MasterCard Global Destination Cities Index
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MasterCard Worldwide Insights

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Introduction

This is the second edition of the MasterCard Global Destination Cities Index. During the period since the publication of the first edition of this index (launched in 2Q, 2011), growth of world economic output has slowed, declining from 5.2% in 2010 to 3.8% in 2011, with the growth rate of 2012 projected to drop further to 3.3%.[1] However, cross-border travel by air between 132 of the most important cities in the world covered by this index (see Appendix A for the list of the cities and their regional distribution) is still grow- ing both in terms of numbers of visitors and their cross-border spending. The total visitor numbers and cross-border spending for the world's top 20 destination cities are summarized in Table 1.

Despite sluggish economic growth around the world, the number of people traveling abroad continues to increase.
This year, a record 16.9 million will touch down in London — for the second consecutive year it's the world's most popular destination city for overseas travelers.

Table 1. Global Top 20 Destination Cities

Visitors	2011	2012	Change
Visitors	174.9 Million	184.9 Million	+5.7%
Total Cross-Border Spending*	$217.8 Billion	$241.0 Billion	+10.6%
Average Cross-Border Spending Per Visit	$1,245	$1,303	+4.7%

*Net of spending on airfare

Chart 1. Global Top 20 Destination Cities by International Visitors (2012)

1. London	16.9 mn
2. Paris	16.0 mn
3. Bangkok	12.2 mn
4. Singapore	11.8 mn
5. Istanbul	11.6 mn
6. Hong Kong	11.1 mn
7. Madrid	9.7 mn
8. Dubai	8.8 mn
9. Frankfurt	8.1 mn
10. Kuala Lumpur	8.1 mn
11. Seoul	8.0 mn
12. Rome	7.8 mn
13. New York	7.6 mn
14. Shanghai	7.5 mn
15. Barcelona	7.3 mn
16. Milan	7.1 mn
17. Amsterdam	6.9 mn
18. Vienna	6.7 mn
19. Beijing	6.2 mn
20. Taipei	5.4 mn

New York

While the number of visitors in 2012 is growing at 5.7%, the cross-border spending by these visitors is far more impressive at 10.6%.

A similar picture is seen at the regional level.[2] The overall pattern is clear; cross-border travel by air is a resilient trend that is embraced by growing numbers of people worldwide, underpinned by visitors' robust willingness and capacity to spend. Both the cost of airfare as well as household incomes have fluctuated from time to time; and no doubt they will continue to do so in the future. But the growing need and desire to travel, especially by air, are set to expand in spite of the ups and downs of the business cycles. The leading global cities, which are also some of the most sought after destinations by visitors from different parts of the world, will continue to thrive.

Global Top 20 Destination Cities

Chart 1 presents the world's top 20 destination cities by numbers of visitors in 2012 (Appendix A provides a detailed explanation of the methodology used). As in 2011, London ranks first in the world, with close to 17 million visitors in 2012, which is about 1.1% higher than in 2011. Paris has also retained its place in the second rank, with 16 million visitors, but this represents a drop of 0.6% compared with 2011. The two Asian cities of Bangkok and Singapore also retain their 2011 rankings of third and fourth place respectively. Their 2012 visitor numbers, 12.2 million in Bangkok and 11.8 million in Singapore, however, represent very robust growth of 6.5% and 9.9% respectively.

While the world's top two destination cities are in Europe, the Asia/Pacific region has a pair of fast-growing contenders in third and fourth place. Bangkok is growing at a 6.5% rate with 12.2 million visitors and Singapore follows very closely with 11.8 million visitors and a growth rate of 9.9%.

London
Amsterdam
Frankfurt
Paris
Vienna
Milan
Barcelona
Rome
Madrid
Istanbul
Dubai
Beijing
Seoul
Shanghai
Taipei
Hong Kong
Bangkok
Kuala Lumpur
Singapore

While the first to fourth ranks in the top 20 in 2012 are the same as in 2011, there are some changes in the other ranks. Table 2 shows the changes by comparing the 2011 and 2012 rankings. Istanbul (fifth in 2012) displaces Hong Kong (fifth) and moves up by one rank. Dubai (eighth), Frankfurt (ninth), Kuala Lumpur (tenth) and Seoul (11) all move up one by rank as Rome falls by four ranks to 12. Shanghai (14) displaces Barcelona (15) and moves up by one rank. Other cities that are unchanged at their 2011 position: Madrid (7), New York (13), Milan (16), Amsterdam (17), Vienna (18), Beijing (19), and Taipei (20).

The world's top 20 destination cities by visitors' cross-border spending are shown in Table 3, which are somewhat different from the rankings by visitor numbers (see Appendix B for the methodology for estimating cross-border spending by visitors in the destination cities). London is again the world top ranked destination city and New York still ranks second by visitor spending, although it ranks only 13 by visitor numbers. Bangkok moves up by one rank, displacing Paris as the third-ranking city by visitor spending. Four cities from high-income countries move up in ranks: Singapore (fifth, up by two ranks), Seoul

Dynamic Istanbul has made huge strides in recent years and now ranks as the fifth most popular destination in the world.

Table 2. Comparison of 2011 and 2012 Rankings by Visitor Numbers

Rank	2012	2011
1	London	London
2	Paris	Paris
3	Bangkok	Bangkok
4	Singapore	Singapore
5	Istanbul	Hong Kong
6	Hong Kong	Istanbul
7	Madrid	Madrid
8	Dubai	Rome
9	Frankfurt	Dubai
10	Kuala Lumpur	Frankfurt
11	Seoul	Kuala Lumpur
12	Rome	Seoul
13	New York	New York
14	Shanghai	Barcelona
15	Barcelona	Shanghai
16	Milan	Milan
17	Amsterdam	Amsterdam
18	Vienna	Vienna
19	Beijing	Beijing
20	Taipei	Taipei

(tenth, up by one rank) and Dubai (18, up by one rank), reflecting their higher costs of living and hence visitors tend to spend more in these cities. Tokyo (14) moves up by four ranks by virtue of its recovery in 2012 from the triple disasters of 2011. Istanbul also moves up by one rank to 11. It is worth noting that all these "upwardly mobile" destination cities are in either Asia or the Middle East, reflecting stronger growth in both visitor numbers and cross-border spending in these regions. For a destination like Sydney (in the eighth rank), which is a long way from anywhere else with the exception of New Zealand, visitors also tend to stay longer once they get there, and they spend more there as a result. Five cities in high-income countries move down by one or two ranks: Paris (fourth, by one rank), Los Angeles (sixth, by one rank), Madrid (seventh, by one rank), Zurich (twelfth, by two ranks) and Rome (19, by two ranks).

A key metric is the amount that visitors spend on their visits; and it's here where London consistently excels. It leads the world both in visitor numbers and in the average amount each visitor spends.

