

MasterCard Worldwide Insights

MasterCard Index of Global Destination Cities: Cross-Border Travel and Expenditures 2Q 2011



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Executive Summary

The leading cities of the world are the very nodal hubs that knit the global economy together. Without these global cities, there would be no global economy. Indeed, as the center of global economic gravity shifts inexorably to the dynamic emerging markets in Asia, Latin America, Central and Eastern Europe, and Africa, cities there will correspondingly play a bigger role in driving global economic growth and connectivity. While the international flow of capital and the trade of goods and services have been meticulously measured and documented, the same cannot be said of the human dimension of globalization. International travel is a powerful trend that shapes global commerce and underpins the growth of key industries such as transportation, retail, and hospitality, and professional services like marketing and advertising. The economic and business impacts of international travel are especially pronounced in cities that are popular destinations of international travelers, and in these **destination cities**, spending by international visitors contributes significantly to local commerce and business activities, amplifying the dynamism of these urban economies. While growth rates by visitor arrivals and expenditures are high overall, regardless of whether the destination cities are in the developed or emerging markets, many emerging market destination cities are showing both high visitor arrival and expenditure growth. This kind of growth pattern strongly suggests that destination cities in emerging markets worldwide will continue to grow in importance in the new global economy.

Introduction

At some point in 2006-2007, for the first time in human history, the majority of the world's population lived in urban areas, up from just 15% in 1900. This is a historic milestone of a journey that started over 5,000 years ago, when dense human settlements appeared along fertile river valleys in different parts of the world that were recognizably the first cities in history. These were centers of administration and trade, evolved over time to manage and coordinate activities involving ever larger numbers of people. So from their very inception, cities came into being because of the need for exchanges: movement of goods, services, information, and people.

Today, cities continue to perform the same functions as their predecessors did some 5,000 years ago, except that they are now much bigger, more complex, and increasingly diverse, with vastly expanded geographical reach. Indeed, the leading cities of the world are the very nodal hubs that knit the global economy together. Without these global cities, there would be no global economy.

At the regional level, there are smaller cities that provide the structure and sinews that connect the regional economies, while serving as gateways linking their respective regions to the global economy.

The urban economies represented by cities are typically richer and more dynamic than the rural economies of the same country. This is due to the higher productivity made possible by both economies of scale and economies of scope, key characteristics of the urban economy and the very conditions that facilitate specialization. The high population concentration in cities also means that mass consumer markets are found only in cities. In fact, many economists and urban geographers have long noticed that the urban economies of cities not only bring together but multiply human productive efforts.¹

In the aftermath of the 2008-2009 global financial crisis, many of the world's leading cities have demonstrated their resilience and ability to recover quickly. Even in New York and London, the epicenters of the

crisis, economic recovery has been much better than expected. The so-called cluster effect has a lot to do with it. The concentration of highly skilled knowledge workers in many cities attracts business investment even during a crisis, precisely because their services are needed for companies to cut costs, raise productivity, and compete more effectively during tough times. Many skill-intensive services such as health and education also tend to be counter-cyclical, less affected in times of economic downturn. A high concentration of knowledge workers, in turn, attracts more knowledge workers and creates a more fertile environment for developing more skill-intensive services, creating a self-reinforcing virtuous cycle.

Indeed, in 2010, as bad as the unemployment situation was in the US, larger cities that are less dependent on manufacturing and construction have seen faster job growth than the economy overall. In tech-business centers like San Jose and Orange County in California, and in cities where there are higher concentrations of skilled and knowledge workers like Austin, Dallas, Phoenix, and Boston, unemployment rates are as low as half that of the national average.² In cities in emerging markets in Asia and Latin America, there are simply no signs of a recession at all; they look like the boom towns that they are.

In the post-crisis global economy, cities and their urban economies will become even more important as engines of global economic growth. They will continue to connect global commerce and facilitate the exchange of ideas and flow of knowledge, thereby playing a critical role in incubating creative industries and generating new business activities. As the center of global economic gravity shifts inexorably to the dynamic emerging markets in Asia, Latin America, Central and Eastern Europe, and Africa, cities in those areas will correspondingly play a bigger role in driving global economic growth and connectivity.

An important dimension of how cities are connected across the globe is represented by cross-border travel and expenditures, the human dimension of globalization. While the international flow of capital and the trade of goods and services have been meticulously

¹ Robert Lucas, Nobel Prize-winning economist, once quipped that the only reason why people are prepared to pay a small fortune to live in a shoe box in Manhattan is because they can be close to other people who also paid a small fortune to live in a shoe box there.

² Bureau of Labor Statistics, US Government.

measured and documented, the same cannot be said of this human dimension of globalization. International travel is a powerful trend that shapes global commerce and underpins the growth of key industries such as transportation, retail, and hospitality, and professional services like marketing and advertising. The economic and business impacts of international travel are especially pronounced in cities that are popular destinations of international travelers, and in these *destination cities*, spending by international visitors contributes significantly to local commerce and business activities, amplifying the dynamism of these urban economies.

Counterintuitively, international travel and cross-border expenditures are powerfully transformative even from the perspective of local businesses. Take the retail industry, for instance, which is a highly localized business, historically and intimately affected by the fortunes of the local economies of the specific neighborhoods they serve. With the rising tide of personal and business travel, however, the retail industries in destination cities around the world have become more connected to global demand represented by foreign visitors, whose consumption

preferences and behavior may not be familiar to the local retailers. Thus, the retail industry today faces both the welcome prospect of selling to foreign visitors coming from far-flung corners of the world, as well as unprecedented marketing challenges in having to compete in the global arena far beyond their traditional local markets.

The need to better understand these global destination cities and how they are connected by international travel is also illustrated by their performance in the aftermath of the worst global recession in the last 50 years, as summarized in Table 1. In 2010, based on estimates of 132 cities in the world,3 their collective total outbound air passenger departures and outbound expenditures grew by 9.2% and 14.6% year-on-year, respectively. These robust growth rates compare favorably with the growth rates of world nominal GDP of 7.1% and world real GDP of 3.7%. Growth of international travel and cross-border expenditures is clearly a resilient secular trend that will continue to shape the future of globalization as well as the urban economies of destination cities.

TABLE 1: POST-CRISIS GROWTH OF OUTBOUND TRAVEL AND EXPENDITURES

Total of 132 Cities	2010 Year-on-Year Growth Rate
Outbound passengers	9.2%
Outbound expenditures	14.6%
World nominal GDP	7.1%
World real GDP*	3.7%

(MasterCard Worldwide, IMF)

^{*} based on nominal exchange rates

³ The selection of the 132 cities is based on previous research conducted by MasterCard Worldwide over the 2006-2007 period, known as the *MasterCard Worldwide Centers of Commerce* project (see MasterCard Worldwide Insights Report *Worldwide Centers of Commerce*, 2008). In this research, 132 cities in the world were identified as candidates for evaluation and as having the potential of playing the role of "centers of commerce" for both their respective regional economies as well as in the global economy. These 132 cities and their regional distributions are listed in Appendix A.

