

## **TEN YEARS OF TAXI DEREGULATION IN THE NETHERLANDS – THE CASE FOR RE-REGULATION AND DECENTRALISATION**

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### **1 INTRODUCTION**

The taxi market in the Netherlands was deregulated in 2000, ten years ago. This deregulation was part of a somewhat ideologically coloured free market policy agenda of the government.

While such a free market approach worked reasonably well in other economic policy domains (telecommunications, competition law, professional services, health care), the taxi deregulation failed to take into account the hard logic of the taxi market. Consequently, the policy failed.

The authors conclude that if the taxi market logic had been taken into account by the policy makers, very different policy choices would have been made. Typically, furthering competition while maintaining quality is best served by a combination of decentralisation and price regulation; exactly the opposite of what happened.

Important characteristics of the taxi market are the inability of taxi customers to negotiate prices and to compare supply, and the regional differences in demand. The former justifies price and quality control while the latter makes decentralisation attractive.

In this paper we analyse the Dutch taxi deregulation over the last decade in the light of findings from other countries, present a critical review of the way the taxi policy is developing now, and suggest an alternative course of action.

### **2 CONTEXT**

#### **2.1 The deregulation of 2000**

On 1 January 2000 a new law for passenger transport by taxi came into force, which is generally known as the taxi deregulation. It consisted of four elements:

- deregulation,
- a certain amount of 're-regulation', seeking improvement of the remaining rules,
- some supporting measures,
- an increase of the enforcement effort.

The main objective was to strengthen the role of the taxi in the mobility of persons. Related objectives were to improve the integration of the taxi into the transport chain, to improve the market mechanism and to increase competition. The deregulation was to be implemented in phases, the last one to be completed by 1 January 2002. [TNS NIPO - KPMG BEA, 2004; Bakker, 2007] A detailed description in English is given by Bakker [2007].

#### **2.2 The situation before deregulation and the reasons for a new regulation**

The deregulation ended the regime of the 1988 passenger transport act (Wet Personenvervoer, the 'Wp 1988'), which was more or less a continuation of the regime before 1988. Traditionally, transport market regulation in the Netherlands, for all modes, was aiming at avoiding "wasteful competition" and securing "reasonable earnings" for the licence holders. Under this regime, the 12 provinces of the Netherlands were the authorities that

delivered taxi licences. In some cases they had delegated this power to co-operations of municipalities, resulting in 27 regulating authorities. Each of these had established the number of licences according to an estimate of the demand and of the possibility for a profitable operation. Each authority annually established the fares, consisting of a fixed starting fee, a kilometre fee, a waiting time fee and a speed at which the taximeter would switch between kilometre fee and waiting time fee or vice versa (a model used in many countries). Quality requirements existed for the taxi operators, the drivers and the vehicles. There were also 27 taxi zones, corresponding to the perimeter of the authorities, and licences were delivered for one zone only (outside of which the licence did not allow the picking up of passengers). Enforcement was the combined task of the authority, the police, and the Inspectorate of the Ministry of Transport.

After an evaluation of the Wp 1988, the government concluded that access to the taxi market remained difficult and that the act offered too much protection to the existing operators, resulting in a mismatch between supply and demand. The market value of operator's licences was felt to be too high compared to the cost structure of the industry. Also, the links between the local authorities and the taxi industry were considered to be too close and centralisation of taxi policy would end this. Moreover, in its passenger transport policy the government wanted to blur the distinction between collective public transport and individual public transport, i.e. the taxi. After several years of consultations and parliamentary discussions, this resulted in the new regulations, as part of the 2000 passenger transport act (Wet Personenvervoer, the 'Wp 2000'). [TNS NIPO - KPMG BEA, 2004; Van den Heuvel Rijnders, 2005].

### **2.3 The market regime created by the deregulation**

Until 2000, a taxi operator needed a licence. As the number of licences per zone was restricted, the licences became valuable and were traded. The new act 'Wp 2000' abolished the limit on the number of licences, so these lost their value, representing a loss for those drivers who had invested large amounts of money in them and in many cases saw this as their retirement fund. The government reacted by allowing an extra tax reduction, but this did not diminish the unrest.

The government's expectation of the new act was that by making access to the market easier, competition would increase and this would lead to a better adaptation by the operators to customer preferences. Quality and price differentiation and innovative services would increase customer choice and more people would start using taxis (and diminish car use).

The implementation was phased in over the period 2000–2002. The operator licences started to be delivered by the transport inspectorate IVW (of the Ministry of Transport) in a nationally uniform way (but with a few transition measures for existing operators). The demand test and the taxi zones disappeared on 1 January 2002. A nationally uniform maximum fare was established for the period 2000–2002, but this was continued after that period, in response to the unexpectedly rising fares. Apart from the operator licence that each taxi entrepreneur had to have (delivered after proof of professional competence), each driver needed a driver's pass (delivered after a medical check-up to drivers without a criminal record). There were no restrictions on the number of operator licences or driver's passes and they could be used to pick up passengers anywhere in the country. Taxi rank lay-outs had to be changed into a herringbone pattern, so the passenger could choose a taxi other than the first one in line, as the idea was that passengers would first compare the taxis and their prices, before deciding which one to take. Some fiscal advantages were created, including a subsidy for the installation of on-board computers, and local commissions to handle passenger complaints were formed.

Although prices were free below the maximum fare, a compulsory tariff structure (with the traditional elements of starting price, price per km, waiting time price per hour, and change-over speed between price per km and price per hour) was part of the new law, in order to increase transparency. The national maximum fare level was set relatively high above the average under the old regime, as shown in table 1.

**Table 1 – Average taxi fare in 1999 and maximum fare in 2000**

	1999 (average)	2000 (maximum)
starting fare	€ 2.46	€ 4.40
fare per km	€ 1.42	€ 1.63
waiting fare per hour	€ 22.79	€ 27.77

source: Economische Zaken [2008]

In 2008 a new simplified tariff structure was made mandatory, still in order to increase transparency (starting price including the first 2 km, plus price per subsequent km; waiting time price only before the start of the trip). In this structure, the waiting time during the trip disappeared and the price became dependent on the distance only, which is much more predictable for the passenger. Another objective of this change was to make short trips more attractive for the drivers. [Economische Zaken, 2008; Van der Mark et al., 2009]

### **3 THE STRUCTURE OF THE TAXI MARKET**

We can distinguish several segments in the Dutch taxi market:

- the contract market: taxis are hired (mostly by institutions) to perform regular trips according to a pre-arranged contract;
- the non-contract market, in which we can distinguish:
  - the call or telephone taxi, reserved by calling a dispatching centre,
  - the street taxi, which is taken at a taxi rank or hailed in the street.

It should be noted that hailing a taxi in the street is rather uncommon in the Netherlands (many people do not know it is permitted), so the taxi rank is the most important boarding point for the street taxi.

Comparisons with taxi regimes in other countries and cities should be made carefully, as not all of these market segments are called 'taxi' in other countries [Darbéra, 2007]. The contract market e.g. is not considered as part of the taxi market in France or the UK. The call taxi can be compared to the 'PHV' (Public Hire Vehicle) in the UK (called 'minicab' in London) or the 'liveries' in New York City; in those cities the term 'taxi' only refers to the street taxi in our terminology ('black cab' in London, 'yellow cab' in New York). In Paris, the functions of the call and the street taxi are both performed by the 'taxi'; the 'voiture de petite remise' (a call taxi comparable to the London minicab) was virtually extinct [Darbéra, 2005a, 2007a], but this is changing [Iverson, 2010]. This shows that the scope of the taxi legislation in the Netherlands is rather wide, as seen from an international perspective, covering services that are not regarded as taxis in many other places.

