

**WORKERS' COMPENSATION INSURANCE  
IN NORTH AMERICA:  
LESSONS FOR VICTORIA?**

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## I. INTRODUCTION

### Justification

In 1985, the Victorian WorkCare workers' compensation system was implemented, replacing the private market in workers' compensation insurance coverage with a state monopoly fund scheme. Unfortunately for Victorians, WorkCare proved to be unworkable; it gave rise to increasing costs for employers, and "epidemic" of long-term disability claims, and huge unfunded liabilities. The WorkCare scheme was abandoned in 1992 in favor of WorkCover, which uses a unique blend of private market and state monopoly principles. Thus the Victorian Government embarked in a comprehensive workers' compensation reform plan, which began with the introduction of WorkCover in December 1992.

The WorkCover scheme restructured benefits, dispute resolution procedures, and administration of the system. Private insurers were incorporated into the system as "authorized insurers" (essentially marketing and claim management agents). The premium system was revised, introducing incentives for employers through experience ratings and other devices. Additional legislation in 1994 introduced the latest stage of Victoria's transition, making a number of minor adjustments in the schemes to further streamline claims management and rationalize incentives for workers and employers. (Victorian WorkCover Authority, 1993-94 Annual Report)

Thus far, the WorkCover scheme seems to be a great success (Boston Consulting, 1994). The last step in the reform plan involves possibly privatizing the scheme, once past liabilities are fully funded and the fund itself is stable. This could happen as early as 1997, based on the rapid progress to date. Since WorkCover began in December 1992, reported claims have dropped by 40 percent, and average premium levels have been reduced by 25 percent, accompanied by a significant increase to weekly benefit levels. Most significantly, the unfunded liability has been reduced from 53 percent to zero, a swing of over \$2 billion in less than three years. (Victorian WorkCover Authority, 1994-95 Annual Report)

Because of this recent history, and because the pendulum seems to be swinging back toward private market solutions in Victoria, as well as in Australia as a whole, there is an interest in other models of workers' compensation systems. It seemed relevant to the authors if this report to offer an outside perspective, one rooted in North American workers' compensation experience. Our hope is that a review of U.S. and Canadian experiences, as highlighted in careful reviews of two "successful" systems that have not wavered in their dedication to private market and state monopoly principles respectively, might help inform the final debate on privatization in Victoria.

Of course, there is no universally accepted definition of "public" or "private" workers' compensation systems. In North America, "public" would be taken to refer to a state of provincial monopoly workers' compensation insurance system. "Private" would refer to some version of a system that allows private insurance carriers to sell workers' compensation insurance. In fact, of course, there is a continuum of systems and of system features that might affect the basic judgement as to whether a particular system is more public or private in its orientation. The

question is how are different functions of the workers' compensation system allocated among government or public entities and private firms.

It should be clear that we do not mean "private" to be synonymous with "market-oriented," although there are a number of obvious linkages between these abstract concepts in workers' compensation practice. The Victorian WorkCover system is an example of a hybrid system that uses private agents to sell the insurance, service the employers, and manage the claims, but retains public ownership of the underwriting and rate-making functions. In addition, Victoria maintains extensive private incentives through an aggressive experience rating program. Thus, private economic incentives are a strong influence on the Victorian WorkCover system, even though the fundamental underwriting and pricing functions are held in public hands.

Among the issues we will consider here are the following. Who carries the underwriting (insurance) risk for workers' compensation benefits? How is workers' compensation insurance prices, and by whom? What fundamental principles guide the insurance pricing system? Who monitors benefits for compliance with statutory requirements? Are the availability of coverage and the payment of insurers' claims obligations guaranteed? Is self-insurance allowed and, if so, for whom? How are incentives for prevention of accidents, and resulting workers' compensation claims, maintained? What is the performance of the overall system? In summary, how are these questions answered and what so the answers reveal about how these responsibilities are allocated among government agencies, other public entities and private firms?

