

Gorecki, Paul K.

Working Paper

Regulating small public service vehicles in Ireland: Is there a problem of oversupply?

ESRI Working Paper, No. 441

Provided in Cooperation with:

The Economic and Social Research Institute (ESRI), Dublin

Suggested Citation: Gorecki, Paul K. (2012) : Regulating small public service vehicles in Ireland: Is there a problem of oversupply?, ESRI Working Paper, No. 441, The Economic and Social Research Institute (ESRI), Dublin

This Version is available at:

<https://hdl.handle.net/10419/100186>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Working Paper No. 441

October 2012

Regulating Small Public Service Vehicles in Ireland: Is There a Problem of Oversupply?

Paul K Gorecki*

Abstract: The small public service vehicle (SPSV) market in Ireland appears to have adjusted well to the changed economic circumstances. The reduction in demand for SPSV services occasioned by the recession has been met by a price and quantity adjustment. Prices are regularly discounted off the regulated maximum fare, while the number of SPSV operators has dropped by about 6 per cent per year since 2010. Estimates of oversupply of 13 to 22 per cent, albeit arguably biased upwards, are likely to be eliminated by the end of 2013/early 2014 at the earliest, and 2015/16 at the latest. Strategies have been put in place to deal with non-compliance with social welfare and tax rules. Hence for the Taxi Regulation Review Group in its December 2011 *Report* to base recommendations for extensive policy intervention on the view: (i) that there is considerable oversupply of SPSV services; (ii) that this is influenced in an important way by non-compliant operators; and, (iii) there is low exit from the industry is incorrect. Indeed, these recommendations which are being implemented, while no doubt containing sensible suggestions with regard to wheelchair accessible services and rural hackney services, at the same time will have the effect of reducing the flexibility of the SPSV market based on a model that seeks to favour the role of full time taxi operator. When combined with the 2010 prohibition on the issuing of new taxi and hackney licences, there is a real danger that when the economy revives and demand for SPSV services increases that there will be increased waiting times as they were in the 1990s when taxi numbers were restricted. There is an urgent need to reconsider these policy initiatives.

Corresponding Author: Paul.Gorecki@esri.ie

*I should like thank John Evans, John FitzGerald, Cathal Guiomard, Sean Lyons, and Francis O'Toole for comments and suggestions as well as participants at an ESRI seminar in May 2012. The National Transport Authority was very helpful in providing data and information concerning the operation of the SPSV market. I should also like to thank the Department of Social Protection and the Revenue Commissioners for furnishing their submissions to the Taxi Regulation Review Group and for the Department of Transport for facilitating access. The usual disclaimer applies.

ESRI working papers represent un-refereed work-in-progress by researchers who are solely responsible for the content and any views expressed therein. Any comments on these papers will be welcome and should be sent to the author(s) by email. Papers may be downloaded for personal use only.

Regulating Small Public Service Vehicles in Ireland: Is There a Problem of Oversupply?

1. Introduction

The recession which started in 2008 is likely to adversely affect all sectors of the Irish economy, including transport. In the case of small public service vehicles (SPSV), most of which are taxis,¹ the recession has led to a drastic decline in demand for SPSV services, longer hours of work and lower hourly returns.² When sectors are subject to such stress, firms and workers often seek government intervention to provide shelter and protection from market forces.³ Providers of SPSV services in Ireland, for example, demanded a moratorium on the issuing of new licences.⁴ This paper provides a case study of Irish government policy towards SPSVs in the face of the recession. How did government respond to demands for protection? How did the government balance the regulatory aims of consumer welfare with producer driven demands? What methodology was used to evaluate these demands? Did the circumstances merit the policy prescription of the government? What are the wider lessons of the Irish experience?

The issue of the appropriate response to the impact of the recession on the SPSV market was addressed by the Taxi Regulation Review Group (TRRG), created as result of a Government decision taken in June 2011. The TRRG was chaired by the Minister of State for Public and Commuter Transport (the Minister). The TRRG was composed of 18 other persons drawn from a wide array of SPSV interests, including producers, consumers, and regulators. The TRRG, in its December 2011 report, recommended 46 actions that envisaged “the strengthening of qualitative controls of SPSV licensing, improved standards and effective enforcement” (TRRG, 2011, p. iii). The reintroduction of quantitative restrictions, which had been abolished in 2000, was not recommended (*ibid*, p. iii).⁵ The TRRG also took the view that the National Transport Authority (NTA), which is the independent body responsible for the regulation of SPSVs,⁶ needs to “ensure that the market operates as efficiently as possible in order to encourage better balance of supply and demand” (*ibid*, p. iii).

The rationale for many of the TRRG’s recommendations was grounded in commissioned research⁷ that, according to the TRRG (2011, p. ii), shows:

¹ For details see Indecon (2011, Table 3.2, p. 38). In Section 2 the definition and breakdown of the various categories of SPSV is presented.

² Goodbody (2009a) characterises the situation.

³ This issue is addressed in Gorecki (2012).

⁴ The demands usually refer to taxi licences.

⁵ The TRRG do not, however, comment on the fact that since 2010 there has been a prohibition on new taxi and hackney licences, an issue discussed in Section 2.

⁶ A statutory body, the Commission on Taxi Regulation (CTR) was established in 2004 to regulate all aspects of the SPSV market in Ireland. In 2011 the CTR became part of the NTA. Section 2 discusses this in more detail.

⁷ The research was commissioned by the Department of Transport, Tourism and Sport for the TRRG. The research was undertaken by Indecon International Economic Consultants (Indecon). For details see: <http://www.indecon.ie/>.

- “... on a national level oversupply is estimated ... to be in the range of 13-22% of the current SPSV fleet.”
- “.. the level of oversupply is influenced by the impact of non-compliant operators in the sector”
- “and by the low levels of exit from the industry.”

The *qualitative* recommendations of the TRRG were designed to deliver a *quantitative* result of reducing capacity through encouraging exit such that demand and supply would be in better balance. These recommendations are in the process of being implemented, with the NTA playing a key role.⁸ This paper questions whether the research does indeed establish that there is oversupply in the SPSV market, as well as the validity of the reasons put forward for this state of affairs.

The paper is divided into seven sections including the introduction. Section 2 provides an overview of developments in the SPSV market, together with their implications, since the liberalisation of entry. In addressing whether or not there is overcapacity or oversupply we divide the discussion in three parts. First, in Section 3, we define the term and consider why, *a priori*, there might be excess capacity in the Irish SPSV market. In other words, what mechanism(s) leads to oversupply? Are they credible? Second, in Section 4, given that there are valid reasons for oversupply, what methods are used to derive the estimate of 13-22 per cent of the SPSV fleet? Third, Section 5 examines the issue of excess supply that might arise through non-compliant SPSV operators. In addressing these three issues, the discussion centres on the commissioned research conducted by Indecon (2011), which appears as an annex to the TRRG report. Indecon (2011, p. i) was specifically tasked with examining the issue of oversupply in the SPSV market. It was a central part of its terms of reference. Section 6 considers the impact of the TRRG recommendations on the SPSV market. Section 7 concludes by addressing the questions posed above in relation to government policy.

2. The Small Public Service Vehicle Market

The term small public service vehicle (SPSV) refers collectively to taxis,⁹ wheelchair accessible taxis (WAT),¹⁰ hackneys¹¹ and limousines.¹² The vast majority of SPSVs are taxis (76 per cent in 2011), followed by hackneys (14 per cent), with the remaining two categories

⁸ The NTA has formed a dedicated unit to implement the recommendations, For details see: <http://www.nationaltransport.ie/taxi-and-bus-licensing/taxi/taxi-review-implementation/>. Accessed 1 May 2012.

⁹ A taxi is defined as “an SPSV licensed to carry up to eight passengers which can ply for hire on the street or stand for hire at taxi ranks or to be called out or pre-booked by a passenger” (Goodbody, 2009a, p. 5).

¹⁰ A taxi “which meets a number of additional vehicle specifications to allow use by persons using their wheelchairs” (*ibid*, p. 5).

¹¹ A hackney is “an SPSV licensed to carry up to eight passengers which must be pre-booked privately and cannot ply for hire on the street or stand at taxi ranks. The fare must be agreed in advance with the customer. Hackneys may not use the bus lanes.” (*ibid*, p. 4).

¹² A limousine is “an SPSV licensed to carry up to eight passengers which must be pre-booked privately and cannot ply for hire on the street or stand at taxi ranks. The fare must be agreed in advance with the customer. A limousine must be suited by its style and condition to be used for ceremonial, corporate or other prestige purposes.” (*ibid*, p. 4).

accounting for about 5 per cent each.¹³ Since quantitative restraints on taxis were removed in late 2000 as a result of a High Court judgment,¹⁴ the number of SPSVs has increased from 13,637 in 2000 to 24,120 in 2011 or by 77 per cent.¹⁵ Since liberalisation taxis have grown at a much faster rate than hackneys, whose market share of SPSVs declined from 69 per cent in 2000 (Goodbody, 2009a, p. 35). The differing growth rates of taxis and hackneys reflects the fact that prior to liberalisation in 2000, quantitative controls applied to taxis,¹⁶ but not to hackneys, as well as to the fact that a taxi is much more flexible in terms of, for example, where it can pick-up passengers.¹⁷

The regulatory regime for SPSVs has evolved considerably since liberalisation in 2000. A statutorily independent national Commission for Taxi Regulation (CTR) was established in September 2004, whose functions were subsumed into the National Transport Authority (NTA) on 1st January 2011. The CTR took over regulation from the local authorities. The CTR (and NTA) is guided by a set of nine statutory objectives including “to encourage and promote competition in relation to services (including fares) offered by” SPSVs and “to promote the development of high quality cost effective services ... [by SPSVs] which meet a range of customer needs including those of passengers with mobility or sensory impairments.”¹⁸ The CTR has wide ranging powers to fulfil its statutory objectives including setting maximum fares, vehicle standards, vehicle inspections, and the granting of licences to SPSV drivers.

The CTR introduced a national taximeter area and a national *maximum* taxi fare in 2006 to replace the existing 34 independent taximeter areas for which local authorities had previously set SPSV fares.¹⁹ The purpose was to “establish a single, simple transparent system across the country” (PA, 2010, p. 3). The maximum fare has Standard and Premium rates with the latter reflecting unsocial hours (i.e. between 20:00 hrs and 08:00 hrs). The fare, which is reviewed every two years, is based on a number of factors including a cost index – the dynamic taxi cost index. In 2008 fares were raised in line with this index. In the fare review for 2010, although the cost index had declined by 1.8 per cent, no change in fares was recommended by PA (2010, p. 32) and this was accepted by the CTR.

In 2008 the CTR commissioned a wide ranging review of the SPSV market that had the twin objectives of a “review of the trends shaping the general environment in which the industry operates” and to “assess the economic impact of liberalisation of the SPSV sector, in

¹³ Indecon (2011, Table 3.2, p. 38).

¹⁴ Murphy (2000). For a discussion of the situation pre-2000 see Fingleton *et al* (1998) and Kenny and McNutt (1998); for subsequent developments see Barrett (2003) and Goodbody (2009a).

¹⁵ Indecon (2011, Figure 3.1, p. 36; Table 3.2, p. 38). The number of SPSV licences for 2011 refers to August 2011, while the data for 2000 refers to December 2000.

¹⁶ These constraints were binding as demonstrated by the fact that taxi licences traded for substantial sums, peaking at IR£90,000 in 2000 (Barrett, 2003, Table 2, p. 35).

