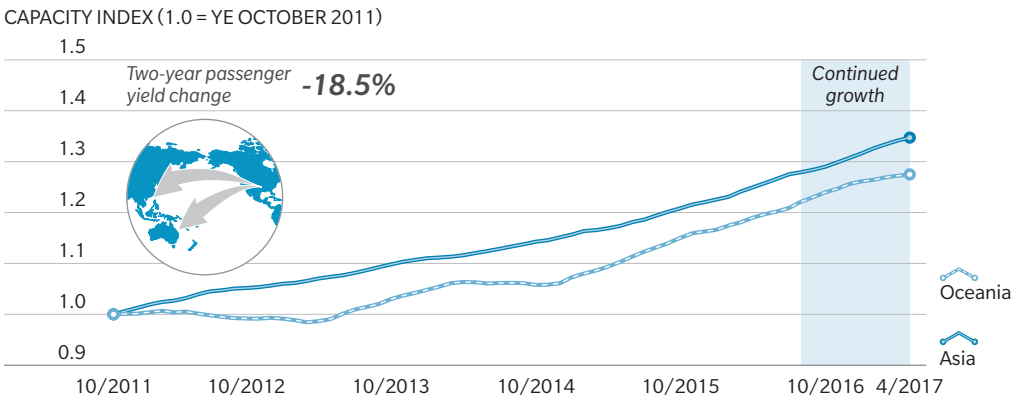
Source: Oliver Wyman Global Fleet & MRO Market Forecasts

US-ASIA/OCEANIA CAPACITY IMPACT

Overcapacity has the potential to lower yields. Analysis of the US to Asia/Pacific market indicates that rapidly increasing capacity has put downward pressure on passenger yield. Total seats between the US and Asia are up 40.8% since 2011, and seats are up 31.5% to Oceania.

Passenger yield in the Pacific region is down 18.5% (all US carriers, not limited to carriers in study). Based on current schedule information, the growth trend to the Pacific is expected to continue, potentially causing further passenger yield deterioration.

Exhibit 64: US to Asia/Oceania Seat Index



Source: PlaneStats.com

Note: Scheduled seats for all scheduled airlines between the US and Asia/Oceania. Yield change based on US carriers' US DOT Form 41 data.

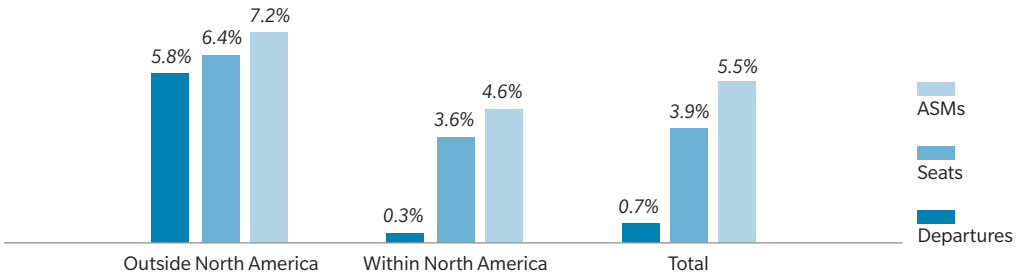
21. CAPACITY – NORTH AMERICA

North America capacity (ASMs) grew 5.5% from 2015 to 2016. The region had the largest differential between ASM growth and departure growth, indicating a growing aircraft size and an increasing stage length. Departures were up only 0.9% for the year ended October 2016.

Domestic (within North America) capacity grew slower than international traffic. Domestic departures grew only 0.3%, while seats and ASMs grew 4.6%.

ASMs to regions outside North America grew 7.2%, showing there is a big differential between departure growth to regions outside North America and within the region.

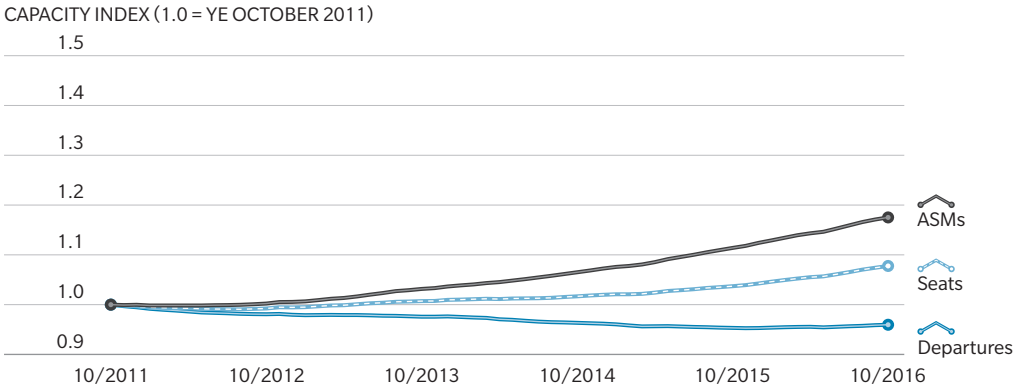
Exhibit 65: North America Capacity Changes, Year-end October 2015/2016



Source: PlaneStats.com

While departures grew year over year in 2016, total departures remain 0.8% below 2011. With larger aircraft and longer stage lengths, ASMs are up 17% over 2011. Since 2011, North America capacity has grown at a rate of 3.3% per year.

