



2017 National Maximum Taxi Fare Review

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Executive Summary

Background

The Commission for Taxi Regulation introduced the National Maximum Taxi Fare structure in September 2006, applying a unified tariff structure for all taxis in Ireland. Since then, a Maximum Fare Review has been carried out approximately every two years to allow adjustments for changes in the operating costs and market environment facing the taxi industry. The National Transport Authority (NTA) has been responsible for carrying out the reviews since 2011. As part of the Maximum Fare Review in 2014, the various cost components of operating a taxi were validated and the Taxi Cost Index (TCI) was rebased.

Objectives of the Fare Review 2017

The objectives of the current review are to:

- Estimate the average activity level of taxis in a year based on survey data, research results and Central Statistics Office (CSO) data;
- Update each element of the Taxi Cost Index (TCI), including the “fixed cost” of an average taxi, the running costs of an average taxi based on the activity levels determined and labour costs; and
- Determine whether maximum fares should increase, decrease or remain at current levels.

Recommendations from previous reviews

The 2010 review recommended no alteration in the maximum fare. The review in 2012 recommended the application of a fare increase of circa 4%, coupled with a simplification of the fare structure but those proposals were not implemented. The 2014 review proposed a reduction in the initial charge (by lowering the distance and time included), a standardisation in the uplift between standard and premium tariffs to 25% and the abolition of Tariff C (Tariff C had applied an increased rate for trips above 30km or 85 minutes). The 2014 review also proposed an overall fare increase of 4% to adjust for an average increase in taxi operating costs and to compensate for increases in the Consumer Price Index (CPI), the change to the initial charge and the loss of Tariff C where relevant.

Market conditions 2017

Demand for taxi services has stabilised since the last review as a result of ongoing economic recovery. Demand is expected to increase over the next two years, pending continued improvements in employment statistics, consumer confidence, demand and general economic growth.

Almost three quarters of the public agree that taxis generally provide a good service, according to a household survey commissioned by the NTA. Over half the public regarded taxis as good value for money according to the same survey. A full 94% of those surveyed were either fairly satisfied or very satisfied with the service provided on their most recent taxi journey.

Taxi Cost Index - Methodology

This year's review was consistent with the methodology of the 2014 Review. The 2014 Review had incorporated a fundamental appraisal of the components, assumptions and methodology employed in the Taxi Cost Index.

Taxi Cost Index - Findings

Maximum fares were revised following the 2014 review, so 2014 is relevant year for comparisons of the Taxi Cost Index.

Comparing the Taxi Cost Index for 2014 and 2016 and utilising an annual mileage of 32,624km, based on CSO data, the increase in the index is 3.2%. It should be noted that an annual mileage level of 49,000km, which is the average activity level reported in the taxi driver surveys, then a decrease of 2% in the index would apply. However, it is considered that the CSO annual mileage figure, derived from NCT data, is more accurate.

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1. Introduction

1.1 Background

The Commission for Taxi Regulation introduced the National Maximum Taxi Fare structure in September 2006, applying a unified tariff structure for all taxis in Ireland. Since then, a maximum fare review has been carried out approximately every two years to assess any adjustments in changes in the operating costs and market environment facing the taxi industry. The National Transport Authority (NTA) has been responsible for carrying out the Maximum Fare Reviews since 2011.

This report details the approach and findings of the 2017 National Maximum Taxi Fare Review (the Maximum Fare Review). This review was undertaken in March and April 2017.

1.2 Objectives of the review

The objectives of the 2017 National Maximum Taxi Fare Review are to:

- Establish the cost of operating a taxi by calculating the Taxi Cost Index (TCI). This includes a validation of the various cost components and a full rebasing of costs, with a particular emphasis placed on gaining a truer understanding of labour costs and activity levels;
- Determine whether existing fare levels should be increased, decreased or retained; and
- Consider the appropriateness of the existing fare structure.

1.3 Structure of the report

The structure of this report is described below:

- Section 2 provides a context for the current review, giving an account of previous reviews and describing the recent recommendations for the fare structure;
- Section 3 describes the market developments in the industry, from the wider economic context, to the supply and demand characteristics evident in the Irish market;
- Section 4 contains a recalculation of the TCI. The findings from the TCI are used to determine the changes in industry operating costs since 2014;
- Section 5 outlines the rationale and options for changing the fare structure; and
- Section 6 discusses the findings of the report and presents the recommendation for the maximum fare level and its structure. It outlines an impact assessment of the fare proposals on the industry and consumers.

2. Background to the 2017 National Maximum Taxi Fare Review

2.1 Overview of the Irish Taxi Industry

The Small Public Service Vehicle (SPSV) industry is made up of hackneys, limousines and taxis. This Maximum Fare Review relates to the fleet of taxis including wheelchair accessible taxis (WATs) only, which represent 82% of the total SPSV fleet in Ireland. Following deregulation of the market in late 2000, the number of taxis in Ireland increased from 4,218 to a peak of at 21,213 in 2008, and has since declined to 16,983 in February 2017.

The National Transport Authority is responsible for the regulation of the Small Public Service Vehicle (SPSV) industry in Ireland. This responsibility includes the regulation of taxi fares. It took over this role from the Commission for Taxi Regulation in 2011.

In 2013, the Taxi Regulation Act set out a number of new SPSV regulations designed to improve standards within the industry. The included the introduction of taxi branding regulations in 2012, maximum age limits and fixed charge offences have contributed to the industry being more focused on quality.

2.2 National Maximum Taxi Fare

The National Maximum Taxi Fare structure was established by the Commission for Taxi Regulation in September 2006. Prior to that, different fare structures applied in 34 separate taximeter areas. The National Maximum Taxi Fare structure creates a unified and consistent fare structure for the Republic of Ireland. Other objectives included that fares should be simple, transparent, calculated on the basis of time and distance using a pre-programmed meter, and have all extras included in the maximum fare calculated on the meter.

Following the 2014 National Maximum Taxi Fare review the fare structure was simplified further. The number of tariff bands was reduced from three to two. The current maximum fare card is set out below:

Figure 2.1: Current National Maximum Taxi Fare card

		Initial Charge	Tariff A	Tariff B
		<i>Up to 0.5 km or 85 secs</i>	<i>Next 14.5 km or 41 mins</i>	<i>Thereafter</i>
Standard Rate <i>(displayed as 1 on the taximeter)</i>	8am to 8pm Monday to Saturday (except public holidays)	€3.60	€1.10 per km or €0.39 per minute Up to total €19.60	€1.45 per km or €0.51 per minute
Premium Rate <i>(displayed as 2 on the taximeter)</i>	8pm to 8am Monday to Saturday, all day Sundays, most public holidays	€4.00	€1.40 per km or €0.49 per minute Up to total €24.40	€1.75 per km or €0.62 per minute
Special Premium Rate <i>(displayed as 3 on the taximeter)</i>	8pm 24 December to 8am 26 December, 8pm 31 December to 8am 1 January	€4.00	€1.75 per km or €0.62 per minute	

Source: National Transport Authority

2.3 Previous National Maximum Taxi Fare Reviews

In 2008, following an observed increase of 8.3% in the TCI, an increase of 8.3% was applied to fare levels, together with the introduction of special premium rates during the Christmas period and New Year's Eve.

The 2010 Maximum Fare Review recommended that no change should be made to the 2008 fare levels. However, it did recommend that the removal of Tariff C be considered in order to simplify the fare structure. At this stage there were three tariff bands in the maximum fare card. Tariff A applied to the first 14km/40 minutes after the initial charge. Tariff B applied to the following 15km/42 minutes. Tariff C applied to all travel over 30km/85 Minutes.

The review in 2012 recommended the application of a fare increase of circa 4%, coupled with a simplification of the fare structure. The review proposed the removal of Tariff C and a reduction in the initial charge. These proposals were not implemented as the SPSV Industry rejected both the fare increase and the simplification of fare structure.

The review in 2014 again recommended a fare increase and a number of changes to the structure of the rate card. These proposed changes were: removing of Tariff C, lowering the initial charge, and clarifying the system of premium rates for night time work, weekend work and work on Christmas and New Year's day. o These changes were largely implemented by the NTA in April 2015. The resulting rate card is set out in Figure 2.1.

