

Automobile Insurance in Ontario: Public Policy and Private Interests

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Récemment, le gouvernement de l'Ontario a introduit un système partiel d'assurance-automobile sans responsabilité. Un objectif déclaré de cette politique était de promouvoir l'intérêt public. Incidemment, l'industrie de l'assurance était en général d'accord avec cette décision. Est-il possible qu'à la fois la société en général et l'industrie de l'assurance puissent tirer avantage d'un système d'assurance-automobile sans responsabilité? Ce texte examine la décision d'instaurer un système d'assurance-automobile sans responsabilité en Ontario du point de vue de l'industrie de l'assurance et du point de vue du bien-être collectif. Le texte montre que l'industrie a été amenée à faire du lobbying en faveur du nouveau système à cause de la réglementation que le gouvernement avait adopté sur les primes d'assurance. Il était rationnel pour l'industrie de chercher des contraintes sur les coûts alors qu'il existait des restrictions du côté des revenus. En général, l'information disponible suggère qu'un système sans responsabilité n'améliorera pas le bien-être collectif.

Recently the government of Ontario introduced a partial no-fault system for automobile insurance. One stated objective of this policy was to promote the public interest. Interestingly, the insurance industry was generally supportive of this decision. Is it possible that both society in general and the industry can benefit from no-fault automobile insurance? This paper examines the decision to implement no-fault automobile insurance in Ontario from the industry's perspective and from an overall welfare perspective. The paper argues that the industry was induced to lobby for no-fault automobile insurance provisions as a result of the government's prior regulation of insurance premiums. It was rational for the industry to want 'cost restraints' in the presence of these 'revenue' restrictions. In general, the available evidence suggests that the no-fault policy will not be welfare enhancing.

I Introduction

In June 1990, the government of Ontario introduced a partial no-fault insurance scheme for automobile accidents.¹ The no-fault policy was part of the 'Ontario Motorist Protection Plan'² that was implemented in order to '... respond to the number and severity of automobile accidents and the dramatic increases in insurance rates in recent years' (Wyatt, 1989:1). This

followed intense lobbying by the Insurance Bureau of Canada on behalf of the majority of automobile insurance companies for some form of no-fault insurance policy. Is no-fault automobile insurance desirable both to the driving public *and* to the insurance industry? This paper provides an answer to this question.

The paper examines the behaviour of two key players – the provincial government and the insurance industry – in the

switch to a no-fault automobile insurance system in Ontario. It examines this decision in light of the stated government objective of promoting the public interest, and explains why the automobile insurance industry supported it. Thus, the paper addresses two issues: why does the insurance industry find no-fault desirable; and, does no-fault actually enhance the public's welfare.

The recent history of the automobile insurance market in Ontario consists of three periods: a liability legal regime without price regulation (pre-1987); price regulation (1987-1990); and, a partial no-fault legal regime with price regulation. The contention of this paper is that the automobile insurance market is essentially competitive,³ implying that the second period is inherently unsustainable. This means that once price regulation is in place, it is rational for the industry to lobby for no-fault insurance. Therefore the relevant periods for the purpose of welfare comparison are the first and third – comparing a liability insurance regime without price regulation to a no-fault system with price regulation.

The paper first reviews the difference between a no-fault and a liability insurance system, focussing on the distinction between first party and third party insurance. It then examines recent government forays into the automobile insurance market in Ontario, and the resulting industry responses. The social desirability of no-fault is then addressed, based on a discussion of the possible link between no-fault and traffic accidents. The last section of the paper offers some concluding remarks.

II The No-Fault/Liability Distinction

A liability insurance regime entails the determination of fault or liability in the event of an accident. Most commonly, the court, or a pre-trial settlement, delineates the proportion by which each party contributed to the accident (their 'liability'). For instance, in a two car collision, it may be determined

that one driver was 60 per cent at fault and the other driver was 40 per cent at fault. The first driver is thus responsible for 60 per cent of the damages caused to the second driver, whereas the second driver is responsible for 40 per cent of the damages of the first driver. This responsibility for the damages caused to others is called 'third party liability' and is covered by liability insurance.

No-fault insurance, by contrast, does not require the determination of fault before damages are compensated. Drivers insure against personal damages ('first party insurance'), which are indemnified regardless of culpability in an accident. In addition to these first-party compensation provisions, a no-fault insurance regime entails some limitations on the right of the victim (the 'third-party') to sue for additional damages.⁴

The debate regarding the desirability of no-fault versus liability automobile insurance is by no means clear-cut. Each side boasts numerous proponents, and the debate centres on which regime maximizes net social benefits. Typically, proponents of no-fault insurance argue that it leads to an increase in social benefits by reducing the costs of administering the insurance system.⁵ The principal reason for operating a legal liability system for vehicle accidents is to induce drivers to take more care when on the road since otherwise they would be responsible for the damages caused to others (the so-called deterrence effect of a liability system).

