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

Report for Fáilte Ireland
1 July 2013

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 26th March 2013.

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 be-spoke or specific field work was conducted as part of this study.

This report is for the attention of the client, Fáilte Ireland. The report cannot be relied upon, referred to, reproduced or quoted from, in whole or in part, for any other purpose than that set out in the Consultancy Agreement, or by any other person, for any purpose whatsoever except that as specified in the Consultancy Agreement. Deloitte shall not under any circumstances whatsoever be under any liability to any party other than as set out in our Consultancy Agreement.

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Introduction

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. The Minister for Finance introduced the VAT rate reduction in July 2011 in order to boost tourism and stimulate employment in the sector. Prior to its introduction, it was estimated that the measure would cost €120 million in 2011 and €350 million in a full year[1].

Key Questions and Assessment Framework

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 increase in tourist numbers as a result of the VAT rate reduction and what has been the impact on revenue?
- Has there been an increase in demand / activity in the tourism industry as a result of the VAT rate reduction?
- Has there been an impact on tourists' perception of value for money?
- 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 has been established. This framework considers the following areas:

- Overall performance of the tourism sector: examining the performance of international and domestic tourist numbers, and 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;
- Tourist perception of Value for Money (VFM): assessing whether there has been an impact on how tourists view Ireland in relation to VFM since the introduction of the VAT rate reduction;

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

- 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 to assess the level of any increase in activity that can be inferred from the level of VAT receipts;
- 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 and comparing against a counterfactual 'services' sector; and
- 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.

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 enables an indicative assessment of the VAT rate cut's impact 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.

Clearly the question of whether a specific input or policy measure, such as the temporary VAT decrease, 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. There is a wide variety of factors influencing tourists, accommodation providers and hospitality providers, all of 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. The challenge is increased in light of research commissioned by the EU that states it typically requires a period of two years before the full impact of a change in the tax rate occurs[2].

The table below presents an indicative assessment of the impact of the VAT rate reduction:

[2] Study on reduced VAT applied to goods and services in the Member States of the European Union, 21 June 2007, Copenhagen Economics

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 VAT rate reduction from 13.5% to 9%, full pass through would result in consumer price reduction of circa 4%. Price pass through has been largely achieved. Across all categories, the price pass through has been circa 2.9% (versus CPI excluding energy). This is in line with expectations and with economic theory. • Price pass through has varied by category and is readily apparent in all sectors with the exception of the accommodation sector where the evidence is inconclusive; however, this sector is the most cyclical in nature in terms of pricing. • Price pass through has been in the face of significant pressure on input costs.
Has there been an impact on tourists' perception of VFM?	Positive	• There has been a continued improvement of international visitors' assessment of Ireland's VFM.
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 reduction, notably in visitor numbers from mainland Europe and North America. Given the number of external factors that impact international tourist numbers (e.g. economic circumstances in the countries of origin, exchange rates), it is difficult to directly attribute this growth to the VAT rate initiative. • There has also been an increase in international tourism earnings of €158 million between 2011 and 2012. Fáilte Ireland estimates that 25% of this accrues to the Exchequer in various taxes and charges.
Has there been an increase in demand / activity in the tourism industry as a result of the VAT rate reduction?	Positive	• Analysis of the VAT receipts in the impacted categories indicate that underlying activity levels rose by 16% in the first 12 months post VAT rate reduction compared to the 12 months prior to its introduction. • There has been a moderation in the rate of decline in the number of accommodation premises and an increase in the number of hotels. • Excess capacity in the hotel sector has declined as occupancy levels have improved although it remains below past norms.

Key Question	Indicative Assessment	Commentary and Impact Assessment
		• Fáilte Ireland believe that hotel occupancy rates remain below long-term sustainable levels, although there has been improvement since the VAT rate reduction.
Has there been an increase in employment in the 9% categories as a result of the VAT rate reduction?	Positive	• The most recent data supports an assessment that employment in the 9% categories is circa 10,000 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 €55 million between additional income tax and social welfare savings. • The employment gains follow very significant decreases prior to Q2 2011.
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 €15 million in the subsequent 6 months. Adjusting the VAT take decline in the 9% category for the overall fall in VAT receipts in the economy suggests that there was an estimated net • reduction in VAT receipts for the 9% categories of €88 million for the first 12 months of the measure. • There has been a stabilisation of VAT receipts since September 2012.

Conclusions

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

- Price pass through of the rate reduction to consumers is evident across nearly every category;
- Increased employment across the categories of c. 10,000;
- Renewed growth in overseas tourism numbers and earnings;
- Increased activity levels apparent across the industry; and
- Improved VFM perception across all visitors.

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, at a lower cost than originally estimated.

This conclusion is in line with international evidence on such measures. It is also noted that these findings reflect those contained in the Department of Finance's Medium-Term Fiscal Statement[3]. It 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 on an overall basis.

[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

1. Introduction and Methodology

In this section, the background, terms of reference and data sources used in this study are detailed, 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 is currently due to remain in place until 31st December 2013. In line with the decision to reduce the VAT rate, the Minister made it clear that the effectiveness of the measure in supporting the tourism sector and delivering employment gains would be reviewed in the context of preparing Budget 2013.

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; and
- 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 4%, if the impact of the VAT reduction was passed on in full at the point of retail. 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, or to which it would be utilised to protect or sustain margins within the sector.

The measure was initially estimated to cost €120 million in lost VAT receipts in 2011, building to €350 million in a full year[4]. An initial review[5] 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;

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

[5] 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; and
- 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.

Terms and Scope of Deloitte Analysis

Deloitte were engaged by Fáilte Ireland in March 2013 to analyse the impact of the VAT reduction on the tourism industry since its introduction in July 2011. Specifically the study is 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;
  - 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; and
- Determine the likely impact of reversing the VAT reduction.

Approach: "Assessment Framework"

Clearly the question of whether a specific input or policy measure, such as the temporary VAT decrease, 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. There are a wide variety of factors influencing tourists, accommodation providers and hospitality providers, all of which impact both positively and negatively on the overall performance of the sector. For example, as reviewed in the section considering the current VFM rating by visitors, exchange rates between the main currencies can have a significant impact on trade.

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. The challenge is increased in light of research commissioned by the EU that states it typically requires a period of two years before the full impact of a change in the tax rate occurs.

In order to evaluate the impact and benefit of the introduction of the VAT rate reduction in an informed manner, an assessment framework has been established. This framework considers the following areas:

- Overall performance of the tourism sector: examining the performance of international and domestic tourist numbers, and 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;

- Tourist perception of Value for Money (VFM): assessing whether there has been an impact on how tourists view Ireland in relation to VFM since the introduction of the VAT rate reduction;
- VAT receipts in the 9% categories: analysing the level of VAT receipts in the impacted categories against total VAT receipts and a selected counterfactual to assess the “cost” of the measure and to assess the level of any increase in activity that can be inferred from the level of VAT receipts;
- 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 how this compares to prices in the broader economy and in a selected counterfactual;
- 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 selected counterfactual to determine the impact of the introduction of the VAT rate reduction.

Using this assessment framework, 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 increase in tourist numbers as a result of the VAT rate reduction?
- 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?

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, 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 per cent 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 per cent 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 per cent 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 per cent VAT rate and all items excluding the highly cyclical Hotels and Guesthouses 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[6].

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.

[6] Ibid

2. Performance of the Tourism Sector

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, domestic tourists, and tourism revenue. This provides an overview of the macro context in which the VAT rate reduction has operated.

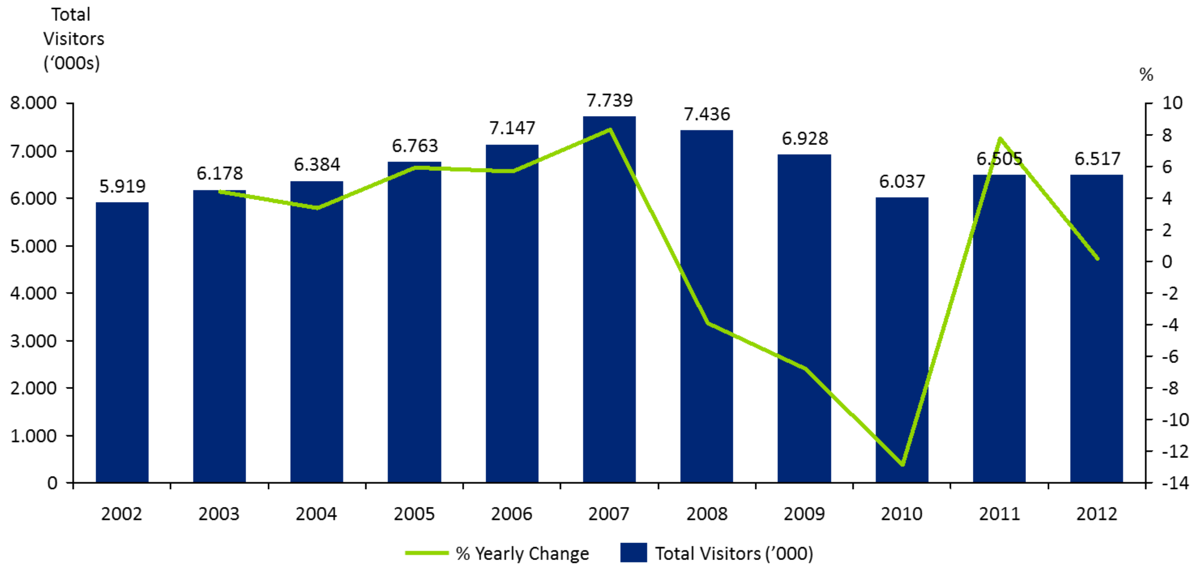
The Irish economy has been under significant pressure since 2007 as recession and austerity measures impacted. Similar to other sectors in the Irish economy, the tourism sector has faced challenges in trading in this difficult environment. These challenges have been augmented by the slowdown in the global 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.

The tourism industry in Ireland has succeeded in recent years, however, in arresting the decline in overseas visitor numbers and associated tourism revenue. Performance has varied by major market, with an improvement in visitor numbers being seen since 2010 from North America and Mainland Europe.

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 7% in 2011, remaining static in 2012, with a total of 6.5 million overseas visitors, similar to the level they reached in 2004. This is shown in Figure 2.1.

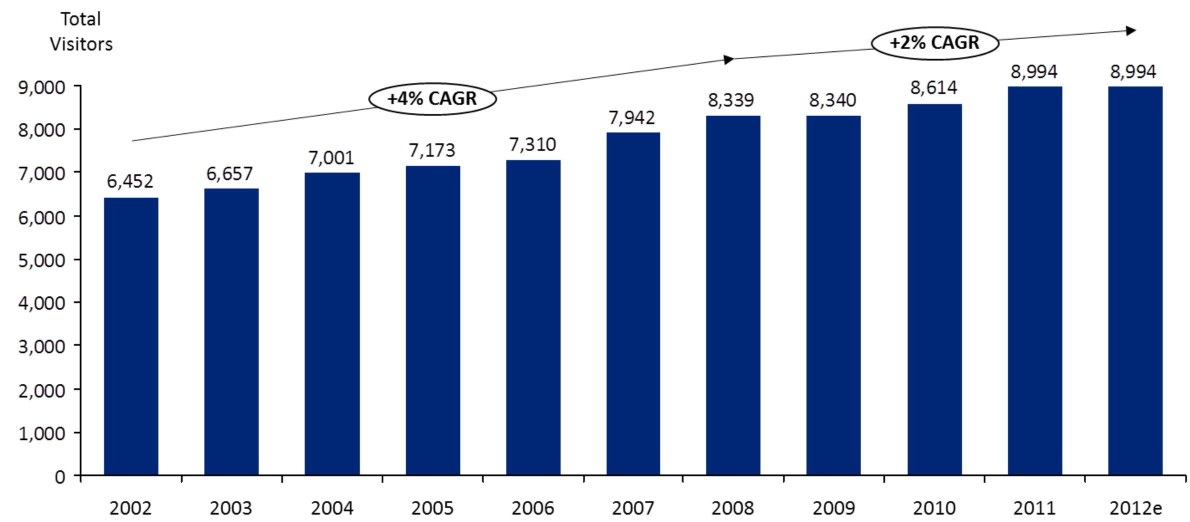
Figure 2.1: Overseas Tourism Visitors, 2002 – 2012 ('000s)



Source: Fáilte Ireland, Tourism Facts 2011, December 2012, CSO Tourism and Travel 2012
Note: Data revisions by CSO mean direct comparison should not be made between pre-2009 data and post-2009 data

The domestic tourism industry has not been as badly impacted by the recession as the overseas market with growth of 13% in domestic visitors since 2007, as shown in Figure 2.2 below. This is likely caused by a substitution of domestic trips for overseas trips.