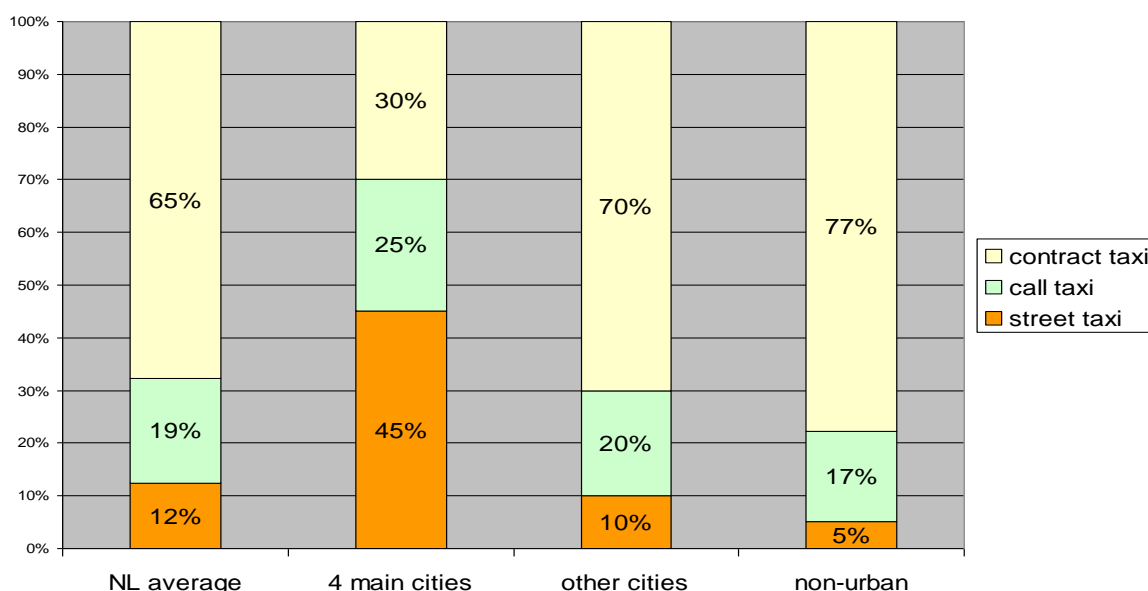
A car that is fit for taxi operation in the Netherlands can be identified by its blue licence plate, and can be used in all market segments; there is no distinction between different types or colours of cars, such as between the 'black cab' and the 'mini-cab' in London. But the market conditions in each segment are strikingly different. In the contract and call markets the operator has an interest to build up a good reputation. In the street taxi market, however, except in small communities, an operator or driver is unlikely to meet the same client a second time, so a good reputation is not important for him. This is the reason why many countries have continued to regulate street taxis and much less the other market segments.

The contract taxi serves a very varied market. It mainly caters for passengers with special transport needs, such as small children, handicapped and elderly people, but also serves e.g. company staff, hotel clients, and funerals. Taxi trips operated on behalf of public transport companies at times when demand is insufficient for buses is also part of this market. This paper, however, will concentrate on the call and street taxi, where the main difficulties have arisen, and not deal with the contract taxi market segment.

The non-contract taxi is dominant in the four main cities in the Netherlands (Amsterdam, Rotterdam, The Hague and Utrecht), with by far the largest number running in Amsterdam (about 3,000), and the contract taxi has a much smaller share. In the rest of the country it is the other way around. Contract taxi services are performed by companies varying from small to large. In recent years, Connexion, a large public transport company, has taken over many smaller firms and its affiliate CTS now is the largest player in the contract taxi market.

The contrast in the shares of the different segments between the four main cities and the rest of the country is shown in figure 1.

**Figure 1 – Turnover by taxi market segment and area (2003)**



Source: TPS-NIPO - KPMG BEA [2004], Poort and Weda [2008]

In the non-contract taxi market, especially in the main cities, the operators are predominantly small firms and owner-drivers. In the call taxi market, we find 'taxicentrales', i.e. dispatching centres where the clients can order a taxi by telephone. In some cases, companies have their own 'taxicentrale', in other cases the 'taxicentrale' is an association of smaller firms and owner-drivers. Also in the main cities, we find many owner-drivers or small firms which are not associated to a 'taxicentrale' and only perform street taxi services.

The distinction between the two segments in the non-contract taxi market is important, because of the different way in which the market mechanism operates. The telephone taxi (or call taxi) is clearly branded as belonging to its 'taxicentrale' with its telephone number clearly displayed, to incite clients to call this number. If passengers are not satisfied with the service, they may not phone this 'taxicentrale' again. Therefore all drivers have an interest that their colleagues deliver a good service, and the 'taxicentrale' has an interest to control this, in order to avoid damage to its reputation (however, on the price, for many passengers the most important element of the quality, the 'taxicentrale' has no control; see below).

This is very different for the street taxi. In the main cities, the individual driver and passenger are unlikely to meet each other again after a trip. Therefore the driver does not feel the consequences if he gives the passenger a bad service. Moreover, the passenger has a weak bargaining position vis à vis the driver, and the driver know this. If the taxi is hailed in the street, or passengers have to take the first taxi in line at the taxi rank (because the other drivers at the rank refuse to take them), they have no choice, especially if they are in hurry, if it is late at night, or if the weather is bad. Lowering his price does not increase the chances for the driver to get a passenger, but lowering his costs (his quality) makes it possible to increase his income per trip. A logical consequence is that in a deregulated market the price of the street taxi tends to go up and the service quality tends to go down.

It should be noted that in the Netherlands the call taxi differs in one respect from its counterpart in many other countries. If the 'taxicentrale' is an association of owner-drivers and small firms (as is the case in the main cities), the law on competition ('Mededingingswet', Mw 1998) considers them as independent entrepreneurs and forbids price setting between them. Only in those cases where the 'taxicentrales' are companies which employ the drivers, can they determine and advertise the tariffs for all their taxis. Therefore most 'taxicentrales', when called, cannot quote a price and the passengers have to wait and see what tariff is indicated on the taxi when it arrives. In fact, as only one taxi is responding to their call, they have less choice of price than at a rank, where at least in some cases drivers allow them to compare prices and to take a taxi further down the line. This aspect has a number of effects:

- it makes the distinction between the two market segments of call and street taxi less clear than in many other countries;
- it makes price competition between 'taxicentrales' impossible;
- it means that the regulation of the maximum fare and the fare structure is also applied to the call taxis.

This situation prevails in all main cities, where the 'taxicentrales' do not employ the drivers. [Van den Heuvel Rijnders, 2005; Verkeer en Waterstaat, 2004] This is different from the London minicabs e.g., where a quote of the fare is given when booking.

The awkward consequence of the law that is designed to increase competition (the Mw 1998), is that in practice it prevents price competition in the call taxi segment in most cases.

## **4 THE BALANCE OF 10 YEARS OF DEREGULATION**

### **4.1 The objectives were not met**

It is clear that the policy objectives were not met in the ten years of deregulation, particularly in the street taxi market in the main cities. Contrary to the expectations of the policy makers, instead of going down, the fares went up much faster than the inflation rate, in the main cities trips and passenger kilometres went down and undisciplined driver behaviour became a very serious problem.

The bad reputation of the Dutch taxi became known to visitors from other parts of the world (including warnings in travel guides) [Het Parool, 2008-2010] and Dutch travellers (including journalists) saw the taxis of cities like New York, London and even Paris as examples of how the Dutch taxi market should function. Given that Parisians are complaining that taxis are too rare and too expensive [Darbéra, 2007a], this indicates that, in the eyes of Dutch opinion leaders (columnists, journalists) anything looks better than the Dutch taxi, or more precisely, than the Amsterdam taxi, as most of these authors live in or around the Dutch capital. This is confirmed by a comparative survey of taxi use by city dwellers in New York, London, Paris, Lisbon and Amsterdam held in 2007, which indicates that the Amsterdam city dwellers judge their taxis negatively on more aspects than those in any of the other cities. [Cardon, 2007]

In fact, the bad reputation of the taxi market, especially in Amsterdam, dates from before the deregulation. From the 1990s, there were conflicts between taxi drivers themselves and with the authorities, known as the 'taxi wars', which helped create the image of the taxi industry as a world of shady figures that were prepared to use violence to defend their interests. These disturbances probably influenced the users even outside the areas where they took place, and probably also influenced the choice of new entrants to the market [Economische Zaken, 2008]. At the same time, this image did not do justice to the contract taxi market, but that distinction was not understood by many.

