

The value of the London 2012 Olympic and Paralympic Games to UK tourism

September 2007

Oxford Economics

Study commissioned jointly by VisitBritain and Visit London



Executive Summary

- This report quantifies the potential contribution of the 2012 Olympic and Paralympic Games to UK tourism over the period 2007 to 2017. A number of previous mega sporting events celebrated in Europe in the last fifteen years are analysed in order to identify patterns in visitor-related variables. This analysis informs the selection of a range on values for key parameters capturing the likely effects of the 2012 Games. Results are obtained for a central-case scenario and for two alternatives scenarios reflecting a pessimistic and optimistic view.
- Under the central-case scenario, the Games are forecast to generate tourism gains totalling £2.34bn (at 2006 prices) over the period 2007-17 for the UK as a whole. The corresponding figure for London is £1.85bn. Once allowances for displacement effects are made, the contribution is reduced to £2.09bn for the UK and £1.47bn for London.
- In terms of relative importance, the pre-Games period is responsible for 15% of the estimated total tourism benefits for the UK as a whole; the Games themselves account for 31%, and the remaining 54% is to be generated after the Games (i.e., as a legacy effect). The corresponding shares for London are 17%, 35% and 48% respectively.
- The displacement effects linked to the Games are estimated at £375mn for London, of which: £160mn corresponds to foregone inbound tourism; £124mn to foregone domestic tourism income (including lower visits from the rest of the UK and higher outflows from London to other destinations in the UK); and £91mn to additional international outbound spending. The overall displacement figure for the UK is lower at £258mn, as the rest of the UK benefits from tourism displaced from London by the Games.
- For the post-Games period (2013-17), a legacy effect worth £1.27bn is forecast for the UK and £0.88bn for London. These gains are generated largely by higher numbers of visitors from emerging markets for UK tourism (primarily from China, India and Russia), who decide to visit the country/city as a consequence of the media exposure and publicity associated with the Games.
- To reflect the uncertainties surrounding the drivers of tourism flows, the central estimates are placed within a range limited by pessimistic and optimistic views. The range for the total tourism benefits for London is £1.3bn to £2.2bn and £1.6bn to £2.9bn for the UK as a whole.

Introduction

The main objective of the study is to estimate both the total and “additional” (i.e. total less displaced) visitor spending resulting from the London 2012 Olympic and Paralympic Games during the years 2007 to 2017. Separate annual estimates for total and additional spending will be produced for:

- London and the rest of the UK;
- Domestic and inbound tourism (covering both day and overnight trips);
- Different tourism trip purpose categories (business, holiday, etc).

Using our international tourism databases, previous mega sporting events – focusing on those celebrated in Europe in the last fifteen years – are analysed in order to identify patterns in visitor-related variables (e.g. arrivals, nights spent, and spending) around such events to provide benchmarks that can inform the estimation of the value of the 2012 Games to UK tourism. In addition, sensitivity analysis on key parameters is performed to create a range of estimates (labelled as low, central and high) to reflect the inevitable uncertainty surrounding the main drivers impacting upon tourism spending.

The report is structured in five sections. The opening section introduces a forecast for the tourism impact of the Games and describes the benchmark sporting mega events. Section II reports the results of the assessment of previous mega events. Next, in Section III, our forecast for the value of the 2012 Games to UK tourism is presented and discussed. Section IV shows the outcome of the sensitivity analysis performed on key parameters. The final section summarises a number of valuable marketing and planning lessons from previous Olympic Games.

In addition, there are three annexes with a detailed description of the estimation procedure and data sources.

I. London 2012 Games and other Mega Events

In this section, we present the projected attendance to the Games with its corresponding income and summarise the main findings of the quantitative assessment of a number of past mega events.

London Olympic and Paralympic Games

As in Blake (2005),¹ we use the output of the London 2012 Ticket Allocation Model (TAM) and its assumptions regarding ticket sales as our benchmark estimate for attendance at the Games and associated spending. This benchmark does not take into account any displacement effects which will be dealt with in the following sections.

In relative terms, the tourist inflows attracted by the Games are expected to represent about 3% of the projected total visitors to London by 2012 (the forecast baseline comes from Oxford Economics' London Model) and just under 5% of the total nights spent. Regarding spending by both foreigners and UK residents (excluding Londoners), the Games are expected to account for an additional 3¾% relative to the baseline total.

Attendance to the London Olympic Games			
	Visitors	Days	Spending (£mn)
Tourists	908,440	7,626,916	582
Foreigners	321,871	4,560,818	364
Rest UK	586,569	3,066,098	219
<i>As % of 2012 projected London totals⁽¹⁾</i>			
Tourists	2.9%	4.9%	3.7%
Inter. Inbound	1.7%	3.6%	3.1%
Dom. Inbound	4.7%	11.0%	5.2%
Day visits	5,509,151	5,509,151	
London	4,983,419	4,983,419	67
Rest UK	525,732	525,732	14
(1) potential displacement effects are not included			
<i>Sources: Blake (2005), VisitBritain and Oxford Economics</i>			

In comparative terms, the relative weight of the London Games to the city's tourism inflows is projected to be smaller than that of previous Olympic Games. For instance, it is estimated that the Barcelona Games brought to the city visitor numbers representing over 11% of Catalonia's total for that year.

¹ Blake, Adam (2005): The Economic Impact of the London 2012 Olympics. Nottingham University.

The TAM estimates that 8.1 million tickets will be sold at the London Games and, with an average of four tickets per person, this represents an attendance of about 2 million visitors. Under a lower assumption of tickets per person (eg. 1.5), FIFA World Cups (WC) have the potential to attract a comparable numbers of visitors. For instance, for the France 1998 WC 2.8 million tickets were sold, which based on an assumption of 1.5 tickets per person would translate into more than 1.8 million visitors. Moreover, the fact that both types of events attract a worldwide audience allows us to use World Cups – and other major football tournaments – as benchmarks.

