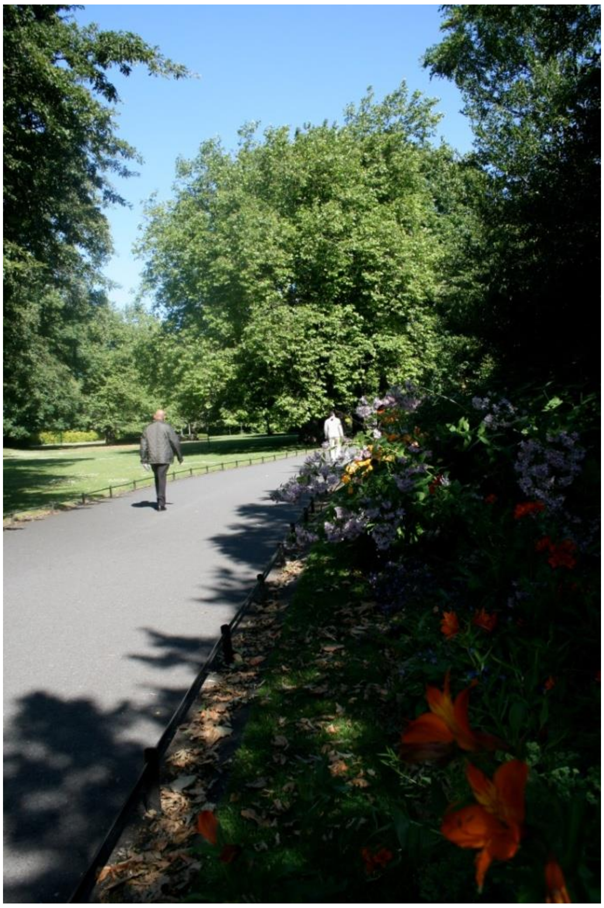
Analysis of the Impact of the VAT Reduction on Irish Tourism & Tourism Employment

Report for Fáilte Ireland

July 2014



Fáilte Ireland
National Tourism Development Authority

Foreword

Deloitte is pleased to present this report of our analysis of the impact of the July 2011 decrease in VAT (from 13.5% to 9% on targeted tourism-related categories) on Irish tourism and employment within the tourism sector. This report, and any related advice, has been prepared for the sole purpose of assisting and advising Fáilte Ireland in accordance with our Letter of Engagement dated 8th May 2014.

The data and information used in preparing the analysis have been sourced from national statistical agencies, state agencies, previous or related Deloitte studies, and also primary research conducted by Fáilte Ireland. No bespoke or specific field work was conducted as part of this study.

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Report Summary

Introduction

In July 2011 a temporarily reduced rate of VAT on tourism related goods and services was introduced as part of a suite of measures to support tourism in the Government's Jobs Initiative. The new rate was implemented with the express intention of boosting tourism and stimulating employment in the sector. The Department of Finance estimated that the measure would cost €120 million in 2011 and €350 million in a full year[1].

In 2013 Deloitte prepared a report on behalf of Fáilte Ireland assessing the impact of the VAT reduction on tourism and employment. The report concluded that the introduction of the reduced VAT rate appeared to have met its original aims of driving employment and stimulating activity in the sector, and at a lower cost than originally estimated. This study seeks to update the 2013 analysis and extend it where possible given the additional data now available.

Key Questions and Assessment Framework

We have taken the same approach as that developed for our 2013 report. This is described below.

In order to evaluate the impact and benefit of the introduction of the VAT rate reduction in an informed manner and determine whether the objectives of the initiative have been met, the following questions are considered:

- Did the reduction in the VAT rate result in lower consumer prices in the impacted categories?
- Has there been an impact on tourists' perception of value for money?
- Has there been an increase in tourist numbers as a result of any improvements in perceived value for money and what has the impact on revenue been?
- Has there been an increase in demand / activity in the tourism industry as a result of the VAT rate reduction?
- Has there been an increase in employment in the tourism industry as a result of the VAT rate reduction?
- How has the "cost" of the introduction of the VAT rate reduction performed compared to initial expectations?

To assist in developing and collating the evidence necessary to answer these key questions, an assessment framework was been established. This framework considers the following areas:

[1] Department of Finance, Jobs Initiative, May 2011

- **Price pass-through to consumers**: assessing the extent to which the reduction is contributing to lower consumer prices in the face of increasing input costs and rising prices in the broader economy, as well as using a counterfactual comparison method used by The Department of Finance.
- **Tourist perception of Value for Money (VfM)**: assessing whether there has been an improvement in how tourists view Ireland with regard to VfM since the introduction of the VAT rate reduction.
- **Overall performance of the tourism sector:** examining the performance of international and domestic tourist numbers, as well as the associated revenue.
- **Level of activity in the tourism sector:** examining trends in the level of accommodation stock and the occupancy rates across the accommodation categories.
- **Employment levels:** examining the trends in the accommodation and food services sector (as a proxy for the wider tourism industry) compared to overall employment numbers and a counterfactual 'services' category to determine the impact of the introduction of the VAT rate reduction.
- **VAT receipts in the 9% categories:** analysing the level of VAT receipts in the impacted categories against VAT returns prior to the rate reduction and comparing against a counterfactual to assess the "cost" of the measure and comparing this cost to any benefits identified.

This assessment framework is used to structure the report and derive an overall view on the impact of the VAT reduction.

Indicative Assessment

The assessment framework provides for an indicative assessment of the impact of the VAT rate cut through consideration of the key questions referred to previously. The term "indicative assessment" is used owing to the data challenges around aligning various data sets, data lags and the limited time since the cut came into effect.

The question of whether a specific input or policy measure has contributed strongly to, or in effect led to, an increase in tourism activity or employment within tourism and related sectors is extremely nuanced and complex. Inevitably there are a large number of factors influencing prices and tourism demand which impact both positively and negatively on the overall performance of the sector (e.g. the economic circumstances in the tourists' country of origin, exchange rate movements or competitor destination activity in the marketplace).

Therefore, seeking to understand a direct causal link between the VAT reduction and the wider measures of tourism numbers, or indeed employment in tourism sectors, is extremely challenging. This has led to the development of an indicative assessment framework which looks at each individual link in the causal chain of events connecting the VAT reduction and higher activity and employment in the tourism sector. The table below presents the results of this assessment:

Key Question	Indicative Assessment	Commentary and Impact Assessment
Did the reduction in the VAT rate result in lower consumer prices in the impacted categories?	Strongly positive	• Given the VAT rate reduction from 13.5% to 9%, full pass-through would result in consumer price reduction of circa 4%. There is indeed good evidence of price pass-through. • Firstly, there remains a significant gap between the 9% categories and overall CPI, with this gap averaging 3.7% since the introduction of the VAT cut. Furthermore, this gap has persisted in the three years since the VAT cut, averaging 3.1% in the first 12 months, 4.1% in the second 12 months and 3.8% in the last 10 months. • Updating the 'counterfactual method' used by Brendan O'Connor of the Department of Finance would also suggest a good level of pass-through at circa 2% (using CPI excluding energy to model a counterfactual). This is in line with expectations and with economic theory. • Price pass-through has varied by category but is apparent in all sectors.
Has there been an impact on tourists' perception of VfM?	Strongly Positive	• There has been a continued improvement of international visitors' assessment of Ireland's VfM, with the ratings achieved in 2013 reaching levels not seen since the early 2000s.
Has there been an increase in tourist numbers as a result of the VAT rate reduction and what has been the impact on revenue?	Positive	• There has been a positive improvement in both international and domestic tourism numbers since the introduction of the VAT rate cut, with visitors from mainland Europe and North America seeing the strongest growth. • International visitor numbers increased by 7.2% in 2013 – the highest rate of growth since 2007. • Given the number of other factors that impacted international tourist numbers (e.g. The Gathering and economic circumstances in the countries of origin), it is difficult to directly attribute this growth to the VAT rate initiative. • There has also been good growth in the level of tourist expenditure, most notably from international visitors. Part of the reason for this increase in revenue is a higher average spend per tourist per day, which could be at least partly related to improved perceptions of value for money.
Has there been an increase in	Positive	• There has been a moderation in the rate of

Key Question	Indicative Assessment	Commentary and Impact Assessment
demand / activity in the tourism industry as a result of the VAT rate reduction?		decline in the stock of accommodation premises and a stabilisation in the number of rooms. • Excess capacity in the hotel sector has declined with hotel occupancy beginning to approach 2007 levels of 64% – a rate Fáilte Ireland considers to be sustainable in the long term. • Other categories are further below 2007 levels.
Has there been an increase in employment in the tourism industry as a result of the VAT rate reduction?	Strongly Positive	• There was very strong growth in employment in the sector during 2013, with seasonally adjusted employment levels in Q4 2013 a full 17,300 ahead of Q4 2012. • Employment in the 9% categories is circa 30,000 higher than would have been the case had the categories performed in line with either overall employment in the economy or with the selected 'services' comparison group. • This equates to a benefit to the Exchequer of circa €165 million between additional income tax and social welfare savings.
How has the "cost" of the introduction of the VAT rate reduction performed compared to initial expectations?	Strongly positive	• The tax foregone through the implementation of the rate reduction is below initial estimates. • Actual VAT receipts in the 9% categories fell by €107 million in the first 12 months following the introduction of the reduced rate, and have been broadly flat since then. This compares favourably with the initial estimates that the rate reduction would cost €120 million in the final 6 months of 2011 and €350 million in a full year. • While it is difficult to establish how much of the benefits and costs outlined above are directly attributable to the reduced VAT rate, it is clear that the costs of the initiative are lower than originally thought while there are also considerable benefits which at least partly offset these costs.

Conclusions

There are a number of very positive developments in the tourism sector worth highlighting from the above analysis:

- Price pass-through of the rate reduction to consumers is evident across every category.
- Improved VfM perception across all visitors with ratings now at levels last seen in early 2000s.
- Renewed growth in overseas tourism numbers and earnings.

- Increased activity levels apparent across the industry.
- Increased employment across the 9% categories of c. 30,000 bringing a benefit of c€165 million to the Exchequer.

To conclude, the introduction of the reduced VAT rate appears to have met its original aims of driving employment and stimulating activity in the sector and has achieved this without placing a significant burden on the exchequer.

1. Introduction and Methodology

This section sets out the background, terms of reference and data sources used in this study, along with commentary on the methodology.

Background & Context

As part of a suite of measures to support tourism in the Government's Jobs Initiative (2011), a new, temporarily reduced rate of VAT (9%) was introduced for tourism related goods and services. This reduced rate came into effect on 1st July 2011 and was originally due to remain in place until 31st December 2013 at which time the measure would be reviewed. A decision was made to keep the reduced rate in place for Budget 2014. This document provides further analysis as an input into the preparation of Budget 2015.

The 9% rate applies to certain categories of goods and services which are listed below:

- Hotel and holiday accommodation
- Restaurant and catering services
- Admissions to cinemas, certain live theatrical or musical performances, museums and art exhibitions and galleries
- Fairgrounds or amusement parks
- Use of sporting facilities
- Hairdressing services
- Printed matter such as newspapers, magazines, brochures, maps, leaflets/flyers and catalogues

These categories had previously been liable to VAT at a rate of 13.5%. In effect, the reduction to 9% could potentially reduce the net cost to the consumer by c.4%, if the impact of the VAT reduction was passed on in full at the point of sale. Clearly a question considered at the time was the extent to which the VAT reduction would and could be passed on by the various trade channels.

The measure was initially estimated to cost €120 million in lost VAT receipts in 2011, building to €350 million in a full year[2]. An initial review[3] of the impact of the VAT reduction was prepared by a senior economist in the Department of Finance in late 2012 and concluded that:

- The 9% reduced VAT rate appears to have had the desired impact both in terms of price pass-through and by contributing to employment gains.

[2] Department of Finance, Jobs Initiative, May 2011
[3] Brendan O'Connor, *'Measuring the impact of the Jobs Initiative: Was the VAT reduction passed on and were jobs created?'* within the Department of Finance, Medium-Term Fiscal Statement, November 2012

- The evidence in respect of price pass-through in the hotels and other accommodation sector is inconclusive.
- The evidence of price pass-through is clearer in respect of restaurants with an initial drop in prices offset by higher food input prices.

This review was included in the Medium Term Fiscal Statement November 2012.

In 2013 Deloitte prepared a report on behalf of Fáilte Ireland assessing the impact of the VAT reduction on tourism and employment. The report concluded that the introduction of the reduced VAT rate appeared to have met its original aims of driving employment and stimulating activity in the sector, and at a lower cost than originally estimated.

Terms and Scope of Deloitte Analysis

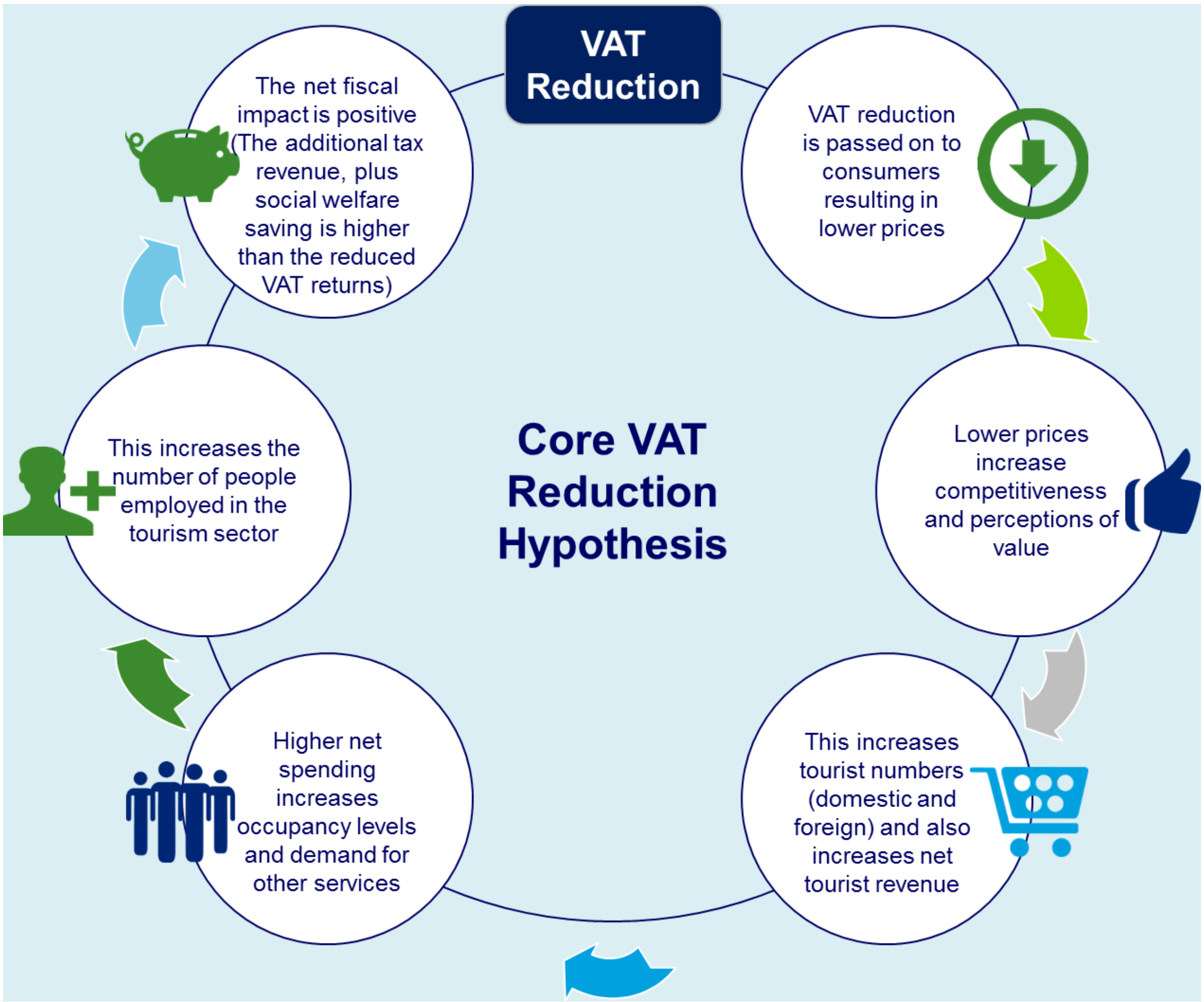
This study seeks to update the 2013 analysis and extend it where possible given the additional data now available. Specifically the study looks to:

- Review overall trends in the tourism sector itself including occupancy rates, price inflation and employment levels.
- Assess the extent to which the VAT reduction resulted in lower prices to consumers than would otherwise be the case in the areas of:
    - hotels and other paid accommodation; and
    - restaurants / meals-out.
- Assess how visitors' assessment of Value-for-Money (VfM) has changed since the VAT rate's reduction.
- Quantify the scale of job creation in the tourism industry since July 2011 and make an assessment of the VAT reduction's contribution to employment growth.
- Determine the cost of the measure.

Approach: "Assessment Framework"

The question of whether or not the VAT reduction has had a positive impact on tourist numbers is a complex one, owing to the wide variety of factors which can influence pricing and demand in the tourism sector. If the VAT reduction is to have a positive impact on the tourism sector, a chain of events must occur including falling tourism related prices, increased perceptions of value for money and increased tourism numbers. The full hypothesis to be tested within this report is set out in Figure 1.1 below.

Figure 1.1: Potential Impact of the VAT Reduction



Source: Deloitte analysis

The first link in the chain is that the VAT reduction is at least partly passed on to consumers, resulting in lower prices for key tourism related products and services such as meals out and accommodation. Economic theory suggests that the incidence of a tax (i.e. who actually ends up paying the tax as opposed to who the tax is levied on) will vary depending on supply and demand conditions. It is therefore to be expected that the pass-through of the tax may vary by product and service category.

If a significant part of the VAT reduction is passed on to consumers then this should increase the relative competitiveness of the Irish tourism offer. While it is not possible to compare bespoke tourism price indices, one way of measuring changes in relative price competitiveness is to look at Value for Money surveys of foreign tourists carried out in Ireland. The results of these surveys should provide an indication of how price competitive Ireland is relative to the respondents' home nations and competing holiday destinations over time.

If Ireland is perceived as being more price competitive this should in turn increase the numbers of tourists (both domestic and foreign) and could also potentially impact the levels of tourist spending.

The net result of an increase in tourist numbers and higher spend per visitor would be an increase in tourist revenue. Each of these two potential effects will be examined.

Higher levels of tourist spending should in turn increase activity levels in the tourism sectors. Hotel occupancy rates should improve, while other sectors such as the restaurant sector should also see increased demand. Higher spending should in turn lead to higher employment in the tourism related sectors as businesses increase staff levels to cope with the additional demand.

The fiscal impact of the VAT reduction would then be the net impact of the additional tax revenue as a result of higher spending and higher employment, plus social welfare savings, less the negative impact of the lower VAT rate.

To summarise then, the above assessment framework is used to pose the following questions:

- Did the reduction in the VAT rate result in lower consumer prices in the impacted categories?
- Has there been an impact on tourists' perceptions of VfM?
- Did tourist numbers and revenue increase?
- Was there an increase in demand / activity in the tourism industry as a result of the VAT rate reduction?
- Has employment in the tourism industry risen as a result of the VAT rate reduction?
- How has the "cost" of the introduction of the VAT rate reduction performed compared to initial expectations?

This assessment framework is used to structure the report and each element is considered in turn.

Data Sources

The data used in this analysis was primarily derived from Fáilte Ireland, The Central Statistics Office (CSO) and the Revenue Commissioners. This was largely publicly available information supported by a number of specific data requests as detailed below. There are a number of important factors to be noted in relation to data for this analysis:

- There is a lack of data directly available in relation to the tourism sector categories impacted by the 9% VAT rate. This has necessitated specific data runs to be requested from the Revenue Commissioners and CSO, where possible. In other cases an approximation has been taken – this is highlighted where relevant in the report.

- Change in NACE codes. There was a change in NACE codes in December 2011 to NACE Revision 2. A best judgement equivalent for mapping NACE codes for the prior months, from July 2010 (based on the previous NACE 1.1 system) has been used throughout this analysis. This means the data pre- and post-December 2011 is not fully comparable.

Employment Data

Employment data was derived from the CSO's Quarterly National Household Survey (QNHS). Data are published at the NACE Rev. 2 level, which only permits a meaningful analysis of the employment impact in the 'Accommodation and Food Services' sector (NACE economic sector I). This can be subdivided into two categories – 'Accommodation' and 'Food and Beverage Service Activities'. However, data at this level is not seasonally adjusted and so has not been used for the purposes of this analysis. All other categories for which the 9% reduced VAT rate applies are sub-components of broader NACE Rev.2 sectors and cannot be individually analysed.

Consumer Price Index

The CSO publishes monthly changes in the CPI relative to a base-year price (currently December 2011). The published sub-indices do not correspond to the categories for which the 9% VAT rate was introduced. Therefore a special request was made to the CSO for the construction of a price series that matches with the goods and services at the reduced 9% rate. In all, an index of prices has been constructed for each of the eight reduced VAT categories, as well as an overall series that covers all of the items under the 9% VAT rate and all items excluding the highly cyclical Hotels and Other Accommodation category. This is a repeat of the data request prepared in mid-2012 for the Department of Finance analysis of the impact of the first 12 months of the VAT Reduction[4].

VAT Returns

A special data request was undertaken by the Revenue Commissioners to determine the VAT collection rates for the sectors affected by the 9% rate.