#### 4.2 The evaluation of 2003

In 1996, before the deregulation was implemented, the government had formulated a set of concrete policy goals, which were used as indicators in an evaluation in 2003, three years after the start of the deregulation. These, and the output and outcome in 2003, are summarised in table 1 [TNS NIPO - KPMG BEA, 2004].

Table 2 shows that for none of the outcome indicators the results were as expected when deregulation was decided. Contrary to government expectations, the price of the street and call taxi went up immediately after the start of deregulation. The price of an urban reference trip went up by 26% between 1999 and 2003, while inflation rose by 14% over the same period. The average price remained some 10% below the official maximum fare. [TNS NIPO - KPMG BEA, 2004]

**Table 2 – Results for the evaluation indicators for 2003, for the street and call taxi market**

Nr	Indicators	Expectation in 1996	Actual development up to 2003	
			Nationwide	In the four main cities
	<b>output</b>			
1	market access cost	lower	low costs	low costs
2	market throughput	many new entrants, exit of some	dynamics, many new entrants, exit of many	dynamics, many new entrants, exit of many
3	supply differentiation	more choice	some development	some development
4	quality judgement	improvement	no improvement	no improvement
5	efficiency	improvement	slight improvement	no improvement
6	payload	increase	slight increase	slight decrease
	<b>outcome</b>			
7	taxi use	increase in trips and in passenger-kms	decrease in trips, increase in passenger-kms	decrease in trips and in passenger-kms
8	average fare development	decrease	increase in line with costs, largely above inflation	increase in line with costs, largely above inflation
9	mode split	larger share of taxi	no change	no change
	<b>side effects</b>			
10	operator turnover	increase by more demand, lessened by lower prices	increase by higher prices, not higher demand	decrease by lower demand, despite higher prices
11	taxi industry employment	increase by more demand, lessened by higher efficiency	increase by increase in passenger-kms	increase by increase in capacity despite decrease in passenger-kms

source: TNS NIPO - KPMG BEA, 2004

Already at the start of the regime, the government was apparently not certain that the deregulation would lead to lower fares (there were foreign examples to the contrary) and a maximum fare was set to protect the customer as a temporary measure until 2002. As it turned out, in the light of the fare increases, the maximum fare became a permanent measure.

The development in the number of passengers and trips in the first years is shown in table 3. The rising number of kilometres and the dropping number of trips indicate that trips became longer.

**Table 3 – Passengers and trips by street and call taxi**

	1999	2000	2001	2002	2003
passenger kilometres (x10 <sup>9</sup> )	950	1,200	1,060	1,250	1,140
number of passengers (x10 <sup>6</sup> )	6.6	6.3	5.8	5.9	5.3
number of trips (x10 <sup>6</sup> )	92	92	82	88	76

source: TNS NIPO - KPMG BEA, 2004

Table 4, taken from a later evaluation, indicates the development of fares in the first years of the deregulation. It shows that there was an immediate increase of about 10% in real terms, and that fares stayed at this higher level in later years [Economische Zaken, 2008].

**Table 4 – Average development of street and call taxi fares**

Indices (1999= 100)

	1999	2000	2001	2002	2003	2004	2005
Fare development street and call taxi	100	113	115	123	126	126	128
Consumer price (inflation)	100	102	108	112	114	n.a.	n.a.

source: Economische Zaken, 2008

The entry of new operators in the market was important. The total number of taxis increased by 50% in four years, from 16,548 in 1999 to 24,771 in 2003. These numbers include the contract taxis, but the increase in the street and call segments were the largest [TNS NIPO - KPMG BEA, 2004].

Despite the herringbone lay-out of some taxi ranks, the drivers in the main cities kept parking in line and directing the passenger to the first one, even if this was against the law [TNS NIPO - KPMG BEA, 2004]. Waiting at a taxi rank is an investment in time for a driver, and by putting pressure on each other to respect the first in - first out system, the drivers are each certain to get their turn. In the same way, it is economically beneficial for a driver at a popular rank, who has waited for a long time, to refuse a short trip. In such a case, peer pressure means that other drivers will also refuse this passenger; the driver is unlikely to meet the same passenger again, but he is certain to see his colleagues at the rank again soon. In practice, the herringbone lay-out of the ranks was soon discontinued in the main cities and first in - first out remains the rule. Enforcement at the ranks was mainly directed against the refusal of short trips.

The 2003 evaluation noted that it was hardly practical for passengers at a rank to compare prices [TNS NIPO - KPMG BEA, 2004]. The drivers have no interest to allow this, as price competition does not reward an individual street taxi driver; lower prices lead to a lower turnover and not to more trips. Even if fares have to be shown clearly on a card inside and outside the vehicle (this was instituted after a few years), in the main cities groups of drivers standing at the rank are found to be using intimidation to prevent passengers from comparing fares.

The evaluation also concluded that in many cities there are only one to three 'taxicentrale' dispatching centres, so there the competition is limited as well [TNS NIPO - KPMG BEA, 2004]. However, as noted before, most 'taxicentrales' cannot quote prices at all, making a price comparison impossible [Van den Heuvel Rijnders, 2004; Verkeer en Waterstaat 2005].

Therefore, the price is not an important element for the passenger once the choice to go by taxi has been made, but it is important for the mode choice. The fact that prices went up was

reflected in taxi use. The number of trips by taxi went down after the start of the deregulation, and in the main cities there was even a decrease in passenger-kms. In the four main cities there were 30 million taxi trips in 1999 and 18 million in 2003, explained to a large part by the high prices and the negative publicity about taxis. At the same time, the number of loaded trips (i.e. with passengers) per vehicle-hour decreased by 34% and the number of passenger-kms per vehicle-km diminished by 18%. Especially trips to railway stations diminished, being replaced by local public transport and rides with family or friends (kiss and ride) [TNS NIPO - KPMG BEA, 2004].

### **4.3 Innovation**

One of the objectives of deregulation was innovation in the taxi market. A few initiatives were taken, but they all met with resistance from the taxi drivers. They remain marginal, and overall there was little innovation.

A promising initiative was the 'train taxi' ('treintaxi'), which takes train passengers from a number of train stations to any destination within a limited distance from the station and also picks them up. Passengers have to buy a train taxi ticket at the train station, the fixed fare is lower than for street taxi trips, but passengers have to share the taxi with other passengers, and it waits for a maximum of 10 minutes to see if there are other passengers going in the same direction. The initiative was taken by the railway company NS a few years before the taxi deregulation, so it is not an effect of it. Even before implementation, the resistance from taxi drivers was such that NS decided not to implement the service in the main cities. But it was in the smaller cities, where the local public transport network has lower frequencies and a less dense network, that the service was most useful. Here too, the train taxi drivers sometimes met with hostility from their street taxi colleagues. The service has been discontinued now in many places, because of operating deficits, but in some cases it has been replaced by other shared taxi formulas (with varying prices and conditions), subsidised by the local authorities. Currently, there are 33 stations in smaller cities that have a train taxi service (down from 111 in 2000), and another 42 stations are served by other formulas of shared taxis. The latter include Utrecht and Eindhoven, the fourth and fifth largest cities of the country. The train taxi will gradually be replaced by the 'NS Zonetaxi' a slightly different formula, which is reserved via internet or text message, making it part of the call taxi market. [NS, 2010; OV Magazine, 2010]

Another innovation is the 'bicycle taxi' ('fietstaxi'), three- or four-wheeled vehicles moved by the power of the driver and offering room for two passengers. These vehicles started service in Amsterdam in 2003, and currently there are two operators, with about 15 vehicles each, with free lance drivers who rent the vehicle from the operator, circulating mainly in the city centre. Apart from Amsterdam, they are now operating in five smaller cities. [NL Wikipedia, 2010a] The scale of the operation and its impact on the market is therefore limited. In London such vehicles are known as 'pedicab' [Hawthorne, 2009].