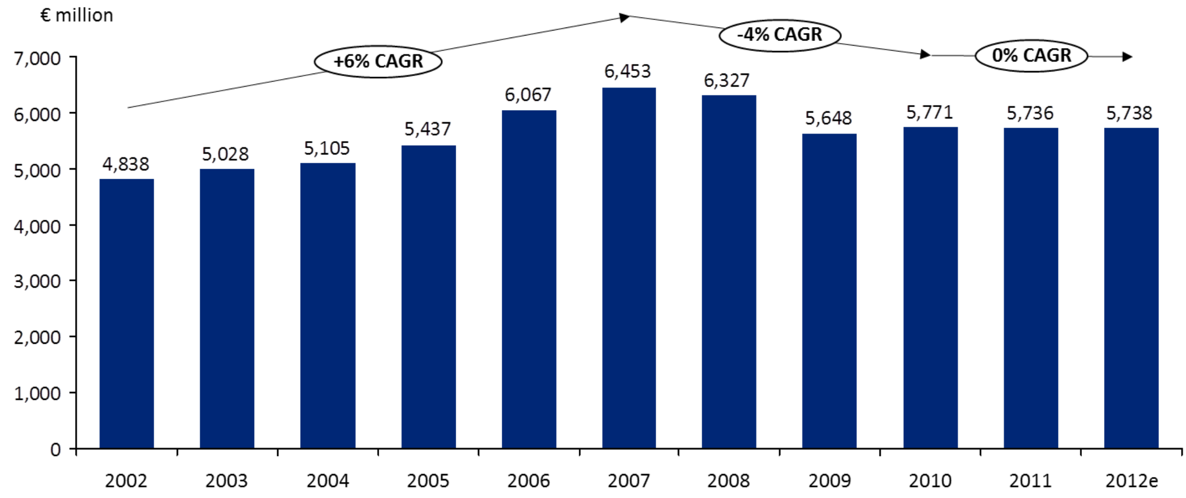
Figure 2.2: Domestic Tourism Visitors, 2002 – 2012e ('000s)



Source: Fáilte Ireland, Tourism Facts 2011, December 2012, CSO Tourism and Travel 2012
Note: Data revisions by CSO mean direct comparison should not be made between pre-2009 data and post-2009 data

Unsurprisingly, total expenditure by tourists reflects the reduction in total overseas tourist visitors. The expenditure associated with a domestic visitor is less than that associated with an overseas visitor so does not fully compensate for the drop in overseas visitors. Total annual expenditure by tourists reached a peak of €6.5 billion in 2007, having increased 33% since 2002, before declining 12.5% by 2009. In recent years, tourism revenue has remained relatively flat reflecting the stabilisation in visitor numbers. This is illustrated in Figure 2.3.

Figure 2.3: Total Tourist Expenditure, 2002 – 2012e (€m)



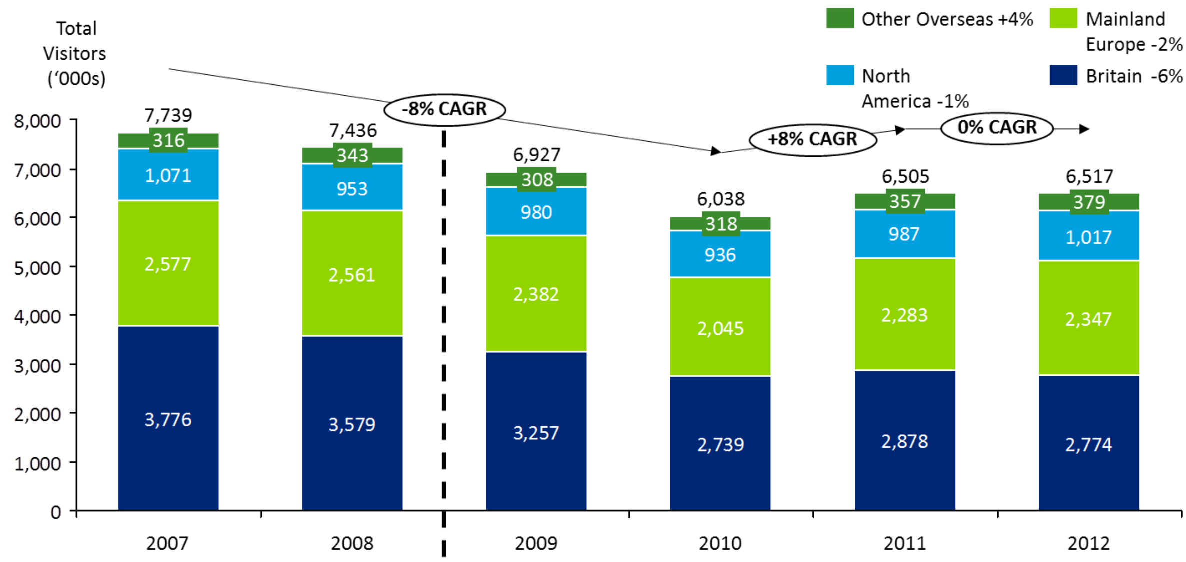
Source: Fáilte Ireland, Tourism Facts 2011, December 2012, CSO Tourism and Travel 2012
Note: Data revisions by CSO mean direct comparison should not be made between pre-2009 data and post-2009 data

It should be noted some 75% of tourism revenues comes from spending by overseas visitors and this share has been increasing in recent years. CSO data shows that between 2011 and 2012 earnings from overseas visitors increased by €158 million. Such earnings are classed as 'invisible exports' - rather than sending goods/services abroad, foreigners come here and consume domestically produced goods and services.

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 2012, as shown in Figure 2.4.

Figure 2.4: Total Overseas Tourism Visitors by Country of Origin, 2007 – 2012 ('000s)



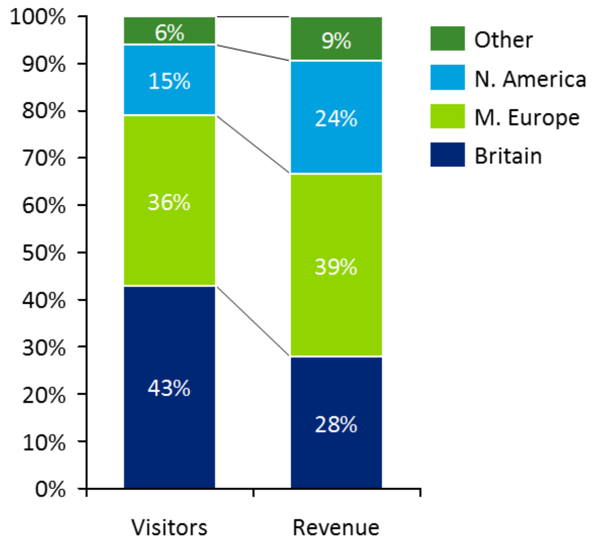
Source: Fáilte Ireland, Tourism Facts 2011, December 2012, CSO Tourism and Travel 2012
Note: Data revisions by CSO mean direct comparison should not be made between pre-2009 data and post-2009 data

The relative importance of these segments to the Irish tourism market is changing with the market share of British tourists, traditionally Ireland's biggest market, reducing. Since 2007, total visitor numbers from Britain have declined at 6% CAGR, resulting in a decrease in total visitor numbers over the period of 28%. Britain still accounts for the greatest share of overseas tourist numbers with 2.7 million visits to Ireland in 2012, although this is down over one million visitors since 2007. The Sterling: Euro exchange rate fluctuations impact on tourist numbers from the UK and need to be considered as one key driver of trends in UK visitor numbers.

Visits from Mainland Europe were also adversely affected between 2007 and 2010. Total visitor numbers declined 22% over this period but have made a strong recovery with visitor numbers up by 14% in the two subsequent years. Visitor numbers from North America have followed a similar trend to those from Mainland Europe. North American visitors to Ireland declined by 19% between 2007 and 2010 before growing 8% in the subsequent two years.

While Britain is the most important market for Irish tourism in terms of overseas visitors, Mainland Europe visitors account for the greatest share of overseas tourism revenue, as shown in Figure 2.5. Britain accounted for 43% of overseas visitors to Ireland in 2012, with these visitors only accounting for 28% of the revenue associated with overseas visitors. Visitors from North America and Mainland Europe both had a disproportionate share of total spend in comparison to the visitor numbers. North American visitors for example accounted for 24% of total spend but only 15% of total visitor numbers.

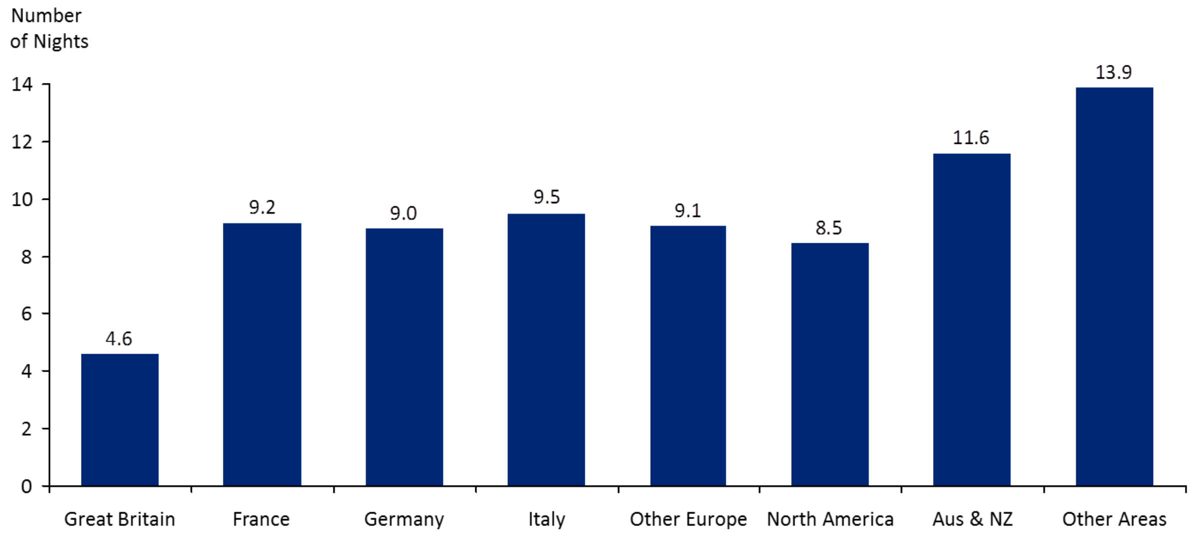
Figure 2.5: **Overseas Markets Share by Visitor Numbers and Revenue, 2012 (%)**



Source: CSO, Fáilte Ireland, Tourism Facts 2011, December 2012
Note: this excludes carrier receipts.

The discrepancy between number of visitors from a region and total expenditure by region is partly explained by the variance in average length of stay of visitors by region, as shown in Figure 2.6. In general, the further a tourist has to travel to reach Ireland, the longer the average stay.

Figure 2.6: Average Length of Stay by Region 2012



Source: CSO, Tourism & Travel 2012, March 2013

It is important that the performance by region be viewed in context of the broader tourism activity originating in that region to establish if any decline in visitors to Ireland is reflective of a reduction in overall tourism activity from that region. In the British tourism market, Ireland has under-performed other major destinations, such as France and Spain. In essence, Ireland has lost both volume and share in relation to British overseas tourism trips.

Irish tourism has performed better in the American market, particularly in recent years. Having under-performed all the main tourism markets for US visitors between 2007 and 2010, Ireland has out-performed all other markets with the exception of the Middle East and the Caribbean in the period since. The Caribbean is the closest overseas market to the USA and the Middle East has enjoyed strong growth from a low base.

Conclusion

- The performance of the Irish tourism industry has stabilised since 2011 with total overseas visitors numbers up 6% on their low in 2010.
- Between 2011 and 2012 earnings from international visitors – an invisible export – increased by €158 million.
- The performance has varied by region with the largest market, Great Britain, having performed the weakest of the major markets - Irish tourism has lost volume and share in the UK market. However, the European and North American markets have recovered strongly in recent years, possibly as they have not had to deal with a strong Sterling rate.
- In addition, there has been a boost to the domestic tourism market as an increased number of Irish people have holidayed at home.
- It is certainly a positive sign that tourist numbers have increased in 2011 and 2012. Initial indications are that this improvement has continued into 2013.

3. Level of Activity in the Tourism Sector

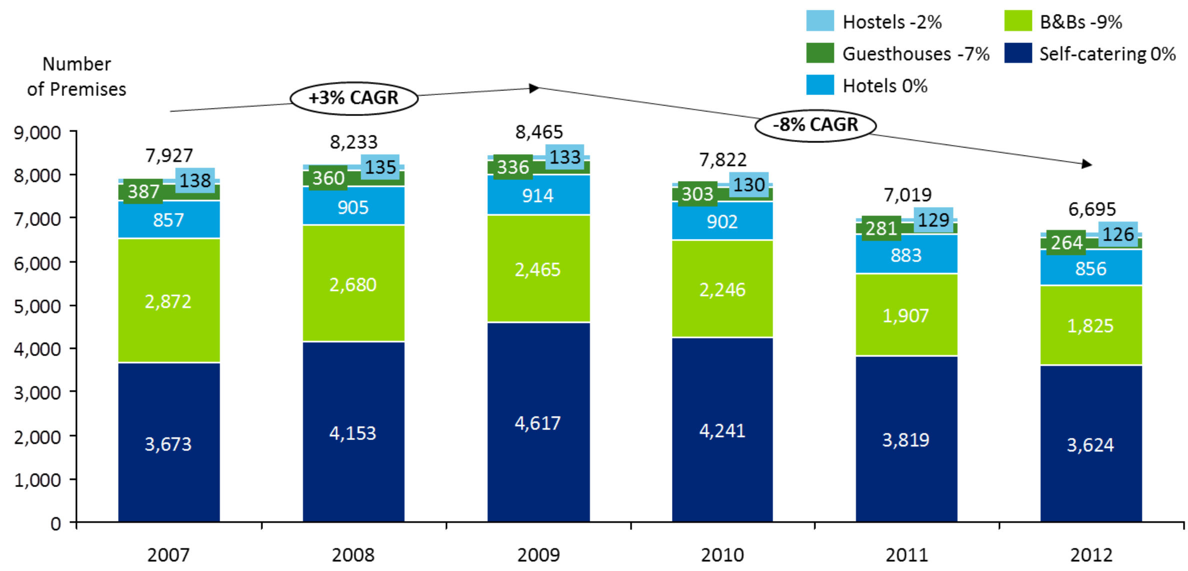
This section looks at the performance of the paid accommodation sector since 2007. This provides an oversight of the impact of the introduction of the VAT rate reduction from the perspective of the accommodation providers.