In order to develop better insights on this important human dimension of globalization, MasterCard Worldwide has created the *Index of Global Destination Cities*, an annual research program that describes and analyzes the global network of 132 destination cities and how they are connected through cross-border air travel and associated expenditures. This report summarizes the key research findings, covering the period of 2009 to 2011.⁴

Global Rankings of Top 20 Destination Cities

Destination cities are ranked globally in terms of the number of their total international visitor arrivals and cross-border spending by these same visitors in the destination cities. As explained in Appendix B (methodology), after the "gross" total numbers of passengers arriving in a destination city is established, this total is then adjusted by netting out (i) returning residents of the destination city after an overseas trip and (ii) transit passengers who had arrived in the destination city only to transfer to another flight for a second destination city (more significant for "hub" cities with airport capacity far exceeding the need of their local populations) and who are now returning via the same route. A more accurate estimate of visitor arrivals is then established after these steps. This adjusted number of visitor arrivals is then used to estimate cross-border expenditures by these visitors in the destination city. 6

Global Top 20 Destination Cities by Visitor Arrivals

The global top 20 destination cities by visitor arrivals are presented in Chart 1. European cities dominate with 10 out of the 20, and with London and Paris in first and second position, respectively. Cities in Asia/Pacific come second, accounting for eight of the top 20. Bangkok occupies the third position, testifying to its attraction as a popular tourist destination. Dubai, in the Middle East, is ranked ninth. Only one city in North America is in the top 20, New York, which is ranked twelfth.

However, when these top 20 destination cities are ranked in terms of their growth rates of visitor arrivals expected in 2011, a very different picture emerges, as seen in Table 2. Barcelona is ranked first, and is expected to grow by an impressive 24.3% in visitor arrivals this year. Kuala Lumpur in Malaysia is ranked second, following very closely with a growth rate of 21.8%. Istanbul is in third place with a growth rate of

20.4%. Thus, all top three fastest-growing destination cities show very high growth rates exceeding 20%. Shanghai and Hong Kong follow in fourth and fifth ranks, with growth rates of 18.6% and 17.4%, respectively. New York, the only North American destination city in the top 10, is expected to grow by 11.7%.

Barcelona, in the top rank, is one of two European cities among the top 10 in terms of growth rates, a complete reversal of the pattern seen in the top 20 ranking shown in Chart 1, which is dominated by destination cities in Europe (10 out of the top 20). Instead, from the perspective of growth, six of the top 10 are in Asia, one in the Middle East and one in North America. This kind of growth pattern strongly suggests that destination cities in emerging markets in Asia will continue to grow in importance.

⁴ Due to the Japanese earthquake and tsunami, and the upheaval in North Africa and the Middle East, some of these estimations will have to be revised as events unfold.

⁵ The details are explained in steps (i) to (iii) in Appendix B.

⁶ The details are explained in steps (iv) and (v) in Appendix B.

⁷ All estimates for Tokyo in this report will be subject to change as the impacts of the earthquake and tsunami evolve going forward.

CHART 1: GLOBAL TOP 20 DESTINATION CITIES BY INTERNATIONAL VISITORS (2011)

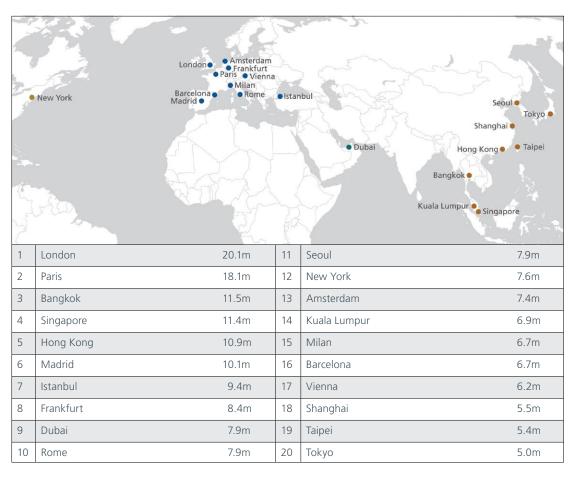


TABLE 2: GROWTH RATES OF VISITOR ARRIVALS FOR THE TOP 20 DESTINATION CITIES IN 2011

Destination Cities	2011 Rank	2010 to 2011 Growth Rate
Barcelona	16	24.3%
Kuala Lumpur	14	21.8%
Istanbul	7	20.4%
Shanghai	18	18.6%
Hong Kong	5	17.4%
Dubai	9	17.3%
Taipei	19	16.9%
Singapore	4	14.5%
Tokyo	20	13.5%
New York	12	11.7%

Global Top 20 Destination Cities by Visitor Expenditures

Chart 2 shows the top 20 ranks of destination cities by visitor expenditures. London is again the top ranked, followed by New York in second and Paris in third. Estimated visitors' cross-border expenditures in 2011 in these top-ranking destination cities are very significant, amounting to US\$25.6 billion, US\$20.3 billion, and US\$14.6 billion, respectively, for London, New York, and Paris. Bangkok ranks fourth with visitor expenditures estimated at US\$14.4 billion, followed by Frankfurt in fifth ranking with US\$14 billion.

Sydney in Australia is in sixth position, putting it in the top 10 of the world by visitor expenditures even though it is not even in the top 20 by visitor arrivals. In other words, the number of international visitors in Sydney is not among the highest, but the amount

that these visitors spend in Sydney is the sixth largest in the world. A second Australian city, Melbourne, is ranked nineteenth, with an estimated visitor expenditure of US\$7.5 billion. So while the two most important destination cities in Australia may not be among the world's top 20 in terms of visitor arrivals, they are able to attract very high visitor expenditures once visitors arrive.

While New York is the only North American destination city in the top 20 by visitor arrivals, two other American destination cities join New York in the top 20 by visitor expenditures, Los Angeles and Miami. Overall, the world's top 20 list consists of eight destinations in Europe, six in Asia, three in North America, two in Australia, and one in the Middle East.

CHART 2: GLOBAL TOP 20 DESTINATION CITIES BY INTERNATIONAL VISITOR SPENDING (2011)



From the perspective of growth in visitor expenditures in these top 20 cities, the picture again looks very different as Table 3 shows. Istanbul, which ranks twelfth by visitor expenditures in 2011, is expected to have the highest growth rate, estimated at 30.1%. Barcelona follows in second rank at 28.2%, and Dubai in third at 24%. The two key destination cities in Asia, Singapore and Hong Kong, are expected to grow by

23.9% and 23.6%, respectively. Melbourne, which ranks lower than Sydney in terms of visitor expenditures, is ranked eighth in the world while Sydney fails to make it to the top 10. European destination cities, which dominate in visitor expenditures, are conspicuous by their absence from the point of view of growth rates. Only two European destination cities, Istanbul and Barcelona, are in the top 10.

TABLE 3: GROWTH RATES OF VISITOR EXPENDITURES FOR THE TOP 20 DESTINATION CITIES IN 2011

Destination Cities	2011 Rank	2010 to 2011 Growth Rate
Istanbul	12	30.1%
Barcelona	20	28.2%
Dubai	18	24.0%
Singapore	9	23.9%
Hong Kong	10	23.6%
Tokyo	15	20.8%
Taipei	17	20.3%
Melbourne	19	19.0%
Seoul	11	18.6%
Bangkok	4	18.6%

Top 10 Destination Cities in Middle East and Africa

Top 10 Destination Cities in Middle East and Africa by Visitor Arrivals

The top 10 destination cities by visitor arrivals in the Middle East and Africa region are shown in Chart 3. Not surprisingly, Dubai is ranked first as it is the only destination city in the Middle East that is in the world's top 20 by visitor arrivals. Dubai is followed by Cairo, ⁸ Johannesburg, and Tel Aviv in second, third, and fourth ranks, respectively. Apart from Johannesburg, Nairobi is the only Sub-Sahara African destination city in the top 10 in the seventh position.

