Shaping the Future of Travel
Macro trends driving industry growth over the next decade

A report for amadeus
March 2014
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</tbody>
</table>
At Amadeus we are fortunate to sit at the heart of the global travel industry. Our people, our technology and our innovation are dedicated to helping our customers and partners to shape the future of travel. It is this genuine desire to understand the future of our industry that leads us to commission leading experts such as Oxford Economics to help us examine what the coming years will hold.

Since the beginning of the global financial crisis the travel industry has faced significant challenges, many of which are only now beginning to abate. As the global economy emerges from the grip of recession, the time is right to reflect on what the next 10 years are likely to bring and importantly, where pockets of opportunity and growth exist for our industry.

The travel industry, more than many others, is intrinsically linked to global GDP. Travel companies tend to prosper as the economy grows and suffer during times of economic difficulty. However, we hope this report makes for positive reading as forecasts suggest that the key metric of global overnight visitor flows is likely to grow at a healthy rate of 5.4% per annum during the next decade, outstripping GDP growth of 3.4%. But of course not all will benefit equally.

The challenge for our industry now is to decide which markets to pursue, where to channel investment, and how to ensure that travel companies are positioned to benefit from the expected upturn in demand for global travel.

It is evident that despite the healthy projections for travel, not all sectors, not all geographic markets, and not all companies will thrive. Growth will in large part be driven by a number of rapidly developing economies, those companies that are pioneers of successful new business models, and those segments that embrace innovation.

In Shaping the Future of Travel: Macro trends driving industry growth over the next decade, we explore macro-economic forecasts; the impact of emerging and frontier markets; the dichotomy of fortunes in business travel and whether the vision of a more connected travel industry is within reach.

This report is in no way designed to be definitive. Rather, the objective is to encourage thinking about the future; and to stimulate and facilitate debate, discourse and discussion, so that we are all better placed to shape our industry in the years that lie ahead.

Holger Taubmann, Senior Vice President Distribution, Amadeus
Executive Summary

Amadeus has commissioned Oxford Economics to undertake a study exploring the trends shaping the future of travel, and examining a range of factors including global trends in travel growth, travel in emerging and frontier markets, business travel and seamless travel. This report follows and updates Oxford Economics’ previous work on global travel trends for Amadeus, The Travel Gold Rush 2020, released in 2010.

Global travel rebounded rapidly from the 2009 financial crisis and is forecast to grow robustly over the next decade. We expect global overnight visitor flows to grow at 5.4% per year over the next decade, significantly faster than GDP growth of 3.4% and more in line with the expected expansion in global trade flows of 5.8%.

In terms of regional overnight visitor flows, we predict that Asia Pacific, the Middle East and Africa will be the fastest growing regions over the next 10 years, with Asia growing at nearly double the rate of the 2002-2012 period. Despite this, Europe’s share of visitor flows will remain dominant out to 2023. For outbound travel spend, however, the Asia Pacific region will be the growth leader over the next ten years, overtaking Europe to dominate global outbound travel spend by 2023. According to our model, North East Asia alone will account for 42% of the growth in global outbound business travel expenditure over the next decade, with South East Asia accounting for a further 13%.

Non-OECD countries accounted for 44% of global air traffic in 2013 and we forecast this to rise to 51% in the next ten years, driven primarily by the expansion of large emerging markets, especially China. Non-OECD air traffic is increasingly independent on mature Western markets, with “South-South” journeys accounting for 40% of global air traffic in the past five years. Our model suggests that China may overtake the U.S. as the largest source of outbound travel spend in the world in 2014, with China’s share of global outbound travel expenditure set to rise from 1% in 2005 to 20% in 2023. China may also surpass the U.S. as the world’s largest domestic travel market by 2017. In fact, our modeling suggests the potential market for outbound Chinese tourism could more than double to 220 million households in the next decade.

A key input to this report is the contribution of expert interviewees. These included participants from major airlines, airport operators, rail operators, travel industry experts, hotel operators, online travel agents, information developers and participants drawn from Amadeus itself. These interviews, combined with macroeconomic forecasts and research from Oxford Economics, provided insights into how industry participants themselves see the industry developing in future years.

Emerging market travel sectors are not only growing, but also innovating to meet the demands of rapidly expanding and maturing domestic markets,
with lessons for Western providers. Technologically, emerging markets are often more open to change, and local agents are more experimental than their advanced market counterparts.

Western business travelers have been slow to recover old spending habits. North American and European short-haul markets are still yet to recover 2008 levels. Premium air traffic data from IATA shows that while long-haul (intercontinental) premium traffic recovered quickly and robustly from the financial crisis – particularly traffic connecting advanced to emerging markets – short-haul travel demand has been much more sluggish.

The business models of Low Cost Carriers and traditional carriers have converged in recent years, but remain distinctive. Structural factors will continue to set the LCCs and traditional carriers apart and they will continue to compete along the familiar lines of their comparative advantages – price versus service.

The more important trend in the next decade is the further expansion of LCC market share. LCCs are outgrowing general traffic in every continent of the world. Europe remains the most active market for LCC business, with 250 million passenger trips per year. North America is next largest with 173m, but Asia is fast catching up, recording over 117m passenger trips on average in the past five years and growing more than 150% in that period. The introduction to the market of large numbers of new middle class travelers from emerging economies in the next 10 years will pose great opportunities for LCCs. LCCs, however, are yet to demonstrate a viable model for capturing longer-haul market share to date. The more successful LCCs become, the more likely they are to outgrow their original business model and be forced to adapt.

Seamless travel has two main components: technology and infrastructure. Infrastructure provides the different modalities of transportation, and technologies connect the different modes of transportation. Seamless travel exists in many forms, but an “ideal” case would be booking a single “door to door” service that takes a traveler from home to and through an airport, onto and off a plane, and to the destination hotel. In practice, much seamless travel currently exists in selective “bubbles” because the businesses required to provide the infrastructure and the technology are very different. In addition, there is a “market failure” at work that makes the provision of truly global seamless travel solutions very difficult.

The development of internet-based and mobile technologies would appear to provide more opportunity than ever before for a potential facilitator, given that they might help overcome many of the past issues that helped forestall seamless travel. At present, however, because many providers appear to be focused on improving their own offerings, seamless travel is effectively left for “someone else” to worry about.

As the world’s mobile users and mobile broadband users have increased, so have the applications and uses of mobile for travel. The number of mobile
device users in developing countries has been rapidly increasing since 2005, with an average annual growth rate of 36.8% over the 2005-2013 period, meaning they now by far outnumber users in developed countries. Mobile broadband user numbers in developing countries have also been growing at a rapid rate, and are expected to have eclipsed user numbers in developed countries in 2013 for the first time, with 1.2 billion users.

As a result of this growing trend to use mobile devices for travel, travel providers are developing applications to further facilitate information provision, reservations and payments. If economic history is any guide, it is likely that the spread of mobile technologies will produce major changes in the travel industry – as well as major financial opportunities – however, these may take many years to fully develop, and their shape is only dimly grasped at present.
1 Global Travel Trends

1.1 Worldwide Trends

Global travel rebounded rapidly from the 2009 financial crisis and is forecast to grow robustly over the next decade. Global overnight visitor flows are comparable with global trade flows. We expect global overnight visitor flows to grow at 5.4% per year over the next decade, significantly faster than GDP growth of 3.4% and more in line with the expected expansion in global trade flows of 5.8%.

