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# The Case for Taxi Deregulation

## Equity, efficiency and getting a cab when you want one

By David Seymour

SENIOR POLICY ANALYST

## About the Author

**David Seymour,** Senior Policy Analyst, and Director of our Saskatchewan Office, joins the Frontier Centre from New Zealand. He holds degrees in Electrical Engineering and Philosophy from the University of Auckland, where he also taught economics. After working as an engineer in New Zealand he is applying his passion for high performance government to policy issues on the prairies. In his first year working for the Frontier Centre David has carried out extensive media work, presenting policy analysis through local and national television, newspapers, and radio. His policy columns have been published in the Winnipeg Free Press, Regina Leader Post, Saskatoon Star Phoenix, Calgary Herald, Edmonton Journal, Windsor Star, Nova Scotia Herald and the National Post. David has produced policy research papers in the areas of Telecommunications Privatization, Education, Environmental Science, Housing, Anti Poverty Policy and Fiscal Policy. However, his major project with the Frontier Centre is the Local Government Performance Index (LGPI). The second annual LGPI was released in November 2008, at a time when municipal accounting standards in Canada must be improved if the municipal government sector is to reach its potential as an economic growth engine for Canada.


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## Table of Contents

# Executive Summary

- Recent media reports in Calgary, Saskatoon, Winnipeg and Halifax pointed to dissatisfaction with the taxi services in those cities.
- Regulated entry into the taxi market has kept taxi numbers lower than might be expected. If taxi numbers had grown in proportion to the rest of the workforce for the last 20 years, there would now be 2,495 taxis in Calgary instead of 1,411; 222 in Saskatoon instead of 160; and 496 (standard licences) instead of 410 in Winnipeg.
- Areas that removed regulations found their taxi markets grew much faster than other parts of the economy.
- The cost of taxi licences has risen dramatically due to artificial scarcity. The average price of a licence in Saskatoon in 2008 was $79,565, which gave a total value of almost $13-million. Assuming these licences give equal or better returns when compared with other investments (the 30-year average return for the Toronto Stock Exchange is 10%), licence holders in Saskatoon extract over $1-million per year in monopoly rents. In Winnipeg, this number is approximately $92-million aggregate value for $9-million per annum monopoly rents.
- Empirical evidence from economists suggests that allowing operators who meet basic safety and competence requirements to operate in the taxi market and set their own prices would lead to better service, cheaper fares, shorter waiting times and more employment for would-be drivers who currently cannot afford a licence.
- Better taxi service particularly benefits the poor and the elderly who are more likely to rely on taxis; it also benefits low-skilled workers who are more likely to take advantage of additional job opportunities in an expanded taxi market.
- It is important that deregulation not only opens up entry into the taxi market but also that it allows drivers to set their own prices, as deregulating only one aspect can create additional problems.
- Empirical evidence from New Zealand and Ireland suggests that all these things can come true. In Ireland, taxi numbers tripled shortly after deregulation, and the public reported much greater satisfaction with taxi services. New Zealand had a similar experience with increased taxi numbers, reduced fares and a much wider variety of taxi services.
- Deregulation is not an entirely accurate description of what these countries have done. Re-regulation is a more accurate description, because they continue to impose car-safety checks and driver-competence tests.
- Airports continue to provide regulatory problems, and many airports in deregulated markets continue to control which cabs can enter their markets. However, this is not regulation so much as the exercise of private property rights. Airport self-regulation is far preferable than imposing regulations on the entire community in order to solve airport-specific problems.

**Easier entry into taxi markets has created new jobs for would-be taxi drivers, a wider range of service as the market segregates to compete on price and quality trade-offs, better service on average…**

- The major barrier to reform is finding a suitable exit strategy from the current regulated market. The same political forces that have kept numbers capped so low for so long will likely oppose deregulation, particularly because it would decrease the value of currently expensive licences to zero.
- In New Zealand and Ireland, no compensation was offered to incumbent licence holders, and there are good public policy reasons for this decision. However, there is a range of options that policy makers in Canada might like to consider for compensating incumbent licence holders.

## Introduction

Throughout Canada, municipal governments regulate taxi markets in the following ways: They set the number of taxi licences available in their jurisdictions; then, because a licence is a prerequisite for transporting passengers for fares, they effectively cap the number of legitimate taxis operating in the area. Finally, they regulate the prices that taxis operators are able to charge. For the most part, these regulations were introduced in the first half of the 20th century, and they are a public policy hangover from that era.

It is important to note that these regulations can be separated from the car-safety and driver-criminality checks that governments in unregulated taxi markets continue to apply in the interests of passenger safety.

Theoreticians argue over whether the kind of regulation adopted by most Canadian cities is better than the perceived market failures of the unregulated market. However, empirical evidence from taxi deregulation suggests that inefficiencies in the political process outweigh these natural market problems. Indeed, we now have substantial international evidence from other countries and cities that taxi deregulation is beneficial to the average person in a region.[1] Easier entry into taxi markets has created new jobs for would-be taxi drivers, a wider range of service as the market segregates to compete on price and quality trade-offs, better service on average and less political heat for elected representatives who are forced to make impossible trade-offs between industry and consumers in regulated markets.

Nevertheless, taxi deregulation has not been a black and white issue; re-regulation is probably a better description of these changes than is deregulation, as some government rules continue to apply in all markets, the minimum being car-safety and driver-criminality measures. Possible regulatory frameworks discriminate between driver registration and taxi company registration, between the hail/walk-up taxi markets and the phone-order market and minimum fleet sizes for companies. In other cases, private locations with high taxi volumes (usually airports) carry out their own regulation.

Early in 2009, the Saskatoon StarPhoenix ran a front-page story on the state of the Saskatoon taxi industry. In a supplementary story on taxi availability at the Saskatoon airport, the paper alluded to several problems in the taxi market. Similar to the pre-deregulation experience in 2000 in Ireland, Saskatoon has experienced significant economic and population growth over the past several years.[2] The paper reported that licences for taxi operators have been selling for an average price of $79,565, with a maximum price of $133,000. This price increase was double the maximum sale price two years earlier in 2006.[3] In a perfect market situation, the profitability for the last market entrant should be zero, meaning perfect competition has ensured that all producers are supplying the service at the absolute minimum possible price. In this case, a new entrant to the taxi market would expect to pay zero dollars for the privilege of entry.

Of course, no real markets are perfect, so there will always be a price worth paying to enter a market. But the fact that a licence costs as much as 10 times the price of a car suggests that producers are able to charge a lot more than they would if entry were unrestricted and more drivers entered the market to compete for profits instead of having to service capital costs on exorbitant licences. Meanwhile, the airport authority reported a shortage of cabs available for passengers leaving the airport and expressed a desire to raise the price for airport trips by a $4 flat fee per trip in order to attract sufficient taxis to the airport terminal.[4] As with the value of licences, this story suggests that the city had many fewer cabs than residents required. The airport authority explained the problem as one of drivers who are unwilling to come to the airport if they were only rewarded with short trips to a particular local hotel. However, short trips occur all over the city. A more plausible explanation is that people who can afford to fly are better able to pay the proposed surcharge. Metaphorically, they would be using their financial muscle to pull more of the limited taxi-fleet blanket over to their side of the bed.

