Sizing Worldwide Tourism Spending (or "GTP") & TripAdvisor's Economic Impact

TripAdvisor Strategic Insights & Oxford Economics

Executive Summary

- **The value of global tourism has reached $US 5.29 trillion**, with international tourism spend **growing for the last 8 consecutive years**

- In particular, the **APAC market has grown +130%** in the last 10 years with Asia alone even higher than this

- Influenced by **western market demographic trends**, the rise of **emerging middle class markets** and **increased global connectivity** (physical and digital), growth in international tourism spend has outpaced that of global GDP

- **Nearly 1 in 10 employees globally is supported by tourism** activity, with the regional share of employment ranging from 12.8% (Western Europe) to 6.2% (Emerging Europe)

- In 2017, **TripAdvisor was responsible for $US 546 billion (10.3%) of global tourism spend** and **this influence continues to grow** at a 7.4% annual average rate in the last 10 years

- Econometric analysis with Oxford Economics has proven that **TripAdvisor causes more travel** and this is more evident through **increased visitor nights** and **spending** than through arrivals.

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Methodology:
TripAdvisor's Economic Impact

1. Causality tests run to understand whether TripAdvisor use **causes** travel **or** travel causes TripAdvisor use

2. Extensive econometric testing proved that TripAdvisor content is **not just positively correlated** with travel activity, but in fact **causes more travel**

3. This causal relationship is more evident for **more visitor nights and spending** than for more visits

4. Tests indicated the strongest relationship existed between the number of reviews and travel volumes

5. Higher review scores are shown to increase average stay length and tourist nights in destinations

Extensive analysis was performed to both size the global travel market as well as measure any effect TripAdvisor had on the overall growth in travel

WTO Economic Spend Data, Tourism For Top 30 Markets, '04-'17

- Avg. $USD per tourist per day on Hotels, Meals, Shopping, Tours, Attractions
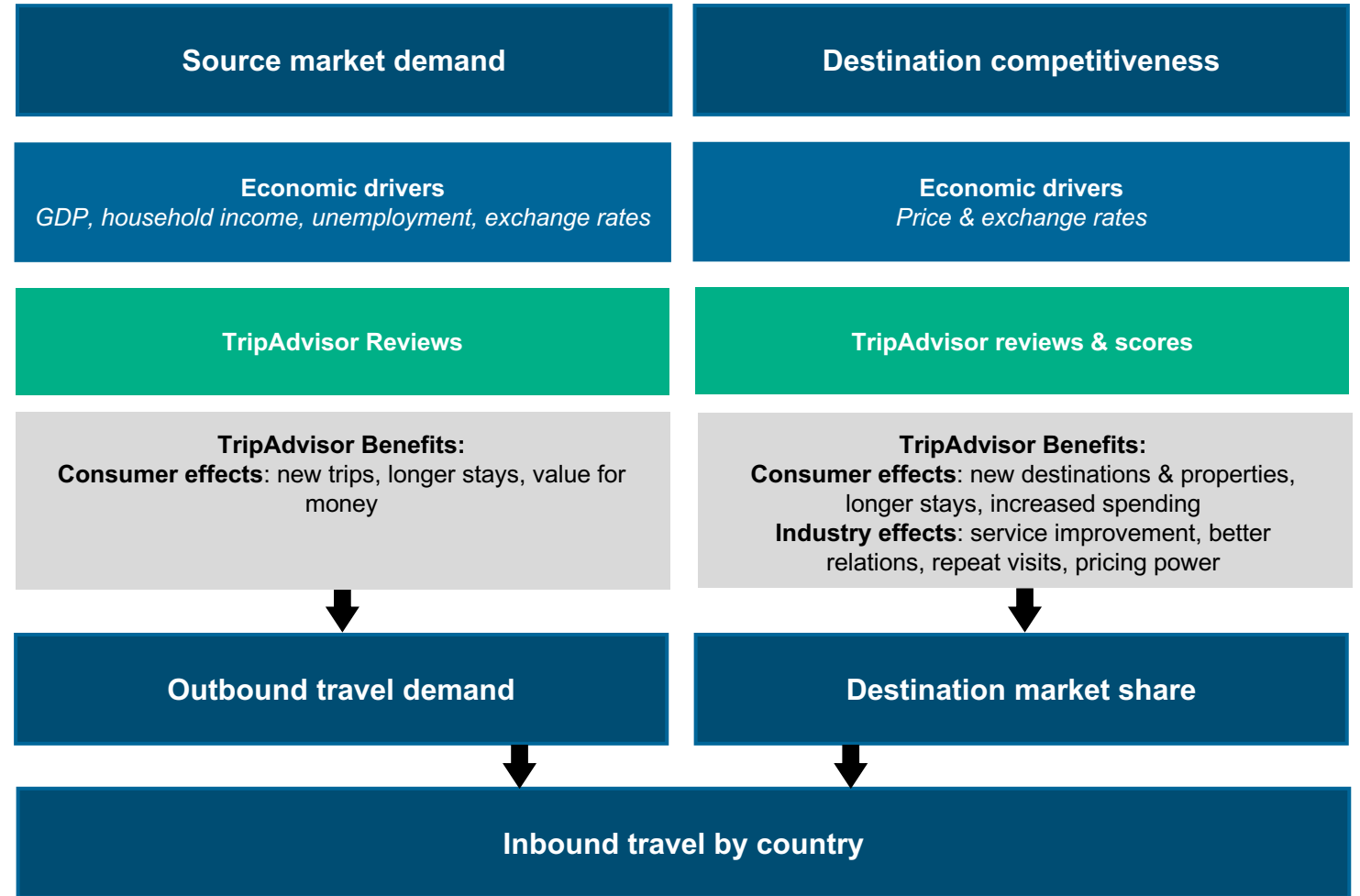- For 35 largest tourism markets worldwide

TripAdvisor Visitor View, Click & Book Data For Top 30 Markets, '04-'17

- Also includes # businesses listed per market per year plus avg. daily rate where available