Although global overnight tourist flows dipped briefly at the peak of the financial crisis in 2009, they have since rebounded, continuing to increase at a healthy rate of 16.5% from 2009 through 2012. This is slightly higher than the 15% growth rate experienced before the financial crisis from 2004 to 2007.

Chart 1.1: Global overnight visitor flows, 2002-2023

The Oxford Economics Tourism Decision Metrics (TDM) model forecasts visitor flows as a derivative of outbound visitor spending. As the global economy continues to recover, and given our forecasts for personal income and business spend growth, we forecast an average annual growth rate for visitor flows of 5.4% over the next decade. This is an acceleration of the 4.1% growth rate experienced over the 2009-2012 period. Outbound global travel spending\(^1\) follows a broadly similar trend to that of overnight tourism flows, with predicted average annual growth of 5.4% from 2013 through 2023.

\(^1\) Defined as spending by residents on travel in foreign countries (exports).
International accommodation nights are outpacing domestic accommodation nights since the financial crisis, potentially showing a drop in demand for accommodations on domestic trips.

The financial crisis resulted in a temporary flattening of nights spent in accommodation by all travelers, both domestic and international. Chart 1.2 shows global accommodation nights, broken down by international travelers and domestic travelers.

Chart 1.2: Global accommodation nights, international and domestic, 2002-2023

This chart shows the flip between international and domestic accommodation nights. Before 2006, the volume of accommodation nights by domestic travelers was higher than for international travelers. Around the financial crisis, the two were at roughly the same level, but from 2009, the two began to diverge.

From 2009 to 2012, international accommodation nights grew by 20% but domestic accommodation nights only grew by 5.8%. The reason for this divergence is unclear. The differing growth rates may reflect both the generally slow pace of domestic demand in Western economies (restraining domestic tourism) as well as the growth of emerging markets, with new tourists increasingly interested in exploring the outside world (if only, at first, within their local region).

Based on current trends, domestic and international accommodation nights are forecast to continue to diverge from 2013 to 2023, with international accommodation nights growing at an annual average rate of 5.1% compared to 3.4% in domestic accommodation nights.
1.2 Regional Trends

In terms of overnight visitor flows, we predict that the Asia Pacific, Middle East and Africa regions will be the fastest growing regions over the next 10 years, with Asia growing at nearly double the rate of the 2002-2012 period. Despite this, Europe’s share of visitor flows will remain dominant out to 2023.

Chart 1.3 below shows how the growth in overnight visitor flows for those regions compares to the growth for Europe and the Americas since 1995. The divergence in growth rates between the high growth regions (Asia, MEA) and the lower-growth regions is clear (Europe, Americas).

![Chart 1.3 Indexed overnight visitor flows by region, 1995-2023](chart.png)

Source: Oxford Economics

Over the 2013 to 2023 period, visitor flows for Asia are forecast to grow at an annual average rate of 15.1%, nearly double the prior ten-year period. Over this same period, visitor flows from the Middle East and Africa will grow at an annual rate of 11.9%, a few percentage points above the 8.4% growth registered over the prior ten year period. In comparison, arrivals from Europe and the Americas will have growth rates that are approximately half or less than Asia and the Middle East and Africa over the forecast period (but still higher than the prior ten year performance). Table 1.1 summarizes the growth rates Oxford Economics’ TDM model forecasts for the next decade, as well as provides results for the last decade.

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2 This chart shows the indexed growth trend, therefore setting 1995 as the common base year for all tourism flows and calculating the growth per region from that base year.
Table 1.1: Growth in overnight visitor flows by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Average Annual Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2002-2012</td>
</tr>
<tr>
<td>Asia</td>
<td>16.1%</td>
</tr>
<tr>
<td>MEA</td>
<td>18.1%</td>
</tr>
<tr>
<td>Europe</td>
<td>7.4%</td>
</tr>
<tr>
<td>Americas</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

Source: Oxford Economics

By way of comparison, Chart 1.4 displays the volume of overnight visitor flows for 2012 per region. In volume terms, Europe has the lion’s share of tourism flows, with the Asia Pacific region in second place, the Americas third, and the Middle East and Africa in fourth.

Chart 1.4: Overnight tourism flows by region, 2012 (left)

Chart 1.5: Overnight tourism flows by region, 2023 (right)

Chart 1.5 shows the same overnight visitor flows, but for the 2023 forecast year. Despite high growth, the Asia Pacific and the Middle East and Africa regions will still retain the same regional rankings in 2023.

Examining airline travel between regions gives further insights into passenger flows. Table 1.2 shows the growth in origin and destination passenger traffic between world regions for the past few years, sorted by the highest annual percentage change for the year 2013.

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3 Connecting passengers are assigned to the points of their origin and destination, not to the point(s) of transfer.
Shaping the Future of Travel
Macro trends driving industry growth over the next decade

Table 1.2: Airline passenger traffic growth between regions, 2009-2013

<table>
<thead>
<tr>
<th>Region Pair</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2009-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle East Africa-Asia Pacific</td>
<td>11.53%</td>
<td>6.40%</td>
<td>1.70%</td>
<td>10.27%</td>
<td>33.09%</td>
</tr>
<tr>
<td>Asia Pacific-Asia Pacific</td>
<td>11.09%</td>
<td>5.38%</td>
<td>8.58%</td>
<td>9.00%</td>
<td>38.54%</td>
</tr>
<tr>
<td>Middle East Africa-Europe</td>
<td>7.76%</td>
<td>1.00%</td>
<td>3.85%</td>
<td>7.63%</td>
<td>21.66%</td>
</tr>
<tr>
<td>Asia Pacific-Americas</td>
<td>6.85%</td>
<td>9.03%</td>
<td>4.87%</td>
<td>6.24%</td>
<td>29.79%</td>
</tr>
<tr>
<td>Asia Pacific-Europe</td>
<td>9.50%</td>
<td>8.97%</td>
<td>7.12%</td>
<td>5.38%</td>
<td>34.69%</td>
</tr>
<tr>
<td>Middle East Africa-Middle East Africa</td>
<td>9.10%</td>
<td>6.39%</td>
<td>1.82%</td>
<td>3.12%</td>
<td>21.86%</td>
</tr>
<tr>
<td>Europe-Europe</td>
<td>4.70%</td>
<td>5.25%</td>
<td>3.68%</td>
<td>3.06%</td>
<td>17.75%</td>
</tr>
<tr>
<td>Americas-Americas</td>
<td>4.11%</td>
<td>1.38%</td>
<td>3.01%</td>
<td>2.39%</td>
<td>11.33%</td>
</tr>
<tr>
<td>Middle East Africa-Americas</td>
<td>7.77%</td>
<td>4.70%</td>
<td>2.87%</td>
<td>1.62%</td>
<td>17.96%</td>
</tr>
<tr>
<td>Europe-Americas</td>
<td>1.87%</td>
<td>4.17%</td>
<td>-1.04%</td>
<td>0.86%</td>
<td>5.91%</td>
</tr>
</tbody>
</table>

Source: Oxford Economics, Amadeus
Notes: Data captures origin and destination only. Calculation for a single year reflects the change from the prior year.

The table clearly shows that travel by air between the Middle East-Africa and the Asia Pacific region, as well as within the Asia Pacific region, has grown the fastest over the last few years. This is closely followed by travel between the Middle East Africa region and Europe, the Asia Pacific region and the Americas, and the Asia Pacific region and Europe. These dominant bilateral travel flows are driven by high growth in both the Asia Pacific and the Middle East Africa markets.