Clearly, this is an opportunity to revisit taxi regulation as a public policy issue, and this paper looks at basic economic concepts underlying taxi markets, the Canadian situation and international experiences with taxi deregulation.

## Market Failure and Regulatory Failure in Taxi Markets

The debate over taxi regulation is whether regulation can make the urban taxi market function more efficiently than it would without regulation. On the one hand, there is the argument that taxi markets have special features that make competition highly imperfect and lead to market failures. On the other hand, there are arguments that regulation is prone to its own problems of limited market information and regulatory capture, where incumbent producers with a strong stake have unfair influence on the regulatory process. It is argued that by campaigning to limit the number of taxis and control fares, taxi drivers and companies can increase their own profits at the expense of the public.

All markets are imperfect, because having perfect information is impossible, and most markets have some practical barriers to entry. Information is a commodity in itself and therefore both consumers and producers can never get enough – they would have to have perfect information about the information they were looking for before they could find it! In most markets, incumbent producers amass competitive advantages that newcomers do not have, be they capital assets, reputations, customer loyalty or working relationships with others in the industry. The important question is whether taxi markets are different enough from normal markets to justify the kinds of regulation currently practiced.

## Market Failures in Taxi Markets

As economists A. T. Moore and T. Balaker note, "many markets have unique problems, and in few of them are draconian entry and price regulations considered necessary."[5] Others, meanwhile, argue that taxi markets have some especially pointed problems, particularly in the market for walk-up and hail taxis as opposed to phone-ordered taxis, that justify just such regulation.[6] To summarize, they argue taxi markets have the following special features:

- Taxi users, particularly visitors to a particular market (tourists and businesspeople), do not have information regarding the reputations of different operators or the navigation of a particular city sufficient to ensure they are getting a good price. The result is that operators think they can get away with poor service, because they will not be recognized in the future so they will not suffer the normal market repercussions.
- Unlike other markets where consumers can shop around, taxi users are often forced to take the first cab off the rank in walk-up situations and, even when not forced, they tend to take the first cab they see as a practical matter – because the search costs of examining several cabs at a given location are high compared to the differences in price and quality.

- Taxi markets are a natural monopoly, because providers with brands, communication networks and sufficient vehicles to service requests quickly gain increasingly better economies of scale that allow them to squeeze new entrants out of the market.
- Individual drivers are unable to judge the market conditions for taxi employment versus other employment opportunities, leading to a persistent "oversupply" of cabs in open-entry markets. The result is poor quality service and anti-social activity on the part of cab drivers desperately competing to meet limited demand.

*"In taxi deregulation, concentrated benefits would apply to the incumbent owners of taxi shields on the one hand, at the expense of dispersed costs to passengers..."*

## Regulatory Failures in Taxi Markets

Despite these supposed failures of natural taxi markets, there is evidence that the political economy of regulating taxi markets is inefficient. The political dynamic of lawmakers delivering concentrated, substantial benefits to operators with powerful incentives to lobby the political process at the expense of dispersed (but smaller) costs to each voter means the average person is worse off in total, but the political consensus endures. Ireland saw considerable opposition to deregulation both before and after in the form of street blockades and court action.[7]

In taxi deregulation, concentrated benefits would apply to the incumbent owners of taxi shields on the one hand, at the expense of dispersed costs to passengers, drivers forced to rent shields and would-be taxi operators. Public choice theory predicts incumbent operators would skew the political debate in their favour and promote tight limits to entry as well as high prices. For example, in August 2008, over a dozen taxi workers stood through a Saskatoon City Council meeting to protest the granting of additional temporary winter licences. To these drivers, involvement in the political process was clearly worthwhile, more so than for any individual customer or would-be cab-driving competitor who suffers from a shortage of cabs.

International evidence suggests that the public choice theory most accurately depicts what happens in regulated taxi markets.

- A survey of 28 studies by professional economists found that 19 studies favoured deregulation, two were ambiguous and seven were against.[8]
- Deregulation in Ireland[9] and New Zealand[10] led to dramatic increases in cab-ride volumes and customer satisfaction as well as to decreases in waiting times and prices. This suggests that the previously regulated conditions mandated an undersupply of cabs at excessive prices.
- Several studies pointed to the re-regulation of markets following deregulation as if this were a confirmation that regulation is a better policy for the public interest. However, given the political pressure that incumbents have brought to bear on regulatory agencies (see Irish example), this could equally be a confirmation of the public choice theory.
- While one study cites increases in the number of licences in some North American jurisdictions as evidence that regulators are not unduly influenced by incumbent drivers,[11] another points out that adding licences is not the same as optimally matching supply with demand. In Dublin, for example, a government report "estimated that a fleet of 5,901 taxis would be needed after 10 years to serve the Dublin market. In a little over two years, the deregulated Dublin market … had over 9,000 taxis."[12]

## Supply and Demand in Prairie Markets

The situation in several Prairie cities provides an interesting case study of the relationship between licence numbers and other growth factors.

Saskatchewan's most dynamic taxi market, Saskatoon, suggests that the regulatory process has not functioned efficiently. The Saskatoon StarPhoenix reported that no new licences have been issued since 1987, when 160 were made available.[13] Yet, population and labour force statistics indicate the rest of the economy grew by 20 per cent to 40 per cent over that time, to say nothing of higher incomes.

Figure 1 normalizes the population and labour force to 160 in 1987, the same number as the number of licences available that year. The other two time series show the proportionate increases in population and employment since that time. In order to keep the same proportion of licences per person as 1987, there would now have to be 183 taxi licences instead of the current 160. In order to keep up with growth in the workforce of Saskatoon, there would now have to be 222 licences. Over this time, there was also significant productivity growth that led to increases in real wages.