Table 4 shows the ranking of destination cities by growth rates of their visitor arrivals. From this perspective, the really interesting feature of the Middle East and Africa region is that the same set of destination cities is in the top 10 in both visitor arrivals and their growth rates. Only their individual ranking is altered somewhat. In other words, these destination cities have the highest numbers of visitors, and their visitor arrival numbers are also the fastest-growing in the region.

CHART 3: TOP 10 DESTINATION CITIES IN MIDDLE EAST AND AFRICA BY INTERNATIONAL VISITORS (2011)



⁸ Estimates for Cairo and Tunis will need to be reassessed due to the events unfolding there.

TABLE 4: GROWTH RATES OF VISITOR ARRIVALS IN TOP 10 DESTINATION CITIES IN MIDDLE EAST AND AFRICA IN 2011

Destination Cities	2011 Rank	2010 to 2011 Growth Rate
Cairo	2	21.6%
Tunis	10	19.9%
Dubai	1	17.3%
Abu Dhabi	6	15.5%
Nairobi	7	14.1%
Amman	8	14.1%
Beirut	9	13.9%
Tel Aviv	4	13.8%
Johannesburg	3	9.9%
Casablanca	5	5.5%

Top 10 Destination Cities in Middle East and Africa by Visitor Expenditures

Dubai is also the top-ranked destination city by visitor expenditures as shown in Chart 4. Beirut is ranked second (ranked ninth in visitor arrivals), followed by Tel Aviv in third (ranked fourth in visitor arrivals). These top 10 destination cities by visitor expenditures are almost identical to the top 10 in visitor arrivals, with only one exception. Tunis, which is ranked tenth by visitor arrivals, is displaced by Riyadh in tenth position by visitor expenditures.

From the point of view of growth in expenditures, Riyadh is in the top rank with an impressive growth rate of 35.5%. Cairo's position in second ranking in growth, as noted earlier, will require reassessment. Dubai and Abu Dhabi in the UAE are in third and fourth positions, respectively, with growth rates estimated at 24% and 21.8%. Visitor expenditures are expected to grow at 20.8% in Nairobi, exceeding the growth rate of Johannesburg, the only other Sub-Sahara African destination city in the top 10.

The data analytics of the **Global Destination Cities Index** can support the analysis of where visitors are

coming from and how much they spend in each of the destination cities. Table 6 shows the examples of the three top destination cities in the Middle East and Africa region: Dubai, Cairo, and Johannesburg. For example, the top five cities of origin for travelers coming to Dubai are London, Kuwait, Beijing, Frankfurt, and Paris. While there is no surprise that visitors from London and Kuwait are both the biggest in number and the highest in their expenditures in Dubai, it is interesting to note that Beijing now ranks third in both number of visitors to Dubai and how much they spend there.

For Cairo, its top five cities of origin of visitors are London, Dubai, Jeddah, Paris, and New York. Visitors from Paris spend the most in Cairo, even though London sends more visitors there. For Johannesburg, the top five cities of origin for travelers are London, Frankfurt, Dubai, Paris, and neighboring Gaborone. London is the most important city of origin for all three destination cities by visitor arrivals and the most important by visitor expenditures for Dubai and Johannesburg.

CHART 4: TOP 10 DESTINATION CITIES IN MIDDLE EAST AND AFRICA BY INTERNATIONAL VISITOR SPENDING (2011)



TABLE 5: GROWTH RATES OF VISITOR EXPENDITURES IN TOP 10 DESTINATION CITIES IN MIDDLE EAST & AFRICA IN 2011

Destination Cities	2011 Rank	2010 to 2011 Growth Rate
Riyadh	10	35.5%
Cairo	4	27.0%
Dubai	1	24.0%
Abu Dhabi	7	21.8%
Tel Aviv	3	21.5%
Nairobi	8	20.8%
Amman	9	19.9%
Beirut	2	19.6%
Johannesburg	5	14.1%
Casablanca	6	8.1%

TABLE 6: TOP 5 CITIES OF ORIGIN IN 2011 FOR DUBAI, CAIRO, AND JOHANNESBURG

Origin Cities	Visitor Arrivals (,000)	Visitor Expenditures (US\$ Million)
Dubai		
London	926	\$876
Kuwait	343	\$373
Beijing	300	\$334
Frankfurt	278	\$245
Paris	262	\$221
Cairo		
London	282	\$214
Dubai	254	\$237
Jeddah	223	\$234
Paris	210	\$335
New York	187	\$170
Johannesburg		
London	321	\$430
Frankfurt	201	\$153
Dubai	199	\$160
Paris	148	\$179
Gaborone	141	\$114

Top 10 Destination Cities in Asia/Pacific

Top 10 Destination Cities in Asia/Pacific by Visitor Arrivals

In Asia/Pacific, Bangkok has the highest number of visitor arrivals, with an estimated 11.5 million international visitors in 2011. Bangkok is closely followed by Singapore with 11.4 million international visitors, with Hong Kong slightly behind, ranked third with almost 11 million international visitors. Seoul and Kuala Lumpur are in fourth and fifth positions, respectively. Two destination cities on the mainland of China, Shanghai and Beijing, are in sixth and ninth posi-

tions.

CHART 5: TOP 10 DESTINATION CITIES IN ASIA/PACIFIC BY INTERNATIONAL VISITORS (2011)

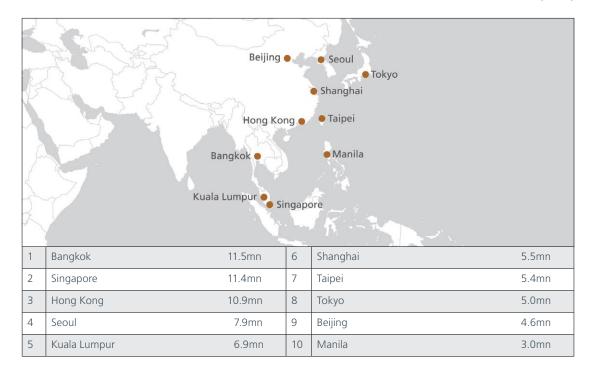


TABLE 7: GROWTH RATES OF VISITOR ARRIVALS IN TOP 10 DESTINATION CITIES IN ASIA/PACIFIC IN 2011

Destination Cities	2011 Rank	2010 to 2011 Growth Rate
Kuala Lumpur	5	21.8%
Beijing	9	20.2%
Shanghai	6	18.6%
Hong Kong	3	17.4%
Taipei	7	16.9%
Manila	10	15.3%
Singapore	2	14.5%
Tokyo	8	13.5%
Bangkok	1	10.9%
Seoul	4	10.4%

Top 10 Destination Cities in Asia/Pacific by Visitor Expenditures

Chart 6 shows the top 10 destination cities in Asia/ Pacific by visitor expenditures. Bangkok comes out in top position again with an estimated total visitor expenditure of US\$14.4 billion in 2011. Sydney is in second position with an estimated visitor expenditure of US\$13.8 billion, even though Sydney is not in the top 10 by visitor arrivals. Beijing, which shows the second highest growth of visitor arrivals in the region, does not make it to the top 10 in visitor expenditures. Shanghai, which is in third rank by growth of visitor arrivals, is ranked 10th with an estimated visitor expenditure of US\$6 billion.

Table 8 shows the regional ranking from the perspective of growth rates in visitor expenditures. Kuala Lumpur is ranked first (31%), just as it is in the top rank in growth of visitor arrivals (Table 7). So Kuala Lumpur clearly is a destination city to watch as its growth in both visitor arrivals and visitor expenditure is the highest in the region. Shanghai is in second position, with total visitor expenditure estimated to grow by 24.3% this year. Melbourne, in seventh rank in growth of visitor expenditure, surpasses Sydney,

which is in 10th rank. Bangkok, the top-ranked regional destination city in both visitor arrivals and expenditures, is ranked 10th in terms of growth.