¹⁷ On the pre-liberalisation period see Kenny & McNutt (1998, p. 4) who point out that hackney licences were only restricted for a short time in 1991/92 when a moratorium was in place. The definitions of a hackney and a taxi set out above describe these differences. Part of the increase in the number of taxis after 2000 is likely to be due to hackneys switching to being a taxi.

¹⁸ Section 9 of the Taxi Regulation Act 2003.

¹⁹ Goodbody (2009a, p. 14).

particular on the supply, demand and industry earnings” (Goodbody, 2009a, p. 6). The review carefully examined supply, demand, competition, service quality, regulation (including the rationale for regulation), and consumer benefits in terms of reducing waiting times. The review found that drivers were working longer hours and that earnings were below the average industrial wage. The review found that liberalisation had resulted in significant benefit to consumers, which was most evident in reduced waiting times estimated at €780 million in money terms (*ibid*, p. 84). The review did not consider that a moratorium on issuing new licenses was justified, although external costs associated with the SPSV sector in terms of congestion and environmental impacts were acknowledged (*ibid*, p. 85). In concluding the review argued that the market failure approach currently being employed matched that advocated by the OECD and World Bank in terms of the emphasis on “the value of quality regulation combined with entry deregulation” (*ibid*, p. 88).

Taxi drivers mounted selected blockades of traffic²⁰ and occupied the offices of the CTR²¹ in protest against the refusal of the Goodbody Review to countenance a moratorium. The CTR and a representative of Goodbody appeared before the Joint Oireachtas Committee on Transport on 25th March 2009 to discuss the review. The Chairman of the Committee and several of the Members challenged the Goodbody Review’s conclusions and methodology.²² The Committee in July 2009 made a series of recommendations in relation to SPSVs including a three year moratorium on the issuing of new licenses. The Committee felt that such a moratorium would be the best way to deliver “a higher quality, more efficient and superior service” (Houses of the Oireachtas, 2009).

In June 2010 the CTR instituted, via secondary legislation, a prohibition, not a moratorium, on the issuing of new taxi and hackney licences.²³ The prohibition did not apply, however, to three classes of SPSV licences: two existing classes, WATs and limousines; and a third new SPSV category, wheelchair accessible hackneys (WAH).²⁴ The prohibition was not time limited or linked to any specific target (e.g. proportion of SPSV licenses that are wheelchair accessible). This was inconsistent with the Regulatory Impact Analysis (RIA), undertaken by the CTR to support this policy, that referred to “[S]pecific targets or timeframes would be set” (CTR, 2009a, p. 18).²⁵ At the same time the CTR prohibited the transfer of taxi and WAT

²⁰ In Dublin for example the airport was blockaded between 7 am to 11 am on 20 March and 1 April 2009. Based on statements by the SIPTU, a union representing SPSV drivers, press reports and personal observation.

²¹ In March 2010 two individuals were the subject of a High Court order to leave the building in which the CTR was located. Based on press reports.

²² For a discussion see Gorecki (2009, pp. 29-31). Note that the Committee comments did not appear to be based on a careful consideration of the evidence. For example, one elected representative relied on conversations with a small number of taxi drivers as compared to a survey of the industry conducted by Goodbody (2009a).

²³ The material in this paragraph is based on S. I. No. 250 of 2010, Taxi Regulation Act 2003 (Grant of Taxi Licences) (Amendment) Regulations 2010.

²⁴ A WAH is a hackney that satisfies certain conditions in order to be able to transport a wheelchair.

²⁵ It is the case, however, at the time the prohibition was introduced the CTR referred to monitoring the entry into the SPSV market to ensure effective competition (CTR, 2009b), while reference is made to the rationale for the prohibition in terms of only seeking “to bring the stock of new vehicles over the next number of years to offset potential loss of numbers caused by the necessary introduction of new quality standards” (CTR,

licences issued after June 2010, while existing taxi licences can only be transferred on one further occasion and it must be to a vehicle that is less than three years old.

Impact of Prohibition on New Taxi & Hackney Licences

The impact of these changes is likely to reduce the supply of new SPSVs, raise the cost of SPSV services to consumers and reduce service quality, measured in waiting times. Wheelchair accessible vehicles have both higher fixed (65 to 91 per cent) and variable (27 per cent for fuel) costs compared to standard saloons.²⁶ The lower annual license fee for a WAT does not offset these higher costs.²⁷ In September 2011 limited funding was introduced to assist new licence holders to purchase a wheelchair accessible vehicle.²⁸ In entering the SPSV market a firm will consider the likely return. For a WAT entrant with higher fixed and variable costs than a taxi, they are likely to defer entry until returns increase so that it is profitable to enter. At the present time the SPSV market is experiencing considerable price discounting by taxis.²⁹ Hence it would be reasonable to expect very limited new WAT/WAH entry.

The evidence is consistent with this prediction, as shown in Table 1, not only in absolute terms but also compared to limousines, the only other SPSV category exempt from the prohibition on issuing new SPSV licences.³⁰ Furthermore, if attention is paid to the net position (i.e. entry – exits) then the number of WAT/WAH licences *declined* by 206 between August 2010 and August 2011, while their share of all SPSVs *fell* from 5.7 per cent in August 2010 to 5.3 per cent in August 2011 (Indecon, 2011, p. iv). To reach the CTR (2009a, p. 7) target of 10 per cent requires, based on August 2011 data, an extra 1,134 WAT/WAH SPSVs. To illustrate the time needed to reach this target, at the rate of progress recorded in Table 1 between May 2011 and April 2012, and assuming no exit of WAT and WAH, this implies, other things being equal, a period of 30 years!³¹ Certainly this is inconsistent with the CTR (2009a, p. 33) view that sees the prohibition as lasting over a “short timeframe.”

2009c) which implies a much more limited objective and suggests that the prohibition on new taxis and hackneys is disproportionate.

²⁶ These cost comparisons are taken from CTR (2009a, Table 1, p. 9; Table 2, p. 10). For fixed costs the 65 per cent increase refers to a new car while the 91 per cent figure refers to a two year old car. In other words, retro-fitting a car is more expensive in relative terms.

²⁷ CTR (2009a, p. 11).

²⁸ The fund will devote €0.5 million for new applicants up to a maximum of €15,000 per vehicle. If the maximum is allocated each time then only 33 vehicles will be assisted (CTR, 2011a, p. 3). The evidence suggests that the cost differential between a wheelchair accessible and standard saloon were greater than €15,000 for a new vehicle and about €15,000 for a two-year old vehicle (CTR, 2009a, Table 1, p. 9). In the event in 2011 21 grants were awarded from the fund: 16 grants for new vehicles; and, 5 for conversions. The total dispersed was €239,003 or €11,381 per vehicle. Based on information supplied by the NTA.

²⁹ Price discounting is discussed in more detail in Section 3. WAT and taxi regulated maximum fares are the same?

³⁰ The fact that the entry of limousines continues at much the same rate before and after June 2010 suggests that these SPSVs are not good substitutes for taxis and hackneys.

³¹ The number of SPSVs in August 2011 was 24,120, of which 1,278 were WAH/WAH (Indecon, 2011, p. iv). The shortfall in WAT/WAH to reach the 10 per cent target is 1,134. Between May 2011 and April 2012 there were 38 new WAH/WAH (Table 1 above). $1,134/38=29.8$ years. An earlier period such as July 2010 to June 2011

Table 1: Number of SPSV New Vehicle Licences, by Category, Ireland, 2010-2012

Month/Year	Taxi	Hackney	Limousine	Wheelchair Accessible Taxi (WAT)	Wheelchair Accessible Hackney (WAH)
Jan 2010	0	6	2	1	-
Feb 2010	3	20	6	14	-
Mar 2010	13	35	9	11	-
April 2010	2	10	8	19	-
May 2010	6	33	10	13	-
June 2010	0	3	6	12	0
July 2010	-	-	12	2	0
Aug 2010	-	-	9	2	0
Sept 2010	-	-	13	1	0
Oct 2010	-	-	9	0	0
Nov 2010	-	-	8	0	0
Dec 2010	-	-	5	1	0
Jan 2011	-	-	6	1	0
Feb 2011	-	-	7	0	0
Mar 2011	-	-	10	3	0
April 2011	-	-	7	0	1
May 2011	-	-	12	1	0
June 2011	-	-	16	3	1
July 2011	-	-	12	1	0
Aug 2011	-	-	19	4	1
Sept 2011	-	-	15	1	0
Oct 2011	-	-	12	2	0
Nov 2011	-	-	4	5	0
Dec 2011	-	-	10	7	1
Jan 2012	-	-	7	3	1
Feb 2012	-	-	11	2	0
Mar 2012	-	-	12	0	2
April 2012	-	-	15	2	1

Source: CTR (2011b, p. 11) and information supplied by the National Transport Authority.

When the economy improves and demand recovers, however, discounting off the maximum fare will gradually cease and waiting times will start to rise due to the prohibition on entry of new taxis and hackneys. At some point in this process it will be profitable for greater numbers of WAT/WAH to enter. However, all users of SPSV vehicles, including the disabled, will be paying higher fares and experiencing longer waiting times, compared to a situation in which there was no prohibition on entry of taxis and hackneys.³² In effect a new equilibrium price will be set geared to the return necessary for a WAT/WAH to enter to meet the 10 per cent target referred to above. At this price existing incumbent taxis and hackneys will be earning rents and hence will have an incentive to retain the prohibition on the entry of taxis and hackneys. It is true that there may be more WAT/WAHs than would otherwise be the

would seem inappropriate as there appears to have an increase in the number of SPSV licences, perhaps in anticipation of a wider prohibition of new SPSV licences than just taxis and hackneys.

³² The CTR (2009a, p. 19) in its Regulatory Impact Analysis (RIA) of the impact of the June 2010 policy thus concluded incorrectly that there would be no cost to users of the prohibition. However, in its RIA the CTR set limits to the policy in terms of a timeframe or a target level of WATs in relation to the overall number of SPSVs.

case,³³ but that does not mean that such SPSVs will supply more services to wheelchair users, since the returns from servicing other users are likely to be higher, especially with the restrictions on entry of taxis and hackneys.

3. Oversupply: Definition, Causes and Mechanisms

Excess or over capacity means that there is too much capacity relative to available demand at current prices. Typically, when excess capacity exists firms reduce capacity through plant closure/mothballing and/or exiting the market, with the result capacity more closely matches demand. Hence for excess capacity to be a problem implies that market forces are unable to achieve a reduction in capacity over a reasonable time horizon. In other words, there are barriers to exit. For example, the market might be characterised by large indivisible capital investments, which are long lived with few alternative uses and low marginal costs. Several of the instances where the European Commission has allowed restructuring agreements - which would otherwise be considered anti-competitive – to reduce capacity appears to be consistent with this characterisation.³⁴

Indecon (2011, pp. 74-76) explain the presence of excess capacity in the SPSV market in 2011 through a combination of a reduction in demand and a fixed regulated price. The recession, Indecon argue, has caused a shift in the demand curve for SPSV services to the left, from D_1 to D_{2011} (Figure 1). Hence, for any given price, the quantity demanded has fallen. The new equilibrium results in a lower quantity of SPSV services (a shift from q_1 to q_{2011}) and a lower price (p_1 to p_{2011}). However, “flexible prices” (*ibid*, p. 74) are required to move to the new equilibrium. Since there is price regulation of SPSV services, with price fixed at p_1 , prices cannot adjust downwards (*ibid*, p. 75). Hence the quantity supplied is q_1 rather than q_{2011} . The degree of excess capacity - $q_1 - q_{2011}$ - is the difference between the new equilibrium (if prices were flexible) and the actual quantity supplied.³⁵

The regulated SPSV price set by the regulator, the NTA, is, however, a *maximum*, not a fixed or floor, price. Hence SPSVs can, should they consider it in their economic interest, reduce prices.³⁶ The evidence suggests that SPSVs during the recession have reduced their prices by offering discounts off the regulated maximum fare in response to the changes in demand and supply. This author has received several mail shots from taxi companies offering reductions in fares.³⁷ More systematic evidence also suggests that SPSV price reductions are

³³ It may be, of course, that 10 per cent target is reached on a much reduced SPSV fleet with the result that the absolute number of WAT/WAH is lower compared to a situation in which there was no prohibition on the entry of taxis and hackneys.