Accommodation Stock

The economic challenges in Ireland have impacted on accommodation providers in the tourism sector with the total level of accommodation stock falling by 16% since 2007. This equates to 1,232 fewer accommodation premises in the country in 2012 compared to 2007. This reduction has been primarily driven by a large decline in the guesthouse and bed & breakfast segments which have seen stock declines of 36% and 32% respectively since 2007. This is possibly driven by changes in tax incentives in the sector in addition to overall economic pressures, and a reflection of the reduction in demand driven by tourist numbers.

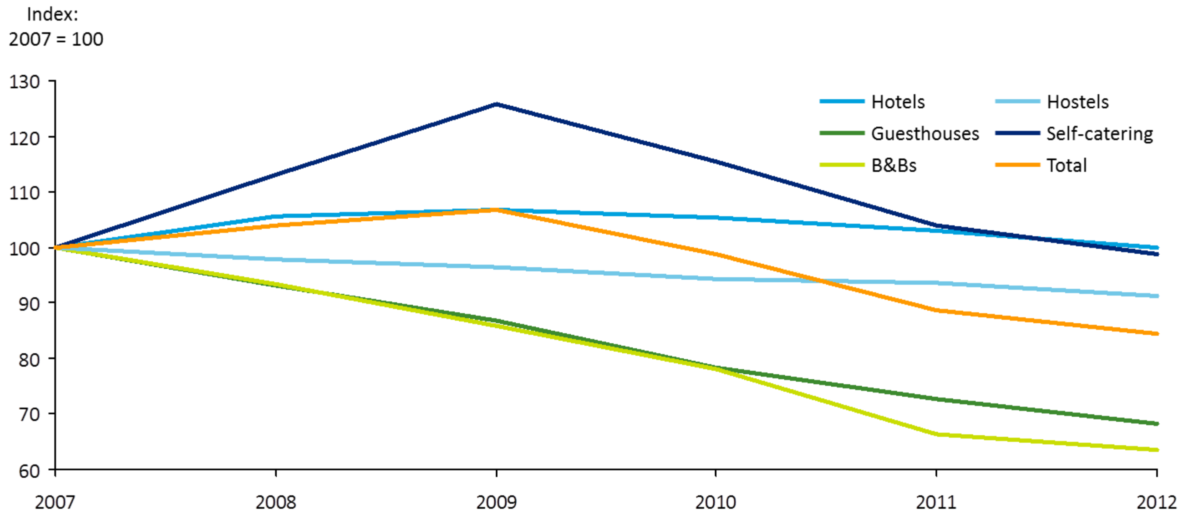
In contrast, by 2012 hotel stock returned to its 2007 level, having fallen 6% since its high in 2009. The overall stock premises numbers is shown in Figure 3.1 and the indexed performance of each segment is shown in Figure 3.2.

Figure 3.1: Accommodation Stock (Premises), 2007 – 2012



Source: Fáilte Ireland, Tourism Facts, 2007 – 2012

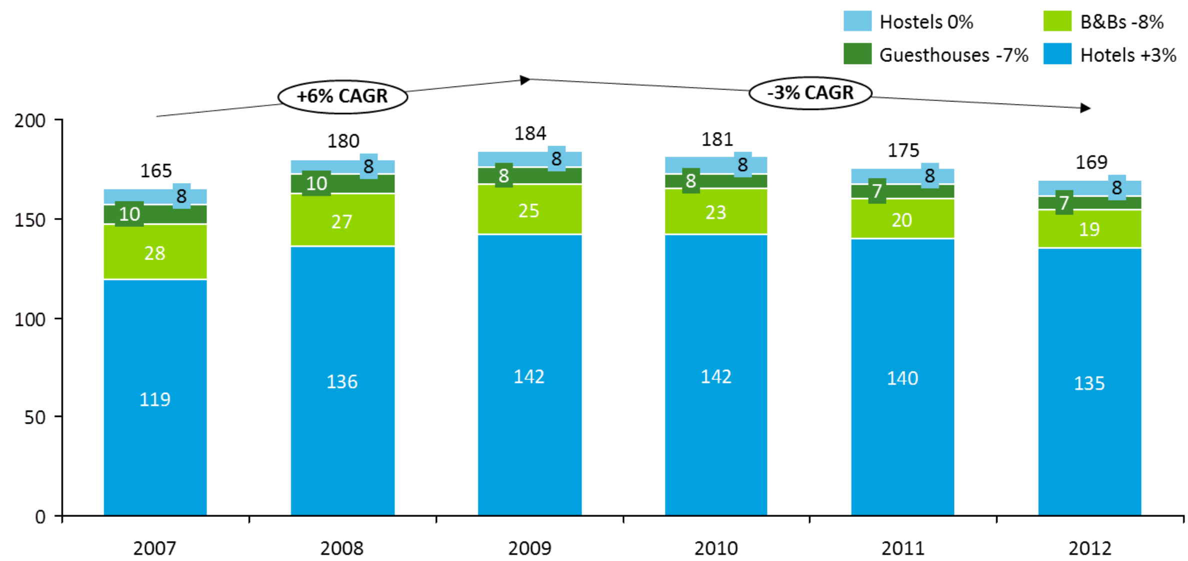
Figure 3.2: Accommodation Stock (Premises) Growth, 2007 – 2012 (Indexed 2007 = 100)



Source: Fáilte Ireland, Tourism Facts, 2007 - 2012

While total accommodation stock has declined since 2007, total beds stock has increased by 2.5%. This has been driven by the hotel sector which had an increase of 13% in beds between 2007 and 2012, suggesting that the average size of the remaining hotels has increased. In contrast there was a reduction of c.30% in beds stock in the bed & breakfast and guesthouse sectors. Figure 3.3 sets out the total bed stock by category.

Figure 3.3: Accommodation Beds Stock 2007 – 2012 ('000s)



Source: Fáilte Ireland, Tourism Facts, 2007 – 2012

Occupancy Rates

Moving from an assessment of supply to demand, there has been an increase in overall hotel occupancy rates in 2012, unsurprising given the tighter supply scenario and the increase in tourist numbers set out in Section 2. Room occupancy is forecasted to have risen above 60% in 2012, a level not breached since 2007. Table 3.1 illustrates the hotel room occupancy and bed occupancy rates since 2007. Table 3.2 sets out the occupancy rates since 2007 in the other categories of accommodation.

Table 3.1: Hotel Room Occupancy and Bed Occupancy Rates, 2007 – 2012p (%)

	2007	2008	2009	2010	2011	2012 (p)
Room Occupancy	64	58	56	56	56	61
Bed Occupancy	46	43	42	41	41	45

Source: Fáilte Ireland, Preliminary Hotel Review, 2012

Table 3.2: Room Occupancy Rates by Category, 2007 – 2012 (%)

	2007*	2008*	2009	2010	2011	2012 (p)
Guesthouse	63	49	44	43	46	50
B&Bs	48	35	31	27	31	30
Hostels	64	60	45	44	47	36
Self-Catering	61	41	33	35	39	38

Source: Fáilte Ireland
* 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 – 08. Fáilte Ireland believe the occupancy rate in 2007 is a good indicator as to the rate necessary for the industry to be sustainable - no category of accommodation has returned to this level yet.

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 in relation to pricing power. 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.

[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. However, the rate of decline has moderated in 2012. 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, to be less willing to categorise their property as tourist accommodation stock.

- There has been an increase in hotel room and bed occupancy rates in 2012, the first such increase since 2007, while it appears hotels are growing larger in size. While this cannot be directly attributed to the reduction in the VAT rate, it is another positive trend within the sector, although Fáilte Ireland believes the occupancy rate remains below a sustainable level.

- The excess capacity in the sector also increases the likelihood of the price reduction being passed through to end consumers, since suppliers are in a weaker position in relation to pricing power. This is examined further in Section 6.

4. Perception of Value for Money

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

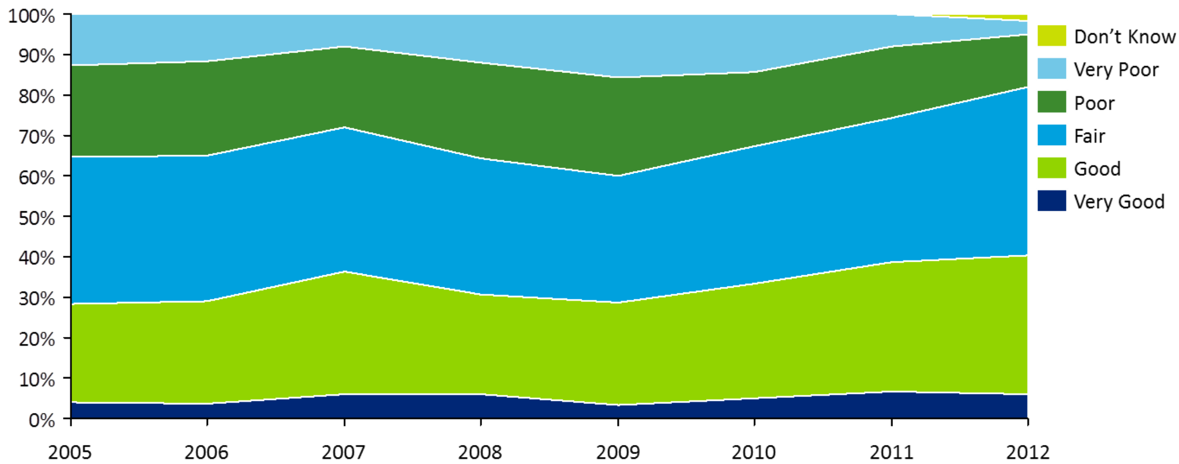
VFM provides an indicator from tourists as to their perception of the level of value in the tourism sector in Ireland. Given the lower rate of CPI in the 9% categories (as discussed in Section 6) against that in the overall economy, it is reasonable to expect that there would be some improvement in the overall VFM.

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

Overall Value for Money 2005 - 2012

Figure 4.1 below sets out the VFM assessment for all visitors between 2005 and 2012. 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 28% to 40% while the number of visitors rating Ireland as 'poor' or 'very poor' decreased from 35% in 2005 to 16% in 2012. This change in visitors' perception of VFM has been most noticeable since 2009, and has continued to improve since the introduction of the rate reduction.

Figure 4.1: VFM Assessment, All Visitors 2005 - 2012

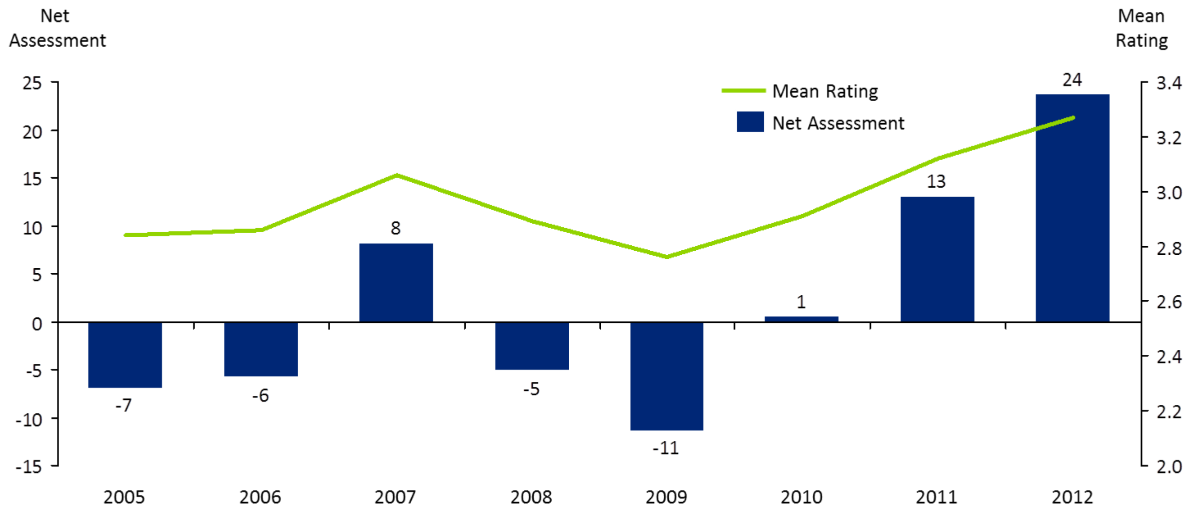


Source: Fáilte Ireland, Annual Survey of Overseas Travellers

The change in visitors' perception of VFM is also reflected in the mean rating and net assessment scores shown in Figure 4.2. The mean rating reflects the average rating given by respondents as to

VFM where 'very poor' equated to 1 and 'very good' equated to 5 and can be seen in Figure 4.2 to have improved strongly since 2009. 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 and +24% in 2012. 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 2012 24% more visitors believed Ireland offered 'good' or 'very good' value than 'poor' or 'very poor' value. The improvement in overall trends in net assessment is particularly evident from 2011, coinciding with the introduction of the VAT reduction.

