

# The economic impact of OTAs in Italy: summary report

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Impacts on trips, night, spend and  
employment

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## Table of contents

Section 1: Executive Summary	3
Section 2: OTA Impact on Nights & Occupancy	8
Section 3: OTA Impact on ADR	13
Section 4: Economic Impact of OTAs	22

# Executive Summary: additional OTA impact

In 2015 OTAs in Italy generated:

- Nearly 13 million additional nights, equivalent to 3.2% of all tourism nights;
- A benefit to consumers with hotel rates being lowered by 9.4% compared to a counterfactual situation without OTAs.

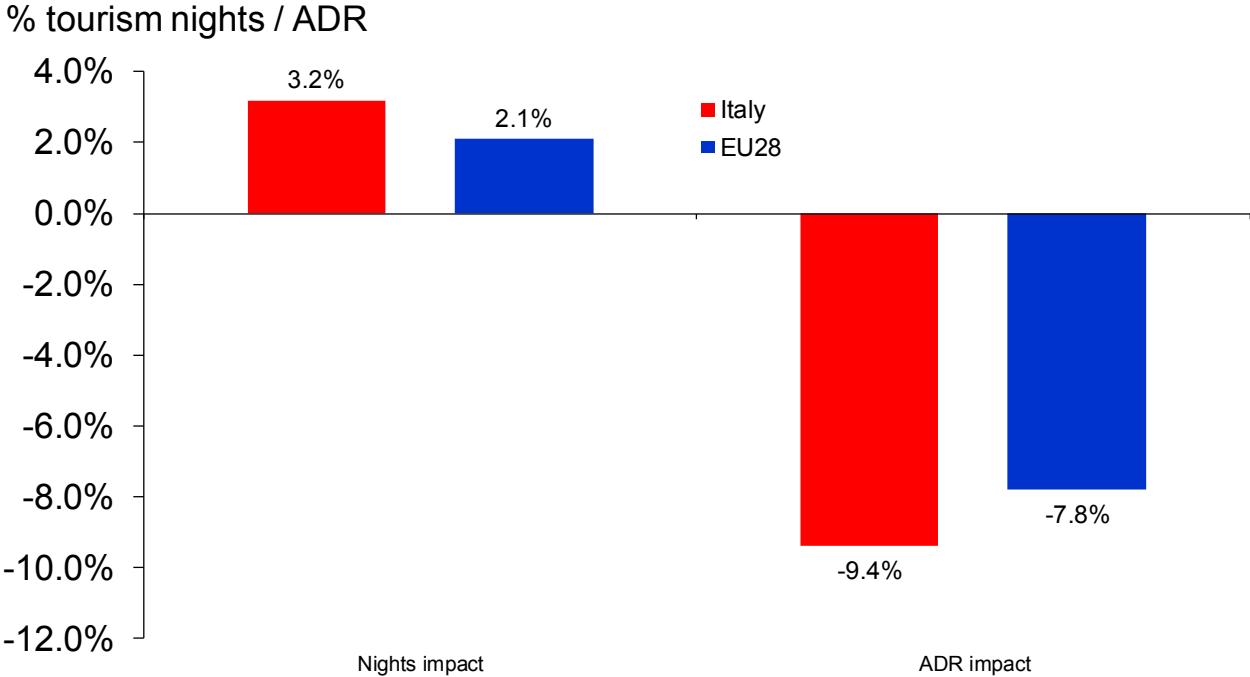
The additional impact of OTAs was 12.9 million nights in Italy. 'Additional impact' implies benefits which would not have occurred without OTAs.

Consumers have benefitted from lower hotel room rates due to the increased competition provided by search and comparison functions of OTAs.

Travellers have been able to take more trips and overnights at a lower average cost thanks to this downward influence on Italian room prices.

Both the proportionate increase in nights and the decrease in ADR are greater than across the EU28 as a whole.

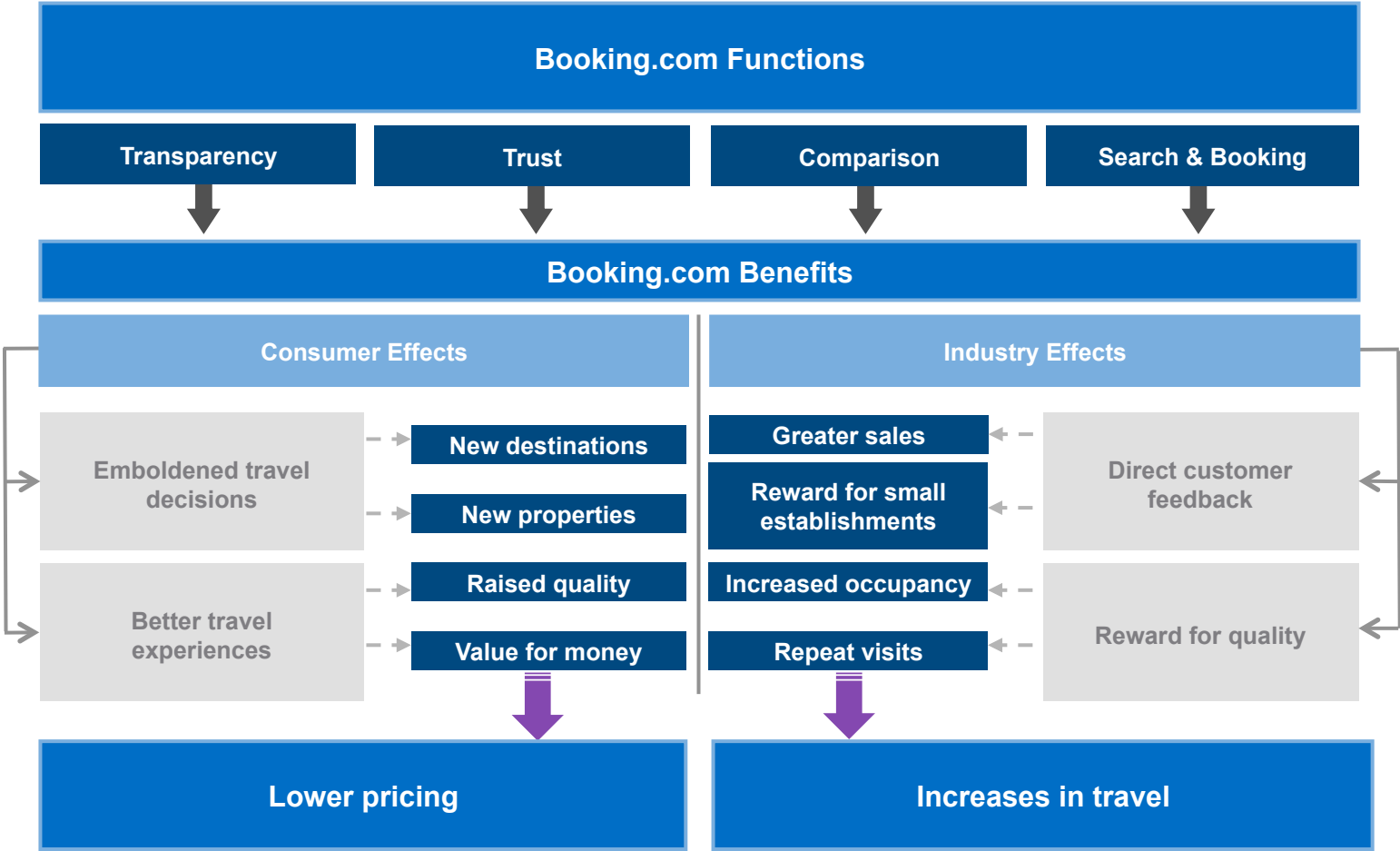
## Percentage impacts: Italy compared to EU28



Source: Oxford Economics

# Booking.com generates benefits for the consumer

Booking.com's integrated search and booking functions generate increased demand and improved services.