Exhibit 66: North America Capacity Index



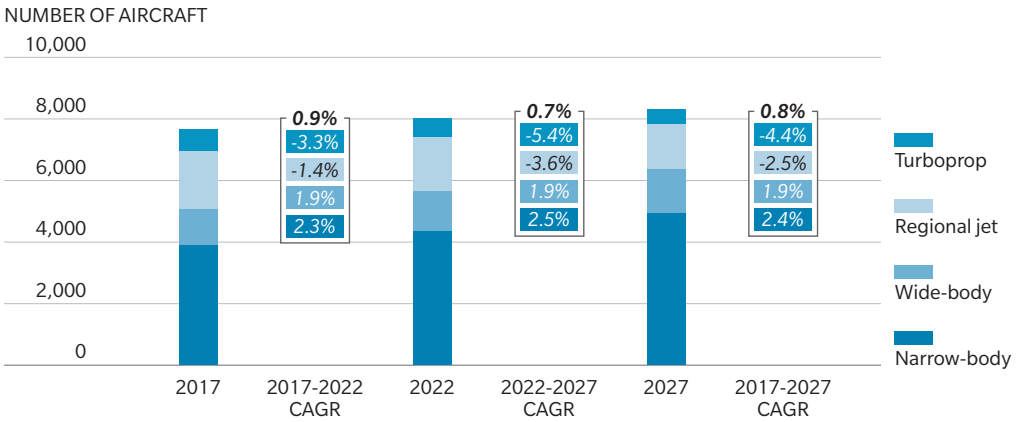
Source: PlaneStats.com

The North America fleet should grow at a modest rate of 0.8% per year between 2017 and 2027, according to Oliver Wyman's Global Fleet & MRO Market Forecast. North America's fleet growth is predicted to be the slowest among all world regions, not surprising given the

region's maturity compared to the rest of the world. Narrowbodies account for the majority of the expected growth, up 2.4% per year through 2027.

The fleets of smaller regional jet and turboprops are expected to decline during the forecast period. The region's wide-body fleet is expected to increase 1.9% per year over the next ten years.

Exhibit 67: Aircraft Fleet Forecast 2017 to 2027 – North America

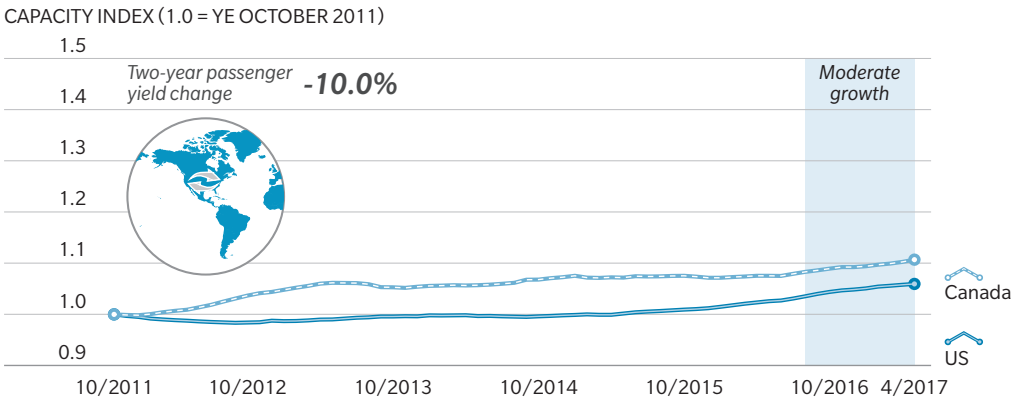


Source: Oliver Wyman Global Fleet & MRO Market Forecasts

DOMESTIC US CAPACITY IMPACT

US carrier passenger yield to Canada and within the US (Form 41 Domestic region) has declined 10% over 2014. Capacity discipline prior to 2014 helped increase passenger yield; however, recent capacity growth has exceeded GDP growth. The increased growth rate appears to have had a negative impact on passenger yield.