In the competition for long-haul transfer passenger traffic, hub airports in the Middle East are thus far winning the race.

Point-to-point traffic may be growing, but at the same time, airports are competing to be regional hubs. While the number of international transfer long-haul origin and destination (O&D) passengers across major European and North American hubs have been growing relatively modestly over the past 5 years (8% in North America and 10% in Europe), the number of such transfer passengers flying through the Middle East hubs has been increasing at the rapid rate of 79% over the same period. Hub airports in the Middle East have profited from their strategic location between Asia, Africa, and Europe in attracting long-haul transfer passengers, with Dubai airport leading the pack. In addition, such traffic at the six key Central and South American hubs is also increasing at a fast pace of 57%.

Table 1.3 shows the major hub airports per region with international transfer long-haul O&D passengers in 2013, and the growth of such passengers from 2009 to 2013.
Table 1.3: Leading regions for transfer long-haul O&D passengers, 2013

<table>
<thead>
<tr>
<th>Region</th>
<th>Hubs</th>
<th>2013 O&amp;D Pax</th>
<th>% Change 2009-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>SIN, HKG, BKK, NRT, PEK, ICN</td>
<td>24,797,116</td>
<td>20.1%</td>
</tr>
<tr>
<td>Europe</td>
<td>FRA, CDG, LHR, AMS, MAD, IST</td>
<td>39,915,881</td>
<td>10.0%</td>
</tr>
<tr>
<td>South and Central America</td>
<td>GRU, PTY, SCL, BOG, LIM, GIG</td>
<td>6,570,340</td>
<td>57.0%</td>
</tr>
<tr>
<td>Middle East</td>
<td>DXB, AUH, DOH</td>
<td>19,228,052</td>
<td>78.6%</td>
</tr>
<tr>
<td>North America</td>
<td>ATL, JFK, ORD, EWR, LAX, MIA</td>
<td>17,209,541</td>
<td>7.7%</td>
</tr>
</tbody>
</table>

Source: Amadeus

Note:
O&D Pax given is estimated number of O&D passengers traveling on international long-haul O&Ds (>5000 km) connecting at the given hub. Pax connecting at multiple hubs are distributed proportionally to the distance traveled.

In line with our international travel forecasts, we anticipate rapid growth in demand for accommodation in the Asia Pacific and MEA regions. Despite this, Europe will still lead the market in 2023.

Chart 1.6 below displays the growth in international accommodation nights from 1995 by region, a similar pattern to the international visitor flows.

Chart 1.6: Growth in international accommodation nights by regions, 1995-2023

Source: Oxford Economics
Asia Pacific and the Middle East/Africa regions have had the highest growth rates over the last ten years, at 10.9% for the Asia Pacific region and 12.9% for the Middle East and Africa region. For the next ten-year period, Oxford Economics forecasts the Asia Pacific region to lead with a 7.3% growth rate and the Americas rising to second place with a 6.1% growth rate. See Table 1.4 for a summary of the annual growth rates by region.

Table 1.4: Growth in international accommodation nights by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Average Annual Growth (%)</th>
<th>2002-2012</th>
<th>2013-2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>10.9%</td>
<td>7.3%</td>
<td></td>
</tr>
<tr>
<td>MEA</td>
<td>12.9%</td>
<td>4.8%</td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>1.5%</td>
<td>3.2%</td>
<td></td>
</tr>
<tr>
<td>Americas</td>
<td>5.1%</td>
<td>6.1%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Oxford Economics

In terms of the levels of international accommodation nights, Chart 1.7 and Chart 1.8 show the levels of international accommodation nights in 2012 and also the forecast level in 2023 by region.

Chart 1.7: International accommodation nights by region, 2012 (left)

Chart 1.8: International accommodation nights by region, 2023 (right)
In domestic accommodation nights, the Asia Pacific region is the leader of the pack, as with international accommodation nights and overnight visitors, displaying far higher growth rates than the other regions. Unlike the other indicators, however, the Middle East and Africa region does not display particularly high growth here, indicating its weakness in domestic tourism as compared to international tourism. Europe will retain the majority of the global domestic accommodation market share out to 2023.

Chart 1.9 below shows the predicted growth in domestic accommodation from 1995-2023 by region.

Chart 1.9: Growth in domestic accommodation nights by region, 1995-2023

The outstanding performer for domestic accommodation growth is the Asia Pacific region, with annual growth of 11.9% over the past ten years, a slightly higher growth rate than for international accommodation nights. Growth over the next ten year period is forecast to taper to a more moderate 4.4%, a few percentage points lower than forecast growth for international accommodation nights. This provides evidence of strong growth in the domestic tourism segment for the Asia Pacific region for the past decade (especially as compared to other regions), with slower growth in the next decade. In contrast, the other regions have shown little or negative growth over the past ten years, but the Middle East and Africa region is set to lead growth in this market segment over the next ten years, with a growth rate of 5.5%. Table 1.5 summarizes these growth rates.
Table 1.5: Growth in domestic accommodation nights by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Average Annual Growth (%) 2002-2012</th>
<th>Average Annual Growth (%) 2013-2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>11.9%</td>
<td>4.4%</td>
</tr>
<tr>
<td>MEA</td>
<td>-1.9%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Europe</td>
<td>0.0%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Americas</td>
<td>0.1%</td>
<td>3.5%</td>
</tr>
</tbody>
</table>

Source: Oxford Economics

In terms of the levels of domestic accommodation nights, Chart 1.10 and Chart 1.11 show the levels in 2012 and also the forecast number of domestic accommodation nights in 2023.

**Chart 1.10: Domestic accommodation nights by region, 2012 (left)**

**Chart 1.11: Domestic accommodation nights by region, 2023 (right)**

In both 2012 and the forecast for 2023, despite high growth in the Asia Pacific region, Europe still retains the majority of domestic accommodation nights in terms of sheer volume, with a 62% predicted market share in 2023 as compared to Asia Pacific's 22% predicted market share in 2023.

For outbound travel spend, the Asia Pacific region will be the growth leader over the next ten years, overtaking Europe to have a dominant share of the outbound travel spend market by 2023.
At the apex of the financial crisis, growth in outbound travel spend had a large upswing for the Asia Pacific region. Over the 2013 to 2023 forecast period, the Asia Pacific region will be the growth leader, with travel spend in the region forecast to increase at an annual rate of 18%, slightly higher than growth over the past ten years. The Middle East and Africa region is predicted to be another strong performer over the 2013-2023 period, with an annual growth rate of 7.6%, albeit much lower than its annual growth of 18.1% over the past ten years.

Oxford Economics’ forecast annual growth rates for this and other regions are summarized in Table 1.6.