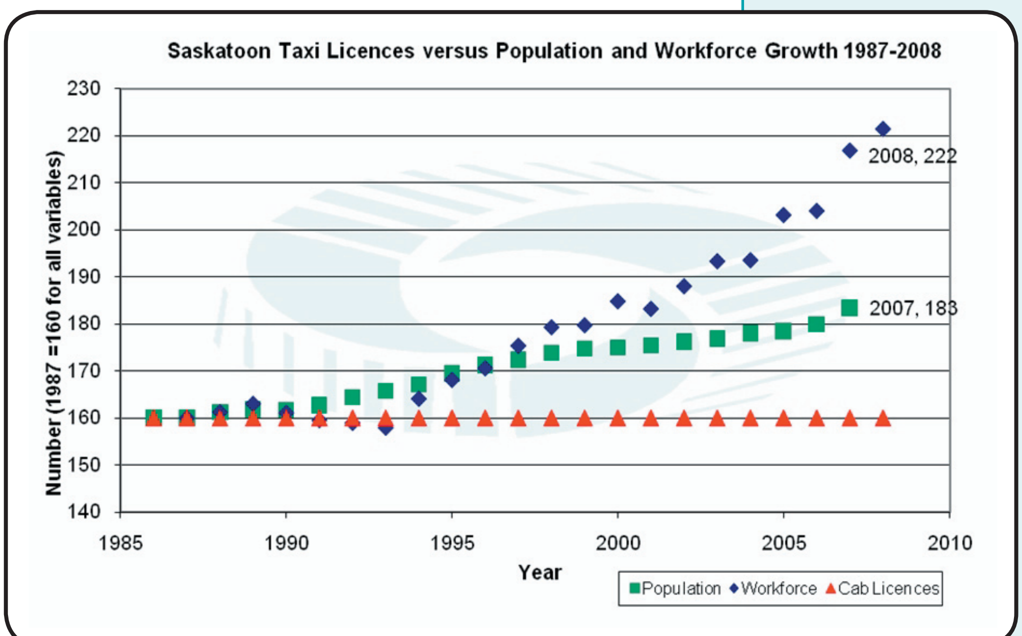


**Figure 1: Saskatoon taxi licences versus population and workforce growth.**

### Are Taxis a Normal Good?

Normal goods are distinguished from inferior goods by whether people buy more of them when their incomes increase. When incomes rise, people lean toward normal goods, and when incomes fall, they lean toward inferior goods. What is not clear is whether productivity growth and higher real wages would lead to more people taking taxis or to people using additional income for other activities including other modes of transport. In all probability, different sectors of the community would respond differently to changes in income with regard to taxi use, giving a mixed result. However, while it is theoretically possible these spending habits might explain how the optimal supply of taxi services could remain constant for two decades despite significant changes in population and workforce numbers, this seems unlikely. The experience of deregulated and regulated markets mentioned above over the same period was more cab rides, which indicate a growing demand. The fact that exchange prices for licences has risen so dramatically in recent years is further evidence that regulated supply has failed to match demand.

*...100 wheelchair only licenses in September 2006. While obviously welcome, that these should be the only increase shows how far behind city growth the licensing regime has fallen...*

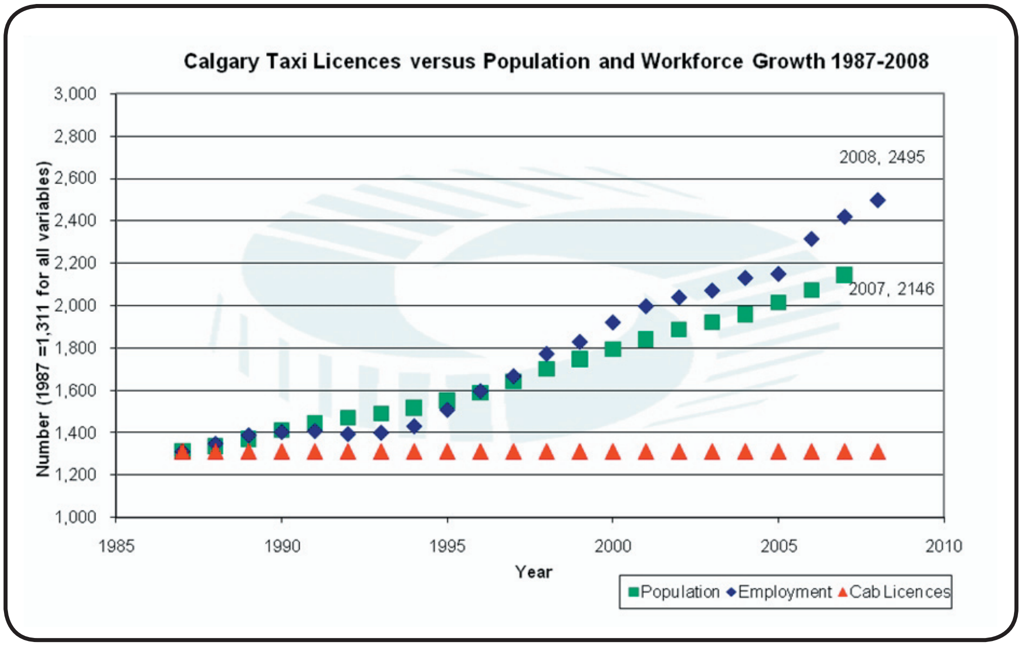


**Figure 2: Calgary taxi licences versus population and workforce growth.**

A more dramatic trend of the same kind is found in Calgary where the population-adjusted figures should now be 2,146 licences to keep up with the population growth or 2,495 if licence numbers had risen in proportion with employment in the city for the last two decades. That is almost twice the actual number of 1,311, which were issued in 1986. The only change has been the addition of 100 wheelchair only licenses in September 2006.[14] While obviously welcome, that these should be the only increase shows how far behind city growth the licensing regime has fallen.

Winnipeg's licence numbers were capped in 1947, much earlier than the other two cities. Over the years, there have been marginal changes to the standard licence numbers as well as the addition of limousine, wheelchair and seasonal winter licences (additional standard license which can only be used in the winter monhs), but 400 licences have been fairly constant for over 60 years.[15] The city's slower population and economic growth means that its taxi deficits are not as great as Saskatoon's or Calgary's, but even so, a 10 per cent to 20 per cent difference has opened up since 1987.

Would these increases be enough? It is certainly possible that there was an oversupply in our base year, 1987, and demand has simply been catching up; however, the high price of licences seems to negate this thesis, too. On the other hand, the Irish experience has shown that markets can expand dramatically when deregulated; it is equally possible that these projections are very modest and a much greater number of taxis would still operate in a deregulated market.