[4] Ibid

2. Did the VAT Reduction Result in Lower Consumer Prices?

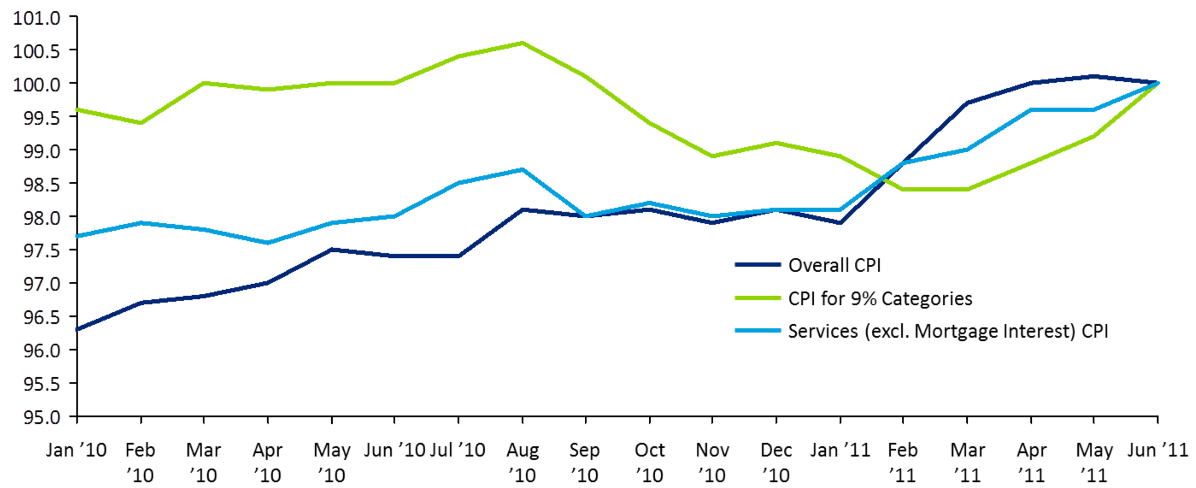
The first element which must be examined when evaluating the impact of the VAT reduction is to determine the extent to which the VAT reduction has been passed through to consumers. With the reduction in the VAT rate from 13.5% to 9%, it could be expected that prices would fall by a corresponding amount of c.4% on the simple assumption of full price pass-through.

However, other key price movements have impacted on overall price movements in the sectors affected at the same time, e.g. labour costs, utility costs, excise duties (most notably the increasing levels on alcohol), food prices, insurance, and fuel costs. These need to be considered when determining the rate of price pass-through.

Headline VAT trends

Figure 2.1 below shows CPI trends in the overall economy and in the categories covered by the 9% VAT rate in the eighteen months leading up to the VAT rate reduction. In addition, we have considered trends in a comparison services[5] group as a reference point.

Figure 2.1: Trend in CPI Pre-VAT Rate Reduction Jan 2010 – Jun 2011 (Index: June 2011 = 100)



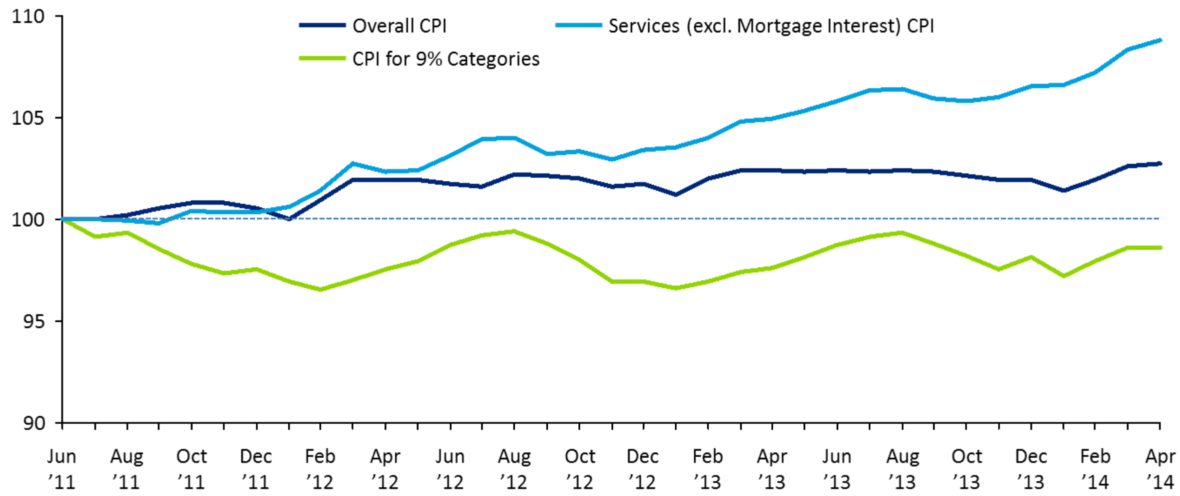
Source: CSO, Consumer and Producer Price Indices 2010 – 2011, Deloitte analysis

[5] The CSO Services CPI index group includes electricity, gas, telecommunications, alcoholic beverages consumed on licenced premises, meals out, housing, rent, insurance, public transport, entertainment & recreation, education, household services and miscellaneous services including childcare, social protection, package holidays and other services.

Prices in the impacted 9% categories prior to the introduction of the VAT rate reduction had remained relatively flat (allowing for the cyclical nature of the industry - accommodation in particular). This is in contrast to overall CPI and Services CPI which increased over the same period.

Figure 2.2 shows CPI trends for the same categories since the introduction of the VAT rate reduction. The downward, albeit cyclical, price trend in the 9% category is apparent and is in contrast to the slight upward trend in overall CPI. It is also considerably lower than inflation in the services category, which has risen by almost 9% since the start of 2012.

Figure 2.2: Trend in CPI Post-VAT Rate Reduction Jun 2011 – Mar 2013 (Index: June 2011 = 100)



Source: CSO, Consumer and Producer Price Indices 2011 – 2013, Deloitte analysis

Looking specifically at the period since the VAT rate reduction was implemented, prices in the impacted categories fell by 2.5% by December 2011 and by a further 0.6% over the course of 2012. By December 2013 prices had risen slightly, though were still 1.9% below the level of June 2011. However, prices continue to be well below overall CPI (which rose by 1.9% to December 2013), suggesting that there has been significant price pass-through. What is more, this pass-through appears to have persisted.

One way of looking at the persistence of the pass-through is to look at the average gap between inflation in the 9% categories and inflation in overall CPI, and how this has changed since the reduction. The table below shows the average gap over the full period of the price decline to date, as well as the gap over the first 12 months, the second 12 months and the last 10 months (averages are used to account for the cyclicality).

Table 2.1: Persistence of the Gap Between the 9% Categories and Overall Inflation

Average Gap Versus CPI	Average Gap First 12 Months	Average Gap Second 12 Months	Average Gap Last 10 Months
-3.7	-3.1	-4.1	-3.8

Source: CSO Consumer Price Inflation, Deloitte analysis

It is apparent from this table that the gap between inflation in the 9% categories and overall CPI is thus far being maintained. The average gap in the last 10 months from July 2013 to April 2014 was 3.8%, which compares favourably with the average gap since the VAT reduction. In addition, the gap between the 9% categories and the comparison Services CPI group has increased over the period. Given that the 9% category group are predominantly service businesses and subject to many of the same inflationary pressures, this makes the relative price performance more impressive still.

Table 2.2: Persistence of the Gap Between the 9% Categories and Services Comparator Group

Average Gap Versus Services	Average Gap First 12 Months	Average Gap Second 12 Months	Average Gap Last 10 Months
-3.0	-0.4	-3.4	-5.6

Source: CSO Consumer Price Inflation, Deloitte analysis

Individual Categories

Inflation across the individual 9% categories has varied which suggests that there have been differences in the rate of pass-through. We undertook two separate analyses to develop a more complete understanding of the overall picture.

Overall Price Movements

In the first instance, we focused specifically on the direction in prices in each of the categories since the VAT reduction in July 2011 in order to see the progression of prices over time. This is shown in Table 2.3.

Table 2.3: Average CPI changes since introduction of VAT reduction (Base: December 2011 = 100)

	Jan - Jun 2011	July - Dec 2011	Jan - Jun 2012	July - Dec 2012	Jan - Jun 2013	July - Dec 2013	Jan - Apr 2014
Hotels and Other Accommodation	104.3	106.7	102.6	107.4	104.1	107.1	101.2
Meals Out Including Rail Car Dining	101.3	100.1	99.9	99.9	99.9	100.6	101.1
Cinemas, Theatres, Musicals, Museums	102.8	100.3	101.6	101.5	102.1	103.3	103.4
Hairdressing Services	98.6	96.0	96.0	96.1	96.9	96.9	98.1
Hot Take Away Foods and Hot Drink	100.6	100.5	100.3	100.3	100.0	100.6	101.1
Printed Matter - Newspapers, Comics	101.7	98.5	99.9	99.8	100.5	100.8	103.4
Sport	100.3	100.0	96.3	95.5	94.6	94.5	94.3
Total excl Hotels, Guesthouses, Hostels	101.0	99.5	99.3	99.2	99.2	99.8	100.5
Total items	**101.6**	**100.8**	**99.9**	**100.8**	**100.1**	**101.1**	**100.6**
Overall CPI	**98.9**	**100.0**	**100.9**	**101.4**	**101.6**	**101.7**	**101.7**

Source: CSO Consumer Price Inflation, Deloitte analysis

As noted in the Medium-term Fiscal Statement[6], different rates of inflation / price pass-through occurred in the various categories covered by the rate reduction, with seasonality impacting some sectors more than others. Our findings are consistent with this analysis. The summary by category is as follows:

[6] Ibid

- **Hotels and Other Accommodation** – The Hotels and Other Accommodation category exhibits strong seasonal effects as prices rise during the peak summer period and fall during winter (we can see that average prices in the January – June period in the table above are consistently lower than the July – December period). Nevertheless, there is no evidence of an upward trend since the VAT reduction, as the six month averages above are all lower than the 6 month average of July – December 2010 (109.1).

- **Meals Out** – Immediate reduction of 1% in July 2011 with a small further reduction by year end. Prices have risen in the last 12 months, but remain slightly lower than the period before the VAT reduction.

- **Cinema, Theatres etc.** – Immediate drop following the rate reduction which continued until late 2011. Prices rose after this and are now slightly higher than before the VAT rate change.

- **Hairdressing** – showed an immediate reduction of over 2% following the VAT reduction and this was broadly maintained until this year. There is still evidence of the "Christmas effect" raising prices each December, though on average prices remain slightly lower than before the VAT cut.

- **Hot Take Away Foods** – Prices have remained largely around June 2011 levels, despite inflation in wholesale prices for food items.

- **Printed Matter** – Immediate reduction in prices equating to the VAT reduction. A subsequent 2% rise was evident by end 2011 with prices remaining largely static until a 2.6% rise in the Jan – April period of this year.

- **Sport** – full pass-through evident in January 2012 which would equate to the renewal period for many sports memberships. This has remained constant with a further 1% decline in January 2013.

- **Excluding Hotels:** 1.8% reduction in prices in the sector over the first two years, with a rise of 1.3% from the low since.

An overview of the actual price pass-through compared to the price pass-through that could have been expected had the full reduction been passed-on to consumers is provided later in this section.

Inflation in the 9% categories versus CPI Counterfactual

The second aspect of the analysis was to compare the level of inflation over the past 3 years in each of the 9% categories against a counterfactual whereby prices in the categories moved in line with overall CPI. As was the case with the overall 9% group above, we looked at the average gap between each category and examined how this evolved during the three years in order to see if any price decline has persisted. Yearly averages were again used so as to remove any seasonal effects. The results for each of the categories are displayed below.

Table 2.4: CPI in the 9% categories versus overall economy-wide CPI

	Average Gap Versus CPI	Average Gap First 12 Months	Average Gap Second 12 Months	Average Gap Last 10 Months	Gap April '14
Hotels and Other Accommodation	-7.4%	-7.0%	-6.7%	-8.1%	-9.6%
Meals Out Including Rail Car Dining	-2.8%	-2.2%	-3.4%	-2.7%	-2.6%
Cinemas, Theatres, Musicals, Museums	-2.6%	-2.9%	-3.0%	-1.8%	-2.4%
Hairdressing Services	-1.7%	-1.6%	-2.1%	-1.4%	-2.6%
Hot Take Away Foods and Hot Drink	-1.6%	-0.9%	-2.2%	-1.8%	-1.6%
Printed Matter - Newspapers, Comics	-3.0%	-3.4%	-3.6%	-2.0%	-0.6%
Sport	-5.7%	-2.8%	-7.0%	-7.7%	-8.5%
Total excl. Accommodation	-2.9%	-2.3%	-3.6%	-2.9%	-2.8%
Total items	**-3.7%**	**-3.1%**	**-4.1%**	**-3.8%**	**-4.1%**

Source: CSO Consumer Price Inflation, Deloitte analysis

Price levels for all of the individual 9% categories continue to be below overall CPI, though there is considerable variation between the categories. The average gap versus CPI over the entire period has been 3.7%, with the current gap at 4.1%. This would suggest a reasonably good level of pass-through. The largest gap is in the Hotels, Guesthouses and Hostels category (average gap of 7.4% and current gap of 9.6%), followed by the Sport category (average gap 5.7% and current gap of 8.5%).

The above table also shows the progression of the gap between the categories and overall CPI, and we can see that for most of the categories, the gap has remained reasonably constant. The exceptions to this are sport, where the gap has widened considerably, and printed matter, where the gap has narrowed.

Inflation Counterfactual

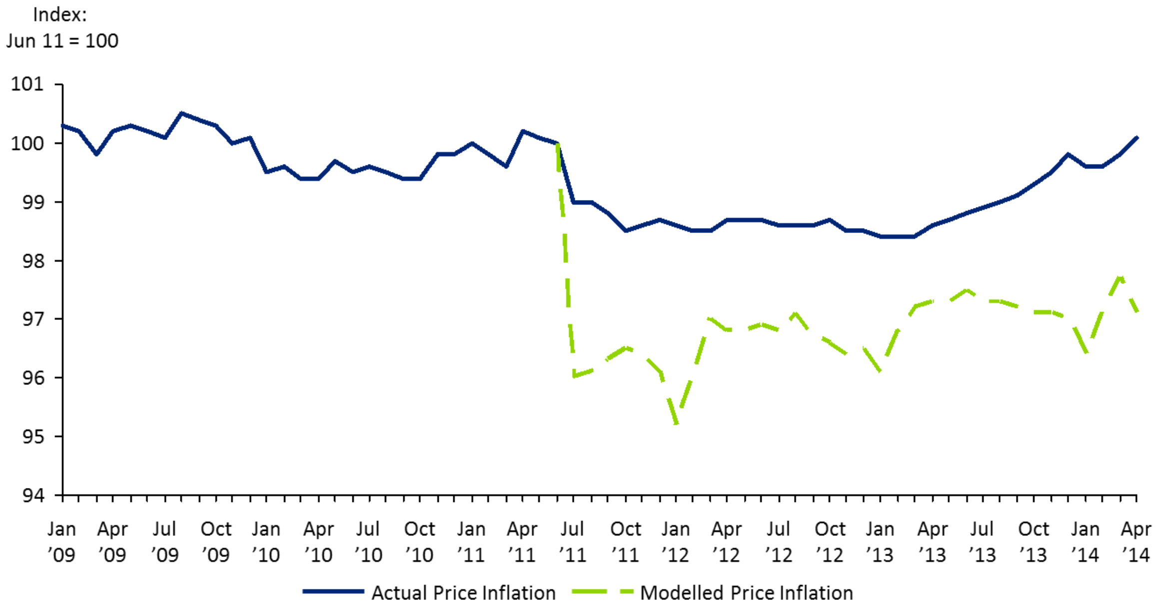
This segment builds on the work of Brendan O'Connor presented in the Department of Finance's Medium-term Fiscal Statement 2012. It sets out a chart for price inflation in the 9% categories along with a modelled counterfactual in which it is assumed the full 4.5% reduction is passed through in July 2011 and subsequently performs in line with underlying inflation.

It should be noted that this analysis is an approximation of what could have been expected had all other factors been held constant. However, it does enable a comparison both of the speed of pass-through and the implied rate of pass-through in each category against underlying inflation in the economy.

We have included two of the key 9% categories in this section (Meals Out and Hotels and Other Accommodation) as well as the overall 9% category series (including and excluding accommodation). The full set of graphs for all the 9% categories are provided in Appendix 2.

Meals Out

Figure 2.3: Meals Out Actual and Modelled Inflation January '09 – April '14



Source: CSO Consumer Price Inflation, Deloitte analysis

The above graph shows the actual level of inflation in the Meals Out. A modelled counterfactual is included in which it is assumed the full 4.5% reduction is passed through in July 2011 (resulting in a lower final price of circa 4%), with the series subsequently performing in line with underlying inflation (represented by CPI excluding energy).

We can use this counterfactual to estimate the degree of pass-through by looking at the gap between actual inflation and the counterfactual. If we assume that the gap between the series represents the element of the VAT reduction that is not passed on, the amount passed on is 4% less the gap. In the case of Meals Out, the average gap is 2.1%, implying a pass-through of 4% - 2.1% = 1.9%. The implied pass-through is shown below, in addition to the movement over the past three years. We can see that the implied pass-through in the Meals Out segment has been relatively consistent over the period.

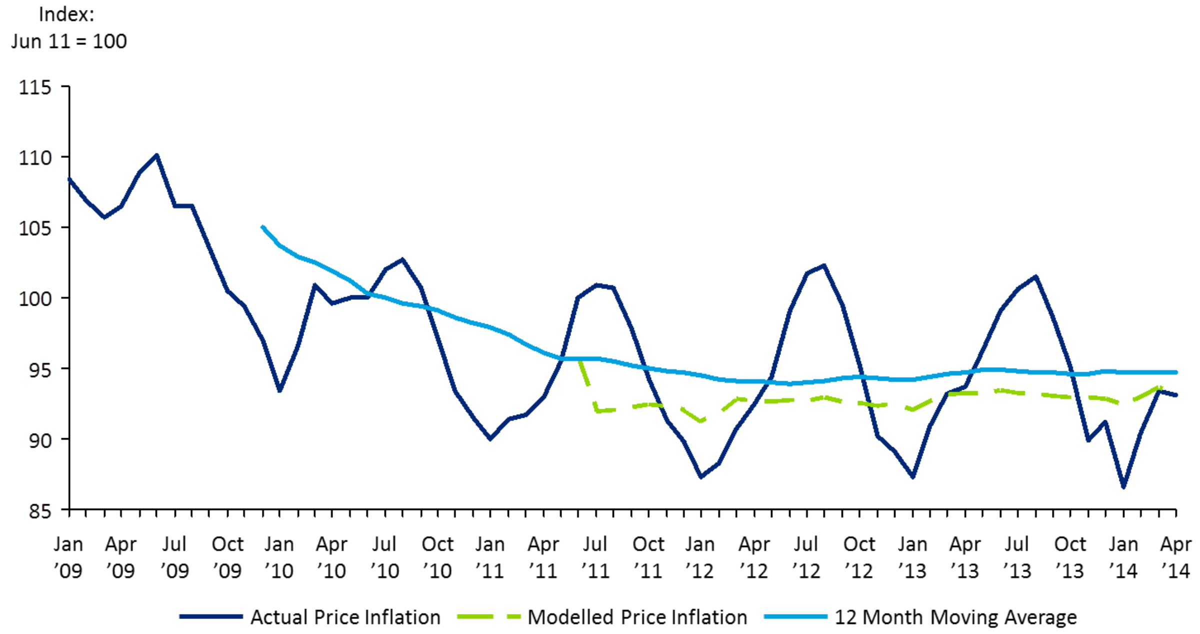
Table 2.5: Meals Out Modelled Price Pass-Through July '11 – April '14

Average Gap	Implied Pass-Through	Pass-Through First 12 Months	Pass-Through Second 12 Months	Pass-Through Last 10 Months
2.1	1.9	1.6	2.3	1.6

Source: CSO Consumer Price Inflation, Deloitte analysis

Hotels and Other Accommodation

Figure 2.4: Hotels and Other Accommodation Actual and Modelled Inflation January '09 – April '14



Source: CSO Consumer Price Inflation, Deloitte analysis

The cyclical nature of the Hotels and Other Accommodation category makes it more difficult to determine the degree of price pass-through. We have attempted to control for this cyclicality by using a 12-month moving average for the inflation data. The cyclicality also means that taking the July 2011 date as the starting point for the counterfactual 'modelled inflation' is problematic. This is due to the fact that July is the high point of the season, so taking that point as the point from which the 4.5% rate cut is deducted will artificially imply a higher degree of pass-through than if the VAT decline had occurred at a low point in the season. In order to avoid this problem, the starting point for the modelled inflation line is taken as an average of the previous 12 months' data.

The average gap between the 12 month moving average line and the modelled inflation is 2.0 index points, implying pass-through of 2%. This pass-through has also been persistent, averaging roughly 2.3% over the past two years.