## Executive Summary: OTA influence

OTAs influenced around 30-40% of trips and about 25-30% of nights in Italy. 'Influence' refers to any travel in which OTAs were used to research or book rooms. Booking.com influenced around 15% of all overnights in Italy (50% of the total OTA influence).

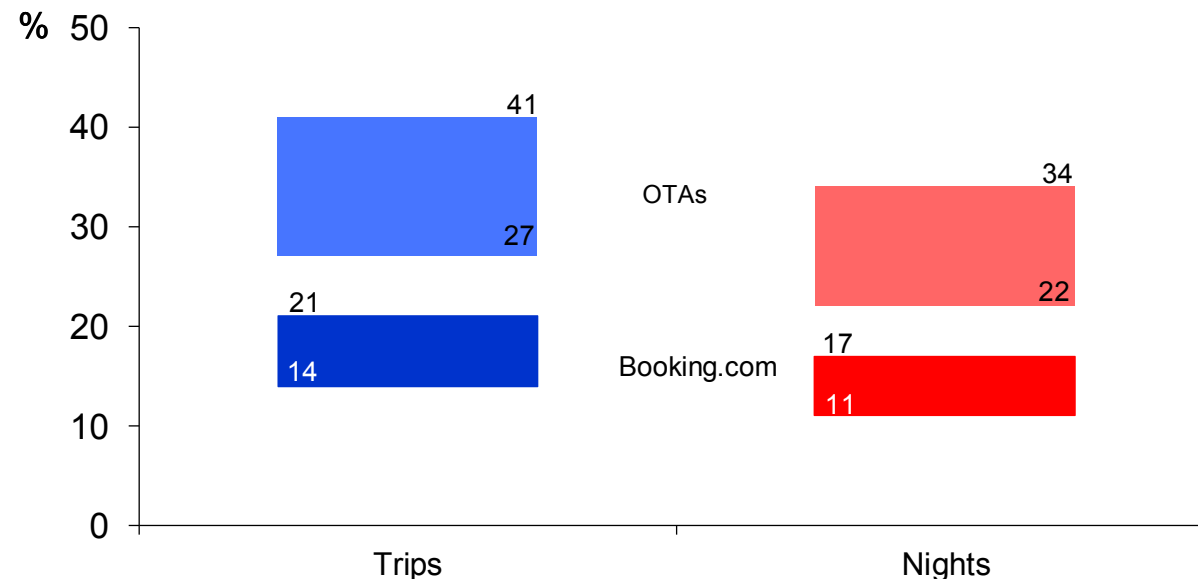
Europeans are increasingly organising travel online with a large share of that through OTAs.

A combination of methods has been employed to understand the influence of OTAs on travel behaviour:

- First we looked at the online population, the proportion organising travel online and the OTA share of this: the *top-down* approach.
- Next we considered the number of transactions through Booking.com and the share of total OTA activity this represents: the *bottom-up* approach.

For Italy, the two methodologies produce a rather wide range of results but, typically, higher than for many other countries.

### Range of OTA and Booking.com influence on Italy trips & nights, 2015



Source: Oxford Economics, Booking.com, ComScore, Eurostat, Eurobarometer, STR  
Blue relates to trips and red to nights.

# Executive Summary: OTA impact on ADR

A higher proportion of room sales through OTAs is linked with lower ADR. Estimation confirms the causal relationship, controlling for other relevant factors.

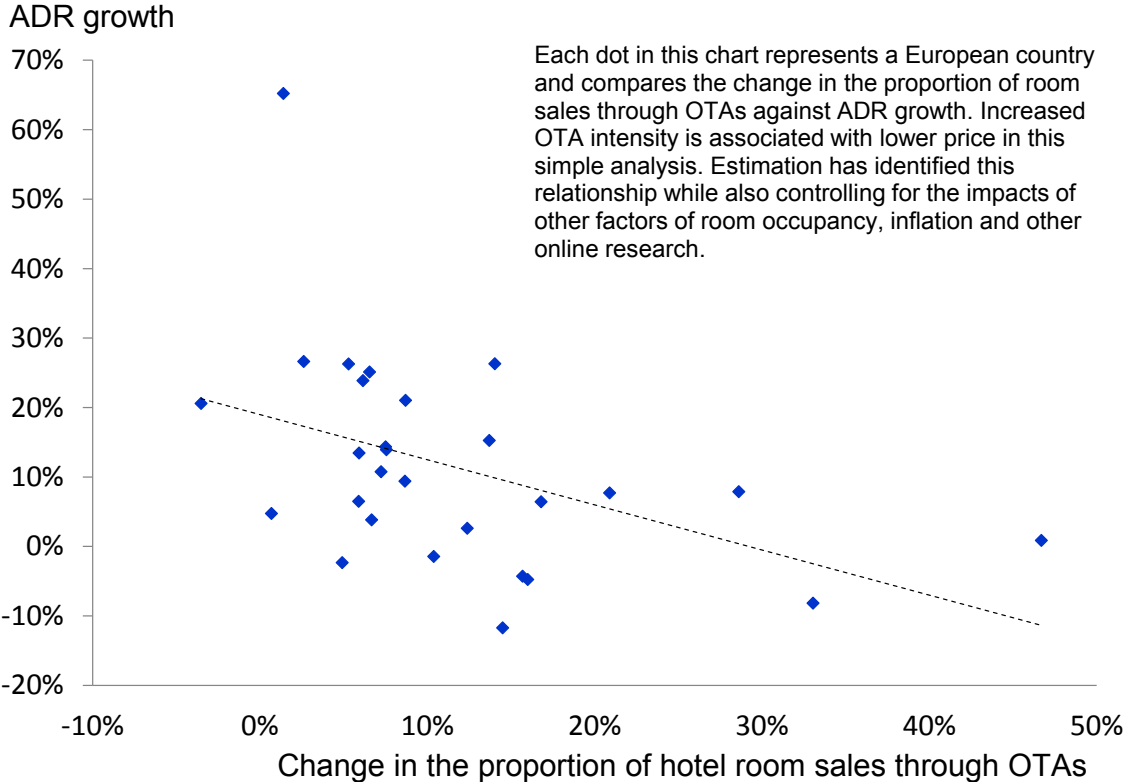
Average Daily Rate (ADR) for hotels is typically modelled as a function of two main drivers:

- Occupancy rate – higher demand allows hoteliers to exercise pricing power
- Prices in the wider economy (CPI) – increased costs result in higher prices for consumers

Including the proportion of OTA sales, along with an indicator of broader online research and booking, in estimation improves the equation fit. Relationships are statistically valid and further testing proves causality rather than just correlation.

Separate relationships have been identified for OTA sales and non-OTA sales and also for chain and non-chain hotels (further details are included in the later section).