**Table 1.6: Growth in annual outbound travel spend by region, 2012-2023**

<table>
<thead>
<tr>
<th>Region</th>
<th>Average Annual Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2002-2012</td>
</tr>
<tr>
<td>Asia</td>
<td>16.1%</td>
</tr>
<tr>
<td>MEA</td>
<td>18.1%</td>
</tr>
<tr>
<td>Europe</td>
<td>7.4%</td>
</tr>
<tr>
<td>Americas</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

Source: Oxford Economics

Chart 1.12 is built as an index, thereby equating all regions for 1995 and looking at the comparative growth for each region from 1995 to 2023. Chart 1.13 and Chart 1.14 show the levels of outbound travel spend per region for 2012 and 2023.
Chart 1.13: Outbound travel spend by region, 2012 (left)
Chart 1.14: Outbound travel spend by region, 2023 (right)

The 25% share of Asia Pacific outbound travel spend in 2012 is forecast to increase significantly to 40% by 2023, overtaking all other regions. In contrast, Europe’s large share of global travel spend will decrease from 45% in 2012 to 34% by 2023.
2 Emerging and Frontier Markets

2.1 Emerging markets have already emerged in air travel

Non-OECD countries accounted for 44% of global air traffic in 2013 and we forecast this to rise to 51% in the next ten years, driven primarily by the expansion of large emerging markets, especially China. Non-OECD air traffic is increasingly independent on mature Western markets, with “South-South” journeys accounting for 40% of global air traffic in the past five years.

**Chart 2.1: OECD declining share of global air traffic**

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-OECD Share</th>
<th>OECD Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>68.26%</td>
<td>31.74%</td>
</tr>
<tr>
<td>2013</td>
<td>55.57%</td>
<td>44.43%</td>
</tr>
<tr>
<td>2023</td>
<td>48.95%</td>
<td>51.05%</td>
</tr>
</tbody>
</table>

Source: Oxford Economics

2.2 At the heart of this trend is a rapid expansion in Chinese travel

Our model suggests that China may overtake the U.S. as the largest source of outbound travel spend in the world in 2014, with China’s share of global outbound travel expenditure set to rise from 1% in 2005 to 20% in 2023. This is shown in Chart 2.3, as China leaves other emerging markets in its wake in terms of global market share. China may also surpass the U.S. as the world’s largest domestic travel market by 2017 (Chart 2.2).
Our forecasts of future travel expenditure in emerging markets are driven by expectations of consumer spending, employment and overall GDP growth. China’s boom is also underpinned by a unique cultural and behavioral shift, whereby a new and very large generation of Chinese individuals is expanding its overseas business interests and engaging in cross-border tourism in a manner unprecedented in previous generations.

The potential market for outbound Chinese tourism could more than double to 220 million households in the next decade.

According to a survey of 3,000 Chinese travelers by Hotels.com Chinese International Travel Monitor, the average outbound Chinese tourist in 2013 earned a salary equivalent to US$18,000. We estimate that around 100 million Chinese households currently earn that level of income, which gives a sense of scale to the potential marketplace. According to our Global Cities 2030 forecast, and adjusting for inflation, our analysis suggests that number could rise to 220 million by 2023.
Shaping the Future of Travel
Macro trends driving industry growth over the next decade

There is an emerging generation of Chinese that is increasingly aware of the outside world and has the means to explore it.

Chinese government initiatives are making it easier to travel overseas, reducing red tape around passport applications and proactively promoting outbound tourism⁴. For the first time, the twelfth five-year plan published in 2012 explicitly aimed to “actively encourage the development of outbound tourism.”

China’s travel sector is a large, diverse and evolving marketplace.

The clichéd Chinese tourist on a whistle-stop package tour and eating in Chinese restaurants is rapidly evolving. Chinese travelers are increasingly opting for non-Chinese hotels and restaurants⁵ (although interviewees noted that more could still be done to cater to Chinese and other emerging market travelers through better provision of TV, newspaper and other services in their native language). Younger, more educated and sophisticated travelers are demanding richer experiences from overseas travel, researching and organizing trips themselves via the Internet and social media networks.

According to a hotel survey in 2013, almost two-thirds of Chinese travelers said they preferred to travel on their own rather than as part of a group; almost half bypassed travel agents and booked accommodations directly with the hotel. Shopping still accounts for one-third of the traveler’s budget, according to a recent report by the China Tourism Academy, but the share is slipping.

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⁴ The Outline for National Tourism and Leisure, Feb 2013, The State Council of China.
⁵ Hotels.com Chinese International Travel Monitor survey 2013.
Chinese outbound business travel will also expand rapidly in the next decade as more Chinese businesses expand overseas, procuring international goods and services, and engaging in the global production chain.

We forecast Chinese trade flows to double in the next decade, and outward foreign direct investment flows from Chinese firms to more than triple to over $250bn (current prices) (Chart 2.5). There is a strong linear correlation between these factors and outward business expenditure.

**Chart 2.5: China’s external trade and investment flows**

Source: Oxford Economics

The growth story is not exclusive to China. Our forecasts show a number of large emerging markets, driven by rising wealth and changing consumer habits, expanding their international air traffic flows and outbound travel expenditure over the next decade. The standout performers are Russia, Brazil, India, Indonesia and Turkey. Chart 2.6 shows average annual growth rates in air traffic in these countries (on a five-year rolling basis). Following rapid growth over the past decade, we expect each of them to average more than 5% annual growth over the next 10 years.

In line with that expansion, outbound travel spend is forecast to multiply over the next decade. We forecast Russian outward travel spend to rise from around U.S.$ 50bn in 2013 to over $100bn in 2023. Similarly, we expect Brazil’s outward travel spend to double, and India and Indonesia’s to roughly triple in that time period (see Chart 2.7).
Emerging market travel sectors are innovating to meet the demands of rapidly expanding and maturing domestic markets, with lessons for Western providers.

Local travel providers in emerging markets are successfully tailoring multi-modal content to travelers’ requirements and making innovative use of mobile technology for bookings, payment and connectivity. Local providers are utilizing local market expertise to incorporate local bus and ferry content into air travel and accommodation bookings. These local champions will continue to secure market share in isolated markets that fall outside the scope of established global travel providers.

Technologically, emerging markets are often more open to change, and local agents are more experimental than their advanced market counterparts.

Due to the lack of credit cards, many agents have leapfrogged into accepting mobile payment. Payment via mobile becomes increasingly compelling in light of the rapid expansion of mobile phones in emerging markets (in contrast to the historical problems with fixed line networks and other infrastructures).

Interviewees report that travelers within emerging markets tend to follow a two-tier pattern – with newly emerged middle class travelers having lower expectations than their Western counterparts, while wealthy travelers tend to have very high expectations. Accordingly, the domestic hotel market has trended toward a dual focus that uses branding to connect with these polarized ends of the market (particularly at the upper end of the market).
Case Study: MakeMyTrip, India - An emerging market travel technology pioneer

MakeMyTrip is an example of a company that has capitalized on local market knowledge and the application of international technology to quickly win enormous market share from traditional travel agents.

MakeMyTrip is an online travel company headquartered in Haryana, India. It provides an online “one-stop shop” for travel products and services for the domestic Indian market. With a customer focus and commitment to technological innovation at the center of its business model, it has rapidly grown to dominate the Indian travel sector since it entered the market in 2005. Its new Route Planner application, launched in 2013, integrates data on domestic flights, buses, trains and taxis to offer unprecedented travel information to users, providing exact connectivity options between any two Indian cities. The application sifts through 1 billion possible routes and 20 billion+ possible schedules in seconds to offer optimum travel combinations. It offers ticket options for certain trip segments and information for the rest.