# Monopoly Rents in Prairie Taxi Markets

Another way to look at the shortage is to calculate the capital costs of licences. Using Saskatoon as an example, 160 licences traded at an average of $79,565 in 2008 gave an aggregate value of $12,730,400. (This assumes that drivers investing in these licences do so expecting a similar return to what they could make by investing in other areas.) With an annual rate of return of 10 per cent over the past 30 years,[16] investment in the Toronto Stock Exchange would be expected to yield $1,273,040 per year in aggregate, or $7,957 per licence. This return is in line with the $9,100 (less some expenses) one licence owner in Saskatoon allegedly charges to lease licences to other drivers.[17]

In Winnipeg, the figures are much more dramatic. Licence values have been reported at $150,000 to $280,000, giving a conservative weighted average of $224,000.[18] In parallel to the Saskatoon

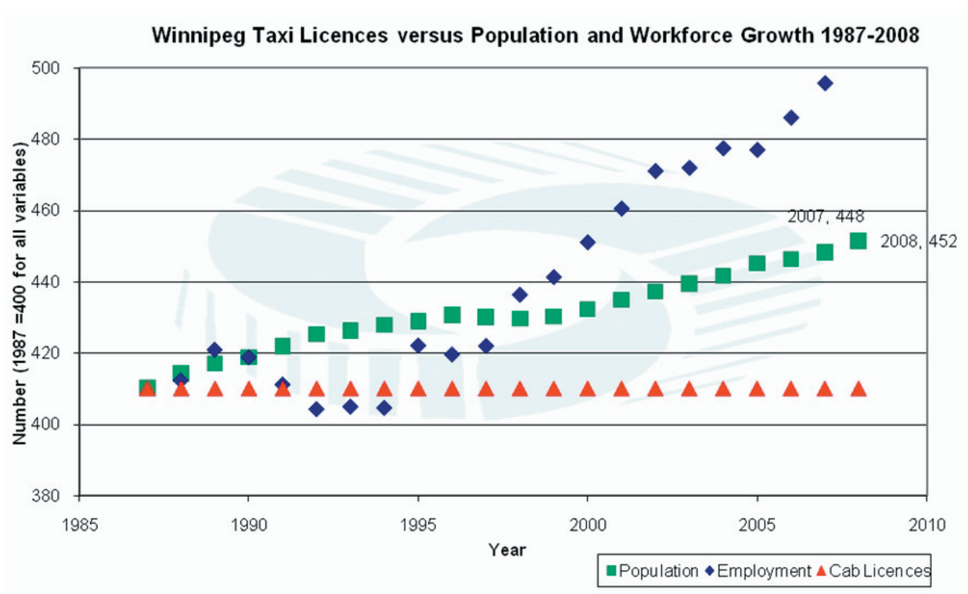


Figure 3: Winnipeg taxi licences versus population and workforce growth.

## What Are Monopoly Rents?

"Monopoly rents" is the term economists use for the profits some producers make over and above the normal market rate of return that they could expect in perfect competition. For example, many have argued that owners of large telephone networks earn monopoly rents because they are able to raise their prices without losing customers since it is impractical for competitors to replicate the large telephone networks and offer a competing service. In the case of taxi markets, incumbent operators who possess licences are protected from competition by the limited number of licences, allowing them to raise prices without fear of losing business to competitors. An additional complication in price-regulated taxi markets is that price setting is a political process; however, the same concept of these prices being above the natural market price can be applied. In this section, it is argued that because licence holders face a significant opportunity cost in selling their licences in favour of other investments, the licences allow them to extract monopoly rents equal to or greater than other investment opportunities.

*Are current operators operating so efficiently that new drivers would not find it worth their while to take advantage of open entry?*

example, these values give monopoly rents extracted from the Winnipeg taxi market by licence holders of around $9-million per year.

Monopoly rents and licence shortages indicate that the market is experiencing regulatory failure. But could it be, as the Winnipeg Taxicab Study claims, that the market is healthy if waiting times are reasonable? The study commissioned by the Manitoba Taxicab Board and released in 2009 found that waiting times according to taxi company statistics are usually under 15 minutes. A sample of 30 secret-shopper trials conducted at various times, including peak times, found that waiting times average eight minutes in Winnipeg.[19]

Further, the study claims, because all demand is being met, lifting entry restrictions would lead to additional entrants into the market. This would reduce per cab-ride volumes and lead to cab drivers charging higher fees in order to recoup their fixed costs. "In an over-simplification, if a 10 % increase in the number of taxis available is introduced, existing taxis, in the short run, will experience a 10% drop in their demand."[20] So which is the case? Are current operators operating so efficiently that new drivers would not find it worth their while to take advantage of open entry or do the last six decades of static licence numbers and the dauntingly high price drivers are prepared to pay for licences suggest there is a lot more money to be made in the Winnipeg taxi market?

Several pieces of evidence indicate the latter is the case – more competition in the taxi market would lead to more customers being served.

- As the Winnipeg Taxi Study notes, "More than 70% of the respondents included comments with their surveys and, for the first time in conducting these surveys, there were no clearly positive statements."[21] Clearly, there is a problem of public resentment of the industry. While the study may be right that demand would be spread more thinly "in the short run," it is reasonable to expect that the community would respond to increased competition and better service with additional demand. This would be in line with the Irish and New Zealand experiences outlined in the international experiences section of this paper.
- Many market drivers (actual or potential sources of customers) are using their own substitutes for taxis. Notably, 50 per cent of hotels and 37 per cent of restaurants questioned in the study "feel they need an alternative to Winnipeg taxis."[22] Even supermarkets are known to offer shuttle services. There appears to be no shortage of opportunities for an expanded taxi market to exploit.
- As mentioned elsewhere in this paper, the right to set their own prices has seen market stratification where different operators satisfy a wider range of customers by tailoring their prices to different tastes and budgets.
- Drivers in deregulated markets have been quick to take advantage of additional revenue streams including selling advertising space on top of cabs.
- As mentioned earlier, taxi-market expansion in deregulated markets has often been well beyond statistically based expectations, regardless of the reasons.

In summary, while the assertion that the market is at capacity because waiting times are reasonable seems convincing, it suffers from the misapprehension that markets can be planned and predicted using models, assumptions and statistics. Markets are the sum of many individuals' actions, which are based on knowledge known only to them. Investors know this very well.

## Different Regulations for Different Markets

A further consideration with regard to the balance between regulatory failure and market failure is the local market conditions. There is evidence that whatever the regulatory failures of the taxi industry may be, the characteristics of the local market can mitigate the market failures. One study divides markets three ways.

Smaller, less densely populated markets such as Saskatoon or Winnipeg tend to be type 'A' markets where ranks are rare and customers depend more on calling cabs than on hailing them. As the author of Figure 4 notes:

"Market characteristics as well as market imperfections critically shape the impact of different entry policies … The nature of the dispatch market creates the conditions necessary for meaningful competition and customer choice. Provided that there are two or more companies that could service their trip, customers can choose which company to call. Because many customers use a cab several times a month, customers build a base of experience from which they can choose the better service provider. Customers who are unhappy with their service from one company can switch to another company."[24]

In the context of the market failures mentioned earlier:

- The information problem is mitigated because repeat customers are likely to be aware of past service, so drivers and companies do have an incentive to offer good service, good prices and short waiting times.
- The overcrowding problem wherein drivers compete anti-socially for rare fares is less likely to occur, because drivers wait until called instead of directly soliciting the public.