3. Current market conditions

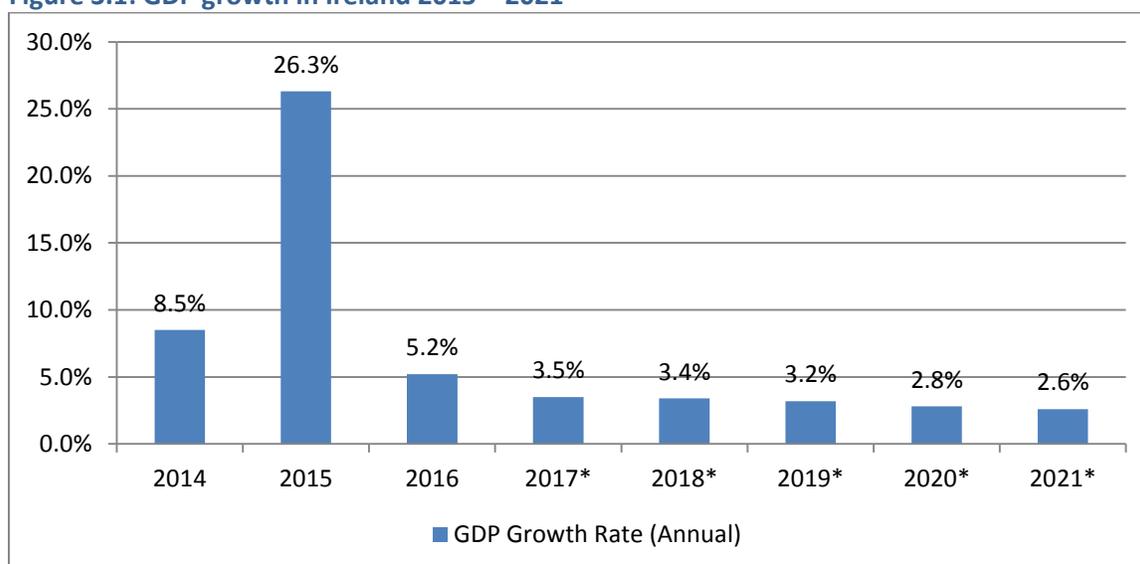
3.1 Introduction

This section of the report sets out the current demand conditions in the taxi industry. An understanding of these characteristics is essential for informed decision-making on policy issues. The section is structured as follows. A brief description of the current economic climate gives the context in which the taxi industry is operating. This is followed by a profile of the current market demand conditions which assesses the trends, characteristics and patterns of taxi demand. Subsequently, the aggregate supply of taxis is outlined with a breakdown of supply by region. Perceptions of value for money and the level of discounting are discussed.

3.2 Economic environment

Ireland's economy has been experiencing robust growth since 2014, when the recovery from the 2008 downturn began to take hold. It is now expected that growth will be maintained in the coming years, as illustrated in Figure 3.1 below.

Figure 3.1: GDP growth in Ireland 2015 – 2021*



Source: Central Statistics Office (CSO) and Department of Finance (Economic and Fiscal Outlook 2017)

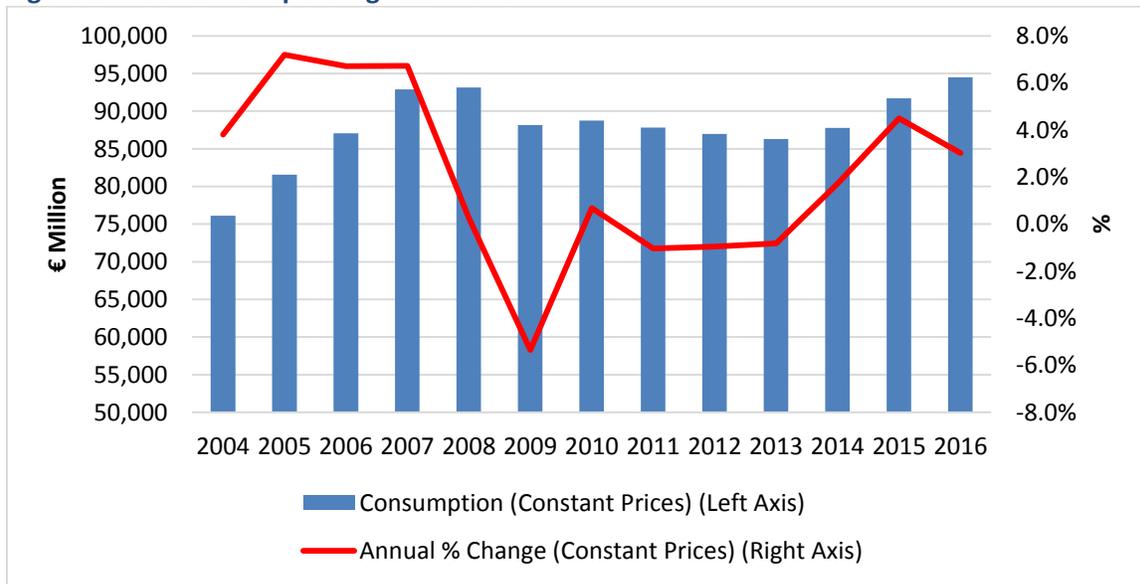
Note: forecasts indicated by *

The extremely large rates of growth recorded in GDP in 2015 do not reflect underlying conditions in the economy. The figures for that year were affected by a small number of large transactions by international firms that had a disproportionate effect on income and output recorded in Ireland as a small open economy. Consequently, it is prudent to use a proxy to which is unbiased to estimate Ireland's recovery from the 2008 crisis. In this case the national unemployment rate has been utilised to indicate improvements in the Irish labour market and by extension the wider economy.

Unemployment has been steadily declining over the past number of years. Over the period January 2015 to January 2017 the seasonally adjusted unemployment rate has dropped from 10.2% in to 6.7%. This trend of improvement is forecasted to continue over the next number of years and should lead to further growth in consumer expenditure.

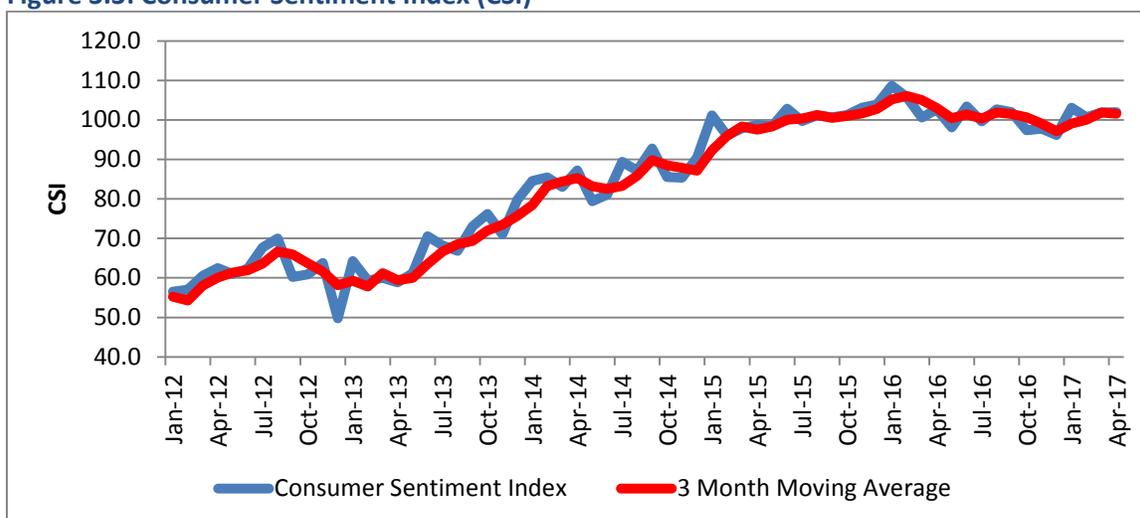
Total disposable income has grown since the last Maximum Fare Review. By the end of 2016 annual gross disposable income had reached a level 19% above the previous peak reached in 2007. Consumer spending on goods and services has grown as income and output has recovered. The latest figures on consumption are for 2016. By 2016 total consumption spending on goods and services has surpassed the previous consumption peak in 2008 by 1.4%. However, while consumption is expected to grow for the foreseeable future, consumption growth is expected to moderate reflecting the level of pent up demand which has existed in the economy due to the prolonged recession.

Figure 3.2: Consumer spending 2004-2016



Source: Central Statistics Office (CSO)

Figure 3.3: Consumer Sentiment Index (CSI)



Source: KBC/ESRI

Consumer sentiment has also generally improved since 2014 in parallel with continuing economic growth and increases in employment. However, after reaching a fifteen year high in February 2016, Irish consumer sentiment declined in the remainder of 2016, breaking the upward trend of the previous years. The KBC/ESRI Consumer Sentiment Index¹ decreased to a 22 month low of 96.2 in December 2016 (although it had increased again to 101.9 in March 2017). Current sentiment is still consistent with ongoing growth in consumer spending, but KBC have noted that the March survey results emphasise both limits to the improvements in household incomes and continuing caution about major uncertainties in the economic outlook including BREXIT.

In tandem, improving macroeconomic factors combined with stronger economic sentiment and increased disposable incomes should have positive consequences for the taxi industry in the coming years. The industry is strongly influenced by social and recreational activities; increased employment and consumer expenditure may create further demand for taxi as the economy continues to recover. Notably, the economic recovery in Ireland has varied by region with Dublin experiencing the strongest resurgence. Clearly this will act to further stimulate the industry in this region, which accounts for 60% of taxis.