Table 3. Global Top 20 Destination Cities by International Visitor Spend (2012)

Rank	Destination City	Market	Visitor Spend (US Billion)	
			2012	% Growth 2011 & 2012
1	London	United Kingdom	$21.1	10.3%
2	New York	USA	$19.4	6.8%
3	Bangkok	Thailand	$19.3	16.6%
4	Paris	France	$17.8	1.5%
5	Singapore	Singapore	$12.7	12.7%
6	Los Angeles	USA	$12.5	6.4%
7	Madrid	Spain	$11.5	-0.8%
8	Sydney	Australia	$11.0	9.7%
9	Frankfurt	Germany	$10.9	9.6%
10	Seoul	South Korea	$10.6	16.2%
11	Istanbul	Turkey	$10.6	20.7%
12	Zurich	Switzerland	$10.5	13.9%
13	Taipei	Taiwan	$10.5	20.5%
14	Tokyo	Japan	$9.9	24.2%
15	Hong Kong	(SAR) China	$9.5	9.5%
16	Barcelona	Spain	$8.9	7.0%
17	Miami	USA	$8.8	8.4%
18	Dubai	UAE	$8.8	18.5%
19	Rome	Italy	$8.3	2.9%
20	Shanghai	China	$8.3	12.6%

The changes in the rankings by visitor spending are summarized in Table 4. Bangkok (third rank) moves up one rank, displacing Paris, and Singapore (fifth rank) moves up two ranks displacing Los Angeles and Madrid. Seoul (tenth rank) and Istanbul (eleventh rank) both move up one rank displacing Zurich. Tokyo (fourteenth rank), recovering from the triple disasters in 2011, moves up four ranks to displace Hong Kong, Barcelona, and Miami. Finally, Dubai (eighteenth rank) moves up one rank to displace Rome.

Tokyo is demonstrating its ability to recover quickly from the tragic setbacks of 2011 by catapulting four places higher than last year in the average amount each visitor spends.

Table 4. Comparison of 2011 and 2012 Rankings by Visitor Spending

Rank	2012	2011
1	London	London
2	New York	New York
3	Bangkok	Paris
4	Paris	Bangkok
5	Singapore	Los Angeles
6	Los Angeles	Madrid
7	Madrid	Singapore
8	Sydney	Sydney
9	Frankfurt	Frankfurt
10	Seoul	Zurich
11	Istanbul	Seoul
12	Zurich	Istanbul
13	Taipei	Taipei
14	Tokyo	Hong Kong
15	Hong Kong	Barcelona
16	Barcelona	Miami
17	Miami	Rome
18	Dubai	Tokyo
19	Rome	Dubai
20	Shanghai	Shanghai

Asia/Pacific Top 10 Destination Cities

Asia/Pacific exhibits the strongest growth in visitor numbers and their cross-border spending among all the regions of the world. As summarized in Table 5, visitor numbers grow by 9.5% in 2012 to reach 77.6 million in the top 10 destination cities in Asia/Pacific; and their cross-border spending increases to US$104.7 billion in 2012 from US$90.8 billion in 2011, representing an impressive 15.3% growth.

The top 10 destination cities by visitor numbers in Asia/Pacific are shown in Chart 2. Bangkok is again the number one destination city in Asia (third in the world), a reflection of its strong and abiding appeal to tourists from the rest of the world. Tokyo is expected to recover from the 2011 disasters with 21.5% growth rate over 2011 while Taipei registers the second-strongest growth rate at 15.1%, reflecting the strong interest of Chinese tourists from the mainland in visiting Taiwan. This is followed by Beijing, which shows a growth rate of 14.7%.

Table 5. Asia/Pacific Top Ten Destination Cities

Visitors	2011	2012	Change
Visitors	70.8 Million	77.6 Million	+9.5%
Total Cross-Border Spending*	$90.8 Billion	$104.7 Billion	+15.3%
Average Cross-Border Spending Per Visit	$1,281	$1,350	+5.4%

*Net of spending on airfare

The vibrant cities of the Asia/Pacific region lead all other regions in the growth of visitor spending.

And the city that leads the Asia/Pacific region in both the total number of visitors and in visitor spending is Thailand's capital city, Bangkok.

Chart 2. Asia/Pacific Top 10 Destination Cities by International Visitors (2012)

Beijing
Seoul
Tokyo
Shanghai
Taipei
Hong Kong
Bangkok
Kuala Lumpur
Singapore
Jakarta

1. Bangkok   12.2 mn
2. Singapore   11.8 mn
3. Hong Kong   11.1 mn
4. Kuala Lumpur   8.1 mn
5. Seoul   8.0 mn
6. Shanghai   7.5 mn
7. Beijing   6.2 mn
8. Taipei   5.4 mn
9. Tokyo   4.3 mn
10. Jakarta   2.8 mn

In terms of visitor cross-border spending, the top 10 in the region are summarized in Table 6. Bangkok, in first rank, commands visitor cross-border spending of US$19.3 billion in 2012. This is followed by Singapore with US$12.7 billion and Sydney with US$11.0 billion. Tokyo's (seventh) recovery rate of 24.2% in 2012 puts it as the fastest-growing market for visitor spending, while Taipei (sixth) has the second-highest growth rate at 20.5%, reflecting the impact of rising tourist visits from the mainland of China. This is followed by Beijing at 19.2%, and Bangkok at 16.6%. Growth rates of visitors' cross-border spending are generally very high in Asia/Pacific. Sydney and Hong Kong, at 9.7% and 9.5% respectively, have the "lowest" growth rates among the top 10.

Although Sydney has the fewest visitors of the top ten Asia/Pacific destinations with just 2.5 million, the average visitor spending it receives is greater than cities with four times as many visitors.

Table 6. Asia/Pacific Top 10 Destination Cities by International Visitor Spend (2012)

Rank	Destination City	Market	Visitor Spend (US$ Billion)			% Growth 2011 & 2012	2012 Visitors (Millions)*
			2010	2011	2012		
1	Bangkok	Thailand	$11.1	$16.6	$19.3	16.6%	12.2
2	Singapore	Singapore	$9.0	$11.3	$12.7	12.7%	11.8
3	Sydney	Australia	$9.2	$10.1	$11.0	9.7%	2.5
4	Seoul	South Korea	$7.7	$9.1	$10.6	16.2%	8.0
5	Taipei	Taiwan	$6.1	$8.7	$10.5	20.5%	5.4
6	Tokyo	Japan	$10.2	$8.0	$9.9	24.2%	4.3
7	Hong Kong	(SAR) China	$7.3	$8.6	$9.5	9.5%	11.1
8	Shanghai	China	$5.6	$7.3	$8.3	12.6%	7.5
9	Beijing	China	$4.2	$5.5	$6.5	19.2%	6.2
10	Kuala Lumpur	Malaysia	$4.7	$5.6	$6.4	13.7%	8.1

*Excludes passengers returning to arrival country and includes visitors on non-stop flights only

Europe Top 10 Destination Cities

While Asia/Pacific has the highest growth rates in visitor numbers and cross-border spending, Europe has the highest visitor numbers and cross-border spending. As Table 7 shows, collectively Europe's top 10 destination cities command a total number of visitors of 98.2 million in 2012, an increase of 2.8% from 95.5 million in 2011. The increase in visitor cross-border spending is higher at 8.1%, for the total to reach US$115 billion in 2012.

Chart 3 presents Europe's top 10 destination cities by visitor numbers. London, the world's number one ranked destination city, is naturally also in the first rank in Europe. Similarly, Paris, which ranks second in the world, is also in second rank in Europe. The third rank, is occupied by Istanbul, which moves up by one rank in its world position to fifth with an impressive growth of vis-itor numbers of 14.7%. In comparison, London's growth rate in 2012 is very low at 1.1%, and Paris is actually seeing a decline of 0.6% in its visitor numbers. Frankfurt (fifth in Europe) moves up one rank to displace Rome (sixth) which falls by one rank.