TripAdvisor metrics improve explain travel

Econometric tests show that increases in TripAdvisor reviews are followed by higher tourism demand
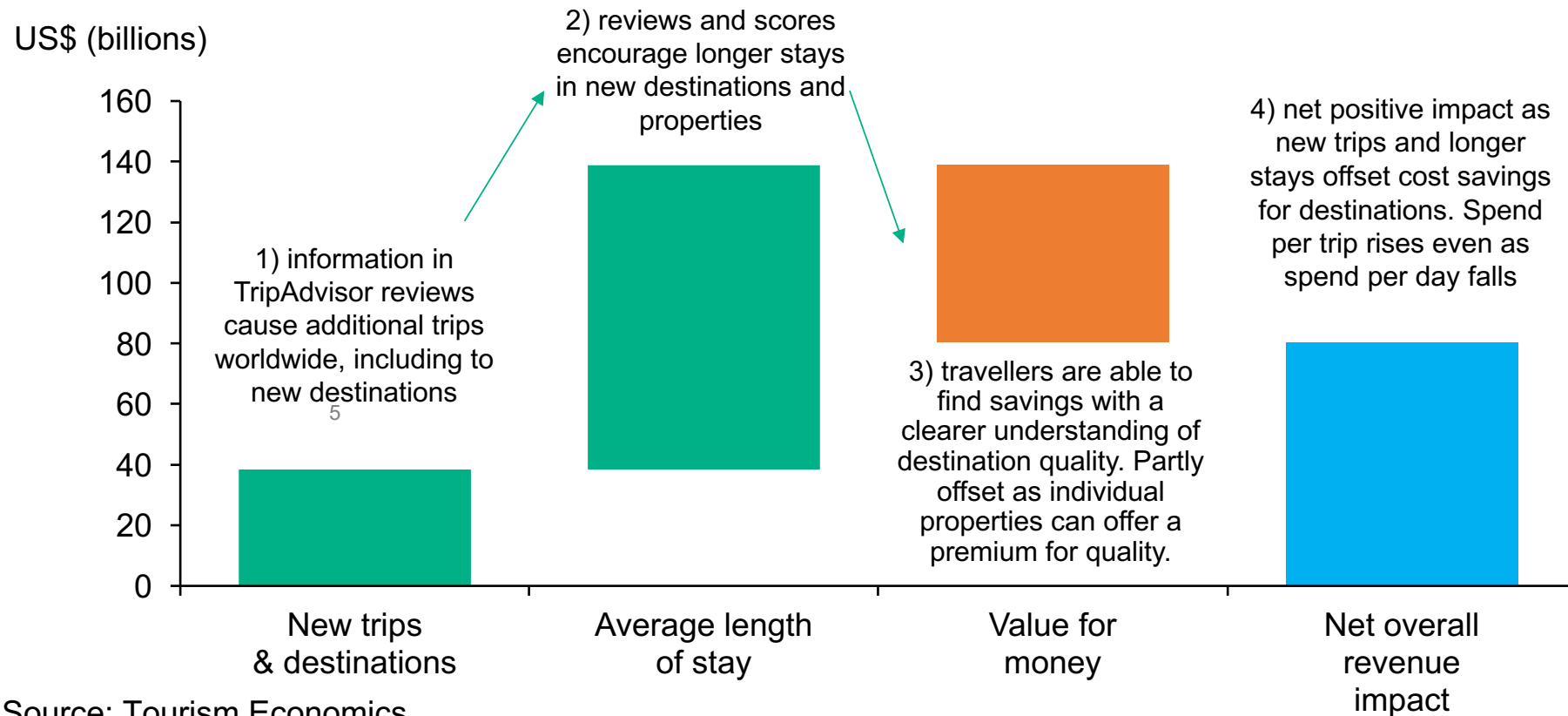
- TripAdvisor metrics were combined with Tourism Economics' existing model of global tourism flows. Economic drivers explain much of global tourism growth.

- Including TripAdvisor metrics improves model accuracy and helps to explain some of the more rapid growth observed in recent years.

- Econometric tests considered various TripAdvisor metrics including property listings, page views, reviews and average review scores.

- TripAdvisor reviews impact on the volume of trips and spend. Review scores have a further impact on length of stay and average spend.

Source market demand	Destination competitiveness
Economic drivers *GDP, household income, unemployment, exchange rates*	**Economic drivers** *Price & exchange rates*
TripAdvisor Reviews	**TripAdvisor reviews & scores**
TripAdvisor Benefits: **Consumer effects**: new trips, longer stays, value for money	**TripAdvisor Benefits:** **Consumer effects**: new destinations & properties, longer stays, increased spending **Industry effects**: service improvement, better relations, repeat visits, pricing power
Outbound travel demand	**Destination market share**

Inbound travel by country

TripAdvisor also affects travel behaviour

Average length of stay and spending are also affected by TripAdvisor metrics

Net impact of TripAdvisor is a combination of effects on trips, nights and spend

US$ (billions)

2) reviews and scores encourage longer stays in new destinations and properties

4) net positive impact as new trips and longer stays offset cost savings for destinations. Spend per trip rises even as spend per day falls

1) information in TripAdvisor reviews cause additional trips worldwide, including to new destinations

3) travellers are able to find savings with a clearer understanding of destination quality. Partly offset as individual properties can offer a premium for quality.

| 160 |
| 140 |
| 120 |
| 100 |
| 80 |
| 60 |
| 40 |
| 20 |
| 0 |

New trips & destinations

Average length of stay

Value for money

Net overall revenue impact

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Source: Tourism Economics

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2017 Tourism Economy by Destination

Slide	Destination Market	2017 Econ ($ bn)	2007-2017
30	**North America**	**1197.8**	**24.9%**
31	United States	985.6	26.3%
33	Mexico	137.5	18.2%
35	Canada	74.7	20.5%
37	**Latin America**	**278.2**	**42.1%**
38	Brazil	104.4	31.6%

Slide	Destination Market	2017 Econ ($ bn)	2007-2017
40	**Western Europe**	**1418.3**	**2.9%**
41	Germany	388.3	8.4%
43	United Kingdom	203.4	-14.4%
45	Italy	192.3	13.6%
47	France	175.4	-5.2%
49	Spain	132.8	-0.1%
51	Switzerland	46.4	35.1%
53	Austria	46.2	12.1%
55	**Emerging Europe**	**228.4**	**16.0%**
56	Turkey	57.1	23.1%
58	Russia	55.2	7.6%
60	**Middle East**	**151.5**	**93.8%**
61	**Africa**	**121.3**	**26.4%**

| Slide	Destination Market	2017 Econ ($ bn)	2007-2017
62	**Asia-Pacific**	**1893.0**	**130.3%**
63	China	957.2	384.7%
65	Japan	212.8	-7.9%
67	India	212.5	115.9%
69	Australia	101.2	32.4%
71	Thailand	74.8	125.6%
73	South Korea	65.6	32.4%
75	Philippines	53.2	213.2%

2017 tourism spending reached $US 5.29 trillion

Domestic revenues are an important source of revenue which must not be overlooked

Global Tourism Spending

- At **$3.89 trillion per year, domestic tourism spend** accounts for around three-quarters of global tourism spends