Exhibit 68: US to North America Seat Index



Source: PlaneStats.com

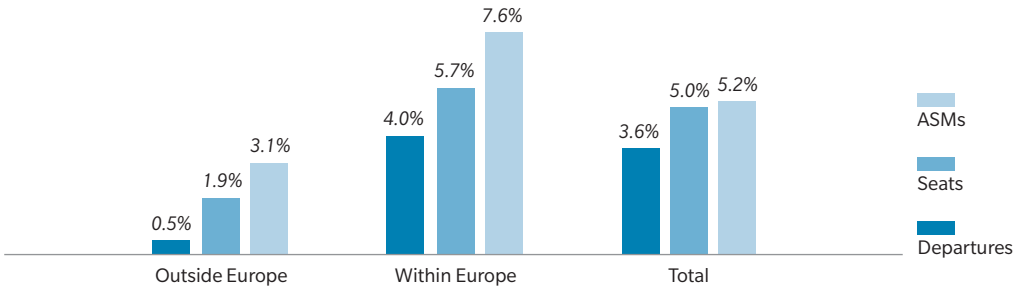
Note Scheduled seats for all scheduled airlines between the US and Canada and within the domestic US. Yield change based on US carriers' US DOT Form 41 data.

22. CAPACITY – EUROPE

Despite a great deal of economic uncertainty in Europe (Brexit, Greece, and economic weakness in other countries), airlines continue to add capacity. ASMs increased 5.2% over 2015 on a 3.6% increase in departures and a 5.0% increase in seats.

Domestic European capacity increased 7.6% over 2015, while departures increased 4.0% within the region. Capacity to regions outside Europe grew much slower at 3.1%.

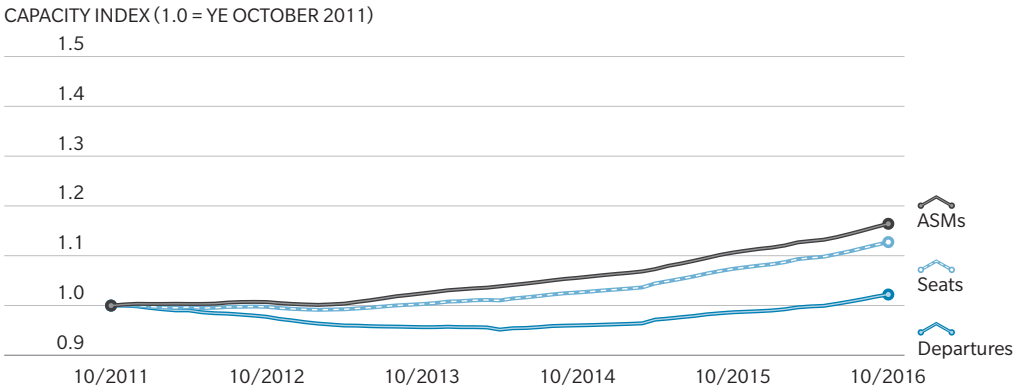
Exhibit 69: European Capacity Changes, Year-end October 2015/2016



Source: PlaneStats.com

Longer-term capacity analysis shows moderate growth for European airline capacity, amounting to 3.1% per year. Like other world regions, much of the growth is from larger aircraft and longer stage lengths. Departures grew 0.4% per year from 2011 to 2016.

Exhibit 70: European Capacity Index

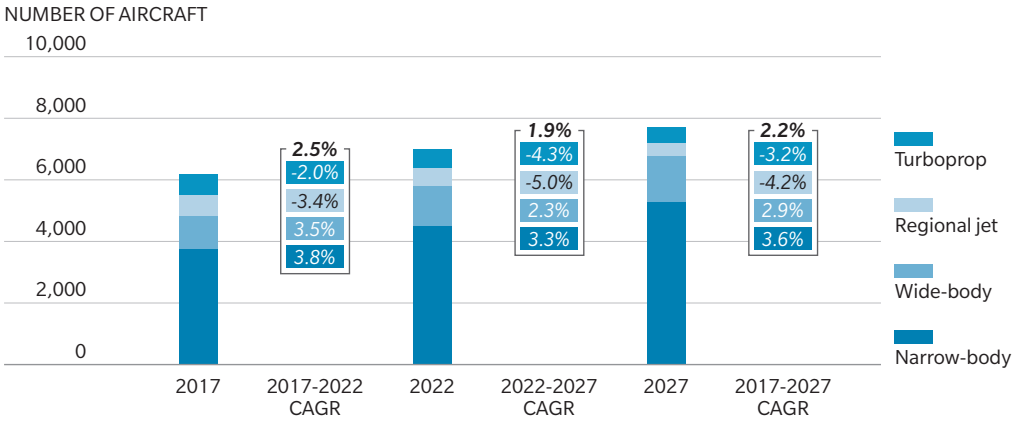


Source: PlaneStats.com

The European aircraft fleet is expected to increase 2.2% per year over the next ten years. Reductions in regional jet and turboprop fleets are offset by increases in narrow-body and wide-body fleets.