Table 7. Europe Top Ten Destination Cities

Visitors	2011	2012	Change
Visitors	95.5 Million	98.2 Million	+2.8%
Total Cross-Border Spending*	$106.4 Billion	$115.0 Billion	+8.1%
Average Cross-Border Spending Per Visit	$1,114	$1,172	+5.1%

*Net of spending on airfare

Istanbul, rich in history and culture, is a rising star as a travel destination. With visitor numbers growing at 14.7% and growth in visitor spending a sizzling 20.7%, it's now the third most popular destination in Europe.

Chart 3. Europe Top 10 Destination Cities by International Visitors (2012)

1. London	16.9 mn	
2. Paris	16.0 mn	
3. Istanbul	11.6 mn	
4. Madrid	9.7 mn	
5. Frankfurt	8.1 mn	
6. Rome	7.8 mn	
7. Barcelona	7.3 mn	
8. Milan	7.1 mn	
9. Amsterdam	6.9 mn	
10. Vienna	6.7 mn	

With their abundant shopping and recreational opportunities, both London and Paris enjoy a significant lead in visitor spending over their rivals.

The top 10 destination cities in Europe by visitor cross-border spending are shown in Table 8. London and Paris are again in first and second ranks respectively. Istanbul is in fifth rank behind Madrid and Frankfurt, and exhibits the highest growth rate at a very impressive 20.7%, which is way ahead of Vienna (in ninth rank) with the second-fastest growth rate of visitor cross-border spending of 16.3%. This is followed by Zurich (in sixth rank) at 13.9%, then London at 10.3%. Madrid, alone among the top 10 in Europe, shows a slight decline in its visitor cross-border spending at -0.8%. Cross-border spending by visitors is typically high in Europe. For instance, in London, visitor cross-border spending in 2012 is estimated at US$21.1 billion, and in Paris at US$17.8 billion.

Table 8. Europe Top 10 Destination Cities by International Visitor Spend (2012)

Rank	Destination City	Market	Visitor Spend (US$ Billion)			% Growth 2011 & 2012	2012 Visitors (Millions)*
			2010	2011	2012		
1	London	United Kingdom	$17.3	$19.1	$21.1	10.3%	16.9
2	Paris	France	$15.1	$17.5	$17.8	1.5%	16.0
3	Madrid	Spain	$10.2	$11.6	$11.5	-0.8%	9.7
4	Frankfurt	Germany	$8.5	$9.9	$10.9	9.6%	8.1
5	Istanbul	Turkey	$7.2	$8.7	$10.6	20.7%	11.6
6	Zurich	Switzerland	$6.6	$9.2	$10.5	13.9%	5.0
7	Barcelona	Spain	$6.3	$8.3	$8.9	7.0%	7.3
8	Rome	Italy	$6.9	$8.1	$8.3	2.9%	7.8
9	Vienna	Austria	$5.4	$6.8	$7.9	16.3%	6.7
10	Milan	Italy	$6.0	$7.0	$7.5	7.1%	7.1

*Excludes passengers returning to arrival country and includes visitors on non-stop flights only

Latin America Top 10 Destination Cities

The top 10 destination cities in Latin America command a total number of visitors of 16.6 million in 2012, up 7.3% from 2011. Cross-border spending in these top 10 cities in 2012 is also up by 7.9%, reaching 16.3 billion. Spending per visit in 2012, however, is barely growing; just 0.6% at US$982 per visit, compared with US$977 in 2011.

The top 10 destination cities in Latin America are presented in Chart 4. Eight cities occupy the same top 10 positions in 2012 as in 2011, while Rio de Janeiro (eighth in Latin America) moves up by one rank displacing Caracas (ninth). The strongest growth is in Rio de Janeiro with an impressive 28.6%. Quito, in tenth rank, has the second-highest growth rate at 18.8%. If these growth rates persist, Rio de Janeiro and Quito

could move up the ranks very quickly in the next few years.

**Table 9. Latin America
Top Ten Destination Cities**

Visitors	2011	2012	Change
Visitors	15.4 Million	16.6 Million	+7.3%
Total Cross-Border Spending*	$15.1 Billion	$16.3 Billion	+7.9%
Average Cross-Border Spending Per Visit	$977	$982	+0.6%

*Net of spending on airfare

Rio de Janeiro's trajectory as a travel destination is definitely headed upwards. It's presently enjoying 28.6% growth in visitor numbers and is investing a massive $14.4 billion within the city as it prepares to host the 2016 Summer Olympics. It will be the first city in South America to host the Olympics.

Chart 4. Latin America Top 10 Destination Cities by International Visitors (2012)

Mexico City
Santo Domingo
San Jose
Caracas
Bogota
Quito
Lima
Rio de Janeiro
Sao Paulo
Buenos Aires

1.	Mexico City	3.5 mn
2.	Buenos Aries	2.6 mn
3.	Sao Paulo	2.4 mn
4.	Lima	1.8 mn
5.	Bogota	1.6 mn
6.	San Jose	1.3 mn
7.	Santo Domingo	1.1 mn
8.	Rio de Janeiro	0.9 mn
9.	Caracas	0.8 mn
10.	Quito	0.7 mn

Table 10 shows visitors' cross-border spending in the top 10 destination cities in Latin America. Buenos Aires is in first rank with US$3 billion of visitor cross-border spending in 2012, an increase of 6.7% from 2011, and moving it from the second to the top rank in the region. In contrast, Sao Paulo drops to the second rank after being top ranked in 2011, with visitor cross-border spending there declining by 5%. Quito, in the tenth rank, shows the strongest growth rate at an astonishing 26.3%, consistent with its strong growth of 18.8% in visitor numbers. This is followed by Bogota at an impressive 24.8%, Rio de Janeiro at 16.1%, and San Jose at 15%. Sao Paulo is not the only city that sees visitor cross-spending declining this year, however. Visitor cross-border spending in Caracas in 2012 is in a sharp decline of 9.3% compared with the 2011 level.

Already the second most popular destination in Latin America with its visitor totals, Buenos Aires has captured the coveted top spot in the region for visitor spending with a total of US$3 billion.

Table 10. Latin America Top 10 Destination Cities by International Visitor Spend (2012)

Rank	Destination City	Market	Visitor Spend (US$ Billion)			% Growth 2011 & 2012	2012 Visitors (Millions)*
			2010	2011	2012		
1	Buenos Aires	Argentina	$2.4	$2.8	$3.0	6.7%	2.6
2	Sao Paulo	Brazil	$2.5	$3.0	$2.9	-5.0%	2.4
3	Mexico City	Mexico	$2.1	$2.4	$2.7	13.4%	3.5
4	Lima	Peru	$1.1	$1.2	$1.4	14.0%	1.8
5	Bogota	Columbia	$0.8	$1.1	$1.3	24.8%	1.6
6	San Jose	Costa Rica	$1.0	$1.2	$1.3	15.0%	1.3
7	Rio de Janeiro	Brazil	$0.6	$1.0	$1.1	16.1%	0.9
8	Santo Domingo	Dominican Republic	$1.0	$1.0	$1.0	2.6%	1.1
9	Caracas	Venezuela	$1.0	$0.9	$0.8	-9.3%	0.8
10	Quito	Equador	$0.4	$0.5	$0.6	26.3%	0.7

*Excludes passengers returning to arrival country and includes visitors on non-stop flights only

Middle East & Africa
Top 10 Destination Cities

The number of visitors to the top 10 destination cities in the Middle East and Africa in 2012 is an increase of 7.2% from 2011, bringing the total to just below 29 million. Total cross-border spending by visitors in these cities shows a more impressive growth of 10.4%, reaching US$34.1 billion.