Comparison of Recent Olympic Games								
Olympic Games	Olympic family	Foreign tourists			Total tourists			Tickets sold (millions)
		to Games	Total	%	to Games	Total	%	
Athens 2004	60,000	150,000	2,883,167	5.2%	660,000	4,325,860	15.3%	
Barcelona 1992 ⁽¹⁾	55,000	250,000	6,336,850	3.9%	450,000	4,096,855	11.0%	
Sydney 2000	57,000	110,000			475,000			6.7
London 2012	57,285	321,871	19,491,250	1.7%	908,440	31,868,750	2.9%	8.1

(1) total figures refer to Catalonia
Sources: H. Preuss; FIFA, IOC, and Oxford Economics

Benchmark Events

We concentrate our attention on those sporting events that have taken place in Europe in the last fifteen years or so, including Olympic Games (OLY), FIFA World Cups (WC), UEFA European Football Cups (EC) and World Expositions (WE). Most of these events were organised in already-mature tourism economies which could be more informative to the London/UK case than events that took place in other continents and cities/countries that were at the time developing their tourism potential. The mega events included are:

FIFA World Cups (WC)

- Italy FIFA World Cup (July 1990)
- France FIFA World Cup (July 1998)
- Germany FIFA World Cup (July 2006)

UEFA European Cups (EC)

- France European Football Cup (June 2000)
- England European Football Cup (June 1996)
- Portugal European Football Cup (June 2004)

Olympic Games (OLY) and other city mega-events

- Athens Olympic Games (13-Aug to 29-Aug 2004)
- Sydney Olympic Games (15-Sep to 01-Oct 2000)
- Barcelona Olympic Games (25-July to 01-August 1992)
- Manchester Commonwealth Games (25-July to 04-August 2002)
- Lisbon World Exposition (22-May to 30-Sep 1998)

For this study, we have constructed a comprehensive database covering a range of tourism variables to analyse each of the benchmark events. The database includes data on monthly, quarterly and annual bases of variables such as: travel spending (both credit and debit) from the countries' current accounts (on a quarterly basis); arrivals and nights spent in paid accommodation (by regions/countries on a monthly basis); composition of arrivals by purpose of visit and country of origin (annual basis). Most of the data are at the country level but, where possible, we also cover regions (eg. Catalonia and Lisbon) and cities (Manchester and Sydney). Details of data sources are included in Annex 3.

II. Analysis of Previous Mega Events

In this section we summarise the main findings of the quantitative assessment of the previous mega events listed above. The outcome of such an assessment guides the process of assigning values to the parameters of the model built to estimate the tourism value of the 2012 Games. The procedure followed is detailed in Annexes 1 and 2. The findings are organised using three periods: pre-Games (usually the previous five years); circa-Games (including the year of the Games, and the year prior to and after); and post-Games (usually the following five years).

Pre-Games

The main potential effect during the pre-Games period is likely to be via increased business trips, although some additional leisure trips will also be made thanks to the Games. We are assuming that there are no displacement effects during this period. The evidence on domestic business activity shows that:

- There is some indication of a rise in the relative importance of domestic business trips in the years before and during the celebration of past mega events. The increase in the share of business trips between the fourth year prior to the event and the year before ranges from about 0.5 percentage points (%pts) in Portugal (EC 2004) to 4.2%pts in Germany (WC 2006). The 1996 EC in the UK shows a 1.2%pts rise in the share of business trips over the pre-event period.

- There is a clear tendency for the business share to peak during the event year, and then to return to values close to those recorded five years earlier.

Circa-Games

The celebration of mega sporting events usually brings about some displacement of visitors who choose not to come to a venue when they would otherwise have done so because of the expected impact of an event on congestion, prices etc. Most of the displacement effects are likely to take place during the year of the Games. To form an idea of the Games' potential to generate displacements, we study the behaviour of year-on-year growth rates (using annual and quarterly data) of inbound travel spending (both at current and constant prices).

In order to estimate the additional spending associated with each event, actual results need to be compared to a counterfactual value reflecting the spending that would have occurred in its absence. Our counterfactual is calculated as the average growth of inbound spending to other main destinations in Europe at the time of the event. The analysis of the differences in annual growth rates between actual results and their counterfactuals shows that:

- With the exception of France 1998 WC and Portugal 2004 EC, there was a significant increase in travel spending in the country during the year of the event, ranging from 2.6%pts in Greece 2004 to 6.2%pts in Germany's 2006 WC. The average increase across the EU sample of countries was 3%pts (series adjusted by inflation).
- Travel spending at constant values (a proxy for nights spent) shows similar patterns.
- There is a tendency for negative growth in the year prior to and after the event, indicating some time displacement.

Regarding outbound and domestic tourism:

- The analysis of past events does not produce conclusive evidence regarding international outbound displacement during the event year. For instance, residents of France and Germany cut their outbound travel – relative to counterfactual – during their WC year. In contrast, the celebration of Olympic Games in Spain and Greece are associated with higher outbound travel. The average rise for the sample of EU countries is 1%pt.
- As to domestic tourism, the partial evidence from Catalonia and the Lisbon region is mixed. Whereas in Lisbon the increase in the share of non-residents visitors to the region is matched by a drop in the share of Portuguese residents, Catalonia shows higher shares for Spanish residents and lower from non-residents during the event year.

Post-Games

It is likely that any legacy effect (ie, increased tourism flows after the Games motivated by the publicity and coverage of the Games) is mainly related to additional leisure tourism flows – mostly from abroad. However, there is evidence indicating that previous Olympic events have generated small increases in business visits in the following two years or so (e.g., trips done by officials of the city hosting the following Games).

The evidence on international inbound flows shows that:

- There is little evidence of a sustained increase in inbound tourism in the post-event period. The average of growth differences (actual minus counterfactual) tends to be either close to zero or negative over the post five-year period. Sydney seems to be the exception with an average rise of 1.8%pts (based on data for Australia as a whole).
- The general trend found in our sample of recent mega events is for the traditional origin markets to gain at the expense of new markets (i.e., other than the 10 main countries of origin). Only in the case of Athens did the share of non-traditional origins rise after the event.

However, there are new circumstances that may well create the conditions for a significant legacy effect in the aftermath of London 2012. Top of the list is the expected increase over the next decade in purchasing power in countries such as China, India and Russia. These three countries are already part of the ‘emerging markets’ for UK inbound tourism. For instance, Oxford Economics forecasts a two-fold increase in GDP per capita (at constant prices) in those three countries over the period 2007-2017. Currently, the combined visitor spending from China, India and Russian accounts for less than 3% of the UK inbound total spending. This indicates great potential for additional visits and spending from those countries; and the London 2012 Games is a unique opportunity to increase awareness of UK tourist attractions in those markets.