The forecast calls for 3.8% annual growth for narrow-body aircraft and 3.5% annual growth for wide-body over the next five years. Growth rates are expected to slow somewhat from 2022 to 2027, especially for wide-body aircraft.

Exhibit 71: Aircraft Fleet Forecast 2017 to 2027 – Europe

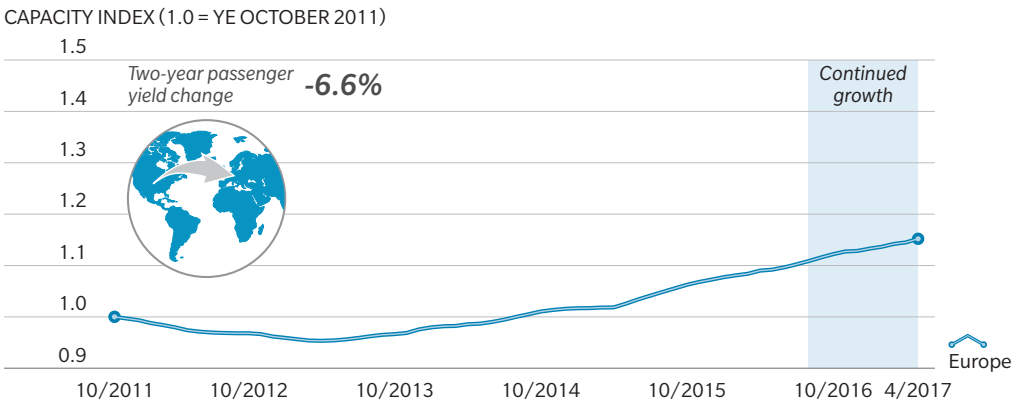


Source: Oliver Wyman Global Fleet & MRO Market Forecasts

US-EUROPE CAPACITY IMPACT

Passenger yield in US airlines' Atlantic operations declined the least of any international region, falling 6.6% over 2014. Atlantic operations include Europe, Africa and the Middle East. The inclusion of these three diverse markets makes analyzing the impact of capacity on passenger yield market difficult. However, the regional operations are heavily weighted by European operations (82.3% of seats are to Europe). Moderate growth in seats of 2.2% per year between the US and Europe supports the theory that slower capacity growth can support higher passenger yield.

Exhibit 72: US to Europe Seat Index



Source: PlaneStats.com

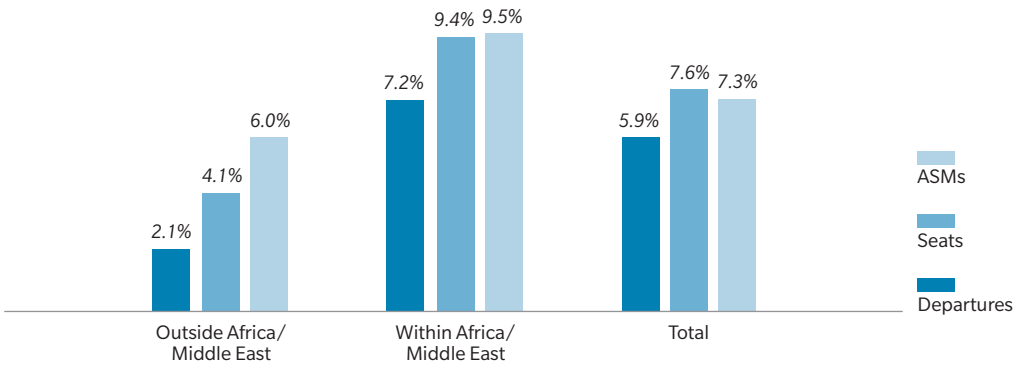
Note: Scheduled seats for all scheduled airlines between the US and Europe. Yield change based on US carriers' US DOT Form 41 data.

23. CAPACITY – AFRICA/MIDDLE EAST

Africa/Middle East capacity has grown 8.1% per year since 2011, the second fastest among all world regions. That growth has slowed somewhat over the past year, dropping to 7.3% from 2015 to 2016.

Growth within the region currently exceeds growth to other world regions. The increased internal growth explains the shorter stage length, demonstrated by the fact that seat capacity (up 7.6%) is growing faster than ASMs (up 7.3%).