- **International tourism spending** grew to $**1.4 trillion** in 2017 – and is likely to continue to rise as the number of households able to afford international travel grows

Estimated 2017 spending		US$ bn
Total international travel		1,398
	Business international travel	225
	Leisure international travel	973
	Transportation	201
Total domestic travel		3,891
	Business domestic travel	950
	Leisure domestic travel	2941

Domestic and international travel spend volumes

US$ bn

- Domestic travel spend
- Inbound travel spend

$5.29 trillion in 2017

Source: Oxford Economics

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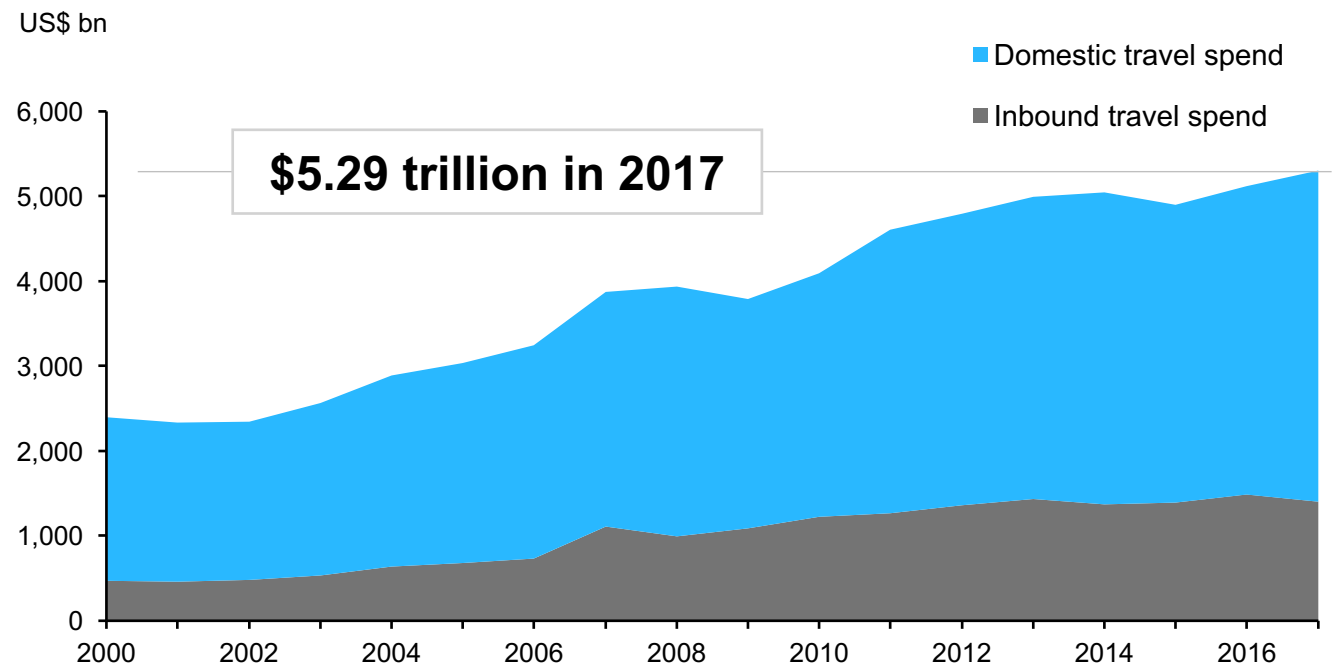
Total spending by global destination

## is distributed broadly in line with wealth

Global Tourism Spend

- While the North America and Western Europe tourism economies have each grown by +15% and +9% in the past ten years, respectively, **the Asian market has grown by +130%** in the past 10 years

- In contrast, Western European destinations have barely grown over the decade.

Destination region	2017 spend (US$)	Growth 2007 - 2017
Global	**5.29**	**41.9%**
APAC	1.89	130.3%
Middle East	0.15	93.8%
Latin America/Caribbean	0.28	42.1%
Africa	0.12	26.4%
North America	1.20	24.9%
Other Europe	0.23	16.0%
Western Europe	1.42	2.9%

Source: Oxford Economics

Total tourism spend over time by global region

US$ trillions

Legend: Africa, Middle East, Latin America / Caribbean, North America, Emerging Europe, Western Europe, APAC
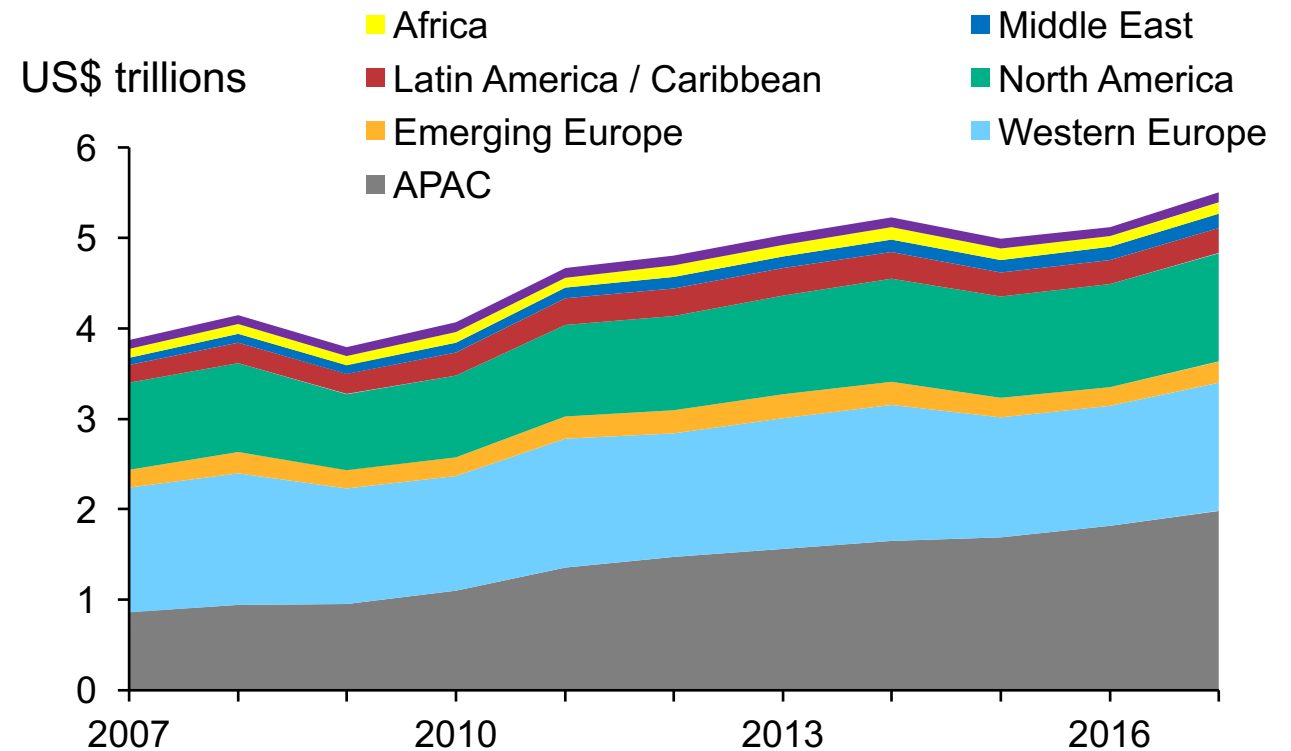
Total spending

