

The Global Economic Contribution of Cruise Tourism 2015



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Introduction

Business Research and Economic Advisors (BREA) was engaged by the Cruise Lines International Association (CLIA) to provide estimates of the contribution of the cruise industry to the global economy in 2015.¹ Data on passengers by source and destination market, as well as the global deployment of the global ocean-going cruise fleet were obtained from sources published by CLIA. Research reports on passenger and crew expenditures and the economic impact of the industry in specific national and regional markets were assembled and reviewed.

Methodology

The global impact relied heavily on existing reports by BREA and other researchers and represents an aggregation of the results reported in these studies plus estimates developed for regions where data were not readily available. The majority of the global economic contribution reported below is derived directly from studies prepared for CLIA by BREA. Data on passenger and crew visits, direct expenditures of the cruise lines and their passengers and crew and the resulting economic impacts were taken directly from these reports and shown in the regional data for the United States, Europe EU+3 and Australia. These reports were:

- I. BREA, The Economic Contribution of the North American Cruise Industry to the U.S. Economy in 2014, prepared for Cruise Lines International Association, September 2015.
- II. BREA and G. P. Wild (International) Ltd., Contribution of Cruise Tourism to the Economies of Europe, 2015, prepared for CLIA Europe, June 2016.
- III. BREA, The Contribution of Cruise Tourism to the Southeast Asia Region in 2014, prepared for CLIA Southeast Asia, September 2015.
- IV. BREA, The Economic Contribution to the Australian Economy in FY2015-16, prepared for CLIA Australasia, September 2016.

Combined, these three regions accounted for approximately 80% of the global total output contribution of cruise tourism.

The estimates of the global contribution for the Rest of North America were estimated by extrapolating the 2012 estimates for the Caribbean, Canada and Mexico from the following reports.

- V. BREA, Economic Contribution of Cruise Tourism to the Destination Economies, 2014-15 Cruise Year, prepared for The Florida-Caribbean Cruise Association, September 2015.

¹ The terms economic contribution and economic impact are used interchangeably throughout this report.

- VI. BREA, The Economic Contribution of the International Cruise Industry in Canada, 2012, prepared for CLIA North West & Canada Cruise Association and Partnering Cruise Associations, March 2013.

The data on spending by cruise lines and their passengers and crew were extrapolated to 2015 by adjusting average spending rates for inflation as reported by the appropriate government and monetary authorities. Passenger and crew visits were updated with data for 2015 as obtained from the destination ports and other sources. Given the extrapolated visit and spending data, the direct cruise sector expenditures were estimated for each of the markets. The resulting economic impacts were estimated with the same models that were used to estimate the economic impacts for the reported years. The Rest of North America accounted for about 8% of the total global economic impacts.

Limited data was available for the Rest of the World which consisted primarily of Australia, Asia and South America. Data for Australia and Southeast Asia were obtained from reports referenced above while data for Brazil and New Zealand were derived from the following reports.

- VII. FGV Projetos, Maritime Cruises: Study on Profile and Economic Impacts in Brazil, prepared for CLIA Abremar Brasil, June 2014.
- VIII. BREA, The Contribution of Cruise Tourism to the New Zealand Economy in 2014-15 Cruise Year, prepared for CLIA Australasia, July 2015.

The expenditure and economic impact data reported in these studies were directly included in the estimated impacts for the Rest of World. Estimates for all of South America were estimated utilizing the Brazilian data and passenger and crew visit data for the rest of South America. Estimates for the remaining global destinations were estimated from average cruise line, passenger and crew expenditure rates for home port and transit port destinations as derived from the above seven studies. The resulting estimated impacts accounted for 12% of the global total output impacts.

Global Economic Impacts

As noted above, the global impact relied heavily on existing reports by BREA and other researchers and represents an aggregation of the results reported in these studies plus estimates developed for regions where data were not readily available. All data that were reported in local currencies, i.e., expenditures, output, income, etc., were converted to US\$ for purposes of aggregation.

During 2015, the U.S. dollar strengthened significantly resulting in a substantial depreciation of most major currencies relative to the U.S. dollar. For example, the Canadian dollar declined by about 13% between 2014 and 2015, as did the Japanese yen. The Euro, Australian dollar,

New Zealand dollar and the Mexican peso all declined by about 16% while the Brazilian real fell by 28% and the Singapore dollar by 8%. At the same time, the Chinese yuan renminbi only depreciated by 2% while those Caribbean destinations whose currencies are pegged to the U.S. dollar experienced no depreciation. As a result, those currency denominated categories, such as expenditures and income, that are estimated in local currencies are reduced in value when converted to U.S. dollars relative to 2014. Consequently, the decline in direct spending in the Rest of North America and Europe and the small increase in the Rest of the World, is directly related to the depreciation of local currencies relative to the U.S. dollar. To provide a better estimate of the change in real activity, the U.S. dollar estimates have been adjusted to a constant (2014) exchange rate regime, i.e., we removed the effect of the stronger dollar. These adjusted values are shown along with the unadjusted values.

As shown in **Table 1**, the 122.73 million onshore visits by passengers and crew generated \$54.11 billion (\$58.59 billion adjusted) in direct cruise sector expenditures at destinations and source markets around the world. These also include the direct expenditures of the cruise lines for goods and services in support of their cruise operations.

Table 1–Total Global Economic Contribution of the Cruise Sector – 2015

Category	Current US\$		Constant Exchange Rates ^①	
	Global	Percent Change from 2014	Global	Percent Change from 2014
Passenger and Crew Onshore Visits (Mil)	122.73	4.0%	--	--
Total Direct Expenditures (US\$ Bil)	\$ 54.11	-3.0%	\$ 58.59	5.1%
Total Output Contribution (US\$ Bil)	\$117.09	-2.3%	\$126.97	5.9%
Total Income Contribution (US\$ Bil)	\$ 38.16	-3.0%	\$ 40.76	3.6%
Total Employment Contribution	956,597	1.8%	--	--

^① Exchange rates held at their average for 2014.

These expenditures generated total (direct, indirect and induced) global output of \$117.09 billion (\$126.97 billion adjusted). The production of this output required the employment of 956,597 FTE² employees who earned \$38.16 billion (\$40.76 billion adjusted) in income. The details of this global contribution are discussed in the following sections of this report.

² Full-time Equivalent

Background: Cruising - A Global Industry

The cruise industry has enjoyed dynamic growth over a period of more than 30 years, driven initially by demand from North America and then by growing demand from Europe and more recently Australasia. **Table 2** sets out the international cruise sector growth between 2005 and 2015. Over this ten-year period demand for cruising worldwide³ has increased from 14.32 million passengers to 23.19 million (+62%) with a growth rate of 3.8% achieved in 2015 (a decline from 4.8% achieved in 2014 but still higher than the 2.0% growth in 2013). Over a similar period, global tourist arrivals, mainly land-based tourism, has risen by around 46% to an estimated 1.184 billion tourists in 2015.⁴ During 2015, global tourist arrivals increase by 50 million (4.4%) over 2014.

Table 2—International Demand for Cruises, 2005 to 2015

Millions of passengers

Region	2005	2010	2011	2012	2013	2014 ^③	2015	10-Year Growth
North America	9.96	11.00	11.44	11.64	11.82	12.21	12.17	22.1%
Europe ^①	3.15	5.67	6.15	6.23	6.40	6.39	6.59	109.2%
Subtotal	13.11	16.67	17.59	17.87	18.22	18.60	18.76	43.1%
Rest of the World ^②	1.21	2.40	2.91	3.03	3.09	3.74	4.43	266.1%
Total	14.32	19.07	20.50	20.90	21.31	22.34	23.19	61.9%

^① Including Russia and Central and Eastern European countries outside the EU-27.