Figure 4.2: Net VFM Assessment and Mean Rating, All Tourists 2005 - 2012

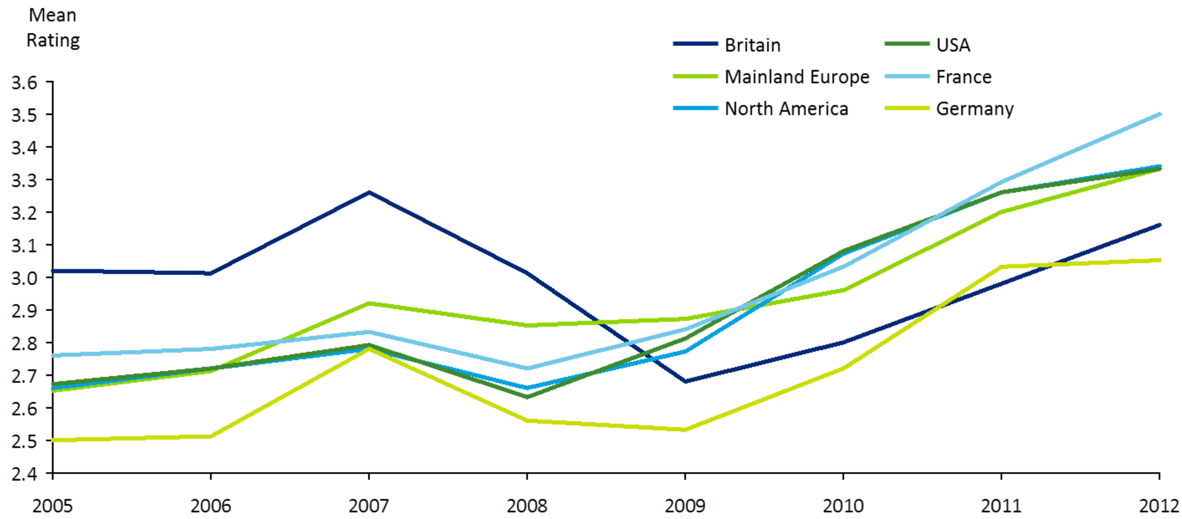


Source: Fáilte Ireland, Annual Survey of Overseas Travellers, Deloitte analysis

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. Figures 4.3 provide an overview of the VFM assessment of Ireland from its most important tourism markets, Britain, North America and Mainland Europe, between 2005 and 2012.

Figure 4.3: VFM by Region of Origin (1 = Very Poor, 5 = Very Good)



Source: Fáilte Ireland, Millward Brown

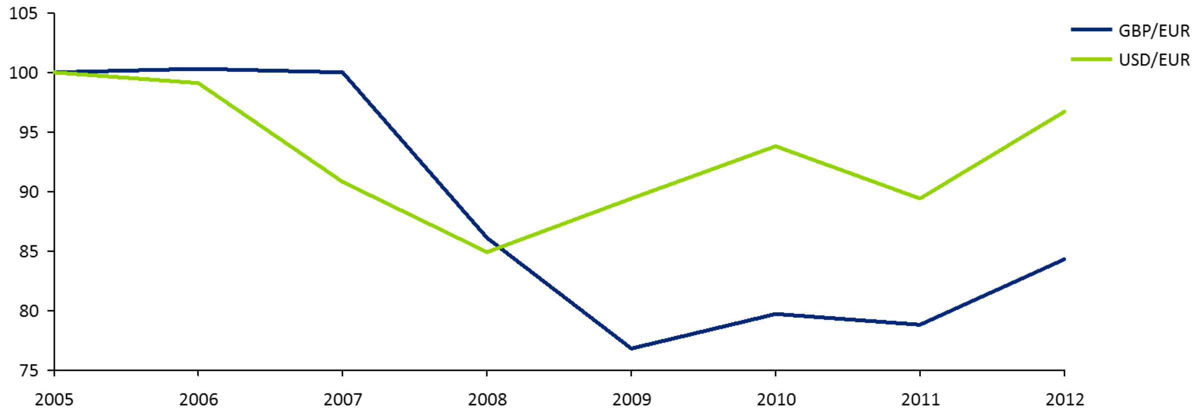
There has been a strong overall trend since 2009 of improving VFM across visitors from all regions, with visitors from France giving the highest VFM rating. Again, this trend has continued to improve since the introduction of the VAT rate reduction.

The trends show a clear divergence in attitude however over this period between British visitors and those from North America and Mainland Europe. In 2005, British visitors considered Ireland to be better VFM than any of the other main regions surveyed. However, British visitors' VFM rating fell substantially in 2007-09 (from 3.26 to 2.68). While it has improved to 3.16 in 2012, British visitors still rate Ireland's VFM less than that of visitors from most other countries with the exception of Germany.

Since 2009, there has been a large reduction in the number of British visitors surveyed who considered Ireland to be 'poor' or 'very poor' VFM. Over this period, this percentage has reduced from 44% to 20%. A similar trend is seen in the survey of North American visitors and Mainland European visitors. North American visitors considering Ireland to be 'poor' or 'very poor' value has decreased from 41% in 2009 to 15% in 2012, while for Mainland European visitors, the percentage has decreased from 34% in 2009 to 13% in 2012.

Given the exchange rate fluctuations seen over this period, as shown in Figure 4.4, it is perhaps unsurprising that British visitors perception of Ireland's VFM has deteriorated compared to that of North American visitors, with sterling's value against the euro reaching a trough 23% lower than its 2005 level in 2009 and remaining 16% below its 2005 level in 2012. In contrast, the dollar's exchange rate with the euro was 15% lower than its 2005 level in 2008 and was only 3% lower than its 2005 level in 2012.

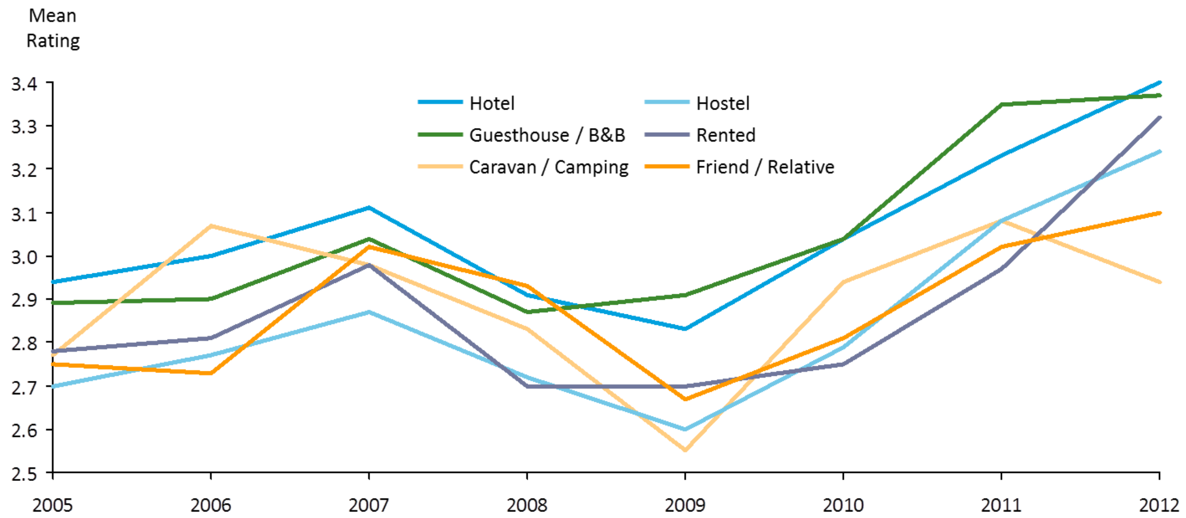
Figure 4.4: Exchange Rate Fluctuations 2005 -2012 (Index: 2005 = 100)



Source: Oanda

Looking at VFM by Accommodation type, Figure 4.5 shows that visitors who have stayed in hotels rate Ireland the highest for VFM. This is likely to reflect greater price sensitivity on the part of those staying in the lower priced categories.

Figure 4.5: VFM by Type of Accommodation 2005 - 2012



Source: Fáilte Ireland, Millward Brown

Finally, interestingly, first time visitors (typically a price sensitive category) now rate Ireland marginally better for VFM than repeat visitors, a reversal of the situation pre-2009.

Conclusion

- The assessment of the VFM offered by Ireland has improved across visitors from all regions since 2009. This positive trend has continued in 2011 – 2012, when the VAT rate reduction was implemented.

- The number of visitors rating Ireland as either 'very poor' or 'poor' for VFM has reduced from 40% in 2009 to 16% in 2012, while the number rating Ireland 'good' or 'very good' VFM has increased from 28% to 40% over the same period.

- While this improvement cannot be wholly attributed to the reduction in VAT rate, the continuing improvement in the VFM assessment across all regions is another positive indicator for the performance of the sector.

5. Analysis of 9% VAT Category Receipts

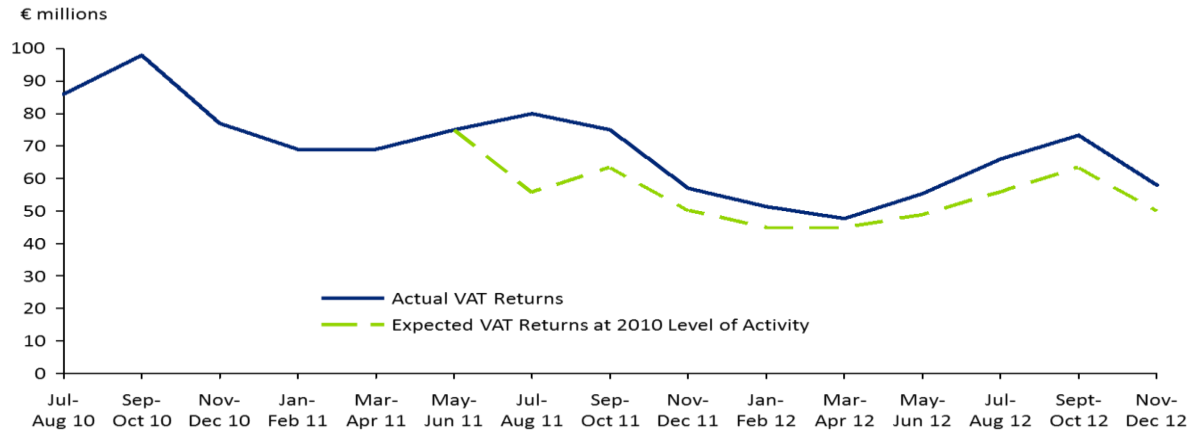
In launching the Jobs Initiative 2011, the Minister for Finance stated the reduction in the VAT rate "was estimated to cost €120 million in 2011 and €350 million in a full year"[8]. In this section, an analysis is conducted of what the actual cost (in terms of reduction in VAT receipts) of the measure 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 the same over 2010, 2011 and 2012 with the strongest receipts during the summer months, a gradual decline over the winter and a rise during spring in line with overall activity in the sector.

As expected, the level of VAT returns in the 9% categories declined following the reduction in the VAT rate on 1 July 2011. However, the decline was less than expected as shown in Figure 5.1 below – the actual decline was 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. In the last six months of 2012 VAT receipts fell by 24% in the impacted categories when compared with the same period in 2010.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 2010 levels, and expected VAT returns at the 9% rate calculated off this level of activity.

Figure 5.1: Total VAT Receipts in 9% Categories July 2010 – December 2012



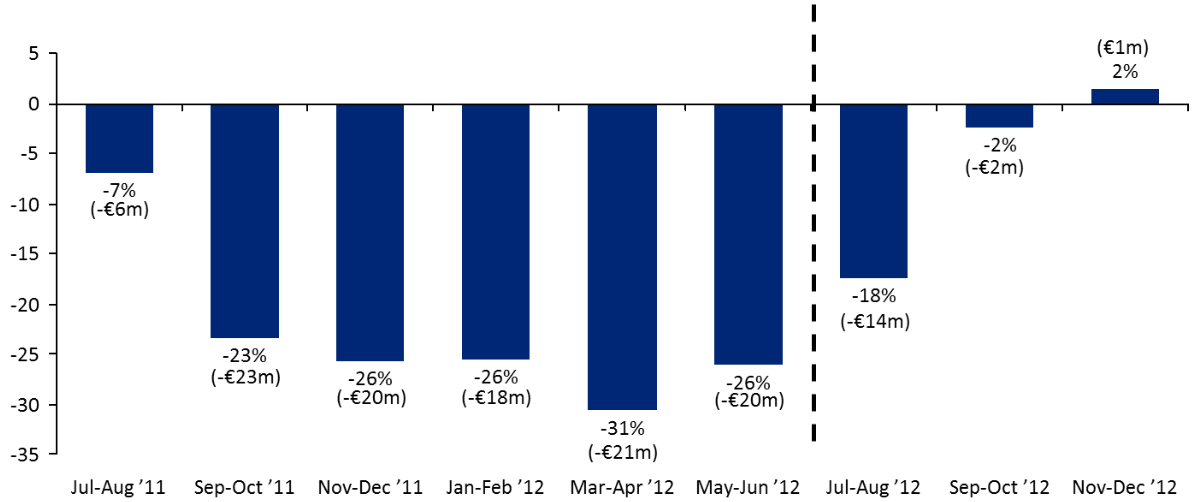
Source: Revenue Commissioners, Deloitte Analysis

8 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 and a further €15 million in the following six months, substantially lower than the Department of Finance's original estimated cost.

Examining the trend on a bi-monthly basis (Figure 5.2), the decline can be seen to have been substantial up to March/April 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 (in comparison to a year before when the reduced rate also was in force).

Figure 5.2: % change in VAT Receipts in 9% Categories against previous 12 month period July 2011 – December 2012



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.