A more recent initiative is the 'tuktuk', an auto rickshaw tricycle modelled on its namesake from Thailand (similar vehicles are used in many Asian and other countries). These are open-sided vehicles (albeit with wet weather sides) with light, clean technology engines. The tuktuk started in the beach resort of Zandvoort in 2006, was introduced in other places in 2007, including the main cities of The Hague and Amsterdam, and offers rides within the city for a lower fare than the street taxis [NL Wikipedia, 2010b]. But the scale of operation remains limited.

### **4.4 Political discussions**

Although an important objective of deregulation is less political interference, Parliament discussed this market much more often than it had ever done before deregulation. The many incidents caused a negative publicity for the street taxi, culminating in July 2009, when a taxi driver killed a passenger in Amsterdam, during a dispute over the fare. The driver was later



convicted to two years imprisonment [Het Parool, 2008-2010]. This led to a new political debate about taxi regulation in the country.

#### **4.5 The special case of Schiphol Airport**

One of the 'taxi wars' took place in the mid 1990s over the market of the national airport Schiphol near Amsterdam, the most lucrative market in the country, as most trips to and from the airport are relatively long. Most passengers were delivered there by taxis from the Amsterdam taxi zone, but the airport was in a different zone, meaning that the taxis from that zone were the only ones allowed to pick up passengers and the Amsterdam taxis had to return empty. Nevertheless, they did pick up passengers sometimes, resulting in violence between Schiphol and Amsterdam taxis. The conflict was eventually solved by merging the two zones [Economische Zaken, 2008].

As the taxi rank at Schiphol Airport is legally private ground, owned by the airport authority, the new passenger transport act 'Wp 2000' does not apply. This made it possible for the airport authority to create its own regulation in 2004. The airport has only one central terminal building and only one taxi rank. Because of the earlier taxi conflicts, the authority opted for the regulation of access, using a combination of taxis operated under concession and 'additional' taxis with quality control. Three companies have between them four concessions, for the operation of normal taxis and for minivans. The rank has room for 14 vehicles for immediate boarding, of which 10 are reserved for the concessionaires and 4 for the 'additional' taxis. The vehicles are admitted to the rank from a holding area, by an automatic system with barriers that monitors the occupation of the rank. If there are less than 10 concession taxis at the rank, extra 'additional' taxis are admitted. The latter should have a permit from the airport's 'taxi quality foundation' ('Stichting Taxi Controle', STC) which is available to any taxi meeting the conditions, but is withdrawn when these are violated. The taxis have a transponder which opens the barriers of the holding area and the rank, and which can be deactivated in case of violation of the rules. Prices are free and clearly advertised on the outside of the vehicle (according to the national regulation), and there is an inspector from the airport authority present at all times. Short trips cannot be refused and the taximeter must always be used. This means that it is possible for a passenger to compare prices and choose any taxi at the rank. [STC, 2010]

A similar situation is found at some hotels and exhibition centres that have a private driveway and have concluded an exclusive contract with particular taxi operators.

#### **4.6 The special case of Amsterdam**

Amsterdam is by far the biggest market for the street and call taxi, with about 3,000 taxis regularly working there; the exact number is not known because of the freedom of taxis to work anywhere [dIVV, 2009]. This number is equal to the combined total of the other three main cities [dIVV, 2003], even if the urban area of Rotterdam (1.3 million inhabitants) is larger than that of Amsterdam (1.0 million). Already before deregulation there were problems between drivers and the public in Amsterdam, and the taxi had a bad reputation. The historic situation was that the municipality had given a large number of licences to the dispatching organisation 'Taxi Centrale Amsterdam' (TCA), which sold these to the owner-drivers and small firms. This was not legal, but had been tolerated by the municipality for a long time, as the TCA helped keep the difficulties with the public under check. In this way, the TCA controlled the number of taxis in Amsterdam as well as the price of the licences. Naturally, the TCA was very active in the protests against the deregulation law. Shortly before deregulation, the TCA management sold some 600 extra licences which they had not used previously, possibly to make some extra money at the last minute [Van den Heuvel Rijnders, 2005]

In 1999, shortly before the start of the new market regime, a conflict broke out over Taxi Direct, a new 'taxicentrale' dispatching centre, which tried to break the monopoly of the TCA.

This met with strong hostility from the other drivers, especially those associated with the TCA. Another 'taxi war' followed, consisting of aggression between taxi drivers at the ranks and the wrecking of Taxi Direct vehicles, sometimes with passengers aboard. Taxi Direct eventually withdrew from this market [Economische Zaken, 2008].

The difficulties with the public aggravated quickly under the new regime. Having lost its direct control over the taxi market, the city started using other legal instruments as best it could, which were not designed for taxi policy but were within its jurisdiction (based on the road traffic act, Wv 1994), namely:

- regulation of the use of tram and bus lanes by taxis,
- parking regulations.

Even if the rationale for allowing taxis to use tram and bus lanes is not very clear, taxis were allowed to use these already before deregulation.

A new regulation about the use of tram and bus lanes by taxis was implemented in 2004, under which extra conditions for the taxi drivers were formulated, including street knowledge. A licence is now needed to drive in these lanes, which can be withdrawn in case of incorrect behaviour (e.g. at taxi ranks), although this withdrawal turned out to be legally difficult. [dIVV, 2003 and 2009; TNS NIPO - KPMG BEA, 2004; Het Parool, 2008-2010]

After earlier measures to create acceptable conditions for users, access to the taxi rank at the Central Station (CS), the second most lucrative rank in country (after Schiphol airport), was regulated in March 2008 using the municipal parking regulation powers. At this spot, where many tourists and business travellers arrive in the city, the most severe problems were occurring (cheating, intimidation, aggression, refusing short trips ...). Taxi drivers now need a parking licence to park at the rank, in the form of a smart card that opens a barrier which normally closes the rank off. Conditions of good conduct are linked to this parking licence and it can be withdrawn by the municipal inspectors. Reasons for withdrawal include refusing short trips or asking exorbitant fares for them, driving bumper-against-bumper to pass the barrier without a smart card for the second taxi or parking under the barrier to keep it open, renting the smart card to drivers without a licence, standing less than a few metres from the taxi (to avoid intimidation of passengers by groups of drivers). At the busiest times, enforcement is done by teams of municipal and IVW (state) inspectors, who each are enforcing their respective regulations. This is the most recent step in a process in which the municipality is constantly seeking to devise more effective measures, within its legal powers. However, the city cannot afford enforcing officers for all of the time, and the bad behaviour continues at other times. At first, 996 taxis obtained a CS parking licence. The measure caused an improvement initially, but later the problems surfaced again, and a high level of inspector presence remains necessary. After a year, only 350 taxis renewed their licence, but this did not appear to have improved the quality of service. On the contrary, newspaper reports indicate that the 'better' taxis are staying away from the CS rank because of the intimidating atmosphere. [Het Parool, 2007-2010]

Another rank at which the presence of inspectors is necessary, especially at weekend nights, is the Leidseplein rank in the night-life district. This was the place where a passenger was killed by a driver in July 2009, and the enforcement effort was stepped up immediately afterwards. Newspaper reports indicate that the quality of service goes up and down with the amount of enforcing officers present at any particular time. At weekend nights, drivers (surrounded by groups of colleagues) frequently refuse to put on the taximeter, asking three to five times the official maximum fare. [Het Parool, 2008-2010]