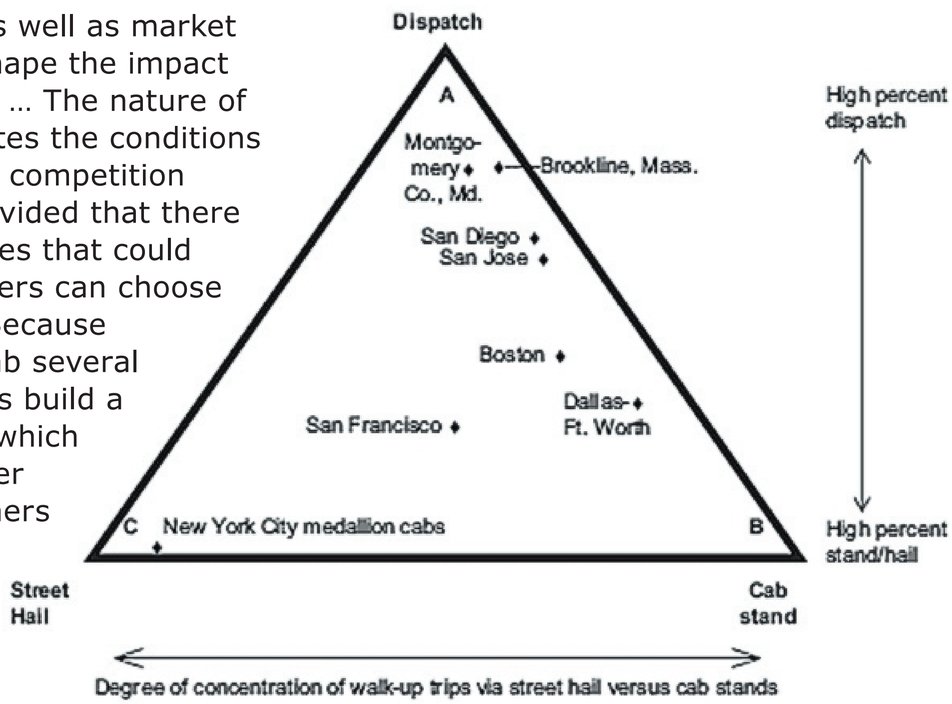


**Figure 4: Rank, Hail and Dispatch Markets**[23]

# The Importance of Price Deregulation

Most of the preceding section focused on deregulation of entry. That is, removing the caps on the number of taxis able to operate in a city. However, there are also strong arguments to be made that prices and fare structures (the balance between flag fall (or deadhead charge), waiting and per mile charges) should be left to taxi operators to decide rather than be dictated by regulators.

The arguments for regulatory failure according to public choice theory all hold for prices just as they do for entry to the market. Once supply is constrained, we would expect the industry to capitalize on that position by lobbying for higher prices. However, there are other reasons in favour of price deregulation beyond the difficulties of setting a fair price through the political process.

The ability to set prices and fare structures means that a range of different service levels can be offered in accordance with customers' preferences and ability to pay. While some may prefer and can afford late-model taxis with leather seats and tuxedo-wearing drivers, others may opt for more affordable taxis. Aside from appealing to different tastes and budgets, price differentiation can also solve some of the market failures that taxi markets are supposed to have. The later section on New Zealand gives further commentary on the effects of price deregulation.

Despite the conclusions of this section, airports present a special case for price deregulation. Because airport parking can be chaotic and visitors often lack knowledge of the city and the local taxi market, airports within deregulated markets often set conditions for which taxis can enter their property and what they are able to charge. This arrangement is preferable to imposing blanket regulations on entire communities for the benefit of the airport-taxi market.

In a paper reviewing the entry-regulation experiences but not the price regulation of 43 North American markets, Bruce Schaller identifies three problems that can be cured by price differentiation:

- Drivers may be unresponsive to phone-dispatch fares because they will have to do unpaid driving to pick up a phone-order customer in a remote area, whereas a hail or taxi-rank fare in a densely populated area can begin at the taxi's current location and is likely to be followed by another at or near the destination.[25]
- Drivers will avoid fares they believe may lead to short such as areas where the elderly may be likely to take short trips that others might walk.[26]
- A limited number of companies will lead to a lack of competition in providing efficient dispatch services for phone orders.[27]

While Schaller proposes additional and nuanced regulations to correct these failures, these regulations rely on forcing drivers to serve customers they would prefer not to. Such regulations are difficult to balance given the information constraints on regulators and may lead to over-allocating or under-allocating services to certain customers. They can also be difficult to enforce. Allowing operators to set their own prices and fare structures alleviates these problems in the following ways:

- Taxi operators can set different tariffs for phone orders, as they do in New Zealand.[28] They can set the relative prices among rank, hail and phone-dispatch fares until drivers become indifferent as to whether they take a phone dispatch or another type of fare. This way, there is no shortage of service for customers who prefer to order by phone. They may have to pay more, but the alternative is longer waits or no service. This also alleviates the previously mentioned problem of excess drivers at taxi ranks.

- Operators can adjust their ratio of deadhead charges to per kilometre and per minute waiting time to ensure short trips are worthwhile so that customers requiring short trips are equally likely to be served.
- The opportunity to compete on price opens up several markets within the broader taxi market. In the New Zealand experience, this was partially responsible for the introduction of more companies competing for drivers by developing efficient dispatch services that ensure the drivers get a lot of work.[29]

Regulating the number of cabs in a market creates problems and requires price regulations, because otherwise drivers might be tempted to abuse their monopoly position and price-gouge customers. However, if entry to the market is deregulated, prices are controlled by competition. In this case, there is the opportunity to secure considerable benefits for consumers. Operators can adjust their offerings for customers' tastes and budgets, and they can ensure customers who are more expensive to serve are catered for by charging prices that recover the costs of serving them.

From this section and the previous one, we can draw several conclusions:

- Like all markets, taxi markets are subject to market imperfections.
- However, like all regulations, taxi regulation is subject to regulatory imperfection.
- Some of these imperfections do not apply in markets where orders are mainly made by phone, meaning that they do not apply to cities such as Saskatoon.
- Deregulating prices means that operators can serve a range of different customer tastes and budgets.
- Deregulating price and entry further eliminates some of the perceived failures in taxi markets.
- The balance of evidence suggests that rather than taking taxi markets closer to perfect competition, taxi regulation in Prairie cities has actually created additional barriers to entry. These markets suffer not from market failure but from regulatory failure, and regulatory reform would be beneficial to most people.
- Due to limited space and customers often unfamiliar with the taxi market and the city, airports often benefit from setting their own conditions for cabs entering their property.

The remaining question is who would win and who would lose out with regulatory reform?

# Deregulation Winners and Losers

Compared to largely unregulated markets such as restaurant services, taxi regulations have a number of effects that differentiate the structure and function of taxi markets from others.