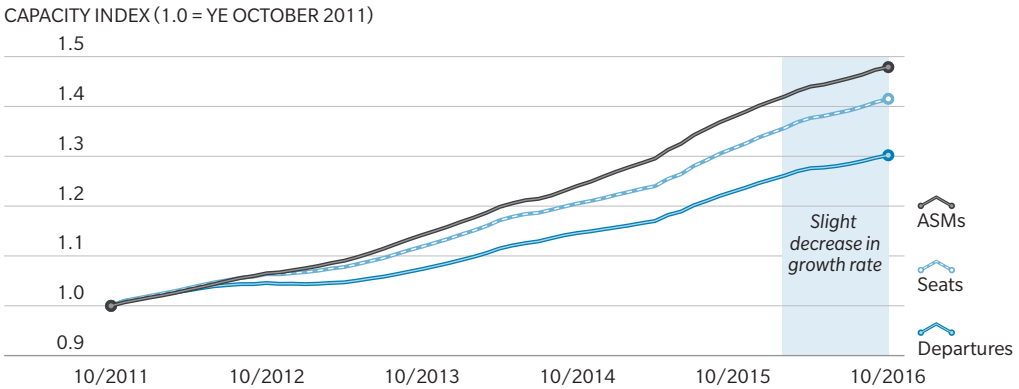
Exhibit 73: Africa/Middle East Capacity Changes, Year-end October 2015/2016



Source: PlaneStats.com

Despite recent trends, growth over the past five years is the result of increased average seats per departure and longer stage lengths. Departures increased 30.2% over 2011, and ASMs increased 47.8% during the period.

Exhibit 74: Africa/Middle East Capacity Index

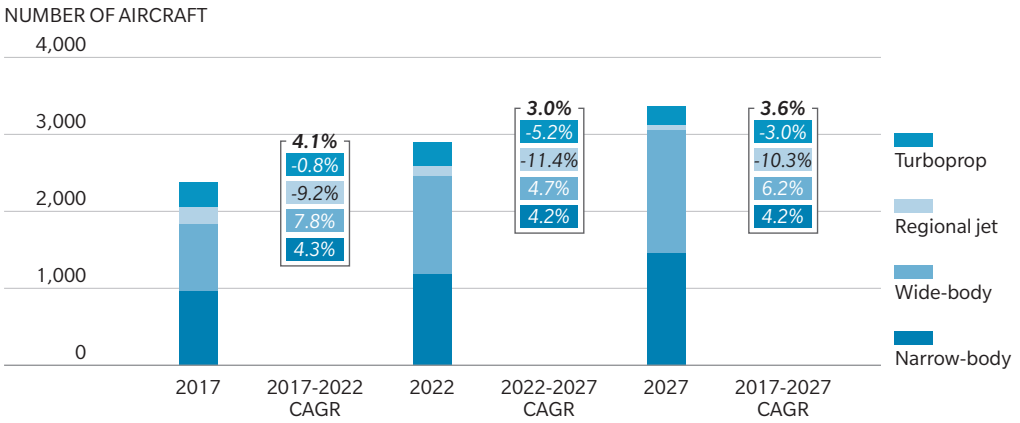


Source: PlaneStats.com

Oliver Wyman's Global Fleet & MRO Market Forecast predicts that long-haul flying will pick up over the next 10 years, with wide-body aircraft growing an average of 6.2% per year, while narrow-bodies will grow 4.2% per year.

The turboprop fleet will shrink 3.0% per year, and regional jets will decline 10.3% annually, albeit from a very small base.

Exhibit 75: Aircraft Fleet Forecast 2017 to 2027 – Africa/Middle East



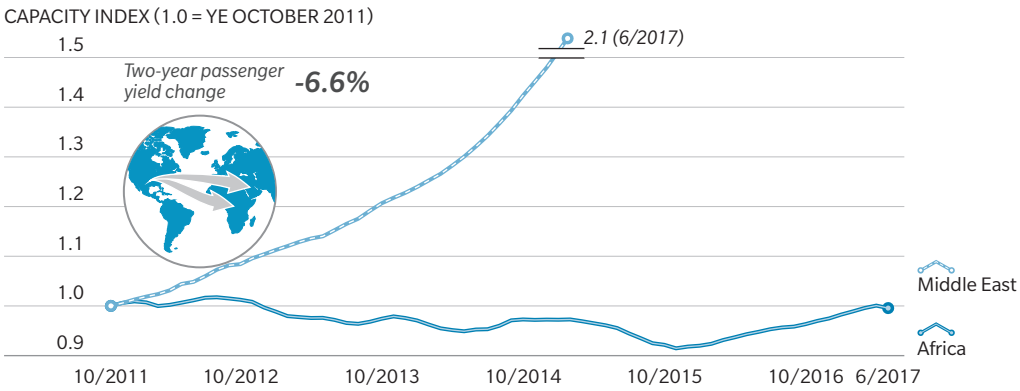
Source: Oliver Wyman Global Fleet & MRO Market Forecasts

US-AFRICA/MIDDLE EAST CAPACITY IMPACT

Capacity between the US and the Middle East grew 129.9% between 2011 and 2016 (15.6% CAGR). Capacity to Africa grew a modest 3.9% over 2011 and represents 2.0% of the total Atlantic region from the US.

The impact of the rapid growth to the Middle East on passenger yield is difficult to measure with publically available data. Growth is likely driven by connecting passenger traffic through the Middle Eastern airline hubs, diverted from European hubs.