Furthermore, there are already signals that people from those emerging markets are particularly willing to visit the UK. A recent syndicated online survey (NBI)² measuring attitudes towards the UK with respondents in around three dozen countries worldwide indicates that respondents in countries such as China and India - the majority of whom are unlikely to have visited the UK - are more likely to visit the UK in the next few years because of the Games than respondents in more mature markets.

Parameters of interest

The following table displays the values assigned to those parameters that play a more prominent role in the estimation procedure. Three cases are considered: low (or pessimistic),

² The survey Anholt-GMI Nations Brand Index Quarter 2 Wave.

central and high (optimistic). This set of values will be used to perform a sensitivity analysis (Section IV) on our central-case estimates.

Tourism Impact of the 2012 Games: key parameters (all figures are in percentage-point differences from baseline values)												
	PRE-GAMES			CIRCA-GAMES						POST-GAMES		
	Domestic business travel			International inbound			International outbound			International inbound		
	<i>additional business share</i>			<i>additional growth rate</i>						<i>emerging markets %⁽¹⁾</i>		
	low	central	high	low	central	high	low	central	high	low	central	high
2006	0.0%	0.0%	0.0%									
2007	0.3%	0.3%	0.4%									
2008	0.5%	0.7%	0.8%									
2009	0.8%	1.0%	1.3%									
2010	1.0%	1.3%	1.7%									
2011	1.3%	1.7%	2.1%	-2.0%	-1.0%	0.0%						
2012	1.5%	2.0%	2.5%	2.0%	3.0%	4.0%	2.0%	1.0%	0.0%	0.0%	0.0%	0.0%
2013				0.5%	1.5%	2.5%				0.5%	1.0%	1.2%
2014										0.5%	1.0%	1.2%
2015										0.5%	1.0%	1.2%
2016										0.5%	1.0%	1.2%
2017										0.5%	1.0%	1.2%

(1) based on nights spent data

The central-case parameter accounting for additional domestic business travel into London increases steadily until it reaches 2%pts in 2012 – a percentage point figure similar to the average rise shown in previous mega events. To assign the low-case and high-case values, we are assuming that the additional demand generated by the Games is rather inelastic, so that the central-case value fluctuates within a relatively narrow range (e.g., of 1.5-2.5%pts in 2012).

To produce an estimate of changes in foreign visitors we are applying a pattern that shows a moderate decline in the pre-Olympic year (1%pt in the central case), followed by a rise of 3%pts in 2012 (in line with the average value of past events), and then a lower rise in the following year (1.5%pts). ‘Low’ and ‘high’ parameter values are assumed to differ by 1 percentage point from the central value.

The central-case value for the change in international outbound spending from the UK as a whole is 1%pt, in line with the European average (series at constant prices). As before, ‘low’ and ‘high’ values are assumed to differ by 1 percentage point from the central value.

Finally, to account for the positive impact the Games would have in attracting a higher number of visitors from ‘emerging markets’, our central projection assumes that the Games will bring forward some of this demand that would otherwise have occurred later on in the decade. This is reflected in a higher – relative to base - emerging market share in the UK total inbound figure (eg. of 1%pt in the central case).³

³ Our baseline forecast (done before the news of London winning the bid) already had a significant rise in the share of arrivals from the emerging group by 2017.

III. Contribution to UK Tourism

This section summarises the main results for total and “additional” (i.e. total less displaced) visitor spending resulting from the London 2012 Olympic and Paralympic Games during the years 2007 to 2017. The output corresponds to our central-case scenario. Alternative estimates for ‘low’ (pessimistic) and ‘high’ (optimistic) scenarios are discussed in the following section. Estimates are calculated annually for the period 2007-2017 in order to capture pre-Games impacts and longer-term benefits. All monetary figures are expressed in 2006 prices using an appropriate price index. The following table includes results by nights spent and visitor spending disaggregated by destination (London, the rest of the UK, and the country as a whole), as well as the breakdown by domestic and inbound tourism (covering both day and overnight trips).

Visitor Spending and Nights Spent resulting from the London 2012 Games							
(Figures correspond to the central-case scenario)							
	Period	Nights Spent (thousand of days)			Visitor Spending (£ million at 2006 prices)		
		London	Rest UK	UK	London	Rest UK	UK
Pre-Games gains	2007-12	1,990	264	2,254	321	33	354
Games gains		12,610	1,210	13,820	650	69	719
<i>Tourists</i>	2012	7,627	684	8,311	582	55	637
<i>Day visits</i>	2012	4,983	526	5,509	67	14	82
Displacements^(*)		6,369	-2,556	3,813	375	-117	258
<i>Inbound</i>	2011-12	2,146	286	2,432	160	22	182
<i>Domestic</i>	2012	2,485	-2,842	-357	124	-139	-15
<i>Outbound</i>	2012	1,738	0	1,738	91	0	91
Legacy effect	2013-17	13,490	6,435	19,925	877	393	1,270
Total	2007-17	28,090	7,909	35,999	1,848	495	2,343
Additional	2007-17	21,721	10,465	32,186	1,473	612	2,085

(*) positive values indicate a loss

According to our estimates, the 2012 Games will generate a total of £2.34bn (at 2006 prices) during the period 2007-17 for the UK as a whole. The corresponding figure for London is £1.85bn. Once allowances for displacement effects are made, the contribution is reduced to £2.09bn for the UK and £1.47bn for London. In terms of relative importance, the pre-Games period is responsible for 15% of total aggregate gains for the UK as a whole (percentages not shown in table); the Games themselves account for 31%, and the remaining 54% is generated during the post-Games period (legacy effect). The corresponding percentages for London are 17%, 35% and 48% respectively.

Pre-Game gains are mostly generated by increased business trips. These are largely from the rest of the UK into London (£321mn), though some allowances are made for additional business trips within the rest of the UK (£33mn).

The estimated value of the attendance at the Games is in line with the TAM figure (as reported in Blake, 2005). Spending associated with same-day trips by Londoners (£67mn) is based on the assumed number of days (from TAM) and a value of £13.5per day (half the assumed average daily spending of residents from the rest of the UK).

The displacement effects associated with the Games are estimated at £375mn for London, of which: £160mn correspond to foregone inbound tourism; £124mn of foregone domestic tourism income (including lower visits from the rest of the UK and higher outflows from London to other destinations in the UK); and £91mn in additional international outbound spending prompted by those Londoners who leave the city to an overseas destination in order to avoid the Games. Note that most of the domestic tourism displacements cancel out when considering the UK as a whole. In fact, there is a net gain of £15mn generated by new trips out of London that would not have happened in the absence of the Games.