Proponents of no-fault argue that a liability regime does not deter accidents for two reasons. Since liability insurance exists, drivers do not pay the full cost of their behaviour, and hence, do not drive any more carefully within a liability system. As well, even if drivers do respond to legal liability, most accidents are random events that could not be avoided anyway.⁶ Those who argue for a liability system insist that there is a deterrent effect from liability even in the presence of insurance. This results in an accident rate lower than it would

be with a no-fault regime. Thus, legal liability contributes to social welfare by inducing drivers to take more care, leading to fewer accidents than would occur in the absence of liability.

Any conclusion as to which regime is more socially desirable rests upon empirical analyses of their costs and benefits. In particular, one must establish the link, if any, between no-fault and driving care (measured by the number of accidents). Empirical analysis is also required to determine the magnitude of the potential administrative cost savings attributable to a no-fault regime. These are discussed in section V below. The paper now turns to an examination of the role of government in the automobile insurance market in Ontario over the past decade, and the industry's response.

III Recent Government Intervention in the Automobile Insurance Market

The Ontario government's decision to intervene in the automobile insurance market followed at least four years of intensive scrutiny of the industry. Part of the scrutiny arose from the perception that the entire liability insurance market was 'in crisis'. The government responded to this crisis by first regulating the prices charged for automobile insurance and then later by implementing a no-fault insurance scheme.

In Ontario, three government-sponsored examinations were conducted into various aspects of automobile insurance provision: the Ontario Task Force on Insurance, 1986 (the Slater Report); the Report of Inquiry into Motor Vehicle Accident Compensation in Ontario, 1988 (the Osborne Commission); and the Ontario Automobile Insurance Board (OAIB) hearings report of 1990. The mandate of the Slater Report was to examine the whole range of property and casualty insurance in Ontario. The other two reports dealt exclusively with automobile insurance.

The Slater Report recommended that

some form of no-fault automobile insurance may be desirable, citing certain symptoms of the liability crisis as the basis for this recommendation. This was not surprising given that the report immediately followed a period of rapidly rising liability premiums – and was written in the midst of public outcry for some control over the automobile insurance industry.⁷ The report further suggested that the ability of the legal system to deter accidents is weak whenever liability insurance is available. Slater also pointed out, possibly to allay criticism of no-fault insurance, that the incentive to drive carefully can be enhanced in a no-fault system by some type of penalty-rating system (Government of Ontario, 1986:102). The ability of first party, no-fault systems to provide prompt compensation is reiterated by this report, and is essentially incontrovertible.

As a direct result of the Slater Report's findings, the Osborne Commission was established specifically to examine the desirability of no-fault automobile insurance for Ontario. A partial no-fault system was recommended, based upon the '... interests of those who suffer injury ... and the interests of Ontario's drivers ...' (Government of Ontario, 1988:I:506). Although the report correctly acknowledges that a liability system may induce more driving care and that cost savings are likely to be minimal with a partial no-fault scheme, it concludes, somewhat arbitrarily, that legal liability and no-fault can effectively co-exist: that the 'best of both worlds'⁸ can be achieved (Government of Ontario, 1988:I:506,530).

One consequence of the Osborne Commission report was the creation of the now defunct 'Ontario Automobile Insurance Board' (OAIB) in 1988. The OAIB was requested to hold public hearings to examine a number of no-fault options for Ontario. Various experts were commissioned by the OAIB to examine these options. Not surprisingly, the evidence presented to the Board concerning the magnitude of the potential cost savings and other benefits from no-fault was ambiguous. Proponents

and opponents of the scheme alike presented their views and statistics concerning the potential effects of a no-fault system.

In addition to this ongoing scrutiny, the government of Ontario, in April 1987, imposed a 'voluntary' cap on automobile insurance premium increases of 4.5 per cent per annum.⁹ The fact that there was a staggering 134 per cent increase in the number of drivers who were unable to purchase automobile insurance coverage in the regular market from 1987 to 1989 suggests that this voluntary cap was binding (Facility Association, 1989:13). Two years later, the rate regulation was changed to a mandatory ceiling on insurance premium increases of 7.6 per cent per annum. Available evidence suggests that this regulation constrained the operations of the firms in the insurance industry.¹⁰

A partial¹¹ no-fault automobile insurance system was introduced in Ontario in June 1990. This system has a 'verbal' threshold beyond which individuals have legal recourse: the threshold is defined as '... death, permanent serious disfigurement, or permanent serious impairment of an important bodily function caused by a continuing injury which is physical in nature ...'.¹² In addition, the Ontario Insurance Commission was established to oversee the industry. Insurance firms have also begun to set premiums which are more sensitive to the individual's driving record.