³⁴ These agreements included synthetic fibres, bricks, petrochemicals, and thermoplastics. For details see Whish (2009, pp. 600-601). In the case of synthetic fibres state intervention to keep plants open hindered the adjustment process according to Shaw and Shaw (1983).

³⁵ It should be noted that the actual excess capacity measured would be $q_1 - q_2$, which be an overestimate of the actual degree of excess capacity derived from the difference between the two equilibrium quantities.

³⁶ Agreement amongst suppliers of SPSV services not to offer discounts and adhere to the maximum price would be breach of the Competition Act 2002.

³⁷ For example, in February, May and August 2012, CAB2000 distributed via a mail shot eight coupons, each of which offered a discount (e.g. €5 off any pre-booked fare over €25). The coupons were valid until 30 November 2012 or in the case of the August 2012 mail shot, to December 2012.

not uncommon. Indecon (2011, p. 84) state, “[O]ne of the features of the current Irish market is the existence of discounts and the resultant downward pressure on fares. According to survey evidence ... 23% of customers indicated that they had secured discounts on taxi fares.”³⁸ The *Review of the National Maximum Taxi Fare 2010* also commented that “there is evidence from the survey of drivers that they are willing to offer a discount when they deem it necessary or beneficial” (PA, 2010, p. 31). The discounts are likely to be especially important for SPSVs hired over the phone (61 per cent of SPSV hirings in 2010) as compared with hailed on the street and at a taxi rank.³⁹ Such flexibility will facilitate the equating of demand and supply at P_{2011}, Q_{2011} , thus reducing, if not eliminating, excess capacity.

If the decline in demand for SPSV services since the onset of the recession is cyclical (i.e., temporary and hence will increase once the recession is over) rather than structural (i.e. long lasting, permanent), reductions in capacity combined with controls on taxi and hackney entry is likely to lead to increased waiting times and reduced fare discounting. If, on the other hand, the decline is structural then some capacity might be removed with little or no effect on waiting times and/or discounting. Hence it is important to determine whether the decline in demand is structural or cyclical.

Indecon, as discussed below, sees the demand for taxis as a positive function of population and wage rates. In terms of population the evidence does not suggest that Ireland’s population will decline or even remain flat. While it is the case that the population growth has slowed considerably since 2007, it nevertheless remains positive.⁴⁰ Eurostat (2011) sees Ireland’s population increasing the second fastest of the EU-27 Member States between 2010 and 2035, 23.4 per cent, and the fastest between 2010 and 2060, 46 per cent. In the immediate future, Economic and Social Research Institute (ESRI) estimates also anticipate population increases, by 1.8 per cent between 2012 and 2016.⁴¹ In terms of wages, the evidence suggests that wages in the public sector were reduced in 2010, while in the private sector this has not been the case.⁴² Nevertheless, increases in taxation would have lowered the average post-tax wage and, combined with increased unemployment, lowered the

³⁸ Indecon (2011, p. 84) interpret this discounting as “yet another indicator of potential oversupply” rather than as an equilibrating device for equating supply and demand and relating to the discussion in the Indecon report on overcapacity.

³⁹ Indecon (2011, Figure 2.10, p. 21). One of the rationales for fare regulation of taxis is that the consumer has little bargaining power with respect to the fare (Goodbody, 2009a, p. 69). This is most likely to occur when a taxi is hired on the street. Hence it is likely that in this segment of the SPSV market there will be least fare discounting. Another rationale for regulation is that there are informed consumers (e.g. local persons) and uninformed consumers (e.g. tourists) and that regulation prevents the latter from being exploited. For a discussion see Sutton (2000, pp. 87-90).

⁴⁰ The population of Ireland increased by 106,000 in 2006 and 2007. However, the increase subsequently declined to 83,100 in 2008, 37,300 in 2009, 11,400 in 2010 before recovering somewhat to 13,600 in 2011. The natural increase in population was sufficient to offset the negative net migration. For details see CSO (2011c, Table 1, p. 2).

⁴¹ These estimates are based on the low growth scenario in Bergin *et al* (2010). Since the low growth scenario has turned out to be too optimistic, the growth in population is likely to be lower than 1.8 per cent.

⁴² On private sector wage behaviour see Bergin *et al* (2012). In the public sector pay was reduced for lower paid public servants by 5 per cent, for higher paid 15 per cent, plus there was an increase in the contribution by public servants towards their pension.

demand for SPSV services. The level of unemployment is forecast to be 14 per cent for 2013, before declining somewhat to 13.7 per cent in 2013.⁴³ However, the future depends to a considerable degree on the successful resolution of the Euro crisis which, if successful, should see a return to growth and employment. Thus there is no reason to assume that the decline in demand for SPSV services since the onset of the recession is structural rather than cyclical.

Not only will the recession cause the demand curve for SPSV services to shift to the left, as suggested by Indecon, but the supply curve will be likely to shift to the right, offsetting, to an uncertain degree, the shift in the demand curve. In the recession with few job opportunities and increased unemployment, particularly among the relatively unskilled, an influx of entrants is likely to occur into supplying SPSV services for any given price.⁴⁴ However, given that the demand and supply curves move in different directions it is not possible, without additional information, to say whether the equilibrium level of SPSV services has increased or decreased or remained the same. Thus, Indecon, by not considering the supply side, present only a partial view of the impact of the recession.

For excess capacity or oversupply to be a problem implies, as Indecon (2011) acknowledge, that there should be barriers to exit. Barriers to exit are often considered to be present where fixed costs are large in relation to variable costs, while the fixed costs themselves are largely sunk with zero opportunity costs. SPSVs do not share these characteristics.⁴⁵ The ratio of variable or running (e.g. fuel, servicing, spares, tyres, cleaning) costs to fixed (e.g. insurance, car purchase and fuel, radio rental, insurance, road tax) costs is 71-72 per cent for taxis. Many of the fixed costs are only fixed for a year or less such as insurance, road tax and radio rental and hence do not serve as durable barriers to exit. A notable exception may be car purchasing and financing, which accounts for around a third of fixed costs. However, there is a second hand market for cars so that some of the costs can be avoided. Admittedly the second hand market for WAT/WAH and limousines may not be as efficient; however, these only account for a small proportion of SPSVs and do not appear to be where the problem of excess or oversupply lies, since as noted above these are exempt from the prohibition on the issuing of new SPSV licences.

The proof, however, should be in the pudding. Given the decline in demand for SPSV services some exit would be expected. The total number of SPSV licences is presented annually for 2005 to 2012 in Table 2. Not surprisingly, as demand increased in the mid- to late- 2000s as the economy expanded, the number of SPSV licences increased, but as the demand for SPSV services declined with the onset of the recession in 2008, the rate of increase in the number of SPSV fell and then become negative. Since 2010, the number of SPSV licences has declined by around 6 per cent a year in 2010 and 2011, before declining

⁴³ See, for example, Duffy *et al* (2012, Summary Table, n.p).

⁴⁴ While Indecon (2011, p. ii) recognise the “lack of alternative employment opportunities” this is not linked to the discussion of supply and demand in relation to Figure 1.

⁴⁵ All the data concerning fixed and variable costs of taxis is drawn from PA (2010, Table 4.2, p. 25 and Table 2.5, p. 25). The costs refer to 2008 and 2010. Estimating these costs was undertaken as part of the biannual review of taxi fares, referred to in Section 2, undertaken since 2006.

somewhat in 2012 by 4.4 per cent. However, the 2012 figures are not based on a full year of data for 2012. This suggests that supply of 13 per cent could be withdrawn by the end of 2013/early 2014, and 22 per cent by 2015/16. Indecon (2011, Table 3.1, p. 37 and p. 80) is aware that the number of SPSV licences has dropped and that there may be a lag in adjustment (*ibid*, p. ii), but nevertheless still comment that these are “low levels of exit, given the extent of oversupply” (*ibid*, p. 81) and that “market forces on their own will not address the oversupply in the short term” (*ibid*, p. iv). However, does this make sense given the level of oversupply they have identified will be removed within two/three to four/five years of 2011? While markets are not by any means perfect, it is not clear such an adjustment path is too slow.⁴⁶ One benchmark is to examine the change in the number of firms in industries with declining sales. For example, if we look at the decade 1970 to 1979 for those Canadian manufacturing industries that had sales declines of between 0 and -2 per cent, then the change in the number of firms was -16.6 per cent over the decade.⁴⁷ Another benchmark might be to examine the change in the number of business enterprises in Ireland, which is available for 2006 to 2010. This shows that since the onset of the recession in 2008 that there has been a decline in the number of enterprises of 4.5 per cent in 2008/9 and 5.7 per cent in 2009/10.⁴⁸ Against these benchmarks, 6 per cent per year does not seem excessively slow.

Table 2: Number of SPSV Vehicle Licences,^a Ireland, 2005-2012.^b

Year	Number of SPSV Licences	Annual Change (%)
2005	21,888	-
2006	22,580	3.2
2007	25,695	13.8
2008	27,429	6.7
2009	26,937	-1.8
2010	25,309	-6.0
2011	23,777	-6.0
2012 ^c	23,161	-4.4

- The data refer to active licences (i.e. those that have paid the annual licence fee).
- The number of licences refers to December of each year except for 2012. For this year see footnote c.
- For 2012 the number of SPSV licences refers to July 2012 and the annual change refers to the change between July 2011 and July 2012.

Source: Commission for Taxi Regulation (2011b, p. 10) and information supplied by the National Transport Authority.

⁴⁶ It should be noted that Indecon (2011, p. ii) argue that “[L]ow levels of exit may also be influenced in part by preconceptions that taxi licences may increase in value if restrictions on entry are introduced.” The TRRG (2011, p. iii) reject quantitative controls. However, in Section 6 below we consider the impact of the TRRG recommendations combined with the prohibition on the issuing of new taxi and hackney licences, on whether or not SPSV licences are likely to gain in value. In other words, do existing and future policy changes create the expectation of rents being earned and thus discourage exit.

⁴⁷ For details see Baldwin and Gorecki (1990, Table 3-3, p. 37). The data set refers to 141 4-digit manufacturing industries. Industries are compared in 1970 and 1979. In the industries experiencing a decline in sales the number of average number of firms in 1970 was 53.7, in 1979, 44.8.

⁴⁸ These data are taken from the Central Statistics Office website. For further details see: <http://www.cso.ie/px/pxeirestat/Statire/SelectVarVal/saveselections.asp>. Accessed 24 September 2012.