^② Rest of the world: Largely estimated and adjusted from 2009 to take account of dynamic growth in the southern hemisphere.

^③ Data for 2014 has been revised.

Source: CLIA, G. P. Wild (International) Limited, IRN and other sources.

Since 2005 passengers sourced from North America have increased by 22%, and the North America region remains the largest source market accounting for 52.5% of global passengers. However, strong global growth has created the emergence of new source and destination markets and as a result North America's share of the global market has steadily declined over the past decade from nearly 70% in 2005.

Europe has also experienced very strong growth over the last decade. In 2005 Europe accounted for 22% of the global cruise market with 3.15 million passengers. In 2015 its market share had increased to 28.4% with 6.59 million passengers, an increase of 109% over the ten-year period.

The Rest of the World has seen the most significant growth in both passenger numbers and market share. In 2005 the Rest of the World accounted for 8.5% of the global cruise market

³ These data are counts of passengers by source market, i.e., place of residence.

⁴ UNWTO Annual Report 2015.

with 1.21 million passengers. In 2015 its market share has increased to 19.1% with 4.43 million passengers. The ten-year passenger growth represents a 266% increase which includes an increase of 18.5% for 2015.

To further illustrate the continued dynamic and shifting pattern of growth in the global cruise industry from 2005 to 2010, passengers sourced from Europe increased by 98%, those sourced from the Rest of the World increased by 738%, while those from North America increased by 7%. Over the next five years, Europe's growth slowed to 18%, growth in the Rest of the World increased to 105%, and North America growth rose to 11%.

Not surprisingly, the capacity deployed by the cruise industry, as measured by bed days⁵, has followed a similar growth and distribution profile. Overall, the global supply of bed days has increased by 68% from 2005 through 2015, increasing from 87.3 million bed days to 146.7 million which includes an increase of 3.2% for 2015 (see **Table 3**).

Table 3—Global Deployment of Capacity, 2005 to 2015

Millions of bed days

Region	2005	2010	2011	2012	2013	2014 ^①	2015	10-year Growth
Caribbean	40.4	46.2	45.5	48.0	48.1	55.9	53.1	31.4%
Other North America	18.0	16.5	16.6	16.0	15.0	15.8	16.5	-8.3%
North America	58.4	62.7	62.1	64.0	63.1	71.7	69.6	19.2%
Northern Europe	5.9	9.7	11.4	13.2	13.9	13.5	13.8	133.9%
Mediterranean	15.0	31.7	38.1	35.5	35.7	32.9	35.0	133.3%
Europe	20.9	41.4	49.5	48.7	49.6	46.4	48.8	133.5%
North America + Europe	79.3	104.1	111.6	112.7	112.7	118.1	118.4	49.3%
Rest of the World	8.0	13.8	15.1	20.7	21.8	24.1	28.3	253.8%
Total	87.3	117.9	126.7	133.4	134.5	142.2	146.7	68.0%

^① Some data revised.

Source: CLIA and G. P. Wild (International) Limited.

The Caribbean is the principal cruise destination for passengers sourced from North America. While its share of the cruise industry's global deployment has fallen from 46.3% in 2005 to 36.2% in 2015, it still remains the largest destination market with 53.1 million bed days deployed in the region during 2015. As shown in Table 3, this represents a 31.4% increase in capacity over the ten-year period and includes a 5.0% decrease in 2015. The Other North America region, primarily Alaska, Mexico and Canada/New England cruises, saw its deployed capacity increase by 4.4% in 2015 to 16.5 million bed days. Even with this increase, the capacity in this region was 8.3% lower than in 2005.

⁵ Passenger bed days are the number of days that all berths could be occupied at 100% occupancy. For example, a cruise ship with 2,000 lower berths on a 7-day cruise generates 14,000 potential bed days.

Europe, as a whole, has seen its bed day capacity increase by 133.5% over the 10-year period, rising from 20.9 million bed days in 2005 to 48.8 million in 2015. Overall, the growth in Northern Europe and the Mediterranean has been essentially the same over the 10-year period. However, during 2015 capacity in the Mediterranean increased by 6.4% compared to a 2.2% growth in Northern Europe. Over the 10-year period Europe has seen its capacity increase from 52% of that deployed in the Caribbean in 2005 to 84% of Caribbean capacity in 2015 and 33% of the global capacity (up from 24% in 2005).

Driven by strong growth in Australasia, the Rest of the World has seen bed day capacity increase by 254% since 2005 which includes a 17% increase for 2015. With 28.3 million bed days deployed in the Rest of the World, it accounted for 19% of the cruise industry's global capacity in 2015, up from 9% in 2005. The Caribbean and Europe have consistently garnered 70-75% of the global capacity over the last ten years but the Rest of the World has seen big increases compared to them. The Rest of the World has seen its relative capacity more than double from 13% of that deployed in the Caribbean and Europe combined in 2005 to 28% in 2015.

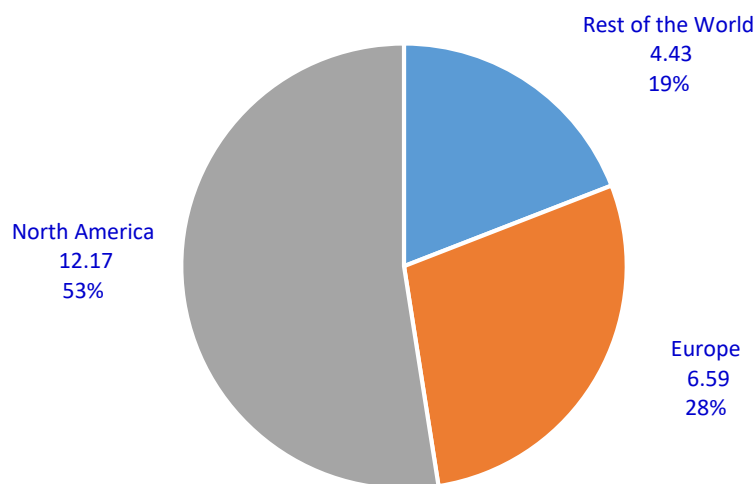
Thus, the cruise industry is truly a global industry with passengers sourced from around the world and with cruise itineraries destined for countries and ports around the globe. It is also a dynamic industry with overall global growth rates exceeding that of land-based tourism over the past ten years. The dynamism also carries over to the geographic distribution of growth which has shifted from North America, to Europe and now to Australasia. As a result, the industry impacts the global economy generating jobs, income and tax revenues in all regions of the world.

Source Markets: Where do cruise passengers reside?

As discussed in the previous section, cruise passengers are sourced from around the world. In this section, we focus on the global distribution for 2015. North America accounted for 53% of all cruise passengers with 12.17 million passengers. Europe was next with 28% and 6.59 million passengers and the Rest of the World accounted for the remaining 19% with 4.43 million passengers. The potential for growth in the Rest of the World is illustrated by the fact that it accounts for about nearly 85% of the world's population⁶ and only 19% of world cruisers.

Figure 1 – Global Distribution of Cruise Passengers by Source Market – 2015

Millions of passengers



Source: CLIA, G. P. Wild (International) Limited, IRN and other sources.