3.3 Market demand

Trends in taxi usage

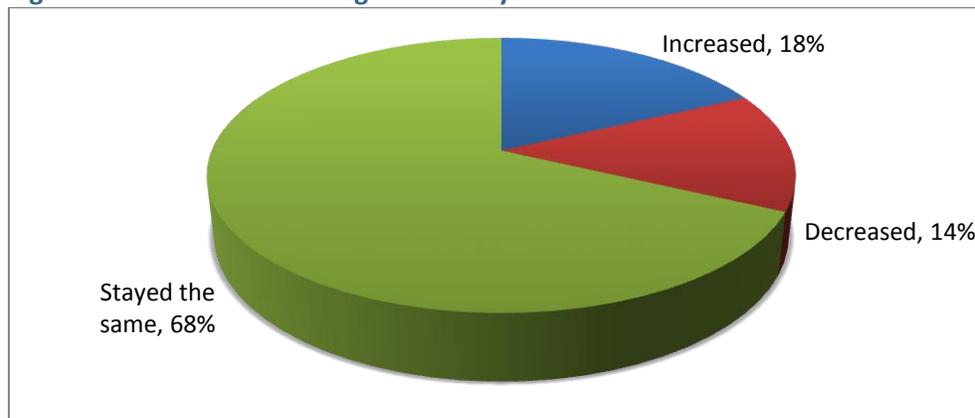
In February 2017, 39% of adults responding to a nationwide, representative household survey reported that they had used a taxi in the past six months. This is the same as the proportion who

¹ The Consumer Sentiment Index (CSI) is calculated by computing the relative scores (the percent giving favourable replies minus the percent giving unfavourable replies (the balance), plus 100) for each of five index questions which are based on how consumers view economic prospects over the next 12 months and on consumers' present situation.

reported using a taxi in 2014, which represented a decline of 20 percentage points on 2012 figures. Trends in taxi usage over the past 12 months, as shown in Figure 3.4, indicate that 14% of taxi users have decreased their use of taxis while 18% have increased their taxi usage. The primary reasons adults surveyed gave for a reduction in taxi usage were that they were going out less often (46% of those reporting reduced use) and that taxis were too expensive (26% of those reporting reduced taxi use). Some 21% of adults reporting reduced taxi use also cited less disposable income as a reason for their reduction in taxi use. The primary reasons adults surveyed gave for an increase in their taxi usage were that taxis were ‘less expensive than they used to be’ (33%), that they were going out more often (24%) and that they were travelling/commuting more (18%)².

Overall, there has been an increase in the proportion of taxi users who can be classified as ‘heavy users’ (those who use a taxi at least once a week), from 30% to 33%. However, despite the increase in the proportion of heavy users, overall frequency of use may not have increased, as the proportion of respondents who said they use a taxi ‘less often’ (than once every 4-6 months) has also increased, from 11% to 18%. ‘Heavy users’ tend to be people under 25, people living in Connacht/Ulster, students and people in the AB social class.

Figure 3.4: Trends in taxi usage nationally 2016



Source: 2017 National Maximum Taxi Fare Review – Household Survey

Table 3.1: Distribution of taxi users by frequency of use and age group

	Under 35 (%)	35 + (%)	All Taxi Users (%)
Once a Week or more often	43%	28%	34%
Every 2/4 Weeks	26%	23%	24%
Every 5/8 Weeks	6%	13%	10%
Less often	24%	36%	32%
Total	100.0	100.0	100.0

Source: 2017 National Maximum Taxi Fare Review – Household Survey

² Respondents could select more than one reason

On a regional basis, from those who had used a taxi in the last six months, Connacht/Ulster had the most frequent users of taxis, where 48% of users take a taxi once a week or more often. This compares to 30% in Dublin, 28% in Leinster and 35% in Munster, as shown in Table 3.2.

Table 3.2: Distribution of taxi users by frequency of use and region

	Dublin	Rest of Leinster	Munster	Connacht/Ulster
Once a Week or more often	30%	28%	35%	48%
Every 2/4 Weeks	17%	40%	21%	23%
Every 5/8 Weeks	10%	5%	12%	15%
Less often	42%	27%	32%	14%
Total	100.0	100.0	100.0	100.0

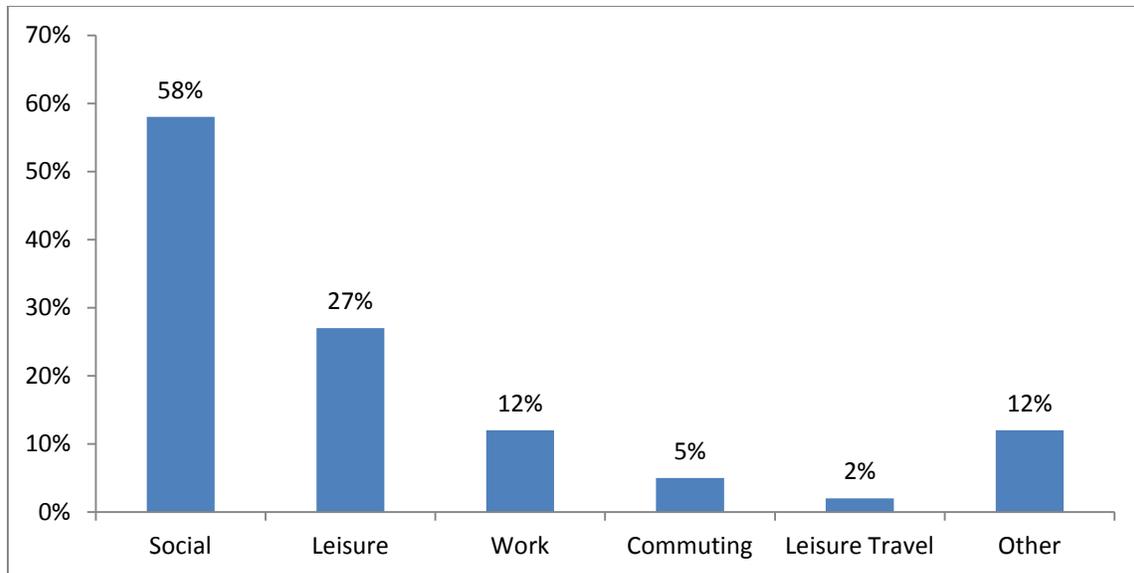
Source: 2017 National Maximum Taxi Fare Review – Household Survey

Characteristics of taxi demand

Demand for taxi services is largely focused around social and recreational outings, as shown in Figure 3.5. This trend has been relatively stable over time. In a separate question, taxi users were also asked how often they use taxis to connect to public transport. A total of 47% of taxi users use a taxi to connect to public transport (including those who say they use a taxi ‘always’, ‘sometimes’ and ‘seldom’), but this proportion is much higher amongst students (71%) and people who last used a taxi for a work related trip (79%).

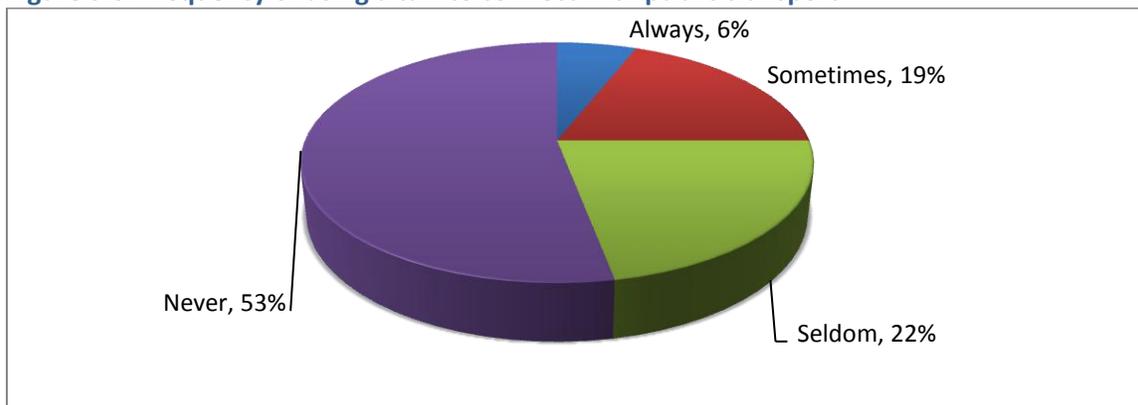
Figure 3.5: Reason cited by taxi users for using a taxi on the last occasion³

³ Multiple responses were possible for this question



Source: 2017 National Maximum Taxi Fare Review 2016 – Household Survey

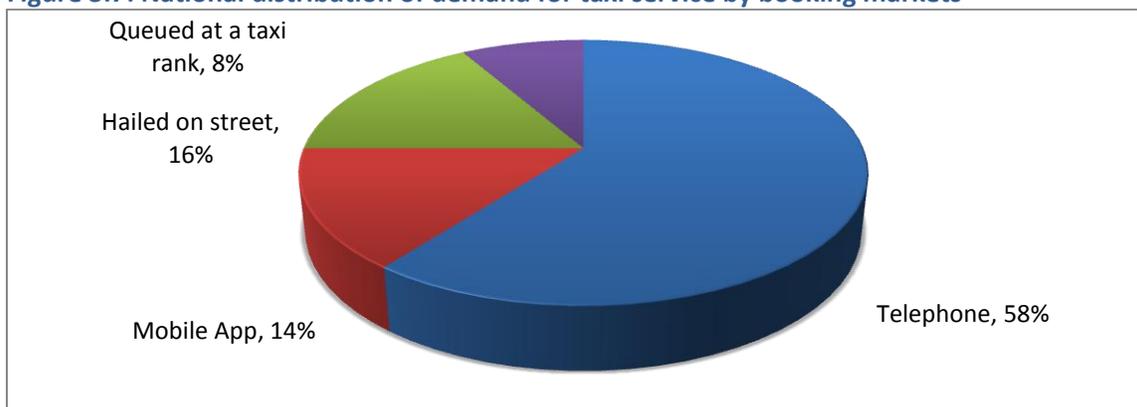
Figure 3.6: Frequency of using a taxi to connect with public transport



Source: 2017 National Maximum Taxi Fare Review – Household Survey

Telephone is still the most common method of booking a taxi, with 58% of the 2017 survey respondents having arranged their last taxi trip by telephone, a slight decrease from 61% in 2014. 16% of respondents found their last taxi through on street hailing and 8% queued at a taxi rank. The prevalence of Smartphone Apps for arranging taxi trips has increased since 2014, with 14% of respondents having arranged their last taxi trip by Smartphone App, compared to 10% in 2014. The use of Smartphone Apps is more common amongst respondents in Dublin (31% of last trips) and amongst females under 25 (35% of last trips).