Since there are probably no universal statements that can be made about workers' compensation systems, we have selected two "exemplars" of successful public or private workers' compensation systems from North America to carry our analysis. While this may distort some comparisons, due to non-workers' compensation system factors, it has the advantage of grounding our judgement in a specific factual context that can also provide examples and illustrations of basic principles.

### Relevance of North American Experience

There a number of reasons to believe that the lessons of North America may be relevant for the decision makers in Victoria. First, in a rough policy sense, the Canadian and U.S. models of workers' compensation bracket the Victorian WorkCover Authority scheme. That is, the Canadian systems represent one variant of the monopoly fund model that Victoria has been moving away from since 1992, and the U.S. system represents one version of the privatized model that Victoria experienced previously. This is not to suggest that any specific North American model would fit the Australian environment, but simply to argue that experiences in the same "policy neighborhood" may be relevant. In addition, it is very clear that Australia, Canada, and the United States share a great deal of common culture and shared institutions, partially owing to our mutual British heritage. The commitment to representative government, free and independent trade unions, individual ownership of property, and private enterprise constitutes a powerful shared paradigm.

In workers' compensation sense, it is also clear that Canada, the United States, and Australia share a good deal of common ground. In the first place, these nations are unique in that all have workers' compensation systems based at the state or provincial, rather than the national level.<sup>1</sup> Thus, each nation's experience is the sum of many different state or provincial systems' experience. While Canadian models are less diverse, it is probably true that there is as much variety within both Australian and the United States as there is among all three countries. The point is that our 70 state and provincial workers' compensation models (total from Australia, Canada, and U.S.) Have a great deal in common, as well as considerable differences. This is manifest in the fact that the International Association of Industrial Accident Boards and Commissions (IAIABC), the professional organizations for administrators for workers' compensation programs, includes members from Australia, Canada, and United States. Apparently the administrators of the workers' compensation system in these three countries have had sufficient common interest to hold them in the same association.

### Why British Columbia and Michigan?

The choice of British Columbia and Michigan are exemplars of "public" and "private" workers' compensation systems. Respectively. May not be entirely obvious. The first reason for their selection is familiarity. Since the W. E. Upjohn Institute for Employment Research had conducted administrative inventories for each of these systems in the last five years, we had a basic familiarity with their institutional features and operations<sup>2</sup> (Hunt and Eccleston, 1990, Hunt, Barth, and Leahy, 1991; Hunt, 1992). Having the personal contacts to facilitate developing updated information on these particular systems rapidly and efficiently was especially important.

However, there is more than convenience to recommend the choice of these two systems. British Columbia is one of only three large Canadian systems (the other are Alberta and Saskatchewan) that are approximately fully funded today. This represents a signal achievement and indicates that there is something different about the system or its political setting. More impressively, there is evidence that this circumstance is not simply a matter of good luck. British Columbia stated to spiral down into large-scale deficits in the mid-1970s. Just like Ontario, Quebec, and other Canadian systems. (Vaillancourt, 1994) However, British Columbia turned this situation around in the early 1980s with policy choices that restore te Workers' Compensation Board (WCB) to financial health. Hence, British Columbia has a workers' compensation system that appears to be in balance and working relatively well. Presumably, that mean that some or all of its systems features may be viable for certain other jurisdictions.

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<sup>1</sup>See American Insurance Association (1993) for one description of the variety of operating systems on nine highly developed nations.

<sup>2</sup>The American Administrative Inventory is a device developed by the Workers' Compensation Research Institute (WCRI in the United States. It represents a detailed examination and description of the structure and performance of an individual workers' compensation system using a common pattern that facilitates comparison across systems. To date, AI's have been published for 14 U.S. states and one Canadian province.

Michigan too has justification for selection as an exemplar of U.S. private market-dominated workers' compensation systems. In the first place, Michigan was one of the first states in the U.S. to implement competitive rating for workers' compensation insurance. This bold commitment to the market mechanism in 1983 meant that Michigan abandoned the administered pricing model that had dominated workers' compensation insurance since the origins of these systems in the early 20<sup>th</sup> century and embraced a competitive market system, which a majority of states have since implemented to some degree.