by global destination region broadly follows changes in wealth and spending as well as developments in connectivity
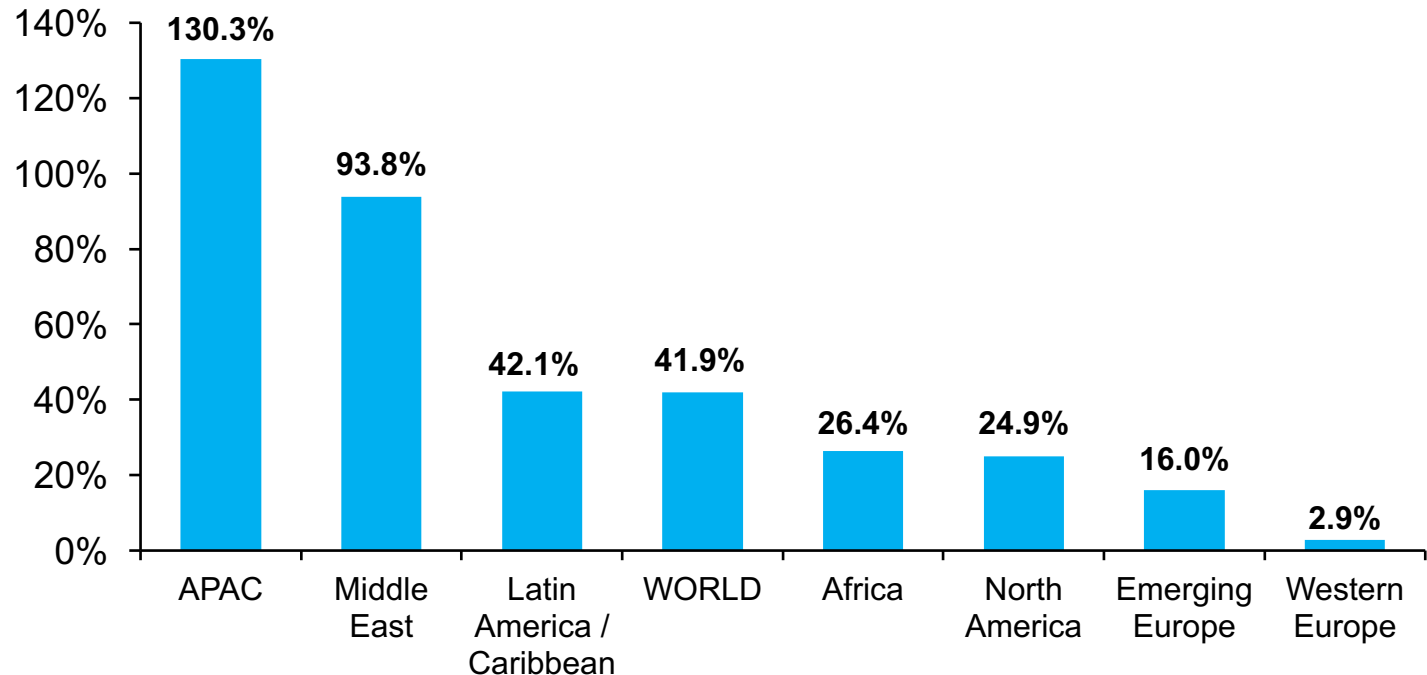
Total Tourism Spend Growth

Total tourism spend has been increasing most rapidly in the Asia – Pacific region, partly as a result of a newly expanding middle class in the region.

Spending growth has also been strong in the Middle East, helped, on average, by oil-related spending, but also due to growing connectivity. Growth in this region has been less strong in recent years.

Spending in Europe has been stagnant with significant growth occurring only in Emerging Europe. Spend in Western European destinations has barely grown over the decade.

Percentage change in tourism spend, 2007 - 2017

%, 2007 - 2017

Region	% change
APAC	130.3%
Middle East	93.8%
Latin America / Caribbean	42.1%
WORLD	41.9%
Africa	26.4%
North America	24.9%
Emerging Europe	16.0%
Western Europe	2.9%

The share of whole economy GDP
supported by tourism (so-called 'Gross Tourism Product') varies across countries and regions
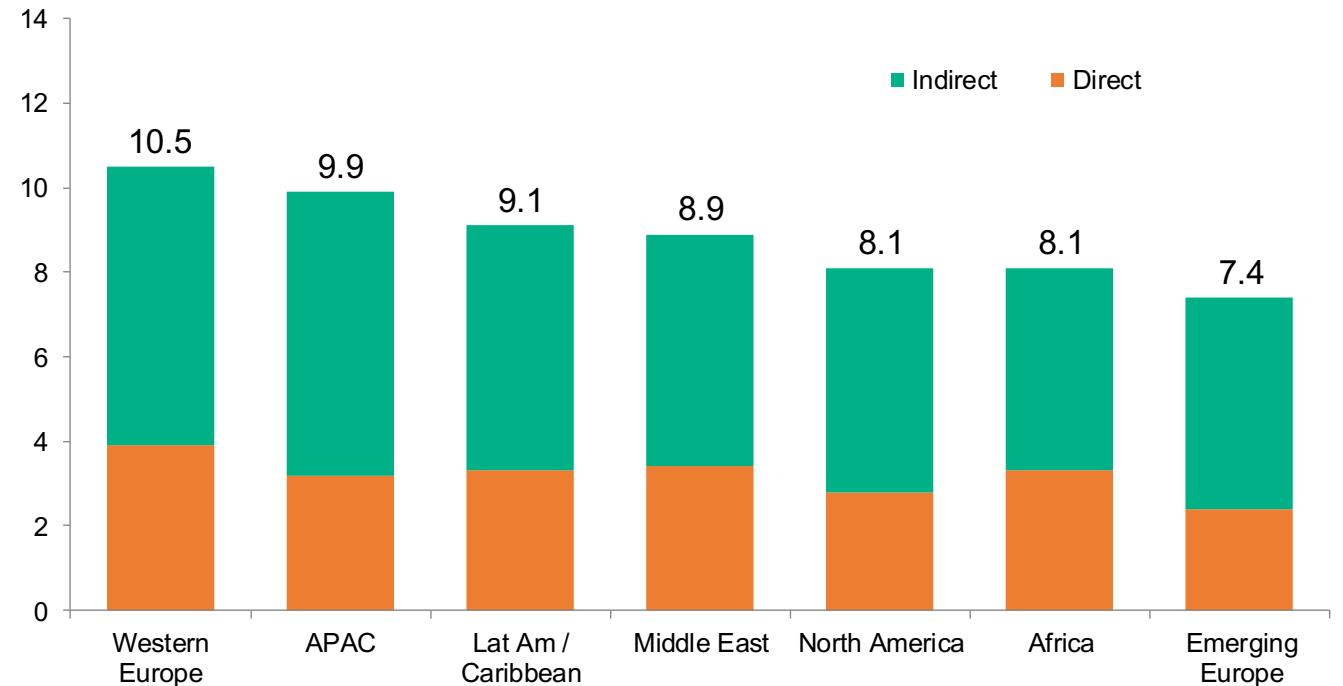
Tourism Economic Impact:
Gross Tourism Product (GTP)