- Restricted entry leads to a shortage or a surplus of taxi services. In the case of a shortage, it leads to high prices for licences.
- The artificially high capital costs of a licence are passed on to consumers, who receive no benefit from them (because they are artificial).
- Consumers who would take advantage of additional taxis were they available must find substitutes, which might include private cars, rides from friends or family, black market taxis or going about their business without using a vehicle.
- A one-size-fits-all market structure where all consumers are forced to accept one level of price and service regardless of their ability to pay or their preferences.
- Potential drivers who might enter a larger taxi market are deprived of employment or they must enter the restricted market with reduced income as they attempt to cover licence capital costs.
- Drivers in a price-controlled and supply-constrained market who are required to charge the same price everywhere will be likely to cherry-pick jobs. Anecdotal evidence suggests drivers are reluctant to serve "bad" neighbourhoods when there is excess demand in more desirable locations.

Like all public policy, taxi regulation inevitably creates winners and losers. Who these are should be implicit in the above description, which applies to regulated markets such as Saskatoon. In a deregulated market without controls on prices or cab numbers, we might expect the following changes:

- The number of taxis operating would expand to equilibrium in the dispatch market, while locations with high density (especially airports) might still require some regulation to prevent over-supply.[30]
- Lower fares and better quality, as drivers no longer have to service the capital costs on artificially restricted licences.
- An expanded taxi market as greater availability, lower fares, shorter waiting times and better service mean that consumers substitute away from other modes of transport and toward taxis.
- Greater choice as taxi drivers and companies compete on price and quality trade-offs. Some will elect to run premium vehicles with "bow-tie" service while others will compete entirely on price.
- Greater employment opportunities as new drivers enter an expanded taxi market.
- Additional drivers with flexible pricing will move into markets that current drivers are unwilling to serve.

These changes are mainly positive for the public. However, as with all public policy changes, there will be losers. Incumbent drivers might lose in two ways:

- Any surplus profits gained from operating in a market of limited supply would be lost when new competitors enter the market.
- The value of licences would be expected to fall to zero, as the monopoly value of having a licence would be removed with open entry. This would be a sizeable loss to licence owners. It is worth noting, however, that this would not affect all drivers, as many licences are held by

"licence magnates" who own many (one conglomerate in Calgary holds 545 out of 1,311 while one individual in Saskatoon holds 34 out of 160). In fact, many drivers would be relieved of the financial burden of paying to rent licences.

Any outlandish profits made by drivers due to artificial scarcity of licences are not theirs to lose. If the law has delivered this benefit, it is equally able to remove it, particularly if it does so in the public interest.

## Driver Welfare

Until now, licence holders have been portrayed as privileged operators extracting monopoly rents from taxi markets under government protectionism. It is important to note that these holders are not always the drivers. In reality, many drivers must rent licences at prices as high as $100 per shift.[31] Reports from the Calgary market have one conglomerate owning 545 of 1,411 regular licences[32] while similar reports in Saskatoon found one individual holding 24 licences, or one in seven.[33] Companies in Winnipeg have vociferously resisted attempts by new driver co-ops that would like to enter the market, and companies have been known to dismiss drivers who seek independence by applying for seasonal licences.[34]

While there is a clear, direct cost to drivers who do not own a licence, this monopolization of licences has another negative effect on driver welfare. One finding of the Winnipeg Taxi study was anecdotal evidence of very poor treatment of taxi drivers in the Winnipeg market. It is reasonable to believe that similar conditions apply to drivers in other Canadian taxi markets. Poor conditions include the following:

- Poor job security with arbitrary dismissal.
- Poor or no health or pension benefits.
- Being forced to drive unsafe cars.
- Limited negotiating power with regard to licence rental rates.

The Winnipeg Taxi Study claims that it is not the role of taxi regulators to help drivers in these situations, and advises them to leave that job to provincial labour law enforcers. However, even if these labour law enforcers were to act, they would be imposing a double-edged sword on drivers. When governments mandate better conditions for employees, they risk two unintended consequences:

- Employers will recoup the costs by reducing other parts of the employees' remuneration or by extracting more work from the employees.
- Employers will find it uneconomical to employ anyone given the new mandatory conditions.

A better way to improve the lot of drivers, apart from relieving them of the need to pay for a licence, would be to make the market more fluid, so there is greater competition for drivers between existing and potential new companies.

As Nobel economic laureate F. A. Hayek reminds us, "Our freedom of choice in a competitive society rests on the fact that, if one person refuses to satisfy our wishes, we can turn to another."[35] Put simply, an uneven distribution of taxi licences puts those who do own them in a powerful position, limiting the choices available to those who wish to drive. Personal communications with drivers in the industry have suggested that licence holders are prepared to pay a premium in order to acquire a greater share of the market if they believe it will give them monopoly power.

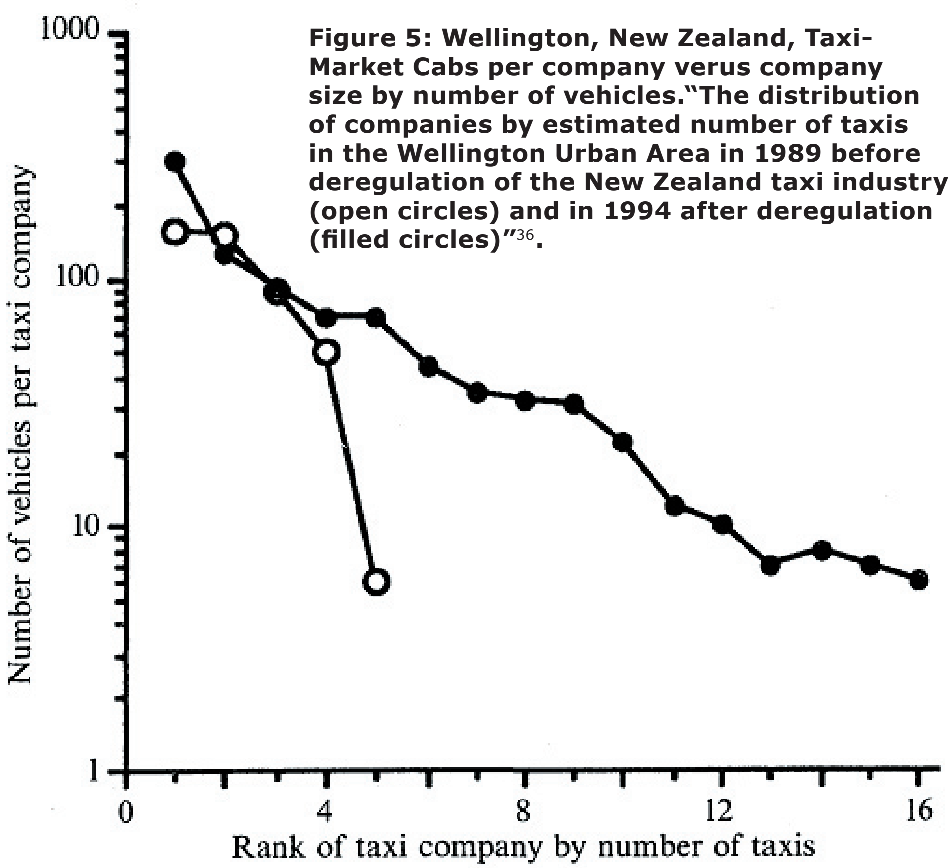


**Figure 5: Wellington, New Zealand, Taxi-Market Cabs per company verus company size by number of vehicles."The distribution of companies by estimated number of taxis in the Wellington Urban Area in 1989 before deregulation of the New Zealand taxi industry (open circles) and in 1994 after deregulation (filled circles)"[36].**