## OTA Intensity and ADR, 2012-15



Source: STR, Oxford Economics, Booking.com

## Executive Summary: ADR impact

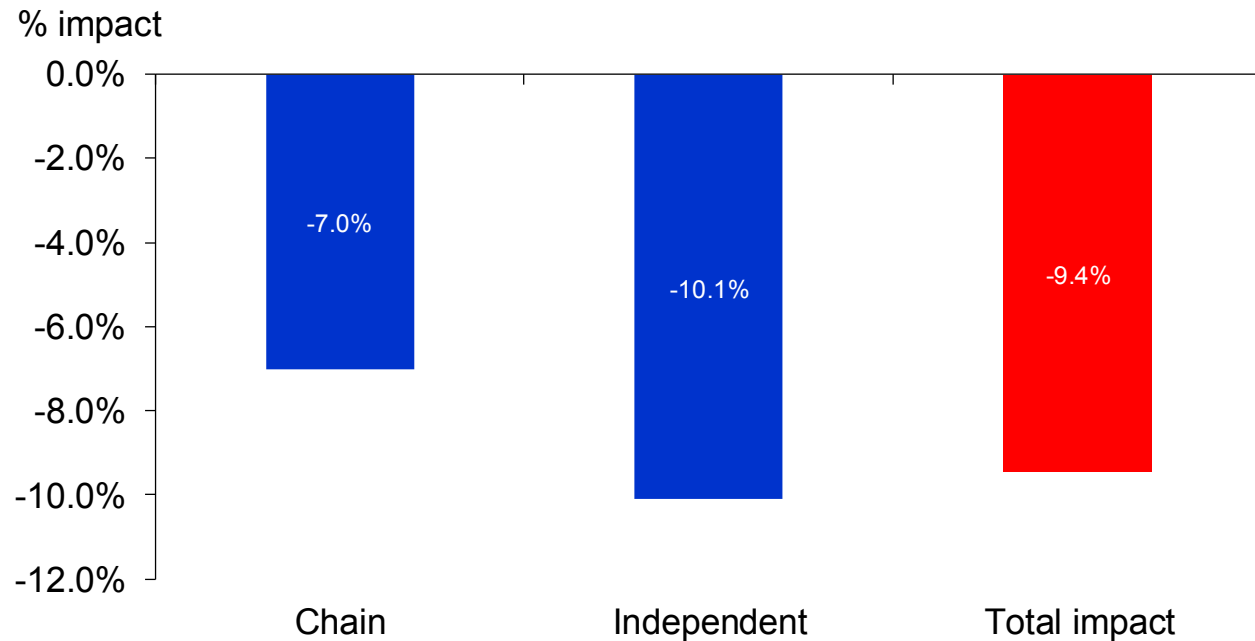
OTAs' search, comparison and booking functions have increased competition and have lowered room rates in Italy by 9.4% relative to a counterfactual case of no OTA activity. Rates for sales through OTAs themselves are more than 15% lower.

Hotel room rates are, on average, 9.5% lower than would otherwise be the case in Italy due to the presence of OTAs.

ADR by type of property and point of sale has been estimated as a function of the OTA share of sales, while controlling for other key drivers of rate. Actual rates are compared to a counterfactual case of no OTA activity. Lower rates are estimated for rooms sold through OTAs but also for non-OTA sales (online or offline) due to increased competition and with more information available to consumers.

Consumers benefit from these lower costs for travel as well as from lower search costs and the ability to find better quality rooms for the same price.

### ADR impact by chain and independent hotels, Italy



Source: Oxford Economics

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## OTA Impact on Nights & Occupancy



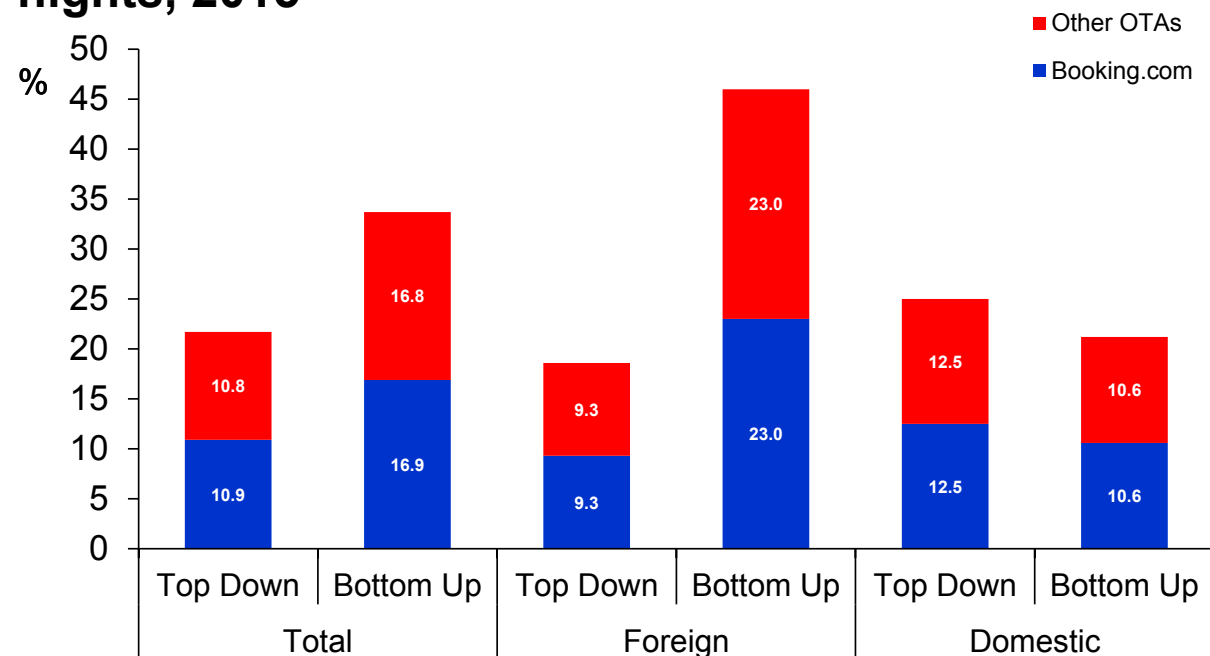
## OTA influence on Italian nights

OTAs have a very large influence on the Italian travel market with a large proportion of both foreign and domestic overnights organised online.

OTA influence has been estimated using two methodologies which present different results. Both methods quantify the proportion of trips and nights organised through OTAs in some way.

- Top-down methodology starts with the population size by country and narrows this down to understand the online population; those organising travel online; and those using OTAs. Calculation is mapped from origins to destinations using typical travel flows.
- Bottom-up approach starts with Booking.com data which is then grossed up to an OTA total using ComScore data on visits to different travel sites.