Exhibit 76: US to Africa/Middle East Seat Index



Source: PlaneStats.com

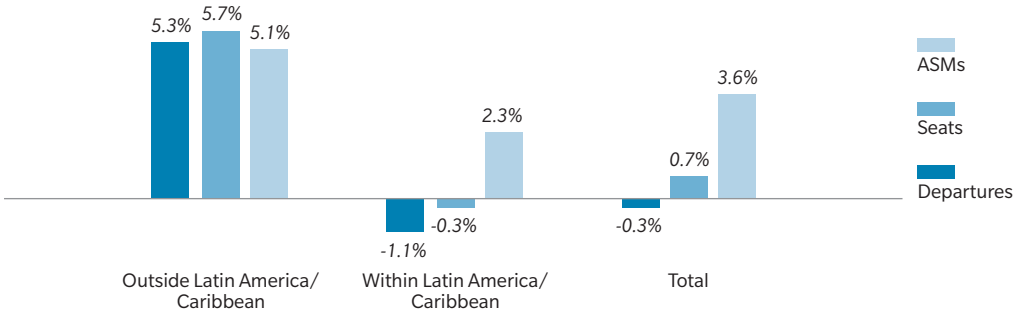
Note: Scheduled seats for all scheduled airlines between the US and Africa/Middle East. Yield change based on US carriers' US DOT Form 41 data.

24. CAPACITY – LATIN AMERICA/CARIBBEAN

Economic weakness in the Latin America/Caribbean region has disrupted recent capacity growth trends and has ranked the region as the slowest growing. Departures for the region declined 0.3%, while increasing aircraft size and longer stage length boosted capacity by 3.6%.

Departures within the region were down 1.1% for the year ended October 2016, compared with the same period the previous year. A large portion of the decline can be attributed to Brazil. Domestic Brazilian departures slid 9.7% year over year.

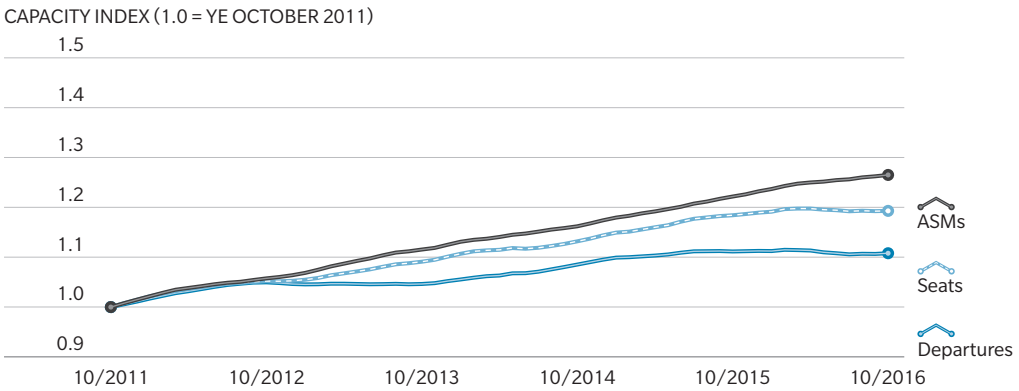
Exhibit 77: Latin America/Caribbean Capacity Changes, Year-end October 2015/2016



Source: PlaneStats.com

Despite the downturn over the past 12 months, capacity to the region is up 26.5% over 2011 (4.87% CAGR). The region follows the worldwide trend of larger aircraft flying longer distances, with departures increasing an average of 2.1% per year during the period.

Exhibit 78: Latin America/Caribbean Capacity Index

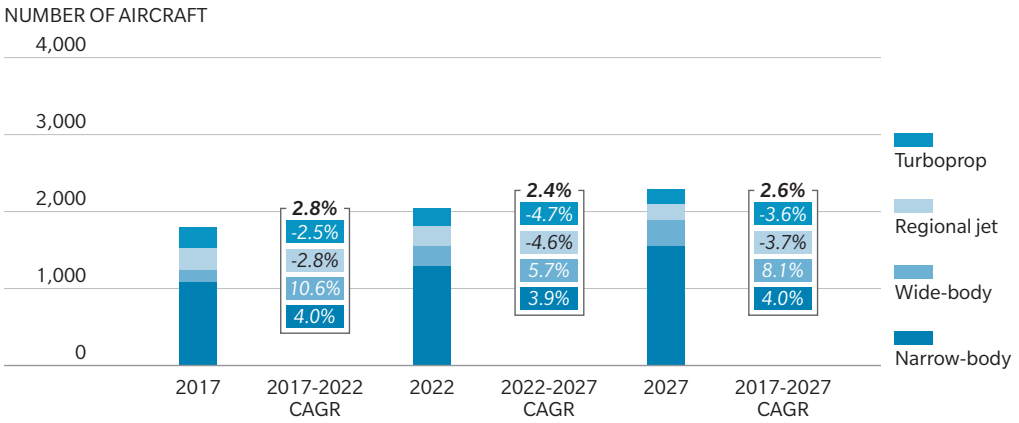


Source: PlaneStats.com

The Latin America/Caribbean fleet is anticipated to grow 2.6% per year over the next 10 years. Wide-body aircraft will grow 10.6% per year over the next five years and average 8.1% over the next 10 years, making it the fastest-growing wide-body fleet in the world.