IV Regulation, No-Fault and the Behaviour of the Insurance Industry

Automobile insurance is compulsory in every jurisdiction in Canada. Within a compulsory insurance regime this paper considers four possible states of the world: liability without price regulation; liability with price regulation; no-fault with price regulation; and no-fault without price regulation. The first three states correspond to recent events in Ontario: prior to 1987 there existed a liability system without price regulation;¹³ from 1987 to 1990 prices were regulated; and, after June 1990, a

price regulated (partial) no-fault regime emerged. However, liability with price regulation, and no-fault without price regulation, are unlikely to be sustainable equilibria.

1 Price Regulation and Liability Insurance
Price regulation could persist over time in a liability insurance system if the industry had sufficient monopoly power – earning economic profits in the long run.¹⁴ As long as the producer continues to earn reasonable profit, the insurance service will continue to be provided. However, price regulation in a market in which firms are not earning long-run profits is not sustainable.

Despite the fact that the insurance industry in North America has been closely scrutinized for some time, researchers have been unable to find consistent evidence of market power in this industry (Ippolito, 1979; Harrington, 1984; Suret, 1991). In Canada, measures like concentration ratios and Herfindahl indices suggest that the industry is 'somewhat competitive'.¹⁵ There is little evidence of economies of scale in the industry; nor do there appear to be excessive barriers to entry (Potvin, 1988). The consensus seems to be that the property-casualty insurance sector in Canada (of which automobile insurance is a principal component) is relatively competitive. Thus, evidence suggests that the industry is 'competitive' in the sense that excess profits tend to zero in the long run. What are the effects of imposing binding rate regulation in such a market?

Rate regulation treats different risk groups asymmetrically: the higher risk drivers will benefit more from the regulation than the lower risk drivers.¹⁶ This will result in firms trying to reduce the number of high risk drivers insured. One measure of this effect is the rise in the number of drivers who have been unable to purchase insurance in the regular market following periods of stringent rate regulation¹⁷ (Ippolito 1979; Mintel 1983; Harrington, 1990). Indeed, as mentioned earlier, there

was a 134 per cent increase in the number of drivers who could not purchase insurance in the regular market in Ontario from 1987 to 1989.

Another consequence of rate regulation is that insurers may reduce the 'quality' of the product offered – this has come to mean that the service associated with a given insurance package is reduced (Pauly, Kunreuther and Kleindorfer, 1986). Firms may also leave the industry, in spite of the fact that exit from an insurance market may be costly, for obvious reasons.¹⁸

Finally, and most important from the point of view of this paper, firms may lobby for some kind of *compensation* regulation to balance the limits placed on their premium revenue.¹⁹ A first party insurance system, which accompanies no-fault, permits insurance firms to have more control over the magnitude of expected claims.²⁰ Firms would be indemnifying their *own* clients – rather than the victims of their clients – and hence could match the premium charged to more specific, driver-based criteria. Firms can determine more precisely the expected value of a claim in the event of an accident.²¹ However, first party insurance still requires fault to be determined should an accident occur, with compensation forthcoming only to the extent that the driver did not cause the accident. The amount of compensation remains subject to court determination. A no-fault system reduces this latter uncertainty.

Recall that a first party insurance system becomes 'no-fault' whenever there is some limitation on the right to sue. Under no-fault, the compensation owing to a driver is determined *ex ante*, and the right to sue for additional damages is curtailed.²² Thus, insurance firms may benefit from such a system since they are not subject to the vagaries of court determined awards. In addition, firms could save on administration costs since the amount to be paid to victims is calculated simply by referring to a 'benefits chart'. Thus, the fact that, in Ontario, '... a majority of the automobile insurance industry favours some form of no

fault compensation scheme' is not surprising (Government of Ontario, 1988:I:507). Notice that the benefit from no-fault to the industry is that it provides a means of better controlling the costs of providing the insurance service. Would no-fault insurance be desirable if rate regulation were not in place?

2 *No-Fault Insurance in the Absence of Rate Regulation*

In a competitive industry in which firms earn normal returns over time, there is no reason why no-fault provisions would result in higher profits. No-fault insurance may reduce the variance of claims. However, to the extent that insurance firms are in the business of diversifying risks anyway, this does not provide any incentive for choosing no-fault over liability. Indeed, there is no compelling reason for the industry to lobby for no-fault if binding rate regulation is not anticipated.