More fundamentally, like British Columbia, the record that Michigan compiled in reforming its workers' compensation statute in 1980, 1981, and 1985 showed that Michigan was willing and able to grapple with tough policy issues and arrive at sound long-term conclusions. (Hunt, 1986). This effort foreshadowed many similar reform movements in other states by 5 to 10 years, and was precipitated by the fact that Michigan has reached a point where the costs of workers' compensation was thought to be interfering with economic growth in the state.<sup>3</sup>

In addition, there are a number of characteristics of these jurisdictions that make them interesting examples. They are both large, significant states with substantial workers' compensation exposure. Although British Columbia is characterized more by primary, or extractive, industries (fishing, logging, mining) and Michigan more by secondary, or manufacturing, industries, they both have many employers with lots of injuries. They also both have heavily unionized labor forces, although Michigan's is much less influenced by labor than a decade ago, largely due to the downsizing of the auto industry in Michigan.

### Limitations of Exemplars

There are also some reasons why these two jurisdictions are not perfect exemplars. Michigan is theoretically a "wage-loss" workers' compensation system, as opposed to an "impairment" or "loss of wage-earning capacity" system. This places it in a minority among U.S. jurisdictions. However, the "redemption" of employer liability available in the Michigan system is both an accommodation to make the wage-loss system more workable and a feature that makes the handling of permanent partial claims more like that in other jurisdictions. Michigan uses a litigation process to arrive at the partial claim more like that in other jurisdictions.

More important, Michigan has one of the highest proportions of self-insurance in the U.S., due largely to the fact that the auto industry is dominated by three huge firms, General Motors, Ford and Chrysler. All three firms have their corporate headquarters and, especially for GM and Chrysler, multiple large manufacturing installations in the State of Michigan. This has produced an environment that is "friendly" to self-insurance. This has also been extended to include the participation of some 9,000 small firms in 35 different industry-specific group insurance plans in Michigan, which has increased the competitive pressure on private insurers.

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<sup>3</sup>Elson and Burton (1981) had calculated that Michigan workers' compensation insurance rates for a sample of manufacturing classification were 80 percent above U.S. average in 1978.

Another unique aspect of the Michigan system is the “privatization” of the competitive state-owned Michigan Accident Fund in 1994. The trend of the last several years in the U.S. has been to create new competitive state funds (although no exclusive, or monopolistic, state funds beyond the six that have existed for years). At least six U.S. states have created new competitive state funds in the last five years, and Michigan is the only state to be privatizing a fund. We regard this as an anomaly, that reflects the current Governor’s philosophical position on government entities competing with the private market, rather than a major policy change.

While it may prove to have significant consequences in the long-run, it does not represent a dissatisfaction with the performance of the fund as an insurance company. In fact, it is ironic that the Michigan Accident Fund increased its market share from 3.4 percent in 1982, the year before open competitive rating to 15.6 percent in 1993, while remaining profitable and increasing its net worth. Over this decade, the fund has earned a reputation for being willing to write the smaller risks that the large private carriers did not want to insure and did so successfully.

British Columbia, also, is somewhat unusual among Canadian jurisdictions in that the WCB structure also contains the Prevention Division (previously Occupational Safety and Health). The administrative inventory of the British Columbia system in 1991 urged the WCB to move to exploit the potential synergy between the prevention and compensation missions in workers’ compensation. (Hunt, Barth, and Leahy, 1991) However, there is little evidence to date that is being housed under the same roof provided significant performance advantages for the WCB. In addition, the WCB maintains their own world class worker rehabilitation center at the central offices in Richmond. This facility should make it possible to integrate compensation and rehabilitation more effectively. While this is relatively unique system feature, it only involves a small minority of WCB claimants, so we believe it unlikely that it has a substantial impact on the system as we will analyze it here.