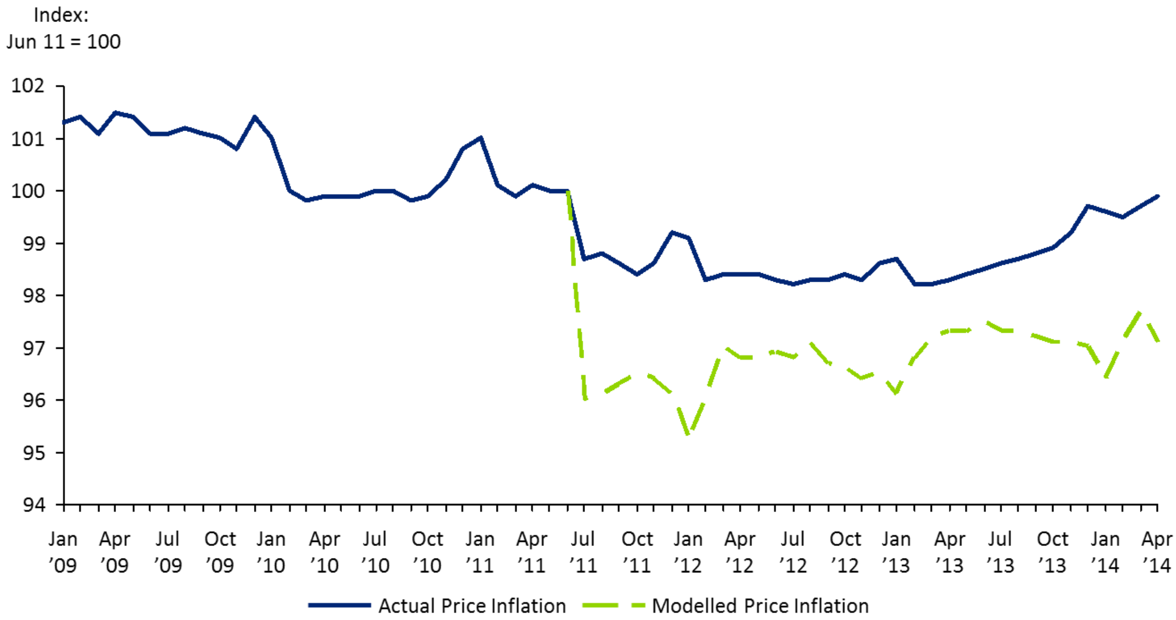
Table 2.6: Hotels and Other Accommodation Modelled Price Pass-Through July '11 – April '14

Average Gap	Implied Pass-Through	Pass-Through First 12 Months	Pass-Through Second 12 Months	Pass-Through Last 10 Months
2.0	2.0	1.6	2.3	2.3

Source: CSO Consumer Price Inflation, Deloitte analysis

Total 9% Categories Ex Accommodation

Figure 2.5: Total 9% Categories Ex Accommodation Actual and Modelled Inflation January '09 – April '14



Source: CSO Consumer Price Inflation, Deloitte analysis

Looking at the overall 9% Categories Ex Accommodation (excluded to remove its seasonal impact), we can see that there is evidence of an initial decline in the region of 2%, with the price levels broadly following overall inflation since. The table below shows that the implied pass-through has remained relatively consistent at roughly 2% over the period.

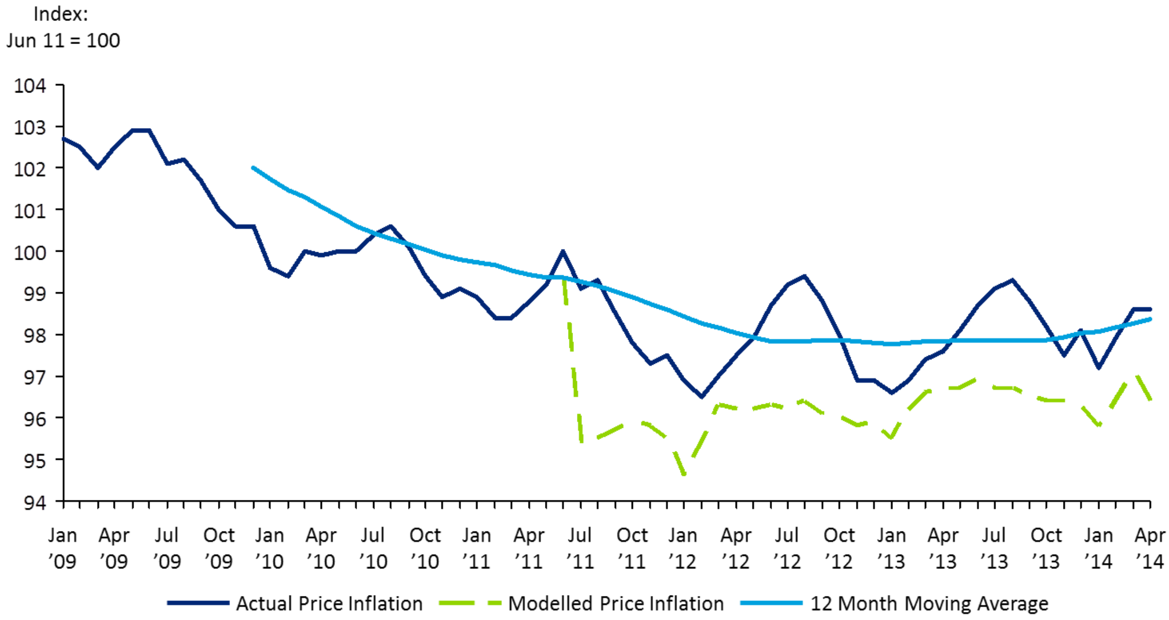
Table 2.7: Total 9% Categories Ex Accommodation Modelled Price Pass-Through July '11 – April '14

Average Gap	Implied Pass-Through	Pass-Through First 12 Months	Pass-Through Second 12 Months	Pass-Through Last 10 Months
2.0	2.0	1.7	2.5	1.8

Source: CSO Consumer Price Inflation, Deloitte analysis

Total 9% Categories

Figure 2.6: Total 9% Categories Actual and Modelled Inflation January '09 – April '14



Source: CSO Consumer Price Inflation, Deloitte analysis

Analysing the Total 9% Category group encounters the same issues with cyclicality as the Hotels and Other Accommodation category due to its presence in the index. We have therefore used the same methods to control for cyclicality as outlined in the Hotels and Other Accommodation series.

The gap average gap between the 12 month moving average line and the modelled inflation line is 2 index points, implying a pass-through of 2%. The implied rate of pass-through has also been relatively consistent, at 2.4% – 2.5% over the past two years.

Table 2.8: Total 9% Categories Modelled Price Pass-Through July '11 – April '14

Average Gap	Implied Pass-Through	Pass-Through First 12 Months	Pass-Through Second 12 Months	Pass-Through Last 10 Months
2.0	2.0	1.2	2.4	2.5

Source: CSO Consumer Price Inflation, Deloitte analysis

Conclusion

- There is good evidence of the VAT rate reduction being passed through to consumers across most categories covered by the reduced VAT rate, with the gap between the overall 9% category index and economy wide CPI averaging 3.7% to date.

- The gap peaked at 4.1% over the second twelve months of the VAT reduction, in line with what theory would suggest. The gap has remained relatively consistent across most categories, and even widened for Hotels and Other Accommodation over the period.

- One way of estimating the extent of pass through is to look at the gap between modelled inflation and actual inflation. A summary of the implied pass-through rate for each of the 9% categories is provided below.

Category	Implied Pass-Through	P.T. First 12 Months	P.T. Second 12 Months	P.T. Last 10 Months
Hotels and Other Accommodation	2.0%	1.6%	2.3%	2.3%
Meals Out Including Rail Car Dining	1.9%	1.6%	2.3%	1.6%
Cinemas, Theatres, Musicals, Museums	1.7%	2.3%	1.9%	0.7%
Hairdressing Services	0.6%	-0.4%	1.3%	0.8%
Hot Take Away Foods and Hot Drink	0.7%	0.3%	1.1%	0.7%
Printed Matter - Newspapers, Comics	2.1%	2.8%	2.4%	1.0%
Sport	4.0%	2.2%	4.0%	4.0%
Total excl. Accommodation	2.0%	1.7%	2.5%	1.8%
Total items	**2.0%**	**1.2%**	**2.4%**	**2.5%**

- Taking all the 9% categories together, the average gap between modelled inflation and actual inflation has been 2%. Given that full pass-through would result in a reduction in prices of circa 4%, this suggests that half of benefit of the VAT reduction was passed-on to consumers in the form of lower prices.

- The average gap has remained relatively constant over the period, suggesting that the initial decline in the 9% categories has been maintained. The implied level of price pass-through in the first twelve months was 1.2%, compared to 2.4% in the second twelve months and 2.5% in the last 10 months of the series.

3. Has There Been an Impact on Tourists' Perception of VfM?

In this section, an assessment of the performance of Ireland in terms of visitors' Value for Money (Vfm) rating is conducted. This provides an overview of the impact the VAT rate reduction has had on the perception of Ireland's VfM by tourists.

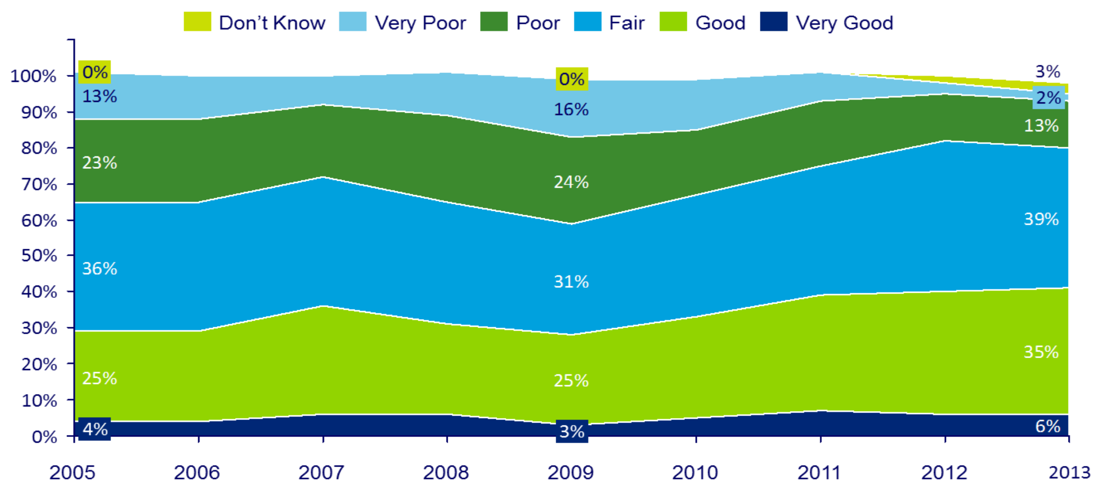
VfM provides an indication of tourists' perceptions of the level of value in the tourism sector in Ireland. Given the lower rate of CPI in the 9% categories (as discussed in Section 2) versus the overall economy, it is reasonable to expect that there would be some improvement in the overall VfM.

VfM is assessed using the annual survey of overseas travellers which is commissioned by Fáilte Ireland. The survey is detailed and categorises responses by country / region of origin, accommodation type and frequency of visit, among other variables.

Overall Value for Money 2005 - 2013

Figure 3.1 below sets out the VfM assessment for all visitors between 2005 and 2013. There has been a large improvement in the overall VfM rating over this period with the number of visitors rating Ireland as 'good' or 'very good' increasing from 29% in 2005 to 41% in 2013, while the number of visitors rating Ireland as 'poor' or 'very poor' decreased from 36% to 15%. This change in visitors' perception of VfM has been most noticeable since 2009, and has continued to improve since the introduction of the 9% VAT rate.

Figure 3.1: VfM Assessment, All Visitors 2005 - 2013

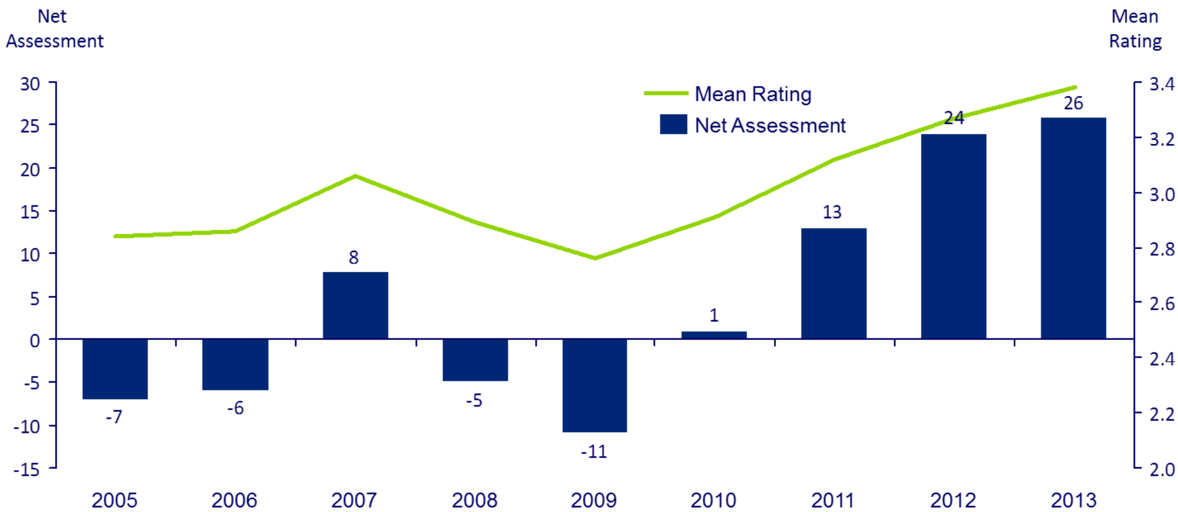


Source: Fáilte Ireland, Annual Survey of Overseas Travellers

The change in visitors' perception of VfM is also reflected in the mean rating and net assessment scores shown in Figure 3.2. The mean rating reflects the average rating given by respondents as to VfM where 'very poor' corresponded to 1 and 'very good' corresponded to 5. The rating stood at 2.76 in 2009 and increased to 3.38 by 2013 – an improvement of 23%.

The net assessment rating is equal to the total percentage of respondents rating Ireland's VfM as 'very good' or 'good' less the total percentage of respondents rating it as 'very poor' or 'poor'. The net assessment rating improved from -11% in 2009 to + 13% in 2011, +24% in 2012 and +26% in 2013. In other words, in 2009 11% more visitors though Ireland 'poor' or 'very poor' value than considered it 'good' or 'very good' value, whereas in 2013, 26% more visitors believed Ireland offered 'good' or 'very good' value than 'poor' or 'very poor' value. The improvement in the overall trend in net assessment is particularly evident from 2011, coinciding with the introduction of the VAT reduction. This improvement is such that both of the indicators discussed here have now reached levels not seen since the early 2000s.

Figure 3.2: Net VfM Assessment and Mean Rating, All Tourists 2005 - 2013

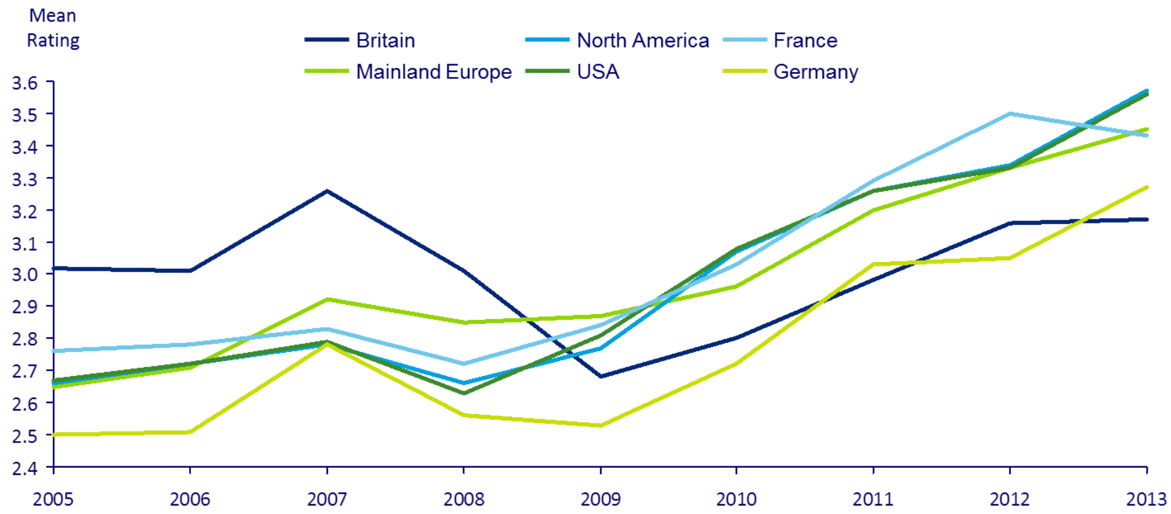


Source: Fáilte Ireland, Annual Survey of Overseas Travellers, Deloitte analysis

VfM by Visitors' Region of Origin

The assessment of Ireland in terms of VfM varies by the visitors' home region and has changed over time. Figure 3.3 provides an overview of the VfM assessment of Ireland from its most important tourism markets (Britain, North America and Mainland Europe) between 2005 and 2013.

Figure 3.3: VfM by Region of Origin (1 = Very Poor, 5 = Very Good)



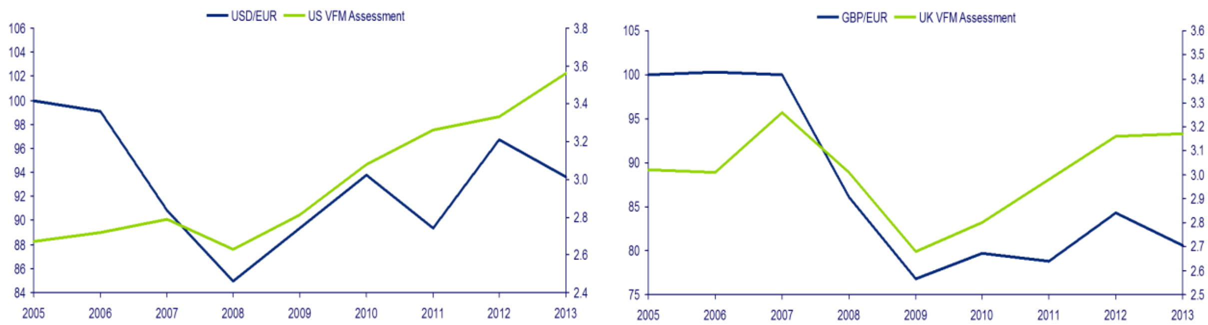
Source: Fáilte Ireland, Millward Brown

There has been a strong overall trend since 2009 of improving VfM across visitors from all regions, with visitors from North America most often giving the highest VfM rating. Again, this trend has continued to improve since the introduction of the VAT rate reduction. Germany is a country that is watched closely from a VfM standpoint as it is seen as being a first mover within Europe in setting VfM trends. We can see that the German mean VfM score has improved considerably since 2009, and became higher than the UK score for the first time in 2013. The only country to see a decline in VfM in 2013 was France, though the decline was small and followed a very high score in 2012.

Impact of Exchange Rates

It would be expected that exchange rates will have some influence on VfM given the potential to change relative price levels across different currency zones. It is therefore possible then that increases in VfM scores could be primarily attributable to movements in exchange rates rather than an increase in underlying VfM.

Figure 3.4: US and UK VfM Assessments and Exchange Rate Movements



Source: Fáilte Ireland, Oanda. Correlation = 0.063. Correlation = 0.491

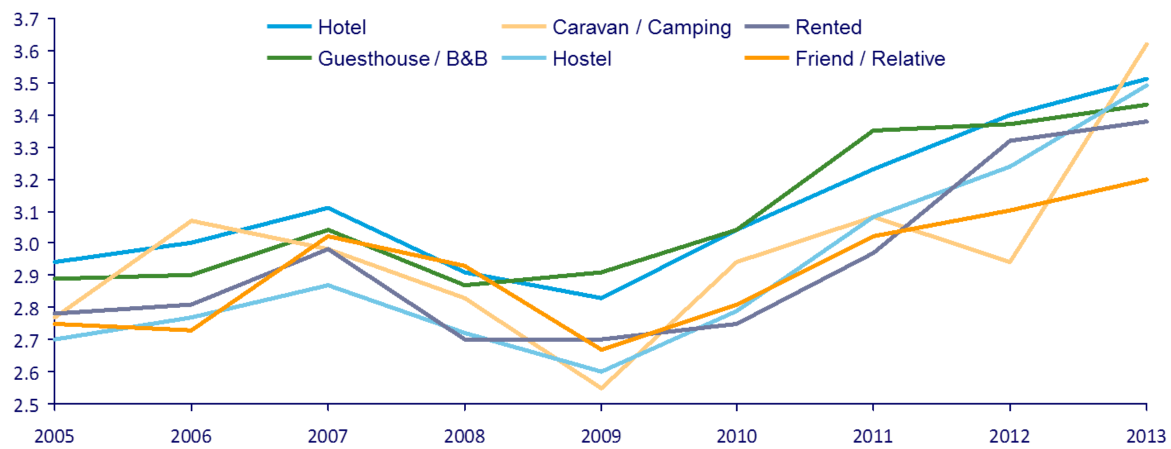
The above charts map the mean US and UK VfM ratings to the average US dollar/euro and British pound/euro exchange rates from 2005 to 2013. From 2005 to 2008 the US mean VfM assessment remained relatively constant despite a c.15% decline in the average value of the dollar relative to the euro. The dollar has rebounded somewhat since 2008, though the percentage increase in dollar value (c.10%) since then is lower than the increase in VfM rating (c.35%).

The relationship between the British pound and the euro appears to be a little closer, with a fall in mean VfM assessment from 2007 to 2009 corresponding to a decline in the value of sterling. This is also borne out by a higher correlation of 0.49. Nevertheless, the magnitude of the decline in the value of sterling (23%) was greater than the fall in mean value for money assessment (11%), while the increase in VfM since 2008 (18.3%) is also greater than the increase in the value of sterling (4.9%). This would suggest that there has been an increase in the underling VfM assessment, over and above any change due to exchange rate fluctuations.

VfM by Accommodation Type

Looking at VfM by Accommodation type, Figure 3.5 shows that the increase in the mean value for money assessment is also relatively uniform across accommodation categories. Hotels are generally regarded as being the most price sensitive category, and so the consistently strong performance of hotels over the past three years is encouraging. This data would seem to reflect the fact that hotel prices have declined over the past number of years, as the CPI data in Section 2 illustrates.

Figure 3.5: VfM by Type of Accommodation 2005 - 2013



Source: Fáilte Ireland, Millward Brown

Conclusion

- The assessment of the VfM offered by Ireland has improved across visitors from all regions since 2009. This positive trend has been particularly prevalent since the implementation of the VAT rate reduction.