The existence of excess capacity may have certain benefits for consumers of SPSV services in terms of reduced waiting times. These would need to be considered in coming to a view as to the impact of oversupply and the appropriate public policy response. The price that the consumer pays for SPSV services, P_{SPSV} , can be expressed as follows:

$$P_{SPSV} = \text{Fare}_{SPSV} + W_{SPSV}(t) \quad (1)$$

where Fare_{SPSV} is the fare that the consumer pays the SPSV operator and $W_{SPSV}(t)$ is the value of the time spent waiting. This way of looking at the price of SPSV services is common in both the theoretical (e.g. De Vany, 1975) and empirical (e.g. Fingleton *et al*, 1998, Goodbody, 2009a for Ireland, OFT, 2003, for the UK) literature. Waiting times are likely to be especially important during periods of peak demand when demand and supply are likely to be especially tight and hence longer waiting times will be experienced.⁴⁹ Of course, it may be that even at times of peak demand there is more than sufficient supply to ensure waiting times are close to zero. However, this is an empirical issue that has not been investigated.

In sum, Indecon's analysis of why there might be overcapacity in the SPSV market is not persuasive. On the contrary, it could be argued that the market for SPSVs is adjusting in a timely manner to the reduction in demand through a combination of price declines and exit from the market.

4. Quantifying Oversupply of SPSVs

Indecon has four different methods of estimating the degree of oversupply or excess capacity in the SPSV market in 2011. In summarising the results of the application of these methods, Indecon (2011, p. iv) reports that the level of excess capacity is between 13 and 22 per cent of the number of SPSVs in 2011. Indecon notes that its estimates are illustrative and "sensitive to the choice of methodology used and all involve some judgments and assumptions concerning the supply and demand balance" (*ibid*, p. iv). In this section we consider each of the four methods and suggest an alternative and more appropriate methodology that could have been used in considering the question of capacity.⁵⁰

Method #1: Using the Number of Trips per SPSV in 2005 as a Benchmark for 2011

The first method uses the number of trips per SPSV in 2005 as a benchmark to predict the equilibrium or required level of SPSVs for 2011. It consists of the following steps:

⁴⁹ Indecon (2011, p. 62) reject the use of waiting times as follows: "The OFT and UK policy makers tend to use a definition of undersupply. They measure consumer waiting times for taxis, and if the waiting times are significant then an undersupply is assumed. This measure has a number of advantages and disadvantages, but merely observing a waiting time of X does not really tell us if there is an under or oversupply or the extent of oversupply. Further, these waiting times measures can be highly time-of-day/day-of-week/season-specific and can also be location-specific." Even if these objections were accepted, this does not preclude the use of waiting times as a factor to be taken into account in considering the possible benefits of excess capacity.

⁵⁰ Of course, if the reassessment of the direction of current policy suggested in Section 7 were undertaken, this approach could still be used.

- The assumption that the number of trips per SPSV was in equilibrium or “market balance” in 2005, at 3,518 trips per annum per SPSV.⁵¹
- The number of SPSV trips increased between 2005 and 2008 from 77 million to 100 million.⁵²
- The number of SPSV trips was estimated, to be 67 million in 2011.⁵³
- The equilibrium number of SPSVs in 2011, is therefore, predicted to be 19,045.⁵⁴ Since the actual number of SPSVs in 2011 was 24,120,⁵⁵ overcapacity is 5,075 SPSVs or 21 per cent of the SPSV fleet in 2011.⁵⁶

The critical assumptions/steps are the first and the third; it is to these that attention is devoted.

Is 2005 an Appropriate Benchmark? Indecon (2011, p.88) justify the selection of 2005 “simply on the basis that it represents a similar level of demand to what currently [2011] exists” adding “but inevitably there is judgment involved in the choice of year.” In other words, 77 million trips, demand in 2005, and 67 million trips, predicted demand in 2011, are similar. However, what is relevant in selecting a benchmark year for the level of capacity is not whether the overall level of demand is similar, but rather whether or not the benchmark year, 2005, has demand and supply conditions that can be used to gauge the appropriate level of capacity in 2011. On this the two years are quite dissimilar:⁵⁷ 2005 was in the middle of a period of stable economic growth (4-6 per cent growth in GDP per annum) with consistently low unemployment (around 4 per cent) and employment growth, while, in contrast, in 2011 the economy had arguably just come out of a severe economic contraction with a decline in GDP of 7 per cent in 2008, little subsequent GDP growth, unemployment in 2011 at 14.2 per cent and declining employment since 2008. These differing economic circumstances suggest that 2005 is not likely to be a good proxy for what should obtain in equilibrium in 2011.⁵⁸ Indeed, given the depth and duration of the current recession it is not at all clear that there is a suitable proxy year that could be used.

⁵¹ The assumption is stated in Indecon (2011, Table 5.7, p. 87), while the number of total number of trips taken in 2005 was 77 million (*ibid*, p. 29), the total number of SPSVs in that year was 21,888 (*ibid*, Figure 3.1, p. 36), yielding $77 \text{ million} / 21,888 = 3,518$.

⁵² Indecon (2011, p. 29), based on a household survey and presented in Goodbody (2009a, Figure 3.3, p. 18).

⁵³ Indecon (2011, p. 29).

⁵⁴ $67 \text{ million} / 3,518 = 19,045$.

⁵⁵ Indecon (2011, Table 3.2, p. 38).

⁵⁶ Indecon (2011, p. 87) derive slightly different numbers for overcapacity: 4,889 SPSVs or 20 per cent. This may be due to rounding and other factors. However, these differences for the purposes of this paper do not matter.

⁵⁷ The data used to characterise the economy is taken from CSO (2011a) and the ESRI’s *Quarterly Economic Commentary*, various issues.

⁵⁸ Other changes may also have taken place between 2005 and 2011 that would need to be considered. For example, the importance of taxis as a share of all SPSVs increased from 72 per cent to 76 per cent. For details see Goodbody (2009a, Table 4.3, p. 32) and Indecon (2011, p. iv).

Is 67 million SPSV trips the most reliable estimate for 2011? In contrast to 2005 and 2008, there is no direct estimate of the number of SPSV trips in 2011. Indecon estimates the number of SPSV trips in 2011 (Trips_{2011}) as follows,

$$\text{Trips}_{2011} = \text{Trips}_{2008} \times (1 - \text{Chng Index}_{2008-2011}), \quad (2)$$

Trips_{2008} is the actual number of SPSV trips, 100 million. $\text{Chng Index}_{2008-2011}$ is the change in demand for SPSV trips between 2008 and 2011. Using Indecon's preferred methodology, based on consumer surveys in 2010 and 2011, $\text{Chng Index}_{2008-2011}$ is -33.4 per cent.⁵⁹ Substituting in equation (2) yields 67 million SPSV trips in 2011.

Indecon consider three other estimation methodologies to derive $\text{Chng Index}_{2008-2011}$, details of which are presented in Table 3. Considering all four methodologies, two indicate a large decline in demand for SPSV services of between 26 and 33 per cent, while two suggest much more modest reductions of between 13 and 16 per cent. The issue thus arises as to whether or not the choice of estimation methodology makes a difference in terms of the number of predicted SPSV trips taken in 2011 and hence the degree of excess capacity.

Table 3: Alternative Estimation Methodologies for the Number of SPSV Trips, Ireland, 2011

Estimation Methodology	SPSV Trips 2005 (Millions)	SPSV Trips 2008 (Millions)	Chng Index 2008-2011 (%)	SPSV Trips 2011 (Est. Millions)	Chng Index 2005-2008
Consumer Surveys ^a	77	100	-33.4	67	n.a.
Overall Retail Sales Volume	77	100	-12.9	87	7.6- 11.7% ^b
Retail Sales Volumes in Bars	77	100	-26.4	74	-7.9%
Volume of Consumer Spending on Public Transport	77	100	-16.3	84	18.9%

a. Based on weighting consumer surveys that asked consumers to indicate percentage change in use of taxis in the previous 12 months (for 2011) and 24 months (for 2010).

b. Overall retail sales volume including and excluding motor vehicles.

Source: Indecon (2011, p. 29) for 2005, 2008 and 2011 number of trips, CSO (2011a, Table 13.2, p. 210) for change in volume of retail sales and bar sales, and CSO (2011b, Table 14, p. 15) for consumer spending on public transport.

The choice of estimation methodology does make a difference. Substituting the different values of $\text{Chng Index}_{2008-2011}$ from Table 3 into equation (2) yields corresponding estimates of SPSV trips that vary between 67 million and 87 million in 2011 (Table 3). These estimates have quite different implications for whether or not there is excess capacity in terms of the number of SPSVs. Using 3,518 as the benchmark number of trips per annum per SPSV, enables estimates of excess capacity to be derived for each estimation method measured in terms of the number of SPSVs (Table 4). Thus there is little or no overcapacity using two

⁵⁹ See footnote a of Table 3 and for more details see Indecon (2011, p. 25).

estimation methodologies, 12.4 per cent and 21 per cent using the other two. The issue therefore arises as to which is the most appropriate estimation methodology.

Table 4: Alternative Estimation Methodologies for the Extent of Excess Capacity of SPSV, Ireland, 2011

Estimation Methodology	Predicted Number of SPSVs in 2011 (1)	Actual minus Predicted Number of SPSVs in 2011 (2)	Column (2) expressed as Percentage to the Actual Number of SPSVs in 2011 (3)
Consumer Surveys ^a	19,045	5,075	21
Overall Retail Sales Volumes	24,730	-610	-2.5
Retail Sales Volumes in Bars	21,035	3,085	12.4
Volume of Consumer Spending on Public Transport	23,877	243	1.0

a. Predicted number is expressed as the predicted number of trips (Table 3) divided by 3,518. Actual number of SPSVs in 2011 is 24,120.

Source: Indecon (2011, Table 3.2, p. 38) and Table 3 above.

In making this decision, a useful starting point is to test how good a predictor each estimation method is for the period 2005 to 2008, since we know that the value of the $Chg\ Index_{2005-2008}$ is 29.9 per cent (i.e. $100/77-1$).⁶⁰ We can only do this for three of the four estimation methods. The results are recorded in the right hand column of Table 3. The expected change in demand from these indicators varies considerably, from a decline of 7.9 per cent to an increase of 18.9 per cent. Since the increase in the number of trips was 29.9 per cent, the best indicator is consumer spending on public transport at 18.9 per cent, an underestimate of the actual increase. There is some support for this being an appropriate indicator. Schaller (2005) finds in a study of the determinants of the number of taxis in 118 U.S. cities that the number of subway commuters is one of the key determinants of taxi numbers. If the volume of consumer spending on public transport were used as the appropriate estimation methodology then the level of excess capacity in 2011 would be trivial – 1 per cent of the SPSV fleet.

Indecon do not provide any justification for the choice of estimation methodology based on consumer surveys, beyond the fact cited above that 67 million is close to 77 million. That is not compelling. Indeed, before selecting that estimation methodology, Indecon (2011, p. 29) comment, without justification, that the most likely estimate of the number of SPSV trips is between the estimates provided by the consumer survey and retail sales volumes in bars – the two estimation methods that result in the highest estimates of overcapacity. The estimation methodology that uses retail sales volumes in bars, as demonstrated above, is the worst predictor of the change in demand of number of SPSV trips between 2005 and

⁶⁰ Indecon (2011) did not report the results of such an exercise. However, the range of the estimates of $Trips_{2011}$ in Table 3 suggests that the conclusions are clearly sensitive to the estimation methodology and therefore some thought might have been given as to the most appropriate estimation methodology.

2008. Hence, given the choice of four estimates of the degree of overcapacity, Indecon selected the highest two estimated without providing a reasoned justification.