### Administration of Public vs. Private Workers’ Compensation Systems

In this volume, we maintain the hypothesis that, while there is no pure test of the public vs. private workers’ compensation insurance mechanism, there are indicators of the significant differences that underlie these fundamental scheme choices. In other words, it would be inaccurate to say that any given system feature is necessarily characteristics of either public or private workers’ compensation systems. All systems seem to be a unique blend of features that reflect the specific socio-political-economic environment within which they were created. However, we still think we see some specific aspects of our *exemplary* systems that reflect the underlying public/private scheme orientation that they represent.

Of course, relying on market mechanisms to organize the behavior of system actors can be shown to provide the highest level of consumer satisfaction in conventional competitive markets for consumption goods. However, the private workers’ compensation insurance market has a great many discrepancies from such a simple “perfectly-competitive” model. The lack of good information on both sides of the market, agent-principal problems of administering a program

(insurance carrier) for a group of beneficiaries (injured workers) on behalf of another party (employer), public interest in guaranteeing certain outcomes, and many divergences from the perfect competition model exist. Some of the market imperfections, and the way they are dealt with, will be discussed below.

While economists (including authors) have great respect for the unfettered market as an optimal resource allocation mechanism, the particular example of workers' compensation insurance does not yield to simple, knee-jerk judgements of the superiority of private markets. Traditional neo-classical economic analysis leads to the judgement that compensating wage differentials that arise from free and unfettered labor markets should be sufficient to optimize the social level of occupational injury and, perhaps, illness.<sup>4</sup> However, we know of no example where the market has been left completely alone to solve this social problem. Societies have seen fit to interfere in the market solution in one way or another, to one degree or another, in pursuit of what becomes a political-social-economic solution. This is certainly true of workers' compensation systems we will examine here.

We believe that private market forces can be constrained to serve public goals in this case, without automatically leading to sub-optimal social outcomes. In one sense, the entire history of workers' compensation programs reflects the political judgement that the unfettered market solution (compensating wage differentials combined with employer's tort liability) was not an efficient or effective remedy to the problem of compensating injured workers for injuries sustained in the course of their employment. The political authority of the state found in the late 19<sup>th</sup> century that the tort solution to these increasingly frequent events was not sufficient. Thus, the very origin of workers' compensation programs at the dawn of the 20<sup>th</sup> century can be said to reflect interference with market forces.

Some economists would have us seek a market solution to this problem, but this volume maintains an agnostic view. We seek to describe the institutions and probe the system performance for two exemplary workers' compensation systems in North America, one predominantly public, the other predominantly private. We attempt to distill from this examination some policy lessons that relate to specific mix of public and private workers' compensation institutions that may prove relevant to other jurisdictions, including Victoria.

Obviously, the selection of a particular workers' compensation insurance mechanism has broad implications for the administration of the system. The difference between public and private workers' compensation systems in North America seems to constitute a choice between direct system administration by a public entity (as in Canada and those U.S. jurisdictions with "exclusive" state funds) or a market regulatory approach to system administration (as in Michigan and most other U.S. jurisdictions). For example, in British Columbia the public administrative agent (WCB) makes all benefit payments and is directly responsible for making them correctly and promptly. In Michigan, the public administrative agent Bureau of Workers' Disability Compensation (BWDC) is responsible for monitoring the performance of private insurance

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<sup>4</sup>See Moore and Viscusi (1990).

carriers and self-insured employers in making such payments correctly and promptly. These are two very different roles and have different staffing and performance monitoring requirements. This accounts for the emphasis on regulation in U.S. jurisdictions, which is almost unknown in Canada.