Figure 3.7: National distribution of demand for taxi service by booking markets

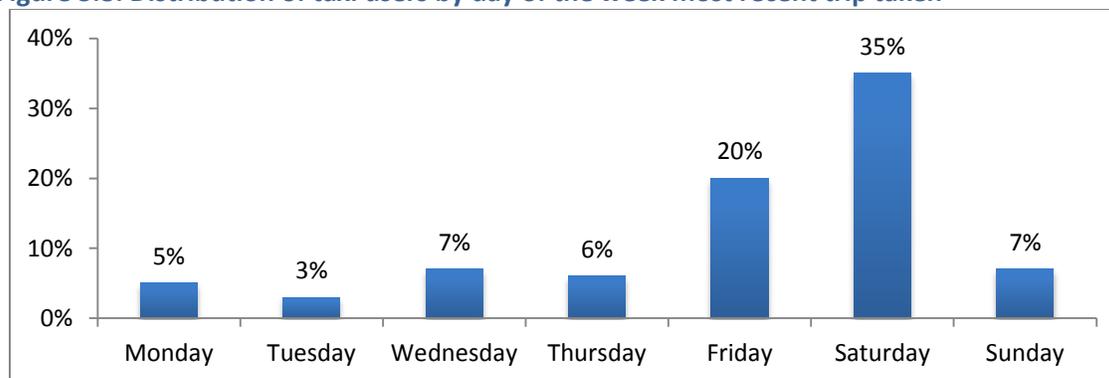


Source: 2017 National Maximum Taxi Fare Review – Household Survey

Demand patterns for taxi services

The demand for taxi services peaks around Friday and Saturday nights, with 55% of all trips taking place over these two days. This 55% represents a decrease in comparison to the 66.2% of all trips which were on these days in the 2014 survey, indicating that the distribution of demand over the course of the week may now be greater than previously. However, the high proportion of trips on Friday and Saturdays still reflects the most common purpose for taxi use being social and recreational activities. Figure 3.8 illustrates these peaks in demand over the course of the week.

Figure 3.8: Distribution of taxi users by day of the week most recent trip taken

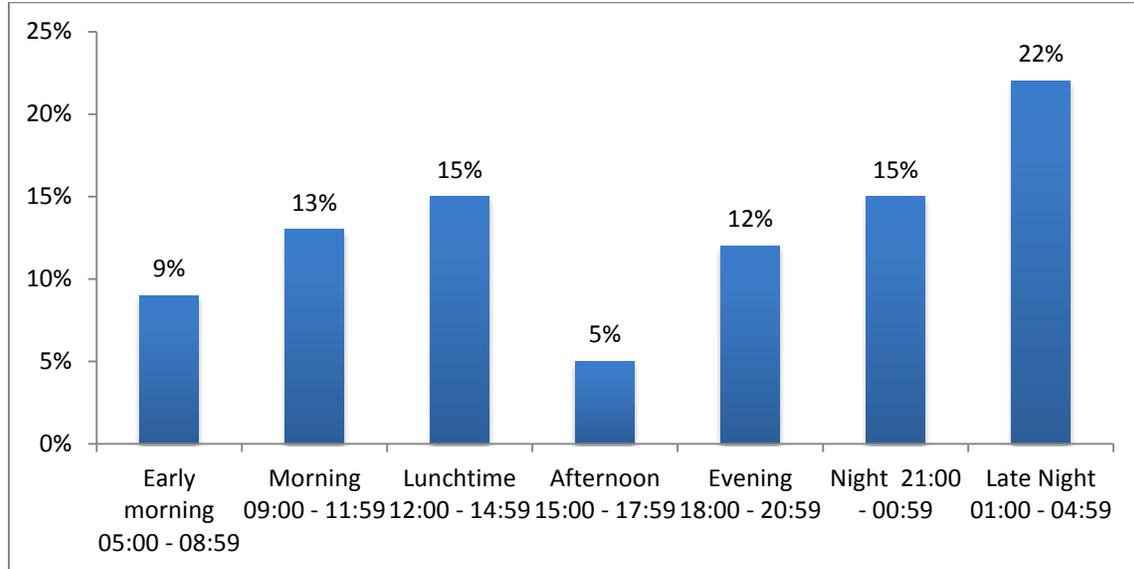


Source: 2017 National Maximum Taxi Fare Review – Household Survey

As shown in Figure 3.9, the demand for taxis also displays peaks by time of day. Approximately 22% of trips were undertaken between 1am and 5am, while a further 15%, approximately, are undertaken between 9pm and 1am and 12% between 6pm and 9pm. These peaks in demand are in line with the most common purpose for taxi use being social and recreational outings. In comparison to 2014, a greater proportion of evening/night journeys occur between 1am and 5am and a lower proportion occur earlier in the night. However, a higher proportion of trips in the 2017 survey were during the day (9am to 6pm) than was previously observed (33% in 2017 compared to 26% in 2014).

The consumer reported average distance travelled by taxi has fallen slightly from 8.8km in 2014 to 8.42km in 2017. The proportion of journeys involving just one passenger also increased from 29% to 36% and the proportion of journeys with three or more passengers decreased. This, together with the changes in demand observed across time periods, suggests that a greater proportion of taxi journeys now are for purposes other than socialising than was the case in 2014.

Figure 3.9: Distribution of taxi users by time of day of most recent trip



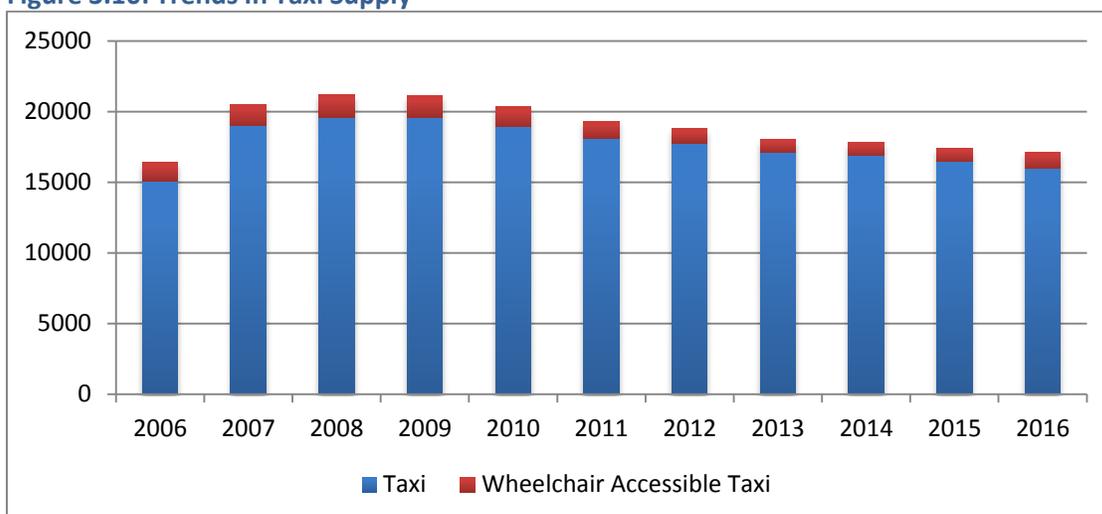
Source: 2017 National Maximum Taxi Fare Review – Household Survey

3.4 Market supply

Aggregate Supply of taxi services

Since liberalisation of the taxi market in 2000, the number of taxis increased substantially from 4,218 in that year. By the summer of 2009 had reached a peak of 21,213. Since then, the number of taxi vehicles operating in the industry has declined significantly, as shown in Figure 3.10. As of the end of February 2017, there were 16,983 active taxi vehicle licences in the fleet (15,789 taxis and 1,194 wheelchair accessible taxis). The increase in the number of wheelchair accessible taxis in the fleet has been aided by the new specification and grant procedures for wheelchair accessible vehicles introduced in 2014. Financial assistance is available to purchase a wheelchair accessible vehicle. To date 616 grants have been issued.