For the post-Games period (2013-17), our central case estimates show a legacy effect worth £1.27bn for the UK and £0.88bn for London. These gains are largely to be generated by higher numbers of visitors from 'emerging markets', who decide to visit the country/city as a consequence of the media exposure and publicity associated with the Games. It needs to be stressed that the projected legacy effect is subject to a significant degree of uncertainty emanating from factors such as the degree of success in the organisation of the Games and the impact of the marketing effort, as well as the realisation of expected per-capita income gains in key emerging markets. Our central projection assumes that a number of effective marketing and planning practices (see Section V) are successfully implemented.

The following table displays central-case outcome disaggregated according to tourism trip purpose categories, namely: business, holiday, visits to friends and relatives (VFR), and other purpose (including attending sports events).

Visitor Spending resulting from the London 2012 Games, by purpose of visit																
(Figures correspond to the central-case scenario)																
In £ million at 2006 prices		London					Rest of UK					UK				
	Period	Total	Hol	Biz	VFR	Other	Total	Hol	Biz	VFR	Other	Total	Hol	Biz	VFR	Other
Pre-Games gains	2007-12	320	11	309	0	0	33	0	33	0	0	354	11	343	0	0
Games gains		650					69					719				
<i>Tourists</i>	2012	582	0	70	0	512	55	0	0	55	0	637	0	70	55	512
<i>Day visits</i>	2012	67					14					82				
Displacements^(*)		375	251	0	124	0	-117	-43	0	-74	0	258	208	0	51	0
<i>Inbound</i>	2011-12	160	123	0	37	0	22	11	0	11	0	182	134	0	48	0
<i>Domestic</i>	2012	124	60	0	64	0	-139	-54	0	-85	0	-15	6	0	-21	0
<i>Outbound</i>	2012	91	68	0	24	0	0	0	0	0	0	91	68	0	24	0
Legacy effect	2013-17	877	857	21	0	0	393	393	0	0	0	1,270	1,250	21	0	0
Total	2007-17	1,848	868	400	0	512	495	393	33	55	0	2,343	1,261	433	55	512
Additional	2007-17	1,473	617	400	-124	512	612	436	33	128	0	2,085	1,053	433	4	512

(*) positive values indicate a loss
Hol = holidays ; Biz = Business ; VFR = Visiting friend and relatives ; Other includes sport events

Pre-Game gains are primarily associated with additional business trips. The total estimated attendance to the Games, as well as the ‘business’ (media attendance) and ‘other’ components, are sourced from TAM. Sports tourism (including both those participating and watching the Games) is allocated to the ‘other’ category. Regarding the displacement effects, we assume that they will not affect business trips. The split between ‘holiday’ and ‘VFR’ is done by applying appropriate 2012 shares. Most post-Games gains are allocated to the ‘holiday’ category, though some business activity is expected to be generated in the aftermath of the Games.

IV. Sensitivity and Scenario Analyses

This section reports the outcome of a sensitivity analysis performed on the main parameters used during the estimation procedure. The following table summarises alternative estimates to our central-case results.

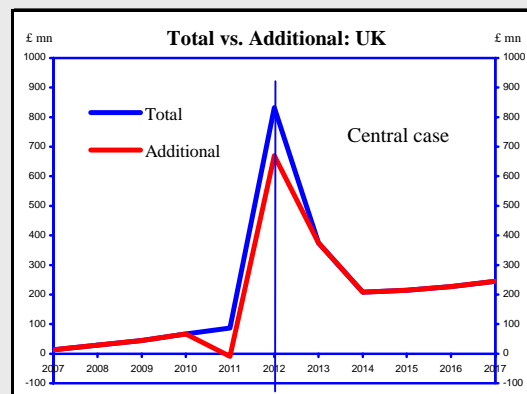
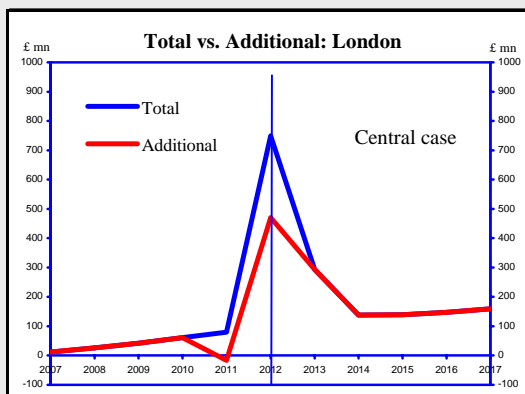
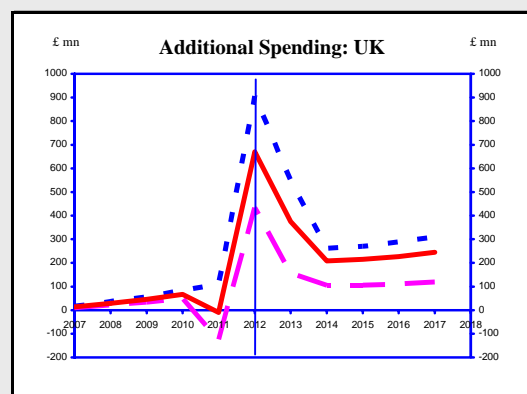
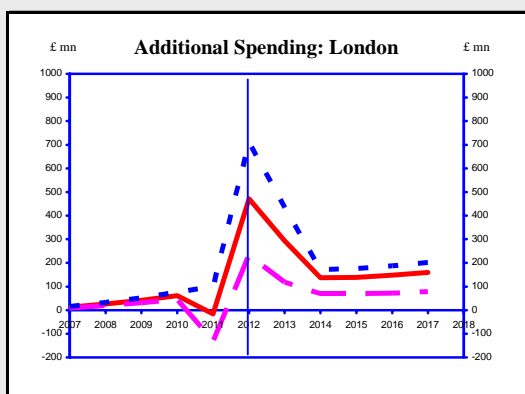
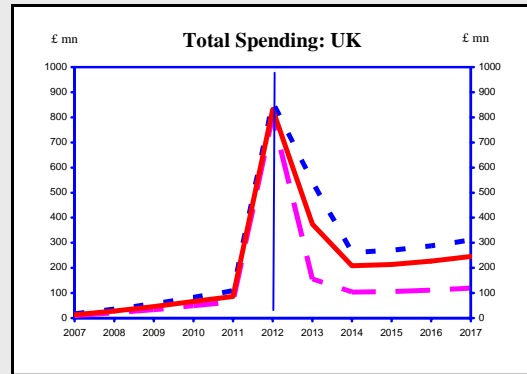
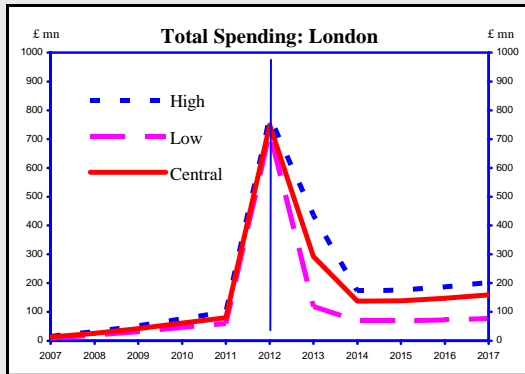
Visitor Spending resulting from the London 2012 Games										
In £ million at 2006 prices		London			Rest of UK			UK		
Pre-Games gains	Period	Low	Central	High	Low	Central	High	Low	Central	High
	2007-12	241	321	401	25	33	42	265	354	443
Games gains		650	650	650	69	69	69	719	719	719
<i>Tourists</i>	2012	582	582	582	55	55	55	637	637	637
<i>Day visits</i>	2012	67	67	67	14	14	14	82	82	82
Displacements^(*)		686	375	64	-125	-117	-108	561	258	-44
<i>Inbound</i>	2011-12	356	160	-37	33	22	12	389	182	-25
<i>Domestic</i>	2012	147	124	100	-158	-139	-120	-11	-15	-20
<i>Outbound</i>	2012	183	91	0	0	0	0	183	91	0
Legacy effect	2013-17	406	877	1174	191	393	503	596	1270	1677
Total	2007-17	1,296	1,848	2,225	284	495	614	1,580	2,343	2,883
Additional	2007-17	610	1,473	2,161	409	612	722	1,019	2,085	2,883