North America

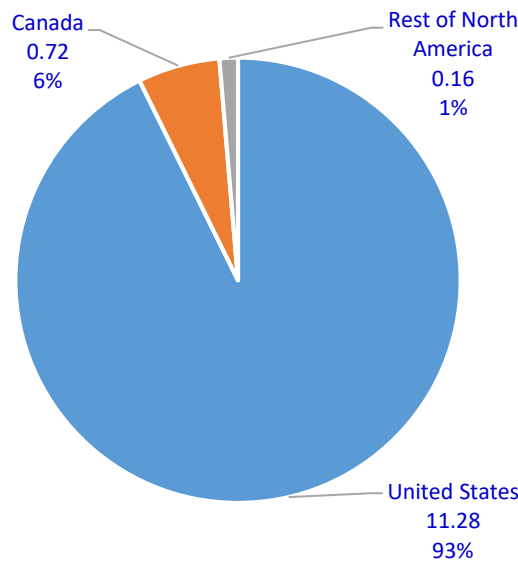
Within North America, 11.28 million passengers were sourced from the United States and accounted for 93% of the market's cruise passengers (see **Figure 2**). Canada accounted for 6% with 720,000 passengers, an increase of 1.5% from 2014. The remaining 1%, or 160,000 passengers, resided elsewhere in North America. This group saw a decline of 4.8% from 2014. The largest of these other North American source markets are: Mexico, the Dominican Republic, Bonaire, Barbados and the Bahamas. Combined these five countries accounted for 90% of the passenger sourced from North America countries other than the U.S. and Canada.

⁶ Population Reference Bureau, 2016 World Population Data Sheet, 2016.

In addition to being the largest source market, the United States is also the largest originator of cruises. During 2015, about 4,200 cruises originated from U.S. ports and carried an estimated 10.92 million passengers. Thus passenger embarkations in the United States accounted for just under half (47%) of global cruise passengers. The five largest cruise ports, Miami, Port Everglades, Port Canaveral, Galveston and Long Beach accounted for 67% of the passenger embarkations in the United States with 7.33 million passengers.

Figure 2 –Distribution of Cruise Passengers Sourced from North America – 2015

Millions of passengers



Source: CLIA, G. P. Wild (International) Limited, IRN and other sources.

Note: Rest of North America consists of Mexico, Bermuda, Central America and the Caribbean.

Europe

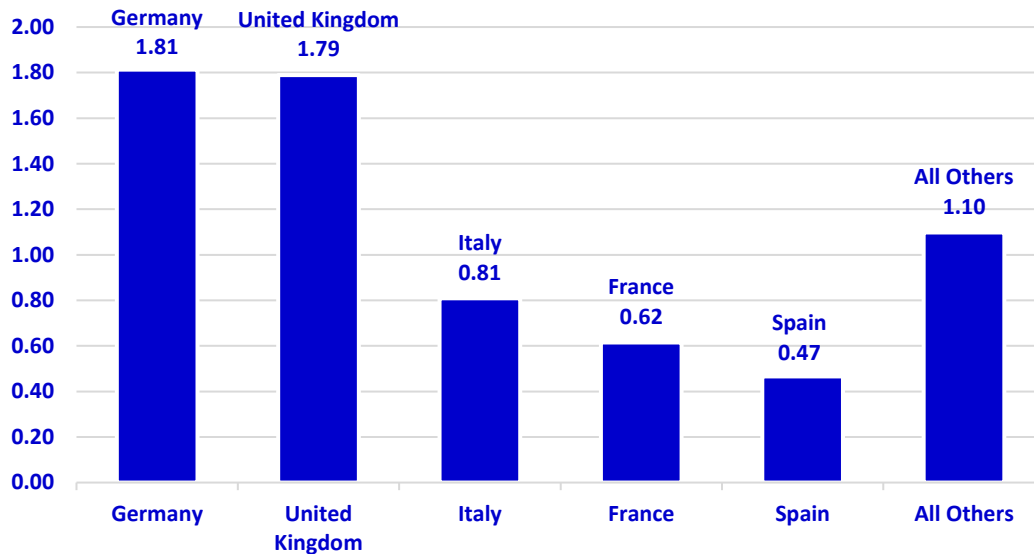
As shown in **Figure 3**, the five largest source countries in Europe accounted for 83% of the passengers sourced from Europe in 2015. As in 2014, Germany and the United Kingdom accounted for over half (55%) of the passengers sourced from Europe with a total of 3.60 million passengers. However, Germany experienced a 2.4% increase in the number passengers in 2015 while the United Kingdom experienced an increase of 11.1%. An additional 1.9 million passengers were sourced from Italy, France and Spain, 29% of European-sourced passengers. Italy experienced a 3.7% decline in the number of passengers in 2015 while passengers sourced from France and Spain experienced respective increases of 4.2% and 3.6%.

Among the other European countries contributing more than 100,000 cruise passengers were sourced from Norway, Switzerland, Austria and the Netherlands. Combined 570,000 passengers were sourced from these four countries, about 8% of European sourced passengers. This is a 3.6% increase over 2014. All four experienced a growth in passengers during

2015. Finally, approximately 500,000 cruise passengers were sourced from the remaining European countries, 7.5% of European-sourced passengers.

Figure 3 –Distribution of Cruise Passengers Sourced from Europe – 2015

Millions of passengers



Note:

United Kingdom includes Ireland

Source: CLIA, G. P. Wild (International) Limited, IRN and other sources.

An estimated 6.12 million passengers embarked on their cruise from European ports. This is up from 5.85 million in 2014 and represents a return to the level of embarkations during 2013. The top ten European home ports include: Southampton, Barcelona, Venice, Civitavecchia, Savona, Genoa, Palma Majorca, Hamburg, Marseille and Copenhagen. Combined, these ten ports accounted for more than two-thirds of all European embarkations.

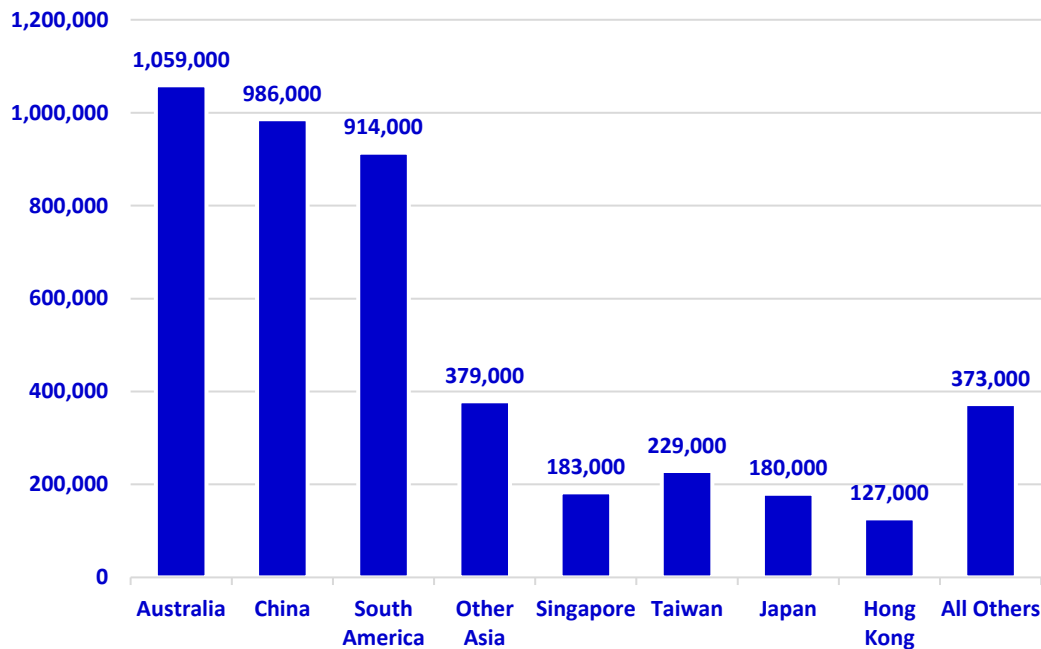
Rest of the World

As shown in **Figure 4**, the two principal sources in the Rest of the World are the countries of Australia with just over 1 million passengers and China with 986,000 passengers. Combined these two countries accounted for just under half (46%) of all passengers sourced from the Rest of the World. The countries in Asia other than China accounted for 1.1 million passengers or 25% of the Rest of the World, and the countries of South America accounted for 914,000 passengers which equates to about 20% of the Rest of the world. Finally, the remainder of the countries of the Rest of the World accounted for 373,000 passengers or 8% of the Rest of the World.