Figure 3.10: Trends in Taxi Supply



Source: NTA statistics

Regional breakdown of supply

On a regional basis, Dublin has approximately 10,141 taxis vehicles in operation in 2017, representing 60% of the national supply. As shown in Figure 3.11, this compares to the rest of Leinster which accounts for 19% of taxis, Munster which accounts for 14% and the Connacht /Ulster region which accounts for 8% of taxis in Ireland. The regional breakdown has remained largely unchanged since 2014.⁴

Figure 3.11: Proportion of active taxis by region February 2017



Source: NTA statistics

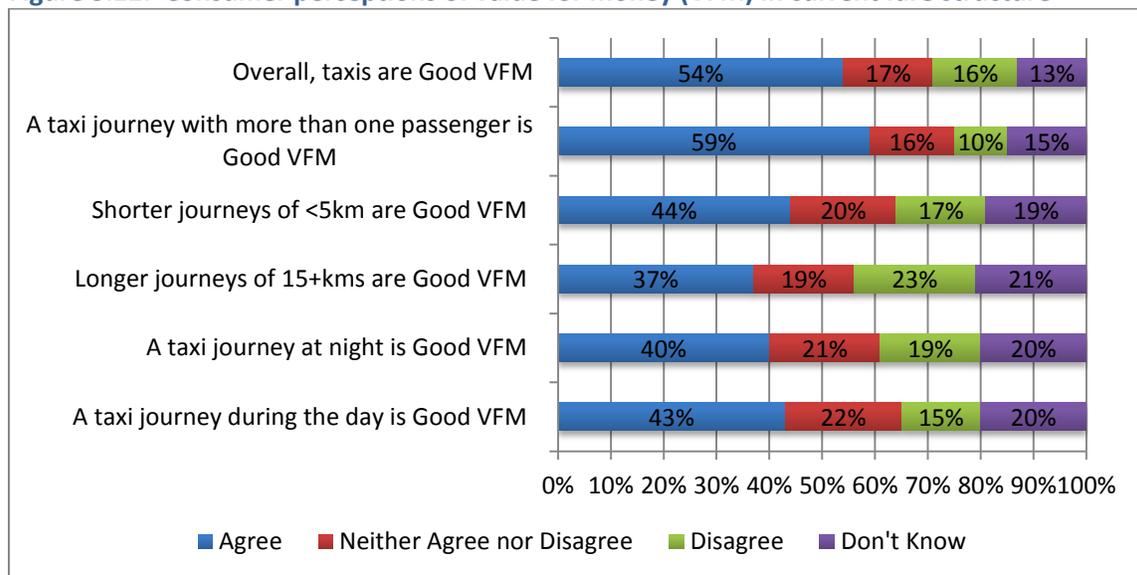
3.5 Market conditions at current fare structure

Perceptions of current fare structure and levels

⁴ In 2014, 61% of taxis operated from Dublin, 18% from the rest of Leinster, 14% from Munster and 7% from Connacht/Ulster.

The perception of value for money of the current taxi fare varied among taxi users but in general appears to have improved since the last survey in 2014. Figure 3.12 indicates respondent's perceptions of the value for money provided by the current fare structure. Overall, 54% of respondents considered current taxi fares to be good value for money, an increase compared to the 50% of respondents who agreed taxis were good value for money in 2014. Survey respondents were also asked about the value for money of specific journey types. The numbers agreeing that daytime, nighttime and short journeys were specifically good value declined. The proportion of respondents agreeing that longer journeys and journeys with more than one passenger are good value remained broadly the same. There is a tendency for respondents from the Rest of Leinster (i.e. Leinster excluding Dublin) to perceive poorer value for money than respondents from other regions.

Figure 3.12: Consumer perceptions of value for money (VFM) in current fare structure



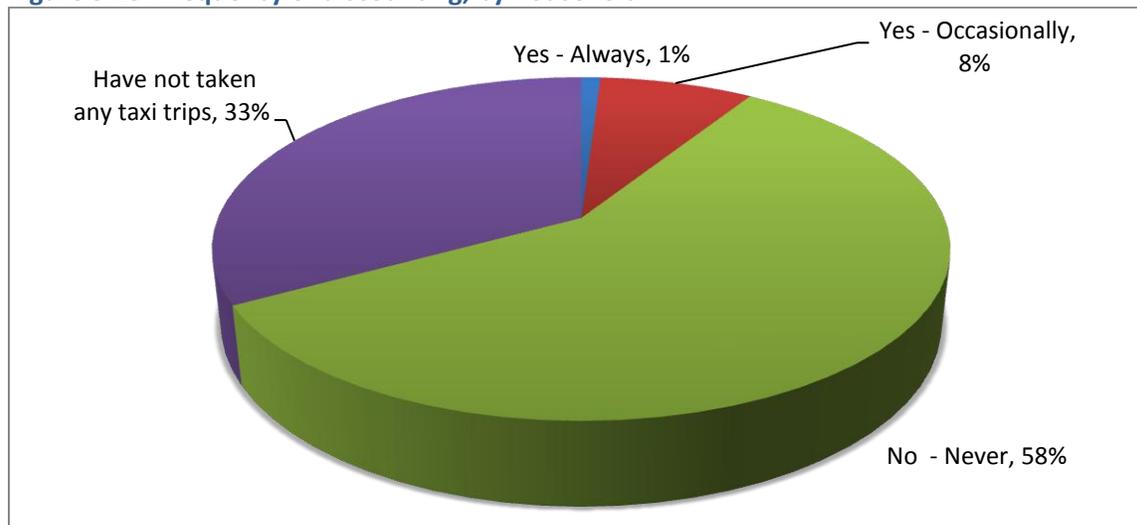
Source: 2017 National Maximum Taxi Fare Review – Household Survey

Fare discounting in the market

The incidence of fare discounting in the market affects the perception of value for money. Of the respondents who have used a taxi in the past year, only 11.9% report having been offered a discount in the past 12 months, a lower proportion than the approximately 20% of taxi users in the 2014 survey who reported that they had received a discount. However, customers may not always be aware of receiving a discount, particularly if it relates to a driver not charging applicable extra charges on the meter for booking fees or extra passengers.

Rounding down (44%) was the most common form of discounted fare, followed by a discount or removal of the booking fee (26%) and percentage discounts (25%).

Figure 3.13: Frequency of discounting, by household



Source: 2017 National Maximum Taxi Fare Review – Household Survey

3.6 Conclusions

Market Demand

- Overall, it appears that the level of taxi use has not changed dramatically since the last survey of taxi users in 2014. The proportion of adults reporting that they had used a taxi in the past six months has remained constant. There has been an increase in the proportion of taxi users who can be classified as 'heavy users' (those who use a taxi at least once a week) and the proportion who use a taxi at least every 4-5 days has increased from 6% to 11% of all taxi users.
- Some 18% of those surveyed said that their taxi usage had increased over the past year. The reasons given for these increases included an opinion that taxis were less expensive than they used to be (33%), the fact that the user was going out more often (24%) and that the user was travelling or commuting more (18%).
- The primary reasons for a reduction in taxi usage given by adults surveyed were that they were going out less often (46%) and that taxis were too expensive (26%).
- Nationally, phone bookings remain the most common method of arranging a taxi journey while Smartphone apps have had a meaningful impact since 2012, with 14% of users now ordering taxis via this medium.
- Approximately 37% of taxi trips take place between the hours of 9pm and 1am, consistent with the finding that a majority of taxi trips are for social and recreational purposes.

Market Perceptions of Current Fare Structure

- Overall, around half of taxi users (54%) consider current taxi fares to be good value for money, rising to 59% in relation to taxi journeys with more than one passenger.
- There is a slight tendency for respondents from the Rest of Leinster to perceive poorer value for money than respondents from other regions, a finding which is contrast to the 2014 survey results.

- Less than 12% of respondents who have used a taxi in the past year report having been offered a discount, suggesting a lack of awareness on the part of the consumer of discounting activity. 'Rounding down' was the most common form of discount across the country.
- Related to this, a full 81% of those surveyed were unaware that the fare displayed by the meter represents a maximum.
- Only 6% of users reported having queried a fare. Just over half of these queries were resolved to the satisfaction of users.
- Only 43% of users surveyed believed that the calculation of taxi fares is easy to understand.

4. Taxi Cost Index

4.1 Background

The Taxi Cost Index (TCI) is a quantitative tool used by the (NTA) to assess the change in the costs associated with operating a taxi vehicle. The primary purpose of the TCI is to provide a standardised approach in assessing the need for a fare adjustment. At each two-year interval, the index has been used to determine the percentage change in operating costs, primarily through published price indices.

The Maximum Fare Reviews between 2006 and 2012 were based on an updating of the TCI derived in 2006. The 2014 Maximum Fare Review incorporated a more fundamental appraisal of fare levels by rebasing the TCI, i.e. through examining the costs directly rather than adjusting biennially for inflation. This 2016 review is based on an update of the 2014 index.

4.2 Index objectives and structure

Individual taxi drivers face unique and diverse operating costs, depending on their operating characteristics and the underlying market conditions. Therefore, the TCI does not seek to represent the absolute costs for any individual driver, but rather gain an estimate of costs facing the average driver, based on the following guiding principles:

- The TCI must be representative and reflect the changes in costs faced by a significant proportion of the industry;
- It should reflect a fair return for the labour provided by the taxi driver;
- It should be based on a driver following industry leading practice; and
- The costs included in the TCI consist of all running and fixed costs, and a labour cost component, with the costs being combined to achieve an overall indicative cost of taxi operation per annum.

4.3 Approach to calculating the Taxi Cost Index

Prices for the individual cost components were sourced through industry research. Publicly available data provided the exact industry prices associated with vehicle and equipment maintenance, and these costs were extracted and analysed in order to construct a more current and representative TCI.

4.4 Key Assumptions

4.4.1 Activity levels

Activity levels are employed in the TCI to calculate changes in those operating costs which vary according to activity levels, for example fuel, tyres, vehicle spares and servicing. Annual driver distance travelled is used as a proxy for activity levels in the TCI. Assuming all other factors remain constant, a reduction in activity levels has the impact of reducing the costs associated with operating a taxi and vice versa.