Consider what would happen if the government for, say, political reasons, decided to switch to a no-fault regime for automobile insurance. How would the industry react? As argued above, *ceteris paribus*, the industry would earn the same return under either a liability or a no-fault (or partial no-fault) regime. However, all no-fault regimes typically have some form of government intervention in the form of determining minimum compensation levels. In the absence of pressure to increase premiums (i.e. costs were stable) then the industry would be indifferent between no-fault and liability. If, however, costs were rising, and premiums began to increase, then, under either regime, there predictably would be some public pressure for rate regulation.²³

There are two reasons why the pressure for rate regulation may be stronger under a no-fault regime: first, the no-fault policy may signal that the government is predisposed to intervening in the market; and, second, within a liability regime the industry could argue that a portion of the cost increase was beyond its control – namely

the court award system. In a no-fault regime, the industry is perceived as having more control over costs, and hence, premium increases may be attributed to a desire for greater profits.

The stronger the no-fault regime, the more likely that rate regulation will accompany it. Rates are regulated in the pure no-fault regimes mentioned later in this paper – Quebec,²⁴ New Zealand, and the Northern Territory of Australia. Evidence from the United States supports this proposition, although one has to be careful in interpreting this since rate regulation in the United States permits the industry to circumvent anti-combines legislation.²⁵ Consequently, many regulatory regimes are in existence, each with varying degrees of stringency.

To conclude, the industry in Ontario favoured a no-fault insurance scheme because it was subject to binding rate regulation. No-fault represented a way for the industry to obtain commensurate compensation (cost) controls. If rates had not been regulated, then no-fault would have been a less attractive alternative. Since the automobile insurance market tends to be competitive, binding rate regulation cannot persist within a liability regime. Consequently, when examining the welfare consequences of the government's no-fault insurance scheme the appropriate benchmark environment is a liability regime without price regulation. The paper now turns to the second question posed in the introduction: Does no-fault automobile insurance enhance public welfare?

V Is No-Fault Automobile Insurance Socially Desirable?

1 The Empirical Evidence on the Link Between No-Fault and Accidents

The empirical measurement of the impact of no-fault insurance will depend upon the type of scheme in operation. In particular, the more pervasive the no-fault system the greater will be its effects. No-fault insurance systems can be categorized into

two broad groups: 'pure' no-fault and 'partial' no-fault. The distinction is simple: in a 'pure' no-fault system, victims are prohibited from suing for additional damages no matter how severe their losses are. In a 'partial' system, victims are permitted to sue for additional damages provided that their losses exceed some specified 'threshold' value.²⁶

Econometric studies of the effects of 'pure' no-fault on driving behaviour suggest that no-fault results in an increase in fatal accidents.²⁷ It is important to note that the number of 'fatal accidents' is the appropriate variable to track when examining the incentive effects of automobile insurance regimes. This category is not subject to the type of reporting error expected with other classes of accidents.²⁸ I.R. McEwin (1989) examines no-fault automobile insurance in New Zealand and the Northern Territory of Australia, and concludes that the abolition of the liability system resulted in a 16 per cent increase in fatalities per capita. In addition, his empirical investigation entailed jurisdictions that moved to 'pure' no-fault, and ones which introduced compulsory first party insurance without no-fault. He found that those jurisdictions with only compulsory first party insurance did not experience an increase in accidents even though these regimes had non-merit rated premiums.

The province of Quebec is the only North American jurisdiction with a pure no-fault system.²⁹ There have been two econometric studies done specifically to determine the effect on driving behaviour of the new regime in Quebec in 1978. Interpreting the results from Quebec is difficult since a number of changes occurred simultaneously: there was a switch in legal regimes from liability to pure no-fault for bodily-injury accidents; premiums changed from being experienced rated to being essentially invariant to drivers' behaviour; and, the no-fault component of automobile insurance became publicly provided (Boyer and Dionne, 1987; Gaudry, 1992). For the purpose of this paper, the first two changes

are important.

The first study, Gaudry (1992), concluded that the new regime in Quebec resulted in an overall increase in accident fatalities of about 9 per cent. He attributes 3.3 per cent of the increase in fatalities to the flat rated premium structure which was implemented at that time.³⁰ There has since been a move in Quebec to correct this problem. However, another potential source of moral hazard arises from the fact that drivers involved in an accident are compensated irrespective of fault. R.A. Devlin (1992) estimated that fatal accidents increased by almost 10 per cent as a direct result of the new regime.³¹ It is argued that this figure comprises moral hazard from inappropriate pricing *and* from no-fault based compensation. Although it is impossible to separate these effects from the data, she argues that if accidents were to increase by just over 1 per cent as a result of this second source of moral hazard, then the costs of the no-fault regime in Quebec would outweigh its benefits (Devlin, 1990).³²

All of the 15 no-fault states in the United States have partial no-fault. Indeed, many of these states have relatively low threshold values beyond which liability rules come into effect.³³ The empirical evidence from the US experience with no-fault automobile insurance is mixed. Landes (1982) is probably the best known of the empirical studies of no-fault in the United States, although its methodology has been seriously questioned. This study found that fatal accidents increased dramatically as the dollar value of the threshold increased: a 4 per cent increase in fatalities per year was attributed to a \$500 threshold and an increase in excess of 10 per cent resulted from a \$1,500 threshold.