As discussed in the previous section, The Rest of the World has experienced the most growth among the regional cruise markets with 18.5% in year-over-year growth in 2015. Even with this high growth rate there was considerable variation in growth across the countries in this

region. China experienced the largest increase (40%) in their sourced passengers from 703,000 in 2014 to 986,000 in 2015. Hong Kong, Taiwan and Australia also saw notable increases of 55%, 29%, and 15% respectively. At the same time, passengers sourced from Japan increased by 4.7% in 2015 and remained virtually unchanged in Singapore and other Asian countries.

Figure 4 –Distribution of Cruise Passengers Sourced from the Rest of the World – 2015

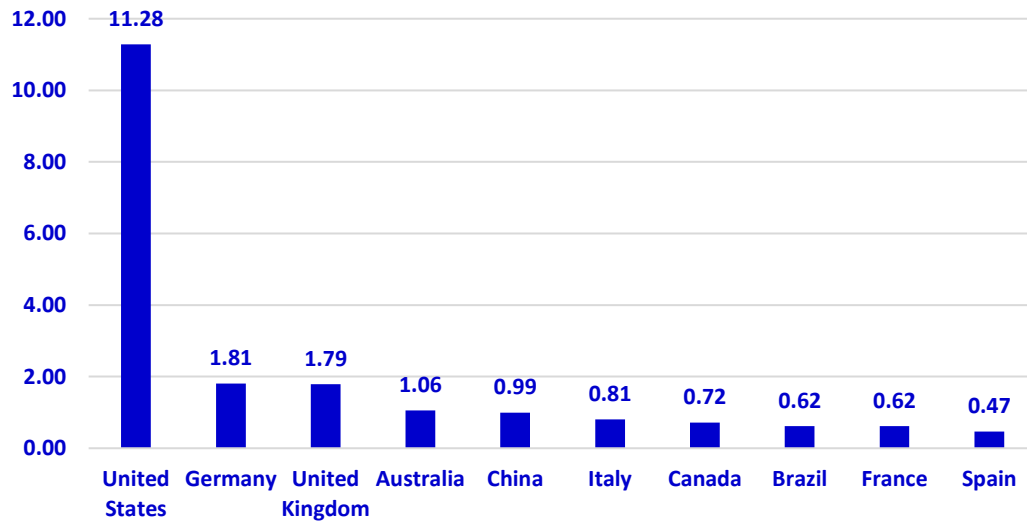


Source: CLIA, G. P. Wild (International) Limited, IRN and other sources.

Top Ten Countries

In summary, a total of 20.2 million passengers were sourced from the top ten countries which accounts for 87% of global cruise passengers. As indicated in **Figure 5**, these countries are located in all major global regions.

The United States with 11.28 million passengers was the largest source country by far, accounting for just under half (49%) of global cruise passengers. The next two countries combined, Germany and the United Kingdom, accounted for 16% of global passengers with a total of 3.60 million passengers. Australia and China each had approximately 1.0 million cruise passengers and accounted for 9% of global passengers. The last five countries: Italy, Canada, Brazil, France and Spain generated a total of 3.24 million passengers, about 14% of the global passengers.

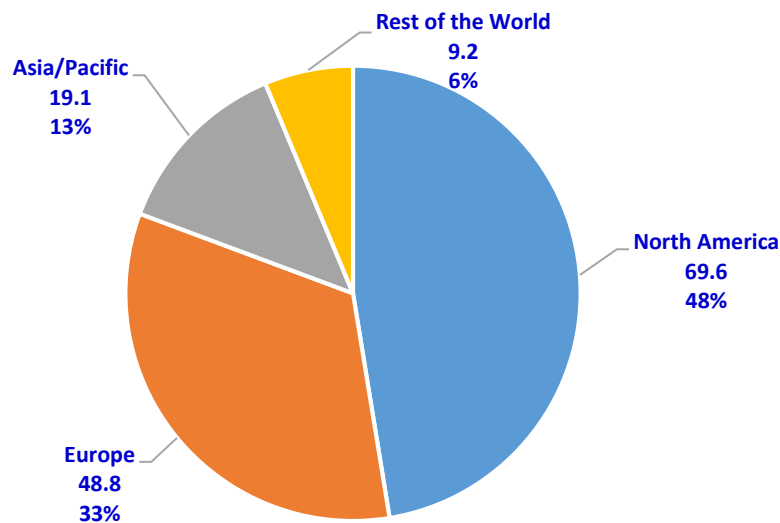
Figure 5 –Cruise Passengers Sourced from the Top 10 Countries – 2015

Source: CLIA, G. P. Wild (International) Limited, IRN and other sources.

Destination Markets: Where are cruise ships deployed?

As discussed in the Introduction, cruise lines deploy their ships around the globe. In this section, we focus on the global distribution of bed day capacity for 2015. As shown in **Figure 6**, North America accounted for 48% of the global bed day capacity with 69.6 million bed days, a decline of 2.9% from 2014. Europe was next with 33% and 48.8 million bed days, an increase of 5.2% from 2014. The Asia/Pacific region came in with 19.1 million bed days, 13% of the global capacity and the Rest of the World accounted for the remaining 6% with 9.2 million bed days. Bed day capacity rose by 15% in the Asia/Pacific region from 2014 and by 23% in the Rest of the World.

Figure 6 – Global Distribution of Passenger Bed Days – 2015
Millions of bed days



Source: CLIA and G. P. Wild (International) Limited.

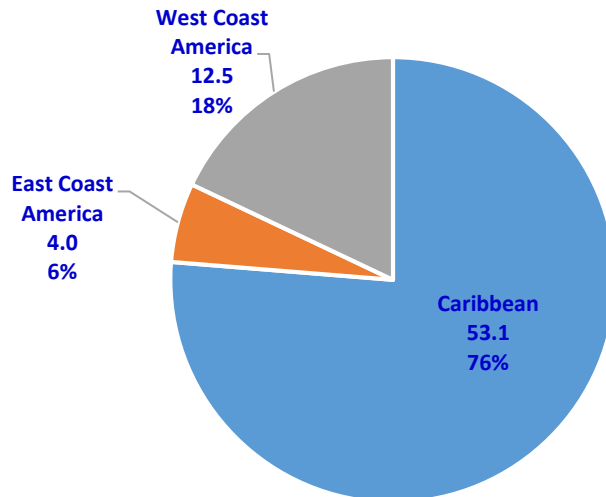
North America accounted for a smaller share of global capacity than global passengers, 48% versus 53%. Europe, on the other hand accounted for a larger share of capacity than passengers, 33% versus 28% while the Rest of the World, including Asia/Pacific, had equal shares for capacity and passengers at 19%.

North America

Within North America, the Caribbean, with 53.1 million bed days, accounted for more than three-fourths (76%) of the capacity deployed in the market (see **Figure 7**). This figure accounts for a 5.0% decrease from 2014. The Pacific side of North America including ports in Alaska, Hawaii, and Mexico was the next largest region with 12.5 million bed days (up 5.9% over 2014) or 18% of the capacity in the market. Finally, cruise lines deployed 4.0 million bed

days (an increase of 5.5% over 2014) among destinations in Canada, and the Atlantic coast of the United States, 6% of the capacity deployed in North America.