In sum, using the number of trips per SPSV in 2005 as a benchmark for 2011 is likely to result in an upward bias to the estimate of excess capacity. Indecon select an estimation methodology with respect to equilibrium demand for taxi trips in 2011 that results in overcapacity of 21 per cent of the SPSV fleet. However, on the evidence available an alternative estimation methodology is preferable, which results in 1 per cent overcapacity in 2011.

Method #2: Using International Norms

The second method Indecon use to estimate the degree of over or excess capacity is based on international norms. Indecon use the equation:

$$\text{Taxi}_{\#} = a + c\text{Pop} + d\text{AveWage} \quad (3)$$

The equation is estimated for 23 cities, ranging from Vancouver to Washington DC.⁶¹ Average wages (AveWage) are annual averages for the country in which a particular city is located, expressed in US\$ using purchasing power parity exchange rates; population (Pop) and the number of taxis (Taxi_#) appear to be at the city level. Using equation (3) Indecon estimate the number of taxis that Ireland ought to have in 2011, which is then used to estimate the oversupply of SPSVs in Ireland at 3,755, accounting for 16.0 per cent of the stock of SPSVs (Indecon, 2011, Table 5.7, p. 87).

In using international norms as a benchmark for the number of SPSVs appropriate for Ireland in 2011, cognisance needs to be taken of factors that account for the differing inter-city levels of observed SPSVs. As Goodbody (2009a), in their earlier review of the SPSV market comment, studies employing international comparisons have “generally failed to take account of the majority of these factors and are therefore relatively useless as a guide” (*ibid*, p.76).⁶² Such a criticism is valid of the way Indecon uses international norms. In part this reflects the fact that Indecon have only 23 observations with which to estimate equation (3). Hence it is not possible to include more than a very small number of independent variables in estimating the equation without suffering problems due to limited degrees of freedom.

The dependent variable in equation (3) is the number of taxis, the results of which are then used to predict the number of SPSVs. There is a considerable disparity in Ireland between the number of taxis, 18,238, and the number of SPSVs, 24,120, in 2011 (*ibid*, Table 3.2, p. 38). In other words, taxis only account for 76 per cent of all SPSVs in Ireland. Furthermore the 23 cities used to estimate equation (3) include some that allow non-taxi SPSVs, such as London, New York, and Berlin, some where this is not the case, such as Paris and Lisbon,

⁶¹ Indecon (2011, Table 4.10, p. 63) refers to 23 observations, which appear to correspond to the cities in Figure 4.2, p. 55. However, one of these cities is Dublin. It would not seem appropriate to include Dublin in estimating equation (3), if indeed that was the case.

⁶² The factors cited by Goodbody (2009a, p. 76) include, car ownership levels, availability of public transport modes, scale of the tourism industry, extent of drink-driving laws, land use settlement patterns and cultural preferences.

while in other cities the distinction is not made such as Amsterdam and Stockholm (Darbera, 2010, Table 15, n.p.). In London, half of all SPSV journey's are made by non-taxi SPSVs, minicabs (*ibid*, n.p.). Indecon in estimating equation (3) does not take these differences into account.

Typically cities which do not restrict entry into the taxi market, such as Dublin, have a larger number of taxis, other things equal, than those that impose such restrictions.⁶³ The fact that the restriction is effective is reflected in the observation that taxi licenses trade for positive sums which vary with the tightness of the restriction. In the sample of 23 cities used by Indecon, several have controls or caps on the number of taxis (e.g. Paris, New York, Lisbon, while the Knowledge serves as a barrier to entry in London).⁶⁴ By not taking into account this difference between cities there is a danger that the estimates presented of oversupply will be biased upwards.

Let us assume that the correct equation is:

$$\text{Taxi}_{\#} = a + b\text{Cap} + c\text{Pop} + d\text{AveWage}. \quad (4)$$

CAP is a dummy variable equal to 1 when there is a cap on the number of taxis and 0 otherwise and b is < 0. Now suppose that the dummy variable Cap is dropped from the equation. The intercept will pick up some of the Cap effect; it will be some kind of weighted average depending on the relative importance of cities with a cap on the number of taxis. However, using equation (3) to predict numbers for Ireland will be problematic as it will underestimate the number of taxis; the corollary of which is to overestimate in the degree of excess capacity.

In sum, due to the small number of observations and the inability to take into account or control for many of the differences that determine the number of taxis between cities located in other countries means that the estimates of overcapacity based on international norms presented by Indecon are unlikely to be a reliable guide to the degree of overcapacity. The fact that Indecon (2011, pp. 54-64) note several of these caveats or qualifications does not take away or lessen their gravity.

⁶³ Fingleton *et al* (1998, Table 6, p. 33) show that following deregulation of price and entry across a number of different examples in New Zealand, Sweden and the US substantial increases in taxi numbers (on average 46 per cent) or taxi companies (on average a 188 per cent increase).

⁶⁴ In order to become a taxi driver in London requires passing the Knowledge an investment of two to four years. The Transport for London website states: "All-London drivers' Knowledge is based on learning 320 routes (or runs). This will help them learn the 25,000 streets and 20,000 landmarks and places of interest in the six mile radius of Charing Cross. It takes between two and four years to pass the All-London Knowledge. Once you are licensed you can work anywhere in the Greater London area." For details see: <http://www.tfl.gov.uk/businessandpartners/taxisandprivatehire/1412.aspx>. Accessed 12 March 2012. Darbera (2010) comments that the Knowledge "has the effect of moderating growth in the number of taxis."

Method #3: Using Dispatch Operators

The third method used by Indecon (2011, p. 77) to estimate the extent of overcapacity of taxis was to ask the opinions of a “small sample of dispatch operators.”⁶⁵ The responses were:

- Significant oversupply of taxis (75 per cent):
- Neither oversupply or undersupply taxis (0 per cent); and,
- Significant undersupply taxis (25 per cent).⁶⁶

The percentages in parenthesis reflect the distribution of responses by the dispatch operators and suggest a sample size that is a multiple of four, e.g. four or eight. Responses were weighted by Indecon (2011, p. 77) based on the dispatch operators “judgment of the percentage of oversupply.”⁶⁷ The resulting weighted average indicated 22 per cent overcapacity.⁶⁸

There are a number of difficulties with the dispatch operator estimates. *First*, the dispatch operator estimate relates to taxis rather than SPSVs.⁶⁹ As noted above non-taxi SPSVs account for a substantial share of the SPSV fleet. *Second*, Indecon (2011, p. 77) do not comment on the representativeness of the small sample of dispatch operators. The total number of dispatch operators is approximately 300.⁷⁰ *Third*, the views of dispatch operators may be biased upwards. Such operators are almost certainly aware of the background and context within which the Indecon research was being carried out and hence aware that a high estimate of excess capacity is more likely to lead to restrictions on the SPSV market. Dispatch operators would benefit from such restrictions if they were able to capture some or all of the rents from such restrictions. This would occur if the dispatch operators owned the SPSV licence and there were few or no quantitative restrictions on SPSV drivers operating for dispatch operators.

In sum, there are serious concerns about the representativeness and unbiased nature of overcapacity estimates based on the views of dispatch operators.

⁶⁵ A dispatch operator is defined as “a person engaged in the activity of taking a booking of an SPSV that is operated by another person and arranging with the operator or driver of the vehicle to provide the service provided” (Goodbody, 2009a, p. 4).

⁶⁶ The precise question asked of the dispatch operators is Q5 in the survey questionnaire reproduced in Indecon (2011, Annex 1). Q5 breaks down the categories of oversupply into: a. Significant Over-supply; b. Some Over-supply; c. Neither Over-supply nor Undersupply; d. Some Under-supply; e. Significant Under-supply. It would appear that no responses were received for b or d. Indecon do not state how small is small.

⁶⁷ Dispatch operators were asked “6) If you think there is over-supply, please indicate your best estimate of the extent (%) of oversupply: _____%” (Indecon, 2011, Annex 1). There was no corresponding question if the dispatch operator thought there was under-supply.

⁶⁸ It appears that significant over-supply was 44 per cent given that the estimate of overcapacity at 22 per cent. In other words, $(0.75 \times 0.44) - (0.25 \times 0.44) = 0.22$

⁶⁹ The Indecon (2011, Figure 5.2, p. 77) figure which presents the distribution of dispatch operator responses refers to the ‘Oversupply of Taxis.’

⁷⁰ This number is consistent with the estimate for March 2010 (CTR, 2010a, p. 7) and in August 2011 (Gartland, 2011). Dispatch operator licensing was only introduced by the CTR in 2009.

Method #4: Using Consumer Surveys

The third method of estimating the degree of overcapacity consists of asking consumers whether or not they think that there is overcapacity. In a RedC consumer survey conducted in October 2011 consumers were asked whether there was:⁷¹

- Far too many taxis (21 per cent);
- Too many (31 per cent);
- Just enough (40 per cent);
- Not enough (6 per cent); and,
- Not nearly enough (3 per cent).

The percentages in parenthesis reflect the distribution of responses across these five categories.⁷² Fifty-two per cent of consumers think there is excess capacity, while 40 per cent take the view there is no excess capacity.

However, these *qualitative* results need to be transformed into a *quantitative* measure in order to estimate the degree of oversupply. To do this Indecon (2011, Table 5.2, p.78) attach a weight for each category representing the degree of over or under supply. For example, 'Far too many taxis' might be associated with 40 per cent, 'Just enough' with zero and 'Not enough' with -24 per cent. The weights are then used to derive the extent, if any, of overcapacity. Indecon (2011, Table 5.2, p.78) assign four different possible weighting schemes to the five category responses and then calculate the weighted average to derive four estimates of the degree of overcapacity: 3.3 per cent; 8.25 per cent; 13.2 per cent; and, 16.5 per cent. Indecon select 13.2 per cent as the appropriate estimate (*ibid*, Table 5.7, p. 87). No justification is offered for the choice of 13.2 per cent as compared with any of the other three estimates even though one of the estimates results in little if any excess capacity.⁷³

It is not clear how reliable consumers are in terms of estimating overcapacity. On what basis will consumers answer the question? One obvious source is the number of taxis waiting at a taxi rank or the number of taxis on the street. To the consumer a long line or queue of taxis may indicate excess capacity. However, this may be an unreliable indicator of the degree of excess capacity. First, in 2010 only a third of SPSVs were hired either at a rank (14 per cent) or hailed on the street (19 per cent). Sixty per cent were hired over the phone when the consumer would not be in a position to observe the number of taxis available and so make a judgment in the extent of overcapacity.⁷⁴ Second, abstracting from this point, if there is a long line of taxis waiting at a taxi rank what is relevant from a capacity point of view is

⁷¹ For details see Indecon (2011, Figure 5.2, p. 77).

⁷² Note that the discussion is in terms of taxis not SPSVs. As noted above non-taxi SPSVs are an important component of the SPSV market.

⁷³ However, the weighting system selected – (B) in Table 5.2 – assigns a weight of 40 per cent to the 'Far too many' response which is similar to the 44 per cent weight used for the "Significant oversupply" category for dispatch operator responses discussed below. However, it is argued that the responses of dispatch operators are likely to be biased upward, suggesting that the weighting scheme (B) will result in too high an estimate of overcapacity.

⁷⁴ For details see Indecon (2011, Figure 2.10, p. 21).

turnover; how long taxis have to wait for a fare. It is not clear that consumers are in a position to make judgments on this issue.