P. Zador and A. Lund (1986) responded to Landes' study and re-examined the problem, refuting the notion that driving care was affected by the type of insurance regime in operation. They found that there was an insignificant impact on fatal accidents resulting from no-fault insurance. P.S. Ko-

chanowski and M.V. Young (1985) also found that no-fault did not contribute to an increase in fatal accidents. However, J.D. Cummins and M.A. Weiss (1992) perform an in-depth analysis of the various incentives which emanate from no-fault regimes, and conclude on balance that fatalities are 'slightly' higher in no-fault states than in liability ones.

Although mixed, the evidence on the effect of legal regimes on driving care cannot refute the claim that drivers respond to the type of legal regime in operation. Certainly, the strength of the response seems to depend upon the type of no-fault system in place. In Ontario, although there is a partial no-fault system the victim must sustain a 'serious injury' before liability comes into effect. This is one of the most stringent forms of partial no-fault automobile insurance in existence.

2 *The Costs and Benefits of No-Fault Automobile Insurance*

The main social benefits arising from no-fault automobile insurance are administrative cost savings, and potentially, net benefits from prompt compensation to victims.³⁴ There is no doubt that under a no-fault system in which legal conflict is minimized, and compensation rules are clearly set out, accident victims are promptly indemnified. C. Fluet and P. Lefebvre (1986: 165) estimated that in Quebec approximately 96 per cent of accident victims received some compensation within six months of filing a claim. Under a liability system this figure was estimated to be 35 per cent. A comprehensive survey of 46,694 automobile insurance claimants conducted recently in the US by the All-Industry Research Advisory Council (AIRAC) reaches similar conclusions.³⁵ In Ontario, the median time to settle claims was estimated at 10.5 months; with 20 per cent of the claims not being settled until two or more years following their instigation (Government of Ontario, 1991:10).

The potential for administrative cost savings under no-fault depends upon

whether the system is partial or pure. In a pure no-fault system insurance companies need not retain legal services to deal with court disputes with clients. In a partial no-fault system, however, legal expenses may still be incurred.³⁶ If the administrative costs of operating the insurance system are reduced in a no-fault regime compared to a liability one, then the insured drivers may experience a reduction in premiums. One estimate of the premium reduction resulting from the new regime in Quebec is 21 per cent (Devlin, 1988:184). Not all of this is attributable to no-fault per se, however, as Quebec also switched to public administration of the no-fault system as well. This public provision of insurance meant that, for instance, the brokerage service was no longer required, hence reducing the costs of the system and potentially reducing premiums as well.³⁷ C. Fluet and P. Lefebvre (1990:379) estimate that 77 cents of every premium dollar are returned in benefits under the new regime, whereas only 59 cents were returned in the previous regime.

Other benefits ascribed to no-fault insurance include the fact that victims need not pay legal fees from their damage award.³⁸ In the United States in 1987, for instance, almost 45 per cent of accident claims (based on the AIRAC sample of 46,268) had attorney representation. On average, lawyers received about 31 per cent of average bodily injury payment.³⁹ The comparable figure for Canada is lower: Osborne indicates that 10 to 15 per cent of settlements are frequently earmarked for legal costs (Government of Ontario, 1988: I:358). J. Cheng (1988:553) estimates legal payments to be approximately 11 per cent of awards.

The principal cost associated with no-fault automobile insurance is the social cost of increased accidents. Accidents may increase since drivers are now compensated irrespective of fault – leading some drivers to take marginally less care. A literature exists which attempts to evaluate the social loss resulting from bodily injuries and death.⁴⁰ For instance, in Quebec, assuming

that accidents increased as estimated by Devlin (1992) and using the most conservative estimates of the social value of life, then the social cost of the increase in accidents is about \$247 million (1981) annually. The benefits of the no-fault scheme in Quebec – most notably the administrative cost savings as well as the savings due to the elimination of the brokerage function – amount to, at most,⁴¹ 24 per cent of premiums earned – or about \$39 million (1981) annually. This leads to the conclusion that if accidents were to increase by just over 1 per cent as a result of moral hazard associated with compensating drivers irrespective of fault, then the costs of no-fault outweigh its benefits.