Figure 7 –Distribution of Passenger Bed Days in North America – 2015
Millions of bed days



Source: CLIA and G. P. Wild (International) Limited.

Notes: West Coast America Includes Alaska, Hawaii, and ports on the Pacific side of the United States and Mexico. East Coast America includes Canada/New England and Bermuda. The Caribbean includes the Bahamas, U.S. and Mexican ports on the Caribbean and Transcanal (Panama) cruises.

BREA in its latest analysis for the FCCA⁷ reported that seven Caribbean destinations had passenger arrivals⁸ in excess of one million passengers during the 2014-15 cruise year⁹. These were: the Bahamas (3.50 million¹⁰), Cozumel (2.97 million), St. Maarten (2.05 million), U.S. Virgin Islands (2.04 million), the Cayman Islands (1.61 million), Jamaica (1.49 million) and Puerto Rico (1.49 million). Combined, these seven destinations accounted for 57% of the 26.8 million cruise passenger arrivals reported for the 35 destinations that participated in the FCCA study.

Within the United States, BREA has estimated that 10.92 million passengers embarked on their cruises from U.S. ports (excludes San Juan, PR) while 5.35 million passengers visited U.S. ports as transit passengers. Relative to 2014 embarkations at U.S. ports during 2015 declined by 1.3% while visits by transit passengers remained virtually unchanged. As noted previously the five largest embarkation ports in the U.S. during 2015 were: Miami (2.35 million), Port Everglades (1.81 million), Port Canaveral (1.72 million), Galveston (0.82 million) and Long

⁷ Economic Contribution of Cruise Tourism to Destination Economies, prepared for Florida-Caribbean Cruise Association, September 2015.

⁸ Passenger arrivals are the number of passengers on cruise ships that arrive at destination ports. Since not all passengers will disembark at a given port, passenger arrivals are larger than passenger onshore visits.

⁹ The 2014-15 cruise year is defined as the 12-month period from May, 2014 through April, 2015.

¹⁰ This figure excludes arrivals at the private islands in the Bahamas.

Beach (0.60 million). Thus, these five ports accounted for 67% of embarkations among all U.S. ports.

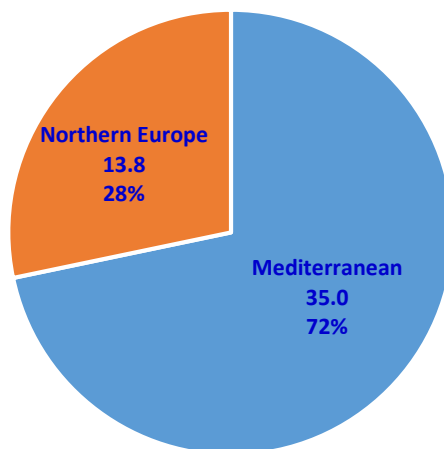
The major transit ports were the Alaska ports of Juneau (976,000), Ketchikan (945,000) and Skagway (816,000) and the Florida ports of Key West (727,000) and Port Canaveral (284,000). These five ports accounted for about 70% of all passenger arrivals at U.S. transit ports.

In Canada the principal home ports were Vancouver, Montreal and Quebec. Vancouver, along with Seattle, is a major home port for Alaska cruises and handled 805,000 passengers while the two ports along the St. Lawrence handled approximately 188,000 home port and transit port passengers. Finally, the ports of Atlantic Canada handled about 551,000 passengers during 2015.

Europe

The Mediterranean accounted for 72% of the capacity deployed in Europe during 2015 with 35.0 million bed days (see **Figure 8**), an increase of 6.4% over 2014. The Mediterranean is a fairly self-contained market with most cruise originating and terminating within the region. As noted previously the major home ports in the Mediterranean are Barcelona, Venice, Civitavecchia, Savona, and Genoa. Major destination or transit ports also include Naples, Marseille, Tenerife, Dubrovnik, Piraeus (Athens) and Las Palmas.

Figure 8 –Distribution of Passenger Bed Days in Europe – 2015
Millions of bed days



Source: CLIA and G. P. Wild (International) Limited.

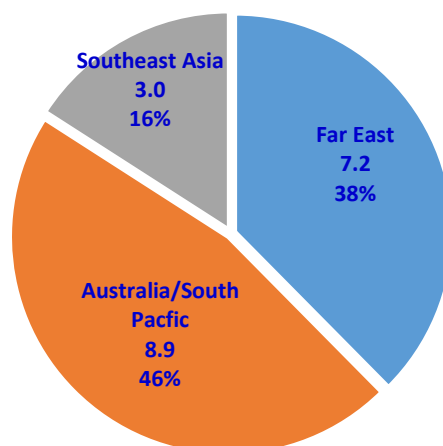
Notes: The Mediterranean includes the Atlantic Isles while Northern Europe includes the Black Sea.

Cruise lines also deployed an estimated 13.8 million bed days (up by 2.2% from 2014) in Northern Europe. Like the Mediterranean, most cruises originate and terminate within the region. The principal home ports are Southampton, Copenhagen and Hamburg. Major cruise destinations in Northern Europe include Lisbon, St. Petersburg, Tallinn, Cadiz, Stockholm, Helsinki, Bergen and Rostock/Warnemunde.

Asia/Pacific

As noted previously the Asia/Pacific destination market accounted for 13% of the cruise industry's global bed day capacity. As shown in **Figure 9**, the Australia/South Pacific region accounted for 46% of the capacity deployed in this market with 8.9 million bed days. This was an increase of 18.2% from 2014. Sydney serves as the primary homeport in the region with cruises primarily destined for New Zealand and South Pacific destinations as well as other Australian ports.

Figure 9 – Distribution of Passenger Bed Days in Asia/Pacific – 2015
Millions of bed days



Source: CLIA and G. P. Wild (International) Limited.

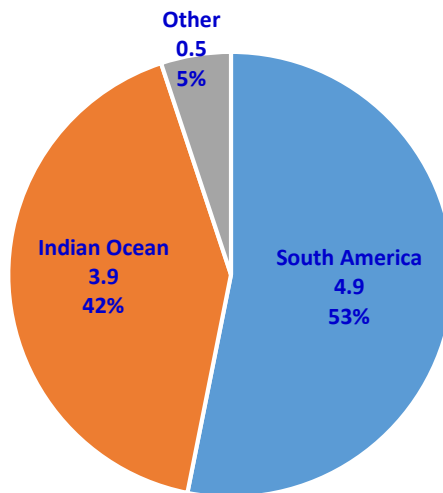
Notes: Southeast Asia includes Singapore, Indonesia, Malaysia, Thailand and Vietnam among others. Far East includes China, Japan, Hong Kong and others.

The Far East region, led by China, accounted for 38% of the capacity deployed in the market with 7.2 million bed days, an increase of 22.7% from 2014. This was followed by Southeast Asia with 16% of the capacity in the market and 3.0 million bed days. Most cruises in this region originate in Singapore with calls at destinations in Indonesia, Malaysia, Thailand and Vietnam. The capacity in this sub-region fell by 8.4% from 2014.

Rest of the World

The Rest of the World accounted for 6% of the cruise industry's global capacity with 9.2 million bed days. South America was the largest sub region within this destination market with 4.9 million bed days, 53% of the market's capacity. The capacity in South America rose by 6.3% from 2014. Brazil and Argentina are the largest destinations within this region. Another 3.9 million bed days (up by 41% from 2014) were deployed in the Indian Ocean region, 42% of the market's capacity. Finally, about 500,000 bed days, an increase of 68% over 2014, were deployed elsewhere in the world primarily for transatlantic and global cruises.

Figure 10 –Distribution of Passenger Bed Days in the Rest of the World – 2015
Millions of bed days



Source: CLIA and G. P. Wild (International) Limited.