The top cities of origin in visitor arrivals and expenditures for Bangkok, Singapore, and Kuala Lumpur are summarized in Table 9. For Bangkok, its top five cities of origin by visitor arrivals are Singapore, Hong Kong, Tokyo, Seoul, and London. However, spending by visitors from Hong Kong, estimated at US\$1.5 billion, is the largest. For Singapore, the top five cities of origin are Jakarta, Manila, Hong Kong, London, and Kuala Lumpur. Expenditures in Singapore by visitors from Jakarta are also the largest at US\$1.2 billion. The top five cities of origin for Kuala Lumpur are Singapore, Jakarta, Bangkok, Melbourne, and Dubai. Expenditures in Kuala Lumpur by visitors from Jakarta are the largest, followed by visitors from Singapore. Contrasting Bangkok and Singapore, Kuala Lumpur counts Dubai among its top five cities of origin, which reflects Kuala Lumpur's rising attraction to visitors from the Middle Fast

CHART 6: TOP 10 DESTINATION CITIES IN ASIA/PACIFIC BY INTERNATIONAL SPENDING (2011)

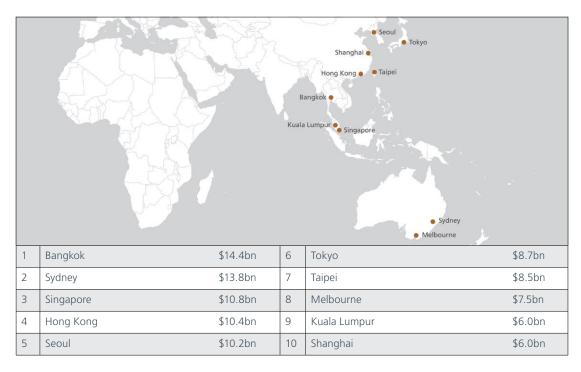


TABLE 8: GROWTH RATES OF VISITOR EXPENDITURES IN TOP 10 DESTINATION CITIES IN ASIA/PACIFIC IN 2011

Destination Cities	2011 Rank	2010 to 2011 Growth Rate
Kuala Lumpur	9	31.0%
Shanghai	10	24.3%
Singapore	3	23.9%
Hong Kong	4	23.6%
Tokyo	6	20.8%
Taipei	7	20.3%
Melbourne	8	19.0%
Seoul	5	18.6%
Bangkok	1	18.6%
Sydney	2	12.1%

TABLE 9: TOP 5 CITIES OF ORIGIN IN 2011 FOR BANGKOK, SINGAPORE, AND HONG KONG

Origin Cities	Visitor Arrivals (,000)	Visitor Expenditures (US\$ Million)
Bangkok		
Singapore	869	\$786
Hong Kong	822	\$1,510
Tokyo	711	\$1,220
Seoul	503	\$569
London	456	\$478
Singapore		
Jakarta	1,225	\$1,203
Manila	705	\$694
Hong Kong	690	\$880
London	659	\$500
Kuala Lumpur	602	\$438
Kuala Lumpur		
Singapore	879	\$502
Jakarta	589	\$579
Bangkok	301	\$187
Melbourne	298	\$335
Dubai	204	\$153

Top 10 Destination Cities in Latin America

Top 10 Destination Cities in Latin America by Visitor Arrivals

The top 10 destination cities in Latin America by visitor arrivals are shown in Chart 7. São Paulo is in top position with the highest number of visitor arrivals, estimated at 2.7 million in 2011. Mexico City follows closely in second position with 2.4 million visitor arrivals expected, and Buenos Aires is in third with 2.2 million. Another Brazilian city, Rio de Janeiro, is in eighth position. Apart from Brazil with two cities in the top 10, the other eight destination cities in the top 10 are capital cities of the eight key countries in Latin America.

In terms of growth rates of visitor arrivals, Rio de Janeiro is in the top ranking with an expected growth rate of 27.5% in 2011. Lima is in second position with 20.3%, followed by São Paulo in third ranking with 17.1%. Of the top 10 destination cities in visitor arrivals, however, three of them are expected to see a contraction in 2011. They are Caracas, Quito, and Santo Domingo, ranked eighth, ninth, and tenth respectively, in negative growth rates.

CHART 7: TOP 10 DESTINATION CITIES IN LATIN AMERICA BY INTERNATIONAL VISITORS (2011)



TABLE 10: GROWTH RATES OF VISITOR ARRIVALS IN TOP 10 DESTINATION CITIES IN LATIN AMERICA IN 2011

Destination Cities	2011 Rank	2010 to 2011 Growth Rate
Rio de Janeiro	8	27.5%
Lima	4	20.3%
São Paulo	1	17.1%
Buenos Aires	3	15.2%
Bogota	5	15.2%
Mexico City	2	5.9%
San Jose	6	2.0%
Caracas	9	-1.6%
Quito	10	-2.7%
Santo Domingo	7	-9.4%

Santo Domingo, Quito, and Caracas are showing contraction in visitor arrivals because many of the top cities of origin from which they receive visitors are expected to see significant reduction in their outbound traveler numbers to these three destination cities, as shown in Table 11. For Santo Domingo, its top two cities of origin of visitor arrivals are New York and Miami, where outbound travelers to Santo Domingo are expected to shrink by 16.6% and 19.6%, respectively, this year, thus severely affecting Santo Domingo's overall visitor arrivals. Travel from Caracas to Santo Domingo is also expected to decline by 48.6%. For Quito, Madrid is its third largest city of origin of visitor arrivals, and it is expected to

experience a contraction of outbound travelers by 30.8%. Visitor travel from Caracas to Quito is expected to be nearly halved as well. For Caracas, many of its key origin cities in the US, Canada, Europe, and Latin America are seeing significant reduction in their numbers of travelers to Caracas, as detailed in Table 11. However, at 1.6%, the overall reduction in visitor arrivals in Caracas is relatively small because four of its top five origin cities—Madrid, Buenos Aires, Paris, and São Paulo—are still seeing some growth in outbound travelers to Caracas, thus compensating for the contraction in origin cities shown in Table 11.

TABLE 11: KEY CITIES OF ORIGIN FOR SANTO DOMINGO, QUITO, AND CARACAS WHERE VISITOR ARRIVALS ARE CONTRACTING

Origin Cities	Visitor Arrivals (,000)
Santo Domingo	<u>'</u>
New York	-16.6%
Miami	-19.6%
Fort Lauderdale	-9.9%
Madrid	-1.8%
Boston	-4.3%
Orlando	-18.1%
San Jose	-4.5%
Caracas	-48.6%
Quito	
Madrid	-30.8%
Panama City	-3.1%
Medellin	-10.1%
Caracas	-48.4%
Cali	-16.5%
Caracas	
Miami	-5.1%
Lima	-9.8%
Bogota	-52.2%
Panama City	-13.0%
Atlanta	-31.4%
Lisbon	-32.7%
Toronto	-13.4%
Funchal	-39.9%

Top 10 Destination Cities in Latin America by Visitor Expenditures

São Paulo is also the top-ranked destination city by visitor expenditures in Latin America, as seen in Chart 8. Buenos Aires moves up from third position in visitor arrivals to second position in visitor expenditure. Bogota, Mexico City, and Lima follow in third, fourth, and fifth rankings, respectively. Rio de Janeiro is in ninth position.