(*) positive values indicate a loss

The low-case scenario is based on an alternative set of values for the parameters that reflect a modest impact from the Games for tourism in the UK and London. It translates into lower additional business trips during the pre-Games period and in fewer visitors coming from ‘emerging markets’ after the event. However, the value of the Games themselves is assumed to remain constant across all three cases. By contrast, the high-case scenario is aimed to capture a more robust tourism response to the Games.

The charts on the next page illustrate the uncertainties surrounding the central estimates, so that these can be fully appreciated. They show annual values for both total and additional visitor spending for London and the UK as a whole.

London 2012 Games: Estimated Tourism Impact



V. Lessons from Previous Olympic Games

This section reviews a number of studies of previous Olympic Games in order to identify those marketing and planning strategies that – if implemented – would help to maximize the tourism impact of the 2012 London Games. In particular, we are interested in looking for answers for the following questions:

- How to brand a certain Olympics as unique because of the destination, not just another Olympics?
- How to best leverage the media and marketing resources to showcase the tourism product of the host city?
- How the Olympic-related investments in venues and infrastructure can be incorporated into the overall economy in the years following the Games?

In what follows, we describe some valuable strategies adopted by the hosts of previous Olympic Games and examine how such strategies helped the host city to turn a 17-day event into a decade of opportunities for the tourism industry.

1. Potential Impact: *Domestic business activities likely to rise during the pre-Games period.*

Corresponding Strategy: *Partner with other public agencies and private sector sponsors to organize and promote business programs linked to the Games.*

According to the evidence presented in Section II, the years prior and during mega sporting events usually witness a rise in the relative importance of domestic business trips. To encourage such a trend and to reap its positive repercussions for the economy, some host governments successfully initiated and promoted various investment and development programmes linked to the Games. For example, during the period 1997-2001, the New South Wales (NSW) authorities and the Commonwealth Government, with the collaboration of Commonwealth agencies and private sector sponsors, launched a wide range of business programmes associated with the Sydney 2000 Games. Highlights of such initiatives include:

- *Australian Technology Showcase (ATS).* Officially launched in 1998, ATS organised patent, export and promotion advice, as well as quality media coverage for high-potential companies with innovative and commercially attractive technologies. This programme has proven to be a catalyst for these companies to capture international opportunities.
- *High Level Business Leaders Meetings/Networking Programme.* The NSW and the Commonwealth Government launched an initiative called “Business Club Australia”. The initiative held 97 networking events during the Sydney Games attended by 16,000 business representatives, of which 27% came from abroad.⁴

⁴ PricewaterhouseCoopers (2002): Business and Economic Benefits of the Sydney 2000 Games - A Collation of Evidence.

- *Investment 2000 (I2000)*. Aiming to market Australia internationally as a regional business location for the Asia-Pacific region, Investment 2000 recruited potential investors and provided them with a full range of communication services including themed briefings, peer to peer meetings and business matching.

2. Potential Impact: *Displacement effects during the Games.*

Corresponding Strategy: *Strengthen the host city's infrastructure; Partner with top tour operators in key international markets and respective airlines to package and promote other attractions within the host country more creatively.*

Our earlier analysis of past Olympic Games and other mega events has shown that in the year previous and during the event, inbound tourism experienced some displacement. Therefore the host city's strategy should include a key element to address how to minimize such displacement from the traditional overseas markets.

Learning from Sydney's experience, the Government could partner with top tour operators in key international markets to package and promote vigorously and creatively what the rest of UK has to offer. Under the Tourism NSW Business Incentive Programme, Tourism NSW selected up to six top travel and tour wholesalers and retailers in each of its primary international markets to participate in its hospitality programme during the Games. Certain tour packages were specifically designed to encourage visitor dispersion and the launching of the "Australia 2000 - Fun and Games" campaign (showcasing all aspects of Australia) was also aimed at insuring against avoidance.