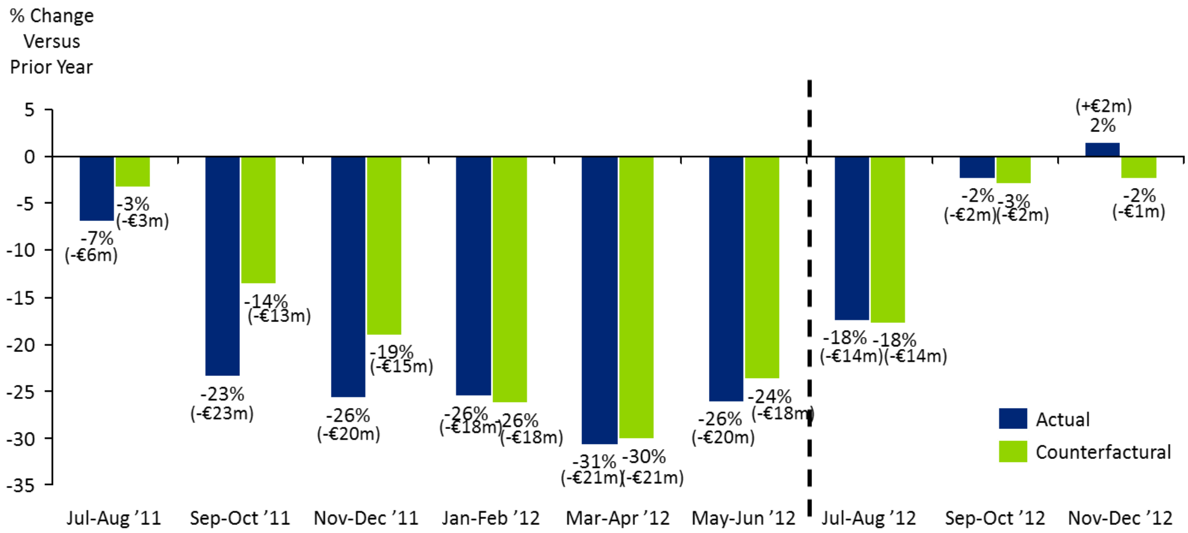
The stabilising / improving position in VAT receipts in the impacted categories is likely to be driven by increased activity in the sector. An analysis undertaken by Deloitte to quantify the uplift in activity indicates that:

- Underlying activity levels rose by 16% in the first 12 months following the VAT reduction compared to the 12 months prior to its introduction;
- Activity in the last 6 months of 2012 appers to be up 13% on the same period in 2010.

This analysis is supported by our 'Review of the Performance of the Overall Sector' set out in section 1 and the 'Level of Activity in the Sector' set out in Section 2 which highlights improvements in overseas and domestic visitor numbers, and occupancy levels which is likely to be driving activity levels. In addition, the reduction in the VAT rate could have stimulated domestic spending in employment-intensive sectors, such as restaurants, accommodation and hairdressing which would further drive activity levels.

Looking at the broader economic backdrop, it is worth considering that in the overall economy total VAT receipts declined by 4% in the period July 2011 – June 2012 with a slight rise of 1.6% in the last 6 months of 2012. Adjusting VAT receipts in the 9% categories for these overall trends reduces the magnitude of the reduction as set out in Figure 5.3. For instance, in July-August 2011, VAT receipts in the impacted 9% categories dropped by 7% (a decrease of €6 million). However, VAT receipts across all categories reduced by 3.8% over this period. It could be expected that the 9% categories would have reflected this decline in the absence of the rate reduction and therefore that the impact of the rate reduction in this period was a decline of 3.2% (a decrease of €2.8 million). If this assumption is applied across the first twelve months since the introduction of the VAT rate reduction, this equates to an estimated reduction in VAT receipts of €88 million, as opposed to the estimated absolute reduction of €107 million if the full VAT decrease was applied across the VAT receipts.

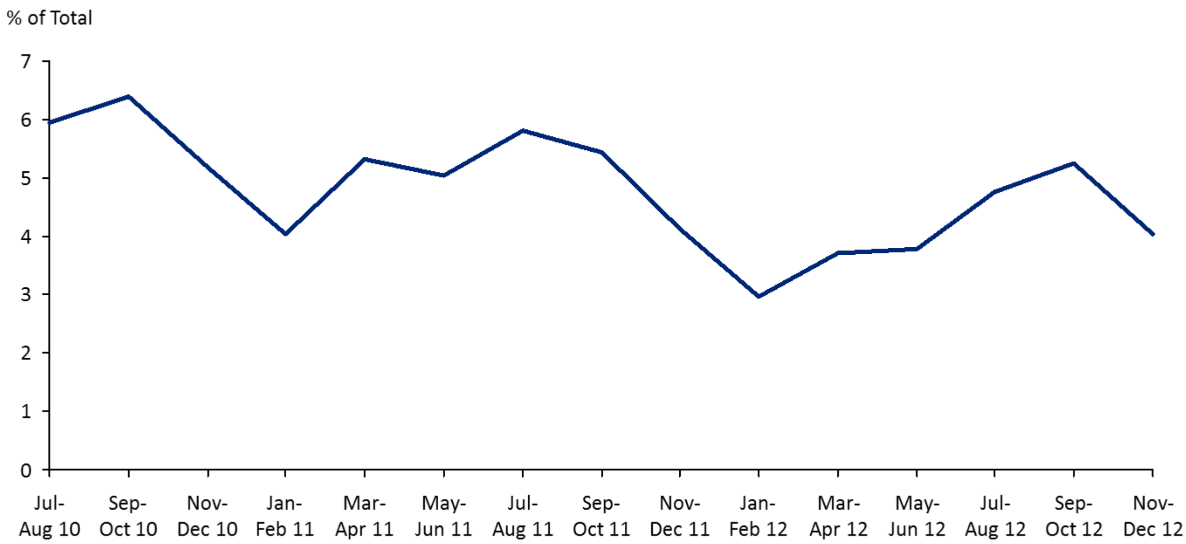
Figure 5.3: VAT Receipts in 9% Categories Adjusted for VAT Trends in the Overall Economy July 2011 – Dec. 2012



Source: Revenue Commissioners, Deloitte analysis

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. In the period prior to the VAT reduction the tourism sector contributed on average 5% to overall receipts; this reduced to 4.3% in the first 12 months following the VAT reduction, rising to 4.7% on average in the subsequent 6 months (last 6 months of 2012), as shown in Figure 5.4, highlighting the recovery in the sector.

Figure 5.4: % of Overall VAT receipts accounted for by the 9% sector



Source: Revenue Commissioners

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	7% (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	23% (proposal to reduce to 13%)

Germany

A VAT rate reduction for hotels from 19% to 7% was introduced from 1st January 2010. It was believed the previous high rate was making Bavaria, a region with a considerable tourism industry, uncompetitive with southern neighbours such as Austria and Switzerland. The reduced rate was also intended to stimulate hotel investment. The British Hospitality Association state that initial findings have been that investment has been encouraged, more jobs have been created, wage levels have increased and prices have been reduced.

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. 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% for the period 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 stated it will attempt to reduce the VAT rate on restaurant, café and bar bills to 13% from the current 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, 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.

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 €15 million in the subsequent six months. 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. The reduction in VAT receipts has also stabilised since September 2012, likely driven by increased activity in the sector.

- Adjusting the VAT take decline in the 9% category for the overall fall in VAT receipts suggests that there was an estimated net reduction in 9% items VAT receipts of €88 million for the first 12 months of the Jobs Initiative.

- 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.

6. VAT Reduction Pass Through

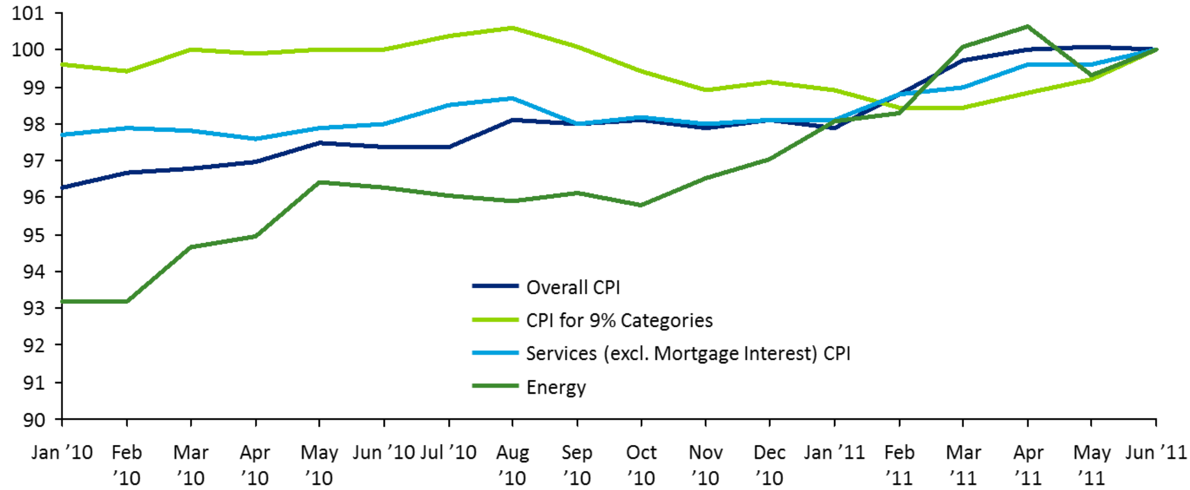
One of the key elements in evaluating the impact of the VAT reduction is to determine the extent to which the VAT reduction has been passed through to consumers. With the reduction in the VAT rate from 13.5% to 9%, it could be expected that prices would fall by a corresponding amount of c.4% on the simple 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. utility costs, excise duties (most notably the increasing levels on alcohol), food prices, insurance, and fuel costs. This also needs to be considered when determining the rate of pass-through which occurred.

Headline VAT trends

Figure 6.1 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[9] group as a reference point.

Figure 6.1: Trend in CPI Pre-VAT Rate Reduction Jan 2010 – Jun 2011 (Index: June 2011 = 100)



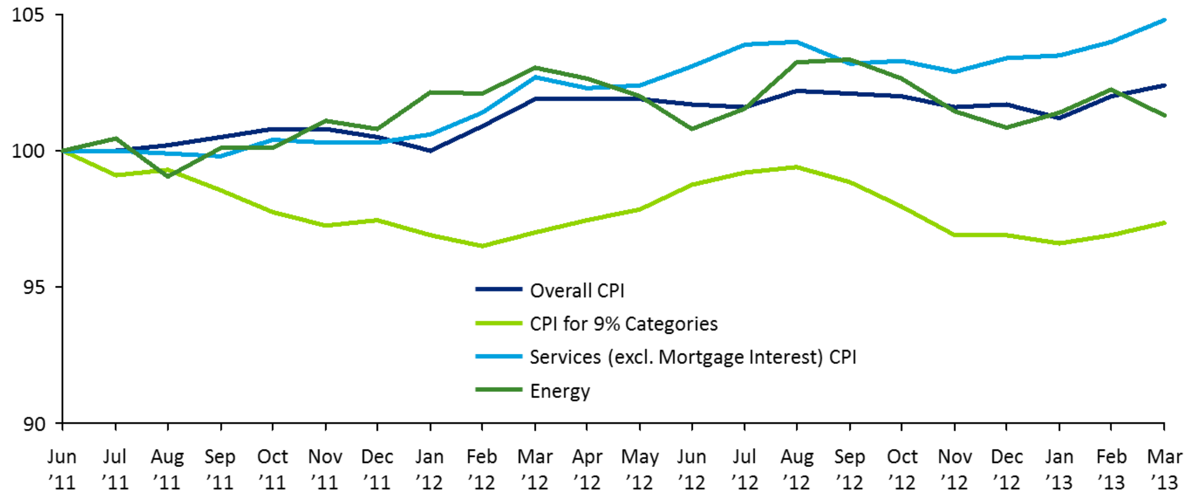
Source: CSO, Consumer Price Index 2010 – 2013, Deloitte analysis

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 6.2 shows CPI trends for the same categories since the introduction of the VAT rate reduction. The downward price trend in the 9% category is apparent and is in contrast to a clear upward trend in inflation in the overall economy.

[9] Services 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.

Figure 6.2: **Trend in CPI Post-VAT Rate Reduction Jun 2011 – Mar 2013 (Index: June 2011 = 100)**



Source: CSO, Consumer Price Index 2010 – 2013, Deloitte analysis

Looking specifically at the period since the VAT rate reduction was implemented, prices in the impacted categories fell by 2.6% by December 2011 and by a further 0.6% over the course of 2012. Against the backdrop of rising CPI in the overall economy (0.5% increase by December 2011 and further 1.2% increase over the course of 2012) this would suggest that there has been significant price pass through.

Individual Categories

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

In the first instance, we examined the level of CPI over the past 2 years in each of the 9% categories against two counterfactual scenarios to assess how the CPI in the 9% categories could have been expected to perform in the absence of the VAT rate reduction. We adjusted the level of CPI in the 9% categories to determine what could have been expected if the categories performed in line with:

- Counterfactual 1: Overall CPI (which increased 2.7% over this period);
- Counterfactual 2: CPI excluding energy costs (which increased 1.8% over this period).

This builds on the analysis developed in the Department of Finance's Medium-term Fiscal Statement in 2012[10], which also compared CPI in the 9% categories to overall CPI, as well as CPI excluding energy costs. The exclusion of energy costs strips out any higher than headline rates of inflation in these categories and enables a comparison with underlying inflation in the economy. Taking a view over a full 24 month period removes some of the cyclical impact which emerges when looking at a shorter period. Table 6.1 sets out by category the actual change in CPI over the two year period and the variance between actual CPI performance in each category and that of each of the two counterfactuals.