In terms of growth in visitor expenditures, Lima is ranked first with an expected 25.7% in 2011, followed closely by Rio de Janeiro in second position with 24.5%, and Bogota in third place with 22.1%. The top five ranked cities of origin all have double-digit growth rates of visitor expenditures. In contrast, Caracas and Santo Domingo are the two destination cities in the top 10 in Latin America that are expected to see contractions in visitor expenditures in 2011, by 1.5% and 5%, respectively.

CHART 8: TOP 10 DESTINATION CITIES IN LATIN AMERICA BY INTERNATIONAL VISITOR SPENDING (2011)



Quito, where visitor arrivals are expected to shrink by 2.7% this year (Table 10), is nevertheless seeing its visitor expenditures increase by 3.6% (Table 12). The primary reason for Quito's positive visitor expenditure growth is due to the fact that visitor expenditures from its two biggest cities of origin, Miami and Bogota, are set to rise by 3.8% and 32.2%, respectively, this year. Furthermore, while visitor

arrivals from Panama City are expected to decline by 3.1% (Table 11), visitor expenditures from Panama City are set to grow by 4.7%. In other words, visitors from Panama City to Quito, while fewer in number this year, are expected to spend a lot more on a per person basis, which will more than compensate for the decline in numbers.

TABLE 12: GROWTH RATES OF VISITOR EXPENDITURES IN TOP 10 DESTINATION CITIES IN LATIN AMERICA IN 2011

Destination Cities	2011 Rank	2010 to 2011 Growth Rate
Lima	5	25.7%
Rio de Janeiro	9	24.5%
Bogota	3	22.1%
Buenos Aires	2	19.1%
São Paulo	1	17.1%
San Jose	6	5.6%
Mexico City	4	4.4%
Quito	10	3.6%
Caracas	7	-1.5%
Santo Domingo	8	-5.0%

The expected contraction of visitor expenditures in Santo Domingo and Caracas is due to reduced visitor expenditures from some of their key cities of origin as shown in Table 13. New York, Miami, Fort Lauderdale, and Madrid are four of the top five cities of origin for Santo Domingo (the other is Panama

City), and they are all seeing contraction in visitor expenditures in Santo Domingo. For Caracas, as Table 13 shows, three of its key cities of origin in Latin America, two in the US and one in Europe, are seeing contraction in visitor expenditures.

TABLE 13: KEY CITIES OF ORIGIN FOR SANTO DOMINGO AND CARACAS FROM WHERE VISITOR EXPENDITURES ARE CONTRACTING

Origin Cities	Visitor Expenditures
Santo Domingo	
New York	-14.4%
Miami	-17.5%
Fort Lauderdale	-7.5%
Madrid	-2.7%
Boston	-1.8%
Orlando	-2.7%
Caracas	
Miami	-2.5%
Lima	-6.0%
Bogota	-48.6%
Panama City	-5.9%
Atlanta	-29.5%
Lisbon	-33.3%

The top cities of origin for São Paulo, Mexico City, and Buenos Aires are summarized in Table 14, and are very different in terms of geography. The top five cities of origin for São Paulo are Buenos Aires, Santiago, Frankfurt, Miami, and New York, two each in the US and Latin America, and one in Europe. For Mexico City, on the other hand, the top five cities of origin are

Los Angeles, Houston, New York, Miami, and Madrid. In other words, of Mexico City's top five cities of origin, four are in the US and one in Europe, and none are from Latin America. The top five cities of origin for Buenos Aires are São Paulo, Santiago, Madrid, Miami, and Rio de Janeiro, three in Latin America and one each in the US and Europe.

TABLE 14: TOP 5 CITIES OF ORIGIN IN 2011 FOR SÃO PAULO, MEXICO CITY, BUENOS AIRES

Origin Cities	Visitor Arrivals (,000)	Visitor Expenditures (US\$ Million)
São Paulo		
Buenos Aires	617	\$354
Santiago	151	\$142
Frankfurt	138	\$150
Miami	138	\$251
New York	135	\$246
Mexico City		
Los Angeles	258	\$142
Houston	226	\$124
New York	203	\$111
Miami	196	\$107
Madrid	128	\$83
Buenos Aires		
São Paulo	360	\$586
Santiago	312	\$210
Madrid	256	\$208
Miami	160	\$411
Rio de Janeiro	132	\$215

Top 10 Destination Cities in Europe

Top 10 Destination Cities in Europe by Visitor Arrivals

Chart 9 shows the top 10 destination cities in Europe by visitor arrivals. London is in top place with an impressive 20.1 million visitor arrivals expected in 2011. Paris is in second position with 18.1 million visitor arrivals expected. There is then a sizable drop in the number of visitor arrivals for Madrid, which is ranked third with an estimated 10.1 million arrivals. Istanbul comes in the fourth ranking with 9.4 million visitor arrivals, beating out other Western European destination cities such as Frankfurt, Rome, and Amsterdam that are in fifth, sixth, and seventh positions, respectively. Milan, Barcelona, and Vienna follow in the eighth, ninth, and tenth spots.

From the perspective of growth rates in visitor arrivals, Barcelona is ranked first with an estimated growth rate of 24.3% in 2011. Istanbul is in second position with 20.4% in growth expected (fourth in visitor arrivals), making it a destination city to watch. There is then a substantive drop in growth rates, with Amsterdam in the third spot with an expected rate of growth of 10.7%. All the growth rates of the other seven destination cities following are in the single digits, as seen in Table 15.

CHART 9: TOP 10 DESTINATION CITIES IN EUROPE BY INTERNATIONAL VISITORS (2011)

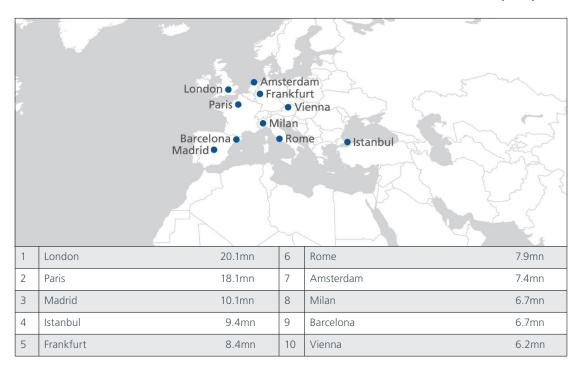


TABLE 15: GROWTH RATES OF VISITOR ARRIVALS IN TOP 10 DESTINATION CITIES IN EUROPE IN 2011

Destination Cities	2011 Rank	2010 to 2011 Growth Rate
Barcelona	9	24.3%
Istanbul	4	20.4%
Amsterdam	7	10.7%
Vienna	10	9.7%
Madrid	3	9.1%
Paris	2	7.2%
Rome	6	6.5%
London	1	5.7%
Frankfurt	5	4.8%
Milan	8	4.8%

Top 10 Destination Cities in Europe by Visitor Expenditures

In terms of visitor expenditures, the top 10 destination cities in Europe are shown in Chart 10. London leads with total visitor expenditure in 2011 estimated at US\$25.6 billion, way ahead of second-ranked Paris with an estimated US\$14.6 billion and third-ranked Frankfurt with US\$14 billion. Madrid is in fourth place with US\$11.8 billion, followed closely by Istanbul in fifth with US\$10.2 billion. Zurich is in ninth position with US\$7.4 billion, and Copenhagen ranked tenth with US\$7.1 billion.