The top 10 destination cities of the region are presented in Chart 5. Dubai maintains its number one position, while showing a strong 15.3% growth in the number of visitors in 2012. Cairo also retains its second-place position with 8.3% growth in 2012, suggesting that tourism there is recovering well after the turmoil last year. Abu Dhabi is in the third rank, up from sixth rank in 2011, propelled by an impressive 17.9% growth. Casablanca (sixth) dropped one rank in 2012 from its 2011 ranking while Tel Aviv (fifth) and Amman (ninth) dropped two ranks each. All three cities are

also registering a decline in visitor numbers. Riyadh (seventh) and Nairobi (eighth) both increase by one rank with robust growth of 10.4% and 10.0% respectively in visitor numbers. Tunis retains its tenth rank position, unchanged from 2011, but is showing a strong growth of 17.7% in 2012, a clear sign of its return to normality after the upheaval of the Arab Spring last year.

Table 11. Middle East and Africa Top Ten Destination Cities

Visitors	2011	2012	Change
Visitors	27.0 Million	28.9 Million	+7.2%
Total Cross-Border Spending*	$30.9 Billion	$34.1 Billion	+10.4%
Average Cross-Border Spending Per Visit	$1,146	$1,181	+3.0%

*Net of spending on airfare

Boasting such attractions as a seven-star hotel and the world's tallest building, Dubai continues its third year holding the top spots in two categories for the Middle East and Africa region: first, as the most popular destination; and secondly, for the highest total in average visitor spending.

Chart 5. Middle East and Africa Top 10 Destination Cities by International Visitors (2012)

1. Dubai	8.8 mn
2. Cairo	3.3 mn
3. Abu Dhabi	2.7 mn
4. Johannesburg	2.5 mn
5. Tel Aviv	2.5 mn
6. Casablanca	2.1 mn
7. Riyadh	1.9 mn
8. Nairobi	1.8 mn
9. Amman	1.7 mn
10. Tunis	1.6 mn

Long known as the Paris of the MidEast, Beirut— although it has the lowest total visitor numbers of the region's top ten— for the third straight year, it is again ranked second in the total amount that visitors spend.

Table 12 summarizes the visitor cross-border spending in the top 10 destination cities in the Middle East and Africa. Not only is Dubai in the number one position as in 2011, its visitor cross-border spending growth is a very impressive 18.5% in 2012. Beirut also retains its second rank position, with a 6.2% growth in 2012, despite not making the top 10 by visitor numbers. This is because the average cross-border spending per visit in Beirut is very high, estimated at US$4,522. In comparison, the average cross-border spending per visit is US$1,004 in Dubai and US$1,387 in Tel Aviv.

Abu Dhabi, in sixth rank, has the highest growth at 20.7%, consistent with its performance in moving up from sixth rank to third rank in visitor numbers. Tunis, at tenth rank, is only slightly behind Abu Dhabi with a growth rate of 19.8%. The only one among the top 10 with a decline in visitor cross-border spending (-7.2%) is Casablanca (seventh).

Table 12. Middle East and Africa Top 10 Destination Cities by International Visitor Spend (2012)

Rank	Destination City	Market	Visitor Spend (US$ Billion)			% Growth 2011 & 2012	2012 Visitors (Millions)*
			2010	2011	2012		
1	Dubai	UAE	$6.4	$7.4	$8.8	18.5%	8.8
2	Beirut	Lebanon	$4.9	$6.3	$6.7	6.2%	1.5
3	Tel Aviv	Israel	$2.8	$3.3	$3.5	5.2%	2.5
4	Johannesburg	South Africa	$2.7	$3.1	$3.3	8.1%	2.5
5	Cairo	Egypt	$2.9	$2.7	$3.0	8.4%	3.3
6	Abu Dhabi	UAE	$1.9	$2.2	$2.6	20.7%	2.7
7	Casablanca	Morocco	$2.0	$2.0	$1.9	-7.2%	2.1
8	Nairobi	Kenya	$1.1	$1.3	$1.5	16.7%	1.8
9	Amman	Jordan	$1.1	$1.4	$1.4	4.8%	1.7
10	Tunis	Tunisia	$1.0	$1.1	$1.3	19.8%	1.6

*Excludes passengers returning to arrival country and includes visitors on non-stop flights only

North America Top 10 Destination Cities

Collectively the top 10 destination cities in North America command a total of 30.2 million visitors in 2012, up 4.1% from 2011, and US$73.8 billion of visitor cross-border spending, up 5.8% from 2011. The North American region also has the highest average visitor cross-border spending per visit among all the regions in the world. At US$2,442 per visit in 2012, it is far ahead of US$1,350 in Asia/Pacific, US$1,181 in Middle East and Africa, US$1,172 in Europe, and US$982 in Latin America.

The top 10 destination cities in visitor numbers in North America are presented in Chart 6. Seven of these 10 cities are in the same position as in 2011. New York is in number one position, followed by Los Angeles in second rank, and the Canadian city of Toronto in the third rank. Toronto, however, has the highest growth at 7.6%, followed by Wash-ington, DC at 7.2%, Houston at 6.2%, Miami at 5.5%, and New York at 5.2%. Washington, DC (seventh) moves up two ranks and displaces both Atlanta (eighth) and Vancouver (ninth) which both fall by one rank. Across the board, these top North American cities are seeing healthy growth rates in their visitor numbers in 2012.

Table 13. North America Top Ten Destination Cities

Visitors	2011	2012	Change
Visitors	29.0 Million	30.2 Million	+4.1%
Total Cross-Border Spending*	$69.8 Billion	$73.8 Billion	+5.8%
Average Cross-Border Spending Per Visit	$2,404	$2,442	+1.6%

*Net of spending on airfare

Although the leading destination cities in North America receive far fewer visitors from abroad than do the cities of Asia/Pacific or Europe, the levels of visitor spending they capture are significantly higher.

Chart 6. North America Top 10 Destination Cities by International Visitors (2012)

1. New York	7.6 mn
2. Los Angeles	3.9 mn
3. Toronto	3.6 mn
4. Miami	3.4 mn
5. Chicago	2.8 mn
6. San Francisco	2.3 mn
7. Washington	1.7 mn
8. Atlanta	1.7 mn
9. Vancouver	1.7 mn
10. Houston	1.5 mn

Vancouver · Toronto · Chicago · New York · San Francisco · Washington · Los Angeles · Atlanta · Houston · Miami

Table 14 summarizes the visitor cross-border spending of the top 10 destination cities in the region. All 10 cities in 2012 are in the same position as 2011. New York and Los Angeles are again in first and second positions in their rankings by visitor spend while Miami is in the third rank. The Canadian cities of Toronto and Vancouver are in sixth and tenth rank respectively. Toronto, however, has the highest growth at 10.2%, followed by Miami at 8.4% and Washington at 7.7%.

Of the top ten destination cities in the North America region, only Toronto is experiencing double-digit growth in visitor spending.