Previous taxi Maximum Fare Reviews have calculated annual driver distance travelled based on drivers' self-reported distance travelled, with the data gathered through the medium of a driver survey. A driver survey was conducted as part of the 2017 National Maximum Taxi Fare Review. The average distance travelled by taxi drivers, as estimated by drivers themselves was **49,000km**.

As in 2014, the NTA prepared an estimate of average of activity levels based on CSO data on vehicle mileage. After adjusting for a two year time lag and personal mileage, the average annual distance travelled by taxi drivers was calculated to be **32,624km**. The detailed methodology and validation for this activity level calculation is included in Appendix 1.

These estimates of average annual distance travelled provide valuable information regarding the activity levels present in the industry. The estimate obtained from the driver survey approximates to the activity levels used in some other countries.⁵ However, the estimate obtained from the CSO is perhaps a closer reflection of the Irish industry as distances are relatively short by comparison with other jurisdictions and much of the demand for taxis occurs during a relatively short period associated with social activity at the weekend. Also, a more recent fare setting exercise in the UK was based on a measured annual average activity of approximately 24,000⁶ which is closer to the measurement based on CSO data.

As a result, the NTA has decided to calculate the 2017 Taxi Cost Index based on two estimates of the activity level: the estimate derived from CSO data and that derived from driver survey data. This captures the range of the estimates available and is consistent with previous reviews.

4.4.2 Labour Costs

Labour costs are included in the TCI because the value of drivers' time represents the main cost component in providing taxi services. In addition, the inclusion of labour costs should help to ensure that drivers' earnings track those of other workers in the economy.

From an economic perspective, the ideal labour cost component would involve the use of earnings in a comparable sector as this represents the opportunity cost for drivers of operating a taxi as opposed to taking up alternative employment.

It is possible to estimate earnings from a comparable sector using CSO earnings data. The Earnings, Hours and Employment Costs Survey (EHECS) provide quarterly estimates of weekly earnings for a range of occupational categories, including "production, transport craft and other manual workers":

⁵As part of the 2014 Maximum Taxi Fare Review the following benchmarks were identified: Northern Ireland = 41,746km, Hamburg = 50,000km, Norway = 59,520km.

⁶ Guilford Borough sets taxi fares using a similar process to the NTA. In their 2016 review they measured the average annual mileage of taxis in their licensing area as 15,157miles.

Table 4.1: EHECS weekly earnings estimates by

EHECS occupational category (employee type)	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3
Production, transport, craft and other manual workers	489.61	501.43	491.85	499.26	502.89

According to the CSO definitions car, taxi and lorry drivers fall into the category of production, transport, craft and other manual workers outside of the agricultural industry. Therefore, we can estimate the opportunity cost of labour based on the quarterly earnings data for this category. Based on a 48-week working year we can estimate that the average salary for a taxi driver during 2016 was €23,945. As this annualised figure provides an approximation of earnings in a truly comparable sector, it is an appropriate representation of labour costs for the purpose of the TCI.

4.4.3 Fuel type

Diesel is the most representative fuel type in the industry; the driver survey topline results estimated that 81% of drivers operate diesel fueled vehicles. As a result, diesel prices are used in the calculation of annual fuel costs.

4.4.4 Car models

The three most popular car models among taxi drivers are the Toyota Avensis (33%), Skoda Octavia (9%) and Ford Mondeo (9%). As above, each model is assumed to have a diesel engine, with the Avensis and Mondeo having a 2.0 litre capacity, and the Octavia 1.6 litre capacity. These three models are used in the calculation of vehicle finance and insurance costs. Vehicle maintenance (servicing, cleaning, spares, tyres) frequencies were informed by the manufacturer’s recommendations, in line with industry best practice.

4.5 2017 Taxi Cost Index

The costs included in the TCI consist of running and fixed costs, together with a labour cost component. Two separate TCIs are constructed, one for each of the activity levels described in Section 4.4.1. All of these costs refer to one year of operations for a taxi.

Table 4.2: Running cost component descriptions

Index Component	Description
Fuel	Total cost of fuel
Servicing	Cost of major and minor services
Cleaning	Cost of major valets and minor cleans
Tyres	Cost of tyre replacements
Spares	Cost of spares required to keep car appropriately maintained
Miscellaneous Running Costs	This component is included to allow for a contingency for additional costs involved with operating a taxi

Table 4.3: Fixed costs component descriptions

Index Component	Description
Car Purchase and Finance	Annualised cost of a car loan, net of resale value
Insurance	Cost of insuring a taxi
Radio/App Rental	Covers the cost of radio rental/app service from a dispatch operator/ taxi app provider
Equipment Replacement – regulatory requirements	Cost of meters, roof sign, printers, branding and necessary safety kit (fire extinguisher, first aid kit, safety triangle, vest and torch).
Taxi Vehicle Licence Renewal	Cost of renewing a taxi vehicle licence
Road Tax	Annual road tax payable for the vehicle
Airport Charges	Charge for operating at an airport
National Car Test (NCT)	Cost of undertaking a periodic NCT test
Meter Verification	Cost of meter verification
Meter Calibration and Programming	Cost of meter calibration and programming
SPSV Drivers Licence	Cost of a taxi driver licence
National Drivers Licence	Cost of vehicle driver licence

Table 4.4: Labour costs component descriptions

Index Component	Description
Labour Costs	Estimate of driver earnings

The following sections detail the values attributed to each of these costs and the methodology used in order to achieve the final figures.

4.5.1 Running costs

The annual running costs refer to the day to day costs associated with operating a taxi. Running costs include the cost of fuel, servicing, cleaning, spares and tyres. A budget of €300 has been used to cover the miscellaneous costs associated with the provision of taxi services. Each of these cost components is determined based on driver activity levels, and, therefore, it is necessary to illustrate the running costs for both of the activity levels estimated in Section 4.4.1.

Table 4.5: Running costs

Index Component	Activity level	
	CSO Estimate	Drivers Estimate
	32,624km	49,000km
Fuel	€ 1,918	€ 2,881
Servicing	€ 437	€ 656
Cleaning	€ 988	€ 988
Tyres	€ 373	€ 560
Spares	€ 294	€ 441
Miscellaneous Running Costs	€300	€300
Total Running Costs	€4,309	€5,825

- **Fuel:** The cost of fuel was calculated based on three components:
 - annual distance travelled (see section 4.4.1);
 - weighted average of the manufacturer stated fuel consumption rates for the three most popular car models⁷; and
 - the price of diesel as reported by the CSO⁸.

Fuel costs facing taxi drivers have decreased significantly since 2014. Diesel prices have decreased steadily since a peak in 2012 due to strong demand from the BRIC economies⁹ and global conflicts affecting the supply of oil. Furthermore, the rebasing activity in 2014 established that the rate of fuel consumption has improved considerably since 2010 estimates. Fuel efficient vehicles now represent a majority of the taxi fleet, corresponding to an average fuel consumption rate of 4.8 litres per 100km.¹⁰

- **Servicing:** In order to calculate the cost of servicing, costs were sourced from industry suppliers for the three most popular car models in the industry. Based on best practice industry standards and manufacturer guidelines, the assumption was made that a minor service is required every 15,000km, a full service is carried out every 30,000km and a major service after 60,000km.
- **Cleaning:** In line with previous Maximum Fare Reviews and the driver survey conducted, it is assumed that taxi vehicles receive “major valets” twice per annum, and “minor cleans” are

⁷ As stated in the owner manuals for the Toyota Avensis, Skoda Octavia and Ford Mondeo

⁸ CSO – National Average Price (Euro) by Consumer Item and Month

⁹ Brazil, Russia, India and China

¹⁰ As stated in the owner manuals for the Toyota Avensis, Skoda Octavia and Ford Mondeo

undertaken twice weekly. The cost per major valet was found to be approximately €110 based on industry research. A cost of €8 is assumed for minor cleans, up from €7 in the 2014 review. This value represents the cost of a machine wash or an allowance for a drivers own time if they choose to hand wash their car.

- **Tyres:** Estimates of average tyres life range between 32,000km (Department of the Environment, Community and Local Government) and 48,000km (the AA), with various other sources in between. Previous reviews have assumed that tyres are replaced every 36,000km. This value has been used again in the 2017 TCI calculation as it is consistent with previous calculations and lies within the range of expert estimates.
- **Spares:** Research conducted regarding the cost and frequency of replacing spare vehicle parts found that approximately €900 is spent on spare parts every 100,000 km (or €1,750 every 120,000 miles). The prices included in this category involve the cost of replacing batteries, windscreen wipers, shock absorbers, brake pads and discs.
- **Miscellaneous running costs:** Historically, the TCI has included a miscellaneous cost component in recognition of the potential additional expenses faced by taxi drivers in relation to consumables etc. This €300 allowance has been carried forward into the 2017 index.

4.5.2 Fixed costs

Annual fixed costs refer to the costs faced by the industry which are independent of activity levels. Fixed costs include expenditure on radio rental, airport charges and items required under legislation such as driver licenses, road tax and insurance. The full breakdown of fixed costs for 2017 is provided in table 4.6 below.