- The number of visitors rating Ireland as either 'very poor' or 'poor' for VfM has reduced from 40% in 2009 to 15% in 2013, while the number rating Ireland 'good' or 'very good' VfM has increased from 28% to 41% over the same period. The ratings achieved in 2013 are the best ratings achieved since the early 2000s.

- This increase could not simply be attributed to fluctuations in exchange rates, as evidenced by the widespread nature of the increase in VfM scores (including other euro zone nations) and the fact that the VfM scores did not move closely with dollar and sterling exchange rates during the period.

4. Did Tourist Numbers and Revenue Increase?

In this section, the performance of the tourism sector in Ireland since 2002 is assessed. This assessment primarily covers the number of visitors to Ireland by region as well as examining trends in tourism revenue. Analysing these trends will help look at the question of whether the introduction of the lower VAT rate has had an impact on tourist numbers and on tourism expenditure.

When looking at the performance of the tourism sector, the general economic backdrop of recession and austerity measures since 2007 must be kept in mind. Similar to other sectors in the Irish economy, the tourism sector has faced challenges in trading in this difficult environment. These challenges have been exacerbated by the slowdown in the global economy which has reduced disposable income and impacted on the number of overseas trips undertaken from key markets. Given that tourism activity is relatively discretionary, it is not surprising that the Irish tourism industry has declined since its peak in 2007.

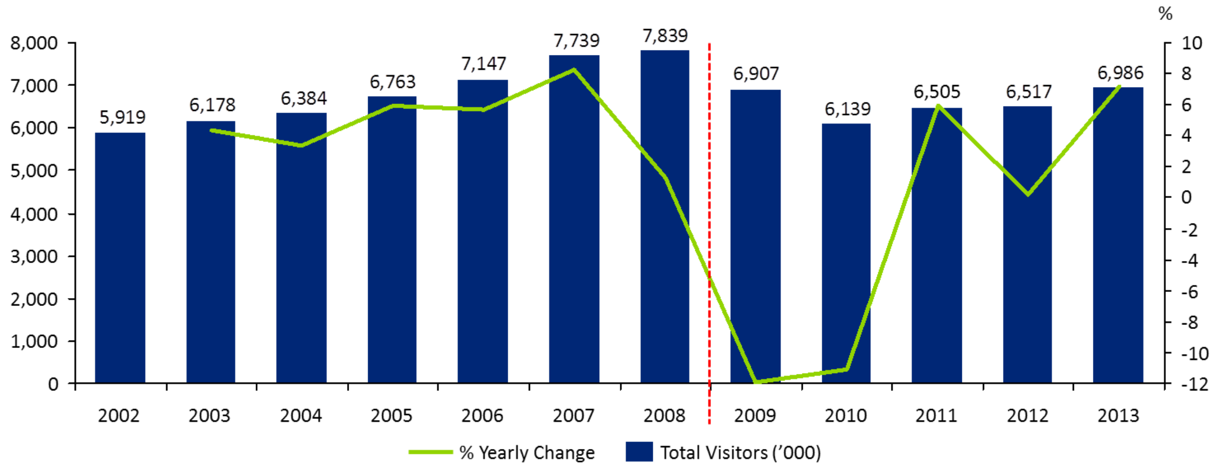
However, the tourism industry in Ireland has succeeded in arresting the decline in overseas visitor numbers and associated tourism revenue in recent years. This section sets out a number of these trends.

Tourist Numbers and Revenue

The Irish overseas tourism industry grew strongly between 2002 and 2007, with 30% growth in international visitors over this period to reach a peak of 7.7 million visitors. The onset of the global economic crisis in 2007/08 contributed to a 25% decline in overseas tourist visits to Ireland between 2007 and 2010. The industry subsequently enjoyed growth of 6% to 6.5 million visitors in 2011, and remained at a similar level in 2012.

In 2013 tourism numbers saw strong growth of 7.2%, reaching their highest point since 2008 with c. 7 million overseas visitors. These figures are shown in Figure 4.1, though it should be noted that changes to the CSO's collection methodology on overseas visitor numbers means that direct comparison of data pre and post 2009 cannot be made. Nevertheless, the fact remains that 2013 saw the strongest growth in tourism numbers since the onset of the recession.

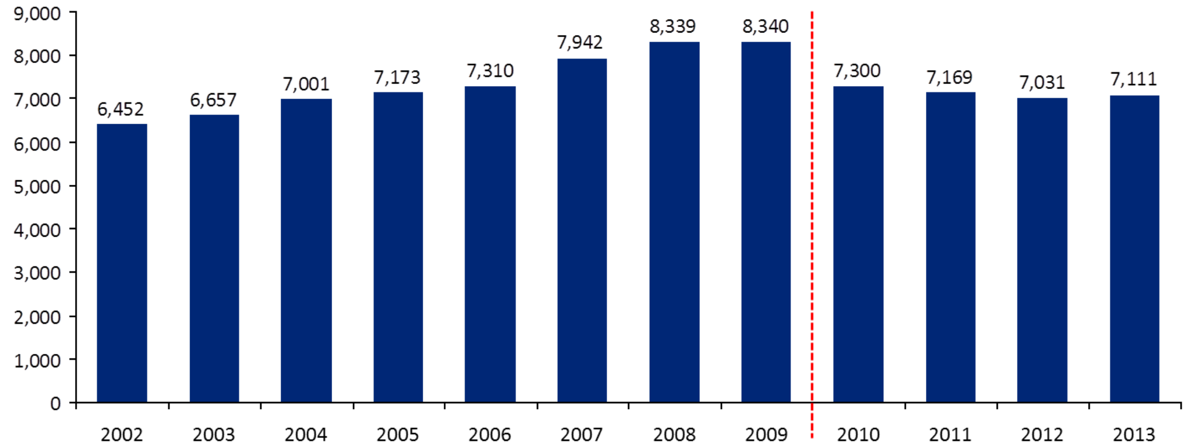
Figure 4.1: Overseas Tourism Visitors, 2002 – 2013 ('000s)



Source: CSO Tourism Database - http://www.cso.ie/en/databases/index.html
Note: Data revisions by CSO mean direct comparison should not be made between pre-2009 data and post-2009 data

The number of domestic trips has been taking longer to recover and has remained relatively flat since 2010.

Figure 4.2: Domestic Tourism Numbers, 2002 – 2013 ('000s)

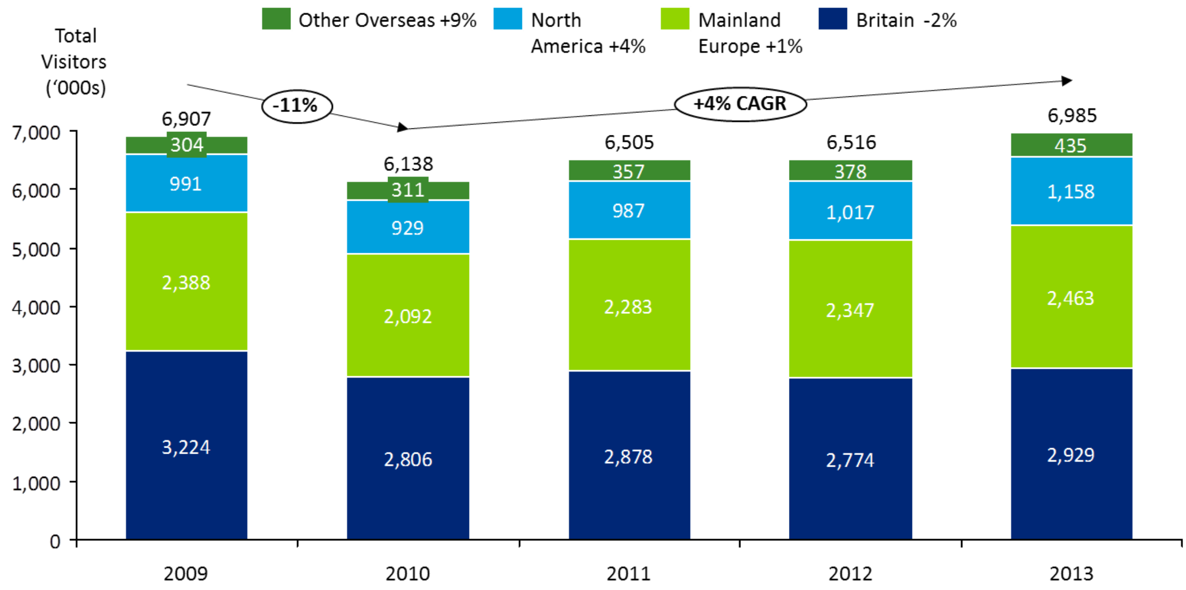


Source: Source: CSO Tourism Database - http://www.cso.ie/en/databases/index.html
Note: Data revisions by CSO mean direct comparison should not be made between pre-2010 data and post-2010 data

Overseas Markets

The most important overseas markets for the Irish tourism industry are Great Britain, Mainland Europe and North America. Together, these three regions accounted for 94% of all overseas trips to Ireland in 2013, as shown in Figure 4.3.

Figure 4.3: Total Overseas Tourism Visitors by Country of Origin, 2009 – 2013 ('000s)



Source: CSO Tourism Database - http://www.cso.ie/en/databases/index.html

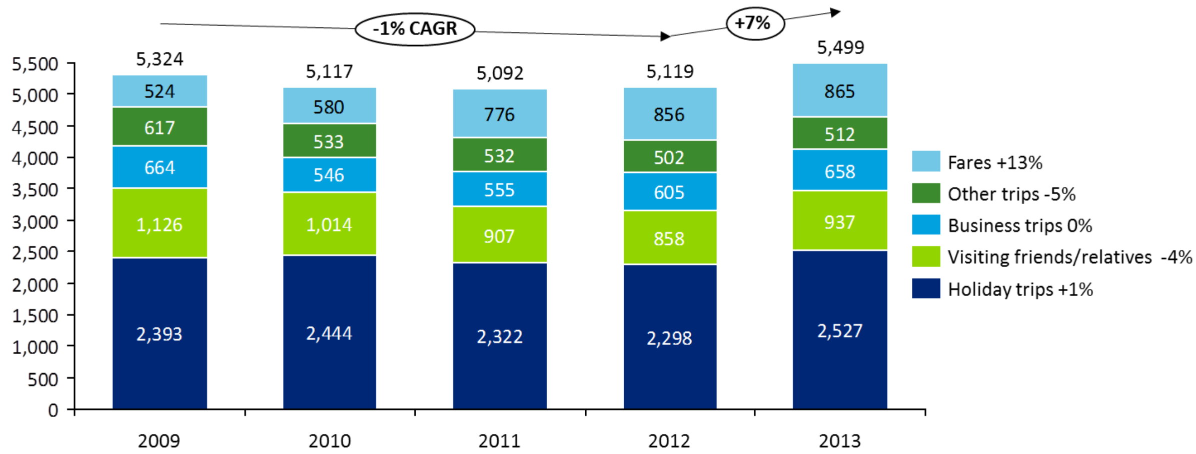
The relative importance of these segments to the Irish tourism market is changing with the market share of British tourists declining. In 2013, British visitors represented 41.9% of total visitors to Ireland, down from 46.7% in 2009. Britain still accounts for the greatest share of overseas tourist numbers however, with 2.9 million visits to Ireland in 2013.

Visits from Mainland Europe were also adversely affected in the latter part of the 2000s, but have made a strong recovery since, with visitor numbers in 2013 up by 18% from the 2010 low. Visitor numbers from North America have followed a similar trend to those from Mainland Europe. North American visitors to Ireland declined by 6% in 2010, before growing by 25% to 1.16 million in 2013.

Tourism Revenue

Total expenditure by tourists is heavily impacted by trends in total overseas tourist visitors, as the expenditure associated with a domestic visitor is less than that associated with an overseas visitor. Unsurprisingly, tourism revenue declined with falls in the number of overseas tourists in 2009 and 2010. Total annual expenditure by tourists fell from €5.3 billion in 2009 to €5.1 billion in 2011, as Figure 4.4 illustrates. Expenditure then recovered modestly in 2012 before growing strongly by 7% to almost €5.5 billion in 2013.

Figure 4.4: Total Tourism Revenue, 2009 – 2013 (€m)



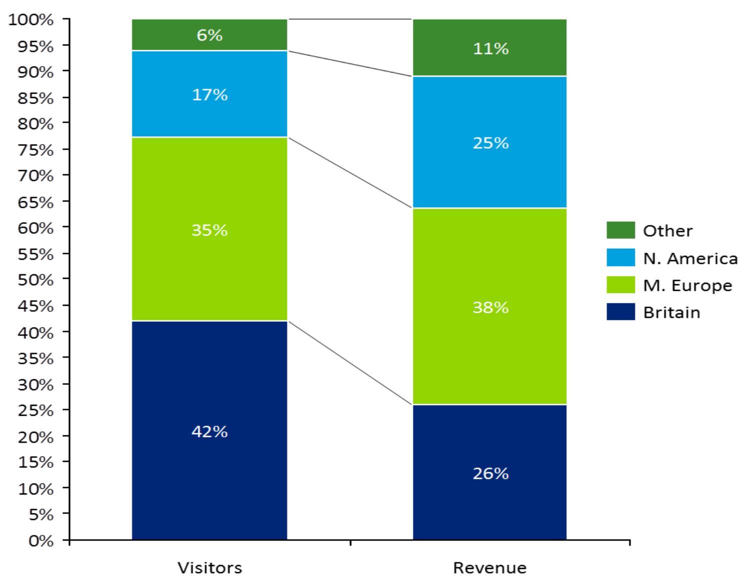
Source: CSO Tourism Database - http://www.cso.ie/en/databases/index.html

Note: Data revisions by CSO mean direct comparison should not be made between pre-2009 data and post-2009 data

Figure 4.4 also breaks out this expenditure by the type of trip. This shows that holiday trips are the single most important category, accounting for 46% of tourist revenue in 2013. An increase in revenue from holidaymakers is also responsible for most of the recovery in tourism revenue, with growth of €205 million from the low in 2009 to 2013 (accounting for 50% of total growth during this time). Expenditure by overseas travellers accounted for all of this increase, rising by €230 million over the period, with spending by Irish tourists in Ireland down by €25 million.

While Britain is the most important market for Irish tourism in terms of visitor numbers, Mainland Europe accounts for the greatest share of overseas tourism revenue, as shown in Figure 4.5. Britain was the source of 42% of overseas visitors to Ireland in 2013, with these visitors only accounting for 26% of total revenue.

Figure 4.5: Overseas Markets Share by Visitor Numbers and Revenue, 2013 (%)



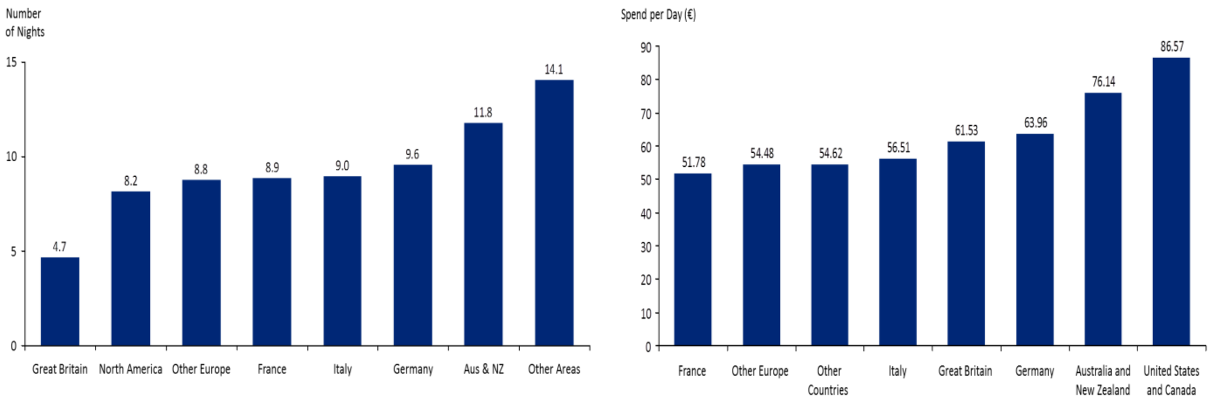
Source: CSO Tourism Database - http://www.cso.ie/en/databases/index.html .

Note: this excludes carrier receipts.

The discrepancy between number of visitors from a region and total expenditure by region is largely explained by the variance in average length of stay and average spend per day as shown in Figure 4.6. In general, the further a tourist has to travel to reach Ireland, the longer the average stay.

The graphs below show that while the average spend per day of British visitors is reasonably high, the average length of stay is considerably shorter which reduces the total spend. Visitors from North America have a very high average spend per day, which explains why their share of revenue is considerably higher than their share of visits. Visitors from Australia and New Zealand have both a high average spend per day and a high average length of stay, making them a very valuable segment. It should be noted however that this category would include Irish nationals returning home for holidays, as the figures are based on country of residence rather than nationality.

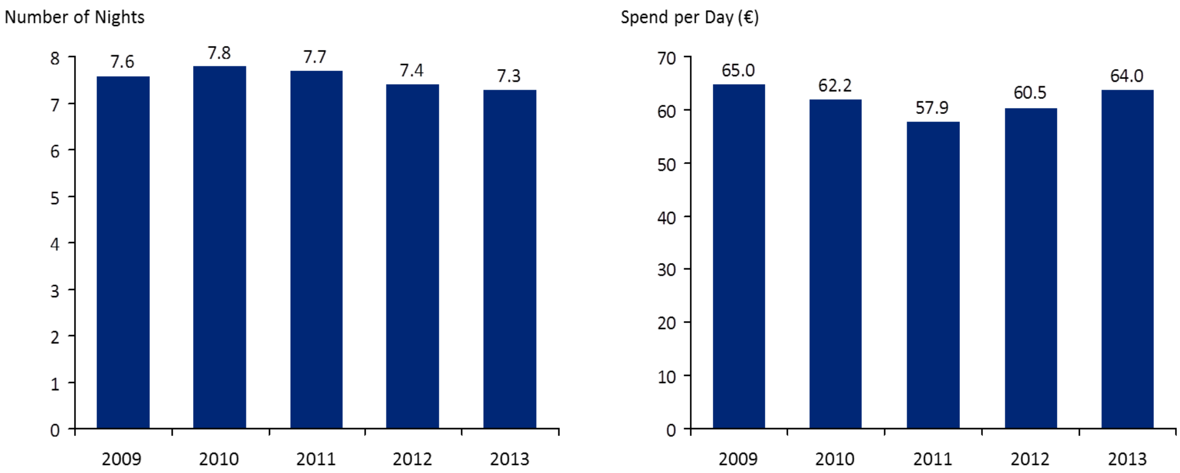
Figure 4.6: Average Length of Stay and Average Spend per Day by Region 2013



Source: CSO Tourism Database - http://www.cso.ie/en/databases/index.html .
Note: CSO data includes day-trippers

We can also look at the breakdown between average length of stay and average spend per day to examine the reasons behind the increase in tourism revenue in recent years. Figure 4.7 below shows the changes in average length of stay and average spend per day over the past 5 years.

Figure 4.7: Average Length of Stay and Average Spend per Day by Region 2013



Source: CSO Tourism Database - http://www.cso.ie/en/databases/index.html

While visitor numbers were increasing from 2011 (as shown in Figure 4.1), a combination of lower average spend per visitor per day and lower average length of stays combined to keep tourist revenue flat from 2010 – 2012 (as shown in Figure 4.4). However, once the reduction in average length of stay began to stabilise, an increase in average spend per day and higher tourist numbers began to increase tourism revenue. Average spend per day has increased substantially since the 2011 low, rising by 10.5% since 2011. This has coincided with the VAT reduction and an increase in perceptions of value for money, as outlined in Section 3.

The Tourism Balance

If the VAT reduction has increased the competitiveness of the Irish tourism, this should be reflected in both increased spending by foreign tourists in Ireland, and proportionately greater spending by Irish tourists in Ireland versus foreign destinations. The CSO collects data on spending by foreign tourists in Ireland as well as spending by Irish tourists at home and abroad which can be added up to calculate a 'tourism balance'. This is calculated by adding spending by foreign tourists in Ireland to spending by Irish tourists in Ireland, and subtracting spending by Irish tourists abroad. The results of this calculation, split out by expenditure type, are outlined in Table 4.1 below.

Table 4.1: Irish Tourism Balance 2009 - 2013

Tourism Balance (€m)	2009	2010	2011	2012	2013	Δ '09 - '13
Holiday trips	-2,045	-1,646	-1,513	-1,406	-1,290	**755**
Visiting friends/relatives trips	199	63	99	39	153	**-46**
Business trips	182	-17	7	24	57	**-125**
Other trips	422	335	324	373	449	**27**
Net Expenditure	**-1,241**	**-1,266**	**-1,083**	**-971**	**-631**	**611**
Fares to Irish Carriers	1,094	1,170	1,565	1,677	1,667	**573**
Net Expenditure Including Fares	**-147**	**-96**	**482**	**706**	**1,036**	**1,184**

Source: CSO Tourism Database - http://www.cso.ie/en/databases/index.html

The table shows that there has been a substantial improvement in the tourism balance over the period, with the net amount excluding air fares improving by over €600m between 2009 and 2013. The holiday trips category accounts for the vast majority of this improvement. This is being driven by increasing spending by non-residents in Ireland, as well as proportionately less spending by Irish residents abroad (implying some substitution of foreign holidays for domestic over the period). A full breakdown of spending by domestic travellers in Ireland, non-residents in Ireland and Irish residents abroad is provided in Appendix 3.

Conclusion

- Tourist numbers are up in recent years, with good growth in overseas visits and a small increase in the number of domestic trips in 2013. International visitor numbers grew by 7.2% in 2013 – the highest level of growth since 2007.