Narrow-body aircraft are predicted to grow 4.0% per year. Both the regional jet fleet and turboprops are expected to decline within the region over the next 10 years.

Exhibit 79: Aircraft Fleet Forecast 2017 to 2027 – Latin America/Caribbean



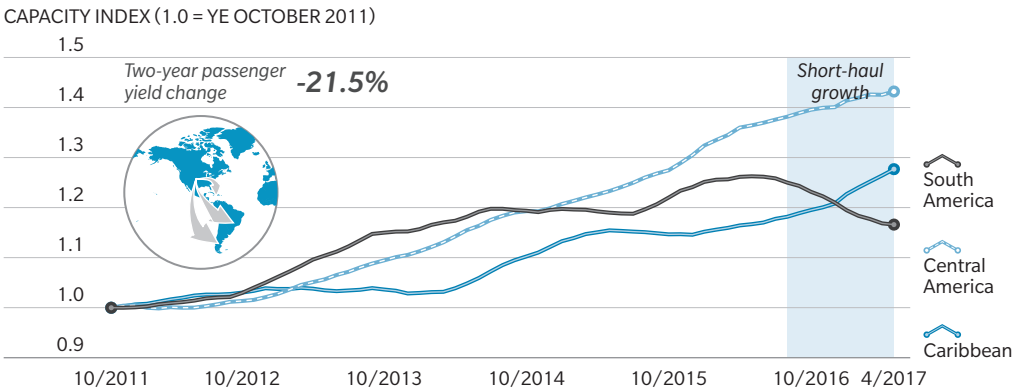
Source: Oliver Wyman Global Fleet & MRO Market Forecasts

US-LATIN AMERICA/CARIBBEAN CAPACITY IMPACT

Passenger yield between the US and Latin America/Caribbean market declined 21.5% over the past 24 months, more than 10 points faster than the system average. A combination of many factors explains the substantial yield decline.

The rapid capacity growth has been partially the result of value airlines' aggressive growth to the Caribbean and Mexico. The group has introduced new fare competition and added capacity. Additionally, the economic weakness of non-leisure, long-haul markets from the US has softened demand.

Exhibit 80: US to Latin America/Caribbean Seat Index



Source: PlaneStats.com

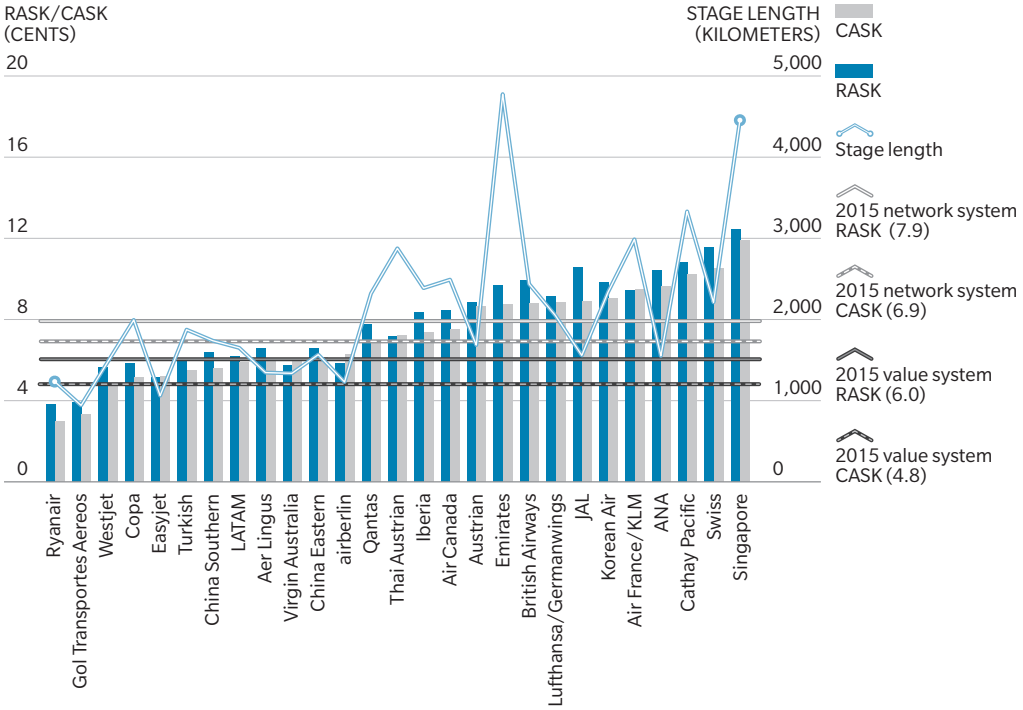
Note: Scheduled seats for all scheduled airlines between the US and Latin America/Caribbean. Yield change based on US carriers' US DOT Form 41 data.