From a growth perspective, Istanbul (ranked second in growth of visitor arrivals) is in the top spot, with an expected growth rate in visitor expenditure of a very impressive 30.1% in 2011. Barcelona follows in the second ranking with 28.2%, and Copenhagen in third with 20.4%. London, the top-ranked destination city in both visitor arrivals and visitor expenditure, is expected to see visitor expenditure grow by 12.3%, putting it in sixth position by growth rates.

CHART 10: TOP 10 DESTINATION CITIES IN EUROPE BY INTERNATIONAL VISITOR SPENDING (2011)

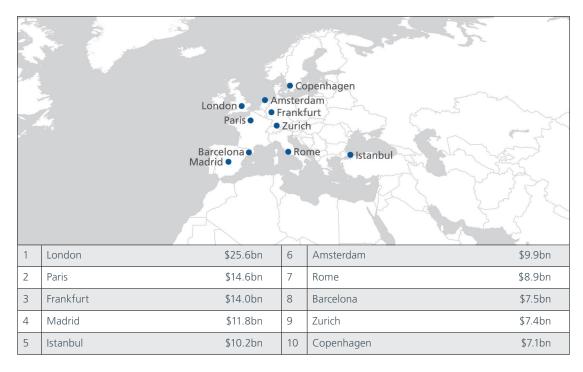


TABLE 16 : GROWTH RATES OF VISITOR EXPENDITURES IN TOP 10 DESTINATION CITIES IN EUROPE IN 2011

Destination Cities	2011 Rank	2010 to 2011 Growth Rate
Istanbul	5	30.1%
Barcelona	8	28.2%
Copenhagen	10	20.4%
Amsterdam	6	15.6%
Madrid	4	12.7%
London	1	12.3%
Paris	2	11.4%
Frankfurt	3	10.9%
Rome	7	9.4%
Zurich	9	4.2%

The top cities of origin for London, Paris, and Istanbul are summarized in Table 17. The top five cities of origin for London are New York, Amsterdam, Dublin, Stockholm, and Frankfurt. The biggest visitor expenditures are those of visitors from New York, who are expected to spend US\$1.1 billion in London this year. For Paris, the top five are Rome, London, New York,

Milan, and Madrid, and again visitors from New York are expected to spend the most in Paris, estimated at US\$728 million. For Istanbul, its top five cities of origin are London, Frankfurt, Paris, Amsterdam, and Munich. Londoners visiting Istanbul are expected to have the highest spending there, estimated at US\$521 million.

TABLE 17: TOP 5 CITIES OF ORIGIN IN 2011 FOR LONDON, PARIS, AND ISTANBUL

Origin Cities	Visitor Arrivals (,000)	Visitor Expenditures (US\$ Million)
London		
New York	907	\$1,149
Amsterdam	796	\$539
Dublin	773	\$377
Stockholm	620	\$842
Frankfurt	542	\$383
Paris		
Rome	713	\$341
London	712	\$540
New York	664	\$728
Milan	646	\$309
Madrid	567	\$268
Istanbul		
London	518	\$521
Frankfurt	439	\$489
Paris	344	\$296
Amsterdam	337	\$228
Munich	326	\$363

Top 10 Destination Cities in North America

Top 10 Destination Cities in North America by Visitor Arrivals

Chart 11 shows the top 10 destination cities in North America by visitor arrivals. New York leads with 7.6 million, followed by Los Angeles with 4.1 million. Toronto is in third position, with 3.7 million visitor arrivals expected. Miami, Chicago, and San Francisco follow in fourth, fifth, and sixth rank, respectively. Another Canadian city, Vancouver, ties with Houston in ninth position with 1.8 million.

From a growth perspective in visitor arrivals, Houston is in the top ranking at 14.3%, followed by New York at 11.7% and Washington, DC, at 10%. The remaining seven destination cities in the top 10 have only single-digit growth expected in their visitor arrivals.

CHART 11: TOP 10 DESTINATION CITIES IN NORTH AMERICA BY INTERNATIONAL VISITORS (2011)



TABLE 18 : GROWTH RATES OF VISITOR ARRIVALS IN TOP 10 DESTINATION CITIES IN NORTH AMERICA IN 2011

Destination Cities	2011 Rank	2010 to 2011 Growth Rate
Houston	9	14.3%
New York	1	11.7%
Washington, DC	7	10.0%
Toronto	3	9.2%
San Francisco	6	8.6%
Miami	4	6.0%
Vancouver	10	5.8%
Los Angeles	2	5.6%
Chicago	5	4.5%
Atlanta	8	5.2%

Top 10 Destination Cities in North America by Visitor Expenditures

The top 10 destination cities by visitor expenditures in North America are shown in Chart 12. Again, New York is in the top position, with US\$20.3 billion of visitor expenditure expected in 2011. There is a significant drop between the top and the second ranking in visitor expenditures. Los Angeles, in second position, is expected to have US\$12.5 billion in visitor expenditure, followed by Miami in third place with US\$8.7 billion. Toronto, which is ranked third by visitor arrivals, drops to eighth position in visitor expenditure. And the Canadian city of Vancouver is in the tenth position.

In terms of growth, Chicago is ranked highest with 18.8%, followed by Toronto with 17.8% and New York at 17.3%. In fact, the growth rates of nine of the top 10 are in double digits, one following closely

behind the other. Only Atlanta, in the tenth spot, is estimated to have a growth rate of visitor expenditure of 8.5%.

The top five cities of origin for New York, Los Angeles, and Toronto are summarized in Table 20. For New York, they are London, Toronto, Tokyo, Frankfurt, and Paris. For Los Angeles, Tokyo is its top city of origin by visitor arrivals, but not the largest by visitor expenditures. Seoul is Los Angeles' top origin city by visitor expenditures, followed by Sydney. For Toronto, New York is the highest-ranked city of origin by visitor arrivals, followed by London. But London is the top city of origin for Toronto by visitor expenditures, followed by New York and Frankfurt in second and third place, respectively.

CHART 12: TOP 10 DESTINATION CITIES IN NORTH AMERICA BY INTERNATIONAL VISITOR SPENDING (2011)



TABLE 19 : GROWTH RATES OF VISITOR EXPENDITURES IN TOP 10 DESTINATION CITIES IN NORTH AMERICA IN 2011

Destination Cities	2011 Rank	2010 to 2011 Growth Rate
Chicago	4	18.8%
Toronto	8	17.8%
New York	1	17.3%
Houston	9	16.5%
Vancouver	10	15.3%
San Francisco	5	15.3%
Washington, DC	7	14.3%
Los Angeles	2	14.0%
Miami	3	12.5%
Atlanta	6	8.5%

TABLE 20: TOP 5 CITIES OF ORIGIN IN 2011 FOR NEW YORK, LOS ANGELES, AND TORONTO

Origin Cities	Visitor Arrivals (,000)	Visitor Expenditures (US\$ Million)			
New York					
London	1,426	\$1,915			
Toronto	590	\$553			
Tokyo	382	\$850			
Frankfurt	338	\$827			
Paris	248	\$718			
Los Angeles					
Tokyo	612	\$1,361			
London	522	\$500			
Sydney	350	\$1,951			
Seoul	289	\$2,342			
Vancouver	255	\$239			
Toronto					
New York	387	\$231			
London	334	\$428			
Chicago	195	\$116			
Frankfurt	172	\$227			
Los Angeles	114	\$68			

Concluding Observations

The key findings of the *Global Destination Cities Index* summarized in this report reveal complex patterns that suggest a highly dynamic and fast-evolving picture. A number of observations are made below to illustrate both the dynamism and complexity of these global destination cities.