The deregulation changed the position of the sole dispatching centre TCA as licences were abandoned. With 1,600 taxis (owner-drivers or small firms) TCA is still the dominant 'taxicentrale' in the Amsterdam. Its taxis are active in both the call and the street market. To protect its reputation, TCA checks the quality of the service delivered by its drivers. Of the

total of about 3,000 taxis that regularly work in Amsterdam, a large part of the rest now consists of 'free drivers' ('vrije rijders'), owner-drivers who are not associated to a dispatching centre and only work as street taxi. Many of them come from other cities, have a limited knowledge of the topography of Amsterdam and only come to the city at weekends. The 'free drivers' dominate the most lucrative ranks, Centraal Station and Leidseplein, and are involved in the undisciplined behaviour sketched above (refusing short trips, refusing to put on the taximeter and charging fares far above the maximum fare, rude and intimidating behaviour towards passengers). At times when there is no enforcement at those ranks, other drivers (like those of TCA) tend to stay away from there. A frequent criticism from the public is that there should be more enforcement, but the municipality and the Ministry of Transport's inspectorate IVW indicate that they do not have the budget for more enforcement. Another criticism from the public is that it is unclear how and where to file complaints about 'free drivers'. [Het Parool, 2008-2010]

#### **4.7 Agreement with the main cities**

In order to address the problems the four main cities were experiencing, the Ministry of Transport concluded a series of agreements with those cities. The first one covered 2006-2007 and led to a closer co-operation between the cities and the state. Similar actions as those described above for Amsterdam were taken in the other cities, those in Rotterdam being the most successful. The enforcement effort was multiplied eight-fold, but still, according to an evaluation of the agreement, the rules were not better respected. The problems listed include:

- too many taxis in some places and not enough in others,
- continued weak bargaining position of the passengers,
- continued poor service quality from the drivers (refusing short trips, lack of local topographical knowledge, insufficient knowledge of the Dutch language, violent behaviour).

[Verkeer en Waterstaat, 2008a]. This effort was continued in an agreement for 2008-2009, but an evaluation has not been published yet.

One of the actions under the agreements is the 'mystery guest enforcement' in which plain-clothes police officers or inspectors make taxi rides, and fine violations on the spot. In Amsterdam, in May-June 2006, violations were found for 74% of the trips, in Utrecht 54%. [Verkeer en Waterstaat, 2008b].

#### **4.8 A turn in official thinking**

As the local authorities had lost most of their say in the market, the cities were not able to take corrective measures. This resulted in many discussions in Parliament about the functioning of the taxi market and in a number of committees and evaluations of aspects of this market. An important committee report in this respect was commissioned by the 'Taskforce Taxi' (consisting of representatives of the organised part of the taxi industry, the consumer organisations, the cities and the Ministry of Transport) and published in 2008 [Poort and Weda, 2008]. In this report, the different transaction mechanisms in the different market segments are clearly described and the analysis and recommendations are based on this.

This marked a turn in the government's thinking. Later in 2008, the 'state secretary' (deputy minister) for transport, Ms T. Huizinga, admitted that the deregulation had not brought what had been expected and that notably the non-contract taxi market had imperfections. She announced that the taxi would no longer be treated as a uniform market by the government, but that different approaches would be chosen for the different segments. Referring to the agreements with the main cities (see section 4.7), she also announced that, where possible, powers would be transferred to the local authorities, but that this required further study. A number of studies for measures were announced:

- creating the possibility to tender concessions for certain taxi ranks,

- encouraging the grouping of taxis in the street taxi segment, in order to ensure that the reputation of a group would make the entrepreneurs and owner-drivers more concerned about the conduct of the colleagues in their group,
- mandatory installation of the on-board taxi computer,
- further discussion of the fare structure with the taxi industry,
- improvement of complaints procedures,
- transport obligation, including for short trips,
- innovation (only the relatively marginal tuktuk is mentioned as an example),
- improvement of driver qualification requirements.

In the meantime, several corrective measures had already been taken, including a new fare structure for the street and call taxi in 2008, and the start of a project to install an on-board computer in all taxis. After several delays, the latest announcement is that the on-board taxi computer will be phased in between 2011 and 2013. It will produce a printed ticket for the passenger with all relevant data about the trip (but there will be no obligation for the driver to hand this over), and will allow better enforcement of the working hours regulations. [IVW, 2010] The new fare structure is described in section 2.3.

In June 2010 the government proposed an amendment of the 'Wp 2000' act to Parliament, in which the measures listed above will be implemented. If accepted, the proposal will allow the four main cities to make the grouping of independent drivers mandatory and impose a number of conditions to those groupings. This will allow the cities the legal power to regulate the taxis on its territory directly, rather than via the indirect way of the road traffic act (Wvw 1994, see section 4.6). The groups will have to fulfil conditions specified by the municipalities, in order to be allowed to operate in the cities, including the minimal size of the group. It is hoped the reputation mechanism will work in this way. However, groups of independent firms will still not be allowed to set a common fare and advertise this, in order to compete with other groups. [Tweede Kamer, 2010]

Moreover, all municipalities will be able to ban the refusal of short trips at taxi ranks, and the municipality can perform a test of the criminal background of the finance of the taxi firms. It is hoped the changes will become effective in January 2011. [Tweede Kamer, 2010]

As the deregulation was a national policy, the remedies are also national rules and this has resulted in a centralisation of taxi policy, in contrast to the decentralisation that was instituted for other public transport modes in the same passenger transport act 'Wp 2000'. With these remedies, taxi policy has become very much a centralised affair.

## 5 THEORY VERSUS PRACTICE

### 5.1 Definitions and international comparisons

The taxi market is described in different ways in different countries. It is therefore useful to try and establish a definition. Our definition is based on the classic distinction frequently made in Dutch literature between public and private transport and between individual and collective transport, as illustrated in the scheme in table 4.

**Table 4 – Types of passenger transport, schematic definitions**

	public transport: accessible to all members of the public	private transport: accessible to particular persons only
collective transport	train, tram, metro, bus, etc.	hired coach
individual transport	call taxi and street taxi	private car, bicycle, contract taxi

In this scheme, the call and street taxi are individual public transport, i.e. an individual car with a driver that can be hired by all members of the public for a trip. Under the conditions in

London, e.g., this definition includes both the black cab (a street taxi in our terminology) and the mini cab (a call taxi). It can be argued that the contract taxi, which makes pre-arranged trips that are not accessible to all members of the public, should be defined as individual private transport.

In the international literature on taxis, various definitions are used, and often only implicitly. This can produce important mistakes in international comparisons [Darbéra, 2005b and 2007a]. As an example, a Dutch study from 2002, comparing taxi regulation in different countries, calculated the number of taxis per 1,000 inhabitants for selected cities taking for London 20,000 'black cabs' ('hackney carriages'), but overlooking the 40,000 'minicabs' ('PHVs'), thus producing an erroneous comparison [Pleijster et al., 2002; Darbéra, 2005b].

## **5.2 Theories and empirical findings**

In the international literature on taxi regulation two currents can be discerned.

On the one hand we find studies that take market theory as its starting point, arguing that the taxi market, with its large number of suppliers and consumers and its low entry costs and absence of economies of scale, should be a near perfect market which would be at its most efficient with as little regulation as possible, leading to lower prices and better supply. Using these arguments, taxi deregulation was strongly advocated in the 1990s, especially in the USA, Australia, New Zealand. In Europe, it was implemented in Ireland, Sweden, Norway and the Netherlands.

An overview of this literature is given by Moore & Balaker [2006], who are answering the question what economists think of taxi deregulation. They conclude that the majority of economists are in favour of taxi deregulation, and that this should end "... the rent seeking and bureaucratic self-interest that currently dominates the making of taxi-market policy." In the light of the Dutch experience, we think this is a rather naïve statement.

On the other hand there are empirical studies, which stress the important market imperfections and therefore the need for regulation. The most important market imperfections are the weak bargaining position of the passenger in the street taxi market (the transaction / search costs involved to find the best offer) and the asymmetry of information of the quality aspects that the passenger cannot observe. These imperfections give the driver monopoly power in the transaction once the passenger has chosen the taxi. And if unchecked it leads to higher prices and lower quality.

Another aspect, although not a market imperfection in the strict sense, is the low entry barrier for new operators. According to Trudel, this "means that taxis attract many people with limited employment opportunities: independent taxi drivers flood the market, crowd the streets and lower the quality and reliability of service. During the Depression of the 1930s, this phenomenon emerged in many North American cities, prompting authorities to regulate taxi services, particularly by limiting the number of licences." [Trudel, 1995].