[10] 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

Table 6.1: CPI in the 9% categories adjusted for overall economy-wide CPI, March 2011 – March 2013

9% Category	Actual CPI in 9% Category	Actual CPI in 9% Category Versus Overall CPI	Actual CPI in 9% Category Versus Overall CPI excl. Energy
Cinemas, theatres, musicals, museums, art galleries	-0.78%	-3.48%	-2.59%
Hairdressing services	-1.83%	-4.53%	-3.64%
Hot take away foods and hot drink	-1.09%	-3.79%	-2.90%
Hotels, guesthouses, hostels	1.67%	-1.03%	-0.15%
Meals out including rail car dining	-1.19%	-3.89%	-3.00%
Printed matter - newspapers, comics	-1.18%	-3.88%	-2.99%
Sport	-5.60%	-8.30%	-7.41%
Total excl. hotels, guesthouses, hostels	-1.69%	-4.39%	-3.50%
Total items	**-1.09%**	**-3.79%**	**-2.90%**

Source: CSO, Deloitte analysis

CPI within the 9% categories is lower than that in the overall economy. Adjusting for overall CPI shows the full extent of the reduction in prices across the categories. The analysis suggests that c.50% of the VAT reduction has been passed onto consumers (CPI is 2.9% lower in the 9% categories compared to Overall CPI excluding Energy). This is in line with economic theory that would suggest the benefits from a VAT cut are likely to be shared between sellers and buyers. As the Department of Finance noted[11], it is likely that some of the gap between the actual price decrease in the affected sectors and the rate reduction is accounted for by economy wide inflation.

In the second instance, we focused specifically on the direction in prices in each of the categories since the VAT reduction in July 2011 providing further insight into price trends. This is shown in Table 6.2.

Table 6.2: Average CPI changes since introduction of VAT reduction (Base: December 2011 = 100)

9% Category	Jan – Jun 2011	July – Dec 2011	Jan – Jun 2012	July – Dec 2012
Cinemas, theatres, musicals, museums, art galleries	102.8	100.3	101.6	101.5
Hairdressing services	98.6	96	96	96.1
Hot take away foods and hot drinks	100.6	100.5	100.3	100.3
Hotels, guesthouses, hostels	104.3	106.7	102.6	107.4
Meals out including rail car dining	101.3	100.1	99.9	99.9
Printed matter - newspapers, comics	101.7	98.5	99.9	99.8
Sport	100.3	100	96.3	95.5
Total excl. hotels, guesthouses, hostels	101	99.5	99.4	99.2
Total items	**101.6**	**102.4**	**99.9**	**100.8**

Source: CSO, Deloitte analysis

[11] Ibid

As noted in the Medium-term Fiscal Statement[12], 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. The summary by category is:

- **Cinema, theatres etc.** – Immediate drop following the rate reduction which continued until late 2011. Prices rose after this until mid-2012 and have stabilised since.
- **Hairdressing** – showed an immediate reduction of over 2% following the VAT reduction and this has been broadly maintained. There is still evidence of the "Christmas effect" raising prices at this time; however such increases are considerably lower than in the years prior to the rate reduction.
- **Hot take away foods** – Prices have remained largely around June 2011 levels, despite inflation in wholesale prices for food items.
- **Hotels, guesthouses** – Slight rise in prices following the VAT reduction followed by a reduction until summer 2012. Rates in summer 2012 were marginally higher than in summer 2011. Given the cyclical nature of price trends in this category it is difficult to definitively state what level of pass-through has occurred.
- **Meals out** – Immediate reduction of 1% in July 2011 with a small further reduction by year end. Prices have remained largely static since, despite upward cost pressure due to rising food prices.
- **Printed Matter** – Immediate reduction of in prices equating to the VAT reduction. A subsequent 2% rise was evident by end 2011 with prices remaining largely static since.
- **Sport** – full pass through evident in Jan 2012 which would equate to the renewal period for many sports memberships. This has remained constant with a further 1% decline in Jan 2013.
- **Excluding hotels:** 1.5% reduction in prices in the sector over the first 6 months with a small further decline in the period since.

An overview of the actual price pass through in each category compared to the price pass through that could have been expected had the full reduction been passed through is provided in Appendix 2.

[12] Ibid

The Incidence of Taxation & Price Pass Through

In economics, incidence of tax is the analysis of the effect of a particular tax on the distribution of economic welfare. The issue of the distribution of the tax charge between customers and suppliers / producers is known as the incidence of taxation. The tax incidence is said to "fall" upon the group that pays most of the tax. The key concept is that the incidence of tax, or tax burden, does not depend on where the revenue is collected – it is determined by the relative price elasticity of supply and price elasticity of demand.

Economic theory suggests that where demand is relatively price elastic, (i.e. consumers are more price sensitive, as is the case in the tourism sector) a given reduction in the price will lead to a proportionately larger increase in demand.

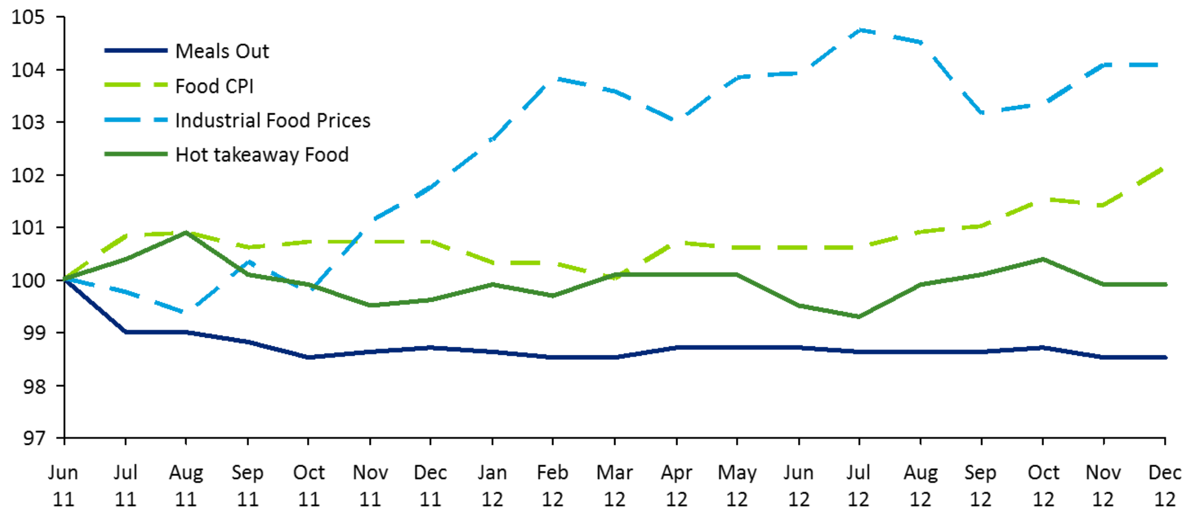
The Danish firm, Copenhagen Economics ApS was commissioned by the EU to carry out an "overall assessment of the impact of reduced rates applying to locally supplied services, including restaurant services, notably in terms of job creation, economic growth and the proper functioning of the internal market". The report was issued in June 2007. The study considered six case studies where a significant change in VAT rate had occurred, one of which concerned hotels in Finland. The report concluded: *"The empirical evidence from major changes in VAT rates supports the conclusion that changes of VAT rates to a very large extent are passed onto consumers……there is little doubt that permanently lowering the VAT rate on a particular good (or service) sooner or later will lead to a reduction in the price of the good more or less corresponding to the monetary equivalent of the lower tax rate….In economics jargon, there will be strong tendency towards full pass through."*

It is noted in a report by Deloitte (UK) on a proposed VAT rate reduction in the UK tourism sector (*Tourism Sector VAT analysis: A Report on the Impact of Reduced VAT Rates on British Visitor Accommodation, Attractions and the Wider Economy*) that it typically requires a period of two years before the full impact of a change in tax rate occurs. Pass through of the cut will tend to take place gradually, as competitive pressures come to bear.

Given the levels of excess capacity apparent across all categories of the tourist accommodation sector, economic theory would suggest that price pass through of the VAT reduction to customers is likely, all else being equal, as customers in the tourism market having a stronger bargaining position than suppliers.

In addition to the economic theory on the incidence of taxation, the ability of suppliers to pass through the full VAT rate reduction to consumers has been impacted by inflation trends on price inputs. As O'Connor found, despite the pressure on suppliers on input costs, it is apparent that there has been pass through of the VAT rate reduction to consumers. Taking meals out and hot takeaway food as an example, Figure 6.3 illustrates the increased input costs suppliers have faced at a time when the consumer price has decreased. Food CPI has increased by 2.1% over this period and industrial food prices have increased by 4%. Over the same period, the price of meals out has reduced by 1.5% and hot takeaway food prices have remained flat.

Figure 6.3: Meals Out and Hot Takeaway Price Inflation – Comparison with Industrial and Consumer Prices for Food Items (Index: June 2011 = 100)



Source: CSO, Deloitte analysis

Conclusion

- Evidence from other countries suggest that a reduction in the VAT rate in tourism sectors will lead to strong pass through over time, although it can take up to two years for the full impact to be evident.

- It is clear from the analysis undertaken that there is good evidence of the VAT rate reduction being passed through to consumers across nearly all categories. Across the 9% category, the full rate of pass through can be estimated to be approximately 2.9% (versus overall CPI excluding energy) in spite of growing pressure on input costs. This also reflects what one would expect based on economic theory on the incidence of taxation.

- The pass through rate varies by category. The pass through is most evident in sport with the evidence in relation to accommodation less conclusive, although this is the category most cyclically priced in nature. Furthermore, the occupancy rate in accommodation premises has improved, although is still believed to be lower than the sustainable rate for the sector.

7. Employment Trends

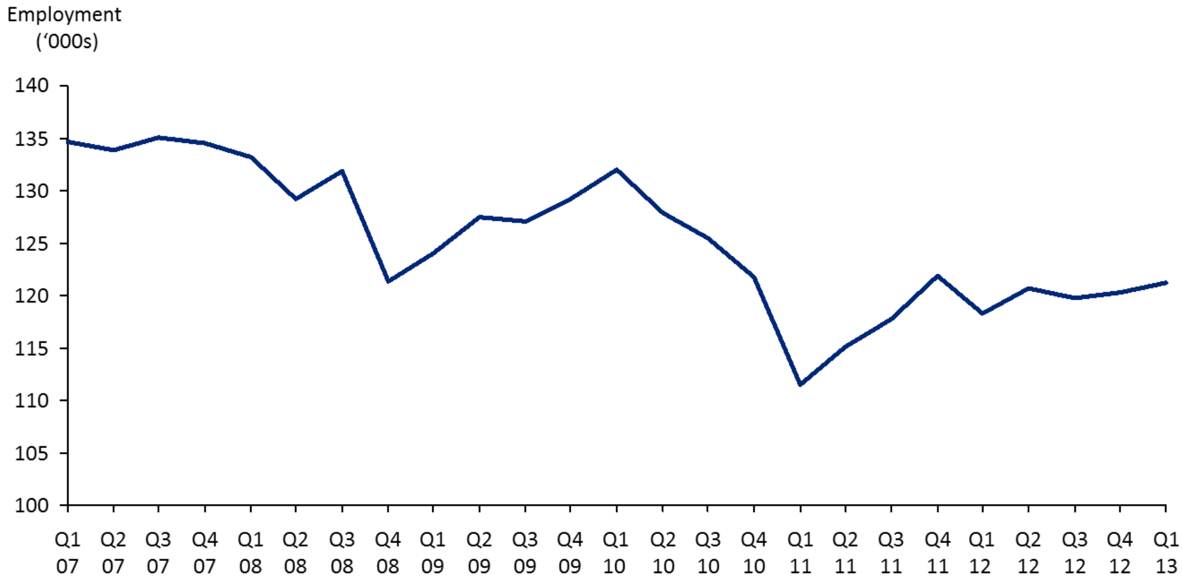
One of the key goals in the introduction of the reduction in the VAT rate was to stimulate increased employment in the tourism industry. Increased employment in the sector is an important objective of the reduced rate as it is likely to be reflective of increased demand in the tourist sector, which will itself be reflected in VAT receipts. Furthermore, increased employment will generate additional income tax receipts and savings in social security payments.

Using official data, employment in the tourism sector can be only measured by looking at activity in the Accommodation and Food Services category. Seasonally adjusted data for this sector is tracked in the Quarterly National Household Budget Survey. 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[13]. 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 nature of activity in the sector.

Looking at the period from 2007 onwards, employment in the tourism sector demonstrates a strong cyclical nature corresponding to level of activity in the sector over the course of a year. Furthermore employment in the sector, in general, is relatively volatile showing continual rises and falls linked to domestic consumer disposable income and overall tourist numbers as shown in Figure 7.1 below.

[13] 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 7.1: Employment in Accommodation and Food Services (seasonally adjusted)



Source: CSO, QHNS

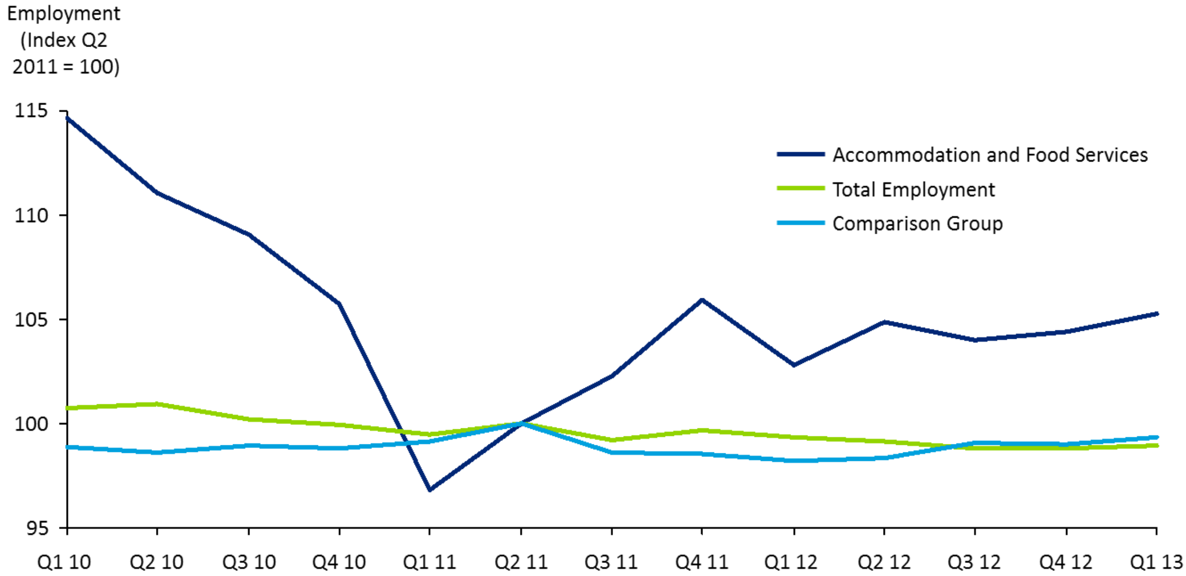
Overall the trend shows a decline in employment in the sector from 2007 onwards with a stabilisation becoming apparent from late 2011 onwards, i.e. post the Jobs Initiative, and a slight rise evident in Quarter 1 2013. Given the volatility refered to above, it is very encouraging to see a stabilisation and early growth in employment numbers.