Central to the company’s success is its pioneering use of mobile technology as a platform for sales and service. Sanjeev Bhasin, Director of Airlines and Agency Alliances, said the company invested in understanding the local market content and tastes – and applied the very latest in technologies to the Indian market. It also timed its entry at the start of a boom in low cost air fares and mobile phone and Internet usage. With a slew of popular marketing promotions over the years, MakeMyTrip has established strong brand recognition nationwide. It is the leader in online air ticketing in India; one in eight tickets booked online in India is through MakeMyTrip.com.

Its first mobile application was launched in 2012; today it offers apps across iOS, Android and Windows platforms that enable booking of air travel, hotels, bus and train reservations, as well as other geo-targeted travel services. The MakeMyTrip mobile app has received 2.4 million downloads to date. Mobile is a key growth channel; 20% of the site visitors are currently connected by mobile, and nearly 10-15% of domestic flights and nearly 25% of hotels are booked via mobile. Among mobile bookings, more than one-quarter are new customers who have never before transacted with MakeMyTrip. The implication is that MakeMyTrip’s mobile technology has introduced these emerging customers to the travel market.
3 Business Travel Trends

3.1 Western business travel behavior has adapted following the financial crisis

Western business travelers have been slow to recover old spending habits. Oxford Economics modeling indicates that business travel expenditure by U.S. and European passengers is not forecast to reach pre-recession levels until 2014 and 2018 respectively. This is in stark contrast to Asia, where trend growth in business travel expenditure was unaffected by the financial crisis (Chart 3.1).

Chart 3.1: Total business travel expenditure 2005-2023

Western corporate spending habits have adjusted to austerity. Travel budgets have always fluctuated in line with the economy; firms are more relaxed about travel spend in the good times – and tighten their belts in the bad. During the recent belt tightening in Europe and the U.S., Western companies have become more cost conscious, introducing more sophisticated tools to control business expenses and making smarter use of technological alternatives such as videoconferencing.

Expert interviewees noted that technological developments may also be having an impact. With the gradual spread and “deepening” of internet and associated telecommunications technologies, more business trips are being planned by employees themselves – or at least in-house rather than via an agent. Some interviewees suggested that this can result in a sense of increased employee empowerment, resulting in employees making more cost-effective decisions and/or decisions more suitable to their precise
individual circumstances than would be the case if agents were involved\textsuperscript{6}.

Interviewees differed on how enduring these effects would be. Having lived through previous recessions, many were skeptical of any reports of the "death of business travel." A general suggestion was that business travel had gradually recovered from the effects of the last recession. However, there had been changes in corporate travel policies, meaning that the yield on such travel may have declined (whether through downshifting from business class to premium economy/economy, shorter hotel stays, changing to restricted fares, or other means).

Changes in the business travel market may be having a lasting impact on business class ticket sales in particular. Premium air traffic data from IATA\textsuperscript{7} shows that while long-haul (intercontinental) premium traffic recovered quickly and robustly from the financial crisis – particularly connecting advanced to emerging markets – short-haul travel demand has been much more sluggish (see charts). North American and European short-haul markets are still yet to recover to 2008 levels.

Some of the difference between intra- and intercontinental traffic growth could be explained by the fact that emerging market growth is helping to propel the latter. However, more broadly speaking, the potential reasons for sluggish short-haul/intra-continental growth in traditional European and North American markets were hinted at by some interviewees. Changing business travel policies in the wake of the global recession have meant that companies may be more reluctant to pay for short-haul business class flights, while continuing to recognize the value of long-haul business class.

\textsuperscript{6} Some interesting insights are also offered by the European High Speed rail market between the U.K./France/Belgium. Market research conducted by a high speed operator observed that the increase in transparency that comes with wider adoption of online travel booking tools by companies has caused a shift in spending habits, with business travelers showing greater diligence over the cost of their journey.

Transport economists have long pointed to the difference in perceived and actual travel costs as distorting travel decisions; new technology suggests this gap may be narrowing. Though more economically efficient, this may be to the detriment of travel providers in some cases, as it affects yields. For example the operator also noted that business travelers have begun purchasing greater numbers of (cheaper) non-flexible tickets, potentially cutting meetings short to meet travel timetables. In general, increased business autonomy over bookings and the precise tailoring of travel arrangements may be pushing prices and yields down even while increasing overall economic efficiency.

\textsuperscript{7} IATA, Premium Traffic Monitor, November 2006 to November 2013.
Given the high yields traditionally derived from business class passengers, this presents airlines with a challenge to their revenue base.

One response – also indicative of the shifting preferences of corporate travelers – has been the successful emergence of the "Premium Economy" travel class. This hybrid class merges elements of business class, such as better quality service, and elements of economy class, such as better value for money, and has proven successful with business travelers, especially in medium haul six- to eight- hour journeys.

Some interviewees also noted that certain airlines have bolstered business class, making their service provision more competitive in hopes of retaining or recapturing business class passengers.

3.2 Asia will drive future growth in business travel

According to our model, North East Asia alone will account for 42% of the growth in global outbound business travel expenditure over the next decade, with South East Asia accounting for a further 13%. China is also fast catching up with the U.S. as the largest domestic market for business travel (Chart 3.4).

European and North American business travelers are to become relatively less important globally, but will still account for one-third of outbound business travel between them, and will increase their business travel to emerging markets. We expect European business travelers to account for around 15% of future global revenue growth over the next decade, and North America 7% (Chart 3.5).
3.3 Hotels will compete for yield in a rapidly expanding market

Asian growth undeniably offers a potentially vast expansion in demand in the hospitality sector, yet a recent Amadeus study, “Hotels 2020: Beyond segmentation,” revealed 70% of survey respondents in the hotel industry expected emerging Asian middle class travelers to be extremely cost-conscious and to drive down prices. Asian travelers will tweak the global market toward their own preferences, as hotels accommodate their tastes into their service provision (such as language skills) and tailor the room and hotel facilities to their needs.

Established international hotel brands will continue to vigorously seek out strategic partnerships in emerging markets, marrying local expertise with the international creditworthiness of the international partner.

The international hotel market since 2009 also mirrors the airline business class experience to some extent with some important differences. Interviewees indicated that the business/luxury hotel market was badly affected by the recession in the short term. Some indicated that certain groups of business travelers were becoming more transient – either not staying in hotels at all (i.e. doing day trips) or not buying the same type of premium product (and thereby reducing spend).

However, the market in major cities has largely been held up and boosted by the development of emerging economies. Moreover, some interviewees suggested that now having emerged from recession, a two-tier market has emerged: a luxury market to cater to business and well-heeled leisure
travelers, and an economy market that might reflect some companies’ need to cut travel costs, yet still utilize trips for face-to-face interaction (see videoconferencing section below). In this environment, mid-range hotels have suffered the most.

Expert interviewees pointed out that hotels are increasingly mimicking the progress made by airlines in terms of yield management, price discrimination and the diversification of service provision – reserving greater focus for ancillary revenue generation (i.e. hotels as shopping malls) and door-to-door travel options. The general spread of the Internet and social media has also affected their business model, with Wi-Fi provision, for example, becoming a standard expectation.

Specifically, they also indicated that hoteliers have also become more attuned to catering to differing market segments, offering attractive conference/group rates to preserve volumes while resisting the temptation to discount individual street prices (“rack rates”). In economic parlance, this could be an example of price discrimination, reflecting the differing elasticity (responsiveness) of demand with respect to price in these two market segments.