Table 4.6: Fixed costs

Index Component	2016 Cost
Car Purchase and Finance	€ 3,534
Insurance	€ 2,400
Radio/App Rental	€ 4,752
Equipment Replacement – regulatory requirements	€298
Taxi Vehicle Licence Renewal	€ 150
Road Tax	€ 95
Airport Charges	€38
National Car Test (NCT)	€ 67
Meter Verification	€ 43
Meter Calibration and Programming	€ 45
SPSV Drivers Licence	€ 50
National Drivers Licence	€ 6
Total Fixed Costs	€ 11,478

- **Car Purchase and Finance:** The cost of vehicle financing is calculated based on the weighted price of a 5 year term loan for the three most popular car models in the industry: Toyota Avensis, Skoda Octavia and Ford Mondeo. It is assumed under best practice principles that the average vehicle age is 3 years. The current value of each 3 year old model has been sourced from Motor Trade Publishers¹¹, while the resale value is determined based on prices for 8 year old models. The finance costs are calculated using average rates, drawn from a sample of major lenders.

- **Insurance:** A survey of insurance costs using the details of a representative driver¹² resulted in a range of insurance costs rising from €2122 to €2500. An average figure of €2,400 was taken from the Driver Survey Estimate as this falls within this range. This calculation was based on the weighted average insurance prices for the three most popular car models. This represents a significant increase since 2014, reflecting comments from the industry and the results of the driver survey at €2,248. The driver survey and the research for this element of the TCI highlighted the difficulty a new or inexperienced taxi driver would face in obtaining an insurance quote. This does not affect the average costs of a working taxi driver, but may affect future entry into the sector.

- **Radio/App Rental:** As a significant proportion of the taxi industry incurs radio rental or dispatch application costs, this cost component has been included in the 2017 index. The figure of €4,752 represents the average radio rental costs from the 2017 driver survey topline results, which identified that the average cost of is approximately €99 per week¹³.

- **Equipment replacement – regulatory requirements:** This cost component represents a range of equipment which is required by taxi operators under current regulations. These include:
 - Taximeter
 - Printer
 - Roof sign
 - Branding
 - Safety kit (fire extinguisher, first aid kit, triangle, vest, torch)
 - Window fitting: The cost of removing tinted windows was determined for each of the three most popular car models

A replacement cycle of 5 years is assumed for taxi vehicles and equipment, which has been validated by the topline driver survey results.

¹¹ <http://www.mtp.ie>

¹² Estimates were obtained from a number of insurance brokers based upon a representative driver with clean license, 5 year old Toyota Avensis and five years no claims bonus on taxi. Estimates ranged from €2122 to €2500

¹³ The costs of affiliation to a taxi app provider have not been calculated, and instead the radio rental cost item seeks to cover the cost for affiliation to dispatch operators and app providers.

- **Airport Charges:** The cost of airport permits for taxis is calculated based on the proportion of drivers within the industry incurring the charge. Permits are required to operate in Dublin and Shannon Airport. Approximately 8.7% of taxi drivers hold an airport permit. The cost of the Dublin permit increased by 10% to €440 since the 2014 review.
- **National Car Test (NCT):** The standard cost of an NCT is €55. However approximately 20% of the taxi fleet is over nine years old and will require two NCT tests each year. This cost is the weighted average cost of NCT tests for taxi drivers.
- **Meter Calibration & Programming:** Based on consultation with industry sources, it has been determined that the cost of meter reprogramming is €90 every two years
- **Other costs:** The cost of meter verification, road tax, and driver licenses have been sourced from publicly available data

4.5.3 Labour costs

Labour costs represent the main cost component in providing taxi services. The inclusion of labour costs help to ensure that drivers’ earnings track those of other workers in the economy. The determined value for labour costs in 2014 is illustrated in Table 4.7.

Table 4.7: Labour costs

Index Component	2016 costs
Labour Costs	€23,945

As described in Section 4.4.2 above, labour costs have been determined based on CSO average weekly earnings data for production, transport, craft and other manual workers outside of the agriculture industry.

4.5.4 Total costs

The total costs of the TCI consist of the running, fixed and labour costs illustrated in the sections above. As the running costs are determined by driver activity levels, it is therefore necessary to illustrate the TCI for both activity levels estimated in Section 4.4.1.

Table 4.8: 2016 Taxi Cost Index

Index Component	Activity level	
	CSO Estimate	Drivers Estimate
Index Component	32,624km	49,000km
Running Costs	€4,309	€5,825
Fixed Costs	€ 11,478	€ 11,478
Labour Costs	€23,945	€23,945
Total Costs	€ 39,732	€ 41,248

4.6 Summary and Conclusion

The results of the 2017 Taxi Maximum Fare Review are summarised and compared to the output of the previous 2014 Taxi Maximum Fare Review below in Table 4.9 . The CSO estimate of driver activity levels (27,804km) was considered the best available estimate. Calculations were also made on the basis of the Driver Survey Estimate (62,052km) for 2014. CSO and Driver Estimates of Activity figures were used due to the significant difference between the two sets of figures.

Both sets of calculations were updated to reflect the changes in underlying costs over the intervening period between 2014 and 2017 for comparative purposes. According to the latest CSO statistics driver activity has increased on average to 32,624km, an increase of 17% over 2014 average estimate. Conversely, the Driver Estimate Survey 2017 indicated that driver activity had declined to on average 49,000km, a decline of 21% in average driver activity.

Table 4.9: Adjusted TCI changes, 2014 - 2016

	2014 activity level - CSO	Driver Estimate of Activity from 2014 Survey	2016 activity level - CSO	Driver Estimate of Activity from 2017 Survey
Km	27,804km	62,052km	32,624km	49,000km
Year	2014	2014	2016	2016
Running Costs	€4,026	€7,157	€4,309	€5,825
Fixed Costs	€10,222	€ 10,222	€ 11,478	€ 11,478
Labour Costs	€24,246	€24,246	€23,945	€23,945
Total Costs	€38,493	€41,984	€ 39,732	€ 41,248
% Change 2014-2016			+3.22%	-1.75%

This analysis shows that since 2014, costs have increased by 3%, based on the NTA's own estimates of taxi activity derived from CSO data. Over the same period CPI decreased by 0.3%.

5. Reform of the fare structure

5.1 Reform of fare structure

One of the NTA's objectives is to simplify the current structure of the National Maximum Taxi Fare. A simpler fares structure would make it easier for customers to estimate the cost of their journey. This might encourage more people to use taxis.

There are two types of simplification options:

- Removal or modification of some of the fare elements i.e. the initial charge, the mileage tariffs, night-time premium and/or the extras; and
- Rationalisation of the pricing itself e.g. standardising the relationships between the mileage tariffs or standard and night-time rates and/or rounding the initial charges and subsequent rates in line with increments of 20 cents¹⁴.

As part of the 2014 Maximum Fare Review the structure of the rate card was thoroughly reviewed. As a result of this review the fare card was significantly simplified in 2015. No changes in the structure of the rate card are proposed as part of this review.

¹⁴ As the meter increments fares by 20 cents, this would mean that fares would always be a multiple of 20 cents, reducing the current problems both drivers and customers face regarding coinage.

6. Findings and conclusions

Since its inception in 2006, purpose of the National Maximum Taxi Fare structure has been to establish a single, simple, transparent system for taxi consumers and providers across Ireland. The system should ensure that the taxi industry receives a fair return for its work, further supply is stimulated, customers receive value for their money and additional demand is created.

In pursuit of these goals, this Maximum Fare Review has striven to gain a greater understanding of the operating and market conditions facing the taxi industry. The findings of the Review are outlined below.

6.1 Market recovery ongoing

As the Irish economy has recovered from recession the demand for taxi services has stabilised. In February 2017, 39% of adults responding to a household survey reported that they had used a taxi in the past six months. This is the same as the proportion who reported using a taxi in 2014, which represented a decline of 20 percentage points on 2012 figures. Trends in taxi usage over the past 12 months, as shown in Figure 3.4, indicate that 14% of taxi users have decreased their use of taxis while 18% have increased their taxi usage. The primary reasons adults surveyed gave for a reduction in taxi usage were that they were going out less often (46% of those reporting reduced use) and that taxis were too expensive (26% of those reporting reduced taxi use). Some 21% of adults reporting reduced taxi use also cited less disposable income as a reason for their reduction in taxi use. The primary reasons adults surveyed gave for an increase in their taxi usage were that taxis were 'less expensive than they used to be' (33%), that they were going out more often (24%) and that they were travelling/commuting more (18%) . The Household Survey carried out in February and March 2017.

Economic growth is expected to continue at least until the time of the next Maximum Fare Review. This should have positive consequences for the taxi industry in the coming years. The taxi industry is strongly influenced by social and recreational activities. Continued increases in employment and consumer expenditure will create further demand for taxis as the economy continues to recover.

6.2 Change in industry operating costs

The calculation of the 2014 Taxi Cost Index (TCI) involved a fundamental review of the cost components, assumptions and methodology employed in the tool since its establishment in 2006. As a result, an index comprised of rebased costs and a revised methodology was generated for the purpose of that review.

The same methodology has been used for the 2017 National Maximum Taxi Fare Review.

Comparing the TCIs for 2014 and 2016 it is unclear if costs have increased or declined based upon conflicting results. The extent of the increase or decrease depends on the level of industry activity assumed. Assuming an activity level of 32,624km, based on CSO data, the increase is 3%. Assuming an activity level of 49,000km, based on a taxi driver surveys, then a decrease of 2% is observed.