VI No-Fault Automobile Insurance and the Public Interest: Some Concluding Remarks

The switch to a no-fault insurance system yields both benefits and costs. One cannot say unequivocally if any one driver is better-off under a no-fault system as opposed to a liability one. Indeed, the benefits of no-fault differ significantly across driving classes. The group that clearly benefits the most under such a regime is comprised of the high risk drivers who would not otherwise be compensated for damages arising from an 'at fault' accident.

All drivers may pay lower premiums as a result of some administrative savings from the no-fault regime. However, since Ontario has a partial no-fault system, the magnitude of such savings is significantly reduced, especially when one takes into account the potential costs associated with interpreting the verbal threshold.

The decision to implement a no-fault automobile insurance regime in Ontario is difficult to justify from an overall social welfare point of view. Administrative savings would have to be more dramatic than available evidence suggests, before even a small increase in accidents is justifiable. However, one can say that the insurance industry is likely to benefit from this decision

given that it was also subjected to rate regulation. The behaviour of the industry prior to the introduction of no-fault automobile insurance is consistent with rational behaviour in a constrained world. As the industry had been price regulated since 1987, it is not surprising that it responded by supporting some type of 'compensation regulation'.

One lesson for policy-makers is the importance of considering the incentive effects which emanate from intervention in market operations. Implementing a rate regulation policy in an industry without market power will distort various dimensions of the product (service) provided, and may lead to calls for further government intervention. The events of the past decade or so in the automobile insurance market in Ontario attest to this problem.

Notes

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- 1 No-fault insurance entails compensating victims irrespective of fault *and* placing limitations on the right of the victim to sue. However, so-called 'add-on' no-fault (or 'accident benefits') provisions have previously existed in all Canadian provinces, except Quebec, whereby victims are compensated some specified amount in the event of an accident, regardless of fault. In Ontario, such provisions have been mandatory since 1972. The critical feature which separates add-on no-fault from the type of no-fault scheme which is dealt with in this paper, and which the literature refers to as 'no-fault,' is that under add-on there is *no* limitation on the right to sue. Hence a victim may be compensated by the accident benefits provisions and still sue the at fault driver for damages as well.
- 2 The Ontario Motorist Protection Plan (OMPP) entailed a number of provisions, the most important being no-fault automobile insurance. It also included stricter accident prevention policies - including higher fines for traffic violations, and license restrictions on new drivers (Wyatt, 1989).
- 3 Evidence concerning the structure of the automobile insurance market is provided in section 4 of the paper.
- 4 Quebec was the only province in Canada to have

a no-fault automobile insurance regime prior to the recent changes in Ontario. Provinces such as Manitoba, Saskatchewan, and British Columbia have public, first-party automobile insurance, but do not limit the victim's right to sue the injurer for more damage compensation.

- 5 See Keeton and O'Connell (1965) for an excellent discussion of the benefits of no-fault insurance.
- 6 The debate concerning no-fault versus liability automobile insurance has been described by various authors; see, for instance, Kochanowski and Young (1985), or Devlin (1990).
- 7 For instance, in Ontario third-party liability premiums for automobile insurance increased, on average, by over 20% in real terms from 1985 to 1986 (Government of Ontario, 1988:I:275).
- 8 That is that the legal system can promote increased driving care by maintaining some 'liability' and that the costs of administering the insurance system can be reduced by switching to some partial no-fault scheme.
- 9 Although it is impossible to determine how 'voluntary' this cap actually was, the OAIB report appears to take the view that insurance firms were constrained by this ceiling (Government of Ontario, 1989:163-70).
- 10 See, for instance, Government of Ontario (1989:166). In addition, shortly after the regulation began in 1987, insurance firms began to refuse to insure certain types of drivers (i.e. the higher risk driver). The most recent data available from the 'insurer of last resort' for Ontario drivers (the 'Facility Association') indicates that in 1987 the Facility paid out 107% of earned premiums for claims, in 1988 this figure soared to 140%. (The 'Facility Association' is a residual market insurer for those drivers who would not otherwise be able to purchase automobile insurance.)
- 11 Part V.1 of the paper discusses the difference between a 'partial' and 'pure' no-fault system.
- 12 See the Ontario Insurance Commission pamphlet 'What to do when you are in an automobile accident'.
- 13 This is a stylized view of the world. While there was no rate regulation per se, insurance companies were encouraged to rely on rates set by the Insurance Advisory Organization (IAO) which essentially established base rates from which firms could determine their own. Naturally, one would expect that rates would be similar across firms.
- 14 Of course, price regulation may persist if there are no pressures to increase prices beyond the regulated limits, or if the price set was the appropriate one.
- 15 For automobile insurance firms in Ontario, over the period 1974-1984, the average four-firm concentration ratio was 31 (with a standard error of 3.6); the average eight-firm concentration ratio