3. Potential Impact: *Substantial increase in inbound tourism during the Games.*

Corresponding Strategy: *Manage and encourage maximum co-operation among all the stakeholders in promoting the host country internationally; also ensure consistency in marketing efforts.*

This strategy touches on a number of aspects:

- ❖ *Create a culturally attractive and distinctive image to draw visitors (not just another Olympics)*

For example, the marketing of the Barcelona Games was carefully orchestrated to eliminate the tourist stereotypes (siestas, bullfights, slow movement) and promote Spain as a land of passion and sun.⁵ In the case of the Sydney Games, the marketing campaign successfully reinforced the perception that Australians are "friendly, fun-loving, laid-back, and genuine".⁶ London's assets in this respect are tremendous. It benefits from a cultural richness and distinctiveness that very few cities in the world could match. Also, it possesses an incredible fusion of old and modern world-class landmarks.

⁵ Carole Favre (2005): "Never mind the sport, let's manage the destination", The Hospitality Review, January.

⁶ Australian Tourist Commission, Brand Stocktake, Aug. 2001.

- ❖ Media Outreach Strategy to capitalise on the best conceivable opportunities available for a destination to attract international visitors. Also to ensure a smooth flow of information and to support a positive image of both the host city and the host country.

The comparison of the Olympic experiences of Atlanta and Sydney shows that government efforts in reaching out to the media can make a difference in promoting the host city's international image and profile. During the Atlanta Games, non-accredited media produced some negative publicity for the city. By contrast, for the Sydney Games, the NSW authorities and the Commonwealth Government established a media centre to provide story leads, production assistance and quality sound and vision resources of all parts of Australia to the large contingent of unaccredited media visiting Sydney during the Games.

4. Potential Impact: *supporting a legacy effect on inbound tourism.*

Corresponding Strategy: *Integrate the Games-related developments into the host city's longer-term vision; Manage and leverage the media attention during and after the Games to promote the host country's tourism brand and profile.*

Legacy effects mainly include the post-Olympic tourism and infrastructure effects, and possible urban revival, and other effects generated by a higher international profile of the host city. The extent to which a host city will be able to realize such benefits depends critically upon *whether the Olympic-related investments in venues and infrastructure were planned to explicitly include a longer term development vision for the host city.*

- ❖ *Games-related developments planned in line with the big picture of the host city*

Barcelona is a successful example in terms of the use of the Games for urban renewal. The central investment planning strategy of the 1992 Barcelona Olympic Games was to make investments in infrastructure, with the urban transformation of the city as the mid-term goal, and with the attraction of continued investment post the Games as the long-term goal.

According various studies, Barcelona invested a total amount of €10.7 billion in telecommunications, transportation, hotels/housing/business centres, and other cultural and health facilities during the pre-Games period of 1986-1992. In the eight-year period following the Games, 1992-2000, it attracted around €98.8 billion of investment in infrastructure, and €1.9 billion in urban renewal.⁷

- ❖ *Legacy of Sports Infrastructure*

Sydney, the host city of the Summer Games in 2000, was able to turn much of the construction at the Olympic Park for the Games into additional capacity for its Meetings, Incentives, Conventions, and Exhibitions (MICE) sector. Similarly, Atlanta was able to make

⁷ 1986-1992: Brunet, Ferran (1994): *Economy of the 1992 Barcelona Olympic Games*; 1992-2004: Clusa, Joaquim (1996).

maximum usage of its Olympic venues by hosting various domestic and international sport events. By 1995, the Sports Council was already bidding on 24 major national tournaments.⁸

- ❖ *Take full advantage of the Olympics' ties (media attention, sponsors, private sector partners, international government agencies) pre- and during the Games to showcase the tourism product of the host country and build up the overall tourism "brand".*

The central element of Sydney 2000 Games' media strategy was to manage and help all media agents (both accredited and non-accredited) cover Sydney and more importantly, all aspects of Australia for the world. More specifically, they launched a "Visiting Journalist Programme" hosting more than 2,000 international journalists to Australia before and during the Games. Management of both the accredited and non-accredited media before, during and after the Games is believed to have added significant leisure tourism legacy value, enabling Sydney and Australia to showcase their tourism product to a much greater degree than could have been achieved without the Games. As a result of such effective marketing strategies, the event was essentially transformed into a documentary about every aspect of the Australian life and broadcasted to 3.7 billion viewers in a record 220 countries.⁹

⁸ Humphreys and Plummer (1995): The economic impact to the state of Georgia of hosting the 1996 Olympic Games.

⁹ Australian Tourist Commission, Brand Stocktake, August 2001.

ANNEX 1: Evidence from Previous Mega Events

This annex presents evidence from the assessment of previous mega events which informs the selection of values – or range of values – for the key parameters of the estimation procedure to be detailed in Annex II.

- ❖ Domestic business flows as % of total domestic trips and total business trips

Domestic Business Trips as % of total domestic trips								
	Y-4	Y-3	Y-2	Y-1	Y-0	Y1	Y2	Event
Germany ⁽¹⁾	13.8%	16.3%	19.5%	18.0%	16.4%			WC
Greece	6.4%	8.8%	6.8%	6.5%	7.5%	5.4%		OLY
Portugal	6.7%	6.9%	7.9%	7.1%	8.2%	7.9%	10.0%	EC
UK ⁽²⁾	11.0%	10.7%	11.4%	12.2%	12.9%	11.5%	11.2%	EC
Manchester				24.0%	24.3%	23.0%		COMM

Domestic Business Trips as % of total business trips								
	Y-4	Y-3	Y-2	Y-1	Y-0	Y1	Y2	Event
Germany	10.6%	24.1%	32.3%					WC
Greece	72.5%	82.7%	77.1%	71.9%	74.8%	68.4%		OLY
Portugal	63.1%	69.4%	70.8%	68.3%	72.9%	67.0%	61.3%	EC
UK				73.5%	71.2%	68.4%	71.0%	EC
Manchester								COMM

(1) includes outbound travel; (2) based on overnight data from VisitBritain
Source: Eurostat, VisitBritain and Oxford Economics

- ❖ Circa-event (Y-1, Y0 & Y1) annual growth of international inbound tourism (travel spending at current and constant prices, as well as non-resident visits to hotels) relative to a counterfactual. The latter is calculated as an average growth of inbound tourism to other main destinations in Europe.