Examining the trends in employment in the sector against trends in the overall economy gives a more interesting perspective on the performance of the sector. Similar to the analysis by O'Connor for the Department of Finance, Figure 7.2 below sets out the employment trends in 'Accommodation and Food Services' against those in the overall economy and those in a comparative services group. It is useful to have a comparative group as the overall economy-wide employment contains construction, manufacturing and public sector jobs, which may not be relevant for this analysis. A possible counterfactual sector is overall services employment. However, the overall services series includes accommodation and food services as well as public sector employment. 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. This data is all indexed to Q2 2011.

Since 2010, total employment has continued the downward trend which emerged in 2008, albeit at a slower level with levels stabilising in mid-2012. The trend in Accommodation and Food Services has been more cyclical which is to be expected given the nature of the industry. However employment levels grew slightly / stabilised since early 2012, slightly ahead of trends in the overall market.

Looking at the comparative group, the trend here is similar to that in total employment numbers.

Figure 7.2: Employment in Accommodation and Food Services in Context Q1 2007 – Q1 2013 (Index: Q2 2011 =100)



Source: CSO, QHNS

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 and the Comparison Group from Quarter 3 2011 to Quarter 1 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 comparative group. Overall, our interpretation is that employment is 3,600 to 7,800 above that if the sector had performed at the level of overall employment in the economy while it is 4,400 to 9,200 above the Comparison Services Group. This is shown in Table 7.1.

Table 7.1: Outperformance of Accommodation and Food Services in actual terms

	Q3 11	Q4 11	Q1 12	Q2 12	Q3 12	Q4 12	Q1 13
Vs. Total ('000s)	3.63	7.67	4.08	7.01	6.28	6.83	7.81
Vs. Comparison Group ('000s)	4.41	9.16	5.48	8.00	5.95	6.62	7.25

Source: Deloitte analysis of CSO, QHNS 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 instructive to assess the impact in the most recent four quarters (i.e. Q2 12 – Q1 13). Over this period, the relative employment out-performance in accommodation and food services was between 5,950 and 8,000 in comparison with the services group. On average, the employment out-performance compared to the services comparison group was 6,960.

Keeping in mind (a) the labour intensive nature of the 9% items and (b) that some 70% of expenditure items was in accommodation and food services, 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 more in the region of 10,000. As Appendix 1 outlines, the 9% category is wider than just tourism.

There will be an Exchequer gain associated with the employment increase in both social welfare savings and additional income tax arising. A possible annual quantification of this draws on past analysis by Fáilte Ireland[14]:

- 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 leaving the live register. This would amount to a net saving of €50 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€5 million in extra income tax.

Conclusion

- Since the introduction of the lowered VAT rate, there has been a positive and sustained improvement in the employment levels in the tourism sector. This follows very significant decreases prior to Q2 2011.

- Employment in the tourism sector has outperformed total employment, and has also outperformed our selected comparator group. As shown, there has been an increase in activity in the sector, evidenced in the assessment of overall tourism numbers and in the assessment of the VAT receipts.

- 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 c10,000. On an annual basis this would results in an Exchequer gain of €55 million in social welfare savings and in extra income tax arising.

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

8. Indicative Assessment

Introduction

The Department of Finance introduced the VAT rate reduction in July 2011 in order to boost tourism and stimulate employment in the sector[15]. Prior to the introduction of the reduced rate, it was estimated that the measure would cost €120 million in 2011 and €350 million in a full year[16].

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.

Clearly the question of whether a specific input or policy measure, such as the temporary VAT decrease, 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. There is a wide variety of factors influencing tourists, accommodation providers and hospitality providers, all of 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. The same situation applies when seeking to determine the impact of a reversal. The challenge is increased in light of research commissioned by the EU that states it typically requires a period of two years before the full impact of a change in the tax rate occurs[17].

Indicative Assessment

The assessment framework brings together findings from the previous sections to enable an indicative assessment of the VAT rate cut's impact through consideration of the key questions initially set out. 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 an indicative assessment of the impact of the VAT rate reduction.

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 VAT rate reduction from 13.5% to 9%, full pass through would result in consumer price reduction of circa 4%. Price pass through has

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

[16] Ibid

[17] Study on reduced VAT applied to goods and services in the Member States of the European Union, 21 June 2007, Copenhagen Economics

Key Question	Indicative Assessment	Commentary and Impact Assessment
		been largely achieved. Across all categories, the price pass through has been circa 2.9% (versus CPI excluding energy). This is in line with expectations and with economic theory. • Price pass through has varied by category and is readily apparent in all sectors with the exception of the accommodation sector where the evidence is inconclusive; however, this sector is the most cyclical in nature in terms of pricing. • Price pass through has been in the face of significant pressure on input costs.
Has there been an impact on tourists' perception of VFM?	Positive	• However, there has been a continued improvement of international visitors' assessment of Ireland's VFM which is a positive indicator.
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 reduction, notably in visitor numbers from mainland Europe and North America. Given the number of external factors that impact international tourist numbers (e.g. economic circumstances in the countries of origin, exchange rates), it is difficult to directly attribute this growth to the VAT rate initiative. • There has also been an increase in international tourism earnings of €158 million between 2011 and 2012. Fáilte Ireland estimates that 25% of this accrues to the Exchequer in various taxes and charges.
Has there been an increase in demand / activity in the tourism industry as a result of the VAT rate reduction?	Positive	• Analysis of the VAT receipts in the impacted categories indicate that underlying activity levels rose by 16% in the first 12 months post VAT rate reduction compared to the 12 months prior to its introduction. • There has been a moderation in the rate of decline in the number of accommodation premises and an increase in the number of hotels. • Excess capacity in the hotel sector has declined; occupancy levels have improved although remain below past norms. • Fáilte Ireland believes that hotel occupancy rates remain below long-term sustainable levels, although there has been improvement

Key Question	Indicative Assessment	Commentary and Impact Assessment
		since the VAT rate reduction.
Has there been an increase in employment in the tourism industry as a result of the VAT rate reduction?	Positive	• The most recent data supports an assessment that employment in the 9% categories is circa 10,000 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 €55 million between additional income tax and social welfare savings. • The employment gains follow very significant decreases prior to Q2 2011.
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 €15 million in the subsequent 6 months. 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. • Adjusting the VAT take decline in the 9% category for the overall fall in VAT receipts suggests that there was an estimated net reduction in 9% items' VAT receipts of €88 million for the first 12 months of the measure. • There has been a stabilisation of VAT receipts since September 2012.

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.

As set out in Section 6, the Danish firm, Copenhagen Economics ApS was commissioned by the EU to carry out an "overall assessment of the impact of reduced rates applying to locally supplied services, including restaurant services, notably in terms of job creation, economic growth and the proper functioning of the internal market". The study considered six case studies where a significant change in VAT rate had occurred. It concluded: *"The empirical evidence from major changes in VAT* *rates supports the conclusion that changes of VAT rates to a very large extent are passed onto consumers……there is little doubt that permanently lowering the VAT rate on a particular good (or service) sooner or later will lead to a reduction in the price of the good more or less corresponding to the monetary equivalent of the lower tax rate….In economics jargon, there will be strong tendency towards full pass through."*

It is noted in a report by Deloitte (UK) on a proposed VAT rate reduction in the UK tourism sector (*Tourism Sector VAT analysis: A Report on the Impact of Reduced VAT Rates on British Visitor Accommodation, Attractions and the Wider Economy*) that it typically requires a period of two years before the full impact of a change in tax rate occurs. Pass through of the cut will tend to take place gradually, as competitive pressures come to bear.

Concluding Comments

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

- Price pass through of the rate reduction to consumers is evident across nearly every category;
- Increased employment across the 9% categories of c. 10,000 evident;
- Renewed growth in overseas tourism numbers and earnings;
- Increased activity levels apparent across the industry; and
- Improved VFM perception across all visitors.

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, at a lower cost than originally estimated.

This conclusion is in line with international evidence on such measures. It is also noted that these findings reflect those contained in the Department of Finance's Medium-Term Fiscal Statement[18]. It 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 on an overall basis.

[18] 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

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

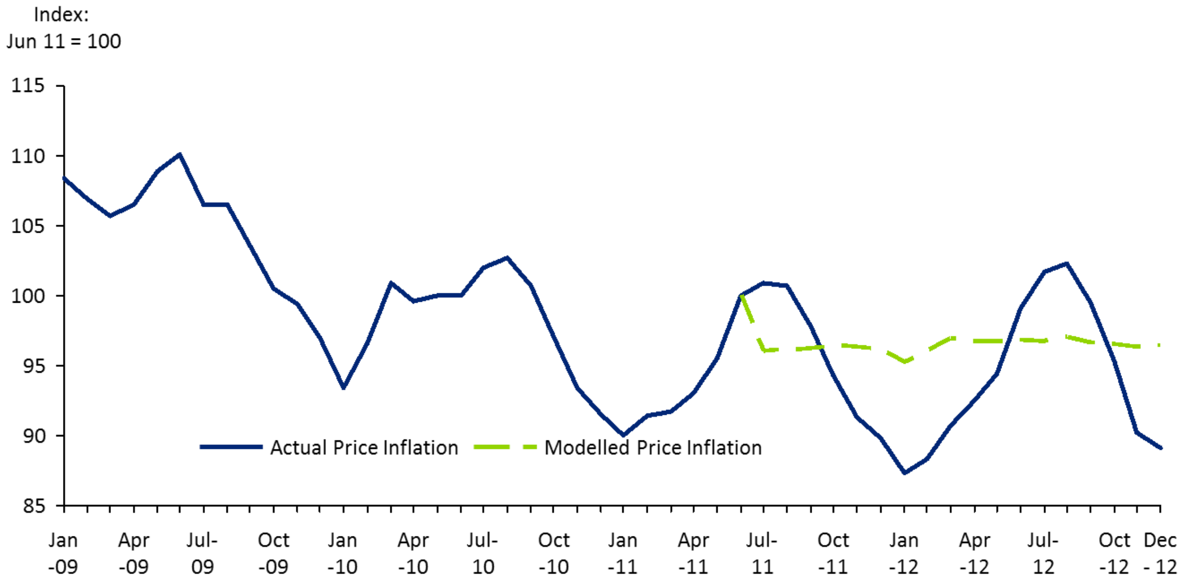
Examples of supplies @ 21% - Section 46(1)(a)

- Hair products
- Hair accessories

Appendix 2 Price Pass Through Counterfactuals Charts

In this Appendix, we build on the work of O'Connor in the Department of Finance Medium-term Fiscal Statement 2012[19]. We set out a chart for the price inflation in each of 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. This enables a comparison both of the speed of pass through and the general price trend in each category against underlying inflation in the economy.

Hotels and Other Accommodation- Actual and Counterfactual 'Modelled' Inflation Jan 09 – Dec 12

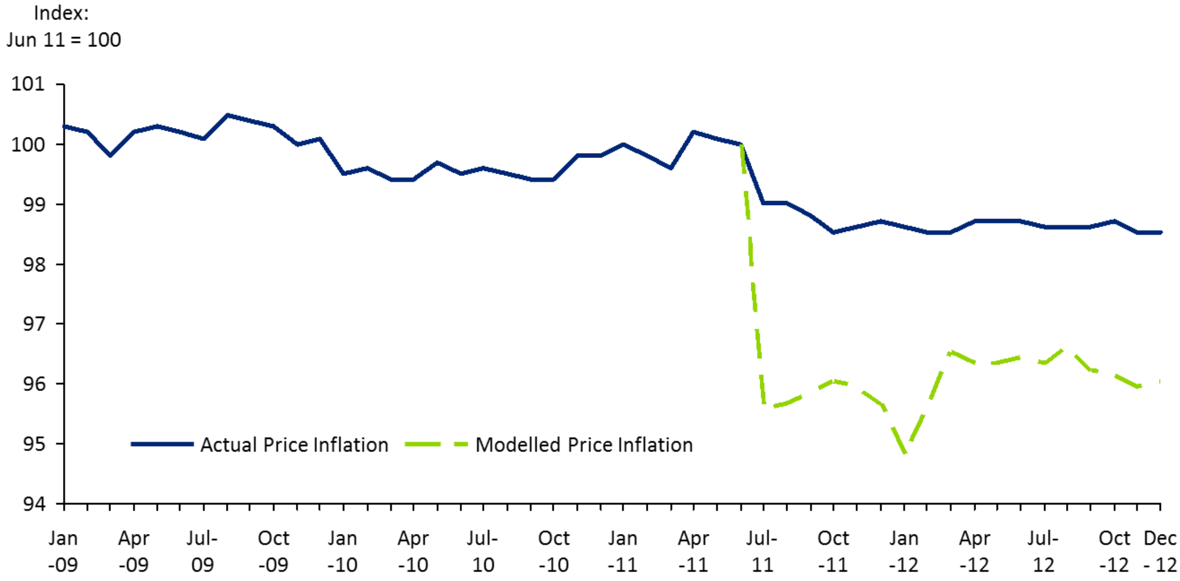


Source: CSO, Deloitte analysis

The cyclical nature of the hotel and accommodation sector makes it difficult to determine with any degree of certainty the level of price pass through. As O'Connor notes, the price decrease in the second half of 2011 could be interpreted as the continuation of an existing downward trend, or alternatively could be interpreted as evidence of pass through given that the cyclical troughs are lower in the period after the introduction of the rate reduction.