The empirical evidence from New Zealand is that after deregulation, many new companies entered the market and needed to attract drivers. A statistical analysis of the market in Wellington, New Zealand, found the following:

As Figure 5 shows, before deregulation, there were only five companies operating in Wellington. Several years after deregulation, the larger firms had consolidated their positions, but they were joined by a large number of cab companies with fewer cabs. There is no quantitative evidence for the results of this change in market structure for cab drivers. The same study certainly notes that in the short run drivers had to work longer hours for lower rates of remuneration. As competition intensified and the market expanded, these conditions improved.

What we can say is that these conditions reduced the market power of licence holders and gave drivers more freedom of choice as to whom they worked for. Other things being equal, a greater number of companies afford drivers more choice as to employers, and it improves their conditions of employment.

The remaining difficulty rests with what to do about lost licence value for current holders; this question is addressed in the section on an equitable and efficient exit strategy.

## International Experiences of Taxi Deregulation

Several jurisdictions have carried out taxi deregulation, and in this section, we look at reviews of Ireland and New Zealand.

## Ireland


Sean Barrett, on behalf of the Institute of Economic Affairs in London, presents an account of the Irish deregulation experience in his paper "Regulatory Capture, Property Rights and Taxi Deregulation: A Case Study," which was published in Economic Affairs (2003).

The republic of Ireland capped its taxi numbers in 1978 and infrequently issued new licences until 2000. At that time, the High Court ruled that the restrictions on entry to the taxi market were an abuse of human rights. They were deemed both a violation of the right of the public to purchase services that would otherwise be available and a violation of the rights of drivers who were qualified to work in the industry. The court also found that the entry restrictions were discriminatory, as most licence holders were Irish and most would-be drivers were immigrants.

The deregulation came during a time of intense economic growth in Ireland, a time when the country's economy was referred to as the "Celtic Tiger." This led to immense public dissatisfaction with the near static number of taxis attempting to serve a large and growing market.

It is important to note that the Court also ruled that the value in a licence was not the actual property of the licence holder. Although licence holders stood to lose an average of I£90,000 (approximately $161,000 CAD in 2000), the court effectively ruled that the law was able to take away that value just as easily as it had granted it.

This led to considerable frustration on the part of the taxi drivers. Before deregulation, there were street blockades in protest and a 2001 judicial review of the deregulation. The review found "The interference with property rights is not only justified but is minimal in that the applicants are still free to dispose of their license and use of it as they see fit. There has been no expropriation of their licenses."

At the time of Barrett's paper (2003), former licence holders were still seeking compensation for the loss of their monopoly licences and having limited success.

However, for the public the benefits were immense.

The evaluation of taxi deregulation in Dublin by Goodbody Economic Consultants (2002) found that, 'over two-thirds of people believe that deregulation was a good idea with 14% disagreeing.' The impact of the large increase in market entry was shown in the declines in waiting times for taxis, with the proportion of people waiting more than five minutes decreasing from 75% in 1997 to 52%

in 2001. Just under half of all taxi users considered that the service had improved with only 5% indicating that the service had got worse. After midnight the average waiting time was in excess of 30 minutes for 43% of the hours surveyed in 1997 and for only 6.2% in 2001; 20.3% of hours surveyed had waiting times of less than five minutes in 1997, but under deregulation this increased to 60.2% in 2001 (p. ii). On vehicle quality Goodbody found that 'most cab users find the quality of the vehicles acceptable' and that 'it would be difficult to argue that there is demand for radical change in this area'

There was also a threefold increase in total taxi numbers. Altogether, the Irish experience demonstrates several themes discussed in this paper:

- The influence incumbents can bring to bear in terms of protest, political lobbying and legal challenges is a serious hurdle to taxi deregulation and highlights the regulatory failure arguments made earlier.
- The expansion of the taxi industry was beyond what was predicted based on economic models. The Irish market had almost twice as many taxis after only two years as predictions had forecast would be required after 10.
- The public was the major beneficiary of taxi deregulation.


## New Zealand

New Zealand deregulated both taxi prices and licence numbers as part of a sweeping deregulation program late in the 1980s. A 1997 review of deregulation by Professor Philip Morrison of New Zealand's Victoria University of Wellington found similar results in New Zealand as in Ireland.[37] Most interestingly, the New Zealand taxi industry has aggressively taken advantage of price deregulation.

In the Wellington region (New Zealand's capital and second-largest city), the number of taxis more than doubled within five years of deregulation. Nine companies existed before deregulation, but 14 new companies were established within five years. This point is particularly important because it brings into question the argument that taxi markets fail because they are natural monopolies where incumbents with large fleets enjoy economies of scale and can squeeze out newcomers. Morrison presents a statistical analysis to demonstrate that the sizes of taxi fleets have taken a very natural log-linear distribution since deregulation (see Fig. 5, Pg. 19).

Perhaps the greatest reason for this was that New Zealand allows companies to set their fare structures as well as their fares. As long as they report their fares to their local municipality, they are able to charge what they like. While Morrison reported in 1997 that consumers were not used to shopping on price, the industry appears to have matured. This has led to a wide stratification in levels of service where consumers can shop amongst companies with names such as Corporate and VIP at one end of the market and Payless, Cheap and Discount at the other end. In 2004, one company was established with only women drivers, targeting women passengers who may be untrusting of male drivers. The business failed, which was perhaps an indication its target market was smaller than anticipated, but only the unregulated market was able to make such an offering.

Taxis have also developed additional revenue streams such as placing advertisements on cabs.

Morrison notes that companies have constructed complex fare structures to allow for phone-dispatch versus street-hail rides and to compensate drivers who work on public holidays. These adaptations have overcome problems that others have identified in taxi markets, namely that operators will not serve undesirable areas or phone dispatches if they make the same money in more desirable rank and hail areas. The proposed Saskatoon airport charges would also be an example of matching supply and demand with appropriate prices, but they are an ad hoc measure in an otherwise regulated environment.

Despite the difficulties in measuring fares, Morrison notes, "these changes have been accompanied by declines in real, if not nominal, fares."

Like Ireland, New Zealand did not compensate incumbent licence holders for the loss of their licences' monopoly value even though licences were trading for approximately $25,000 New Zealand dollars (approximately $17,000 CAD in 1989). Drivers' rates of remuneration went down, but it is not clear how much. However, with the number of drivers doubling over five years, about as many new drivers chose to enter the market, presumably at better remuneration than their previous jobs.