3.4 Videoconferencing is increasingly becoming a supplement – not replacement – for business travel

There is a growing body of evidence that businesses view videoconferencing and business travel for face-to-face meetings as possessing distinctive strengths and weaknesses, and as serving different purposes. Firms are increasingly optimizing the two formats, and the choice between the two differs according to the sector and content of the communication.

A study by the Maritz Institute\(^8\) combined a review of academic literature with business surveys, and found that face-to-face meetings are viewed as the most effective way for a participant to capture the full attention of his or her audience, inspire a positive emotional climate, and build human networks and relationships. Other studies\(^9\) have shown that companies regard face-to-face meetings as essential for tacit information exchange, such as delivering marketing demonstrations and making business deals. Cultural factors are also significant. In Asia, for example, direct face-to-face contact is a particularly important component of ongoing business relationships.

As the quality and availability of videoconferencing improves, however, it is becoming an increasingly viable alternative to business travel in certain contexts. It is increasingly popular for holding meetings within a firm, or between known partners where the focus is the exchange of explicit


information, such as management decisions, project planning or certain types of training. Also, where cost and time are a particular priority, companies may be more inclined to use videoconferencing. A Norwegian study\(^{10}\) found that videoconferencing saved time, not only on travel and organizational administration, but also in the duration of the meeting itself.

Another point made by study interviewees is that in the wake of the recession, internal business issues may be increasingly discussed through video or teleconferences, whereas meetings with external clients were more likely to involve physical travel.

Moreover, some interviewees pointed out that large-scale events (e.g., gathering 100 people together for a meeting/conference) would continue to require physical travel, as videoconferencing is not a practical option in such circumstances. A related issue is that the face-to-face networking that takes place at major meetings/conferences (often during "coffee breaks" or other short intervals) cannot be easily replicated via videoconferencing. Indeed similar arguments about the importance of networking and face-to-face contacts have long been cited by economists and others as underpinning “agglomeration” effects. That is, productivity appears to rise when large groups of people are physically clustered together and interact.

Businesses will continue to seek to optimize their use of new technologies, but the ease of communicating via video will boost efficiency and strengthen the business case for investing in long-distance business relationships, which will ultimately benefit the travel sector.

We expect room for growth in both videoconferencing and business travel over the next decade, in the context of globalization and the growth of emerging markets.

4 Competition in the airline industry

4.1 The business models of Low Cost Carriers (LCCs) and traditional carriers have converged in recent years, but remain distinctive

Over the past five to 10 years – accelerated by the global financial crisis and other post-crisis developments – there has been a significant convergence of business models in the airline sector. Faced with a highly competitive marketplace, traditional carriers have begun to unbundle certain features such as seat selection and luggage charges, and have streamlined operating costs by reducing turnaround times. According to a KPMG study\(^\text{11}\) the flight cost gap between LCCs and traditional carriers narrowed from 3.6 to 2.5 U.S. cents per Available Seat Kilometer (ASK) between 2006 and 2012. These trends have been noted by a variety of commentators and were also observed by our interviewees.

Yet structural factors will continue to set the LCCs and traditional carriers apart, and they will continue to compete along the familiar lines of their comparative advantages: price vs. service.

Traditional airlines have demonstrated their ability to cut costs, but interviewees generally agreed that they will not be able to go as far as to fully match the LCC cost base. LCCs’ frequent flights along profitable routes, point-to-point routing, and fleet productivity (e.g. using only a few types of aircraft, and utilizing most aircraft in the air most of the time) will inevitably set them apart from traditional carriers on price. The traditional carriers’ strengths are tied up in network connectivity, and service provision and brand recognition, which limit how far streamlining costs can go. Traditional carriers are constrained by the complexity of operating intercontinental networks and the average flight length of their routes. They also carry hefty legacy costs, e.g. senior staff salaries and pension liabilities, and face greater maintenance costs due to fleet diversity, necessary to operate varied route networks.

While continued convergence of the traditional and LCC models is likely, it is equally the case that there are limits as to how far this process can go.

\(^{11}\) KPMG 2013 Airline Disclosures Handbook.
4.2 The more important trend in the next decade is the further expansion of LCC market share

LCCs are outgrowing general traffic in every continent of the world. Europe remains the most active market for LCC business, with 250 million passenger trips per year. North America is next largest with 173m, but Asia is fast catching up, recording over 117m passenger trips on average over the last five years after growing more than 150% in the same period. Latin American, Middle Eastern and African LCC traffic has almost doubled in the past five years as well, and still has plenty of room for further growth.

These numbers include both LCC and hybrid carriers. Chart 4.1 shows that LCCs only operate a relatively small share of domestic air traffic in Asia, the Middle East and Africa. Also, regional markets around the world are far less saturated than Europe with LCC traffic. LCCs do operate a notable share of inter-regional journeys; around 5% in Europe, Asia and North America and around 10% in Middle East, Latin America and Oceania. However, a considerable portion of interregional passenger trips represents short haul journeys between neighboring regions. As result, LCCs are yet to demonstrate a viable model for capturing longer-haul market share.

Chart 4.1 LCC market share around the world (five-year average)

Source: Amadeus

The introduction to the market of large numbers of new middle class travelers from emerging economies in the next 10 years will pose great opportunities for LCCs.

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12 Passenger trips data includes domestic, intra-regional and extra-regional.
13 Insights from Amadeus’ Air Traffic Browser Solution.
New travelers are likely to come with lower expectations about the service experience and demand lower cost travel solutions, and are likely to find LCCs highly attractive.

The more successful LCCs become, the more likely they are to outgrow their original business model and be forced to adapt.

But adaptation will come at an extra cost. LCCs will have to respond to changing demand as traditional customers recovering from the recession – and new customers entering the marketplace – look for mid-price alternatives. LCCs will have to improve their offer to capture short-haul business travel market share, and respond to improvements in travel information and price transparency resulting from Web-based technology developments. In order to grow, LCCs have therefore begun to place a greater premium on customer service, with some offering more traditional travel features such as assigned seats and frequent flyer cards, typical to established airlines.

As LCCs saturate the short-haul market, they will increasingly rely on longer haul journeys for growth, which requires fleet diversification and possibly a wider network of operation. Moreover, LCCs cannot grow limitlessly into secondary airports; they may have to access certain strategic hubs in the future, which will reduce flexibility and raise fixed costs. Also, as the fleet grows, it will become increasingly difficult for LCCs to fill their seats independently, making them increasingly reliant on agents, which will sap marginal revenues.

And the longer an airline operates, the more its legacy costs (salaries, pensions, etc.) begin to resemble the costs of established traditional carriers.
5 Seamless Travel

5.1 The technology and infrastructure behind seamless travel

The concept of seamless travel has two main components: technology and infrastructure. Certain markets are good at perhaps one aspect of seamless travel, but not the other.

Seamless travel refers to travel that utilizes a variety of modes of transportation organized through a single booking process or ticket. Seamless travel may exist in many forms, but an “ideal” case would be booking a single “door to door” service which takes a traveler from home to and through an airport, onto and off a plane, and to their destination hotel.

Seamless travel has two main components: technology and infrastructure. Infrastructure provides the different modalities of transportation, and technologies connect the different modes of transportation. The infrastructure component of seamless travel provides the bones, and the technological component provides the connective tissue necessary to facilitate trip logistics.