Table 14. North America Top 10 Destination Cities by International Visitor Spend (2012)

Rank	Destination City	Market	Visitor Spend (US$ Billion)			% Growth 2011 & 2012	2012 Visitors (Millions)*
			2010	2011	2012		
1	New York	USA	$16.0	$18.2	$19.4	6.8%	7.6
2	Los Angeles	USA	$10.2	$11.7	$12.5	6.4%	3.9
3	Miami	USA	$7.1	$8.1	$8.8	8.4%	3.4
4	Chicago	USA	$6.1	$7.0	$7.0	0.0%	2.8
5	San Francisco	USA	$6.3	$6.7	$6.9	2.9%	2.3
6	Toronto	Canada	$3.6	$4.3	$4.7	10.2%	3.6
7	Atlanta	USA	$3.9	$4.2	$4.3	1.6%	1.7
8	Washington	USA	$3.4	$3.7	$4.0	7.7%	1.7
9	Houston	USA	$2.7	$3.1	$3.2	5.9%	1.5
10	Vancouver	Canada	$2.4	$2.8	$3.0	7.2%	1.7

*Excludes passengers returning to arrival country and includes visitors on non-stop flights only

Origin Cities:
Where the Arrivals Come From

Apart from estimating visitor numbers and visitor cross-border spending, the data analytics embedded in the Global Destination Cities Index is also capable of identifying where visitors are coming from (their "origin" cities) for each of the 132 cities covered in the Index, and estimating how much these visitors spend.

For example, the top five origin cities for London are Dublin, New York, Stockholm, Amsterdam and Frankfurt, as shown in Chart 7. In 2012, it is estimated that there are 850,000 visitors from Dublin, spending US$482 million in London. New York is the second largest origin city for London,

sending 756,000 visitors to London in 2012, with a total cross-border spending of US$1,088 million. Thus, New York is the largest origin city for London for cross-border spending. On a per-visit basis, visitors from New York are also big spenders in London, with an average of US$1,439 per visit, much higher than the average of visitors from Stockholm at US$808 and from Dublin at US$567 per visit. In terms of growth, however, Frankfurt has the highest growth rate of visitors to London at 20.8%, followed by Dublin at 8.6% and New York at 5.5%. Stockholm's visitor number is, in contrast, down by 2.7% in 2012.

Whether drawn by business or as tourists, London's visitors from New York are the ones that travel the farthest and spend the most.

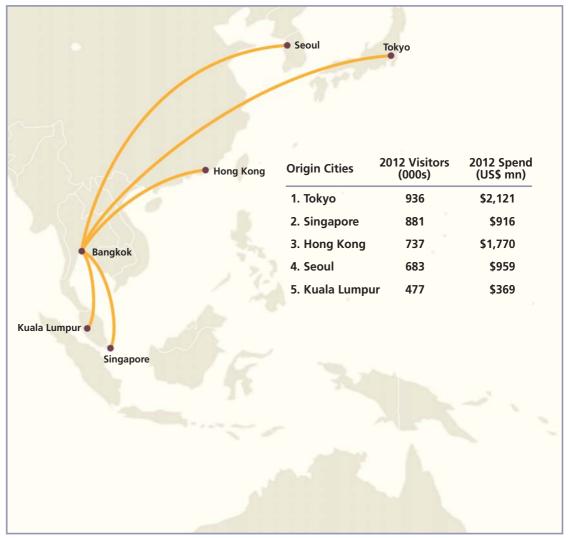## Chart 7. Top Origin Cities - First Place: London

Origin Cities	2012 Visitors (000s)	2012 Spend (US$ mn)
1. Dublin	850	$482
2. New York	756	$1,088
3. Stockholm	537	$434
4. Amsterdam	481	$382
5. Frankfurt	416	$331

Bangkok is the number one destination city in Asia/Pacific by both visitor numbers and visitor cross-border spending. The top five origin cities for Bangkok are shown in Chart 8, and they are Tokyo, Singapore, Hong Kong, Seoul and Kuala Lumpur, all from within the Asia/Pacific region. On a per-visit basis, visitors from Hong Kong and Tokyo have the highest spending at US$2,401 and US$2,265 per visit respectively. In comparison, visitors from Singapore, Seoul and Kuala Lumpur spend US$1,039, US$1,404 and US$773 per visit respectively. Growth rates of visitors from these origin cities are uniformly high, with visitor growth rates from Singapore, Seoul and Kuala Lumpur exceeding 20%.

While Tokyo and Singapore send the largest numbers of visitors to Bangkok, those from Tokyo spend more than twice as much during their visits.

Chart 8. Bangkok - Top Origin Cities

Origin Cities	2012 Visitors (000s)	2012 Spend (US$ mn)
1. Tokyo	936	$2,121
2. Singapore	881	$916
3. Hong Kong	737	$1,770
4. Seoul	683	$959
5. Kuala Lumpur	477	$369

Dubai is the top ranked destination city in the Middle East and Africa region. Its top five origin cities are presented in Chart 9. London is the number one origin city for Dubai, with 803,000 visitors. While the growth rate of London visitors is relatively modest at 5.1%, London visitors, at US$1,495, have the highest spending in Dubai per visit among the top five origin cities. In comparison, the average spending per visit by visitors from the other four top origin cities is just below US$900. But the growth rates of visitors from Munich, Frankfurt and Paris are astonishingly high at 29.5%, 22.1% and 20.2% respectively.

Chart 9. Dubai - Top Origin Cities

Origin Cities	2012 Visitors (000s)	2012 Spend (US$ mn)
1. London	803	$1,200
2. Paris	336	$298
3. Munich	305	$271
4. Frankfurt	295	$261
5. Kuwait	266	$236

Of the five leading cities sending visitors to Dubai, London provides well over twice as many as visitors—and they spend more than four times as much as do those from the other cities.

In the Latin American region, the top ranking destination city is Mexico City. The top five origin cities for Mexico City are all in the US: Miami, Houston, New York, Los Angeles, and Atlanta, as shown in Chart 10. Their average spending per visit is estimated at around US$600. But there are significant differences between them in terms of growth. Visitors from Miami and New York to Mexico City are growing at 17.1% and 12.5% respectively, whereas visitor numbers from Los Angeles and Houston are declining by 20.7% and 0.8% respectively.

Of the top five origin cities that have helped make Mexico City the leading destination city in the Latin America region, Miami leads in three important categories— the highest number of visitors sent, the highest amount that they spend, and the 17.1% increase this year in the number of visitors they're sending to Mexico City.

Chart 10. Mexico City - Top Origin Cities

Origin Cities	2012 Visitors (000s)	2012 Spend (US$ mn)
1. Miami	384	$239
2. Houston	318	$197
3. New York	315	$195
4. Los Angeles	295	$184
5. Atlanta	173	$107

New York is the top destination city in North America, and its top five origin cities are London, Toronto, Tokyo, Paris and Frankfurt. Growth rates of visitors from these origin cities vary a great deal. London and Frankfurt visitors are growing only modestly at 3.9% and 2.8% respectively. Toronto visitors, however, are growing at an astonishing rate of 28.4%. In contrast, visitor numbers from Tokyo and Paris are shrinking by 3.5% and 6.1% respectively. The decline in visitors from Tokyo has the biggest impact on spending, as the average spending by Tokyo visitors is estimated at an impressive US$3,878, much higher than visitors from Toronto (US$945), London (US$1,663), and Paris (US$1,361). Frankfurt visitors spend, on average, a relatively high US$2,505 per visit.