In sum, the use of consumer surveys to derive an estimate of excess capacity of 13.2 per cent is based on an arbitrary weighting of consumer response. Equally plausible weights suggest little excess capacity. There are also doubts as to reliability of consumer estimates of the degree of excess capacity.

An Alternative Methodology: Measuring Capacity at the Peak

Demand for SPSV services has pronounced peaks and troughs. In 2011, for example, 60 per cent of SPSV trips were taken on Friday and Saturday, while 53 per cent were taken between 9pm-1am and 1am-5am.⁷⁵ It is important that at busy times such as these there is adequate supply to meet demand. One method of measuring the degree to which supply meets demand is waiting times. One of the major benefits to consumers of SPSV services is the reduction in waiting times since liberalisation in 2000.⁷⁶ Ideally an optimal distribution of waiting times could be compared to the distribution of actual waiting times to gain an indication of the degree of overcapacity (or alternatively consumers and dispatch operators estimates of oversupply could relate to a defined busy period on Saturday evening). We do not have such a distribution. Indecon (2011, p. 62) reject the use of waiting times as an indicator of oversupply on the grounds that “merely observing a waiting time of X does not really tell us if there is an under or oversupply or the extent of oversupply.” Nevertheless it is the case that waiting times can cast light on the issue of the balance of supply and demand.

A corollary of oversupply is waiting times should be shorter. As supply increases, relative to demand, there should be more SPSVs available to respond to given number of requests for hire. Although no evidence is presented in Indecon on waiting times, some is presented in Goodbody (2009a) comparing 2005 with 2008. As noted above economic conditions were reasonably good in 2005; however, this was not the case in 2008, with a decline in GDP of 7 per cent and unemployment at 5.7 per cent. The number of SPSV was 21,888 in 2005 and 27,429 in 2008 (Indecon, Figure 3.1, p. 36). As expected waiting times improved in 2008 compared to 2005. In 2008, 21.1 per cent of consumers said that they disagreed with the statement that ‘Taxis/hackneys are easily hired at busy periods’ while 8.6 per cent strongly disagreed; in 2005 the corresponding percentages were 28.9 and 8.2, respectively (Goodbody, 2009a, Table 6.6, p. 51). Comparable data for 2011 would indicate whether or not a substantial percentage of SPSV users still felt that it was not easy to hire SPSVs in busy time. This would not only provide a check on the estimates of oversupply⁷⁷ but also indicate the degree to which consumers benefit from any overcapacity and thus provide a basis for policy to consider costs and benefits.

⁷⁵ Indecon (2011, Figure 2.8, p. 19; Figure 2.9, p. 20). The figures refer to taxi and hackney services.

⁷⁶ Goodbody (2009a, pp. 48-51).

⁷⁷ And also the unsupported statement in TRRG (2011, p. 22) that “in general, availability of taxis is not an issue for consumers in urban areas ... “

Presenting the Results on Oversupply

Indecon summarise their estimates of the degree of overcapacity by presenting four estimates of the degree of overcapacity in the SPSV fleet in 2011, detailed in column 1 of Table 5.⁷⁸ Caveats – as mentioned above – are included along with these estimates. Reference is made to the fact that “weaknesses in these approaches should be noted ...” and that all estimates “involve some judgments and assumptions” (*Ibid*, p. iv). Nevertheless, having entered these caveats and qualifications, Indecon (2011, p. iv) state:

The results presented ... indicate that the level of oversupply has increased significantly in recent years, reflecting significant falls in demand. On a national level, oversupply is estimated to be in the range of 13-22% of the current SPSV fleet.

These findings are then used by the TRRG to design a series of measures to reduce the supply SPSVs.

Table 5: Alternative Estimates of Overcapacity of the SPSV Fleet, Ireland, 2011.

Methodology for Estimating Overcapacity in 2011	Indecon's Preferred Estimate of Overcapacity (per cent of SPSV fleet) (1)	Indecon's Alternative Estimates of Overcapacity (per cent of SPSV fleet) (2)	Author's Comments on Methodology (3)
Assuming the number of trips per SPSV in 2005 as a benchmark for 2011	21	1, 2.5, 12	The benchmark is likely to result in an upward bias to estimated level of overcapacity. The evidence suggests that 1 per cent is a better indicator of overcapacity. No coherent justification is offered for the choice of 21 per cent
International Norms	16	None	An unreliable guide to the degree of overcapacity since Indecon is unable to take into account many of the factors that result in differences between countries in the number of SPSVs
Consumer Surveys	13	3, 8, 16	Doubts about validity of consumer perceptions of overcapacity. No justification for choice of 13 per cent.
Dispatch Operators	22	None	Serious concerns about the size and representativeness of the sample of dispatch operators. Estimates of overcapacity based on views of dispatch operators likely to be biased upwards.

Source: Indecon (2011, various pages) and the text.

The essence of the discussion above is that the analysis conducted by Indecon does not support its conclusions. *First*, the explanation that Indecon provide for why there might be overcapacity in the SPSV fleet takes no account of the fact that taxi rates are flexible

⁷⁸ These estimates are presented this way in the Executive Summary (Indecon, 2011, p. iv) and in the text itself, (*ibid*, Table 5.7, p. 87; Table 8.3, p. 127).

downwards and that supply as well as demand reacts to the recession. *Second*, Indecon in the two instances where it has a choice amongst different estimates of overcapacity selects the highest (21 per cent) or next highest (13 per cent), but with either no explanation for the choice or one that is not compelling (column 2, Table 5). Lower estimates are equally plausible, in two cases the evidence suggests that the overcapacity is between 1 and 3 per cent. *Third*, in varying degrees all four methodologies have important shortcomings which Indecon is unable to overcome (column 3, Table 5). While in two cases, using 2005 trips per SPSV as a benchmark and international norms, it is true Indecon refer to these shortcomings, but for the other two methodologies this is not the case. In sum, the estimates of oversupply presented by Indecon are not only likely to be biased upwards, but are also insufficiently robust to support a series of measures designed to reduce the number of SPSV licences. This is not to deny, however, that there may be grounds for strengthening qualitative controls to improve standards and effective enforcement, issues discussed in Section 6.

5. Oversupply and Non-compliant Operators

Compliant SPSV operators have a valid SPSV licence, a valid SPSV vehicle licence, and a vehicle that meets the standards set by the regulator. The SPSV operator should not work excessive hours or hire their SPSV to a third party who does not possess a SPSV driver's licence. Furthermore, the compliant operator must have his or her tax affairs in order and not be in receipt of social welfare benefits that preclude working or, if they can work, that they do not exceed the limit on the number of hours that can be worked. At one extreme a non-compliant operator might not fulfil any of these conditions and hence operate completely outside the regulatory regime, at the other they might work an extra hour, but be fully compliant in all other respects. Non-complying SPSV operators are likely to enjoy unfair or inappropriate advantages over compliant SPSV operators that incur the full cost of regulatory compliance. Furthermore, the presence of non-compliant SPSV operators might lead to a lower quality of service to customers if, for example, such operators work excessive hours with the result that there is an increased probability of an accident.

Indecon (2011, p. ii) state that the "level of oversupply is influenced by the impact of non-compliant operators in the sector." Indecon, on foot this observation, make two recommendations concerning better enforcement and see removal of non-compliant operators as a key issue for reducing supply (*ibid*, p. viii). Indecon's conclusion, albeit (as is demonstrated below) somewhat exaggerated, has gained a certain amount of traction. A recent Irish Times (2012) editorial, for example, stated that Indecon's "underlying assumption was that tax evasion and social welfare non-compliance remained high within the industry, along with the number of illegal operators and work time abuses."⁷⁹ However, Indecon (2011) provide no estimates or discussion of the issue of the degree of non-compliance and how that might affect the supply of SPSV services. Hence, it is not at all

⁷⁹ Indecon (2011) did not state that the prevalence was high only that non-compliance influenced the level of oversupply.

clear that Indecon have the evidence – as opposed to the assumption - to support their recommendations.

Indecon (2011) does not offer evidence on the extent of non-compliance nor the competitive disadvantage suffered by compliant SPSV operators. What little evidence that is available suggests that the problem of non-compliant SPSV operators is not large. Goodbody (2009a) after stating that estimating the degree of illegal operation “is very difficult to gauge” comment that “[H]owever, Gardai and Commission [i.e. the regulator] enforcement activity such as spot checks have indicated very low levels of non-compliance” (*ibid*, p. 85). The TRRG (2011, p. 13) state that there are “only a small percentage of drivers who are operating vehicles illegally, either while claiming payments to which they are not entitled from the Department of Social Protection or while being non-compliant with Revenue’s tax requirements.” Hence the incidence of non-compliance does not appear to be widespread, although clearly more research is required on different kinds of non-compliance to verify this result.

Non-compliant SPSV operators will, other things being equal, have lower costs than a compliant SPSV operator. It is not clear, however, how this will affect supply. With the new entry of taxis and hackneys prohibited since June 2010, non-compliant SPSV operators might just experience higher profits. On the other hand, such SPSV operators might decide to discount fares, which is likely to result in some displacement of compliant SPSV operators and to some increase in supply of SPSV services. The impact of these effects on profits, displacement and supply depends, *inter alia*, on the cost advantage of the non-compliant compared to the compliant SPSV operator.

The cost structure of a compliant taxi driver was estimated as part of the 2010 review of the maximum national taxi fare (PA, 2010).⁸⁰ The same running or variable costs would likely be incurred by both the compliant and non-compliant taxi operator. Such costs include fuel, servicing, cleaning, etc (*ibid*, Table 4.2, p. 25). In contrast, in terms of fixed costs some of these would not be incurred by a non-compliant taxi operator (*ibid*, Table 4.3, p. 25). These include: taxi vehicle license renewal, SPSV driver licence; meter verification; and meter calibration. However, in 2010 these costs amounted to only 2.5 per cent of the €10,165 annual fixed costs of a taxi operator, or 1.4 per cent of the €17,496 fixed and variable costs. In terms of taxi regulatory costs, these appear to be quite small in relation to other costs and hence unlikely to offer the non-compliant taxi operator a cost advantage that will result in significant additional supply.

Turning now to the non-compliant SPSV operator who is in receipt of social welfare benefits it is not clear how this will affect supply. These benefit(s) are received irrespective of the amount earned from being a SPSV operator. The decision to become an SPSV operator will depend on the costs and the benefits of providing that service. It is not clear how being in receipt of these benefit(s) will affect that calculus. There may be an indirect effect in that the sum of the social welfare benefit(s) and the income from being a non-compliant SPSV

⁸⁰ As noted above the CTR only sets fares for taxis not other SPSVs.

operator increases the wage at which the individual will work in an alternative occupation. Nevertheless, steps have been taken to discourage persons claiming social welfare benefits and working as SPSV operators through the exchange of information between the CTR and the Department of Social Protection since at least 2009.⁸¹

In sum, ensuring compliance with the laws governing the operation of an SPSV is clearly desirable. However, the conflation of the extent of oversupply with non-compliance tends to overstate the importance of the latter. Since the evidence suggests that the degree of non-compliance is small rather than large and existing enforcement strategies are already in place, there is a danger that devoting greater resources to ensuring compliance will lead to a misallocation of resources. There is an optimal level of non-compliance which is almost certainly not zero.

6. The Impact of the Taxi Regulation Review Groups Recommendations

The TRRG's 46 recommendations (or actions) are organised under seven headings:

- Driver licensing.
- Vehicle licensing and standards.
- Accessible services
- Compliance and enforcement.
- Consumer and industry assurance.
- Fleet management and rental controls.
- Rural hackney service.