The importance of seamless travel has long been recognized in the field of transport economics, with an emphasis on considering the “generalized cost” of travel. Estimating a door to door journey’s generalized costs effectively involves adding up all aspects of travel, including “in-vehicle” time, additional inconvenient waiting time, changing travel modes (e.g. train to plane), or travel delays. Reductions in the generalized cost of travel are seen as key to estimating the benefits of a particular travel initiative by transport economists. While this has long been seen as important within an economic context, less attention appears to have been paid to seamless travel as a commercial proposition until recently. One reason may be the fragmented nature of providers involved within the airline travel experience in particular. Technological change, however, may offer a new opportunity to change this situation.

While the door to door service example might be an ideal, in practice, a large portion of seamless travel currently exists in selective “bubbles.” For example, as indicated by one interviewee, Qantas provides a seamless travel service for frequent flyers within the Australian domestic market. Passengers without luggage swipe their frequent flier card and proceed...
directly to the airport gate. Passengers with luggage use tags that let them self-drop their luggage in the departure lounge. Qantas’ dominant Australian domestic market share facilitates the development of such systems; however, the system does not address transportation to and from the airport, and international travel poses further challenges.

Another example of seamless travel, noted by interviewees, consists of rail connections to/from major airports. Schiphol airport (Amsterdam) has a train terminal with high-speed connections to Brussels and Paris. A second example is London Heathrow. Recently, Singapore Airlines struck a deal with the Heathrow Express rail service and First Great Western trains to form a rail-fly partnership, with seamless rail and air ticketing for travelers going from 11 different cities in the U.K. to Singapore on one ticket.

Currently, certain travel destinations are good at perhaps one aspect of seamless travel, but not the other. For instance, our interviews indicated the U.S. is a good example of seamless travel, mostly on the technological front, whereas Europe is a good example of seamless travel on the infrastructure front (e.g. every major airport in Europe includes a rail station).

No major provider has yet managed to break out of these bubbles and deliver a seamless travel solution across both aspects. Industry players tend to consider only one aspect, as the delivery of infrastructure and technology solutions are very different businesses. In addition, there is “market failure” in the sector that makes the provision of truly global seamless travel solutions very difficult.

Preston reports that integrating transport requires market intervention. This is due to a coordination failure in the provision of seamless travel. Airlines, hotels and other travel providers are too small and concentrated in certain markets to provide a global seamless travel solution – a viewpoint effectively backed up by the interviews conducted for the current study.

While individual travel industry players (airports, airlines, ground transport, hotels and car rental companies) will pursue their own commercial interests, this does not mean the collective industry will coordinate their respective operations for mutual strategic benefit. The “seams” between these various providers may therefore prove a source of frustration to customers – yet by the same token, also present an opportunity for any potential operator who can provide an effective solution to the common issues affecting travelers. At the same time, the development of internet-based and

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17 The issue of “generalized cost” is again relevant here. For example, imagine a passenger who values the cost of the “door to plane door” transfer process at £100 due to its inconvenient, time-consuming nature. A more seamless travel system that costs the customer £20, but halves the “door to plane door” time (implying an effective time cost of £50) would clearly benefit the customer. (He/she would come out £30 “ahead.”)
mobile technologies would appear to provide more opportunity than ever for a potential facilitator, given that they might help overcome many of the past issues which helped forestall seamless travel. Moreover, as one interviewee noted, the “on demand” nature of seamless travel makes this especially true.

In general, offering the right content for seamless travel requires economies of scale – and possibly scope – across the geographical and product space (see Walt Disney World example.) More than this, however, it also requires the appropriate mindset to take on the challenge of seamless travel by utilizing the benefits of recent technological advances. At present, because many providers would appear to be focused on improving their own offerings, seamless travel would effectively appear to be left for “someone else” to worry about.

Global seamless travel provision requires a solution to the current coordination failure. To develop global seamless travel solutions would effectively require either a monopolist to enter the market, a regulator to require companies to take certain actions regarding seamless travel, or a large global company to solve the coordination problem by interacting with multiple travel providers.

As suggested above, one common element between the infrastructure and the technological aspect of seamless travel is coordination. The development of mobile technologies in particular, offers opportunities for seamless travel, but mobile application providers must be able to coordinate with different travel providers, for example, to provide mobile tickets and boarding passes. Similarly, different transport providers in a city need to coordinate with each other – and/or with a common aggregator – to provide a smooth journey to airports and rail stations with cross-ticketing across services.

Another issue is the type of customer to whom seamless travel might appeal the most. While all travelers would appreciate its benefits, one interviewee noted that demand among frequent travelers and day travelers might be particularly high, given the time constraints faced by both groups. Overlapping with these considerations is the fact that seamless travel is likely to appeal to business travelers (who may likewise make frequent trips and/or day trips). Transport economists note that the business value of travel time tends to be higher than the “leisure” value of travel time. So such travelers tend to be more willing to pay for the provision of seamless travel experiences.

Of course, in theory, government intervention could aid in this process. As one interviewee pointed out, governments are often responsible for infrastructure, and improved coordination could foster seamless travel. At the same time, caution should be expressed about government involvement at every level of the process. Governments may have useful input in ensuring major infrastructure decisions are planned with seamless travel in mind, but within this fixed infrastructure, the specifics of individual trips are more likely to be better handled by private initiatives.
In short, seamless travel would appear to represent an area of unexplored potential for a travel provider who could implement it in a comprehensive way.

5.2 Mobile devices

The number of mobile device users in developing countries has been steadily increasing since 2005, with an average annual growth rate of 36.8% over the 2005-2013 period, with the effect that mobile users in such countries far outnumber users in developed countries. Mobile broadband user numbers in developing countries have also been growing at a rapid rate, and are expected to have eclipsed user numbers in developed countries in 2013 for the first time, with 1.2 billion users.

As the world’s mobile users and mobile broadband users have increased, so have the applications and uses of mobile for travel. Mobile devices, other than their usage for travel bookings, can also contribute to a seamless travel experience. Chart 5.1 below shows mobile users split between developed and developing countries.

Chart 5.1: World mobile users ITU World Telecommunication

The number of users in developing countries has been steadily increasing since 2005, with an average annual growth rate of 36.8% over the 2005-2013 period. Over the same period, developed country mobile users grew at an annual rate of only 6.8%. Consequently, developing country mobile users now by far outnumber their developed country counterparts. Chart 5.2 shows mobile broadband subscribers split between developed and developing countries.

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19 The developed/developing country classifications in ITU data are based on the UN M49, see: http://www.itu.int/ITU-D/ict/definitions和地区/index.html.
Chart 5.2: World mobile broadband users

Source: ITU World Telecommunication

The trends are similar for mobile broadband users. Developing country user numbers have been increasing quickly and are expected to have eclipsed those of developed countries for the first time in 2013, at 1.2 billion users. While mobile broadband user numbers grew 45% per year in developed countries, they grew 371.9% per year in developing countries.

There are three categories of services that mobile devices facilitate for travel: information, bookings and payments.

As a result of the growing trend to use mobile devices for travel, travel providers are developing applications to further facilitate information provision, reservations and payments. For example, interviewees noted that Schiphol airport uses mobile phone Bluetooth signals to determine how busy terminals are, and whether they need to take measures to alleviate lengthy lines. For planning trips, Amadeus Travel Seeker helps users find trip options using search queries based on location, price and timing. Mobile gives potential vendors a better way to stay in contact with travelers and push offers that are individually tailored to each traveler’s needs using location services. Payment via mobile then completes the chain.