Darbéra [2005b] describes how, beginning in the late 1960s, some economists started proposing taxi deregulation as more efficient than the omnipresent regulation, while others pointed at the market imperfections. Several cities in the USA deregulated their markets in the 1980s. But the expected results were mostly not achieved and many cities returned to regulation because of the undesired effects [Bekken & Longva, 2004].

More recently, some European countries started to deregulate, notably Sweden, Ireland, Norway and the Netherlands. An overview of recent regulatory changes is given by Bekken & Longva [2004]. The results of these were discussed at a Round Table organised by the European Conference of Ministers of Transport (ECMT) in 2007. In all cases this led to a large influx of new taxi operators and also to price increases. The Round Table concluded

that although the case for regulating entry has been overstated in the past, price regulation remains necessary to protect the consumers from their weak bargaining position. In Ireland, the drop in quality was the main reason for re-regulation. [Kopp, 2007]

Other authors also point at the necessity of price regulation [Bekken & Longva, 2004]. Darbéra [2005b, 2007b] adds that a common characteristic of these deregulations was that they failed to make the distinction between the different segments of the taxi market (street taxi versus call taxi) and did not see the difference in bargaining positions of the passengers.

In the Dutch case, the studies launched in preparation of the deregulation also failed to make this distinction. This was e.g. the case in a study based on stated preference surveys, which predicted that (despite the evidence of price rises in some other countries), under the Dutch conditions prices would drop, quality would improve, and taxi use would increase [Rouwendal et al., 1998]. The inventory of experience outside the Netherlands mentioned in section 5.1 is another example of how this distinction was overlooked [Pleijster et al., 2002]. This is perhaps explained by the fact that, unlike in many other countries, call taxis in the Netherlands also are active in the street taxi market. Another explanation may be that the taxi deregulation was part of a large-scale programme of deregulations and privatisations that was started by the government in the early 1990s. This meant that there was a lot of political pressure to deregulate the taxi market. This probably explains why much of the empirical knowledge of the taxi market was disregarded.

### **5.3 The role of regulatory capture**

Perhaps the most telling example of regulatory capture in the taxi market is Paris. In 1958, the newly elected president De Gaulle tried to expand the number of taxi licences in Paris, but shelved these plans after two days of paralysing taxi strikes. The same happened in 2008, when strikes were a response to president Sarkozy's initiative to increase the number of taxis. Subsequent negotiations with the industry led to a modest target of 20,000 taxis by 2012, including the private hire vehicles (call taxis, *voitures de petite remise*) which, under the pressure of the taxi industry had dwindled to 70. [Iverson, 2010; Darbéra, 2007a]. In 2007, the number of taxis in greater Paris (Ile de France) was about 15,000 [Darbéra, 2007a], in 1937 it was 14,000 [Iverson, 2010]. And the Baedeker travel guide for "Paris and its environs" for 1898 says: "The number of cabs in Paris is about 15,000." The latter are all horse-drawn, of course [Baedeker, 1898]. In comparison, the current figures for London are 25,000 street taxis plus 45,000 call taxis ('minicabs') and for New York City 15,000 street taxis plus 40,000 call taxis ('liveries'). [Darbéra, 2007a]

Before deregulation, regulatory capture was also present in the Dutch taxi market. The outcome of the 'taxi wars' in the 1990s, in which the taxi industry got what it wanted in the end, must have led the industry to believe that they could stop the deregulation from being implemented. So a series of demonstrations and blockades was organised to protest against the new law. It must have been a shock for the industry that regulatory capture did not work this time. One of the policy objectives of the new law was to end the close links between the local taxi industry and the local authorities, and the centralisation seems to have worked in this respect. However, none of the evaluations have looked explicitly at regulatory capture.

## **A SKETCH OF THE DUTCH MARKET MECHANISM**

What happened in the main cities over the last 10 years? There is no empirical research into the market mechanisms, but a likely explanation of what happened after deregulation in the main cities is as follows.

Until 1999 the regulated fare levels were lower than what the driver of a street taxi thought he could ask from his passenger, given the bargaining power he had from knowing his taxi was the only one available to the passenger. Therefore, tricks were used to get more from the passenger than what would be allowed at the regulated fare level via the shortest route. As soon as the fares were deregulated in 2000, street and call taxi operators and drivers started to ask higher fares and the maximum fare allowed this. The individual driver was not limited in this by competition from other taxis. The increasing fares made it more worthwhile to wait longer at taxi ranks at popular times (e.g. Friday and Saturday nights) and locations (in Amsterdam e.g. the Central Station or the Leidseplein in the nightlife district), provided the drivers all waited for their turn and together refused short trips. This explains what the data showed: the average distance and the average revenue per trip increased, and the number of trips per taxi decreased. Moreover, the large influx of new taxi drivers led to a more aggressive atmosphere at the popular taxi ranks, so the taxis associated with a telephone dispatching centre (which could also get work without waiting at the ranks) started to avoid the popular ranks. Those ranks were increasingly populated by drivers who otherwise had few chances in the labour market (to use an expression of Trudel [1995]), exhibiting a deteriorating behaviour. As passengers increasingly tried to avoid those ranks, the position of the call taxi and their dispatching centres was strengthened; one can also phone a taxi while still in a bar-dancing e.g., although it does not pick you up in front of the bar, but at an agreed place some distance away from the bar and from the nearest rank.

## **6 THE CASE FOR RE-REGULATION AND DECENTRALISATION – A DISCUSSION**

### **6.1 The principles questioned**

The turn in official thinking, described in section 4, was announced in June 2008 by the deputy minister for transport (Ms Huizinga) in a letter to Parliament entitled “Vision of a future taxi policy” (“*Toekomstvisie Taxibeleid*”) [Verkeer en Waterstaat, 2008]. The next step is the implementation of a number of changes in the law. If the amendment of the ‘Wp 2000’ act, as currently discussed in Parliament, becomes law (see section 4.8), this will mean a number of improvements for the cities, but three key principles of the original deregulation will remain intact, namely:

- free pricing, albeit limited by the maximum fare and the compulsory fare structure,
- free entry, limited by municipalities that can require groupings,
- a centralised regulation of a local and regional market, with some added regulating power for the local authorities.

The authors of this paper are questioning these principles.

### **6.2 What is the public value of price competition?**

Our first question is: What is the value of price competition under the current conditions?

In the case of the street taxi (which is almost exclusively taken at a rank, as hailing is a rare practice in the Netherlands), the passengers in the main cities cannot choose between taxis with different fares, because the drivers assembled at the rank make them choose the first one, except when there happens to be an inspector present and the drivers temporarily keep quiet. This makes price competition mostly ineffective, although municipal regulations could

try to change this, at the cost of a heavy enforcement effort. In smaller cities it is sometimes possible to compare tariffs.

In the case of the call taxi, contrary to the situation in many other countries, the passengers cannot know beforehand the tariff of the taxi that the dispatching centre happens to send to them, so the fact that price competition precludes the 'taxicentrale' from quoting a price renders price competition even more ineffective in this case. This consequence of the competition law precludes price competition and introduces uncertainty for the customers. It is difficult for them to refuse the taxi they have ordered, because of the price.

It might be argued that if fares were regulated, the authorities would have to set the prices and that they are not equipped for this. And they will certainly be under pressure from the taxi industry to raise fares. However, already there is a maximum tariff in the system, which was intended to be temporary but has become a permanent feature, and which the Ministry of Transport has to set for the whole country.

Our answer is that under the current conditions price competition has no public value. If fares were regulated, this would in practice change nothing for the passenger. The price increases in real terms of over 10% caused by the deregulation have become a permanent feature. We tend to follow the conclusion of the ECMT Round Table that price regulation is necessary in the street taxi market [Kopp, 2007].

### **6.3 What is the public value of free entry for taxi operators?**

Our second question is: What is the value of free market entry under the current conditions?