Tourism supports a large proportion of GDP and employment in destinations worldwide. Estimates in the chart include activity directly supported within tourist facing industry as well as the indirect impacts through the supply chain and the induced effects of spending by direct employees.

Western Europe has the highest share of GDP supported by travel & tourism (10.5%).

Direct GDP contribution is often described as Gross Tourism Product (GTP).

Tourism regional shares (%) of GDP

Legend: ■ Indirect ■ Direct

Region	Value
Western Europe	10.5
APAC	9.9
Lat Am / Caribbean	9.1
Middle East	8.9
North America	8.1
Africa	8.1
Emerging Europe	7.4

The share of employment
supported by tourism also varies by country and region, influenced by relative productivity rates
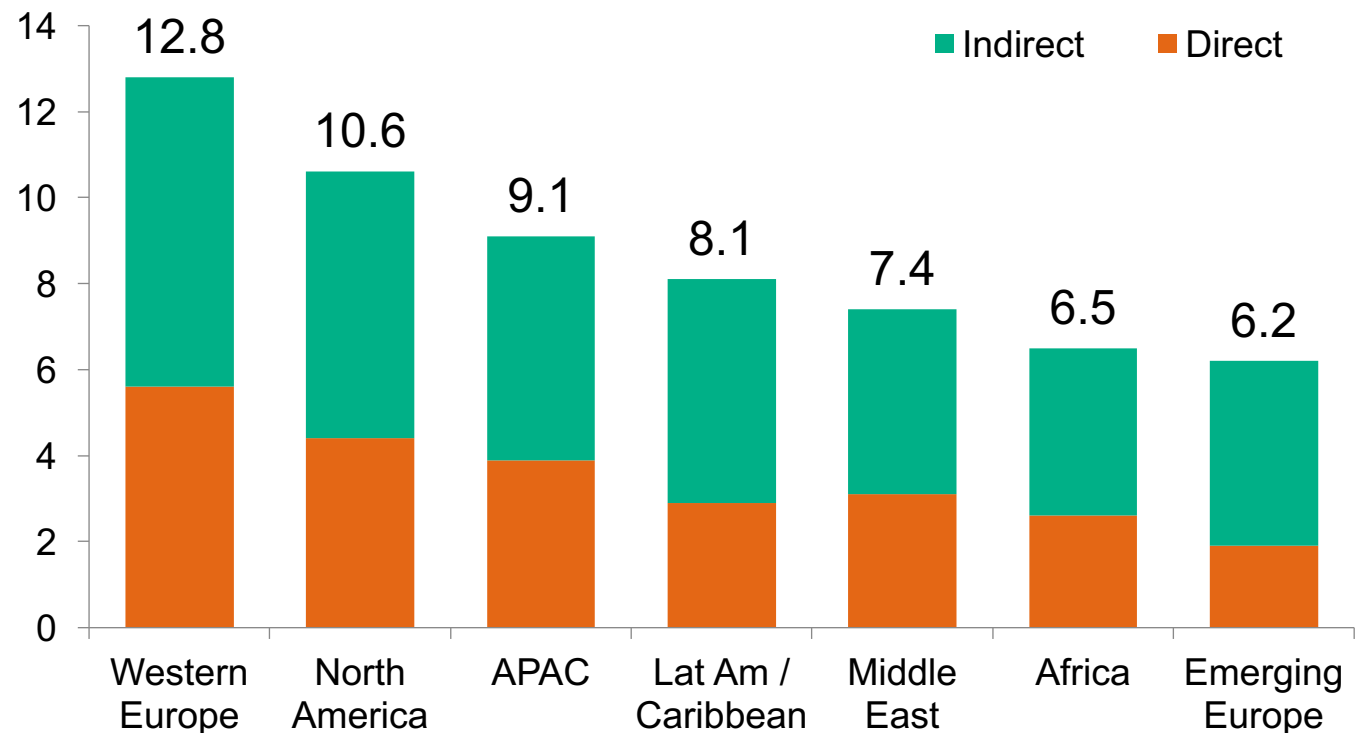
Tourism Economic Impact

Nearly 1 in 10 employees worldwide (9.7%) is supported by tourism activity. This includes employment which is directly supported by the tourism industry as well as indirect and induced employment effects.

The proportions of GDP supported by tourism are different from the proportions of employment supported, thanks to differences in productivity between the global regions.

The highest supported share is in Western Europe (12.8%), followed by North America (10.6%).

The lowest shares of employment supported by tourism are in Emerging Europe (6.2%) and Africa (6.5%).