Chart 11. New York - Top Origin Cities

Origin Cities	2012 Visitors (000s)	2012 Spend (US$ mn)
1. London	1,294	$2,152
2. Toronto	849	$803
3. Tokyo	369	$1,429
4. Paris	306	$417
5. Frankfurt	288	$722

New York City enjoys the luxury of having visitors arriving from nearly everywhere in the world. However, of its top five originating cities, visitors from both London and Tokyo contribute a far greater percentage due to their higher spending patterns.

In estimating these visitor numbers, the situation becomes complicated when the cities involved are "hub" cities, such as London, Dubai, and Frankfurt. While London itself is a major hub city, three of its top five origin cities are also considered important hub cities: New York, Frankfurt and Amsterdam. The methodology of estimating the "true" visitors from origin cities to destination cities is detailed in Appendix A. But it is useful to illustrate how it is done with a real example. Box A applies the methodology to London and its top five origin cities to illustrate how the distortion caused by the "hub effect" is eliminated in order to arrive at more accurate estimates of visitor numbers.

Box A. Eliminating the Distortions Caused by "The Hub Effect"

A number of destination cities are important "hubs" for air travel connectivity, and they typically have very large numbers of transit passengers arriving and departing. In some hub cities, transit passengers account for up to two-thirds of the total arrivals. So it is inaccurate to just count the arrival numbers as "visitors" to these cities. Appendix A provides a detailed explanation of how the "hub effect" is being dealt with in order to estimate more accurately the visitor numbers in these cities.

The process for eliminating the distortion caused by the hub effect can be illustrated with London and its top five origin cities. London is itself a major hub, with many passengers arriving only to take another departure flight for their onward journey. Among its top origin cities, New York, Frankfurt, and Amsterdam are also important hub cities. Many arrivals in London from these cities are not residents of these cities; instead, they had traveled to these cities from elsewhere in order to take a flight to London. So these non-resident arrivals cannot be counted as visitors to London from these cities.

Table 15 outlines the process of how the distortion caused by the hub effect is being systematically eliminated.

• The arrivals in London can be broken down into two key categories: visitors (column 1) and non-visitors. Non-visitors are in turn broken down into two sub-categories: transit passengers arriving in London to transfer to another outbound flight (column 4), and London residents returning home after traveling abroad (column 5).

• The visitor numbers shown in column 1 also consist of two subcategories: visitors who are residents of the origin city (column 2) and who are not residents of the origin city (column 3).

Following this process, we have estimated that there are only 838,426 "true" visitors arriving in London from Dublin (column 2). The total number of 850,047 (column 1) of visitors to London from Dublin includes 11,621 (column 3) who are non-residents of Dublin who travel to Dublin to board a flight to London. Thus, only 838,426 of them are residents of Dublin (column 2). Apart from the 850,047 visitors from Dublin, it is estimated that there are 673,259 arrivals from Dublin who are transit passengers (column 4), who stop in London in order to board another outbound flight to go elsewhere. Then there are also 598,804 residents of London returning after visiting Dublin (column 5). So the numbers shown in columns 4 and 5, while they are counted as arrivals in London, are not counted as visitors to London.

Table 15. Breakdown of London's Arrivals from its Top Five Origin Cities in 2012

| Origin City | Visitors | Visitors who are residents of the origin city | Visitors who are non-residents of the origin city | Passengers transiting through London | Residents of London returning from abroad |
	1	2	3	4	5
Dublin	850,047	838,426	11,621	673,258	598,804
New York	756,337	681,711	74,626	711,921	924,021
Stockholm	537,352	536,262	1,090	56,364	221,616
Amsterdam	481,303	407,783	73,520	712,161	499,567
Frankfurt	416,349	367,170	49,178	360,264	292,294

So the Dublin - London example illustrates that with the total arrival number of 2,122,109 in London from Dublin (columns 1 + 4 + 5), only 850,047 (40%) are counted as "visitors to London," and of which only 838,426 (39.5%) are "visitors from Dublin to London."

Similarly, "visitors to London" from the New York – London connection account for only 31.6% of total arrivals in London from New York, and of which only 28.5% are "visitors from New York to London." For Frankfurt, only 38.9% of arrivals in London from Frankfurt can be counted as "visitors to London," and only 34.4% can be counted as "visitors from Frankfurt to London."

The Fastest Growing Destination Cities

The rankings of the destination cities look very different from the perspective of growth. Table 16 presents the rankings of the world top 20 destination cities in terms of growth rates of visitor numbers.* Rio de Janeiro ranks at the top with an eye-popping growth rate of 28.6%. Tokyo's recovery puts it in second place at 21.5% followed by Quito at 18.8%, Abu Dhabi at 17.9%, Tunis at 17.7% and Dubai at 15.3%. Tunis, in fifth position, provides strong evidence that Tunisia is rapidly returning to normality (as is Cairo at sixteenth rank) after a tumultuous period in 2011. Taipei's growth rate at seventh rank is driven by tourists arriving from mainland China, who can visit Tai-

wan today through direct transport links after being barred from going there for more than five decades. Istanbul and Beijing share the eighth rank position at 14.7% growth.

Ranks one to 11 are all occupied by destination cities located in emerging markets. Apart from Tokyo, Singapore is the highest-ranking destination city in a developed market, in the fourteenth rank, followed by Seoul in the fifteenth. In fact, six of these top 20 fastest growing destination cities are in Middle East and Africa, another six in Asia/Pacific, and five in Latin America. Thus, in the growth of visitor numbers, emerging markets dominate.

Of the world's top twenty fastest-growing cities, thirteen are experiencing double-digit growth.

Rio de Janeiro tops the list with its dazzling 28.6% growth rate.

Table 16. The World's Top 20 Fastest Growing Destination Cities by Visitor Numbers

Destination City	2012 Growth Rate	Rank
Rio de Janeiro	28.6%	1
Tokyo	21.5%	2
Quito	18.8%	3
Abu Dhabi	17.9%	4
Tunis	17.7%	5
Dubai	15.3%	6
Taipei	15.1%	7
Istanbul	14.7%	8
Beijing	14.7%	8
Bogota	12.6%	10
Lima	11.7%	11
Riyadh	10.4%	12
Nairobi	10.0%	13
Singapore	9.9%	14
Seoul	9.8%	15
Cairo	8.3%	16
Shanghai	8.2%	17
Toronto	7.6%	18
Washington	7.2%	19
Caracas	7.0%	20

*Top 20 growth rate ranking of the combined list of each of the 5 regions' top 10 cities which were ranked by visitor numbers.

From the perspective of growth of cross-border spending, the rankings are quite different, as presented in Table 17.* Quito is in the top rank with a very impressive growth rate of 26.3%, followed by Bogota in the second rank with 24.8%. Both cities are in the Latin America region. Tokyo is in the third rank with a growth rate of visitor cross-border spending of 24.2%, suggesting that tourists are returning to Japan generally, and Tokyo in particular, after the triple disasters in early 2011. Abu Dhabi and Istanbul are tied at the fourth rank with a growth rate of 20.7%. Taipei is in sixth rank at 20.5%. The growth rate of cross-border spending by visitors in Tunis is 19.8%, putting the city in seventh rank. Beijing follows in the eighth rank with a growth rate of 19.2%.