In the case of the street taxi, the bad service of owner-drivers, which already existed in the main cities before deregulation, worsened as a consequence of the free entry. Re-regulation would mean that the authorities could make a selection and sanction misbehaviour with withdrawal of the licence. The proposed changes in the law are introducing such a re-regulation at the municipal level.

In the case of the call taxi, it would in principle be possible to continue free entry. In countries where there is clear separation between the call taxi and the street taxi (each taxi only being allowed to operate in one of these markets), entry to the call taxi market is less restrained (see the examples of London and New York cited earlier). However, this separation is much less clear under the Dutch regime. Taxis affiliated to a dispatching centre can also operate in the street taxi market and frequently do so. The tariff they can charge is the same (the one shown in and outside the vehicle). And most 'taxicentrales' cannot compete on price. This means that re-regulating the street taxi and not the call taxi is only possible if these markets become clearly separated.

It might be argued that if entry to the taxi market were regulated, the authorities would have to establish the number of licences and that they are not equipped for this. As market entry regulation cannot be done at the national level, the entry conditions (including the number of licences) would have to be defined at the local or regional level. The history of taxi regulation in the main cities, as well as the experience from abroad indicate that there would be a real danger for 'regulatory capture', i.e. heavy lobbying by the industry and protection of the interests of incumbent operators rather than of the passengers. In section 5.3 we gave examples of this for Paris and the Netherlands. Also, the licences would get a market value (legal or not). However, the examples from London and New York City indicate that an outcome more in the interest of the public is also possible.

Our answer is that under the current conditions free entry does have some merits, but that the downside, the entry of undisciplined drivers in the main cities (i.e. the main market for the street taxi) is a heavy price to pay.



#### **6.4 What is the public value of centralised regulation?**

Our third question is: As deregulation has proven to come with an increasing amount of regulation at the national level, what is the value of a centralised regulation?

The passenger transport act 'Wp 2000' is not only regulating the taxi market, but the other forms of public transport as well. Apart from the logical exception of the national railway network, it has instituted a decentralisation of policy making in public transport, where before 2000 this policy was more centralised than in all of the neighbouring countries. The taxi part of the same 'Wp 2000' act, however, has instituted a development in the opposite direction, with a central deregulation and therefore also centrally decided remedies of subsequent problems, where it was purely a locally or regionally governed market before. The government philosophy that public tasks should be performed at the lowest level of government possible has been completely ignored for the taxi. With the recent proposal to amend the law, slowly some powers will be given back to the municipalities.

Our answer is that the taxi market is a typical local / regional market, which should be managed by local / regional authorities. In the ten years of the deregulated regime, the national government has not shown to be capable of creating a taxi market with a higher public value than before deregulation. Fares are higher in real terms, the quality has degraded in the main cities (which are also the main markets for the street and call taxi) and stayed constant at best in the other cities and non-urban markets.

#### **6.5 The exception to the rule**

The exception in the deregulated Dutch taxi market is the well functioning street taxi market at the national airport of Schiphol. Although there is no published evaluation, this regulation, described in section 4, seems to be functioning well. But it is clear that the heavy physical regulation system of barriers and transponders that is operated at the airport will be difficult to implement in the streets of the cities.

#### **6.6 An option for re-regulation and decentralisation**

The authors are proposing a market regime for the non-contract taxi (street and call taxi) which is based on the principle of decentralisation and involves re-regulation of the aspects where deregulation has failed.

Our first consideration is pricing. The best option would be to create a transparent pricing system, which would allow the passenger to know the price of a trip by taxi before deciding to take a taxi or another mode. We are aware that this is not achieved in many systems abroad. The 2008 Dutch tariff structure has the advantage of taking away the uncertainty of the effect of traffic jams on the price (the effect of traffic jams on travel time remains, of course). But a system of fare zones like in public transport, or the use of web based calculators might also help achieve this.

A simpler solution would be price regulation, of course, where each taxi would have the same tariff. This is preferable over the current situation, where the passengers also are confronted with only one price, but they cannot know beforehand the price level.

What the authors are proposing is a combination of a regulated price and market entry for the street taxi and a free price and market entry for the call taxi. This requires a strict separation between the operators in each market, with separate licences, as found in London or New York City. The regulation of the street taxi is justified by the transaction cost and information asymmetry problems in this market described above, which means that the existing price competition is ineffective. It would have the advantage of making the transaction process for the customer much easier. Price regulation is not needed in the call taxi segment, provided the dispatching centres have the same tariff for all their vehicles and

are advertising this, so the passengers can make a comparison before calling a dispatching centre. What is needed in this case though, is competition between dispatching centres, so there must be several in a city. The competition authority ('NMa') should ensure this.

Limiting market entry can be done in an equitable way, by issuing licences for a short period (e.g. one year), which are issued to the driver in person and not transferable (the licence should carry a personal identification, which is easy with modern passport techniques), and which can be bought at a monthly auction (as practised in New York City, where the auction price reflects the gains (rent) the buyer expects to make from the licence and equals the trading price of existing licences). If the auction price increases, this indicates that the drivers see a perspective for more gains, and the authority could raise the number of licences to be auctioned at the next auction. Alternatively, it could decide to lower the regulated fare level. If the auction price drops, it could react in the opposite way at the next auction. If this is done in small monthly steps, the equity issues should be acceptably small. In this way the authority could set the fares and the number of licences, based on relatively simple information and independent of lobby pressure from the taxi industry.

Our proposal:

- All taxi regulation is performed by the regional authorities, according to a number of nationally determined principles.
- Free pricing for the call taxi, in a standard tariff structure. 'Taxicentrale' dispatching centres should set the same tariff for all their taxis, which is advertised and quoted when taking an order. Call taxis cannot perform street taxi work.
- Regulated pricing for the street taxi. A taxi zone system limiting the area in which the street taxi can pick up passengers, corresponding to the jurisdiction of the authority.
- For all non-contract taxis: quality and safety conditions which are enforced by the regional authorities.
- For the street taxi: a limited number of licences, issued by the regional authority, which also determines the number to be issued. Licences issued to a driver and not transferable, valid for one year. Obtainable from the authority through an auction. If the auction price rises, the authority can increase the number of licences at the next auction, or diminish the number if the auction price drops. Alternatively, the authority can lower the regulated fare if the auction price rises, or raise it when the auction price drops.
- For the call taxi: no limit on the number of licences, but each driver has to have one. Several dispatching centres should be working in each city and its surroundings, but zones may not be necessary.

## **7 CONCLUSION**

The taxi deregulation in the Netherlands was ill-prepared. The experience in other countries and the international literature was used selectively. The first results, the rise in prices and the drop in quality, could have been predicted.

It took a long time for the government to realise that different segments of the taxi market function differently, and that the local authorities need to have a say in their taxi market. But this is now being accounted for in the proposed changes in the law.

However, the Dutch taxi market policy continues to be based on the three original principles of free pricing, free entry and centralised regulation. In the view of the authors of this paper these principles have no public value and are impeding the desired strengthening of the position of the taxi in the overall mobility in the country. We are proposing an alternative approach to strengthen this position.

Finally, it should be noted that the problems described in our paper are not new. In 1520, the city of Amsterdam regulated the fares and other aspects of the frequent ships to the city of

Haarlem (about 23 km away via the waterways of the time), because the skippers were using their monopoly power to ask too much from the public, and because of the frequent fighting between rivalling skippers. This is the first known example of the regulation of non-scheduled passenger (and freight) transport in the country [Brouwer & van Kesteren, 2008].