Tourism regional shares (%) of employment

Legend: Indirect (green), Direct (orange)

Region	Value
Western Europe	12.8
North America	10.6
APAC	9.1
Lat Am / Caribbean	8.1
Middle East	7.4
Africa	6.5
Emerging Europe	6.2

TripAdvisor's Influence

The share of travel influenced by TripAdvisor has grown over time
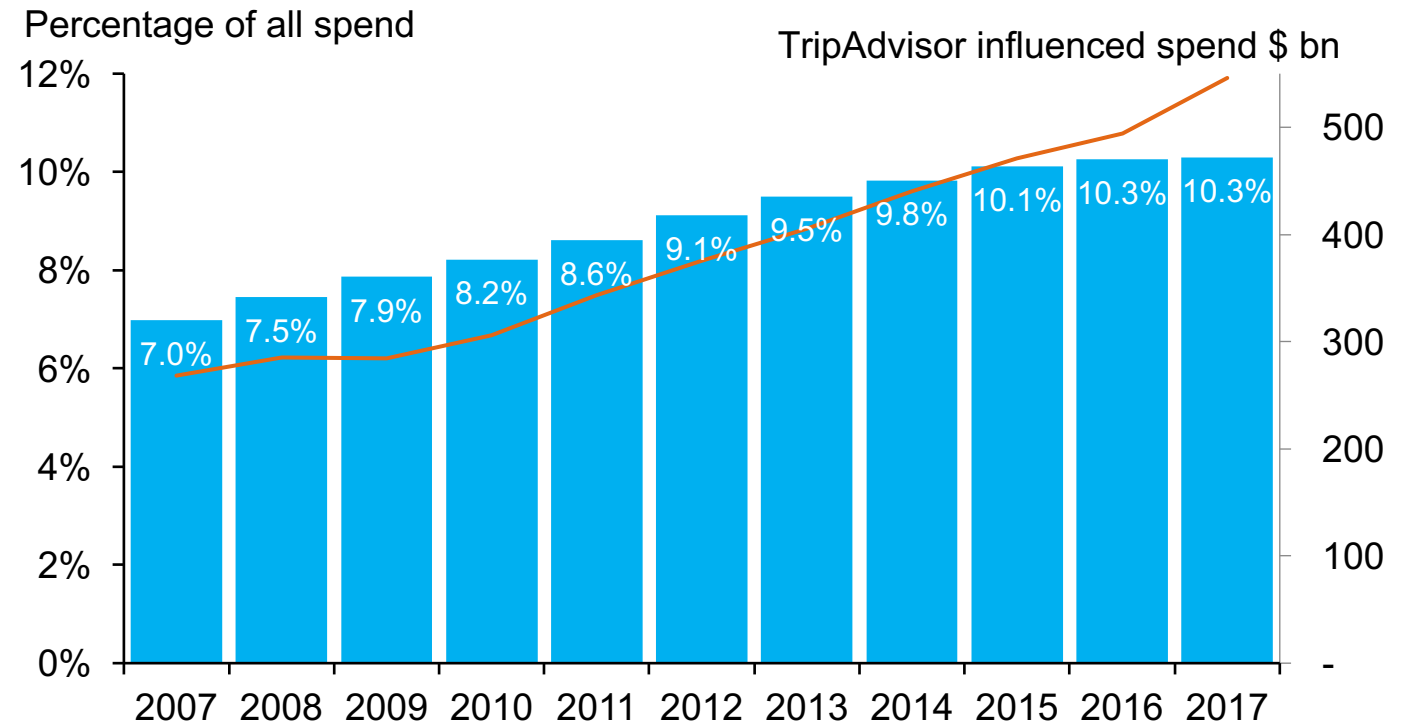
TripAdvisor's Global Influence

The influence of TripAdvisor has risen over time. 10.3% of global spend was estimated to be influenced by TripAdvisor page views, reviews and scores in 2017.

The value of this influence is equivalent to around $546 billion of global tourism spend.

This is a large increase from the 7.0% of tourism spending which was influenced in some way by TripAdvisor in 2007, equivalent to nearly $280 billion in constant real price terms.

Large growth in influence is evident for both domestic and international travel. However, the influence on international travel has been consistently higher.

Total tourism spend influence: Global

Percentage of all spend

TripAdvisor influenced spend $ bn

Year	Percentage
2007	7.0%
2008	7.5%
2009	7.9%
2010	8.2%
2011	8.6%
2012	9.1%
2013	9.5%
2014	9.8%
2015	10.1%
2016	10.3%
2017	10.3%

Influence varies over time and by destination

but the increase in influence in Asia has been small

TripAdvisor's influence by region

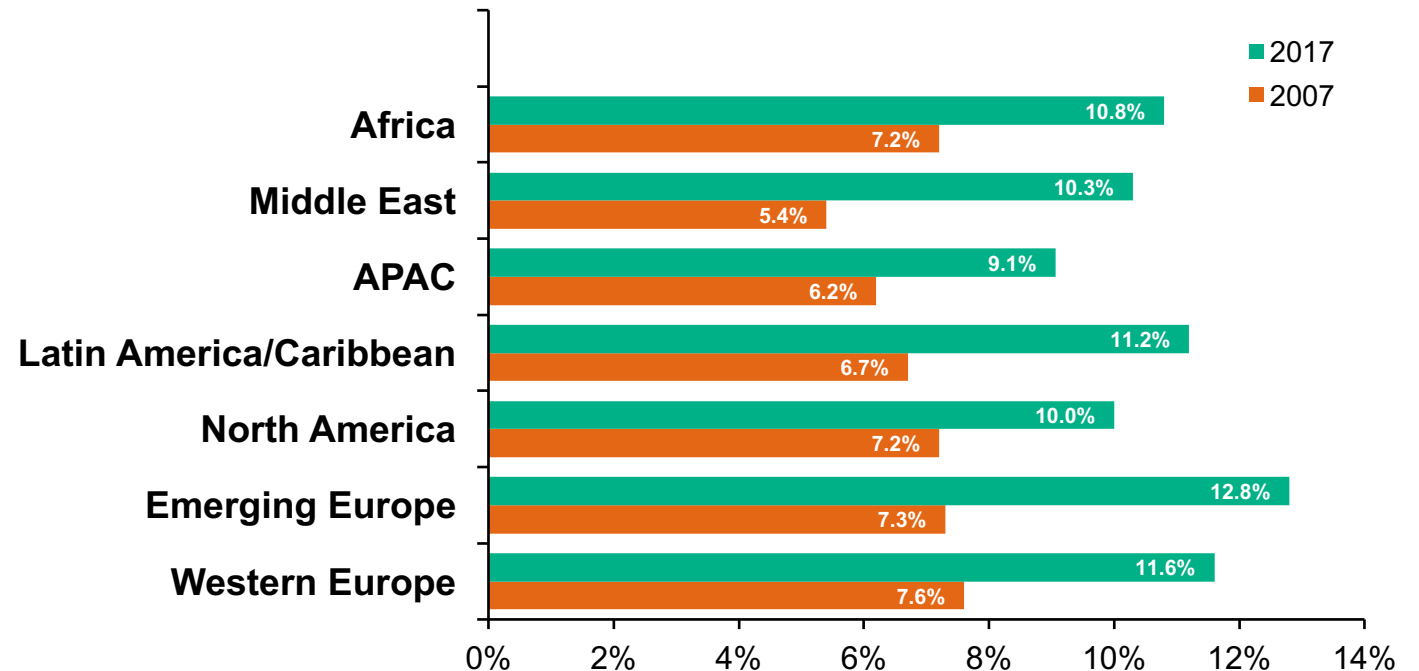TripAdvisor influence has risen across all regions over the past ten years.