- Tourist expenditure has also increased during this time, with holiday expenditure by overseas tourists accounting for the largest element of the increase. Between 2012 and 2013, earnings from international visitors – an invisible export – increased by €346 million.

- The increased tourist expenditure is being driven by an increase in the average spend per tourist per day, as well as an increase in tourist numbers. Average spend per tourist per day has increased by 10.5% since 2011.
- The tourism balance (defined as the amount of expenditure by non-resident visitors to Ireland, plus the amount of expenditure by domestic travellers in Ireland, less the amount of expenditure by Irish residents abroad) has improved in the last number of years. This has been driven by a combination of increased foreign tourist expenditure in Ireland, as outlined above, and proportionately less spending by Irish tourists abroad.

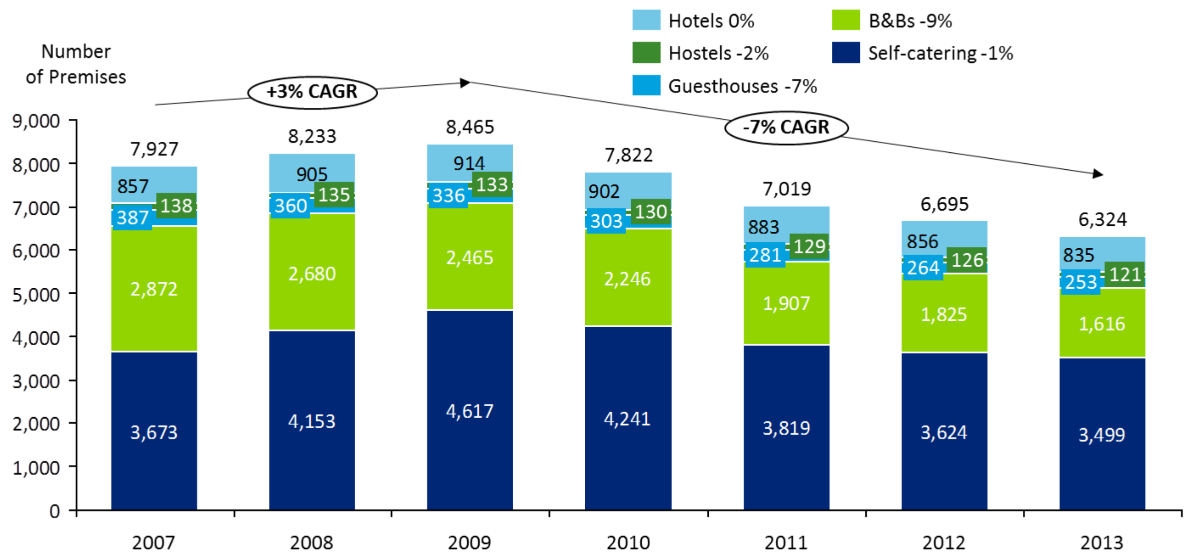
5. Was there an Increase in Activity?

This section looks at the performance of the paid accommodation sector since 2007. It provides an insight into the impact of the introduction of the VAT rate reduction on accommodation providers and examines whether or not this has led to an increase in activity in the sector.

Accommodation Stock

Recent economic difficulties have had a substantial impact on the stock of accommodation in the tourism sector, with the total number of premises falling by one-quarter from the peak in 2009. There are now 2,141 fewer premises compared to 2009 across all category types, as shown in Figure 5.1 below. The rate of decline has moderated slightly in recent years, though is still significant at -4.6% in 2012 and -5.5% in 2013.

Figure 5.1: Accommodation Stock (Premises), 2007 – 2013

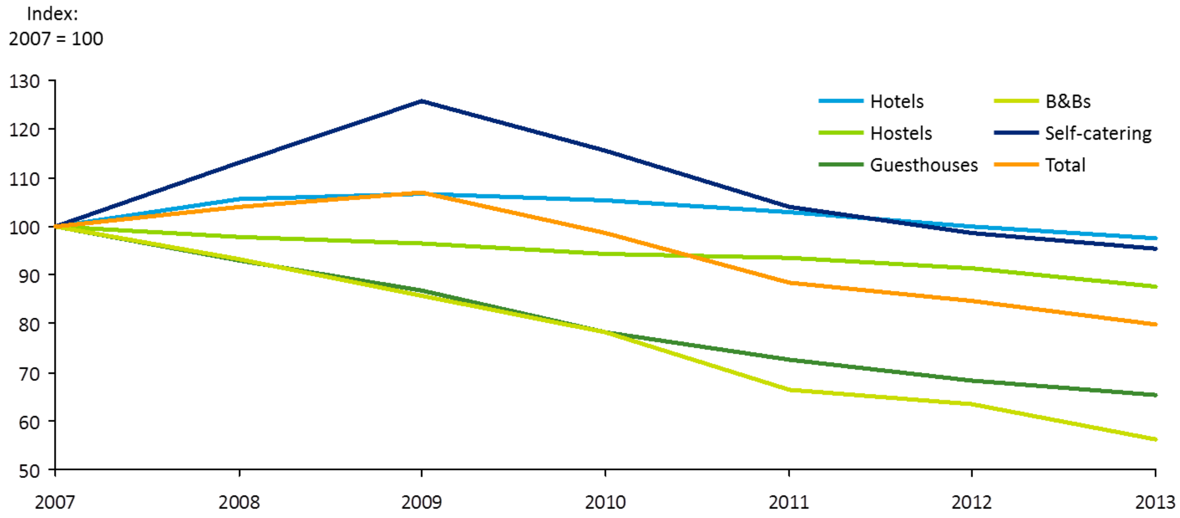


Source: Fáilte Ireland

The overall numbers do hide considerable differences by category however. The reduction has been primarily driven by a large decline in the guesthouse and bed & breakfast segments which have seen stock declines of 35% and 44% respectively since 2007. It should be noted that changes in taxes and levies may have played a part in this decline, in addition to overall economic pressures and a drop in demand for this type of accommodation.

Hotels, hostels and self-catering accommodation have not been hit to the same degree. In 2013 hotel stock fell 2.6% below its 2007 level, having fallen 8.6% from the 2009 high. The number of hostels has fallen by 12.3% since 2007, while the number of self-catering units has declined by 4.7%. The indexed performance of each segment is shown in Figure 5.2.

Figure 5.2: Accommodation Stock (Premises) Growth, 2007 – 2013 (Indexed 2007 = 100)

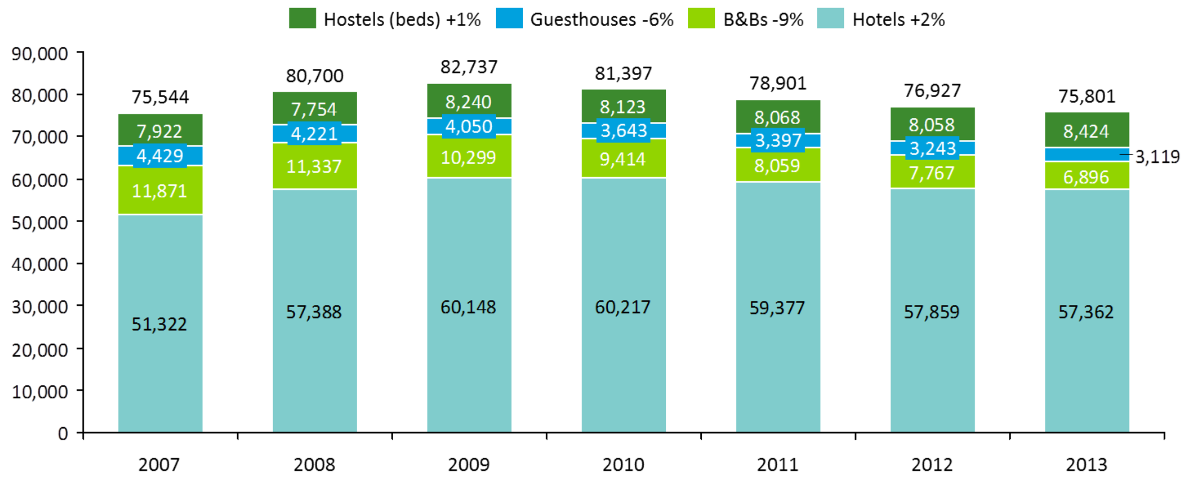


Source: Fáilte Ireland, Tourism Facts, 2007 - 2013

Number of Rooms

While the number of premises has declined significantly, the stock of rooms is relatively flat over the period, indicating that the average size of the businesses has increased. Again, there is a difference between categories - hotels and hostels are growing, but B&Bs and guesthouses are seeing large declines. It is therefore no surprise that the average size of the accommodation stock has grown, given that hotels and hostels typically have higher numbers of rooms than B&Bs and guesthouses. However the average size of hotels has also grown – from 59.9 rooms per hotel on average in 2009, to 68.7 in 2013.

Figure 5.3: Accommodation Room Stock 2007 – 2013 ('000s)



Source: Fáilte Ireland, Tourism Facts, 2007 – 2013

Occupancy Rates

Moving from an assessment of supply to demand, there has been an increase in overall hotel occupancy rates in 2013, as shown in Table 5.1. This increase is occupancy is to be expected given the tighter supply scenario and the increase in tourist numbers and spending set out in the previous section. Room occupancy is estimated to have risen above 61% in 2013, closing in on 2007 levels. Table 5.2 sets out the occupancy rates since 2007 in the other categories of accommodation.

Table 5.1: Hotel Room Occupancy and Bed Occupancy Rates, 2007 – 2013 (%)

	2007	2008	2009	2010	2011	2012	2013
Hotel Room Occupancy	64	58	56	56	56	60	61
Hotel Bed Occupancy	46	43	42	41	41	45	n/a

Source: Fáilte Ireland Tourism Facts 2008 - 2013

Table 5.2: Room Occupancy Rates by Category, 2007 – 2013 (%)

	2007	2008	2009	2010	2011	2012	2013
Guesthouse Room Occupancy	63	49	44	43	46	50	51
B&Bs Room Occupancy	48	35	31	27	31	30	27
Hostels Bed Occupancy	64	60	45	44	47	46	44
Self-Catering Unit Occupancy	61	41	33	35	39	38	34

Source: Fáilte Ireland Tourism Facts 2008 - 2013

The results for 2007 and 2008 are not directly comparable to later years owing to differences in how the data was collated

It is apparent that there was a large reduction in occupancy rates across all categories of accommodation between 2007 and 2010. While there has been some improvement since, most notably in the hotel sector, occupancy rates still remain lower than in 2007. Fáilte Ireland believe the occupancy rate in 2007 is a good indicator as to the rate necessary for the industry to be sustainable – the above figures show that no category of accommodation has returned to this level yet, though hotel occupancy rates are approaching it.

Economic theory would suggest that the reduction in the occupancy rate also increases the likelihood of the reduction in VAT being passed-through to consumers, since the excess capacity in the sector places suppliers in a weaker position with regard to pricing power. Taking the hotel sector as an example, high levels of fixed costs and a large number of free rooms mean that hoteliers often look to lower prices to reduce spare capacity as the marginal cost of filling the rooms is low compared to the marginal revenue gained from additional customers.

In addition, the economic literature suggests that the price elasticity of demand for tourism related goods is relatively elastic[7]. When the price elasticity of demand is said to be elastic it means that buyers are more sensitive to price changes, i.e., for a given percentage change in price there will be a correspondingly larger percentage change in demand. This will encourage accommodation providers to lower prices in order to stimulate demand.

Therefore accommodation providers (particularly those with high fixed costs and low marginal costs such as hoteliers) may use the VAT reduction to lower prices in order to entice additional customers and reduce levels of spare capacity. The price trends in the hotels and accommodation category discussed in Section 2 would suggest that there has indeed been pass-through in this segment, demonstrating this effect in action.

[7] Durbarry, R. (2008). Tourism Taxes, Implications for Tourism Demand in the UK. *Review of Development Economics,* 12(1), 21 – 36

Conclusion

- The number of accommodation premises in the tourist industry has fallen substantially since 2007, reflecting the decline in tourist numbers and general economic environment. It is believed that some of the decline can be attributed to changes in tax incentives that have led owners, particularly those in the Guesthouse and B&B sectors, being less willing to categorise their property as tourist accommodation stock.

- In contrast, the stock of rooms has been relatively flat over the period, implying that the average size of accommodation premises has increased. This is mainly due to the relative outperformance of the hotel segment which constitutes a large share of total rooms. The share of rooms accounted for by hotels has increased from 71.1% in 2007 to 78.8% in 2013.

- There has been a slight increase in hotel room occupancy rates in 2013, albeit less impressive than 2012's increase. Hotel occupancy rates are now starting to approach 2007 levels – a rate Fáilte Ireland believes is sustainable in the long term.

- Outside of hotels, the occupancy trends are less positive. Guesthouses were the only category to see an increase in 2013 over 2012, with the other categories suffering falls of 2% – 4%. Occupancy rates remain well below 2007 levels in these categories.

- The excess capacity in the sector also increases the likelihood of the price reduction being passed through to end consumers, since suppliers have less pricing power. The price trends in the hotels and accommodation category discussed in Section 2 would suggest that there has indeed been pass-through in this segment.

- Overall trends are positive for the hotel and hostel sector with occupancy levels now approaching sustainable levels. For other sectors significant challenges remain.

6. Did Employment Increase?

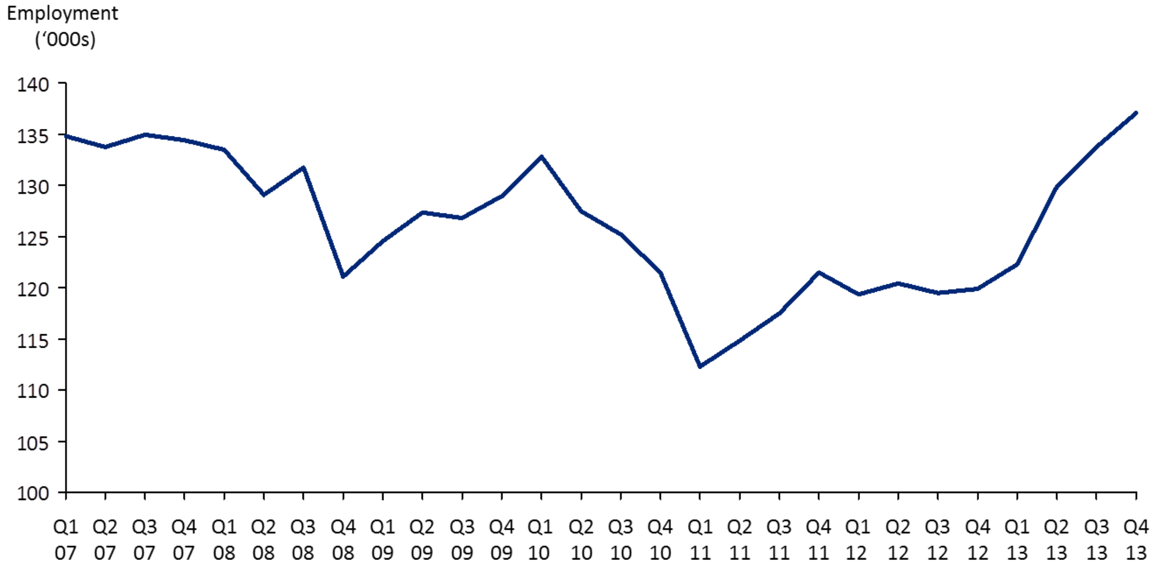
One of the key goals in introducing a lower rate of VAT was to stimulate increased employment in the tourism industry. Increased employment in the sector is an important objective of the reduced rate as it is strongly linked to increased demand in the tourism sector. This increased demand is also likely to lead to higher VAT receipts, while more people in employment will also generate additional fiscal benefits through higher income tax receipts and savings in social security payments.

Employment in the tourism sector can be measured by looking at the CSO's Quarterly National Household Budget Survey data for Accommodation and Food Services. Other activities within the 9% category cannot currently be identified as they form sub-categories within the sectors tracked by the QHNS. Therefore, the data referred to in this section can only be taken as a proxy for overall employment in the sector and not as an indicator of absolute levels. However, as O'Connor states, whilst it is not possible to analyse the employment impact for those other activities, accommodation and food services account for over 70% of expenditure on the 9% items and can thus be considered a reasonable proxy for the overall impact of the 9% items[8]. The data is also limited in that it does not split employment by full-time and part-time: trends in the nature of employment are likely to be significant given the prevalence of part-time work in the sector.

Employment in the tourism sector has a strong cyclical nature which corresponds to seasonal changes in the level of activity in the sector over the course of each year. Furthermore employment in the sector, in general, is relatively volatile and shows continual rises and falls linked to domestic consumer disposable income and overall tourist numbers as shown in Figure 6.1 below. These two factors ensure that there are often large changes in employment numbers both within each year and over the course of a number of years.

[8] Brendan O'Connor, *'Measuring the impact of the Jobs Initiative: Was the VAT reduction passed on and were jobs created?'* within the Department of Finance, Medium-Term Fiscal Statement, November 2012

Figure 6.1: Employment in Accommodation and Food Services (seasonally adjusted)



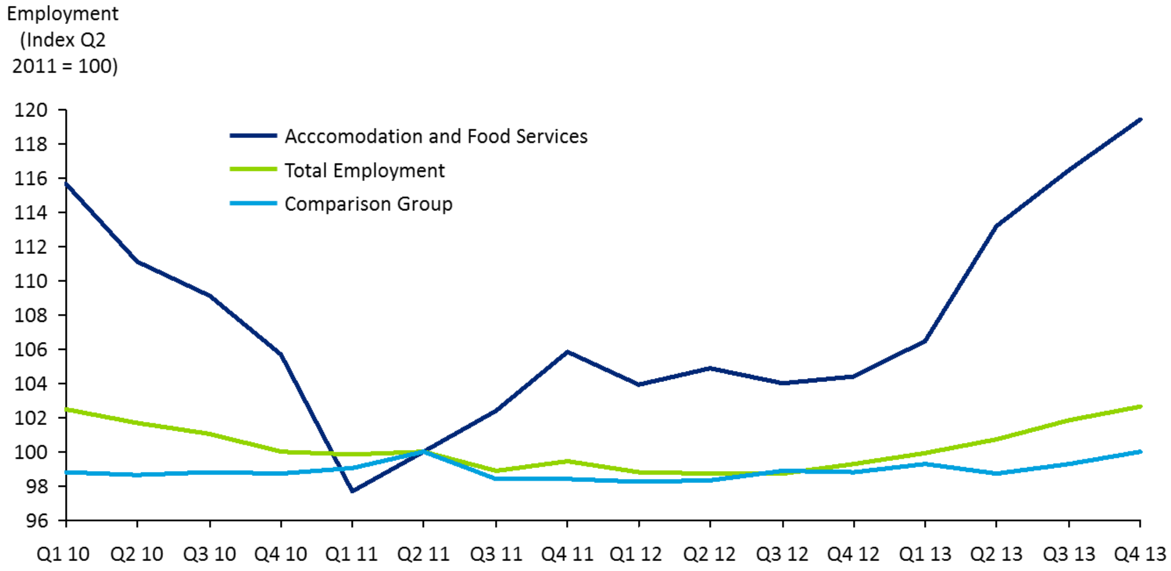
Source: CSO, Quarterly National Household Survey

Overall the trend shows a decline in employment in the sector from 2007 onwards with a stabilisation becoming apparent from late 2011 onwards, i.e. post the Jobs Initiative, followed by a strong rise. Seasonally adjusted employment levels in 2013 were 11,025 higher on average versus 2012, with Q4 2013 a full 17,300 ahead of Q4 2012. The recovery has been such that employment levels are now actually ahead of those seen before the recession.

Examining the trends in employment in the sector against trends in the overall economy also presents an encouraging picture. Similar to the analysis by O'Connor for the Department of Finance, Figure 6.2 below sets out the employment trends in 'Accommodation and Food Services' against those in the overall economy and those in a comparative services group. The overall economy-wide employment figures include construction, manufacturing and public sector jobs, which may not be relevant for this analysis. Therefore we have examined a number of possible counterfactual sectors - the selected comparative group is the full services sector excluding accommodation and food services (since this is what is being compared), the public sector and information and communications sectors, since they are not directly comparable to the tourism sector. All data is indexed to Q2 2011.

We can see that total employment has begun to trend upwards and is now higher than the level seen in Q1 2010. Employment in Accommodation and Food Services has been much more volatile, declining at a greater pace in 2010 but also recovering more quickly from its low in 2011. Looking at the comparative group, the trend here is slightly more stable than the trend seen in total employment numbers.

Figure 6.2: Employment in Accommodation and Food Services in Context Q1 '07 – Q4 '13 (Q2 2011 =100)



Source: CSO, Quarterly National Household Survey

To consider the impact of these overall employment trends on actual employment numbers we compared the indexed performance of the Accommodation and Food Services sector against Total Employment levels from the Quarterly National Household Survey and the Comparison Group from Quarter 3 2011 to Quarter 4 2013. Over this period, employment in the Accommodation and Food Services category was consistently higher than would have been the case had this category performed in line with either total employment in the economy or with the selected comparator group. Overall, our interpretation is that employment is 19,400 above that if the sector had performed at the level of overall employment in the economy, while it is 22,300 above the Comparison Services Group. This is shown in Table 6.1.

Table 6.1: Outperformance of Accommodation and Food Services in actual terms

	Q3 2011	Q4 2011	Q1 2012	Q2 2012	Q3 2012	Q4 2012	Q1 2013	Q2 2012	Q3 2013	Q4 2013
Versus Total ('000s)	4.0	7.4	5.8	7.0	6.1	5.8	7.6	14.3	16.9	19.4
Versus Comparison Group ('000s)	4.5	8.6	6.6	7.5	5.8	6.3	8.3	16.6	19.7	22.3

Source: Deloitte analysis of CSO, Quarterly National Household Survey data

Given that a lag between the introduction of the reduced VAT rate and an impact on employment levels would have been expected, it is very encouraging to see the strong outperformance of the Accommodation and Food Services sector over the past 12 months.