These recommendations are currently being implemented, with the NTA playing a key role.

Apart from recommendations relating to accessible services and rural hackney services, all the other categories contain recommendations that, in varying degrees, are concerned with securing greater compliance with the tax, social welfare benefit and regulatory environment. However, other things being equal, these recommendations are likely to have a small effect on the number of SPSVs. Small because the evidence suggests that the degree of non-compliance is not large, the cost advantage of a non-compliant operator is small compared to a compliant operator and enforcement mechanisms are already in place. Legitimate SPSV operators will gain from the reduction in competition from non-compliant SPSV operators, while consumers will be less subject to hazards of SPSV operators working excessive hours. However, not all of the TRRG recommendations are consistent with these goals. In some

⁸¹ The CTR's (2010b, p. 20) *Annual Report & Financial Statements for 2009* notes, "[D]ata is exchanged between the Commission for Taxi Regulation and the Department of Social Protection strictly for control of fraud and abuse. All data exchanges take place using secure methods and any data that does not warrant investigation is destroyed. Information provided on approximately 24,500 licence holders resulted in 1,775 matched to Social Welfare claims. Details of matches were sent to the relevant areas in the Department of Social Protection for investigation. Information was also provided regarding approximately 1,600 multiple licence holders, which resulted in 83 matches to Social Welfare claims. Very substantial savings have been made from the activity, with indications of savings in excess of €1m to date." No mention of these efforts is made in *Indecon* (2011) while TRRG (2011, p. 13) refers to some information exchange taking place on a "limited ad hoc basis" between the CTR and the Department of Social Protection but provides no further details.

cases the recommendations will raise costs for consumers and, it could be argued, disproportionately, given the scale of the problem. Indeed, some of the recommendations are not relevant to either the problem of non-compliance or oversupply.

The adverse effects of the TRRG recommendations arise because a number of them are likely to limit the flexibility of the market to respond to changes in demand and supply, especially during busy periods, while at the same time obscuring market signals. We consider these issues under two headings: restrictions on SPSV licenses; and part time SPSV operators.

Licence Restrictions

A prohibition is recommended by the TRRG “on the transferability of taxi vehicle licences such that after 1st October 2012 all taxi vehicle licences will be unique to the person to whom the licence has been issued and cannot be transferred or sold to another individual (*ibid*, p. 17).” The rationale for this recommendations is that the TRRG “considered ... [it] necessary to move away from a system whereby a licence will have value in itself. A licence should determine a person’s suitability to carry out a function and it should not have monetary value or be traded on the open market (*ibid*, p. 16).” Preventing trading of licenses does not mean the license does not have value, rather it means that there will not be an open transparent method of determining whether or not it has value. A license will have value if there are binding quantitative and/or qualitative restrictions on entry and hence its value provides important information to the regulator. The discussion in Section 2, for example, suggested that the measures introduced in 2010 prohibiting new taxis and hackneys, is likely to lead to such a license gaining value. Without a market in SPSV licences it will be difficult to determine whether this is the case or not. Furthermore, prohibiting the transfer of a license limits flexibility in the SPSV market;⁸² if part way through a year a person has to exit the SPSV market they are not in a position to sell the licence and hence this may result in less entry, since barriers to exit can also act as barriers to entry. Finally, of course, effort – entirely socially unproductive – will be made to trade SPSV licences by circumventing the regulations if licences become valuable. In sum, restricting the transferability of SPSV licences has little in the way of a credible justification.

⁸² However, it could be argued that prohibiting transferability increases flexibility. If SPSV licences are traded rents become capitalised in the purchase price; the new owner is likely to resist issuing of more licences since they would suffer a capital loss. On the other hand, if the licence is not transferable then, it could be argued, the original owner although experiencing a loss in income is unlikely to experience a capital loss and hence resist change less. This line of argument ignores the fact that the original owner is likely to have adjusted their life style to the higher income. For example, the SPSV license holder may have made certain quasi irreversible decisions on the basis of a continuous stream of rents, such as taking out a mortgage or buying a more expensive car. Resistance to change is thus likely to be just as intense compared to a situation where licences are traded. In both cases, in order to ensure flexibility the regulator needs to manage expectations by clearly stating policy with respect to SPSV licensing and taking measures to signal credible implementation strategies. In the case of the prohibition on new taxi and hackney licenses announced by the CTR in 2010, discussed in Section 2, this was lacking.

Part-Time SPSV Operators

A number of the TRRG recommendations are likely to raise costs for part-time SVSP drivers. Such drivers will be required to submit a form from their employer agreeing that being an operator of a SPSV is “fully compatible with his/her other employment” (*ibid*, p. 14) in order to encourage better compliance with working time legislation. No evidence is provided in the TRRG (2011) to demonstrate that part-time, as compared to full-time, drivers are more likely to work excessive hours, or that they do not already tell their employer. No alternatives such as those cited by the OFT (2003, p. 39) which apply to both part and full time SPSV operators are discussed or considered. Nor is there any attention paid to the proposal by the Revenue Commissioners (2011) and the Department of Social Protection (2011), in their submissions to the TRRG, for the use of taximeters that would not only record hours worked but also record fare revenue to assist in ensuring tax compliance.⁸³ There is no discussion of the possibility that insurance markets might already act as a deterrent to SPSV drivers working excessive hours. Driver fatigue increases with hours worked which, other things being equal, will lead to an increased risk of accidents and higher insurance premiums. Hence drivers will take this into account and tend not to work excessive hours. The evidence is consistent with such a mechanism operating since in the UK accident rates were “no higher in jurisdictions [i.e. local authorities] where the market was deregulated and longer working hours the norm,” than in local authority markets where entry was regulated.⁸⁴

It is also proposed “to introduce distinctive ‘branding’ of taxis (and wheelchair accessible taxis). This would take the form of a semi-permanent decal (vinyl adhesive material printed with a particular design) applied to the vehicle body, potentially to the doors on either side of the vehicle” (TRRG, 2011, p. 23). The TRRG argues that such branding “will provide greater recognition of taxis, promote greater professionalism of the industry and reduce the potential for unlicensed vehicles to operate as taxis. Affordability for operators will be a key consideration in the development of this proposal” (*ibid*, p. 23). No evidence is presented that consumers have difficulty identifying taxis and WATs at present. While this recommendation is likely to reduce the presence of unlicensed vehicles there are other recommendations that are likely to have the same effect. However, this recommendation may also reduce the supply of part time taxis since it not only raises the fixed cost of entry but also limits the use of a taxi to the extent that the distinctive branding cannot be easily removed, something of much less concern to full-time taxis.

⁸³ The Revenue Commissioners (2011) argued that “[I]t is Revenue’s view that changes to the quality and detail of information stored on taximeters would improve the levels of tax compliance in the sector. In addition to improving tax compliance this information could also be used to police such areas as safe working hours for taxi drivers (p. 3).” The issue of taximeter was examined in Goodbody (2009b). It suggested that the Commission on Taxi Regulation announce that it was their intention to require non-resettable totalisers in the medium term (*ibid*, p. 49). Under the Measuring Instruments Directive, 2004/22/EC, all taximeters sold after 2016 have to be of this type.

⁸⁴ Goodbody (2009a, p. 81) drawing on OFT (2003, pp. 38-39).

A similar argument applies to a consultation process for proposals for mandatory provision of items such as “in-vehicle security cameras” and “a partition separating the driver from the front seat from the remainder of the vehicle (*ibid*, p. 24).” No evidence is presented concerning the extent of robbery of SPSVs, whether it has gone up or down or the effectiveness of methods are currently employed to prevent such assaults (e.g. a button that can be pressed by the SPSV operator alerting a central dispatcher who is able to track the SPSV via satellite).

The TRRG (2011, pp. 22-23) recommendations are explicit concerning creating a level playing field between the part and full time SPSV operator:

... a key concern within the industry has been the opinion that the “part time operator” enjoys a benefit over the committed full time professional and that a more identifiable taxi would be of assistance in enhancing the overall professionalism of the industry. Given the varied fleet, a degree of “uniform branding” would serve to better identify the licensed vehicle to the consumer, while ensuring that the professional operator (be they full-time or part-time), make the same level of investment and commitment to the industry (*ibid*, pp. 22-23).

In part it also reflects a view that SPSV operators should be primarily full time operators.⁸⁵ While such a view might be tenable for some 9 am to 5 pm occupations, this characterisation is completely at variance with the demand pattern for SPSV services.

It is not clear that the purpose of SPSV regulation should be to raise the costs of both part time and full time SVSP operators, which will only feed through to higher prices for consumers, with a view to protecting and promoting the role of the full time operator. Rather the purpose should be to create a flexible responsive SPSV service. The data clearly show pronounced peaks in demand to SPSV services, which are concentrated at the weekend. It is at such peak times that adequate supply is essential so as to ensure short waiting times for consumers. It is therefore important that part-time SPSV operators are able to enter without excessive regulatory induced costs that will deter entry and lead to a lower quality of service measured in terms of waiting times.

7. Conclusion and Implications

The purpose of this paper has been to evaluate the policy response to the challenges posed by the drastic decline in demand for SPSV services, leading to longer hours of work and lower hourly returns. When sectors are subject to such stress, firms and workers often seek government intervention to provide shelter and protection from market forces. How did government respond to demands for protection, such as the proposed moratorium on

⁸⁵ This view is advanced strongly by the Chairman of the TRRG. In evidence before Oireachtas Joint Committee on the Environment, Culture and the Gaeltacht, on 29 February 2012, the Minister stated, “I am very much in favour of full-time taxi drivers. I think that they are the bones of the industry and they need to be supported. I said quite publicly that I believe we must create an industry that is worthwhile to work in, where a person can earn a decent wage for a decent days work.”

issuing new licences? How did the government balance the regulatory aims of consumer welfare with producer driven demands? What methodology was used to evaluate these demands? Did the circumstances merit the policy prescription of the government? What are the wider lessons of the Irish experience?

The evidence presented in this paper suggests that the SPSV market appears to have adjusted well to the changed economic circumstances. The reduction in demand for SPSV services has been met by a price and quantity adjustment. Prices are regularly discounted off the regulated maximum fare, while the number of SPSV operators has dropped by 6 per cent per year since 2010. Even if the Indecon estimates of oversupply, albeit arguably biased upwards, are accepted, all oversupply would be eliminated by the end of 2013/early 2014 at the earliest, and 2015/16 at the latest. Appropriate strategies appear to have been put in place to deal with non-compliance with social welfare and tax rules. In other words, given this record, there would not seem to be any strong grounds for further intervention in the SPSV market.

The TRRG recommendations for extensive policy intervention are based on the view that there is considerable oversupply of SPSV services, which is influenced in an important way by non-compliant operators and that there is low exit from the industry. The evidence suggests that this characterisation of the SPSV market is incorrect. Indeed, as argued above, the TRRG recommendations which are being implemented, while no doubt containing sensible suggestions with regard to wheelchair accessible services and rural hackney services, at the same time are likely to reduce the flexibility of the SPSV market based on a model that seeks to favour the role of full time taxi operator. When combined with the 2010 prohibition on the issuing of new taxi and hackney licences, there is a real danger that when the economy revives and demand for SPSV services increases that there will be increased waiting times as there were in the 1990s when taxi numbers were restricted. There is an urgent need to reconsider these policy initiatives.