The adjudication, termination, and re-opening of claims provide additional examples. In British Columbia, all these are the responsibility of the WCB and the staff they employ for this purpose. Fundamentally the public entity is determining whether benefits are payable in a given instance, based on statutory, policy, and legal interpretive superstructure. In Michigan, private decision makers are deciding these things, with recourse to the dispute resolution procedures provided by the public entity in the event of a difference of opinion. However, it is fundamentally different for employers to have the right to seize the initiative, subject to a subsequent legal challenge, as in Michigan from having to secure the basic decision from a public entity as in British Columbia. Again, these administrative arrangements have manifold implications for worker and employer client satisfaction with the system.

This also applies to the appellate dimension. In the British Columbia system, appeal procedures allow workers and employers to seek from alleged errors by the public decision maker. Thus, the matter of the independence of appellate bodies has assumed great importance in Canada. In Michigan, by contrast, appeal procedures settle differences between private parties in interpretation of law or fact. Presumably, this is the reason for greater interest in, and utilization of, alternative dispute resolution procedures like mediation and arbitration in the Michigan system. Fundamentally, the interest if the public body is to secure an agreement between the private parties within the confines of the statutory and regulatory environment.

One area where we do not observe fundamental differences is in the approach to prevention of workplace injuries and illnesses. Both Michigan and British Columbia follow a 3-pronged approach of incentives, regulation, and education to promote occupational safety and health. Prevention incentives are embedded in the workers' compensation systems in the institution of experience rating for the premiums of individual employers, with their costs of insurance coverage varying with the number and cost of their claims. While there is greater scope for variation in premiums due to experience rating and other risk sensitive pricing adjustments in Michigan than in British Columbia, the institution is fundamentally the same.

In addition, both British Columbia and Michigan have aggressive regulatory approaches to occupational safety and health. Inspectors from the public sector visit and evaluate workplaces based on a set of standards, with punitive or remedial actions resulting. In addition, both programs utilize voluntary consulting and education program to raise the awareness of prevention as a fundamental issue. The fact that the administrative agent for the workers' compensation system (WCB) in British Columbia also administers this program, while in Michigan it is a separate agency (Bureau of Safety and Regulation) does not appear to have significant programmatic implications, although in theory it could.



Finally, there is a significant difference in what might be called the collective, “voice” of the workers’ compensation system. In the most basic sense, including private insurers in the workers’ compensation system means that there is another powerful set of stakeholders whose interest will be defended. In British Columbia, the administrative agent (WCB) speaks for the system as a whole in a way that would be completely unacceptable in Michigan. While statutory initiatives form stakeholder interest groups are not unknown, they have been relatively rare in British Columbia, and are subject to examination and endorsement by the public body. In contrast, the multiplicity of stakeholders and their unique individual versions of “the truth” serve to fragment and confuse public opinion and statutory initiatives in Michigan and other U.S. jurisdictions. Frankly, it is difficult to determine what the public interest is under such a regime.

Only in the state of Wisconsin does this problem seem to have been permanently averted, by recourse to the institution of a Workers’ Compensation Advisory Council, which serves as a deliberative body to forge consensus recommendations from employer and worker stakeholder groups.<sup>5</sup>

The council meets as needed to study legislative proposals submitted by labor, management and the division (public administrative agent), and to hold public hearings...Council members reach agreement on proposed legislation through a series of meetings, public hearings, and negotiations, culminating in the submission of a single bill to the assembly and senate labor committees of the state legislature. To date, bills submitted by the council have been passed virtually unchanged. (Ballantyne and Telles, 1992, pp. 10-11)

However, there is nothing magical about the institution of an advisory council itself, since it has been tried in other jurisdictions without achieving the same remarkable status of respect from legislators that seems to be enjoyed in Wisconsin. Further, the suspension of the Governing Board of the WCB in British Columbia in the summer of 1995 raises the issue of whether the political authority will continue to allow the WCB to “speak for the workers’ compensation system. Certainly, it has become obvious that there has been a change in the degree to which all stakeholders in British Columbia share the same set of assumptions about system structure and performance.