Keeping in mind the labour intensive nature of the 9% items and the fact that that only 70% of expenditure was in accommodation and food services, it should be safe to assume that the total jobs out-performance following the Jobs Initiative VAT cut is higher still. If we assume that the trend in accommodation and food services is reflective of the other categories, then a total jobs out-performance following the Jobs Initiative VAT cut could be between 27,700 and 31,900. (factoring up the outperformance versus total employment and the comparison group in Q4 by the 30% of non-Accommodation and Food related expenditure).

Link Between Expenditure and Jobs

The increase in employment is driven by the increasing levels of expenditure in the Irish tourist sector, as set out in the previous sections on tourism sector performance. Research from Fáilte Ireland indicates that every €1m of tourist expenditure helps to support 34 tourism jobs[9]. The total additional spending in the tourism sector (excluding air fares) in 2013 versus 2012 was €372m, as set out in Section 4. This would imply an additional 12,645 jobs in the sector. The actual increase in the average level of seasonally adjusted employment in 2013 versus 2012 was 11,025 jobs - broadly corresponding to the expected level of increase.

Exchequer Benefit

There will be an Exchequer gain associated with the circa 30,000 employment increase in terms of both social welfare savings and additional income tax. A possible annual quantification of this draws on past analysis by Fáilte Ireland[10]:

- Social Welfare Savings: Assume that that half of the jobs arising would go to those in receipt of unemployment related social welfare payments. This results in an annual saving to the Exchequer of €10,000 per person - equating to a net saving of €150 million.

- Income Tax Gain: Using CSO data average earnings in accommodation and food services are taken to be €16,500 and, based on information in the Revenue Commissioners Statistical Report, the effective income tax rate on such annual earnings is 3%. This would amount to c€15 million in extra income tax.

Conclusion

- There has been a significant improvement in the employment levels in the tourism sector since the introduction of the lowered VAT rate. This follows large declines prior to Q2 2011. Seasonally adjusted employment levels in Q4 2013 were 17,300 ahead of Q4 2012.

- Employment in the tourism sector has significantly outperformed total employment, and has also significantly outperformed our selected comparator group. As shown, there has been an increase in activity in the sector, as evidenced by the trends in overall tourism numbers and expenditure seen in Section 4.

- It is reasonable to infer that this increase in activity has been partially driven by the VAT reduction given that the increase in activity coincided with the timing of the VAT reduction. The improvement in employment levels in the tourism industry is another positive indicator that the goals of the VAT rate reduction are being delivered.

- Given that the 9% category is wider than just tourism, a total jobs out-performance following the Jobs Initiative VAT could be estimated at c30,000. On an annual basis this would result in an Exchequer gain of €165 million in social welfare savings and additional income tax.

[9] Fáilte Ireland: Tourism Facts 2013
[10] Fáilte Ireland, Seniors' Tourism: The Potential for an Off-Peak Incentive Scheme, October 2011

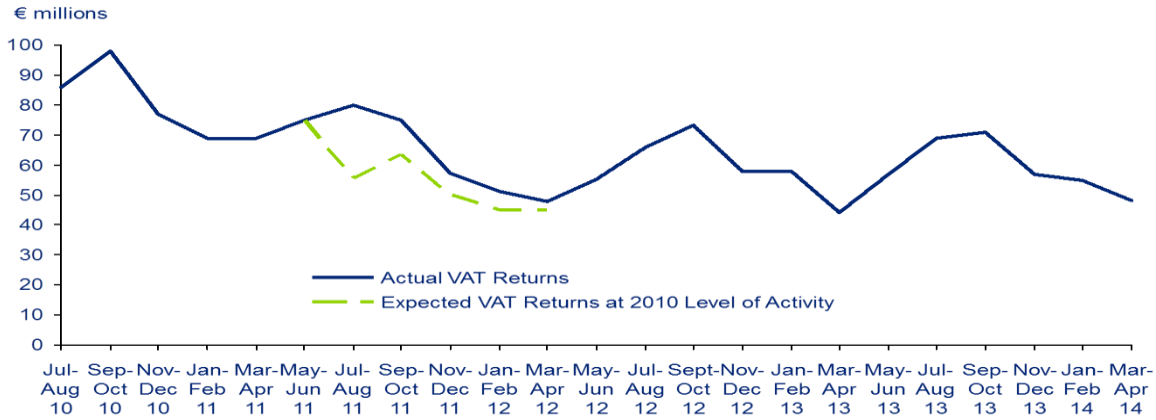
7. What has the Cost of the VAT Rate Reduction Been Compared to Expectations?

The Minister for Finance stated the reduction in the VAT rate "was estimated to cost €120 million in 2011 and €350 million in a full year" when launching the Jobs Initiative 2011[11]. This section sets out an analysis of what the actual cost (in terms of reduction in VAT receipts) of the measure has been.

This analysis of VAT receipts in the impacted '9% sectors' provides an important indicator of the overall 'cost' of the VAT reduction initiative, and the cost relative to initial expectations, as well as to the level of overall activity in the sector. VAT receipt trends in the 9% categories have remained broadly similar from 2010 to 2013 with all years exhibiting seasonal patterns. The strongest receipts occur during the summer months (reflecting higher returns from the hotels and restaurants sector) with a gradual decline over the winter and a rise during spring.

The level of VAT returns in the 9% categories did decline as expected following the reduction in the VAT rate on 1 July 2011; however the decline was less than expected at c.23% in the first 12 months against an expected decline of 33% if the full rate of the VAT reduction had been applied to VAT receipts. The expected decline is calculated on the assumption that in the absence of the VAT rate reduction, underlying activity levels would have remained constant at the previous 12 months' levels, with the expected VAT returns at the 9% rate calculated off this level of activity. The actual level of VAT receipts over the past four years is shown in Figure 7.1 below.

Figure 7.1: Total VAT Receipts in 9% Categories July 2010 – April 2014



Source: Revenue Commissioners, Deloitte Analysis

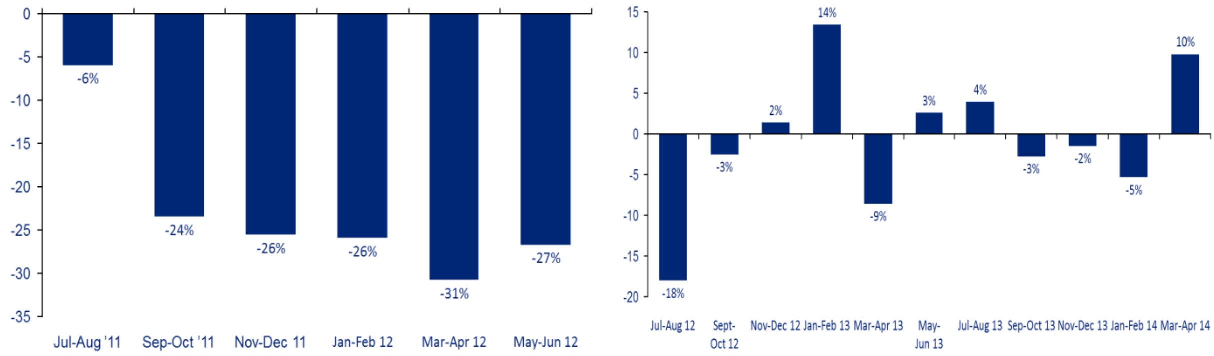
[11] Department of Finance, Jobs Initiative, May 2011

In total, VAT receipts fell by €107 million in the impacted categories in the first 12 months following the introduction of the Jobs Initiative. This impact has been substantially lower than the Department of Finance's original estimated cost of c€350 million per year. Extrapolating beyond this point is difficult given that a number of other factors have influenced VAT returns in the interim. However we can clearly see from Figure 7.1 that VAT returns have been broadly flat since then (notwithstanding seasonal trends), and therefore the overall cost has been considerably lower than expectations.

The bi-monthly trend is shown in Figure 7.2. Here we spilt the yearly changes into two periods – the first is in the immediate 12 months following the VAT reduction where the comparison period had the full 13.5% VAT rate, while the second shows the subsequent months where the comparison period has the 9% rate in operation.

The decline can be seen to have been substantial up to July/August 2012. For example, in September – October 2011, VAT receipts in the impacted categories were €23 million less than in the same period one year previously when the VAT rate had been 13.5%. From this period onwards the decline has slowed and from September 2012 begun to stabilise.

Figure 7.2: Percentage change in VAT receipts in 9% Categories against previous 12 month period July 2011 – April 2014



Source: Revenue Commissioners, Deloitte analysis

Note: From Jul-Aug 11 to May-Jun 12, the comparison is between 9% VAT rate and 13.5% VAT rate; from Jul-Aug 12 onwards, the comparison is between 9% VAT rates.

Table 7.1: Change in VAT receipts in 9% Categories against previous 12 month period

All Figures €m	July '10 - June '11	July '11 - June '12	July '12 - June '13	July '13 - April '14 (Actual)	July '13 - June '14 (Estimated*)
VAT Returns	474	367	356	300	356
Δ on Previous Comparable Period		-107	-11	-	0

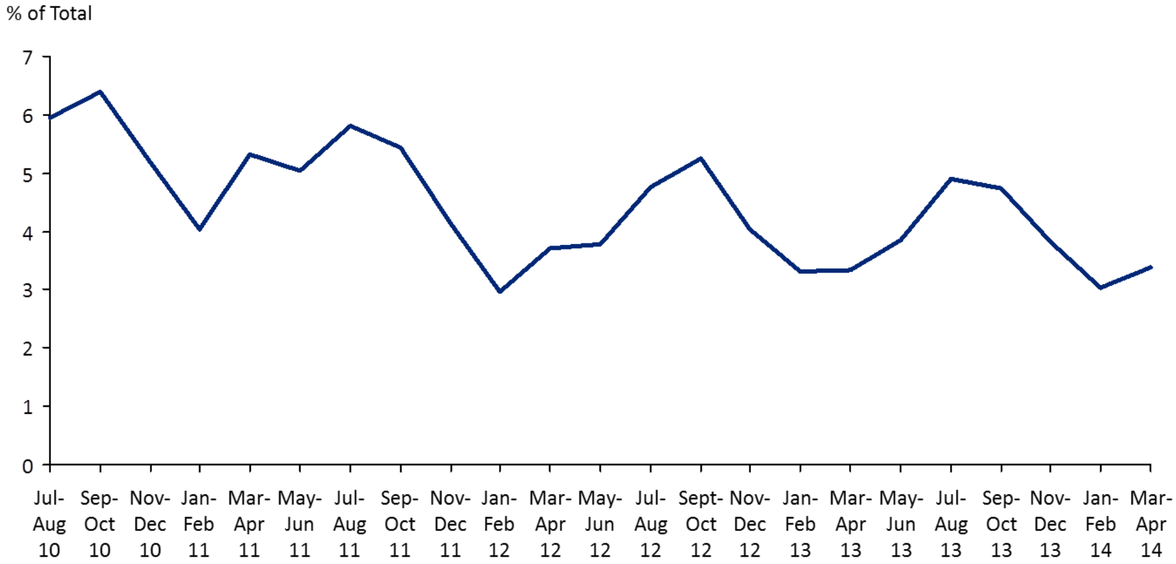
Source: Revenue Commissioners, Deloitte analysis

*The estimate for July '13 – June '14 is obtained by factoring up the 10 month return to April '14 by the percentage of VAT typically received in May and June (c.16%)

Table 7.1 above shows the actual level of VAT returns in the 12 months before the rate cut and the equivalent returns in the subsequent 12 month periods (where the number for July'13 – June '14 is estimated based on previous returns for May and June). We can see that since the initial decline of €107 million, returns have stabilised.

Given the overall decline in the Irish economy in this period, it is also relevant to note the percentage contribution that these sectors make to overall VAT receipts, as shown in Figure 7.3. In the period prior to the VAT reduction the 9% sectors contributed 5.3% of the overall receipts; this reduced to 4.3% in the first 12 months following the VAT reduction. The total contribution was 4.0% in 2012, and remained at this level in 2013.

Figure 7.3: Percentage of Overall VAT receipts accounted for by the 9% sector



Source: Revenue Commissioners

Net Exchequer Impact

The final exchequer impact of the VAT reduction is the net impact of the additional tax revenue as a result of higher spending and higher employment, plus social welfare savings, less the negative impact of the lower VAT rate. We can estimate each of these changes individually, though there is no certainty with regard to how much of these changes are due to the VAT reduction.

The impact of the higher spending as a result of the lower prices from the VAT reduction and the cost of the lower VAT rate are both tied up in the VAT figures outlined above. As we saw, the net reduction in VAT revenues was €107 million in the first 12 months following the VAT reduction. The equivalent figure for the second 12 months was €118 million, while run rate for the last 10 months would suggest a similar level this year. Therefore the cost of the initiative thus far has been in a range of €107 million - €118 million per year – considerably less than originally envisaged.

Turning to the benefits, the impact of the lower social welfare payments and higher income tax receipts were calculated in Section 6, and are as follows:

- Social welfare savings of €150 million.
- Income tax gain of c€15 million.

While it is very difficult to establish how much of the benefits and costs outlined above are directly attributable to the reduced VAT rate, it is clear that the costs of the initiative are lower than originally thought while there are also considerable benefits which at least partly offset these costs.

Initiatives in Selected Other Countries

There have been a number of similar initiatives or proposed initiatives in other European countries in relation to a reduced VAT (or equivalent) rate on the tourism industry. The tourism industry is highly competitive and the reduction in VAT has enabled Irish tourism to become more competitive relative to other European countries as shown below.

Country	VAT rate on hotels and cultural attractions
Switzerland	3.8% (reduced from 8%)
Germany	7% (reduced from 19%)
France	10% (reduced from 19.6%)
Ireland	9% (reduced from 13.5%, standard rate 23%)
Italy	10% (reduced from 21%)
UK	20% (proposal to reduce to 5%)
Greece	13% (reduced from 23%)

Germany

A VAT rate reduction for hotels from 19% to 7% was introduced from 1st January 2010. It was believed the previous rate was making Bavaria, a region with a large tourism industry, uncompetitive with southern neighbours such as Austria and Switzerland. The lower rate was also intended to stimulate hotel investment.

The fact that the German Finance Ministry, traditionally one of the most fiscally conservative in the EU, has implemented this VAT reduction suggests that they believe the indirect impact of the VAT cut, in stimulating activity and employment in the sector and thus broadening the size of the VAT base and increasing income tax and corporation tax yields is likely to be significant, and may largely offset the direct loss in VAT yields. Their decision was influenced by research undertaken by IFO, an economics research institute at the University of Munich, which predicts this will be the case.

A survey conducted 9 months after the introduction of the rate reduction by a German Hotel Association (IHA), found that 89% of respondents had commenced new investments or planned new investments that year; 32% of respondents had taken on more staff or planned to do so during 2010 (with an estimated increase in full-time employment of 2% and a similar increase in part-time employment); 35% of respondents increased staff wage levels; and 32% of respondents had reduced their prices with the average price reduction being 6% (i.e. slightly less than half the VAT cut). It should be noted these results represent actual or planned responses to the VAT cut in only the first year.

France

In France, a lower VAT rate for hotels has been in force since 1967. Visitor attractions have also been subjected to the reduced rate of 5.5% since 1992. Since 1st July, 2009, restaurants in France were initially on the reduced rate of 5.5%, down from the standard rate of 19.6%, but this was increased to 7% in 2011, and further increased to 10% in 2014. President Sarkozy declared that as a result, 15,000 bankruptcies and 30,000 job losses have been avoided, 35,000 apprenticeships created, 25,000 jobs created, the minimum monthly wage in the restaurant industry has increased and staff turnover has fallen. A survey published by GIRA Conseil on 7th January 2010 showed that restaurant net sales had increased by 8% between July and November 2009 compared with the same period in 2008. This is believed to be due to the VAT decrease.

Switzerland
The Swiss Federal Council recently approved the fifth extension of the reduced VAT rate of 3.8% accorded to the hotel industry for accommodation services to 2017. The reduced rate was initially introduced in 1996. The rate reduction was first introduced due to the prevailing difficult economic circumstances.

Greece
The Greek government has recently reduced the VAT rate on restaurant, café and bar bills to 13% from the earlier 23%. The tax rate had been increased to 23% from 13% by the previous government in a bid to boost tax receipts. However, it is believed the measure proved counterproductive and partly led to a decrease in demand, the closure of establishments and a reduction in employment.

Hotels in France, Italy and Spain
During the 1990s, the governments of France, Italy and Spain introduced standard rates of VAT for the top grade of hotels, leaving all other hotels on a reduced VAT rate. In each case, a substantial majority of top hotels voluntarily downgraded so that they would be charged the reduced rate of VAT, and thus be able to pass on this saving to consumers and so be competitive on price. This shows hotels will readily forego the marketing advantage of having a higher grading for the much greater advantage of being able to compete with lower prices. Within a few years, the governments of all three countries reversed their decisions and applied the reduced rate to all hotels.

The Baltics
On accession to the EU, the three Baltic countries, Estonia, Latvia and Lithuania, all opted to apply a reduced rate of VAT to hotel accommodation. Following a period of economic instability, the IMF required the three countries to implement tax increases from 1st January 2009 and urged them to move hotels from the reduced VAT band. The response differed in each country:

- Estonia resisted pressure to apply the standard rate to hotels but did increase the rate from 5% to 9%; following this change, there was a decline in the volume of foreign tourist arrivals;
- Latvia moved the rate for hotels from 5% to the standard rate of 21%; foreign visitor spending declined by 15%; the government then moved hotels to a new reduced rate of 10% from 1st May 2010 (revised to 12% in 2011), since when there was a reported 10% year on year increase in hotel bookings;
- Lithuania moved hotels from 5% to the standard rate of 19%, which increased further to 21% on 1st September 2009; the rate was reduced to 9% as a temporary measure for 2011, and has since returned to 21%.

United Kingdom
The tourism industry in the UK is strongly lobbying for a reduction in the applicable VAT rate from 20% to 5%. The British Hospitality Association commissioned a report by Deloitte/Tourism Respect that reported that a reduction in VAT on hotels and tourist attractions would create an extra 80,000 jobs in the industry and provide a Net Present Value (NPV) fiscal return to the Exchequer over ten years of £2.6 billion (2011 prices). A report by Professor Adam Blake, who was given access to the Treasury's financial model (CGE), concluded that cutting VAT on tourism is one of "the most efficient, if not the most efficient, means of generating GDP gains at low cost to the Exchequer that we have seen with the CGE model".

Conclusion

- There has been a lower than expected cost of implementing the VAT rate reduction. This is evident in the percentage decline in VAT receipts in the sector being lower than the rate of the VAT reduction.
- Actual VAT receipts in the 9% categories fell by €107 million in the first twelve months following the introduction of the reduced rate and have been roughly flat since then. This compares favourably with the initial Department of Finance estimates that the introduction of the VAT reduction would cost €120 million in the final six months of 2011 and €350 million in a full year.
- VAT receipts in the 9% categories accounted for 5.3% overall receipts before the reduction. This reduced to 4.3% in the first 12 months following the VAT reduction and has stabilised at roughly 4.0% since then.
- While it is difficult to establish how much of the benefits and costs are directly attributable to the reduced VAT rate, it is clear that the costs of the initiative are lower than originally thought while there are also considerable benefits which at least partly offset these costs.
- Initiatives in other European countries lend support to the viewpoint that a reduction in the VAT rate in tourist sectors will have a positive impact on activity and employment levels in these sectors given the indicated levels of price elasticity of demand.

8. Indicative Assessment

Introduction

In this section, we will use the findings of the assessment framework outlined in Section 1 to develop an indicative assessment as to whether the objectives of the VAT rate reduction have been met and whether the cost of introducing the measure has been in line with expectations.

Of course a significant issue in examining this question is the extent to which the VAT reduction has had an impact on each link of the causal chain outlined in Section 1 rather than other external factors. Considering whether a specific input or policy measure, has contributed strongly to, or in effect led to, an increase in tourism activity or employment within tourism and related sectors is extremely nuanced and complex. Inevitably there are a large number of factors influencing prices and tourism demand which impact both positively and negatively on the overall performance of the sector (e.g. the economic circumstances in the tourists' country of origin, exchange rate movements or competitor destination activity in the marketplace).

Therefore, seeking to understand a direct causal link between the VAT reduction and the wider measures of tourism numbers, or indeed employment in tourism sectors, is extremely challenging. We have therefore developed an indicative assessment framework which looks at each individual element of the potential link between the VAT reduction and higher activity and employment in the tourism sector.

Indicative Assessment

The assessment framework provides for an indicative assessment of the impact of the VAT rate cut through consideration of the key questions set out in Section 1. The term "indicative assessment" is used owing to the data challenges around aligning various data sets, data lags and the limited time since the cut came into effect.