25. STAGE-LENGTH ADJUSTED RASK/CASK FOR INTERNATIONAL CARRIERS

In Exhibit 81, 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. Because of 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.

Exhibit 81: RASK/CASK for International Carriers (Stage-length Adjusted), FY 2015



Source: Company reports, Oliver Wyman research

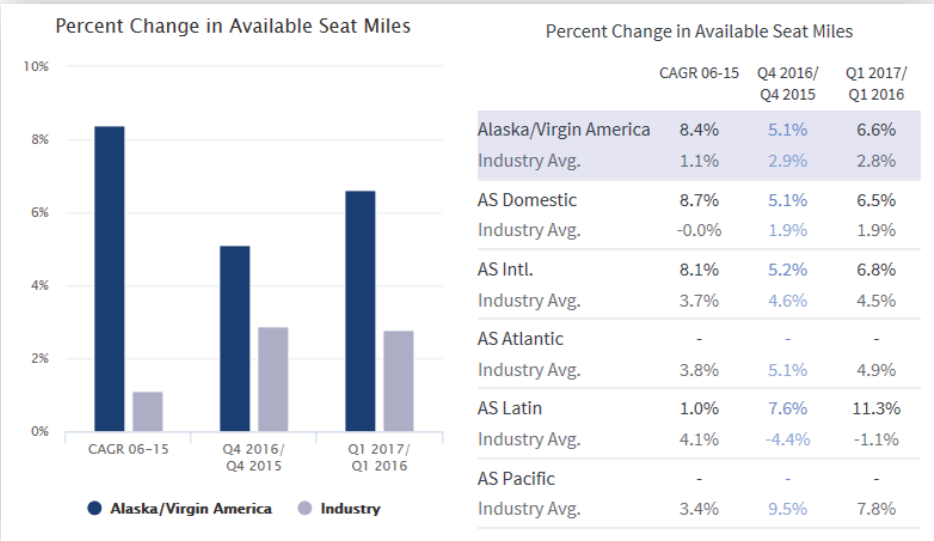
Note: Fiscal year end varies by carrier.

AIRLINE REVENUE DRIVER DASHBOARD

For each of the airlines in our main report, users can isolate and analyze the individual components that drive airline revenue at the system and region level to see how that carrier performs versus the industry on our website under the Airline Economic Analysis 2016-2017 report landing page. The revenue drivers include: capacity, load factor, yield, cargo revenue, and ancillary revenue.

To operate the dashboard, first select the carrier to analyze, and then determine if you want to view the entire system or just a portion. Lastly, click the tab for the revenue driver you want to isolate and the comparative analysis will populate.

The data in this tool is kept current based on the most recent data release from the US Department of Transportation (DOT) and is updated quarterly in the dashboard.



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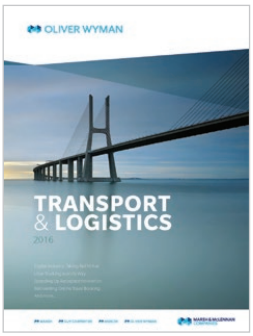

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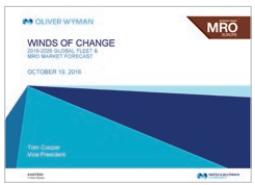

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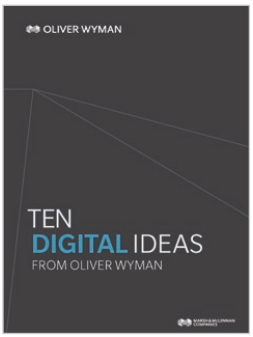

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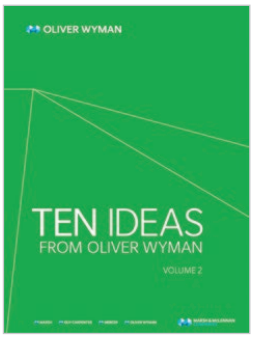

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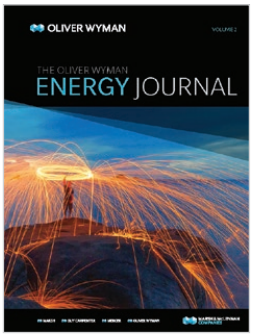

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