The regional distribution of these top 20 fastest growing destination cities is more diverse. Seven of the 20 are in Asia/Pacific, from both emerging and developed markets. Four are located in Middle East and Africa, and six are located in Latin America. However, three European cities also make their appearance among the top 20. Istanbul is ranked fourth with a 20.7% growth rate. Vienna is in eleventh rank, with a robust growth rate of 16.3%. Zurich is in sixteenth rank at 13.9%.

It's interesting to note that the vast majority of the cities on the list of fastest-growing cities in the world are government capitals.

One example is Quito, Equador which now tops the list of fastest-growing destination cities with its very robust 26.3% rate of growth.

Table 17. The World's Top 20 Fastest Growing Destination Cities by Visitor Cross-Border Spending

Destination City	2012 Growth Rate	Rank
Quito	26.3%	1
Bogota	24.8%	2
Tokyo	24.2%	3
Istanbul	20.7%	4
Abu Dhabi	20.7%	4
Taipei	20.5%	6
Tunis	19.8%	7
Beijing	19.2%	8
Dubai	18.5%	9
Nairobi	16.7%	10
Bangkok	16.6%	11
Vienna	16.3%	12
Seoul	16.2%	13
Rio de Janeiro	16.1%	14
San Jose	15.0%	15
Lima	14.0%	16
Zurich	13.9%	17
Kuala Lumpur	13.7%	18
Mexico City	13.4%	19
Singapore	12.7%	20

*Top 20 growth rate ranking of the combined list of each of the 5 regions' top 10 cities which were ranked by visitor spending.

Whether the destination cities are in developed or emerging markets, visitor arrivals and expenditures are growing at a very healthy pace.

This combination will serve to improve the quality of peoples' lives and benefit societies in all the world's geographic regions.

Conclusions

This 2012 edition of the MasterCard Global Destination Cities Index presents a picture of resilient growth in cross-border visitor numbers and their cross-border spending in 132 of the world's most important cities. In all the key regions of the world, visitor numbers and their spending are growing, in spite of the persistent Euro Zone crisis, worries over rising political risks in the Middle East, and lingering concern over the weak recovery in the US. The established leading destination cities like London, Paris, Bangkok, New York, and Singapore continue to occupy top rankings in terms of both visitor numbers and their cross-bor-

der spending. But new and dynamic destination cities like Istanbul, Dubai, Abu Dhabi and Shanghai are clearly moving forward with great momentum. From the perspective of growth rates in both visitor numbers and their cross-border spending, destination cities from emerging markets clearly dominate, even though many of them are starting from a very low base. This diversity in geographic distribution and mix of growth drivers behind the rise of destination cities are also creating the best conditions for sustaining their dynamism and success.

Appendix A.
Methodology for Estimating Air Passenger Arrivals in Destination Cities

A total of 132 of the world's most important cities are covered in this index. 42 of them are located in the Asia/Pacific region, 36 in Europe, 19 in Latin America, 21 in Middle East and Africa, and 14 in North America.

The methodology for estimating air passenger arrivals in each of the destination cities is comprised of the following steps.

1. The Total Pipeline of passenger flows is based on overall passenger capacity between international cities: Every month the OAG collects the airline flight schedules for the next 12 months on a global basis. Where previously we only used the data from key months (and the associated 12 month schedule forecasts arising for those months) as the basis of our one-year projections, we now use the full 12 months of flight schedule data to construct our forecasts. Using only non-stop flights we extract for each city to city pair the number of weekly flight frequencies and passenger Capacity.

2. Load Factors for each city pair are used to determine the percentage of seats that are actually filled with revenue paying passengers: On any airline flight route, the average percentage of seats filled (i.e. the "load factor") varies. This information is extremely sensitive for competitive reasons and airlines will only release this data with a one-year lag. Nevertheless, by using the historical load factor on most city-to-city flight routes, we can estimate a proxy for the current and forecasted load factor. We used a weighted average of the historical load factors with heavier emphasis on the most recent years, but airlines will try to maintain a load factor of between 70 to 80% by changing the number of weekly flights or by changing the aircraft type to increase or decrease passenger capacity. As such, for determining the years for which we do not have load factor numbers we apply an increasing improvement of 5% per year on the historical average, starting at 70% and improving to 85% over time.

Coverage of Destination Cities

Region	Cities
Asia/Pacific (42 Cities)	Ahmedebad, Almaty, Bangkok, Beijing, Bengaluru, Chengdu, Chennai, Coimbatore, Colombo, Dalian, Delhi, Dhaka, Guangzhou, Hangzhou, Hanoi, Harbin, Ho Chi Minh City, Hong Kong, Hyderabad, Islamabad, Jakarta, Karachi, Kolkata, Kuala Lumpur, Lahore, Manila, Melbourne, Mumbai, Nanjing, Osaka, Pune, Qingdao, Seoul, Shanghai, Shenzen, Singapore, Sydney, Taipei, Tianjin, Tokyo, Xi an, Xiamen
Europe (36 Cities)	Amsterdam, Ankara, Athens, Barcelona, Berlin, Brussels, Bucharest, Budapest, Copenhagen. Dublin, Dusseldorf, Edinburgh, Frankfurt, Geneva, Hamburg, Istanbul, Kiev, Lisbon, London, Madrid, Milan, Minsk, Moscow, Munich, Novosibirsk, Paris, Prague, Rome, Sofia, St. Petersburg, Stockholm, Vienna, Vladivostok, Warsaw, Yekaterinburg, Zurich
Latin America (19 Cities)	Belo Horizonte, Bogota, Brasilia, Buenos Aires, Caracas, Cordoba, Curitiba, Lima, Medellin, Mexico City, Monterrey, Montevideo, Quito, Recife, Rio de Janeiro, San Jose, Santiago, Santo Domingo, Sao Paulo
Middle East & Africa (21 Cities)	Abu Dhabi, Accra, Amman, Beira, Beirut, Cairo, Cape Town, Casablanca, Dakar, Damascus, Dubai, Durban, Kampala, Johannesburg, Lagos, Maputo, Nairobi, Riyadh, Tehran, Tel Aviv, Tunis
North America (14 Cities)	Atlanta, Boston, Chicago, Dallas, Houston, Los Angeles, Miami, Montreal, New York, Philadelphia, San Francisco, Toronto, Vancouver, Washington

3. We can now estimate the total passengers between any given city pair: Using the data above we can now gain a first estimate of the number of passengers departing from one city to another using the equation of **Estimated Travelers = Load Factor * Passenger Capacity**

4. From total passengers we need to net out passengers who are on the return leg of their travels i.e. on their way home: On any flight there will also be passengers who are returning home after having visited the departure city. For example, in the case of a Caracas to Miami flight there will be US passengers returning back to Miami (after having visited Caracas). We want to net out those passengers. As airlines do not reveal the residency of their passengers there is no way to know at a city to city level what portion of passengers on each flight is returning home. We need to go to the country-country level for this and for that we use UNWTO (United Nations World Tourism Organization) data. They collect the number of annual residents travelling between country pairs. We use this number to create a ratio of **Departure Country A to Arrival Country B Ratio = Annual Number of Residents from Country A going to Country B /{Annual Number of Residents from Country A going to Country B + Annual Number of Residents from Country B going to Country A}**