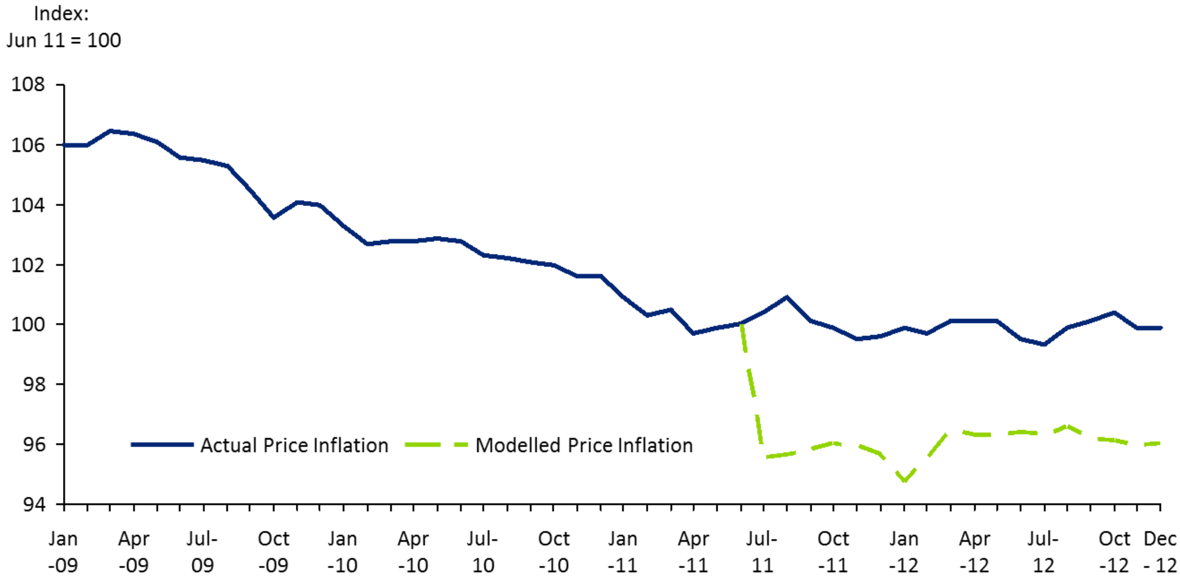
[19] Brendan O'Connor, *'Measuring the impact of the Jobs Initiative: Was the VAT reduction passed on and were jobs created?'* within the Department of Finance, Medium-Term Fiscal Statement, November 2012

Meals Out - Actual and Counterfactual 'Modelled' Inflation Jan 09 – Dec 12



Source: CSO, Deloitte analysis

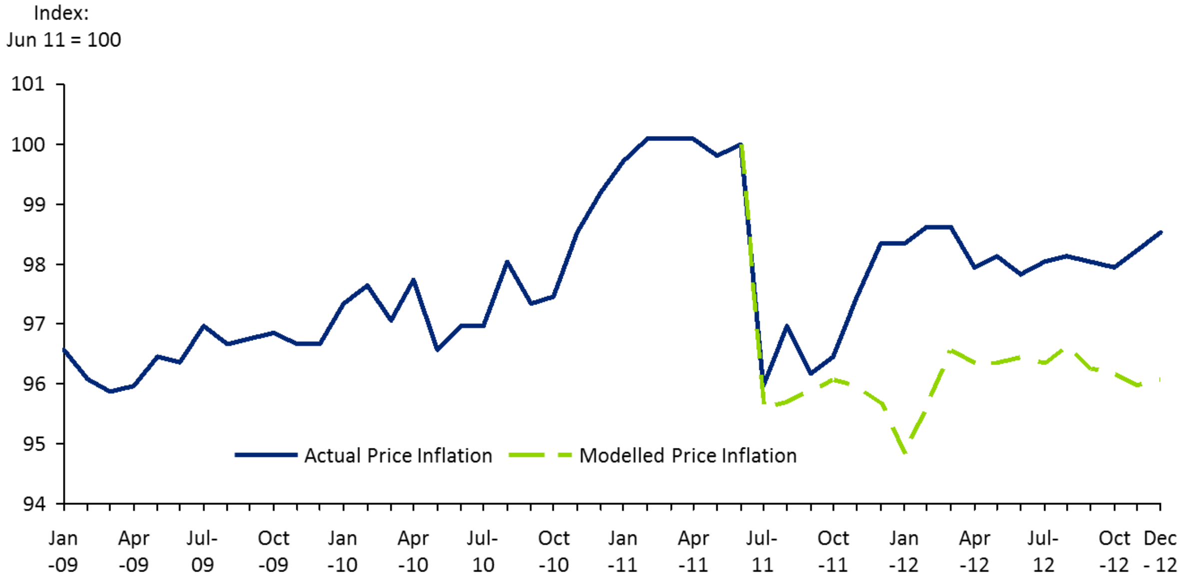
Hot Takeaway Food - Actual and Counterfactual 'Modelled' Inflation Jan 09 – Dec 12



Source: CSO, Deloitte analysis

As noted in section 6, while the full rate reduction does not appear to have been passed through in the meals out and hot food takeaway categories, the prices in these categories have remained relatively flat / declined marginally at a time when the input prices have risen considerably.

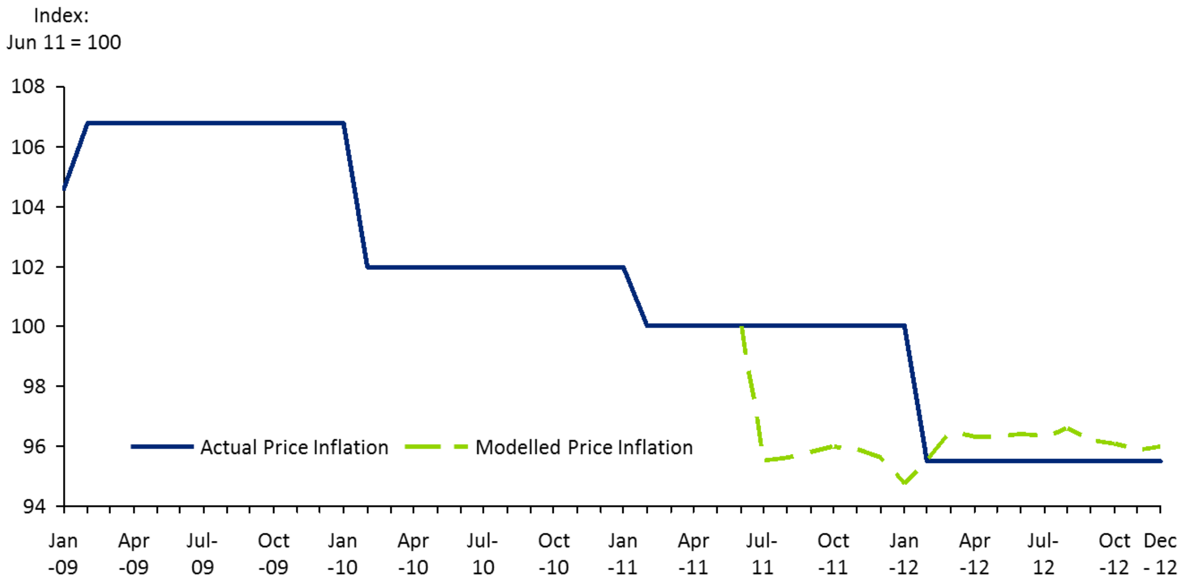
Printed Matter - Actual and Counterfactual 'Modelled' Inflation Jan 09 – Dec 12



Source: CSO, Deloitte analysis

The newspaper series experienced full and immediate pass through of the VAT reduction. The trend since has been for price increases and prices are now within 1.5% of its June 2011 price, although this has been at a time when underlying inflation has increased by 1.7%.

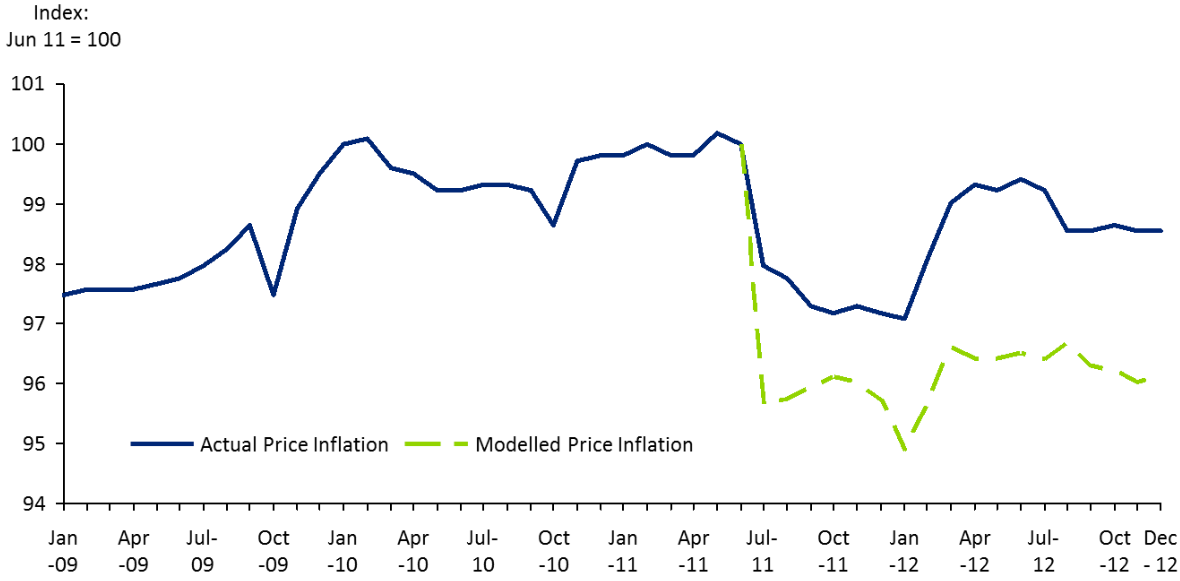
Sports - Actual and Counterfactual 'Modelled' Inflation Jan 09 – Dec 12



Source: CSO, 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.

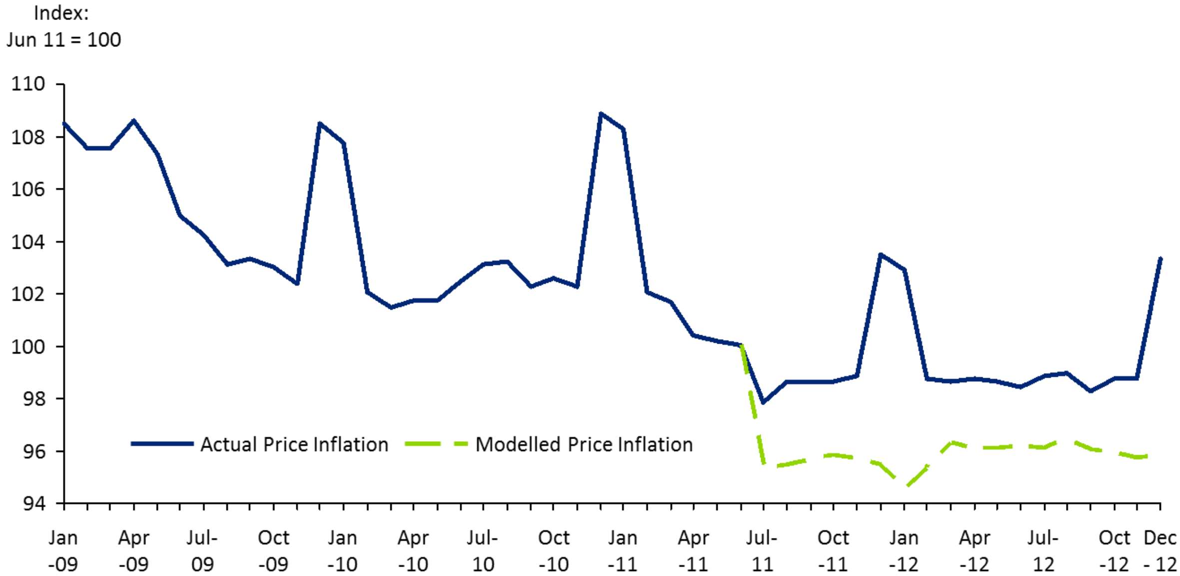
Cinemas, Theatres etc. - Actual and Counterfactual 'Modelled' Inflation Jan 09 - Dec 12



Source: CSO, Deloitte analysis

Partial price pass through was immediately evident with prices reaching 3% lower by January 2012. However, price increases are apparent since this time with prices back to within 1.5% of January 2011 levels. Again, it needs to be noted that there has been underlying inflation of 1.7% over this period.

Hairdressing - Actual and Counterfactual 'Modelled' Inflation Jan 09 – Dec 12



Source: CSO, Deloitte analysis

An immediate price pass through of c.2% is apparent in hairdressing services. This has been maintained since, apart from sharp increases in December 2011 and 2012 due to the regularly occurring "Christmas effect", as noted by O'Connor. However, the price spikes in these months were significantly lower than those in December 2010, prior to the introduction of the VAT rate reduction.