The development of policy that has led to this state of affairs raises a number of issues concerning regulatory independence and the role of regulators charged with acting in the consumer interest. The CTR is an independent regulatory agency that was rolled into the NTA on 1st January 2011. The CTR developed an expertise in regulating the SPSV market. The vast majority of the issues addressed by the TRRG fall within the remit of the CTR and had been addressed, in varying degrees, in earlier CTR decisions and consultation exercises. Mechanisms exist to ensure that regulators remain independent while at the same time are responsive to the political system. The most important mechanism is a Ministerial Policy Directions under Section 10 of the Taxi Regulation Act 2003. Such Policy Directions are general and have to be followed by the CTR in the exercise of its functions, provided that the Minister gives reasons for the Policy Direction. A general Policy Direction to the CTR to examine the issues of oversupply, non-compliance and adjustment mechanisms and how they might inform CTR decision-making, would have preserved the independence of the regulatory process.

A number of the bodies represented on the TRRG have a strong consumer focus in their mandate, including the Competition Authority, which sees as its mission to “to ensure that markets work well for Irish consumers, business and the economy,”⁸⁶ the CTR, whose mandate was set out in Section 2 above, and the former Chair of the Consumers Association of Ireland. However, these bodies seem to have accepted the recommendations of the TRRG and the Indecon report.⁸⁷ There were no dissenting views or minority reports questioning even one of the recommendations or the empirical evidence. If the arguments of this paper are valid then there are grounds for questioning much of the underlying research and several of the recommendations. However, because nobody spoke up, these recommendations are being implemented even though the impact, taken together with existing regulations prohibiting new taxi and hackney licences, are likely to be to the detriment of the consumer of SPSV services.

Finally, there is a large international literature on the impact of pressures to bring about more restrictive regulation in bad economic times.⁸⁸ This can be quantitative, as in the case of prohibition on new taxi and hackney licences, or qualitative such as the restrictions on part time operators and measures designed to restrict licences. Careful study of such attempts in what might be termed structurally competitive markets, such as trucking and taxis, often suggests that there is little justification for such restrictive regulation, which damages consumers to the benefit of producers.⁸⁹ Therefore there needs to be a constant vigilance to ensure that such lessons are taken on board *before* policy is made, rather than relearned *after* the policy has been implemented and the results observed. It appears that SPSV regulation in Ireland is more likely to fall into the latter rather than the former category.

⁸⁶ See Competition Authority website: <http://www.tca.ie/>. Accessed on 4 June 2012.

⁸⁷ This contrasts sharply with efforts at regulatory reform in pharmacy where there were several ‘reservations’ of the key stakeholders that constituted the Pharmacy Review Group (2003).

⁸⁸ Sometimes this takes the form of relaxing competition laws as occurred during the Great Depression in the US. For details see, for example, Cole and Ohinian (2004).

⁸⁹ See, for example, Kahn (1988, Volume II, pp. 178-193) concerning trucking.

References

- BALDWIN, J. and P. GORECKI. 1990. *Structural Change and the Adjustment Process. Perspectives on Firm Growth and Worker Turnover.* Ottawa: Supply and Services Canada.
- BARRETT, S. D. (2003). "Regulatory Capture, Property Rights and Taxi Deregulation: A Case Study." *Economic Affairs*. Vol. 23, No. 4, December, pp. 34-40.
- BERGIN, A, T. CONEFREY, J. FITZ GERALD, and I. KEARNEY. 2010. "Recovery Scenarios for Ireland: An Update." *ERSI Quarterly Economic Commentary*. Summer, pp. 55-101.
- BERGIN, A., E. KELLY, S. MCGUINNESS. 2012. *Explaining Earnings and Labour Costs During the Recession.* Renewal Series Paper No. 9. Dublin: Economic and Social Research Institute.
- CENTRAL STATISTICAL OFFICE (CSO) 2011a. *Statistical Yearbook of Ireland 2011.* Dublin: Stationery Office.
- CENTRAL STATISTICAL OFFICE (CSO) 2011b. *National Income and Expenditure 2010.* Dublin: Stationery Office.
- CENTRAL STATISTICAL OFFICE (CSO) 2011c. *Population and Migration Estimates, April 2011.* Dublin: Stationery Office.
- COLE, H, and L. OHANIAN. 2004. "New Deal Policies and the Persistence of the Great Depression: A General Equilibrium Analysis." *Journal of Political Economy*, Vol., 112, No., 4, August, pp. 779-816.
- COMMISSION FOR TAXI REGULATION (CTR). 2009a. Improving Accessibility to SPSV Service. Commission for Taxi Regulation's Regulatory Impact Analysis (RIA) of proposed actions for building on progress to date. Dublin: CTR.
- COMMISSION FOR TAXI REGULATION (CTR). 2009b. "Commission for Taxi Regulation Announces Further Reforms." 15 October. Press Release. Dublin: CTR.
- COMMISSION FOR TAXI REGULATION (CTR). 2009c. *Progressing Quality Improvement in the SPSV Industry.* Dublin: CTR.
- COMMISSION FOR TAXI REGULATION (CTR). 2010a. *Strategy Statement 2010-2014.* Dublin: CTR.
- COMMISSION FOR TAXI REGULATION (CTR). 2010b. *Annual Report & Financial Statements 2009.* Dublin: CTR.
- COMMISSION FOR TAXI REGULATION (CTR). 2011a. "Grant Aid Scheme." *SPSV Industry Update*, Issue 18, July, p. 2.
- COMMISSION FOR TAXI REGULATION (CTR). 2011b. *Work Programme 2010.* Dublin: CTR.
- DARBERA, R. 2010. "Taxicab Regulation and Urban Residents' Perception of Taxi Services: A Survey in Eight Cities." Paper presented at 4th International IRU Taxi Forum, Cologne, Germany, 5 November.
- DEPARTMENT OF SOCIAL PROTECTION. 2011. *Submission to Taxi Review Secretariat.* Dublin: Department of Social Protection.
- DEPARTMENT OF TRANSPORT, TOURISM and SPORT. 2012. "Government Announces Major Changes for Taxi Sector – Minister Alan Kelly." Press Release. 31 January. Dublin: Department of Transport, Tourism and Sport.
- DE VANY A. 1975. "Capacity Utilization under Alternative Regulatory Restraints: An Analysis of Taxi Markets." *Journal of Political Economy*. Vol. 83, No. 1, Feb. pp. 83-94.
- DUFFY, D., J. DURKAN, and C. O'SULLIVAN. 2012. *Quarterly Economic Commentary Winter 2011/Spring 2012.* Dublin: Economic and Social Research Institute.
- EUROSTAT. 2011. *Population Projections 2010-2060.* Press Release 80/2011. Luxembourg: Eurostat.
- FINGLETON, J, J. EVANS, and O. HOGAN. (1998). *The Dublin Taxi Market: Re-Regulate or Stay Queuing?* Studies in Public Policy, 3, Dublin: the Policy Institute, Trinity College.

- GARTLAND, F. 2011. "Taxi Regulator Clamping Down on Licences." *Irish Times*, 15 August 2011.
- GOODBODY ECONOMIC CONSULTANTS (GOODBODY). 2009a. *Economic Review of the Small Public Service Vehicle Industry*. Dublin: the Taxi Regulator/Commission for Taxi Regulation.
- GOODBODY ECONOMIC CONSULTANTS (GOODBODY). 2009b. *Taximeter Capability Study. Final Report*. Dublin: Goodbody.
- GORECKI, P. 2012. *Troubled Times: What Role for Competition and Regulatory Policy?* Renewal Series Paper 10. Dublin: Economic and Social Research Institute.
- HOUSES OF THE OIREACTHAS. 2009. "Immediate Legislation Must be Introduced to Provide for Three year Taxi Licence Moratorium-Oireachtas Transport Committee." Press Release. 23 July.
- INDECON INTERNATIONAL ECONOMIC CONSULTANTS (INDECON). (2011). *Economic Analysis of the Taxi Market*. Dublin: Department of Transport, Tourism and Sport. Reprinted as Appendix III to Taxi Regulation Review Group (2011).
- IRISH TIMES. 2012. "Taxis and Racism." *Irish Times*. 16 May.
- KENNY, P. & P. MCNUTT. 1998. *Solving Dublin Taxi Problems. Urban-Sharecroppers v Rentseekers*. Discussion Paper No. 6. Dublin: Competition Authority.
- KAHN, A. E. 1988. *The Economics of Regulation. Principles and Institutions*. Cambridge Mass: MIT Press.
- OFFICE OF FAIR TRADING (OFT). 2003. *The Regulation of Licensed Taxi and PHV Services in the UK*. OFT676. London: OFT.
- PA CONSULTING (PA). 2010. *Review of the National Maximum Taxi Fare 2010*. Final Report. A Report for the Taxi Regulator. Dublin: Taxi Regulator.
- PHARMACY REVIEW GROUP. 2003. *Report*. Dublin: Department of Health and Children.
- REVENUE COMMISSIONERS. 2011. *Taxi Regulation Review*. Submission to the Taxi Regulation Review. Dublin: Revenue Commissioners.
- SCHALLER, B. 2005. "A Regression Model of the Number of Taxicabs in US Cities." *Journal of Public Transportation*. Vol. 8, No. 5, pp. 63-78.
- SHAW, R, and S. SHAW. 1983. "Excess Capacity and Rationalisation in the West European Synthetic Fibre Industry." *Journal of Industrial Economics*. Vol. 32. No. 2. December, pp. 149-166.
- SUTTON, J. 2000. *Marshall's Tendencies. What can Economists Know?* Leuven/Cambridge Mass: Leuven University Press/MIT Press.
- TAXI REGULATION REVIEW GROUP (TRRG). 2011. *Report of the Review Group*. Dublin: Department of Transport, Tourism and Sport.
- WHISH, R. 2009. *Competition Law*. Sixth Edition. Oxford: Oxford University Press.

Year	Number	Title/Author(s) ESRI Authors/Co-authors <i>Italicised</i>
2012		
	440	Combining Public Sector and Economic Reform <i>Frances Ruane</i>
	439	The Effect of Real Exchange Rate Changes on Labour Productivity Growth <i>Gavin Murphy and Iulia Siedschlag</i>
	438	Consumption in Ireland: Evidence from the Household Budget Survey <i>Petra Gerlach-Kristen</i>
	437	Simulating Demand for Electrical Vehicles using Revealed Preference Data <i>Áine Driscoll, Seán Lyons, Franco Mariuzzo, and Richard S.J. Tol</i>
	436	The Costs of Working in Ireland <i>Niamh Crilly, Anne Pentecost and Richard S.J. Tol</i>
	435	Choice, Price and Service Characteristics in the Irish Broadband Market <i>Seán Lyons and Michael Savage</i>
	434	International Migration in Ireland, 2011 <i>Philip J. O'Connell, Corona Joyce and Mairéad Finn</i>
	433	The Potential for Segmentation of the Retail Market for Electricity in Ireland <i>Marie Hyland, Eimear Leahy and Richard S.J. Tol</i>
	432	Timing and Determinants of Local Residential Broadband Adoption: Evidence from Ireland <i>Seán Lyons</i>
	431	Obesity and Employment in Ireland: Moving Beyond BMI <i>Irene Mosca</i>
	430	Offshoring, Inward Investment and Export Performance in Ireland <i>Frank Barry and Adele Bergin</i>
	429	The Long Term Health Effects of Education <i>Vincent O Sullivan</i>

For earlier *Working Papers* see

http://www.esri.ie/publications/search_for_a_working_pape/search_results/index.xml