There remain some large differences in terms of influence across regions and countries. These are due to different degrees of TripAdvisor market penetration but also due to the varying importance of domestic and international demand.

A high domestic weight explains the relatively low influence of TripAdvisor in North America.

The influence and relative growth in Asia is low due to a relatively low TripAdvisor presence in some markets.

Total TripAdvisor tourism spend influence by region

Percentage of regional spend

Legend:
- 2017
- 2007

Region	2017	2007
Africa	10.8%	7.2%
Middle East	10.3%	5.4%
APAC	9.1%	6.2%
Latin America/Caribbean	11.2%	6.7%
North America	10.0%	7.2%
Emerging Europe	12.8%	7.3%
Western Europe	11.6%	7.6%

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TripAdvisor influenced $546 billion in tourism spend in 2017 worldwide

Within this, $80 billion (15%) would not have occurred without TripAdvisor

TripAdvisor has a huge influence on the global travel market in 2017

The global travel market comprised 5.45 billion trips in 2017 and nearly $5.3 trillion in spending.

Nearly $546 billion of this was influenced by TripAdvisor: $220 billion on inbound travel and $326 billion on domestic travel. $80 billion of this spending would not have occurred without TripAdvisor.

TripAdvisor's impact on nights is higher than for visits due to positive impacts on average length of stay. This includes some impact on travellers who were already planning trips, or who were already within destinations, to spend additional nights than would otherwise be the case.

TripAdvisor influence and additional globally, 2017

		Trips (millions)	Nights (millions)	Spend (US$ billions)
Total travel market	**Total**	**4,453.7**	**18,757.1**	**5,288.5**
	Inbound	1,280.3	5,765.2	1,405.3
	Domestic	3,173.4	12,991.9	3,883.2
TripAdvisor Influence	**Total**	**433.1**	**2,236.2**	**545.7**
	Inbound	179.2	982.4	220.1
	Domestic	253.9	1,253.8	325.6
TripAdvisor Additional	**Total**	**32.2**	**502.7**	**80.3**
	Inbound	11.3	232.2	35.3
	Domestic	21.0	270.5	45.0

Note: spend figures here now include international transportation fares as well as in-destination spend

TripAdvisor-influenced spend

has outpaced growth in overall travel & tourism spend

### TripAdvisor-influenced spend has grown faster than total spend

Over the past ten years, spend which has been influenced by TripAdvisor sites has outpaced growth in overall travel & tourism spend.

TripAdvisor influenced spend has grown at an annual average growth rate of 7.4% over the past ten years (in constant real prices). This compares favourably with average growth of 3.0% for total tourism spending.

Even when total spend fell by 5.3% in the depths of the global recession in 2009, TripAdvisor-influenced spend outperformed the wider trend and remained broadly flat.

However, the growth premium for TripAdvisor influenced spend has narrowed more recently.

TripAdvisor and total spending annual growth

Legend:
— All travel spend
— TripAdvisor influenced spending
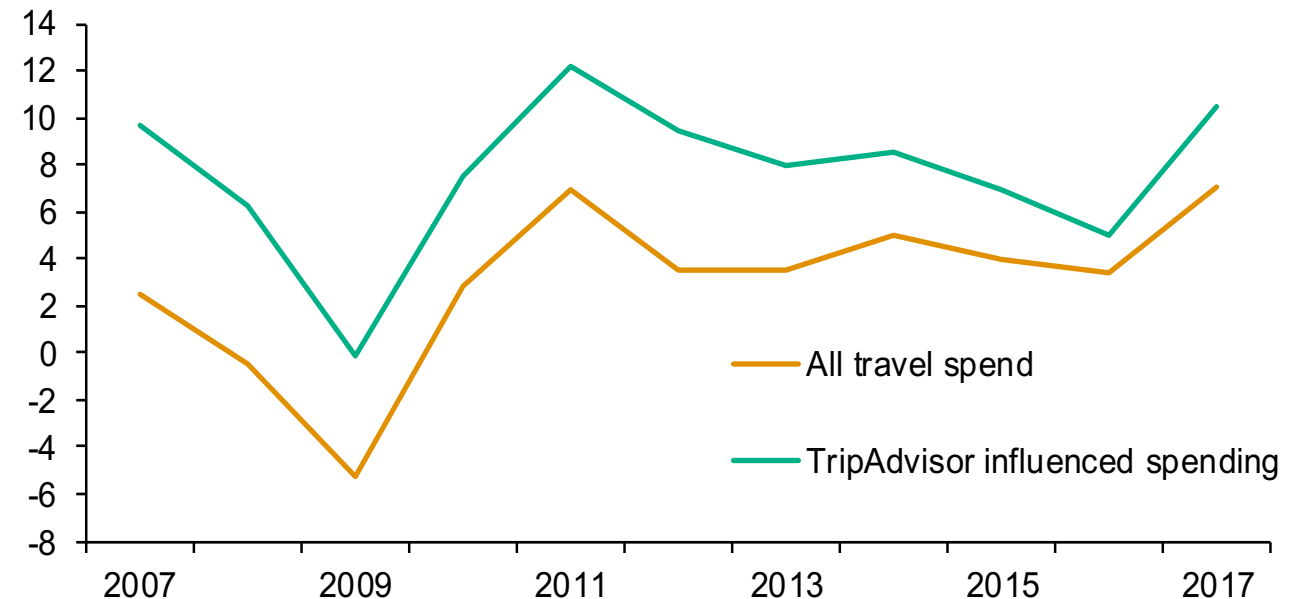
Methodological appendix

TripAdvisor 'influenced' travel

Influenced travel has been defined as any travel in which TripAdvisor played any role. This includes generated impacts as well as any travel which would have otherwise have occurred but used TripAdvisor reviews and scores to inform behaviour.

Oxford Economics calculated the TripAdvisor influenced trips, nights and spending for both domestic and international travel.