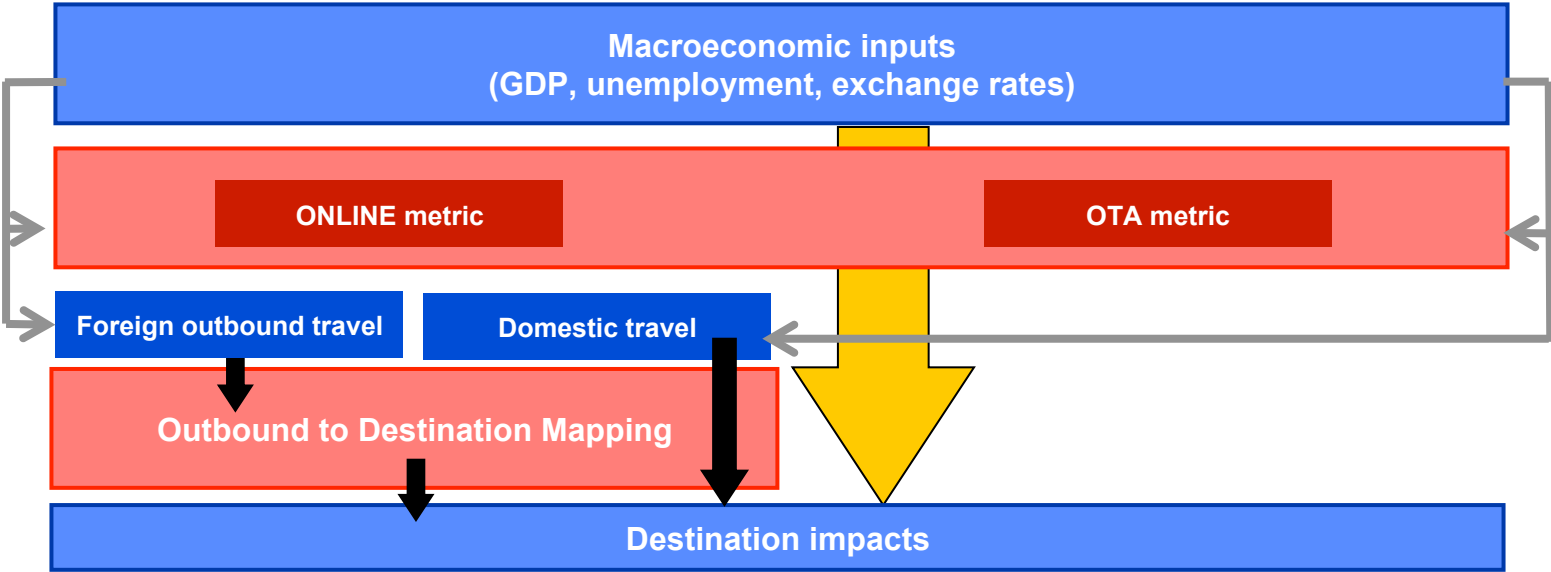
### Range of OTA and Booking.com influence on Italy nights, 2015



Source: Oxford Economics, Booking.com, ComScore, Eurostat, Eurobarometer, STR

**Introducing online and OTA metrics to Oxford Economics global tourism model**

Including the proportion of tourism transactions on OTAs confirms that they have a significant influence on travel and improves existing model results.



Without the inclusion of any OTA data, existing equations of tourism demand by source market are based solely upon GDP, unemployment and exchange rates. Equations match observed data well including time trend and country specific fixed effects.

Including the online population has some impact on the already high explanatory power of the overall panel. But this is statistically significant. Further tests also confirm a causal relationship rather than just correlation.

Including the proportion of tourism transactions on OTAs instead of the broader indicator of online access confirms that OTAs do indeed have a significant influence on travel. To isolate the additional impact of OTAs on demand the proportion of transactions relative to online travel searches is included as an explanatory variable well as online access.

Foreign outbound travel was mapped to destinations using Booking.com transactions data and a pre-existing matrix for the wider market.

## Additional impact of OTAs on overnights in Italy

Nearly 13 million nights spent in Italy in 2015 would not have happened without OTA activity.

Both measures of OTA influence are identified as causal factors in European and Italian tourism performance.

A significant proportion of overnights spent in paid accommodation would not happen without OTA activity, even when controlling for all other identified drivers of demand.

Different impacts have been identified for foreign and total demand. By running a counterfactual scenario of no OTA influence, the additional impact can be identified.

### Coefficients for OTA share of online travel

	Foreign	Total
'Average'	0.048	0.027
Bottom-up	0.045	0.025
Top-down	0.039	0.019

*Coefficients shown in the table are the elasticity of room demand relative to the different measures of OTA share of online activity. Across the EU as a whole this implies that, on average a 1% increase in OTA sales would lead to a 0.03% increase in room demand and a 0.05% increase in foreign room demand in the following year; most robust effects have been identified with a one period lag. Domestic impacts are identified as the difference between total and foreign demand and are generally small impacts. All coefficients are statistically different from 0 at the standard level.*

## Additional OTA impact: foreign & domestic

There is a higher OTA impact on foreign visitor nights, consistent with the skew in bookings towards foreign travel. 12.9 million additional nights were generated in Italy split:

- 11.5 million additional foreign nights
- 1.4 million additional domestic nights

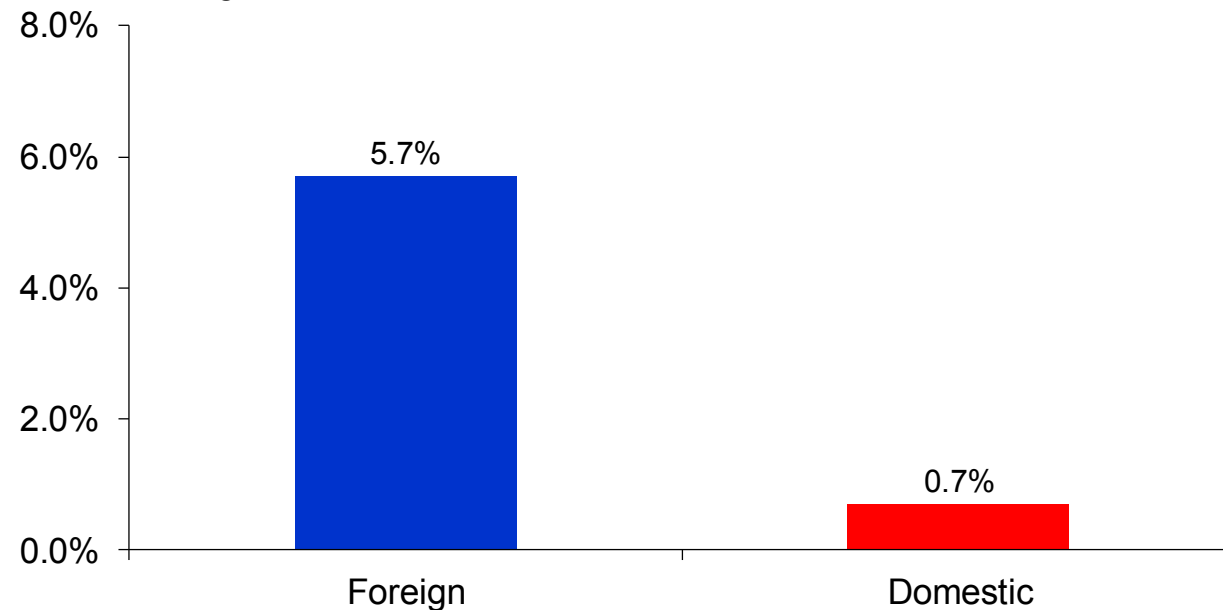
A much higher OTA impact is seen on foreign visitor nights (5.7%) than on the domestic market (0.7%). In actual terms 11.5 million of the 12.9 million additional nights were generated by foreign visitors.

This is consistent with a greater share of Booking.com's booking being related to foreign travel. The impact on foreign demand is higher as OTA platforms provide confidence in unfamiliar destinations and can facilitate reservations where language barriers may otherwise exist.

Italian outbound travellers also benefit from OTAs in a similar way, benefitting from the easier search and comparison functions to find lower cost, quality rooms in other EU countries.