Travel bookings via mobile have increased exponentially in recent years. U.S. mobile travel bookings will more than triple from 2012 to 2014, when it is predicted they will reach a value of $25.8 billion for the U.S., according to a 2013 PhoCusWright report. In that market, three out of 10 mobile Web users booked or purchased travel products via their mobile phone, and more than half used their mobile to research travel destinations or products. In the European market, another 2013 PhoCusWright report predicts that one-fifth of online travel bookings will be made via smartphones and tablets by 2015. In terms of mobile bookings, however, one interviewee indicated that tablets are not considered mobile devices, as they are not always on and not always accessible in the way mobile phones are. Indeed, this is borne out by

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research showing that travelers booking via tablets behave more like desktop and laptop users than mobile phone users.

In the U.S. travel market, the PhoCusWright report\textsuperscript{22} disaggregates mobile bookings into different categories of travel purchases. Twelve percent of online bookings made directly with hotels were predicted to be via mobile devices in 2013, compared to 8% for car rental bookings and 6% for airline bookings. By 2015, they predict that a third of bookings U.S. hotels process online will be made via mobile devices. In addition, a 2013 Business Insider report\textsuperscript{23} on the mobile tourist emphasizes how significant mobile bookings have become for last minute hotel bookings.

Dovetailing with such figures, interviewees noted that while hotel bookings via mobile in particular are low, they expect these will increase in future years, especially with adoption by younger consumers and through technological “leapfrogging” in emerging markets. Moreover, as it becomes easier to book via mobile, there is an expectation that business adoption will also drive such growth. At the same time, there is awareness among some interviewees that much mobile booking of hotels is done within a few days of arrival – and that mobile cannot be used to plan every stage of a trip.

The development of mobile technologies therefore holds the potential to transform the travel industry, along with other aspects of everyday life in many countries. However, two issues must be distinguished with respect to the growth of relatively new technology like mobile:

- The diffusion of such technology; and
- The full utilization of such technology

A good case could be made that the diffusion of modern technology, such as mobile devices, occurs more rapidly than in the past (with historical advances such as railways, electricity and modern medicines) precisely because of the previous development of communication systems as well as the broader impact of globalization. This would seem consistent with the very rapid growth of mobile devices in emerging markets\textsuperscript{24} as well as their spread within Western economies.

However it is less clear that the full utilization of technology is happening more rapidly than in the past. (Indeed one interviewee pointed out that while large numbers of people are trying to develop travel-related mobile products, relatively few seem to have “gotten it right” so far.) This may be because utilization involves a human factor which may be less amenable to past technological changes. It takes time – as well as a fair bit of trial and error –

\textsuperscript{22} PhoCusWright’s U.S. Mobile Travel Report: Market Sizing and Consumer Trends, 2013.

\textsuperscript{23} Business Insider Intelligence, “The Mobile Tourist: How Smartphones Are Shaking Up the Travel Market,” 2013.

\textsuperscript{24} The fact that mobile devices often involve a strong private sector element may also help. In some emerging markets, a failure by state-owned entities to provide adequate land lines for telephony inhibited communications for many years. The different infrastructure required for mobile networks and a strong commercial incentive may have assisted growth in such markets.
for businesses and individuals to work out how to best apply a new technology within a given business context, and more time for their applications to be accepted by others\textsuperscript{25}.

The history of the Internet provides a guide in this respect. Social media, for example, did not immediately arise even as the Internet became increasingly popular, yet rather took many years to develop. Nor was the Internet “planned” with this application in mind. Accordingly, some economists argue that the Internet will only realize its full potential many years from now\textsuperscript{26}.

The growth of mobile technologies within the travel industry should be seen in this context. While many interviewees noted the tremendous potential of mobile, a common theme was that it is used for more “tactical” issues such as travel information. Likewise, many found it difficult to forecast the potential applications to which mobile technologies could be utilized.

One interviewee also noted that while mobile devices are important tools for informing travelers on the move, the multi-faceted nature of more complex travel arrangements meant that many still preferred to make bookings in a “fixed” position (e.g. using a “traditional” laptop at home) with the full range of travel options at their disposal.

However, more optimistically, other interviewees noted that rather than being passive providers of data, mobile technologies could be used more interactively in the future – to inform consumers of “last minute” deals at airports (e.g. shopping bargains and flight upgrades). This might align well with future yield management strategies in a variety of industries.

Likewise, some interviewees recognized that personalization was a key aspect of mobile technology – e.g. tailoring apps to reflect individual contexts such as preferences during certain times of the day, and/or in certain locations. For example, this might allow a hotel to offer a preferred dinner entrée shortly after a late afternoon check-in.

Contextualization and personalization are indeed likely to be the keys to the future development of mobile apps. In economic parlance, they represent mobile’s “comparative advantage” (i.e. the things mobile technology is particularly well-suited to do). Just as economic principles suggest that nations should seek to maximize their comparative advantage (i.e. what they are particularly good at), so too it is likely that the most important applications of mobile within the travel industry will reflect comparative advantages such as contextualization and personalization.

If economic history is any guide, it is likely that the increasing usage of mobile technologies will produce major changes in the travel industry – as well as major financial opportunities. However, these may take many years

\textsuperscript{25} For example, the electric dynamo was essentially developed by 1880; however it took decades for it to be fully utilized. Bihde A. (2008) The Venturesome Economy.

\textsuperscript{26} Cowan, T (2011) The Great Stagnation.
to fully develop, and their shape is only dimly grasped at present.

**Case Study: Walt Disney World – A pioneer in seamless travel**

**Walt Disney World** took a bold step in seamless travel leadership in 2013. By virtue of its multiple offerings across the entertainment, accommodation and dining spheres, Disney was already able to offer a somewhat seamless travel experience. Disney has now taken this concept one step further with the introduction of **MyMagic+**, an integrated wrist band and mobile app that allows travelers to seamlessly plan and execute their Disney vacations.

Travel between Disney hotels, attractions and the airport was already seamless through the Disney transportation network that combines monorail, tram, bus and boats to connect travelers between different Disney destinations and the airport. In addition, Disney hotel guests can check in for flights at the hotel, get a boarding pass, and drop off their luggage before hopping on Disney transport to the airport. MagicBands and the mobile app give travelers an extra degree of personalization and convenience for their journeys.

**MagicBands** have multiple functions in providing a seamless travel experience. Travelers can access theme parks, open their Disney hotel door using the wrist band as a room key, and execute Disney dining reservations. The technology stores the traveler’s credit or debit card information, serving as a virtual wallet. It also stores FastPasses for theme park rides, allowing travelers to skip the lines for pre-booked attractions. The software also stores photos taken by Disney photographers, allowing travelers to access holiday memories later.

The **My Disney Experience** mobile app ties the entire experience together, enabling travelers to pre-plan their vacations by exploring options and booking via the app. During their trip, guests can use the geo-linked app to pinpoint locations, access attraction schedules and reservations, and share travel plans with family and friends.

This is an example of **economies of scope**, where the average cost to produce two or more products is lower, making product diversification economically efficient. Disney is able to offer this seamless travel experience because it provides a wide array of travel products in the same geographical space. This means Disney does not experience the same coordination problems that multiple travel providers would experience in organizing themselves to provide a joint seamless experience.

Together, the MagicBands and mobile app give travelers unparalleled customization, flexibility and a seamless travel experience.
6 References


KPMG 2013 Airline Disclosures Handbook.


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