### Core Workers’ Compensation Insurance System Functions

Since a major focus of this report is the way that the public and private workers’ compensation insurance systems actually work, significant attention will be paid to the core functions of such an insurance system. Table 1.1 lays out the general principles of the public monopoly and private market models that will be treated here. While minimum workers’ compensation benefit provisions are always specified by law, the exact insurance policy “design” features can vary substantially in the private market case. In all cases, statutes specify minimum benefits for injured workers and assign the financial responsibility for those benefits to the

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<sup>5</sup>Although temporary consensus has been reached in a number of jurisdictions, most recently Oregon and Maine.

employer, individually or collectively. However, private insurers have proven to be more innovative in meeting the perceived needs of their customers.

This is vividly manifest in the rush to managed care in the U.S. workers' compensation market over the past five years. Each insurance company has developed its own version of managed care and touts it as superior to all others. British Columbia, on the other hand, has just begun to discuss the possibilities inherent in such systems.<sup>6</sup> It seems clear that this is a difference deriving from the competitive versus monopoly character of the workers' compensation insurance market.

Marketing differs significantly between public monopoly and private market systems. In British Columbia, virtually every employee must have workers' compensation coverage, and there is only one source. In Michigan, there are over 100 insurance groups aggressively competing for the employer-consumers' business. While this competitive process insures more choice for the employer-consumer, it does not necessarily assure that the right choice is made for the workers. Therefore, the insurance regulatory function seeks to guarantee "adequate" performance by the carriers, i.e., to prevent excessive downward pressure on benefit payments. In addition, the marketing function must be funded out of policy revenues, and this is not a trivial cost to be absorbed, as we will see later.

Marketing differs very significantly of underwriting selection, the public monopoly model essentially offers no choice; all employers who require coverage are automatically part of the system. Under the private market model, insurers have a choice of who they want to insure. This is the obverse side of the marketing coin. Insurers want to insure "good risks," and they seek to avoid "poor risks." But there is also a more subtle selection process that insurers use to find risks that "fit" their prices. This means there is room for different underwriting strategies. In fact, some insurance carriers devote a great deal of time and effort to selecting the risks they want to insure, believing that this guarantees better results. So underwriting selection as it affects the availability of coverage is a major public policy concern in a private market system, because workers' compensation coverage is guaranteed to all workers, regardless of their likelihood of being injured.

Pricing/premium verification refers to the dual functions of setting the price for insurance coverage and verifying that employers are being charged the appropriate price. Again, this is a universal concern and must be provided by either a public monopoly or a private market system, but the range of pricing schemes available to an insurer may depend on its competition and the regulatory authority. The case is similar with loss prevention services. In most public monopoly systems, workers' compensation or another agency provide loss prevention services to employer clients. However, the loss prevention incentives employed by private insurers are likely to produce greater effort, since a major avenue to increased profits in a competitive system is cost reduction. This is offset by concerns that then private incentives also produce behaviors designed to fight claim, which is thought to be less typical of public systems.

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<sup>6</sup>See Hunt, Barth, and Leahy (1996).

Claims adjustments and case management services would show little difference between a public monopoly and private market system, except insofar as the potential for cost reduction in the private system seems again to focus the attention of the insurer on reducing expenditures as opposed to making sure the injured worker receives benefit to which he/she is entitled.

There is no necessary difference in the statistical function, although in practice some additional statistical reporting may be necessary in private, regulated systems to monitor insurer performance and compliance with the statute. Public monopoly workers' compensation systems generally perform their own data collection and analysis, whereas private market systems generally use private statistical agents (who also must be regulated) to pool data across insurers, with the result that access to system data is usually restricted because of competitive concerns. Consequently, workers' compensation administrative agencies in private market systems tend to have their own statistical systems, although far less comprehensive than those in public systems.

The availability of insurance coverage is a major issue for private market systems. As indicated in the underwriting selection discussion, private insurers are generally not compelled to write policies for all comers. The result in private market systems is that some employers are left outside the voluntary market and must provide coverage through some other system, generally a residual market or state fund. This creates equity problems among employers, among insurance carriers, and potentially among injured workers. It can also impose additional administrative costs and other inefficiencies on the workers' compensation system. Severe residual market problems can even drive a workers' compensation system into crisis, as happened in Maine in the early 1990s.