Circa-Event: Credit Travel Growth relative to counterfactual									
Differences between of the country's growth rates of travel spending and its counterfactual ⁽¹⁾									
Current values	France	Germany	Greece	Italy	Portugal	Spain	UK	Australia	EU avg.
Y-1	-10.4%	1.7%	-7.6%	-10.8%	-1.3%	-2.8%	8.1%	-5.3%	-3.5%
Y0	-1.9%	6.2%	2.6%	12.3%	-2.4%	2.6%	3.9%	2.6%	3.2%
Y1	-2.6%		4.6%	15.4%	-4.2%	-4.9%	-1.0%	2.0%	1.3%
net Y-1 to Y1	-5.0%		-0.2%	5.6%	-2.6%	-1.7%	3.7%	-0.2%	-0.1%
Constant values ⁽²⁾									
Y-1	-8.4%	2.2%	-8.6%	-12.8%	-2.2%	-0.8%	9.6%	-4.9%	-3.2%
Y0	-0.1%	7.0%	1.7%	9.4%	-2.5%	3.1%	4.9%	0.1%	3.0%
Y1	-1.1%		3.2%	13.2%	-4.0%	-3.8%	0.1%	0.2%	1.1%
net Y-1 to Y1	-3.2%		-1.2%	3.3%	-2.9%	-0.5%	4.8%	-1.5%	-0.2%
Event	WC	WC	OLY	WC	EC	OLY	EC	OLY	

(1) Counterfactual values are calculated as average growth rates of other main EU tourist destinations
(2) Constant values are obtained using each country's CPI as deflator
Sources: Haver and Oxford Economics

- ❖ Composition of foreign visitors by country of origin. The analysis of monthly data of non-resident arrivals and nights spend in hotels does not show any significant change in the composition of tourists by country of origin.
- ❖ Circa-event (Y-1, Y0 & Y1) annual growth of international outbound tourism (debit travel spending at current and constant prices) relative to a counterfactual. The latter is calculated as an average growth of outbound tourism to competing destinations in Europe.

Circa-Event: Debit Travel Growth relative to counterfactual									
Differences between of the country's growth rates of travel spending and its counterfactual ⁽¹⁾									
Current values	France	Germany	Greece	Italy	Portugal	Spain	UK	Australia	EU avg.
Y-1	-6.3%	-6.6%	-12.9%	6.5%	-3.9%	3.1%	-3.6%	-5.8%	-3.7%
Y0	-2.6%	-3.3%	5.8%	9.4%	-3.0%	2.0%	-0.6%	10.3%	2.2%
Y1	1.1%		-1.7%	8.0%	1.3%	3.0%	13.3%	6.3%	4.5%
net Y-1 to Y1	-2.6%		-2.9%	8.0%	-1.9%	2.7%	3.0%	3.6%	1.4%
Constant values ⁽²⁾									
Y-1	-6.2%	-6.4%	-12.6%	6.3%	-3.8%	3.0%	-3.5%		-3.3%
Y0	-2.6%	-3.2%	5.7%	9.0%	-2.9%	2.0%	-0.6%		1.0%
Y1	1.1%		-1.6%	7.7%	1.3%	2.9%	13.0%		4.1%
net Y-1 to Y1	-2.6%		-2.9%	7.7%	-1.8%	2.6%	3.0%		1.0%
Event	WC	WC	OLY	WC	EC	OLY	EC	OLY	

(1) Counterfactual values are calculated as average growth rates of other main EU tourist destinations
(2) Constant values are obtained using each country's CPI as deflator
Sources: Haver and Oxford Economics

- ❖ Arrivals and nights spend in hotels in Catalonia and Lisbon by residents and non-residents versus rest of country.

Arrivals to Hotels as % of country's total						Nights Spent in Hotels				
Catalonia	Y-2	Y-1	Y0	Y1	Y2	Y-2	Y-1	Y0	Y1	Y2
Non-residents	18.8%	18.4%	17.1%	16.5%	19.7%	2.9%	2.9%	2.2%	3.4%	4.0%
Residents	12.7%	13.0%	13.0%	12.9%	12.9%	7.5%	8.7%	9.7%	12.2%	12.4%
			Olympics					Olympics		
Lisbon region										
Non-residents	32.9%	33.7%	36.9%	34.6%	34.7%	1.6%	1.3%	1.9%	1.1%	1.1%
Residents	22.7%	22.8%	22.8%	22.0%	22.7%	15.5%	9.9%	8.6%	10.4%	10.9%
			World Expo					World Expo		

Sources: Eurostat and Oxford Economics

- ❖ Post-event annual growth of international inbound tourists (travel spending at constant prices, as well as non-resident visits to hotels)

Post-Event: Credit Travel Growth relative to counterfactual								
Differences between of the country's growth rates of travel spending and its counterfactual ⁽¹⁾								
% differences	France	Germany	Greece	Italy	Portugal	Spain	UK	Australia
Y-3	-4.6%	4.0%	5.3%	-3.3%	2.2%	-10.5%	8.3%	-12.2%
Y-2	2.1%	0.8%	-2.7%	-6.8%	-5.6%	-18.5%	-0.9%	-5.5%
Y-1	-9.7%	2.5%	-5.3%	-2.6%	-10.1%	-1.3%	6.9%	-4.3%
Y0	-2.6%	5.4%	0.9%	11.2%	12.0%	3.7%	0.5%	2.7%
Y1	-1.1%		3.9%	11.6%	-12.2%	-5.7%	7.3%	1.4%
Y2	-2.0%		-4.4%	9.5%	1.2%	3.9%	-1.2%	3.5%
Y3	0.6%			-1.0%	7.5%	-0.8%	-5.8%	4.1%
Y4	2.3%			1.6%	0.0%	6.0%	-2.5%	-1.9%
Y5	-2.7%			-0.4%	-1.1%	-7.9%		1.8%
<i>Event</i>	<i>WC</i>	<i>WC</i>	<i>OLY</i>	<i>WC</i>	<i>WEX</i>	<i>OLY</i>	<i>EC</i>	<i>OLY</i>
Average Y1-Y5								
Current values	-0.6%		-0.2%	4.3%	-0.9%	-0.9%	-0.6%	1.8%
Constant values	0.3%		-1.4%	4.6%	-2.0%	-0.8%	-3.8%	4.2%
(1) Conterfactual values are calculated as average growth rates of other main EU tourist destinations								
(2) Constant values are obtained using each country's CPI as deflator								
Except Australia all original series are in Euros								
Sources: <i>Haver and Oxford Economics</i>								

- ❖ Composition of foreign visitors by country of origin. In particular, the share of non-traditional sources as indication of increased awareness of destination in new markets.