### Total impact of OTA activity on Italy: foreign and domestic

% tourism nights, 2015



Source: Oxford Economics

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## OTA Impact on ADR & spending

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## ADR Estimation Methodology Overview

This section tests the hypothesis that the additional competition provided by OTA platforms, in terms of transparent search, comparison and booking, has a downward effect on ADR. To assess this, ADR equations were estimated for all EU countries as a function of key hotel industry drivers, consistent with previous modelling by Oxford Economics, as a starting point for this analysis. Key drivers are:

- Inflation according to the CPI index (converted to euro terms). ADR typically follows prices in the wider economy reflecting increased costs as well as consumer purchasing power.
- Hotel room occupancy, whose cycle ADR typically follows with a six-month lag period.

Estimated equations using the above indicators, plus country-specific explanatory variables and a time trend, closely match actual ADR.

Estimation relies on STR data of hotel occupancy and ADR for the entire hotel market in each European country; data are collected from a representative sample of properties and grossed up to the total census of hotel rooms. Equations have been estimated over a panel data set covering all 28 EU countries over the years 2001-2015.

Further indicators have been added into estimation to understand the impact of OTA activity on pricing. Additional indicators of online activity improve equation fit and help explain movements in ADR:

- OTA share of room sales. Higher OTA activity is related to lower ADR.
- Relative importance of online travel research for that country as a destination. Some of the benefits of increased competition provided by OTAs are also provided by other online platforms

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ADR was estimated for all EU countries over time as a function of OTA activity as well as all other key identified drivers. OTA impact as been isolated.

Estimated equations have been used to determine a counterfactual world in which OTAs did not exist. Observed data have been compared with the counterfactual case to quantify and isolate the impact that OTA activity has had on room rates over time.

Note that in this analysis, other drivers of ADR such as occupancy, are held constant in order to isolate the OTA impact on ADR. Occupancy would arguably be lower under a counterfactual of non OTA activity given the estimated impact on room demand. But room supply may also have risen in response and constant occupancy is a conservative assumption. Other online travel research activity is also held constant in order to isolate the OTA impact.

Estimation, and this counterfactual analysis, has been conducted for total room sales in each EU country. The impact on room rates for sales through OTAs have also been separately quantified as well as non-OTA sales (which includes some other types of online booking – for example, through hotels' own websites). Calculation also separately addresses the impacts on chain and non-chain hotels.

Note: the results from calculation are not a measure of how much lower ADR is one sector relative to the other, but a measure of how much lower ADR is relative to a world excluding OTAs.

Further testing has also been carried out to confirm causality rather than just correlation: OTA activity does indeed generate lower room rates.

## OTA impact on ADR

A higher proportion of room sales through OTAs is linked with lower ADR. Estimation confirms the causal relationship, controlling for other relevant factors.

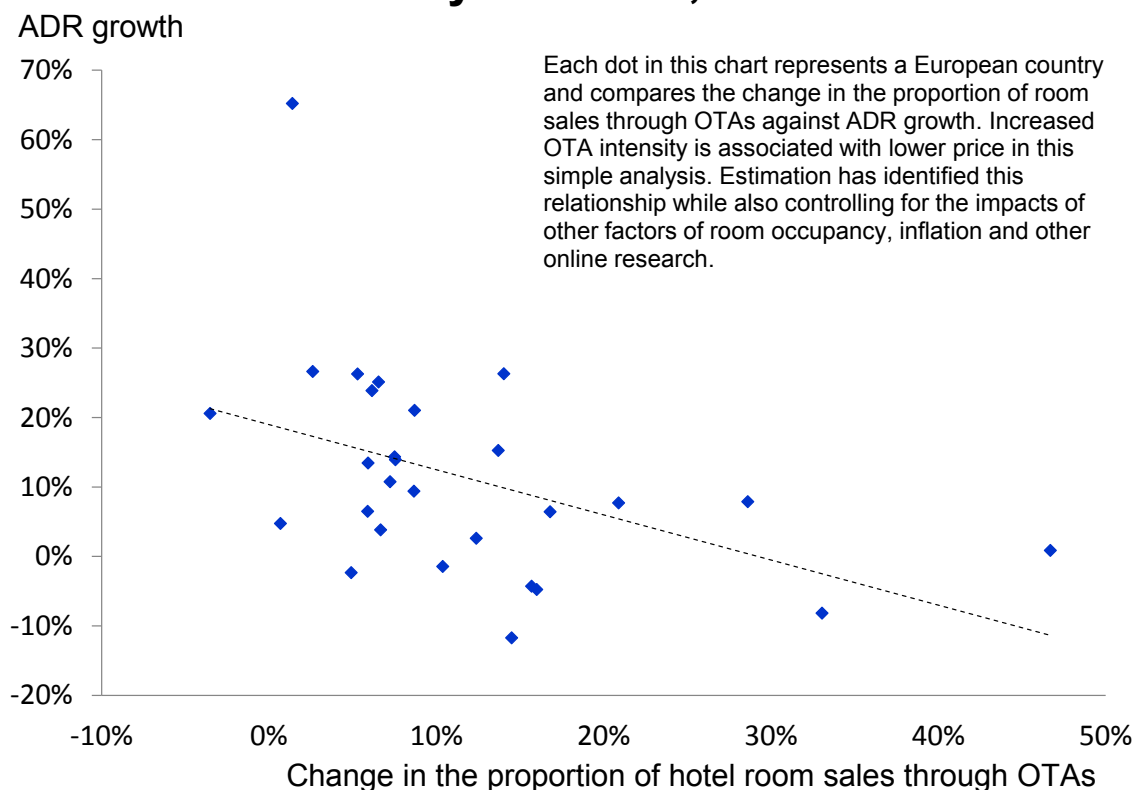
Average Daily Rate (ADR) for hotels is typically modelled as a function of two main drivers:

- Occupancy rate – higher demand allows hoteliers to exercise pricing power
- Prices in the wider economy (CPI) – increased costs result in higher prices for consumers

Including the proportion of OTA sales as an additional driver in estimation improves the equation fit. Online travel research intensity is also included to separately identify the impact of just OTAs.

The chart illustrates correlation between OTA intensity and ADR, but further estimation and testing proves that the relationship is statistically valid and causality as been confirmed.

### OTA Intensity and ADR, 2012-15



Source: STR, Oxford Economics, Booking.com

## ADR impact by type of room sale

Room rates are lower than a counterfactual case of no OTA activity, evident for sales through OTAs as well as for non-OTA sales. In Italy, the overall impact is a 9.5% reduction in ADR.

The impact of OTA activity on ADR for different types of room sales has been estimated. Results shown in the table are relative to a counterfactual case of no OTA activity according to estimated relationships.

Estimation also controls for other factors such as room occupancy; other costs and prices in the economy; and broader online activity.

Sales through OTAs are at a much lower price point than would otherwise be the case, especially for non-chain properties. Non-OTA sales (whether online or offline) are also at a lower cost than would otherwise be the case due to increased competition. However, the cost reduction is lower than for the OTA sales.