Appendix A – Estimating Activity Levels based on CSO data

Activity levels are employed in the TCI to calculate changes in those operating costs which vary according to activity levels, for example fuel, tyres, vehicle spares and servicing. Annual driver distance travelled is used as a proxy for activity levels in the TCI. Assuming all other factors remain constant, a reduction in activity levels has the impact of reducing the costs associated with operating a taxi and vice versa.

The most objective source of data for annual vehicle distance travelled can be found in traffic volume data from the Central Statistics Office (CSO). The CSO estimates annual vehicle distance travelled for taxis using data from the National Car Testing Service (NCT) and the Road Safety Authority. However, an identified limitation of the CSO mileage data is that it represents both personal mileage and work mileage. Therefore, in order to isolate the level of operating activity, it is necessary to remove personal mileage from the CSO estimate.

Average personal mileage can be estimated at a high level by taking annual distance travelled for private cars and subsequently removing annual commuting mileage. Statistics demonstrating the average commuting distance travelled by car in 2014 can be found in the National Travel Survey. Assuming a 48 week working year, the annual distance travelled while commuting is 7,200 kilometres. Therefore, out of the 16,131 km driven by private cars in the same year, 8,931km can be attributed to personal mileage.

$$\therefore 2014 \text{ average annual } \textit{operating km} = 2014 \text{ average annual km} - \textit{Personal km}$$

$$\therefore 2014 \text{ average annual operating km} = 37,874\text{km}^{15} - 8,931\text{km}$$

$$\therefore 2012 \text{ average annual operating km} = 28,943\text{km}$$

However, the use of the 2014 figure alone may be inappropriate as market conditions have changed since 2014. Demand has fluctuated and supply has contracted. Therefore, in order estimate 2017 activity levels, changes to supply and demand over the last two years have been taken into account, using a methodology which calculates the demand for taxis across time periods.

To track taxi demand, it is necessary to note the reasons for taxi travel. The 2017 consumer survey tells us that approximately 58% of taxi travel is for social reasons, 12% for business reasons and the rest of journeys constitute the purposes of shopping, personal travel and transport to other travel modes (e.g. taxi to airport).

For each of these factors, it is possible to estimate the demand fluctuations based on indices from the CSO. For example, movements in the monthly demand for taxis for shopping purposes can be estimated using CSO retail sales volume data. For each of the other purposes, quarterly

¹⁵ Source: CSO data – average km travelled (taxis) 2012

data is available for purpose of household travel. The table below outlines each purpose, with relevant weightings and the indices used for forecasting.

Table A.1: Demand forecasting – journey purpose

Reason for travel	Forecast method	Weighting
Business	CSO: number of trips by Irish residents - Reason for journey = business	8.1%
Shopping	CSO: Monthly Retail Sales Index Volume - All retail business excluding motor trades and bars	8.7%
Social	CSO: Monthly Retail Sales Index Volume – Bars and Restaurants	48.2%
Personal	CSO: number of trips by Irish residents - Reason for journey = visiting friends/relatives	13.4%
Connecting to transport terminals	CSO: number of trips by Irish residents - Reason for journey = holiday, outbound	9.7%
Other	Assumed constant	11.9%

Using these indices, and their relative weightings, it is possible to estimate the fluctuations in taxi demand based on reasons for journey. The 2017 demand factor is therefore calculated based on the weighted average of the observed movements in these indices since 2014. An 8.6% growth in demand for taxi services has been estimated on this basis, providing a demand factor equal to 108.65.

The next step in determining activity levels for 2017 is to take account of supply. The number of taxis in operation in Ireland has declined since the prohibition of new non-wheelchair accessible vehicle licences in 2010. It is necessary to take this into account when calculating current activity levels, as fewer licences will lead to greater activity per vehicle, holding all else is constant. Since 2014, there has been a drop in numbers from 17,844 to 17,146 or 3.6%.¹⁶ Therefore, the 2014 supply factor is approximately equal to 96.4.

In light of the demand and supply considerations above, annual distance can be calculated using the following formula:

$$2017 \text{ average annual operating km} = 28,943\text{km} \times \frac{(2014 \text{ demand factor})}{(2014 \text{ Supply factor})}$$

$$\therefore 2017 \text{ average annual operating km} = 28,943\text{km} \times 108.65/96.4$$

$$\therefore 2014 \text{ average annual operating km} = \mathbf{32,624 \text{ km}}$$

¹⁶ National Transport Authority website

Appendix B – TCI Changes: 2010 - 2014

Using the methodology and assumptions employed in the 2014 TCI, it is possible to estimate comparable indices for the years 2010 – 2012. A pro-rata adjustment has been made for activity levels. Similarly, labour costs are sourced from the CSO EHECS data, as per the 2014 methodology.

The complete outcomes from this activity are shown in Table B.1 and Table B.2. Table B.1 represents the TCI for the 27,804km activity level, while Table B.2 illustrates the results using the 50,740km activity level.

Table B.1: Historic TCIs using CSO Data Estimates (CSO data)

Component	2010 figure	2012 figure	2014 Cost (27,804km)	2017 Cost (32,624km)
Fuel	€ 1,608.94	€ 2,061.39	€ 1,950	€1918
Servicing	€573.97	€ 554.65	€353	€437.00
Cleaning	€ 804.00	€776.94	€892.00	€988.00
Tyres	€271.63	€ 273.80	€278.00	€373.00
Spares	€239.95	€241.88	€252.00	€294.00
Miscellaneous Running Costs	€318.00	€313.17	€300.00	€300.00
Total Running Costs (27,804km)	€3,816.48	€4,221.83	€4,026.00	€4,309.00
Car Purchase and Finance	€2,550.65	€ 2,677.55	€ 3,014.00	€3,534.00
Insurance	€1,679.00	€1,951.00	€ 1,817.00	€2,400
Radio Rental	€4,659.00	€4,600.00	€4,628.00	€4,752
Equipment Replacement - Regulatory requirements	€168.59	€265.41	€298.00	€298.00
Taxi Vehicle License Renewal	€125.00	€125.00	€125.00	€150
Road Tax	€ 82.00	€88.00	€95.00	€95.00
Airport Charges	€36.73	€36.62	€35.48	€38.00
NCT Testing	€50.00	€73.56	€66.00	€67.00
Meter Verification	€45.00	€46.13	€ 43.00	€43.00
Meter Calibration and Programming	€30.00	€45.00	€45.00	€45.00
SPSV Driver's License	€50.00	€50.00	€ 50.00	€50.00
National Driver's License	€ 2.50	€2.50	€5.50	€6.00
Total Fixed Costs	€9,478.47	€ 9,960.76	€10,221.50	€11,4785.00
Labour Costs	€24,846.56	€25,712.28	€24,246.0	€23,945.00
TCI Total	€38,141.51	€ 39,894.88	€38,493.00	€39,732.00

Table B.2: Historic TCIs using Drivers Survey Estimate

Component	Comparable 2010 figure	Comparable 2012 figure	2014 Cost (62,052km)	2017 Cost (49,000km)
Fuel	€ 1,608.94	€ 2,061.39	€4,352.00	€2881.00
Servicing	€573.97	€ 554.65	€798.00	€656.00
Cleaning	€ 804.00	€776.94	€892.00	€988.00
Tyres	€271.63	€ 273.80	€621.00	€560.00
Spares	€239.95	€241.88	€563.00	€441.00
Miscellaneous Running Costs	€318.00	€313.17	€300.00	€300.00
Total Running Costs (50,740km)	€3,816.48	€4,221.83	€7,517.00	€5,825.00
Car Purchase and Finance	€2,550.65	€ 2,677.55	€ 3,014.00	€3,534.00
Insurance	€1,679.00	€1,951.00	€ 1,817.00	€2,400
Radio Rental	€4,659.00	€4,600.00	€4,628.00	€4,752
Equipment Replacement - Regulatory requirements	€168.59	€265.41	€298.00	€298.00
Taxi Vehicle License Renewal	€125.00	€125.00	€125.00	€150
Road Tax	€ 82.00	€88.00	€95.00	€95.00
Airport Charges	€36.73	€36.62	€35.00	€38.00
NCT Testing	€50.00	€73.56	€66.00	€67.00
Meter Verification	€45.00	€46.13	€ 43.00	€43.00
Meter Calibration and Programming	€30.00	€45.00	€45.00	€45.00
SPSV Driver's License	€50.00	€50.00	€ 50.00	€50.00
National Driver's License	€ 2.50	€2.50	€5.50	€6.00
Total Fixed Costs	€9,478.47	€ 9,960.76	€10,221.50	€11,478.00
Labour Costs	€24,846.56	€25,712.28	€24,246.24	€23,945.00
TCI Total	€38,141.51	€ 39,894.88	€41,984.00	€41,248.00

The results of the historical analysis show that the TCI, calculated on the 2014 basis, has increased since 2010. Both fixed costs and running costs have increased, while due to the decrease in wages throughout the economy over this period, the opportunity cost of labour has fallen. The changes in cost for the three cost categories over the period 2010 to 2014 are shown in Table B.3.

Table B.3: TCI changes since 2010

Year	2010 - 2014	2012 - 2014
% change in Running Costs	4.2%	-5.8%
% change in Fixed Costs	7.5%	2.3%
% change in Labour Costs	-2.4%	-5.7%
Total % change (CSO activity)	0.7%	-3.7%
Total % change Driver Survey Estimate Activity)	1.8%	-3.3%