Notes: The Indian Ocean includes cruises in the Red Sea, the Middle East and to South Africa.

Passenger and Crew Onshore Visits

As shown in **Table 4**, the cruise industry generated nearly 123 million passenger and crew visit days at ports around the globe, representing an increase of 4.0% from 2014. These consisted of 23.19 million passenger embarkations, 76.0 million transit passenger visit days and 23.54 million crew visit days. European ports accounted for 36% of these while ports throughout North America accounted for 49% of global passenger and crew visit days.

Table 4—Passenger and Crew Onshore Visits – Global and Regional Markets – 2015

Millions of Visit Days

Category	Global	Regional Markets			
		United States ^①	Rest of North America ^②	Europe (EU+3) ^③	Rest of World ^④
Passenger Embarkations	23.19	10.92	1.54	6.59	4.14
Transit Passengers	76.01	5.26	30.10	31.17	9.48
Crew	23.54	6.92	5.62	6.19	4.81
Total	122.73	23.10	37.26	43.94	18.43
Percent Change from 2014	3.98%	-0.86%	-2.77%	8.31%	16.35%

^① United States consists of all US ports including those in Alaska and Hawaii.

^② Rest of North America consists of ports in Bermuda, Canada, the Caribbean, Central America and Mexico.

^③ Europe EU+3 includes the ports of the 27 member states of the EU plus Iceland, Norway and Switzerland.

^④ Rest of the World consists of ports in South America, Asia, the South Pacific and Australia.

Of the 23.19 million cruise passengers sourced from around the world, 10.92 million, 47%, embarked on their cruise from a port in the United States. Of these 55% boarded cruises from Florida's five cruise ports, Miami, Port Everglades, Port Canaveral, Tampa and Jacksonville. Another 1.54 million passengers, 7% of the global total, embarked on cruises from other ports in North America. The principal embarkation ports were San Juan in the Caribbean and Vancouver in Canada.

European ports with 6.59 million passenger embarkations accounted for another 28% global passenger embarkations. The major embarkation ports in Europe included Barcelona, Civitavecchia, Venice, Palma Majorca, Piraeus (Athens), Savona and Genoa in the Mediterranean and Southampton, Copenhagen and Hamburg in northern Europe. Combined, these ten ports accounted for 62% of the passenger embarkations in Europe.

A total of 4.14 million passengers embarked on cruises at ports around the Rest of the World, 18% of the total. This represented an increase of 14% over 2014. Sydney, Singapore, Hong Kong and Shanghai were the major home ports in the Rest of the World.

An analysis of global cruise itineraries and passenger arrivals indicated that the average length of a cruise was approximately seven days. On a seven-day itinerary, the typical cruise ship made between three and four calls in addition to the home port call. Thus, the 23.19 million cruise passenger embarkations generated another 76.0 million visit days at transit calls at ports around the globe. This represented an increase of 3.6% over 2014.

The ports of the Europe accounted for the largest share at 41% with 31.2 million transit visit days. Europe's major transit ports included Marseille, Naples, Civitavecchia, Tenerife, Dubrovnik and Santorini in the Mediterranean and Stockholm, St. Petersburg, Lisbon, Rostock, and Tallinn in Northern Europe. Combined, these eleven ports accounted for about 30% of transit visit days throughout Europe. The Rest of North America was next with 30.1 million transit visit days, 40% of the global total. The Caribbean, including Mexico and Central America accounted for over three-fourths of these visit days. The ports of the United States generated 5.26 million transit passenger visit days, 7% of the total. The principal transit ports in the United States are located in Alaska, Hawaii and Florida. Finally, ports in the Rest of the World received 9.5 million transit passenger visit days, 12% of global transit visit days. The principal transit ports in this region were located in Australia and Southeast Asia.

Finally, crew onboard cruise ships also disembark and visit in both home and transit ports. Based upon data collected as part of regional and port specific cruise studies, BREA has estimated that between 40% and 45% of crew disembark at each port call. Thus, on a global basis cruises generated an estimated 23.54 million crew visit days, an increase of 4.2% from 2014.

The ports of the United States and Europe generated 6.92 million and 6.19 million crew visits days, respectively. Combined this accounted for 53% of global crew visit days. The Rest of North America and the Rest of the World generated 5.62 million and 4.81 million crew visit days, respectively.

Direct Expenditures Generated by Cruise Tourism

The direct expenditures generated by cruise tourism were analyzed for three segments: i) cruise passengers, ii) crew members and iii) cruise lines. Passengers purchased pre- and post-cruise vacations, shore excursions, souvenirs and other retail goods while crew purchased a similar set of goods and services with a heavier concentration on retail goods. In addition, cruise lines purchased a variety of goods in support of their cruise operations, including food and beverages, hotel supplies, bunker fuel, and utilities while in port. Cruise lines also made payments for a variety of services in support of their global cruise operations, including travel agent commissions, expenditures for advertising and promotion and other professional and business services. As shown in **Table 5**, the estimated direct global spending by cruise lines and their passengers and crew totaled \$54.11 billion during 2015. This represented a decline of 3.0% from 2014.

Table 5—Direct Cruise Sector Expenditures – Global and Regional Markets – 2015

Billions of US\$

Category	Global	Regional markets			
		United States	Rest of North America	Europe (EU+3)	Rest of World
Home Port Passengers	\$ 7.20	\$ 2.70	\$0.78	\$ 2.05	\$1.67
Transit Passengers	\$ 6.99	\$ 0.65	\$2.85	\$ 2.24	\$1.25
Passenger Total	\$14.19	\$ 3.35	\$3.63	\$ 4.29	\$2.92
Crew	\$ 1.26	\$ 0.33	\$0.49	\$ 0.17	\$0.28
Cruise Lines	\$38.66	\$17.20	\$1.25	\$15.22	\$4.99
Total	\$54.11	\$20.88	\$5.37	\$19.68	\$8.19
Percent Change from 2014	-2.97%	-0.68%	-0.11%	-7.41%	0.80%
Constant Exchange Rate					
Total	\$58.59	\$20.88	\$5.80	\$22.82	\$9.09
Percent Change from 2014	5.06%	-0.67%	7.88%	7.40%	11.89%

① Expenditures by cruise lines consists of purchases of goods consumed and used on ships, port charges and fees, travel agent commissions, administrative expenses and wages paid to shore side employees and crew among others.

During 2015, the U.S. dollar strengthened significantly resulting in a substantial depreciation of most major currencies relative to the U.S. dollar. For example, the Canadian dollar declined by about 13% between 2014 and 2015, as did the Japanese yen. The Euro, Australian dollar, New Zealand dollar and the Mexican peso all declined by about 16% while the Brazilian real fell by 28% and the Singapore dollar by 8%. At the same time, the Chinese yuan renminbi only depreciated by 2% while those Caribbean destinations whose currencies are pegged to

the U.S. dollar experienced no depreciation. As a result, those currency denominated categories, such as expenditures and income, that are estimated in local currencies are reduced in value when converted to U.S. dollars relative to 2014. Consequently, the decline in direct spending in the Rest of North America and Europe and the small increase in the Rest of the World, is directly related to the depreciation of local currencies relative to the U.S. dollar. To provide a better estimate of the change in real activity, the U.S. dollar estimates have been adjusted to a constant (2014) exchange rate regime, i.e., we removed the effect of the stronger dollar. These adjusted values are shown along with the unadjusted values. Thus, the 3% decline in total direct expenditures from \$55.8 billion in 2014 to \$54.1 billion in 2015 would be a 5.1% increase to \$58.6 billion if exchange rates remained unchanged from 2014. As noted in Table 5, all regions experienced an increase in direct expenditures on an adjusted basis, except the U.S. which did experience a decline in real cruise activity during 2015.