### Italian ADR impact by type of property:

*Reduction in rates relative to counterfactual of non OTA activity*

	Chain	Non-chain	Total
OTA sales	10.4%	15.6%	<b>15.2%</b>
Non-OTA sales	6.2%	5.7%	<b>5.8%</b>
Total	<b>7.0%</b>	<b>10.1%</b>	<b>9.4%</b>



## ADR impact

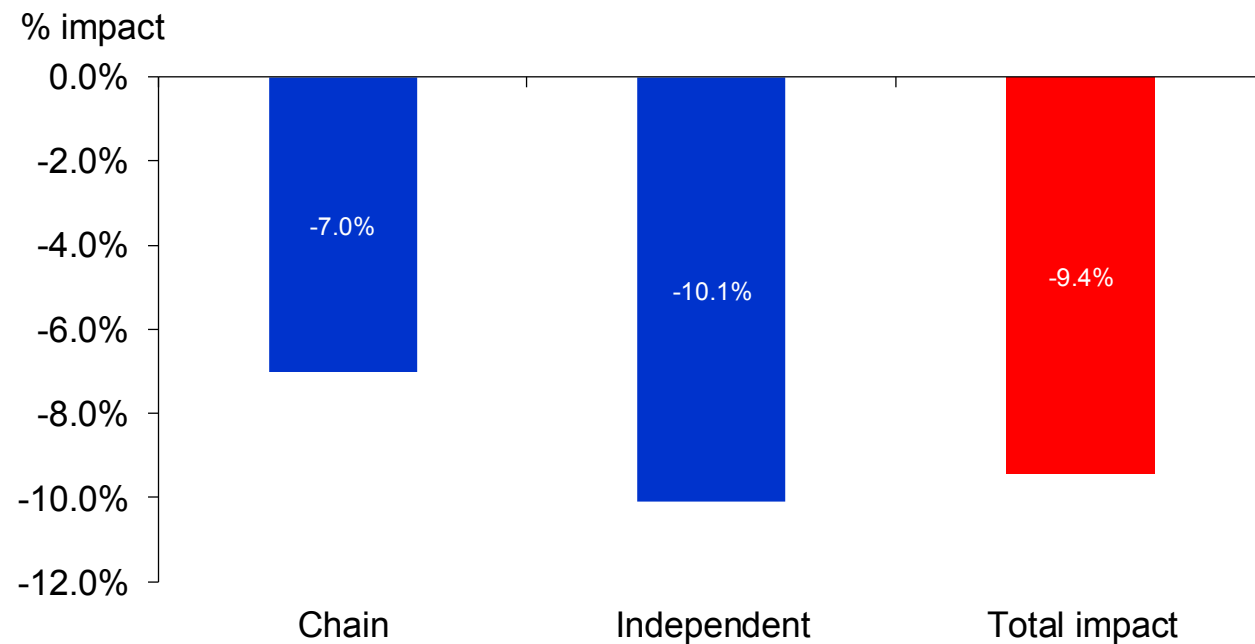
In Italy both chain and independent ADR are impacted upon by the presence of OTAs.

In Italy the ADR impact on independent hotels is larger than for chain hotels, although both represent significant reductions.

Price is an important factor but 'competition takes place over a range of factors, including quality, that appeal to consumers.'<sup>1</sup>

Consumers benefit from both the lower costs for travel and raised quality. Consumers also benefit from the lower search costs provided by OTAs with the easier search functions. Similar benefits are evident for travellers to Italy as well as Italian travellers to all destinations.

### ADR impact by chain and independent hotels, Italy



Source: Oxford Economics

## ADR impact over time

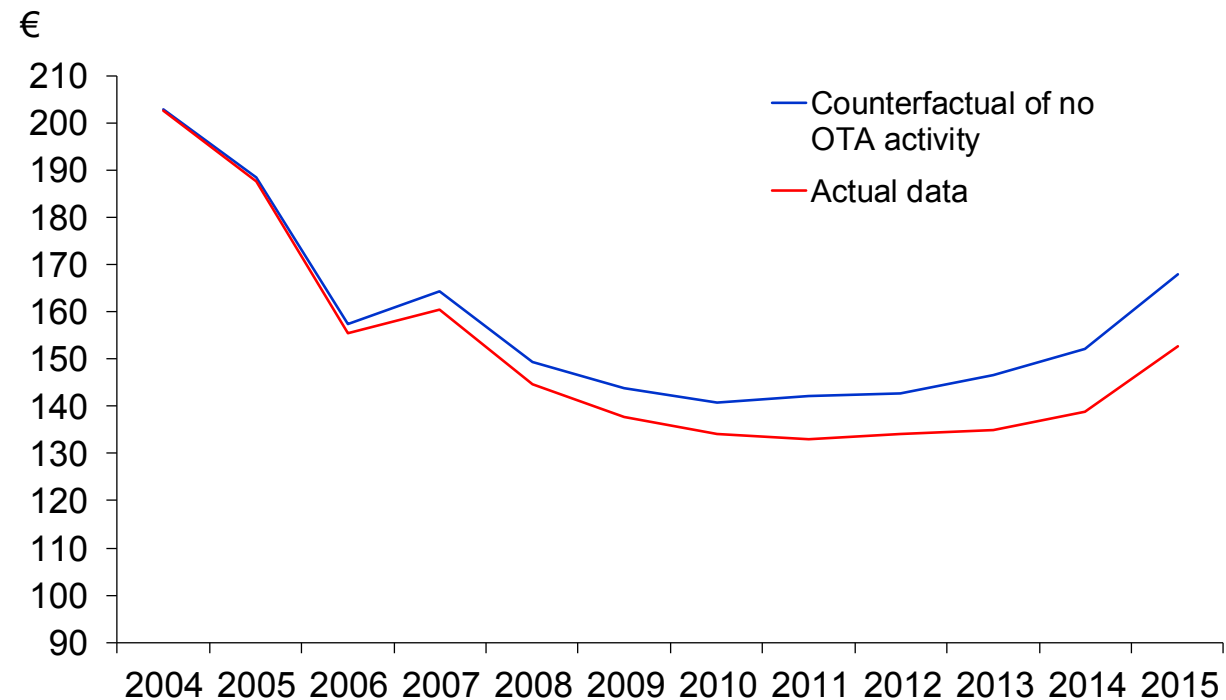
The impact of OTAs on ADR in Italy has grown over time

The ADR impact on hotel average daily rates has grown over time.

A notable impact is evident for all years following 2006 as the number of bookings through OTAs increased significantly. Some small impacts have been quantified for earlier years. Larger impacts are evident after 2009.

In 2015, it is estimated that ADR was more than €15 (9.5%) lower than would otherwise be the case in the absence of OTAs.

### Italy: ADR over time & OTA impact



Source: Oxford Economics, STR

## ADR influence: OTA sales and wider market

Reported ADR for room sales through OTAs is lower than the overall market average, which is consistent with the estimated OTA impact but there are other reasons for the difference.