- 1. Growth rates by visitor arrivals and expenditures are high overall, regardless of whether the destination cities are in developed or emerging markets. Of all the top-ranked destination cities reviewed in this report, only three show declining visitor arrivals and two show declining visitor expenditures. Destination cities in emerging markets are especially robust when it comes to growth, with many showing growth rates exceeding 20%. For example, Dubai's growth rate of visitor expenditure is estimated at 24%, but it is dwarfed by Istanbul's at 30%, Kuala Lumpur's at 31%, and Riyadh's at 35.5%. Many emerging market destination cities are showing both high visitor arrival and expenditure growth. Rio de Janeiro, for instance, is expected to see visitor arrivals grow by 27.5% and visitor expenditure by 24.5%. Similarly, Lima's growth rates for visitor arrivals and expenditure are 20.3% and 25.7%, respectively. In contrast, there are no destination cities in North America that have growth rates in either visitor arrivals or expenditures exceeding 20%. This pattern of high growth among emerging market destination cities strongly suggests that these destination cities will become even more important, while in sheer volume of visitor arrivals and expenditures the top-ranked cities in North America and Europe will continue to dominate for some time.
- 2. The top-ranked destination cities differ significantly when viewed in terms of visitor arrivals versus expenditures. For instance, while Paris is ranked second in the world in terms of visitor arrivals, New York (ranked 12th in terms of visitor arrivals) is ranked second in terms of total visitor expenditures. Indeed, New York has the highest expenditure per visitor at US\$2,671, followed by London at US\$1,274, and Bangkok (ranked third by visitor arrivals) at US\$1,252. Expenditure per visitor in Paris, on the other hand, is around US\$800. It seems that some destination cities are much better at attracting high-spending visitors from overseas than
- 3. The top-ranked destination cities like London tend to have very diversified cities of origin for visitor arrivals and expenditures. The top five cities of origin account for only 18% of London's visitor arrivals and 13% of visitor expenditure. In contrast, the top five cities of origin of Buenos Aires account for 55% of visitor arrivals and 96% of visitor expenditure. For many other destination cities, the top five cities of origin typically account for between 30% and 40% of visitor arrivals and expenditures. London's position of having a very diversified set of cities of origin is clearly a source of great strength, underpinning its top rank in the world in both visitor arrivals and expenditures.

Appendix A

LIST OF 132 CITIES

The 132 cities are selected from every region of the world. Chart A1 summarizes the 45 cities in the Asia/Pacific region: 21 from Northeast Asia (which includes the Asian region of the Russian Federation), 14 from South Asia, 7 from Southeast Asia, 1 from Central Asia, and 2 from Southwest Pacific (Australia).

CHART A1: ASIA/PACIFIC-45 CITIES

Asia Pacific Sub-Regions				
North East Asia	South Asia	South East Asia	Southwest Pacific	Central Asia
China	Bangladesh–Dhaka	Indonesia–Jakarta	Australia	Kazakhstan–Almaty
Beijing	India	Malaysia–Kuala Lumpur	Melbourne	
Guangzhou	Ahmedabad	Philippines–Manila	Sydney	
Chengdu	Bengaluru	Singapore		
Dalian	Mumbai	Thailand-Bangkok		
Hangzhou	Kolkata	Vietnam		
Harbin	Coimbatore	Hanoi		
Nanjing	Delhi	Ho Chi Minh City		
Shanghai	Hyderabad			
Xi'an	Chennai			
Shenzhen	Pune			
Qingdao	Pakistan			
Tianjin	Islamabad			
Xiamen	Karachi			
Hong Kong (SAR)	Lahore			
Taiwan–Taipei	Sri Lanka–Colombo			
Japan				
Osaka				
Tokyo				
Korea–Seoul				
Russian Federation				
Novosibirsk				
Yekaterinburg				
Vladivostok				

In the European region, 33 cities are included, 9 from Central and Eastern Europe, and 24 from Western Europe, as shown in Chart A2.

CHART A2: EUROPE-33 CITIES

Europe Sub-Regions			
Eastern/Central Europe	Western Europe		
Belarus–Minsk	Austria–Vienna	Spain	
Bulgaria–Sofia	Belgium–Brussels	Barcelona	
Czech Republic–Prague	Denmark–Copenhagen	Madrid	
Hungary–Budapest	France–Paris	Sweden–Stockholm	
Poland–Warsaw	Germany	Switzerland	
Romania–Bucharest	Berlin	Geneva	
Russian Federation	Düsseldorf	Zurich	
St. Petersburg	Frankfurt	Turkey	
Moscow	Hamburg	Ankara	
Ukraine–Kiev	Munich	Istanbul	
	Greece–Athens	United Kingdom	
	Ireland–Dublin	Edinburgh	
	Italy	London	
	Milan		
	Rome		
	Netherlands–Amsterdam		
	Portugal–Lisbon		

In the Middle East and Africa region, 21 cities are included. Chart A3 shows that 3 are from Central/Western Africa, 2 from Eastern Africa, 3 from North Africa, 5 from Southern Africa, and 8 from the Middle East.

CHART A3: MIDDLE EAST & AFRICA-21 CITIES

Middle East & Africa Sub-Regions				
Central/ Western Africa	Eastern Africa	North Africa	Southern Africa	Middle East
Ghana–Accra	Kenya–Nairobi	Egypt–Cairo	Mozambique	Iran-Tehran
Nigeria–Lagos	Uganda–Kampala	Morocco–Casablanca	Beira	Israel–Tel Aviv
Senegal–Dakar		Tunisia–Tunis	Maputo	Jordan–Amman
			South Africa	Lebanon–Beirut
			Cape Town	Saudi Arabia–Riyadh
			Durban	Syria–Damascus
			Johannesburg	United Arab Emirates
				Dubai
				Abu Dhabi

In Latin America, 19 cities are included, as shown in Chart A4. Of these 19 cities, 2 are from the Caribbean, 3 from Central America, 9 from Lower South America, and 5 from Upper South America.

CHART A4: LATIN AMERICA-19 CITIES

Latin America Sub-Regions			
Caribbean	Central America	Lower South America	Upper South America
Dominican Republic	Costa Rica–San Jose	Argentina	Colombia
Santo Domingo	Mexico	Buenos Aires	Bogota
Santiago	Mexico City	Cordoba	Medellin
	Monterrey	Brazil	Ecuador–Quito
		Belo Horizonte	Peru–Lima
		Brasilia	Venezuela–Caracas
		Curitiba	
		Recife	
		Rio de Janeiro	
		São Paulo	
		Uruguay–Montevideo	

There are 14 cities included from North America, as Chart A5 shows; 3 from Canada and 11 from the US.

CHART A5: NORTH AMERICA-14 CITIES

North America		
Canada	United States	
Montreal	Atlanta	
Toronto	Boston	
Vancouver	Chicago	
	Dallas	
	Houston	
	Los Angeles	
	Miami	
	New York	
	Philadelphia	
	San Francisco	
	Washington, DC	

Appendix B

INDEX RANKING METHODOLOGY AND DATA SOURCES

A Global City Travel Connectivity Index score (GCTCI) is created for each of the destination cities. GCTCI = Sum of [Non-Stop Weekly Frequencies to Each International Destination City* Multiplier for Intra-regional (x1) or Inter-regional (x2)]. Actual distance between cities was not used in the equation owing to the vast difference in city-pair distances (ranges from 100km to 15,765 km). Instead, we used a simple intra- inter-regional multiplier as a proxy for distance as the score bias is towards destination cities further away in other regions.