On a global basis, passengers spent an estimated \$14.19 billion (\$15.49 billion adjusted) during home and transit port calls, accounting for 26% of total cruise sector direct expenditures. Crew spent another \$1.26 billion (\$1.35 billion adjusted), 2% of the total. Finally, cruise lines spent an estimated \$38.66 billion (\$41.74 billion adjusted) on cruise operations, 72% of the total.

Table 6–Global Passenger and Crew Spending by Category – 2015
Millions of US\$

Categories	Total	Home Port Passengers	Transit Pas- sengers	Crew
Visit Days (Millions)	122.73	23.19	76.01	23.54
Accommodations	\$1,285	\$1,285	--	--
Travel to Home Port	\$3,531	\$3,531	--	--
Food & Beverages	\$1,846	\$694	\$833	\$318
Tours & Local Transit	\$3,742	\$708	\$2,787	\$247
Retail & Other	\$5,048	\$987	\$3,370	\$691
Total	\$15,452	\$7,205	\$6,990	\$1,257
Average Spend per Visit①	\$125.90	\$310.76	\$91.96	\$53.39
Percent Change from 2014	-2.82%	-4.70%	-1.14%	-1.03%
Constant Exchange Rate				
Total	\$16,732	\$7,802	\$7,569	\$1,361
Average Spend per Visit①	\$136.33	\$336.48	\$99.58	\$57.82
Percent Change from 2014	5.23%	3.19%	7.06%	7.17%

① Dollars per visit (not in millions).

As shown in **Table 6**, passenger and crew expenditures were concentrated in three categories, travel to home port, tours and local transit and retail and other. Combined these three

categories accounted for 80% of the global expenditures of passengers and crew. On average \$125.90 (\$136.33 adjusted) in expenditures were generated by each visit. This was a 2.9% decrease (5.2% increase adjusted) over 2014.

On a regional basis, the United States and Europe had similar direct expenditure totals, \$20.88 and \$19.68 billion (\$20.88 billion and \$22.82 billion adjusted), respectively (see Table 5). Thus, each market accounted for about 38% of global direct expenditures. Since the U.S. serves primarily as a source market for cruises to the Rest of North America, expenditures by home port passengers accounted for nearly 75% of passenger and crew spending in the United States. In Europe, on the other hand, cruises originate and make port calls within the European market. As a result, expenditures by home and transit port passengers were nearly identical, \$2.05 and \$2.24 billion (\$2.38 and \$2.60 billion adjusted).

Expenditures by cruise lines were also similar in both the United States and Europe, \$17.20 billion in the U.S. and \$15.22 billion (\$17.66 billion adjusted) in Europe. The key difference is that shipbuilding, including maintenance and refurbishment, accounted for 27% of the expenditures by cruise lines in Europe and only about 4% in the United States.

As alluded to above, the Rest of North America is principally a destination market for cruises originating in the United States. As a result, expenditures by transit passengers, \$2.85 billion (\$3.08 billion adjusted), accounted for nearly 70% of all passenger and crew spending in the region. The \$1.25 billion (\$1.35 billion adjusted) in cruise line spending in the Rest of North America was largely concentrated in Canada which accounted for about 23% of the total spending in the region. In total, the \$5.37 billion (\$5.80 billion adjusted) in direct cruise sector expenditures in the Rest of North America accounted for about 10% of global direct spending.

The \$8.19 billion (\$9.09 billion adjusted) in direct expenditures in the Rest of the World accounted for about 16% of global direct spending. The home port passengers of this region spent the highest proportion within their category than in any other region. Home port passenger spending accounted for 20% of spending within the region. Additionally, cruise lines spent \$4.99 billion (\$5.54 billion adjusted), accounting for 61% of direct spending within the region. This is primarily due to the presence of cruise administrative offices and the construction and refurbishment of ships in Asia.

Economic Contribution Generated by Cruise Tourism

The objective of this analysis is to quantify the contribution of the spending generated by cruise tourism to the global economy during 2015. The quantification consists of the measurement of the direct expenditures and the resulting impacts on output, employment and income. The contribution analysis consists of three elements: i) the direct economic contribution, ii) the indirect economic contribution and the iii) the induced economic contribution.

The direct expenditures generated by the cruise industry and its passengers and crew that were quantified and discussed in the previous section, are the driving force of the industry's contribution to the global economy. These expenditures generate direct employment and employee income in support of providing the goods and services purchased by the cruise lines and their passengers and crew.

The indirect contribution results from the subsequent demand for goods and services generated by the directly impacted businesses. For example, food processors must purchase raw foodstuffs for processing; utility services, such as electricity and water, to run equipment and process raw materials; transportation services to deliver finished products to the cruise lines or wholesalers; and insurance for property and employees.

The induced contribution is generated by the spending of the employees of the cruise lines and their suppliers. The income of these employees is used to purchase a broad range of consumer goods and services including such goods as autos, food, clothing, furniture, health care and so forth. As a consequence, the induced contribution is concentrated in the final demand for final goods produced for the household sector.

As discussed in the Introduction, the estimates of the global direct, indirect and induced contribution are the sum of the impacts estimated for the regional markets. The regional estimates for 2015 are taken directly from published economic impact studies for 2015, extrapolated impacts for regions where studies were conducted in the past several years and estimates developed by BREA for those regions where recent economic impact data are unavailable.

Direct Economic Contribution

The \$54.11 billion (\$58.59 billion adjusted) in global direct cruise tourism expenditures represents a 3.0% decrease (5.1% increase adjusted) over 2014 and by themselves generated a significant contribution to the global economy. As shown in **Table 7**, these direct expenditures generated an estimated 459,799 FTE jobs, up 2.5% from 2014, paying \$16.63 billion (\$17.96 billion adjusted) in employee income, down 1.3% (up 6.6% adjusted) from 2014. This includes the shore side employees and crew of cruise lines.

Table 7—Direct Cruise Sector Economic Contribution – Global and Regional Markets – 2015

Billions of US\$

Category	Global	Regional Markets			
		United States	Rest of North America	Europe (EU+3)	Rest of World
Output (\$ Billion)	\$54.11	\$20.88	\$5.37	\$19.68	\$8.19
Share of Global		38.58%	9.93%	36.36%	15.13%
Income (\$ Billion)	\$16.63	\$6.96	\$0.99	\$5.82	\$2.86
Share of Global		41.85%	5.95%	34.98%	17.22%
Employment	459,799	151,400	55,057	175,476	77,866
Share of Global		32.93%	11.97%	38.16%	16.93%
Percent Change from 2014					
Output (\$ Billion)	-2.97%	-0.68%	-0.11%	-7.41%	0.80%
Income (\$ Billion)	-1.29%	-0.85%	-10.00%	-1.90%	2.68%
Employment	2.48%	-0.57%	-0.57%	3.32%	9.35%
Constant Exchange Rate					
Output (\$ Billion)	\$58.59	\$20.88	\$5.80	\$22.82	\$9.09
Share of Global		35.63%	9.91%	38.95%	15.51%
Income (\$ Billion)	\$17.96	\$6.96	\$1.07	\$6.75	\$3.18
Share of Global		38.76%	5.95%	37.58%	17.71%
Percent Change from 2014					
Output (\$ Billion)	5.06%	-0.68%	7.88%	7.40%	11.89%
Income (\$ Billion)	6.57%	-0.85%	-2.80%	13.80%	13.97%

The table also shows the regional distribution of the direct economic contribution. Europe's direct economic contributions accounted for 39% of the global direct contribution of the cruise industry. The \$19.68 billion (\$22.82 billion adjusted) in direct expenditures in Europe generated 175,476 FTE jobs paying an estimated \$5.82 billion (\$6.75 billion adjusted) in employee income. As noted previously Europe's shipbuilding industry represents a significant component, about 27%, of the direct economic contribution of the cruise industry in Europe.