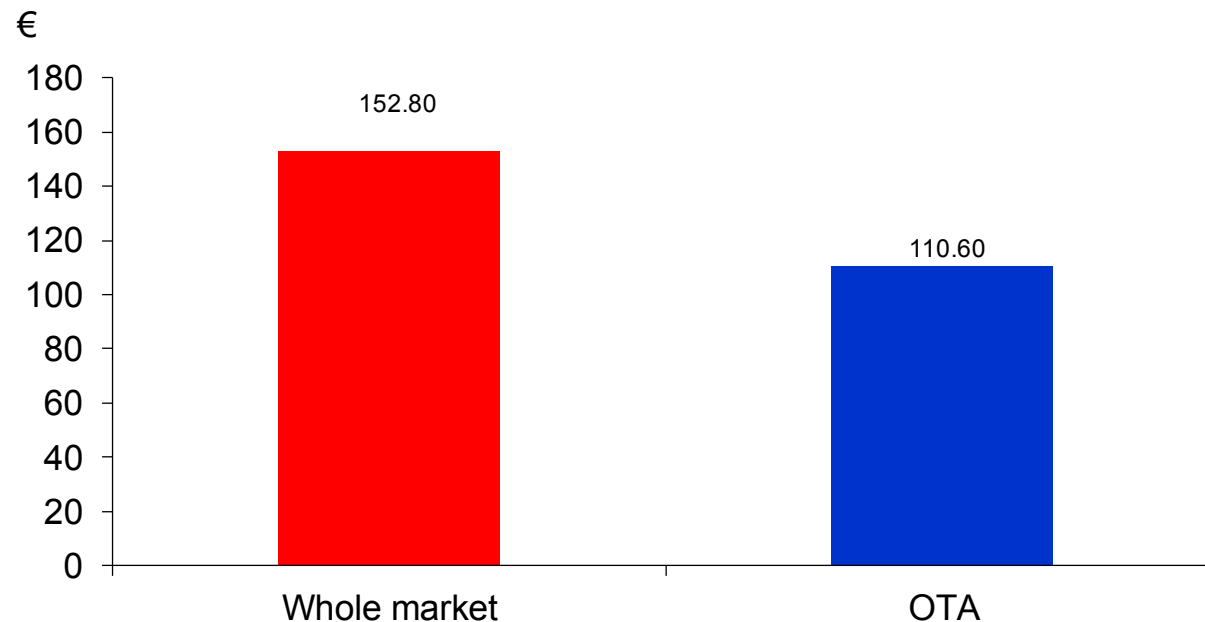
Lower ADR is evident for OTA sales relative to the market average. This difference is not the same as the estimated OTA impact on rate and other factors can explain some of this difference.

A variety of factors account for the difference between ADR for OTA sales and for the wider market. Domestic/international mix; chain/independent share; and class mix account for a large proportion of this, but other factors exist which are hard to identify, including:

- Booking window
- Exact location of properties
- Day of week
- Seasonality
- Cancellation terms
- Room characteristics
- Group / corporate bookings (mainly evident for chains)

| Oxford Economics

### ADR - OTAs and wider market in Italy



Source: Oxford Economics, STR, Booking.com, MKG

## Different market mix means ADR on OTAs will differ from market average

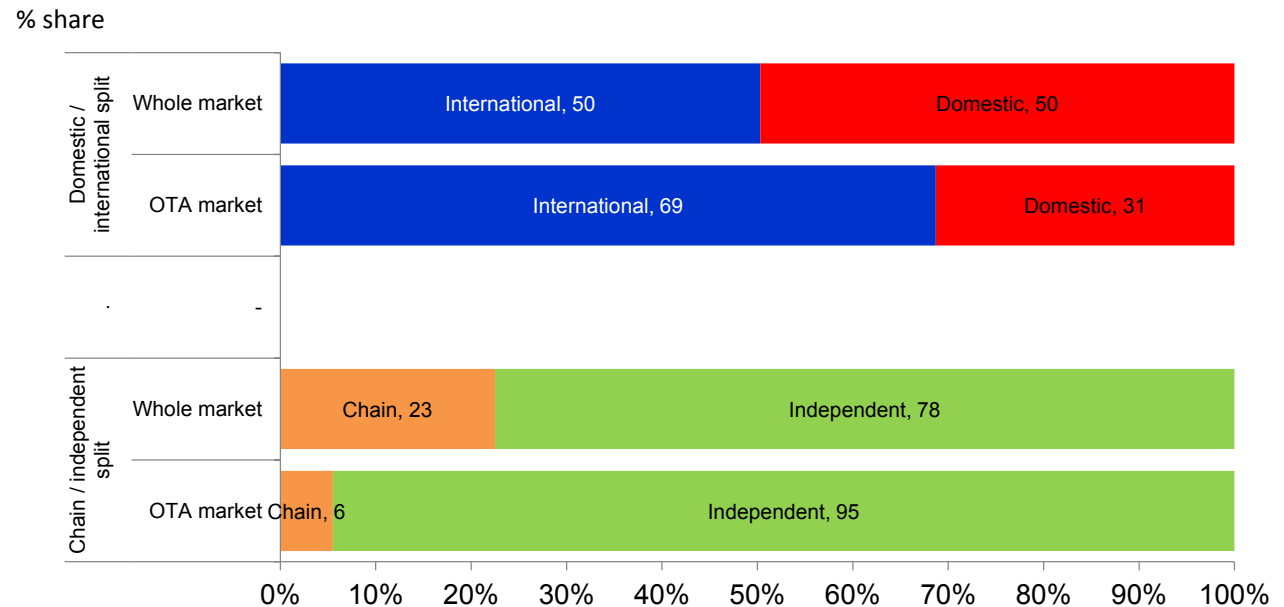
ADR for OTA sales differs from the typical market average, partly explained by different types of room sales. In particular, OTA bookings in Italy are clearly skewed towards non-chain properties.

There is an evident difference for OTA sales relative to the market as a whole. Part of this difference is due to different types of sales including a different balance of chain vs independent properties, purpose of visit, type of visit, booking window etc.

The graphic shows that Booking.com's market is more international whilst the Italian market as a whole is very evenly split.

Similar to the trend across the EU as a whole, Booking.com sales are skewed more towards independent properties.

## Characteristics of OTA market in Italy compared to wider market



Source: Booking.com, STR, Oxford Economics

## Average spending impact

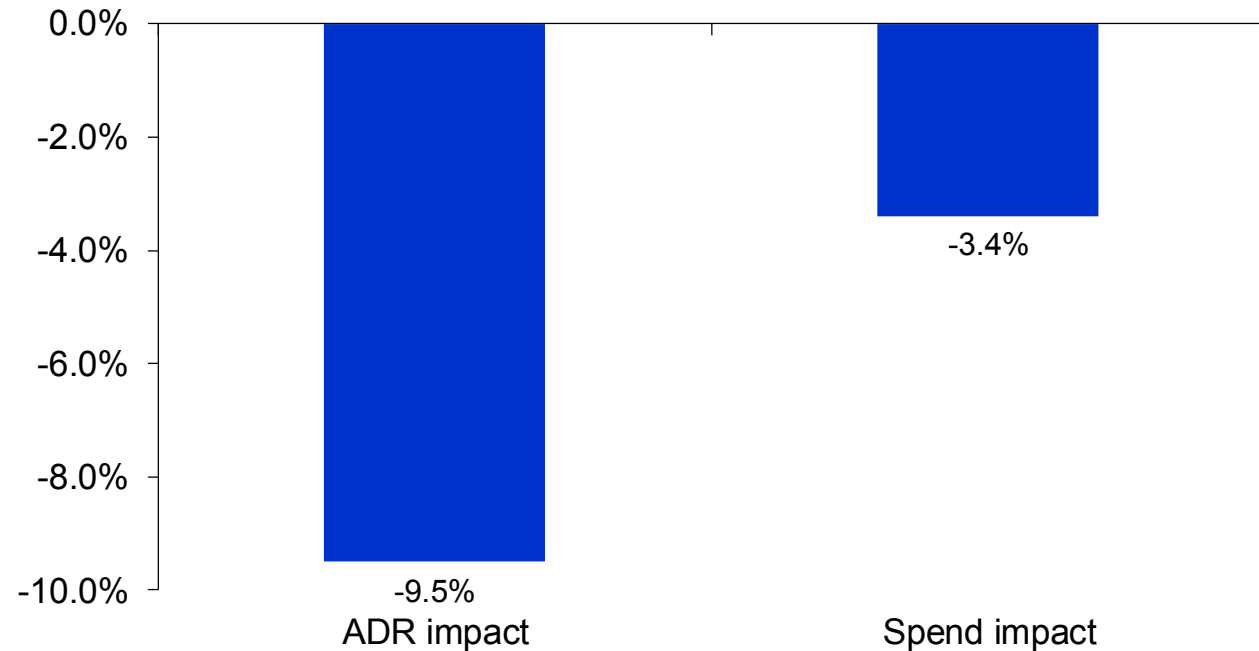
Lower ADR means that average spend per night is reduced according to the relative importance of accommodation costs.