- was 48 (with a standard error of 4.5); and the average 20-firm concentration ratio was 74 (with a standard error of 5). The average Herfindahl index for the same period was .03588 (with a standard error of .02421) (author's calculations from data provided in Potvin, 1988).
- 16 The fact that regulation which limits the increase in premiums to a given percentage has an asymmetric impact on different rate groups can be shown in at least two ways. First of all, if the higher risk group's costs increase by relatively more than the lower risk group's costs - then limiting the increase in premia to the same percentage across the groups will benefit the high risk group more. However, the asymmetric effect of rate regulation can also be demonstrated by referring to the method by which insurers classify risk groups. In general, the firm will categorize a driver according to his/her 'broad' risk class, say class i , and then refine his/her class within this broad grouping according to criteria such as years of infraction-free driving, say j . Hence, a driver's premium, P_{ij} will be determined by his/her class ij . Rate regulation often limits the premium increase to a given percentage of the base premium P_{ij} - i.e. next period's premium is $(1+r)P_{ij}$, where r is the regulated increase. However, a driver who has an accident, or some driving infraction, can be bumped into a higher risk class ik , where $P_{ik} > P_{ij}$ even when rates are regulated. For that driver, his/her premium will increase by more than the allowable 'r' %, since his/her rate category has changed. Notice, however, that a consequence of the fact that there are a finite number of rate groups (in fact, $i*j$ groups) implies that the premium for the driver in the *highest* risk group *cannot* change by more than 'r' %. Hence, limiting rate increases to a certain percentage per risk category benefits those in the worst risk group relative to others.
 - 17 Since automobile insurance is essentially mandatory in all North American jurisdictions, each jurisdiction has established a method by which 'uninsurable' drivers, that is drivers who are unable to obtain insurance in the regular market, can purchase insurance. Commonly, the uninsurable driver buys insurance from some kind of pooled-insurance scheme - a residual insurance scheme - which is operated by all the insurance companies in the jurisdiction. In Ontario this is called the 'Facility Association'. Harrington (1990), among others, has clearly shown that rate regulation *increases* the participation of drivers in this residual insurance market.
 - 18 Insurance regulators may impose conditions on firms which leave the industry in order to protect the insuring public from 'hit and miss' type of operators. In Massachusetts, following stringent rate regulation, eight insurance firms, comprising 25% of the automobile insurance market, left the industry (Blackmon and Zeckhauser, 1991).
 - 19 This does not imply that regulation is the *only* reason why the industry would be concerned about compensation levels. Indeed, the literature on the liability insurance 'crisis' of the mid-1980s indicates that insurance firms have been regularly concerned about inappropriate, or 'irrational,' damage awards being handed down by the court system (see, for instance, the discussion in Priest, 1991). Much of the call for legal reform has been predicated on the perceived inability of the court system to determine the appropriate damage award in the event of an accident.
 - 20 The differences between first and third party insurance in this regard are clearly outlined by Calabresi (1984). Note that first party entails a change in the legal-liability system since drivers are no longer liable for damages caused to other drivers, they are indemnified by their own insurance company according to their degree of fault in the accident.
 - 21 Insurance companies have information concerning their clients' incomes, family circumstances (e.g., number of dependents), type of automobile, and so on. The company knows that if its client is involved in an accident, and the other party was to blame, then it will have to reimburse its own client's expenses. The company has more information concerning the potential magnitude of these expenses than it would have of some other individual's expenses.
 - 22 For instance, presently in Ontario if an accident victim is unable to continue to work as a result of the accident, then the victim will receive \$600 per week, or 80% of his or her income, whichever is less.
 - 23 It has been recently argued that no-fault automobile insurance and price regulation are substitute policies for controlling prices (Cummins and Tenynson, 1992). This is a persuasive argument and is consistent with this paper as far as it goes. While a no-fault policy may result in a lowering of rates because of administrative cost savings, any consistent pressure on rates to increase will ultimately result in price regulation as well. The nature of the insurance 'cycle' virtually guarantees that there will be periods of cost pressures to increase rates (see, for instance, Winter, 1991).
 - 24 In Quebec, the rates are regulated only for the no-fault component of the insurance package. Private automobile insurance, covering, for instance, damages to vehicles, is not subject to rate regulation.
 - 25 *The McCarran-Ferguson Act* (1945) enables the insurance industry to be exempted from federal anti-combines legislation as long as it is subject to some form of state price regulation (Ippolito, 1979).