The table below presents this indicative assessment:

Key Question	Indicative Assessment	Commentary and Impact Assessment
Did the reduction in the VAT rate result in lower consumer prices in the impacted categories?	Strongly positive	• Given the VAT rate reduction from 13.5% to 9%, full pass-through would result in consumer price reduction of circa 4%. There is indeed good evidence of price pass-through. • Firstly, there remains a significant gap between the 9% categories and overall CPI, with this gap averaging 3.7% since the introduction of the VAT cut. Furthermore, this gap has persisted in

Key Question	Indicative Assessment	Commentary and Impact Assessment
		the three years since the VAT cut, averaging 3.1% in the first 12 months, 4.1% in the second 12 months and 3.8% in the last 10 months. • Updating the 'counterfactual method' used by Brendan O'Connor of the Department of Finance would also suggest a good level of pass-through at circa 2% (using CPI excluding energy to model a counterfactual). This is in line with expectations and with economic theory. • Price pass-through has varied by category but is apparent in all sectors.
Has there been an impact on tourists' perception of VfM?	Strongly Positive	• There has been a continued improvement of international visitors' assessment of Ireland's VfM, with the ratings achieved in 2013 reaching levels not seen since the early 2000s.
Has there been an increase in tourist numbers as a result of the VAT rate reduction and what has been the impact on revenue?	Positive	• There has been a positive improvement in both international and domestic tourism numbers since the introduction of the VAT rate cut, with visitors from mainland Europe and North America seeing the strongest growth. • International visitor numbers increased by 7.2% in 2013 – the highest rate of growth since 2007. • Given the number of other factors that impacted international tourist numbers (e.g. The Gathering and economic circumstances in the countries of origin), it is difficult to directly attribute this growth to the VAT rate initiative. • There has also been good growth in the level of tourist expenditure, most notably from international visitors. Part of the reason for this increase in revenue is a higher average spend per tourist per day, which could be at least partly related to improved perceptions of value for money.
Has there been an increase in demand / activity in the tourism industry as a result of the VAT rate reduction?	Positive	• There has been a moderation in the rate of decline in the stock of accommodation premises and a stabilisation in the number of rooms. • Excess capacity in the hotel sector has declined with hotel occupancy beginning to approach 2007 levels of 64% – a rate Fáilte Ireland considers to be sustainable in the long term. • Other categories are further below 2007 levels.
Has there been an increase in employment in the tourism industry	Strongly Positive	• There was very strong growth in employment in the sector during 2013, with seasonally

Key Question	Indicative Assessment	Commentary and Impact Assessment
as a result of the VAT rate reduction?		adjusted employment levels in Q4 2013 a full 17,300 ahead of Q4 2012. • Employment in the 9% categories is circa 30,000 higher than would have been the case had the categories performed in line with either overall employment in the economy or with the selected 'services' comparison group. • This equates to a benefit to the Exchequer of circa €165 million between additional income tax and social welfare savings.
How has the "cost" of the introduction of the VAT rate reduction performed compared to initial expectations?	Strongly positive	• The tax foregone through the implementation of the rate reduction is below initial estimates. • Actual VAT receipts in the 9% categories fell by €107 million in the first 12 months following the introduction of the reduced rate, and have been broadly flat since then. This compares favourably with the initial estimates that the rate reduction would cost €120 million in the final 6 months of 2011 and €350 million in a full year. • While it is difficult to establish how much of the benefits and costs outlined above are directly attributable to the reduced VAT rate, it is clear that the costs of the initiative are lower than originally thought while there are also considerable benefits which at least partly offset these costs.

International Findings

There have been a number of similar initiatives introduced in other European countries (such as Germany, France and Switzerland) in relation to a reduced VAT (or equivalent) rate on the tourism industry. Other countries such as the UK have a strong campaign in place to bring in such a reduction. These initiatives were introduced largely to improve the competitiveness of the individual tourism sectors, driving activity and employment levels in the sector. This is based on the understanding that a reduction in the VAT rate in tourist sectors will have a positive impact on activity and employment levels in these sectors given the indicated levels of price elasticity of demand.

Concluding Comments

There are a number of very positive developments in the tourism sector worth highlighting from the above analysis:

- Price pass-through of the rate reduction to consumers is evident across every category.
- Improved VfM perception across all visitors with ratings now at levels last seen in early 2000s.

- Renewed growth in overseas tourism numbers and earnings.
- Increased activity levels apparent across the industry.
- Increased employment across the 9% categories of c. 30,000 bringing a benefit of c€165 million to the Exchequer.

To conclude, the introduction of the reduced VAT rate appears to have met its original aims of driving employment and stimulating activity in the sector and has achieved this without placing a significant burden on the exchequer.

Appendix 1: List of Jobs Initiatives Items included under 9% VAT rate

The full details of the sectors impacted by the VAT reduction are listed in paragraphs 3(1) to (3), 7, 8, 11, 12, and 13(3) of Schedule 3 of the VAT Consolidation Act 2010. An overview of the impacted sectors was set out by the Revenue Commissioners as below:

Provision of facilities for taking part in sport.

Examples of sporting facilities reduced from 13.5% to 9% rate (Section 46(1)(ca) – Schedule 3, paragraph 12)

- Adventure centre admissions
- Boat hire with an operator for purpose of sport (fishing, diving etc.)
- Bouncing castle hire
- Fishing and hunting rights on private land/waters
- Golf - green fees, driving range fees & hire of equipment incidental thereto.
- Gymnasium – membership fees and provision of facilities
- Hire of football pitches/AstroTurf
- Swimming pool admission

Provision of facilities and equipment incidental to the provision of facilities for:

- billiards and snooker
- bowling
- canoeing & kayaking
- go-karting
- horse riding/ pony trekking
- hunting
- motor sports – membership and driving fees
- pitch & putt
- paintball, quasar and other adventure games
- skating

Examples of activities remaining at @ 13.5% - Section 46(1)(c) – Schedule 3, paragraph 21

Services consisting of care of the human body, including:

- Health studio services (e.g. personal fitness training services, massage)
- Aerobics, keep fit classes

Examples of sports related activity @ 21%

- Coaching in swimming, football, tennis, karate etc.
- Hire of sporting equipment where the cost is not included in a fee for the provision of a sporting facility

Printed material

Examples of printed material @ 0%. Section 46(1)(b) – Schedule 2, paragraph 9

- Books
- Booklets
- Children's picture and drawing/colouring books
- Atlases

Examples of printed matter reduced from 13.5% to 9% rate - Section 46(1)(ca) – Schedule 3, paragraph 7

- Newspapers
- Magazines
- Periodicals
- Brochures Catalogues
- Comics
- Directories
- Leaflets/flyers
- Maps
- Programmes
- Prospectuses (College, University, etc.)
- Sheet Music

Examples of printed material remaining at @ 13.5% - Section 46(1)(c) – Schedule 3, paragraph 18

- Photographic prints and certain photographic services

Examples of printed material @ 21%Section 46(1)(a)

- Greeting cards
- Diaries and planners
- Business cards
- Books of stationery
- Calendars Exercise books
- Posters
- Postcards
- Photocopied material

Shows, exhibitions, cultural facilities etc.

Examples of shows, exhibitions, cultural facilities etc., reduced from 13.5% to 9% rate - Section 46(1)(ca) – Schedule 3, paragraph 8

Admissions to:

- Art exhibitions and galleries
- Cinemas
- Live theatrical or musical performances where substantial snacks, hot food or alcohol are served in the course of the performance
- Museums – where the museum is not operated by a public body or a cultural body recognized by Revenue
- Fairground amusements/rides (excluding amusement and gaming machines)

Examples of shows, exhibitions, cultural facilities etc. @13.5% - Section 46(1)(c)

- None

Examples of exempt shows, exhibitions, cultural facilities etc. - Schedule 1

Admissions to:

- Circus
- Live theatrical or musical event where no substantial snacks, hot food or alcohol are served in the course of the performance
- Museums – where the museum is operated by a public body or a cultural body recognised by Revenue
- Bingo

Examples of shows, exhibitions, cultural facilities etc. @ 21% - Section 46(1)(a)

- Dances
- Discos/nightclubs and similar clubs

Hotel and holiday accommodation etc.

Examples of supplies reduced from 13.5% to 9% rate - Section 46(1)(ca) – Schedule 3, paragraph 11

- Hotel and guesthouse accommodation
- Meals in hotel/guesthouse (excluding alcohol and soft drinks)
- Short-term letting (< 8 weeks) of house or apartment to tourists or holiday makers
- Short-term letting of mobile home (which is rendered immobile and intended to be retained on site) to tourists or holiday makers
- Letting of a pitch in a caravan park or camping site

Examples of supplies remaining @ 13.5% - Section 46(1)(c) Paragraph 19

- Hire of caravan, camper van, tent or trailer tent – short-term (not exceeding 5 weeks in a 12 month period)

- Hire of pleasure boat – short term (not exceeding 5 weeks in a 12 month period)
- Laundry services provided to hotel guests

Examples of supplies @ 21% - Section 46(1)(a)

- Hire of mobile home, caravan, camper van, tent or trailer tent – long-term
- Hire of pleasure boat – long term
- Telephone charges etc. to hotel guests

Food and drink for human consumption

Examples of supplies reduced from 13.5% to 9% rate - Section 46(1)(ca) – Schedule 3, paragraph 3(1) to (3)

- Meals provided in the course of operating hotels, restaurants, cafes, canteens, pubs, catering businesses (including tea, coffee and fruit juice but excluding alcohol, soft drinks and bottled water)
- Hot take-away food and drink (including tea and coffee but excluding alcohol, soft drinks and bottled water)
- Tea/coffee supplied by means of a vending machine
- Food sold by means of a vending machine that would otherwise be zero-rated (e.g. cold sandwich)

Examples of supplies remaining @ 13.5% - Section 46(1)(c)

- Flour or egg-based bakery products (excluding bread, chocolate covered wafers or biscuits, chocolates, sweets or similar confectionery)

Examples of supplies @ zero-rate – Section 46(1)(b) – Schedule 2

- Bread (except where provided as part of a meal)
- Cold take-away food supplied by supermarkets etc.

See VAT Consolidation Act, Schedule 2, Part 2, paragraph 8 for full details including the food and drink table.

Examples of supplies @ 21% - Section 46(1)(a)

- Alcohol, soft drinks, bottled water, even where supplied as part of a meal
- Chocolate covered wafers or biscuits, chocolates, sweets and similar confectionery except where supplied in the course of a meal

Hairdressing etc.

Examples of supplies reduced from 13.5% to 9% rate - Section 46(1)(ca) – Schedule 3, paragraph 13(3)

- Hairdressing services only

Examples of supplies remaining @ 13.5% - Section 46(1)(c) - Schedule 3 paragraph 21(1)

Services consisting of care of the human body, including:

- Beauty treatments
- Hair removal (waxing/laser/etc.)
- Spa treatments

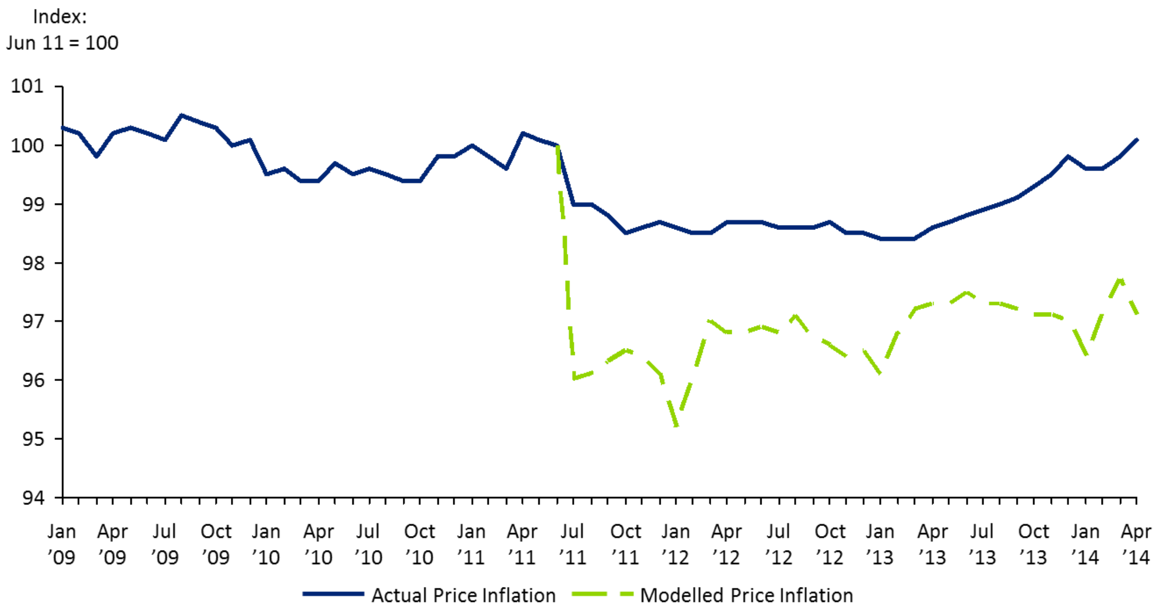
Examples of supplies @ 21% - Section 46(1)(a)

- Hair products
- Hair accessories

Appendix 2: Inflation Counterfactuals

Meals Out

Figure A.1: Meals Out Actual and Modelled Inflation January '09 – April '14



Source: CSO Consumer Price Inflation, Deloitte analysis

The above graph shows the actual level of inflation in the Meals Out category with a modelled counterfactual as set out by O'Connor in the Department of Finance Medium-term Fiscal Statement 2012. A modelled counterfactual is included in which it is assumed the full 4.5% reduction is passed through in July 2011 (resulting in a lower final price of circa 4%), with the series subsequently performing in line with underlying inflation (represented by CPI excluding energy).

We can use this counterfactual to estimate the degree of pass-through by looking at the gap between actual inflation and the counterfactual. If we assume that the gap between the series represents the element of the VAT reduction that is not passed on, the amount passed on is 4% less the gap. In the case of Meals Out, the average gap is 2.1%, implying a pass-through of 4% - 2.1% = 1.9%. The implied pass-through is shown below, in addition to the movement over the past three years. We can see that the implied pass-through in the Meals Out segment has been relatively consistent over the period.

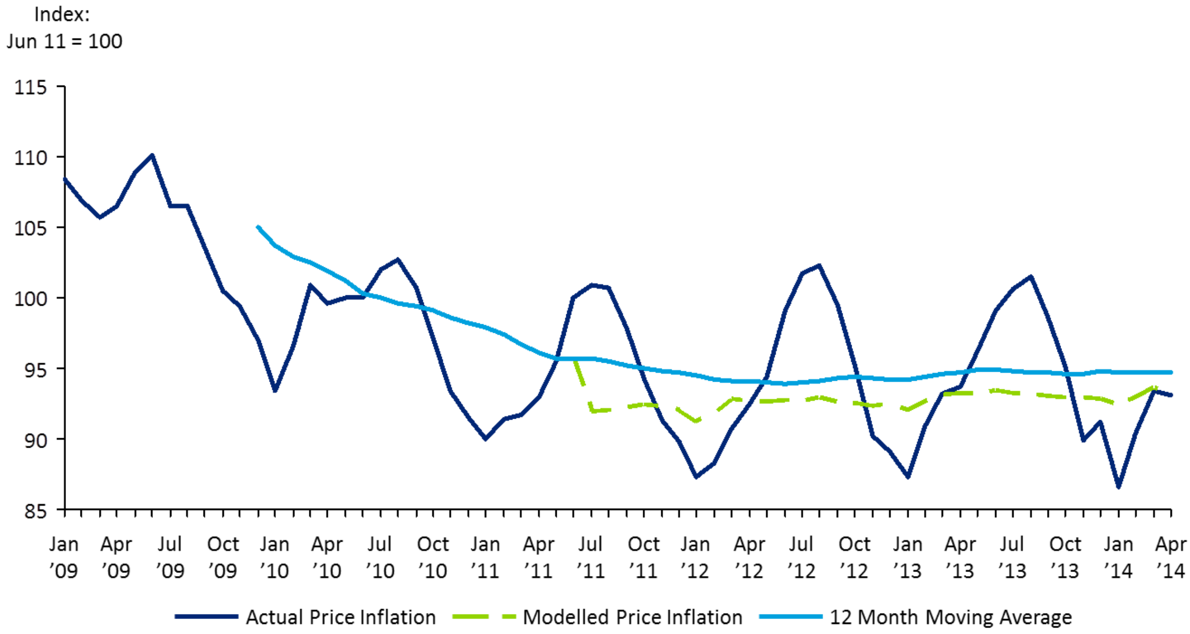
Table A.1: Meals Out Modelled Price Pass-Through July '11 – April '14

Average Gap	Implied Pass-Through	Pass-Through First 12 Months	Pass-Through Second 12 Months	Pass-Through Last 10 Months
2.1	1.9	1.6	2.3	1.6

Source: CSO Consumer Price Inflation, Deloitte analysis

Hotels and Other Accommodation

Figure A.2: Hotels and Other Accommodation Actual and Modelled Inflation January '09 – April '14



Source: CSO Consumer Price Inflation, Deloitte analysis

The cyclical nature of the Hotels and Other Accommodation category makes it more difficult to determine the degree of price pass-through. We have attempted to control for this cyclicality by using a 12-month moving average for the inflation data. The cyclicality also means that taking the July 2011 date as the starting point for the counterfactual 'modelled inflation' is problematic. This is due to the fact that July is the high point of the season, so taking that point as the point from which the 4.5% rate cut is deducted will artificially imply a higher degree of pass-through than if the VAT decline had occurred at a low point in the season. In order to avoid this problem, the starting point for the modelled inflation line is taken as an average of the previous 12 months' data.

The average gap between the 12 month moving average line and the modelled inflation is 2.0 index points, implying pass-through of 2%. This pass-through has also been persistent, averaging roughly 2.3% over the past two years.

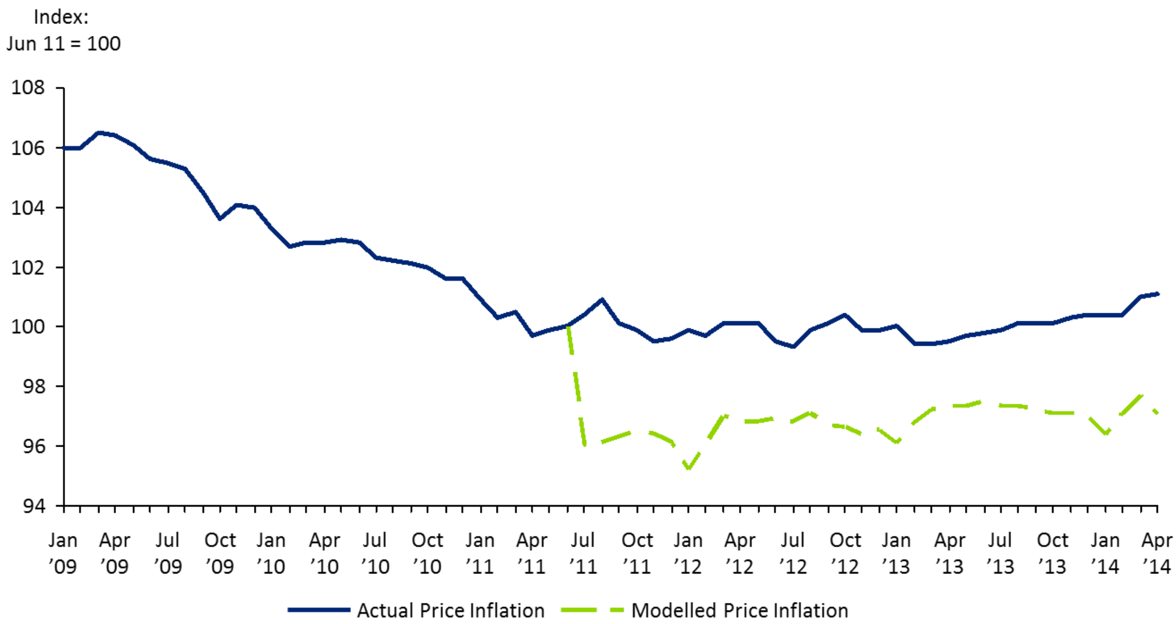
Table A.2: Hotels and Other Accommodation Modelled Price Pass-Through July '11 – April '14

Average Gap	Implied Pass-Through	Pass-Through First 12 Months	Pass-Through Second 12 Months	Pass-Through Last 10 Months
2.0	2.0	1.6	2.3	2.3

Source: CSO Consumer Price Inflation, Deloitte analysis

Hot Takeaway Food

Figure A.3: Hot Takeaway Food Actual and Modelled Inflation January '09 – April '14



Source: CSO Consumer Price Inflation, Deloitte analysis

Prices in the Hot Takeaway Foods categories have remained relatively flat during the period. The implied pass-through is therefore relatively low (it is in fact the lowest of all categories), though it should be noted that food price inflation has been relatively high during the period.