The United States accounted for about 36% of global direct contribution to the cruise industry with \$20.88 billion in direct expenditures. These expenditures generated an estimated 151,400 FTE jobs paying \$6.96 billion in employee income. Given the significant headquarters and home port operations in the U.S., the direct economic contribution is heavily weighted toward those industries that supply goods and services to the cruise ships, i.e., cruise ports, suppliers of food and beverages, fuel and equipment, and administrative support services such as, advertising, accounting and professional services and transportation services, including travel agents.

Elsewhere in North America, the cruise industry's direct expenditures of \$5.37 billion (\$5.80 billion adjusted) generated 55,057 FTE jobs paying nearly \$1.0 billion (\$1.07 billion adjusted) in employee income. The share of the global economic contribution in this region ranged from 6.0% for the income contribution to 12.0% for the employment impact. The impacts in this region are largely generated by passenger and crew spending which accounted for 77% of the direct expenditures. Because these impacts primarily affect the retail trade and tour sectors, which have relatively low wages and productivity, the share of the employee income impact is lower than the share of the employment impact.

Finally, the direct expenditures of \$8.19 billion (\$9.09 billion adjusted) in the Rest of the World generated 77,866 FTE jobs paying \$2.86 billion (\$3.18 billion adjusted) in employee income. The Rest of the World direct economic impacts in each category accounted for about 16% of the global direct impacts.

Indirect and Induced Economic Contribution

As discussed previously, the indirect and induced contributions are generated by the spending of the directly impacted businesses and their employees. As a consequence, these impacts spread throughout the global and regional economies. The specific indirect and induced impacts are determined by the structure of the individual economies and as a result can vary significantly from region to region. As shown in **Table 8**, the \$54.11 billion (\$58.59 billion adjusted) in direct cruise tourism expenditures generated an additional \$62.98 billion (\$68.38 billion adjusted) in indirect and induced output, \$21.53 billion (\$22.80 billion adjusted) in employee income and 496,798 FTE jobs.

Combined, the United States and Europe accounted for about 80% of the global indirect and induced contribution. While Europe accounted for a larger percentage of the global output contribution than the U.S., the United States accounted for a larger percentage of the global employment and income contribution. The Rest of North America and the Rest of the World each accounted for between 8% and 12% of the global indirect and induced economic contribution.

Table 8—Indirect and Induced Cruise Sector Economic Impact – Global and Regional Markets – 2015
Billions of US\$

Category	Global	Regional Markets			
		United States	Rest of North America	Europe (EU+3)	Rest of World
Output (\$ Billion)	\$62.98	\$24.85	\$4.47	\$26.70	\$6.96
Share of Global		39.45%	7.10%	42.40%	11.05%
Income (\$ Billion)	\$21.53	\$12.32	\$0.96	\$5.81	\$2.44
Share of Global		57.23%	4.46%	26.99%	11.32%
Employment	496,798	219,530	39,610	185,095	52,563
Share of Global		44.19%	7.97%	37.26%	10.58%
Percent Change from 2014					
Output (\$ Billion)	-1.79%	-0.89%	-7.38%	-2.84%	3.25%
Income (\$ Billion)	-4.33%	-0.73%	-8.58%	-12.10%	0.24%
Employment	1.27%	-0.87%	-1.07%	3.35%	5.25%
Constant Exchange Rate					
Output (\$ Billion)	\$68.38	\$24.85	\$4.83	\$30.97	\$7.72
Share of Global		36.34%	7.07%	45.30%	11.30%
Income (\$ Billion)	\$22.80	\$12.32	\$1.04	\$6.74	\$2.70
Share of Global		54.04%	4.55%	29.56%	11.86%
Percent Change from 2014					
Output (\$ Billion)	6.62%	-0.89%	0.03%	12.71%	14.61%
Income (\$ Billion)	1.33%	-0.73%	-1.27%	1.96%	11.26%

Total Economic Contribution

Combining the direct, indirect and induced contributions, cruise tourism generated an estimated \$117.09 billion (\$126.97 billion adjusted) in total output of goods and services throughout the global economy during 2015, a decline of 2.3% (an increase of 5.9%) over 2014. As a result of the production of this output, 956,597 FTE jobs were required, an increase of 1.9% over 2014. The workers who were employed in these jobs were paid \$38.16 billion (\$40.76 billion adjusted) in income, a total that represents a 3.0% decrease (3.6% increase) from 2014 (see **Table 9**).

The table also shows the regional distribution of the direct economic contribution. Europe has the largest total output contribution of \$46.38 billion (\$53.80 billion adjusted) and accounted for about 42% of the total global output contribution of the cruise industry. This output resulted in employment of 360,571 FTE workers paying an estimated \$11.63 billion (\$13.49 billion adjusted) in employee income. The employment and income contribution accounted for approximately 33% and 38% of the total global income and employment contribution, respectively.

The total output contribution in the United States was \$45.72 billion, about 36% of the total global output contribution. The \$46.09 billion in total output generated an estimated 370,930 FTE jobs paying \$19.28 billion in employee income. The employment and income contributions were the highest among the four regional markets and accounted for approximately 39% and 47% of the total global employment and income contributions, respectively.

Table 9–Total Cruise Sector Economic Contribution – Global and Regional Markets – 2015

Billions of US\$

Category	Global	Regional Markets			
		United States	Rest of North America	Europe (EU+3)	Rest of World
Output (\$ Billion)	\$117.09	\$45.72	\$9.85	\$46.38	\$15.14
Share of Global		39.05%	8.41%	39.61%	12.93%
Income (\$ Billion)	\$38.16	\$19.28	\$1.95	\$11.63	\$5.30
Share of Global		50.53%	5.11%	30.47%	13.89%
Employment	956,597	370,930	94,667	360,571	130,429
Share of Global		38.78%	9.90%	37.69%	13.63%
Percent Change from 2014					
Output (\$ Billion)	-2.34%	-0.79%	-3.55%	-4.83%	1.84%
Income (\$ Billion)	-3.00%	-0.77%	-9.31%	-7.28%	1.54%
Employment	1.85%	-0.75%	-0.78%	3.34%	7.66%
Constant Exchange Rate					
Output (\$ Billion)	\$126.97	\$45.72	\$10.64	\$53.80	\$16.81
Share of Global		36.01%	8.38%	42.37%	13.24%
Income (\$ Billion)	\$40.76	\$19.28	\$2.11	\$13.49	\$5.88
Share of Global		47.30%	5.17%	33.09%	14.44%
Percent Change from 2014					
Output (\$ Billion)	5.89%	-0.79%	4.17%	10.40%	13.05%
Income (\$ Billion)	3.60%	-0.77%	-2.05%	7.56%	12.71%

Elsewhere in North America, the cruise industry's total output contribution of \$9.85 billion (\$10.64 billion adjusted) generated 94,667 FTE jobs paying \$1.95 billion (\$2.11 billion adjusted) in employee income. The share of the global economic contribution in this region ranged from about 5% for the income contribution to nearly 10% for the employment impact. As noted previously, these impacts primarily affect the retail trade and tour sectors, which have relatively low wages and productivity, thus the share of the global employee income contribution is lower than the share of the employment contribution.

Finally, the total output contribution of \$15.14 billion (\$16.81 billion adjusted) in the Rest of the World generated 130,429 FTE jobs paying \$5.30 billion (\$5.88 billion adjusted) in employee income. The share of the global contribution fell between 13% and 14% for the total output, employment and income contributions.