Equations of destination arrivals were re-estimated as a function of demand by source market, itself a function of economic activity; exchange rate and price attractiveness; non-price attractiveness; and the number of TripAdvisor reviews. Results were favourably cross-checked against internet use for travel research and TripAdvisor penetration by market.

- Trips were estimated to be influenced by the number of reviews for a destination and the amount of information available.

- Influence is higher for inbound travel than for the more familiar domestic travel.

- Average length of stay and tourist nights were estimated to be influenced by review scores and the true quality of a destination.

- Tourist spending is influenced by both the number of reviews and the review scores.

TripAdvisor 'generated' travel

TripAdvisor has generated incremental trips, nights, and spending which would not have happened without the content and functionality of the site(s).

Outbound travel demand by source market was first estimated as a function of previously identified economic indicators (including GDP, consumer spending unemployment and exchange rates); TripAdvisor bookings by source market; and broader internet use for travel research and booking (defined by ComScore data). The latter is important to isolate just the incremental benefit of TripAdvisor content above the broader trend towards online travel research and booking instead of traditional methods.

Generated trips by destination were estimated according to a mapping of TripAdvisor metaclicks (clicks to booking partners) by origin market and destination. In this way destination impacts were estimated to be consistent with source market impacts controlled for economic demand trends and broader trends in online research.

Tourism nights generated by TripAdvisor content were calculated according to the above incremental travel as well as the average length of stay impact estimated from review scores.

Market share change methodology

Organic and non-organic growth

Growth in destination expenditure is driven by changes in demand from key source markets plus any expected change in market share. The analysis examines the period 2010 to 2017 on a compound average growth rate basis. Weighted average growth from key source markets is defined as **organic growth** in this analysis.

Any growth in spend faster or slower than this is due to a shift in market share and is defined as **non-organic growth** in this analysis. This market share shift is due to a number of factors including exchange rates, connectivity, accessibility, and marketing activity. TripAdvisor influence has some impact.

Exchange rates

Exchange rate movements are known to be a key influence on change in market share. In this analysis the exchange rates are weighted by key tourism source markets and adjusted for relative inflation. Each destination country has an individual elasticity since some destinations are more responsive to exchange rate movements than others.

'Other factors'

Once changes in exchange rates have been accounted for, the remaining difference between the growth rate of source market outbound spending and inbound spending for the destination in question is termed, 'other factors'.

Waterfall graphics

In the example below, the country's source markets' outbound spend has grown at 6% per annum (1). Exchange rates have appreciated accounting for a 1% loss in tourism spend growth on average each year (2) but this has been exactly counteracted by other influences (3). Hence the resultant average growth in spend has been 6% as well (4).

Components of actual spend growth, 2010 - 2017

CAGR %, US$
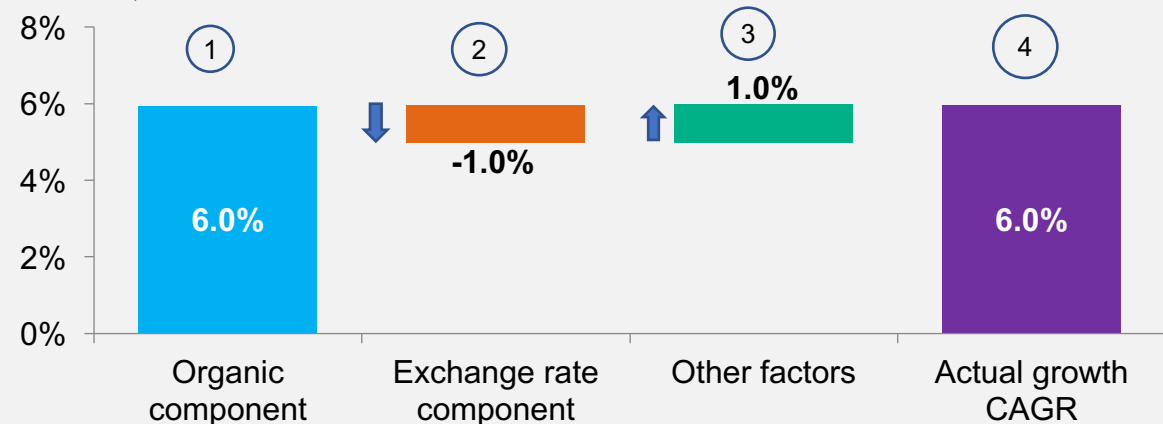
Extensive econometric testing proved that TripAdvisor content is a causal factor in travel activity, in addition to being positively correlated

Causality tests

First unit root and cointegration tests were run to confirm that TripAdvisor metrics follow the same deterministic trend and that any estimation results are valid.

Crucially, Granger Causality Tests were run to identify the power of lagged values in TripAdvisor activity to predict current values in travel. These tests showed that causality runs in both directions:

- Increased travel is associated with an increase in TripAdvisor use related to a destination as more people research that place

- TripAdvisor use has a slightly lagged causal impact on travel as clearer information generates incremental travel and changes behaviour. This causal relationship is more evident for visitor nights and spending than for visits

Tests indicated the strongest relationship existed between the number of reviews and travel volumes.

Review scores are seen to be a causal factor in the average length stay and tourist nights in destinations.

About Oxford Economics

Oxford Economics was founded in 1981 as a commercial venture with Oxford University's business college to provide economic forecasting and modelling to UK companies and financial institutions expanding abroad. Since then, we have become one of the world's foremost independent global advisory firms, providing reports, forecasts and analytical tools on 200 countries, 100 industrial sectors and over 3,000 cities. Our best-of-class global economic and industry models and analytical tools give us an unparalleled ability to forecast external market trends and assess their economic, social and business impact.

Headquartered in Oxford, England, with regional centres in London, New York, and Singapore, Oxford Economics has offices across the globe in Belfast, Chicago, Dubai, Miami, Milan, Paris, Philadelphia, San Francisco, and Washington DC. We employ over 250 full-time staff, including 150 professional economists, industry experts and business editors—one of the largest teams of macroeconomists and thought leadership specialists. Our global team is highly skilled in a full range of research techniques and thought leadership capabilities, from econometric modelling, scenario framing, and economic impact analysis to market surveys, case studies, expert panels, and web analytics. Underpinning our in-house expertise is a contributor network of over 500 economists, analysts and journalists around the world.

Tourism Economics

Tourism Economics is a division of Oxford Economics company with a singular objective: combine an understanding of tourism dynamics with rigorous economics in order to answer the most important questions facing destinations, developers, and strategic planners. By combining quantitative methods with industry knowledge, Tourism Economics designs custom market strategies, destination recovery plans, tourism forecasting models, tourism policy analysis, and economic impact studies.