Arrivals of Non-Resident Tourists by country of residence								
Share of countries other than the 10 traditional origins								
Country	Y-1	Y0	Y1	Y2	Y3	Y4	Y5	Event
France	12.5%	12.7%	11.7%	11.8%	11.0%	10.6%	10.5%	<i>WC</i>
Germany	34.1%	30.7%						<i>WC</i>
Greece	26.6%	25.1%	25.3%	31.2%				<i>OLY</i>
Italy								<i>WC</i>
Portugal	8.5%	9.0%	5.3%	3.9%				<i>EC</i>
Spain					10.6%	12.7%	14.4%	<i>OLY</i>
UK	31.3%	30.3%	30.1%	30.1%	30.8%	31.7%	31.1%	<i>EC</i>
Australia	26.6%	26.6%	25.2%	23.7%	23.7%	23.1%	23.4%	<i>OLY</i>
Source: <i>Oxford Economics</i>								

ANNEX 2: Estimation Procedure

In what follows, we describe the procedure adopted to estimate total and additional flows during the years surrounding the Games. In general, the effects associated with the Games are calculated by applying a set of parameters (obtained from the analysis of past events) to baselines (from Oxford Economics' Tourism Model).

Our existing forecasts for UK and London tourism – developed for the World Travel and Tourism Council and the London Development Agency – were enhanced to cover the separate spending categories required by this project (London versus the rest of UK, domestic and international tourism, and different purpose categories) in order to provide a baseline projection onto which the typical Olympic effects could be added.

First, the international inbound flows are considered. The UK total is split into London (FLon) and the rest of the UK (FRest). Each of these components is then subdivided into: i) visitors to the Games; ii) a counterfactual or baseline value; iii) and those avoiding London or the UK because of the realisation of the Games. This breakdown will allow for an appropriate calculation of displacement effects.

For example, in the case of visitors to London, FLon is divided into three groups: visitors to the Games (FGames); the baseline value for foreign visitors into London (FLon*), i.e., the expected flow that would have visited the city had London not been granted the Games; and those visitors that choose not to come to London when they would otherwise have done so because of the Games (FaLon). A similar procedure is followed to sub-divide the flow of foreign visitors to the rest of the UK, as well as the flow of domestic tourists.

Foreigners (Inbound)

$$(1) \text{ FUK} = \text{FLon} + \text{FRest}$$

FLon: foreign tourists to London ; FRest: foreign tourists to rest of UK

$$(2) \text{ FUK} = \text{FGames} + \text{FLon}^* - \text{FaLon} + \text{FRest}^* - \text{FaRest}$$

FGames: foreign visitors attending the games (input from TAM);

FaLon: foreign visitors avoiding London because of the Games;

FaRest: foreign visitors avoiding rest of UK because of the Games

* denote baseline (ie, counterfactual without London 2012)

FLon* & FRest* come from Oxford Economics' UK Tourism Model. They represent forecasts done before the news that London was chosen to host the 2012 Olympic Games. Potential double-counting of those tourist visiting both London and other UK destinations in the same trip is avoided by using nights spent instead of trips.

$$(3) FaLon = impact1 * FLon^*$$

$$(4) FaRest = impact2 * FRest^*$$

Impact1 is likely to be much larger than impact2

Residents (Domestic and international Outbound)

$$(5) BUK = BLRest + BLOut + BRRest + BRLon + BROut$$

BLRest: Residents from London to Rest of UK

BLOut: Residents from London to Overseas destinations

BRRest: Residents from Rest of UK to Rest of UK

BRLon: Residents from Rest of UK to London

BROut: Residents from Rest of UK to Overseas destinations

$$(6) BUK = BRGames + BLGames + BLRest^* + BLaLonRest + BLOut^* + BLaLonOut + BRRest^* + BRLon^* + BRaLonRest - BRaLonRest + BROut^* + BRaLonOut \quad [BROut = BROut^*]$$

BRGames: Residents from Rest of UK attending the games (input from TAM);

BLGames: Residents from London attending the games (input from TAM);

BLaLonRest: Residents from London avoiding London to Rest of UK;

BLaLonOut: Residents from London avoiding London to Overseas;

BRaLonRest: Residents from Rest of UK avoiding London to Rest of UK;

BRaLonOut: Residents from Rest of UK avoiding London to Overseas;

$$(7) BLaLonRest = impact3 * BLRest^*$$

$$(8) BLaLonOut = impact4 * BLOut^*$$

$$(9) BRaLonRest = impact5 * BRLon^* \quad [impact5 \ll impact3]$$

$$BRaLonOut = 0 \quad [\text{simplifying assumption}]$$

Aggregates of interest

$$\text{Total gains of the Games} = FGames + BRGames + BLGames$$

$$\text{Inbound displacement} = FaLon + FaRest$$

Domestic and Outbound displacement/gains:

$$\text{- London} = BRaLonRest + BLaLonOut \quad [\text{loss}]$$

$$\text{- RestUK} = BLaLonRest + BRaLonRest \quad [\text{gain}]$$

$$\text{Additional gain} = FGames + BRGames + BLGames - \text{Displacements}$$

ANNEX 3: Data Sources

EUROSTAT

Arrivals and nights spent in collective accommodation establishments:

- Annual series of residents (national and NUTS 2)
- Annual series of non-residents (national and NUTS 2)
- Monthly series of non-residents - world geographical breakdown

Capacity of collective tourist accommodation:

- Establishments, bedrooms and bed-places
- Occupancy in domestic and inbound tourism

HAVER

- Quarterly data on travel spending (debit and credit) covering the period 1980Q1 to 2007Q2. (Originally sourced from the countries' current account data)

Oxford Economics

- Tourism Decision Metrics database covering the period 1995-2006 (annual data) for international inbound flows disaggregated by country of origin and purpose of visit
- Global Macroeconomic Model
- UK Tourism Model

VisitBritain

- Domestic overnight trips and spending at a regional and country level and disaggregated by purpose of visit.
- International Passenger Survey data covering inbound visitor spending and inbound visits (from 1980 onwards)
- Monthly profile of overnight domestic tourism trips in the UK (on monthly basis since 1994)
- Trips, overnights, and average spend per day in 2006 for London, the rest of the UK and the UK as a whole with a breakdown by purpose of visit
- Trips, overnights, and average spend per day 2006 figures for a group of emerging markets including Brazil, India, China, Russia, Malaysia and Thailand.