Non-hotel travel spending (i.e. all purchases made in the course of a visit other than accommodation) is not obviously affected by increased OTA presence and total impact on spending relative to a counterfactual is lower than for ADR.

Relative to the EU average, this is a larger reduction in ADR with a higher impact on total spending as accommodation accounts for a higher proportion of total visitor spending.

### ADR and total spend impact in Italy

% tourism spend, 2015



Source: Oxford Economics

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## Economic Impact of OTAs

## Additional OTA impact

Consumers have benefitted from significantly lower prices in Italy – which has driven average spend down.

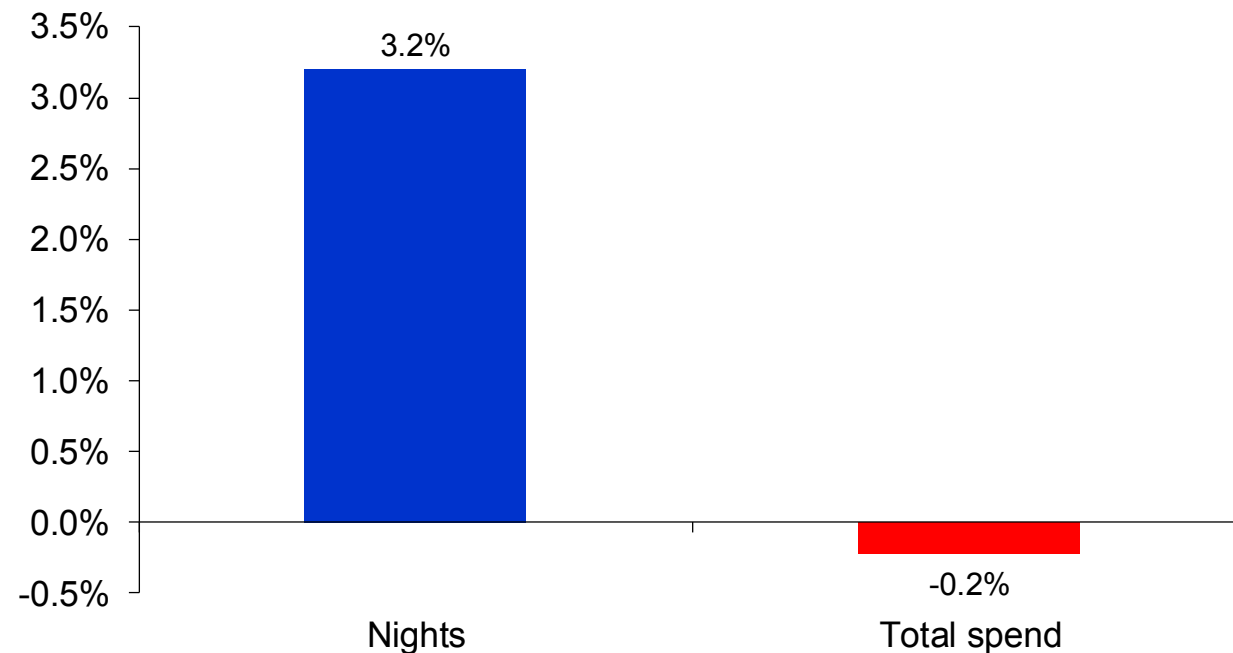
Additional tourism spend comes from:

- Additional overnights, and higher room occupancy, arising from key functions of OTAs including search and comparison. This includes more trips being taken due to both marketing and price effects, as well as impacts on average length of stay.
- Reduced ADR and average spending per night from the ability to find lower cost quality alternatives as well as increased competition.

For Italy, the lower ADR has reduced total average spend per night by around 3.4%, and the net effect on spend was, therefore, negative as it outweighs the positive impact on nights taken. The main beneficiary of OTAs in Italy has been the consumer.

### Total impact on Italy of OTA activity

% tourism spend, 2015



Source: Oxford Economics

## Additional revenue generated by OTAs

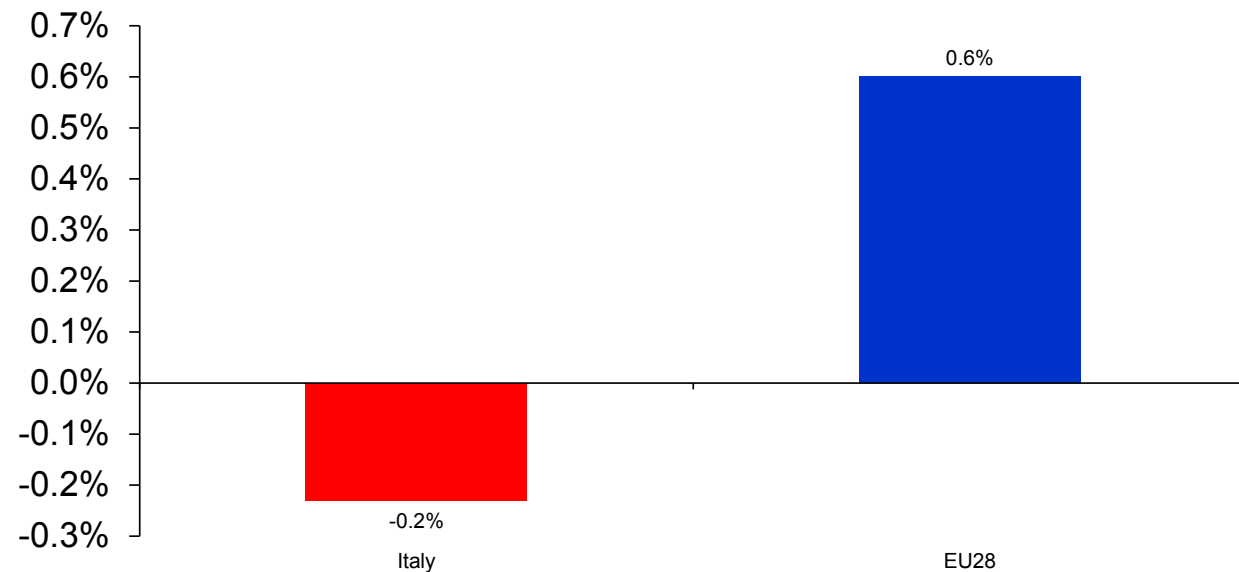
The impact on spend reduction through reduced ADR exceeded the scale of the impact on increased tourism nights in Italy.

In line with consumer benefits, ADR has fallen increasing value for money for the consumer. And the playing field has also been levelled for smaller, non-chain properties.

In Italy the impact on spend reduction through reduced ADR exceeded the scale of the impact on increased tourism nights. This means that whilst the consumer did especially well on trips to Italy, there were net losses for the industry, implying some small loss of GDP and jobs under the assumption that revenue losses could not be accommodated within company profits.

### Spend impact: Italy compared to EU28 (averaged %s)

% tourism spend, 2015



Source: Oxford Economics