## References

Baedeker, 1898

K. Baedeker: Paris and its environs with routes from London to Paris – Handbook for travellers, 13<sup>th</sup> revised edition, Leipsic, 1898

Bakker, 2007

P. Bakker, Deregulation of the taxi industry – experiences in the Netherlands, in: (De)regulation of the taxi industry, Round Table 133, ECMT, Paris, 2007

Bekken & Longva, 2004

J.-T. Bekken & F. Longva: Trends in taxi deregulation, European Transport Conference 2004, Strasbourg

Brouwer & van Kesteren, 2008

P. Brouwer & G. van Kesteren: Berigt aan de heeren reizigers – 400 jaar openbaar vervoer in Nederland (*400 years of public transport in the Netherlands*), Den Haag, 2008

Cardon, 2007

N. Cardon, The place of the taxi through urban mobility: its practices, positioning and potential for expansion, Institut pour la ville en mouvement, Festival Taxi, Lisboa, 2007

Darbéra, 2005a

R. Darbéra: L'étranglement de la petite remise (*The strangulation of the private hire vehicle*), Transports no. 432, July-August 2005, pp. 236-243

Darbéra, 2005b

R. Darbéra: Taxicab regulation and the evolution of communication technology: the tale of three cities – European Transport Conference 2005, Strasbourg

Darbéra, 2007a

R. Darbéra: Problématique du taxi (*The problem of the taxi*), Institut pour la ville en mouvement, Festival Taxi, Lisboa, 2007

Darbéra, 2007b

R. Darbéra: When the regulator acknowledges the existence of two distinct markets for taxi services, in: (De)regulation of the taxi industry, Round Table 133, ECMT, Paris, 2007

dIVV, 2003

Gemeente Amsterdam, dienst Infrastructuur Verkeer en Vervoer: Herzien beleid tram-/busbaangebruik door taxi's (*Revised policy for the use of tram and bus lanes by taxis*), Amsterdam municipality, June 2003

dIVV, 2009

Gemeente Amsterdam, dienst Infrastructuur Verkeer en Vervoer: Naar een gezonde taximarkt in Amsterdam (*Towards a healthy taxi market in Amsterdam*), Amsterdam municipality, May 2009

Economische Zaken, 2008

Onderzoek marktwerkingsbeleid (*Study of market policy*), Ministerie van Economische Zaken (*Ministry of Economic Affairs*), Den Haag, February 2008

Het Parool, 2008-2010

Dossier taxi Amsterdam (*Amsterdam taxi files*),

<http://www.parool.nl/parool/nl/1644/TAXI-AMSTERDAM>, collection of newspaper reports on the website of the Amsterdam newspaper *Het Parool* (accessed 13 September 2010)

Iverson, 2010

J.T. Iverson: Why its so hard to find a cab in Paris ... and what is being done about it,

<http://www.theparismagazine.com> (accessed 21 August 2010)

IVW, 2010

Inspectie Verkeer en Waterstaat: *information about the on-board taxi computer on the website of the national transport inspectorate IVW:*

[http://www.ivw.nl/onderwerpen/taxi/boordcomputer\\_taxi/index.aspx](http://www.ivw.nl/onderwerpen/taxi/boordcomputer_taxi/index.aspx)

<http://www.boordcomputertaxi.nl/actueel/groenlichtvoorboordcomputer.aspx> (accessed 13 September 2010)

Kopp, 2007

A. Kopp: Summary of discussions, in: (De)regulation of the taxi industry, Round Table 133, ECMT, Paris, 2007

Liston-Heyes & Heyes, 2007

C. Liston-Heyes & A. Heyes: Regulation of the taxi industry – some economic background, in: (De)regulation of the taxi industry, Round Table 133, ECMT, Paris, 2007

Moore & Balaker, 2006

A.T. Moore & T. Balaker: Do economists reach a conclusion on taxi deregulation?, *Econ Journal Watch*, January 2006, pp. 109-132

NL Wikipedia, 2010a

Fietstaxi

<http://nl.wikipedia.org/wiki/Fietstaxi> (accessed 19 September 2010)

NL Wikipedia, 2010b

Tuktuk

[http://nl.wikipedia.org/wiki/Tuk\\_Tuk](http://nl.wikipedia.org/wiki/Tuk_Tuk) (accessed 10 September 2010)

NS, 2010

Met de (Trein)taxi,

<http://www.ns.nl/cs/Satellite/reizigers/alles-over-uw-reis/van-en-naar-station/taxi-treintaxi>, *information about the train taxi on the site of the railway company NS* (accessed 10 September 2010)

OV Magazine, 2010

KNV hakt snel knoop door over NS Zonetaxi (*the 'NS Zonetaxi' formula*), *OV Magazine*, vol. 16, no. 6, 21 October 2010, p.4-5

Pleijster et al., 2002

F. Pleijster, A. Bruins & J.A.H. Snijders: Een inventarisatie van ervaringen met ge(de)reguleerd taxibeleid in het buitenland (*An inventory of taxi (de)regulation experience abroad*), EIM, Zoetermeer, April 2002

Poort and Weda, 2008

J. Poort & J. Weda: Toekomst voor de taxi – Rapport van de Taskforce Toekomstvisie Taxi (*A future for the taxi – report from the 'task force taxi perspective'*), SEO economisch onderzoek, Amsterdam, June 2008

STC, 2010

Stichting Taxi Controle

<http://www.stichtingtaxiconrole.nl/index.php?pag=Welkom> (accessed 19 September 2010)

TNS NIPO - KPMG BEA, 2004

TNS NIPO Consult - KPMG Bureau voor Economische Argumentatie: Monitoring en evaluatie deregulering taxivervoer 1999–2003 (*Monitoring and evaluation deregulation taxi transport 1999–2003*), commissioned by the Ministry of Transport, Amsterdam, 2004

Trudel, 1995

M. Trudel: The Fundamentals of taxi regulation and the Quebec experience, 7<sup>th</sup> Congress of the European Taxi Confederation, Donostia / San Sebastián, 1995

Tweede Kamer, 2010

Tweede Kamer der Staten-Generaal, vergaderjaar 2009-2010, stuk 32 424: Wijziging van de Wet personenvervoer 2000, houdende regels ter bevordering van de kwaliteit in het taxivervoer, voorstel van wet (*Second Chamber of the Parliament: amendment of the Passenger transport act 2000, regarding the quality of taxi transport*), Den Haag, 2010

Van den Heuvel Rijnders, 2005

J. van den Heuvel Rijnders: Taximarkt in vervoering? Implementatiemanagement bij het taxivervoer 1988–2003 (*report on the implementation of the market policies with respect to taxi transport 1988–2003*), Ministerie van Economische Zaken, Kenniscentrum voor Orderingsvraagstukken (*Ministry of Economic Affairs*), Den Haag, January 2005

Van der Mark et al., 2009

R. van der Mark, R. Schooleman, G. Scheepers & R. Beerepoot: Evaluatie taxitariefstructuur - Rapportage mid-term review (*Evaluation taxi fare structure - Report of the mid-term review*), Berenschot, January 2009

Verkeer en Waterstaat, 2004

Voor u instapt: transparantie op de taximarkt – Tweede deelrapport van de werkgroep ‘Burgers kunnen beter kiezen’, bijlage 6 bij Kabinetsstandpunt “Taxi nu en in de toekomst – stand na 4 jaar deregulering taxi” (*report on the transparency of the taxi market for citizens; annex to the government paper on the balance of four years of taxi deregulation*), Ministerie van Verkeer en Waterstaat (*Ministry of Transport*), Den Haag, May 2004

Verkeer en Waterstaat, 2008a

G4 Taxi convenant (*agreement on the taxi between the Ministry of Transport and the four main cities*). brief van de Staatssecretaris van Verkeer en Waterstaat aan de Voorzitter van de Tweede Kamer (*letter from the ‘state secretary’ (deputy minister) for transport to the Chair of the Second Chamber*), number V&W/DGP-2008/3042, 11 April 2008

Verkeer en Waterstaat, 2008b

Eindevaluatie G4 Taxiconvenant (*Final evaluation of the taxi agreement*), Ministerie van Verkeer en Waterstaat, Den Haag, February 2008

Verkeer en Waterstaat, 2008c

Toekomstvisie Taxibeleid (*Vision for a future taxi policy*), brief van de Staatssecretaris van Verkeer en Waterstaat aan de Voorzitter van de Tweede Kamer, (*letter from the ‘state secretary’ (deputy minister) for transport to the Chair of the Second Chamber*) 26 June 2008, number V&W/DGP-2008/5363