One place where additional restrictions are necessary is airports. We are careful not to call the restrictions regulations, as they are controls imposed by private property owners rather than by governments imposing regulations in public areas. Airports have found the problems of excess supply predicted by economic theory and empirical evidence in North America to be true. Too many taxis lining up have led to anti-social behavior as drivers seek valuable fares from airport terminals. The solution imposed by Wellington Airport is to issue a limited number of licences that allow some taxis to enter the airport grounds. The airport also sold their taxi-use car parks outside terminals to taxi companies.

Morrison concludes:

"…deregulation (the removal of quantity and price controls) with appropriate (re)introduction of quality standards can bring about a restructuring of the industry in a way that benefits both consumers and suppliers alike. Far from being an industry apart, ungovernable without stringent regulation, the removal of entry and fare restrictions has released forces which have led to a new and considerably more vibrant local taxi industry."

## Finding Equitable and Efficient Exit Strategies in Canadian Cities

After reviewing the theoretical and empirical evidence for taxi deregulation as well as two international case studies, it is clear that cities such as Saskatoon, Winnipeg and Calgary could benefit from the removal of controls on entry to the taxi market and prices charged by taxi companies. The theoretical and empirical evidence suggests deregulation would come at a cost to existing licence holders, but it would lead to a "new and considerably more vibrant local taxi industry" for both would-be drivers and the public.

The remaining question is what to do with the incumbent licence holders, particularly those who have borrowed and invested heavily in licences, expecting to get monopoly rents from holding a scarce asset? Several possibilities are reviewed here.

### Zero Compensation

The first option is the New Zealand and Irish solution of zero compensation. This option would immediately open up the taxi market and avoid setting the broader precedent that every holder of a government-delivered privilege such as access to a protected market must be compensated at public expense. While many of those who would lose are wealthy owners of multiple licences who could be perceived as having gambled that governments would continue to protect them, these same people would likely offer considerable political opposition to deregulation. Inevitably, there will be some licence holders who have heavily leveraged themselves to afford licences and who could face financial ruin when the licence values fall to zero. In the experience of New Zealand and Ireland, this approach has led to continuing trouble as former license holders have sought to recoup their losses through legal and political channels. Nevertheless, governments in both countries have continued to resist calls for compensation.

If local or provincial governments offered compensation for the lost scarcity value of licences in a deregulated market, this compensation would have to be funded somehow, and again there are several options:

### Buy-out Market Value of Shield

Municipalities could compensate licence holders out of public funds. The $12-million required to compensate Saskatoon licence holders at the 2008 average sale price would be a one-time expense of approximately 2 per cent of the City's annual expenditures. In Winnipeg, a similar arrangement would cost $90-million or 9 per cent of annual expenditures. If taxpayers were prepared to support a significant subsidy to often-wealthy magnates, it would alleviate political pressure against deregulation. Cheaper options for the City would be to compensate only those who purchased licences recently, i.e., within the last five years, or to compensate at the average price for some recent period, as licences have only reached their current values in the past two years.

### Implement Temporary Tax to Buy Out Shield

Alternatively, the City could compensate licence holders and then recover the money from the taxi industry through a temporary tax on cab fares that would end when the value of the licences was paid out. Alternatively, all operators could pay a fee similar to the current going rate to lease licences. Both options would be better than funding the compensation from general revenue, because the people paying for it would ultimately be taxi users through their fares. This would absolve taxpayers who may have no interest in using taxis from subsidizing those who do. However, in the long term, public choice theory being what it is, this dynamic would be likely to reverse. Without a strong sunset clause, the City councilors might be tempted to continue to levy this fee beyond recovering the cost of incumbent licence holder compensation and force taxi users to subsidize general revenue.

## Gradual Licence Expansion

A final option would be to introduce a program of gradual licence expansion or to grant an additional licence to each incumbent holder. This kind of solution was proposed in Ireland before deregulation but, in our view, it is the least desirable option. First, the surprising growth of the unregulated market in Ireland has shown that authorities find it difficult to know what the correct number of licences is. As has been argued in previous sections of this paper, the taxi market has suffered from regulatory failure due to the creation of acute vested interests. Any gradual transition would provide incumbents ample time to continue their lobbying, which has created the problem we have currently. Worse, it would increase their number by bringing more drivers and possibly more companies into a market that would be less protected than the current market, but protected nonetheless.

Whatever exit strategy they choose, policy makers should try to find a balance among the following goals:

1. Avoiding the precedent that all government-delivered privileges such as market protections deserve compensation when deregulation takes place for the public good.
2. Avoiding relying on authorities to have the accurate market information required for gradual reductions in the price of licences as the evidence provided in this paper has demonstrated they tend to do a poor job of anticipating demand..
3. Completely removing the hazardous political dynamic of creating interest groups that seek to protect vested interests.
4. Being humane toward people who have recently made considerable sacrifices to buy taxi licences, while realizing that many people bought licences for much less than the current market value and may hold many of them.
5. Avoiding forcing taxpayers with no interest in using taxis to subsidize an exit strategy.
6. Avoiding permanent levies on taxi operators that may become unnecessary barriers to market entry in the future.

# Conclusion

Acting in the best interests of the public, provincial and municipal governments should co-operate to amend legislation that controls pricing and entry into the taxi and make the necessary changes at the municipal level to bring about taxi deregulation.

The theoretical and empirical evidence is strong and shows that when done properly, removing controls on taxi numbers and prices while retaining basic quality requirements regarding driver competence and car safety can lower prices, improve service and create new jobs in the industry. Proper deregulation is best described as re-regulation, as it retains control over driver quality and car standards, and it requires fares to be posted on cab windows. Airports remain a special case and can set their own conditions for cabs entering their properties. This approach is preferable to applying blanket regulations to entire communities simply to protect the airport sector of the market. The question is how to deal with the political dynamics that have created this problem in the first place.

Given the experience of other countries, there are a number of political challenges, as operators in the taxi industry will undoubtedly resist deregulation as strongly as they can. Whatever exit strategy policy makers choose, they will need to show leadership. They will have to acknowledge that they rule in the interests of all constituents, not just those individuals who have the strongest interest in influencing them on a particular policy.

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30. Note that Schaller, who is very cautious about over-supply at taxi ranks, has the following to say about the dispatch market: "Limits on entry, while benefiting cab stand and street hail markets, have led to efficiencies in service to outlying areas when implemented in cities with large walk-up trip volumes." p 504.

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## Further Reading:

### Australia's Dairy Reforms

An overview of Australia's recent dairy reforms and the country's phase out of marketing boards. A temporary consumer levy on milk is being applied to partially buy out quotas, the most difficult aspect of marketing board reform.

Frontier Policy Series No. 16, March 2003