5. An example using Caracas - Miami: In the case of the Caracas - Miami route, in 2009 there were 507,185 Venezuelans in total travelling to the US by air, and 76,059 US residents in total travelling to Venezuela by air, implying a ratio of 87% which is the estimated ratio of Venezuelans on any given flight from Venezuela to the US. We use this ratio to net out returning US residents and to obtain the number of Venezuelans travelling from Caracas to Miami as follows: **Estimated Venezuelan Resident Travelers from Caracas to Miami = Estimated Travelers * Ratio of Venezuelan Resident Travelers to Total Travelers {US & Venezuela}**

6. Improving the basic data: Where UNWTO data was not available for a country pair (data available for 76% of the country pairs), data was sourced at the national level where available (2% of city pairs) or we used the ratio of the IMF Balance of Payments travel debit

accounts to construct a secondary proxy ratio. In this release we have focused on key border regions around the world where the UNWTO cross-country visitor data may give less accurate ratios. In all cases, the general idea was to use overnight visitors (where data was available) instead of overall visitors to construct more accurate departure-arrival ratios of air travelers. This has resulted in some shifts to the flow of travel between these areas (and therefore overall expenditure as well). The border regions include the Mexican-US border, EU countries which share a border, the Singapore-Malaysia border, and the Ukraine-Russia-Belarus-Moldova border areas. Furthermore, in similar fashion, the ratios for the Hong Kong-China-Macau borders have been adjusted using overnight and/or air travel only visits which now allows us to add China resident air arrivals into Hong Kong and Macau via air and vice versa (both were previously excluded).

7. For "hub" cities like Frankfurt, Dubai, Singapore, there are additional complexities in netting out transit passengers: As explained previously, on any given flight there are departing residents from the departure country, returning visitors, and a third group of residuals. The residuals group can be a low proportion of the passengers for typically non-hub cities, and very high for hub cities. To estimate the proportion of this group, we use: **Residuals = Total Estimated Passengers – Number of Departing Residents – Number of Returning Visitors.** Residuals constitute two main groups: (A) Non-residents (of either the origin or destination country) who from the origin city are visiting the destination city; and (B) residents of the origin country AND non-residents (of either the origin or destination country) who will be transiting through the destination city without visiting it. We are interested in Type A but in order to separate the residuals into its two components we use a relative connectivity ratio "RCR" that is based on the International Air Connectivity Index (IACI) scores previously created, which is $RCR_{o-d} = (IACI_o / (IACI_o + IACI_d))2$

Where

RCR_{o-d}: Is the Relative Connectivity Ratio of the Origin City relative to the Destination City

$IACI_o$: Is the International Air Connectivity Index of the Origin City

IACId: Is the International Air Connectivity Index of the Destination City

We separate out Type A by using: **A = Residual x RCR & B**

We then add A {Non-residents (of either the departing or arrival country) who from the departure city are visiting the arrival city} to the number of residents visiting the arrival country {calculated earlier} to obtain the estimated number of travelers who will visit the destination city: **Visitors = Origin Country Residents + Non-Residents from other Countries.**

Appendix B. Methodology for Estimating Cross-Border Spending by Arrivals in Destination Cities

To estimate the average expenditure of outbound travelers, we again have to look at country to country data. City to city expenditure data is difficult to obtain (partial figures do exist but these are not publicly available). For this we use the United Nations' Trade in Services database (travel component) which does not include transport, i.e. airfares at the paired country level. For country pairs where this data is not available we default to using the average expenditure per traveler in destination countries using IMF's Balance of Payments Travel Credit data and the total number of visitors to the country. In some cases the average expenditure of city pairs can go extremely low when the UNWTO resident departure include large levels of overland cross border travel between neighboring countries and typically involves returning on the same-day. We therefore adjust our ratios for key border regions by using overnight visitors instead of total visits to eliminate the same-day visits issue. In these cases, we have also used expenditures by overnight visitors (instead of total visitor spends) to calculate average inbound expenditures. While we have attempted to "clean" the data of these same day trips, we have also put in place a default system to "catch" city pairs with border issues and for which there is inadequate data.

As we are dealing with air travel, we assume that a visit typically involves a stay of one night or more and we adjust for this by setting minimum lower range for the average expenditure per traveler at US$500 for bordering arrival countries and US$700 for non-border arrival countries. This lower spending floor was triggered in about 30% of the city-pairs.

The formula is as follows: **average expenditure of visitors = total amount spent on travel in the destination country by residents of the origin country (ex air tickets) /total number of origin country residents traveling to the destination country.**

Based on the latest year available for average expenditure per traveler we then project the average expenditure per traveler to 2012 using the nominal growth rate of GDP per Capita provided by the IMF WEO forecast database. Using the estimated number of residents flying from each origin city to each destination city, we can then calculate the estimated expenditure by multiplying in the average expenditure to obtain city to city expenditure estimates. Thus, for each city pair: **estimated visitor spend = number of visitors x average expenditure in the destination country**

Glossary

Visitor: Person who is traveling on a non-stop direct flight to her destination and is not a resident of the destination country. A visitor may make more than one trip, and each trip counts as a new visit. That is, a person who makes two trips to a destination as described above counts as two visitors to that destination. A person on the return leg home does not count as a visitor.

Visitor Spend: The estimated total amount that visitors spend in the destination city/country. It excludes air ticket expenditure required to get the visitor to the destination city.

Origin City: The city from which passengers embark on their flight to the destination city. Passengers who count as visitors may be residents of the origin city/country or may be non-residents from other countries (but not the destination city/country)

Destination City:

The city where passengers disembark (leave the airport) and are counted as visitors (which only includes non-residents of the destination city/country)

Appendix B Table 1. Data Sources

Source	Indicator(s)
OAG	Dynamic One-Year-Forward Flight Schedules
IATA	Traffic by Flight Stage and Load Factors
UNWTO	Country Based Tourism Statistics
National Tourism Boards	Country Based Tourism Statistics
UN	Trade in Services
IMF	WEO Database
CEIC	Global Database
WTTC	World Tourism Indicators

Appendix B Table 1. Data Sources

Data Sources

1. IMF World Economic Outlook Database.

2. The growth rates of total visitors and cross-border spending for the top ten destination cities in each of the key regions of the world are presented in the regional sections.

About the Author

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Yuwa Hedrick-Wong is currently HSBC Visiting Professor of International Business at the University of British Columbia, Canada.

Yuwa is an economist and business strategist with 25 years of experience gained in over thirty 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 thirty leading multinational companies in the Asia/Pacific region.

In 2010, 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. His other appointments are: Advisor at Southern Capital Group, a private equity fund (since 2007); member of the Investment Council of ICICI, India's largest private bank (since 2008); and Adjunct Professor at the School of Management, Fudan University, Shanghai, China (since 2006).

Yuwa is a frequent speaker at international conferences and a regular commentator in the broadcast and print media on economic, policy and business issues. He is a published author on consumer markets, economic development, trade, and international relations. He was voted "Communicator of the Year" in Asia in 2006 by the Asia/Pacific Association of Public Relations Professionals. He wrote a regular column in Forbes Asia called "Asian Angles" in 2005 and 2006.and guest lecturer at the Graduate School of Business, University of Chicago from 2004-06.

As a student of philosophy, political science, and economics, Yuwa studied at Trent University and pursued post-graduate training at the University of British Columbia and Simon Fraser University in Canada, where he received his Ph.D. He also received training, at the post-doctoral level, in health economics, energy and environmental economics, and scenario forecast and planning.

He lives with his wife and two cats on Salt Spring Island, off the west coast of Canada, and is an eager apprentice in the fine art of gardening.

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