- 26 The threshold may be a stated monetary value, or it may be a so-called 'verbal' threshold in which the type of damages that would exceed the threshold are described. Of the 15 'no-fault' states in the United States, 12 have specified dollar thresholds, and three have verbal ones (U.S. Department of Transportation, 1985:94,96).
- 27 Of course, all of the empirical studies take explicit account of any other influences on the number of accidents over the period in question, such as seatbelt and minimum drinking age legislation. Furthermore, explicit account is generally taken of the level of driving activity in order that changes in the number of accidents is not explained by changes in the number of kilometres driven. Certainly, any changes in the risk composition of the driving population – perhaps induced by a restructuring of premiums – must also be taken into account in order to obtain a 'true' estimate of the moral hazard effect. This is extensively discussed and taken into account in Devlin (1988).
- 28 In a no-fault regime, one is usually not penalized for reporting a 'bodily injury'; indeed, the 'victim' may be rewarded by compensation. Hitherto 'property damage only' accidents may subsequently be reported as having some 'bodily injury'. The *mix* of accidents is thus affected by the regime switch, but not necessarily the *severity* of accidents.
- 29 An excellent description of the 1978 insurance regime in Quebec is contained in Boyer and Dionne (1987).
- 30 However, McEwin's results suggest that this source of moral hazard may not be so important. Gaudry also points out that the new regime in Quebec results in insurance being unavoidable, which may also affect driving behaviour.
- 31 These two studies use different data and estimating techniques. Gaudry's study is one part of a much larger work on the demand for road use in Quebec.
- 32 Since McEwin could control for part of the moral hazard effect by examining jurisdictions which had non-experienced rated first party insurance within a liability regime and within a no-fault one, his results may be even more persuasive. He concludes that: '... the ability to obtain non-economic loss compensation by meeting court care standards is obviously an important factor in encouraging driver care and apparently greater than the impact of moral hazard from the introduction of compulsory non-merit rated first party personal injury insurance.'
- 33 Of the 12 no-fault states with a dollar threshold, eight are below \$800 (1985 US\$) (U.S. Department of Transportation, 1985:96).
- 34 If individuals derive more satisfaction from having prompt payments – due to reduced anxiety for instance – than firms do from holding financial assets longer (from additional profits), then this is a social benefit from no-fault. Otherwise, the promptness of payments is a distributional issue.
- 35 The AIRAC study also found that insurance payments depend upon whether or not the claimant is represented by legal counsel. For instance, approximately 84% of claimants who did not have an attorney received some compensation *in liability states* within the first six months of reporting the injury. The comparable figure in no-fault states was 95%. Only 27% of those individuals with legal representation in a liability system received compensation within the first six months; in the no-fault states that figure was 85%. (Author's calculations from Table 6-29 in AIRAC (1989: 117).)
- 36 Although, one would expect that the magnitude of legal expenses would be lower if legal wrangling were reduced.
- 37 Brokers generally act as a liaison between insurance firms and consumers in the market. If there is only one public insurance firm, then this service is no longer required. In addition to these cost savings, the publicly administered system in Quebec also co-ordinated insurance payments with payments from other public sources, such as the health care system. This could also lead to a reduction in insurance premiums (see Devlin, 1988, especially chap. 8 for details).
- 38 Economists would argue that the fact that victims 'save' legal costs may not be overall savings to the community (it merely redistributes money from lawyers to victims). However, to the extent that the court system is operating at capacity, reducing the number of automobile accident court cases certainly frees-up valuable legal resources for other uses.
- 39 Author's calculations, AIRAC (Table 6-18, p.107).
- 40 See, for instance, Viscusi (1983) and Meng and Smith (1990).
- 41 Devlin (1990) uses favourable estimates of savings from the Quebec regime as the basis of comparison. These are consistent with the savings estimated by Fluet and Lefebvre (1990). However, in contrast with Fluet and Lefebvre, Devlin takes explicit account of the social cost of accidents resulting from a no-fault regime – hence reaching the opposite conclusion. In addition, Fluet and Lefebvre argue that average compensation increases after no-fault. The data on average compensation, however, are extremely difficult to compare across jurisdictions since both the numerator – the total amount of compensation paid – and the denominator – the number of recipients – are quite different under each regime. For instance, in the Quebec no-fault system (and in the current Ontario one) explicit account is

taken of other sources of compensation for victims – such as health insurance. Under a liability system, a victim receives compensation for all damages, including those that are covered by other sources of insurance. In the no-fault regimes, victims are only compensated once.

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