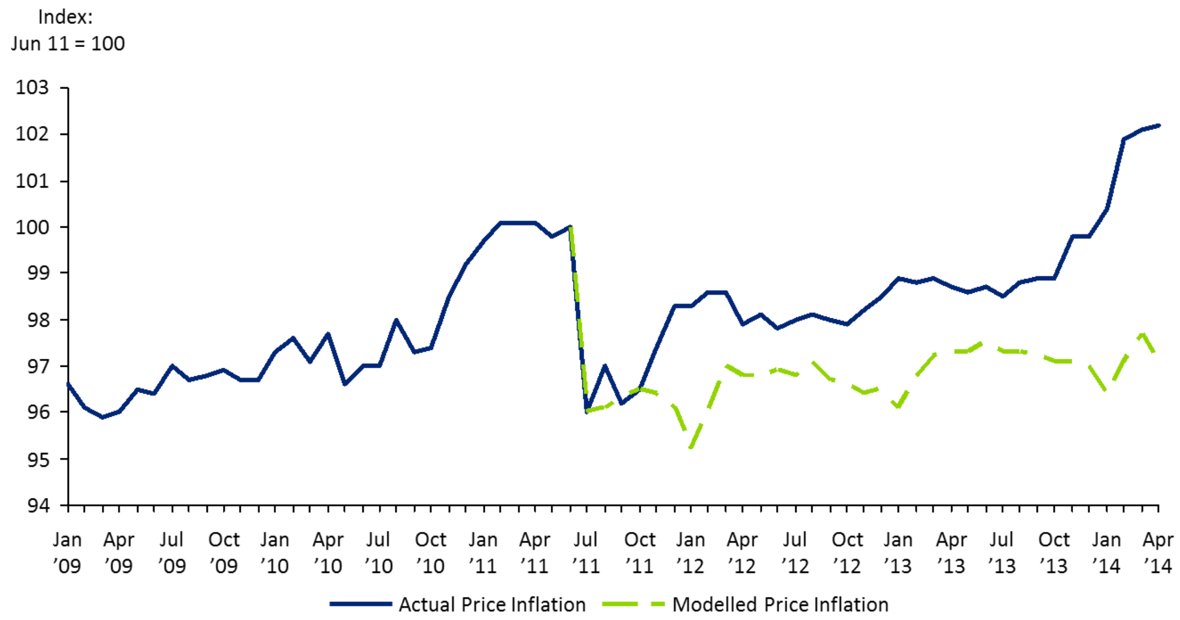
Table A.3: Hot Takeaway Food Modelled Price Pass-Through July '11 – April '14

Average Gap	Implied Pass-Through	Pass-Through First 12 Months	Pass-Through Second 12 Months	Pass-Through Last 10 Months
3.3	0.7	0.3	1.1	0.7

Source: CSO Consumer Price Inflation, Deloitte analysis

Printed Matter

Figure A.4: Printed Matter Actual and Modelled Inflation January '09 – April '14



Source: CSO Consumer Price Inflation, Deloitte analysis

The Printed Matter series initially experienced full and immediate pass-through of the VAT reduction, with the index falling from 100 in June 2011 to 96 in July 2011. The trend since has been for price increases and prices are now above the June 2011 price, with the implied pass-through over the last 10 months falling to 1%.

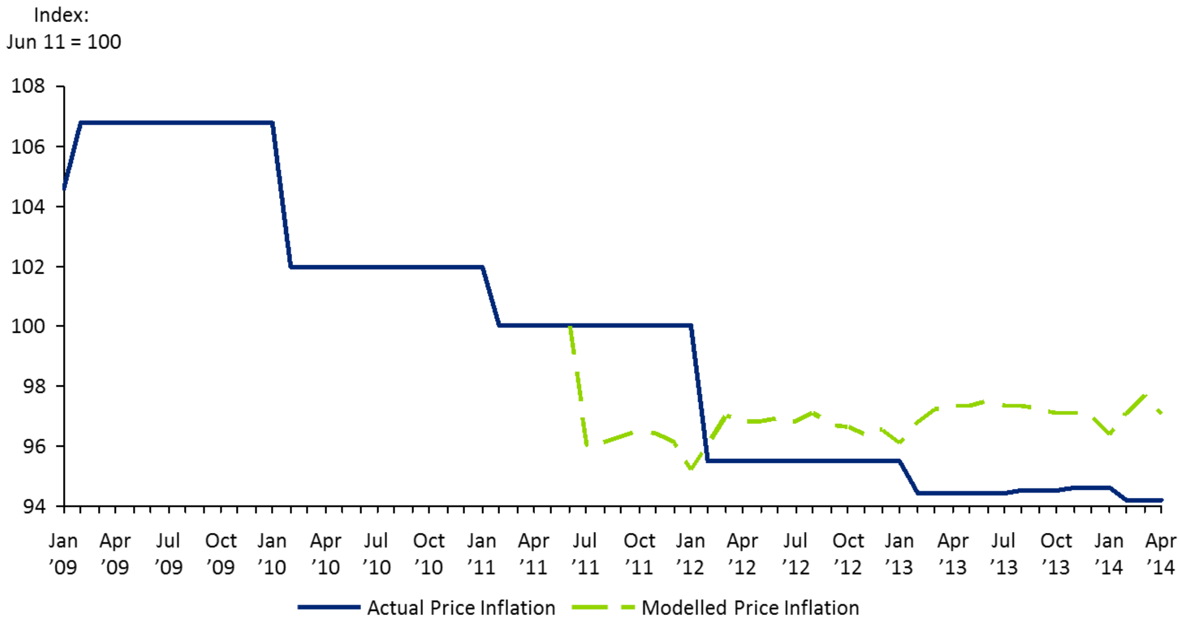
Table A.4: Printed Matter Modelled Price Pass-Through July '11 – April '14

Average Gap	Implied Pass-Through	Pass-Through First 12 Months	Pass-Through Second 12 Months	Pass-Through Last 10 Months
1.9	2.1	2.8	2.4	1.0

Source: CSO Consumer Price Inflation, Deloitte analysis

Sports

Figure A.5: Sports Actual and Modelled Inflation January '09 – April '14



Source: CSO Consumer Price Inflation, Deloitte analysis

There was a six month lag for the price pass-through for sporting facilities with full pass-through occurring in January 2012, in line with renewal of annual subscription charges. Full pass-through has been maintained in this series, with actual inflation falling further below modelled inflation over the past year.

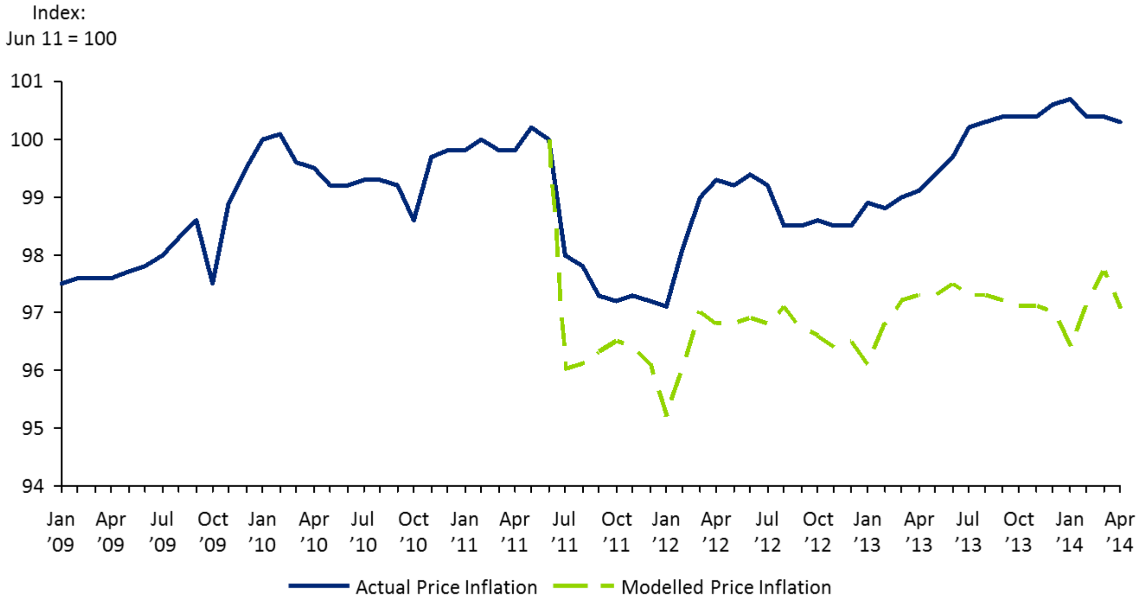
Table A.5: Sport Modelled Price Pass-Through July '11 – April '14

Average Gap	Implied Pass-Through	Pass-Through First 12 Months	Pass-Through Second 12 Months	Pass-Through Last 10 Months
-0.8	4.0	2.2	4.0	4.0

Source: CSO Consumer Price Inflation, Deloitte analysis

Cinemas, Theatres etc.

Figure A.6: Cinemas, Theatres etc. Actual and Modelled Inflation January '09 – April '14



Source: CSO Consumer Price Inflation, Deloitte analysis

A large degree of pass-through was immediately evident with prices falling by 3% by January 2012. However, price increases have occurred since this time with prices slightly higher than June 2011 levels. These price increases have been slightly ahead of the overall level of inflation, reducing the level of implied pass-through as the table below demonstrates.

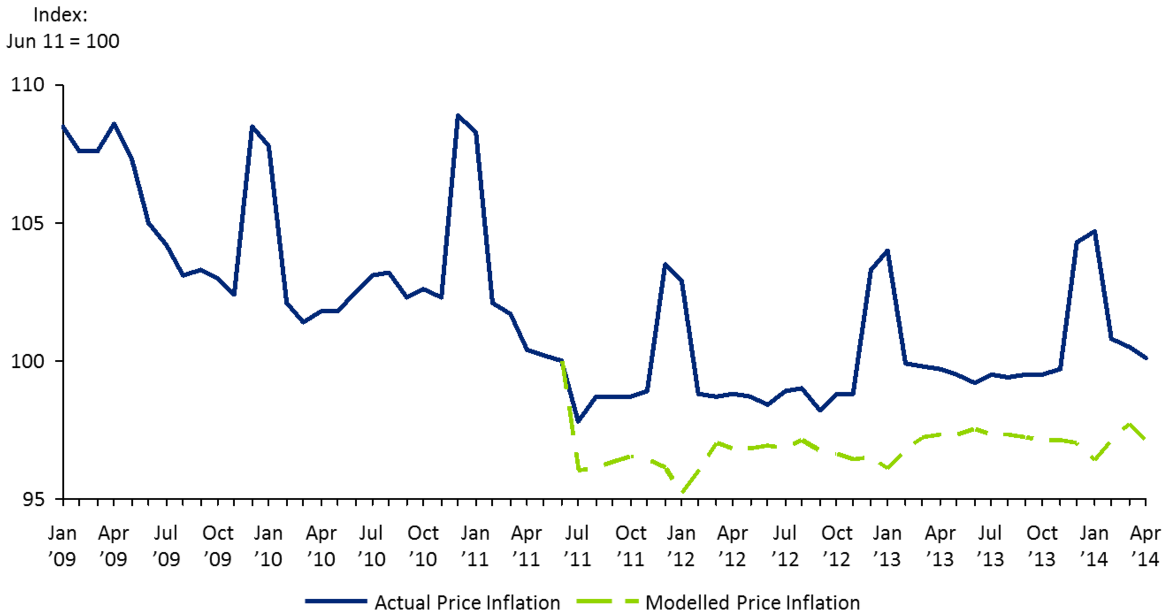
Table A.6: Cinemas, Theatres, etc. Modelled Price Pass-Through July '11 – April '14

Average Gap	Implied Pass-Through	Pass-Through First 12 Months	Pass-Through Second 12 Months	Pass-Through Last 10 Months
2.3	1.7	2.3	1.9	0.7

Source: CSO Consumer Price Inflation, Deloitte analysis

Hairdressing

Figure A.7: Hairdressing Actual and Modelled Inflation January '09 – April '14



Source: CSO Consumer Price Inflation, Deloitte analysis

An immediate price pass-through of c.2% was apparent in Hairdressing Services, though the impact of the 'Christmas effect' (sharp increases in December each year as noted by O'Connor[12]) has dampened its impact. However, these price spikes were significantly lower than those in December 2010, prior to the introduction of the VAT rate reduction.

Table A.7: Hairdressing Modelled Price Pass-Through July '11 – April '14

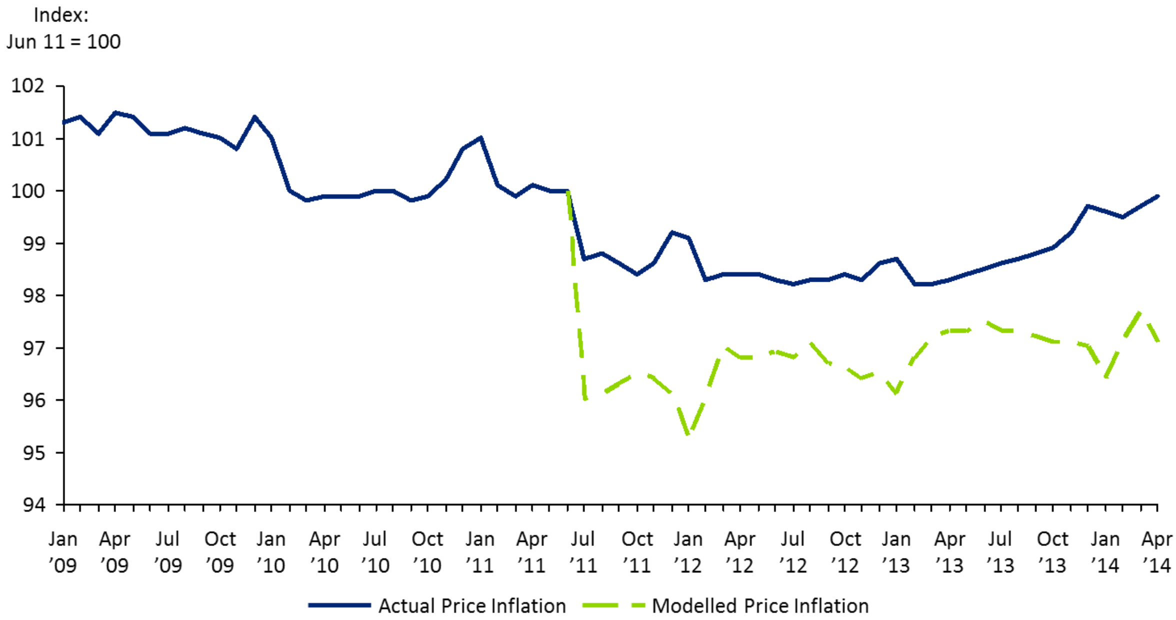
Average Gap	Implied Pass-Through	Pass-Through First 12 Months	Pass-Through Second 12 Months	Pass-Through Last 10 Months
3.4	0.6	-0.4	1.3	0.8

Source: CSO Consumer Price Inflation, Deloitte analysis

[12] Brendan O'Connor, *'Measuring the Impact of the Jobs Initiative: Was the VAT reduction passed on and were jobs created?'* within the Department of Finance, Medium-Term Fiscal Statement, November 2012

Total 9% Categories Ex Accommodation

Figure A.8: Total 9% Categories Ex Accommodation Actual and Modelled Inflation January '09 – April '14



Source: CSO Consumer Price Inflation, Deloitte analysis

Looking at the overall 9% Categories Ex Accommodation (excluded to remove its seasonal impact), we can see that there is evidence of an initial decline in the region of 2%, with the price levels broadly following overall inflation since. The table below shows that the implied pass-through has remained relatively consistent at roughly 2% over the period.

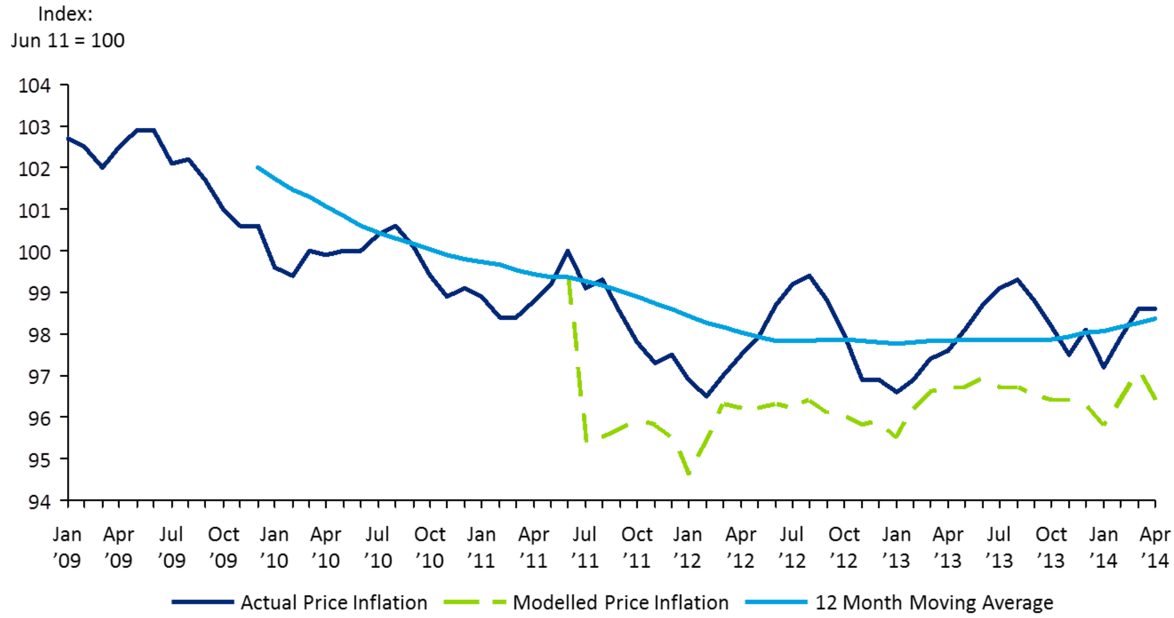
Table A.8: Total 9% Categories Ex Accommodation Modelled Price Pass-Through July '11 – April '14

Average Gap	Implied Pass-Through	Pass-Through First 12 Months	Pass-Through Second 12 Months	Pass-Through Last 10 Months
2.0	2.0	1.7	2.5	1.8

Source: CSO Consumer Price Inflation, Deloitte analysis

Total 9% Categories

Figure A.9: Total 9% Categories Actual and Modelled Inflation January '09 – April '14



Source: CSO Consumer Price Inflation, Deloitte analysis

Analysing the Total 9% Category group encounters the same issues with cyclicality as the Hotels and Other Accommodation category due to its presence in the index. We have therefore used the same methods to control for cyclicality as outlined in the Hotels and Other Accommodation series.

The gap average gap between the 12 month moving average line and the modelled inflation line is 2 index points, implying a pass-through of 2%. The implied rate of pass-through has also been relatively consistent, at 2.4% – 2.5% over the past two years.

Table A.9: Total 9% Categories Modelled Price Pass-Through July '11 – April '14

Average Gap	Implied Pass-Through	Pass-Through First 12 Months	Pass-Through Second 12 Months	Pass-Through Last 10 Months
2.0	2.0	1.2	2.4	2.5

Source: CSO Consumer Price Inflation, Deloitte analysis

A summary of the implied pass-through rate for each of the 9% categories is provided below.

Table A.10: Summary of Modelled Price Pass-Through July '11 – April '14

Category	Implied Pass-Through	P.T. First 12 Months	P.T. Second 12 Months	P.T. Last 10 Months
Hotels and Other Accommodation	2.0%	1.6%	2.3%	2.3%
Meals Out Including Rail Car Dining	1.9%	1.6%	2.3%	1.6%
Cinemas, Theatres, Musicals, Museums	1.7%	2.3%	1.9%	0.7%
Hairdressing Services	0.6%	-0.4%	1.3%	0.8%
Hot Take Away Foods and Hot Drink	0.7%	0.3%	1.1%	0.7%
Printed Matter - Newspapers, Comics	2.1%	2.8%	2.4%	1.0%
Sport	4.0%	2.2%	4.0%	4.0%
Total excl. Accommodation	2.0%	1.7%	2.5%	1.8%
Total items	**2.0%**	**1.2%**	**2.4%**	**2.5%**

Source: CSO Consumer Price Inflation, Deloitte analysis

Appendix 3: Irish Tourism Balance

Table A.11: Irish Tourism Balance

Tourism Balance Data						
Domestic Tourist Expenditure	**2009**	**2010**	**2011**	**2012**	**2013**	**Δ '11 - '13**
Holiday trips	843	972	865	785	840	**-25**
Visiting friends/relatives trips	171	271	266	270	267	**1**
Business trips	136	86	77	76	78	**2**
Other trips	239	232	208	215	188	**-20**
Total expenditure	**1,390**	**1,561**	**1,416**	**1,345**	**1,373**	**-43**
Foreign Tourist Expenditure	**2009**	**2010**	**2011**	**2012**	**2013**	**Δ '11 - '13**
Holiday trips	1,550	1,472	1,457	1,513	1,687	**230**
Visiting friends/relatives trips	955	743	641	588	670	**29**
Business trips	528	460	478	529	580	**102**
Other trips	378	301	324	287	324	**0**
Total expenditure (ex fares to Irish carriers)	**3,411**	**2,976**	**2,900**	**2,917**	**3,261**	**361**
Fares to Irish Carriers	524	580	776	856	865	**89**
Total expenditure (inc. fares to Irish carriers)	**3,935**	**3,556**	**3,676**	**3,773**	**4,126**	**450**
Irish Tourist Expenditure Abroad	**2009**	**2010**	**2011**	**2012**	**2013**	**Δ '11 - '13**
Holiday trips	4,438	4,090	3,835	3,704	3,817	**-18**
Visiting friends/relatives trips	927	951	808	819	784	**-24**
Business trips	482	563	548	581	601	**53**
Other trips	195	198	208	129	63	**-145**
Total Expenditure (including fares)	**6,042**	**5,802**	**5,399**	**5,233**	**5,265**	**-134**
Fares to Irish Carriers	570	590	789	821	802	**13**
Total Expenditure (ex fares)	**5,472**	**5,212**	**4,610**	**4,412**	**4,463**	**-147**
Balance	**2009**	**2010**	**2011**	**2012**	**2013**	**Δ '11 - '13**
Holiday trips	-2,045	-1,646	-1,513	-1,406	-1,290	**223**
Visiting friends/relatives trips	199	63	99	39	153	**54**
Business trips	182	-17	7	24	57	**51**
Other trips	422	335	324	373	449	**125**
Net Expenditure	**-1,241**	**-1,266**	**-1,083**	**-971**	**-631**	**452**
Fares to Irish Carriers	1,094	1,170	1,565	1,677	1,667	**102**
Net Expenditure Including Fares	**-147**	**-96**	**482**	**706**	**1,036**	**554**
Tourism Balance per CSO	**-1,537**	**-1,656**	**-934**	**-639**	**-337**	**597**

Source: CSO Tourism Database - http://www.cso.ie/en/databases/index.html

Note: The CSO defines the tourism balance as the amount of expenditure by foreign tourists in Ireland less spending by Irish tourists abroad, and does not include spending by Irish residents in Ireland. This total is also shown above for completeness.