The GCTCI sets the basic connectivity score between each destination city and the rest of the world in terms of flight frequency weighted by inter- and intra-regional travel. It is basically a score of the airport(s) of the destination cities, and useful in differentiating the hub cities such as Singapore, Frankfurt, and Dubai from non-hub cities.

The specific procedures for estimating visitor arrivals in a destination city are described in steps (i) to (iii). The procedures for estimating visitors' cross-border expenditures in the destination city are described in steps (iv) and (v).

The ranking of destination cities by visitor arrivals and by visitors' cross-border expenditures is made by taking the sum of the total of visitor arrivals from rest of the world and their total cross-border expenditures for each of the destination cities

Visitor Arrivals

- (i) **Total visitor arrival numbers:** Schedules for nonstop international flight and flight capacity (data source OAG Global) are used to establish the total maximum passenger arrival numbers for each of the destination cities. Flight schedules are also used for calculating flight frequency between pairs of cities. On a regular basis, airlines publish their load factor, which is then used to estimate actual passenger arrivals. Airlines also publish their flight schedule in advance, aiming to improve their load factor. Data from this source are used for forecasting passenger arrivals in the coming year.
- (ii) Adjustment for returning passengers. Not all passengers on a flight from city A to city B are residents from A visiting B. Many are residents from B returning to B after visiting A. So these "returning passengers" need to be netted out of the outbound total. For every city pair, data from the UN World Tourism Organization that document on an annual basis total numbers of outbound air passengers who travel between the two respective countries are used to create a "ratio" of outbound versus inbound air passengers between the two countries. For example, it may show that each year there are 10 passengers going from A to B, and 3 passengers going from B to A. Thus, when flight capacity and load factor combined to show that there were 10 passengers going from A to B last year, it is then assumed that 3 of the 10 are actually residents of B returning to B after visiting A, hence the outbound passenger departures from A to B is in fact 7.
- (iii) Adjustment for non-resident transit passenger. On any given flight there are visitors from the departure country, returning residents of the destination city after visiting the departure country, and a third group: non-residents connecting through the departure country to the destination city on their way to a second destination city. This group can be a low proportion of the passengers for typically non-hub cities, but very high for destination cities that are "hubs" such as Singapore, Amsterdam, and Frankfurt. For example, on any given flight arriving in Singapore from Frankfurt there are: (1) Singaporean residents returning to Singapore after visiting Germany; (2) German visitors arriving in Singapore en route to visiting Australia (either transiting through or going on to Australia after having stayed in Singapore for a few days);

(3) Returning Australian residents on their way back to Australia from Germany via Singapore; and for flights arriving Singapore from Sydney, (4) returning non-residents (this is the converse of 2, our German traveler transiting Singapore from Sydney back to Germany).

Take the example of 100 arriving in the Sydney airport from Singapore each year. Given Singapore's huge airport capacity as a hub, it is important to know how many of these 100 arrivals are visitors from Singapore and how many are non-Singaporeans arriving in Sydney via Singapore. The following steps provide a closer estimate of "real" visitors to Sydney from Singapore. **Step one**: Using UNWTO country-to-country crosstravel statistics we can establish that for every 100 arrivals in Sydney from Singapore, there are roughly 15 Singaporeans and 20 returning Australians among them. **Step two**: Since we know that there are 100 arrivals in Sydney, we therefore also know that there are 65 "non-residents" (for example, New Zealand and German travelers), but we do not know which portion of the 65 are Germans visiting Sydney via Singapore and which portion are returning New Zealanders. In order to make the split, we make the assumption that the more connected city (more of a hub) will generate more non-residents travelers than a less connected city. We use our own Global City Travel Connectivity Index (GCTCI) as a proxy for connectedness. GCTCI for Singapore is 37 and Sydney is 9. So we can estimate that the Singapore portion of the non-residents (i.e., the Germans) is 37/(37+9) = 80%, while Sydney's portion of the non-residents (i.e., the New Zealanders) is 20%. This works out to $80\% \times 65 = 52$ Germans and $20\% \times 65 = 13$ New Zealanders.

A certain margin of error necessarily exists in this estimation. Though we use Frankfurt and Auckland as the non-resident generating cities (which is reasonable as they are the two most densely connected ongoing routes from Singapore and Sydney, respectively), there is really no way to know the exact location from which the non-residents are coming. All we know is that this group consists of non-residents of Singapore or Australia. So, in place of Frankfurt, we should really call it non-residents flying through Singapore to get to Sydney, and in the case of New Zealand, we can call them non-residents flying through Sydney to get to Singapore. Related to this, we would not know which portion of the non-residents are just transiting through and who is staying for a day or more before flying on to their ultimate destination.

Passenger Expenditures

- (iv) On a country level, the UN Database of "Trade in Service" in the "Travel Component" provides estimates of how much each year residents in country A spend abroad (airfare paid in home country not included). This total cross-border expenditure is then divided by the estimated total number of outbound passenger departures to obtain an estimate of the average per passenger's cross-border expenditure overseas. For each destination city, total visitor arrivals are estimated with steps (i) to (iii) described above, which then allows for the estimation of total visitors' cross-border expenditures in the destination city.
- (v) A margin of error is also unavoidable in such estimates, as not all international trips are of equal length, and the cost of living varies greatly between arrival cities such that even if each trip is of equal length, expenditure per passenger between different destination cities may still be different. This margin of error is reduced significantly by imposing a minimum of expenditures after iterative testing (US\$500 minimum per trip for traveling intra-regionally).

Appendix C

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Yuwa is a business strategist and economist with 25 years of experience gained in over 30 countries. He is a Canadian who grew up in Vancouver, British Columbia, and spent the last 20 years working in Europe, Sub-Sahara Africa, the Indian Sub-continent, and Asia/Pacific. He has served as strategy advisor to over 30 leading multinational companies in the Asia/Pacific region.

In 2009, Yuwa was appointed as Global Economic Advisor to MasterCard Worldwide. Prior to this role, he was Economic Advisor to MasterCard in Asia/Pacific, a position he held since 2001. As economic advisor, he chairs a MasterCard Knowledge Panel of leading economists, policy analysts, academics, and business strategists for regular exchange and knowledge sharing. In 2007 he was appointed Advisor at Southern Capital Group, a private equity fund; and in 2008 he was appointed to the Investment Council of ICICI, India's largest private bank.

Yuwa is a frequent speaker at numerous international high-profile conferences. Recent presentations include the Morgan Stanley Investment Forum, McKinsey & Co's Kitzbühel Forum, the BusinessWeek CEO Forum, Asia Business Conference at Harvard University, the Indian Economic Summit, and the Annual Asia Leadership Forum. He has also spoken at, among others, The Royal Institute of International Affairs at Chatham House, London; the World Finance Forum; the World Knowledge Forum; the Trinity Forum in London; the ASEAN Business & Investment Summit; The Economist Strategic Forecast Forums; Pacific Basin Economic Council of APEC; and the Forbes Global CEO Conference.

Yuwa is a frequent commentator in the broadcast media on current economic, policy, and business issues in Asia/Pacific, and is a published author in consumer market dynamics, economic development, trade, and international relations. He was voted "Communicator of the Year" in Asia in 2006 by the Asia Association of Public Relations Professionals. He wrote a regular column in *Forbes Asia* called "Asian Angles" in 2005 and 2006. He was adjunct professor at the School of Management, Fudan University, Shanghai, China, from 2005 to 2008 and guest lecturer at the Graduate School of Business, University of Chicago.

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