Finally, the solvency of the system must be assured. Mechanisms must be provided to guarantee that the means to pay future benefits to injured workers will be safeguarded. In the event of an insurer, or self-insured employer, bankruptcy, the payment of the future benefits to injured workers must be assured. There are similar issues for public systems, of course, particularly regarding the adequacy of reserves for future benefit commitments. Public insurers can be underfunded and accumulate huge deficits, which must be eventually be resolved.<sup>7</sup> While we are not aware of any public insurer that has ultimately failed to pay its claims obligations, the measures that may eventually be implemented to restore solvency could have significant equity effects on both employers and workers.

### Workers' Compensation Insurance Market Failures

In theory, regulation is designed to address market failures that would otherwise impair economic performance and reduce social welfare. The purpose of regulation is to correct market failures, or at least minimize their negative effects, and improve allocative efficiency. The principal market imperfections that regulation is intended to address are: barriers to entry and exit; externalities, where transactions create cost for third parties; and internalities, i.e., cost and benefits of transactions that are not reflected in the terms of exchange (Spulber, 1989). To

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<sup>7</sup> The Ontario WCB accumulated a deficit of approximately \$12 billion (CD) during the decade of the 1980s.

correct or counteract these problems, regulators may impose controls on entry, exit, process, product quality, inputs to production, refusal to serve, and other private activities.

Insurance markets, including workers' compensation, are subject to several types of market failures that insurance regulators seek to counteract. The principal market failure that led to insurance regulations in the U.S. is the problem of excessive risk of insurer insolvency that derives from inefficiencies created by costly information and agent-principal problems (Munch and Smallwood, 1981). Owners of insurance companies have diminished incentives to maintain a high level of safety to the extent that their personal assets are not a risk for unfunded obligations to policyholders caused by insolvency.

It is costly for consumers to properly assess an insurers' financial strength in relation to its prices and quality of service. Insurers also can increase their risk after policyholders have purchased a policy and paid premiums. Thus, in the absence of regulation, imperfect consumer information and agency problems would result in an excessive number of insolvencies. Solvency regulation is intended to limit the degree of insolvency risk in accordance with society's preference for safety. This regulatory function is considered to be particularly important for workers' compensation, to guarantee that injured workers will receive the benefits to which they are entitled.

One of regulators' concerns is that insurers' incentives to take on excessive financial risk and even engage in "go-for-broke" strategies may result in inadequate reserves and prices. Some consumers will buy insurance from low-price carriers without properly considering the greater financial risk involved. This potential is exacerbated for third-party liability lines such as workers' compensation where employers may seek to escape their obligations to workers by declaring bankruptcy in the event of their insurer's insolvency. The regulatory concern is that poor incentives for safety could induce a wave of "destructive competition" in which all insurers are forced to cut their prices below costs to maintain their market position. Thus, it is argued that regulators must impose some degree of discipline by placing a floor under prices to prevent the market from imploding.

At the same time, circumstances may arise where consumer search costs can impede competition and lead to excessive prices and profits (Varian, 1992). Further, imperfect information and unequal bargaining power between insurer and consumers can make consumers vulnerable to misleading marketing and claims practices of insurer and agents. It also has been suggested that it is costly for insurers to ascertain consumers' risk characteristics accurately, giving an informational advantage to insurers already entrenched in a market and creating barriers to entry that diminish competition (Cummins and Danzon, 1991). Under these circumstances, regulators may seek to enforce a ceiling that will prevent prices from rising above a competitive level and to protect consumers against unfair market prices.

The tension between insurers' tendencies to either underprice or overprice insurance coverage may contribute to the cyclical pricing behavior that is observed in commercial

property/casualty insurance lines, such as workers' compensation. This phenomenon is commonly termed the "property/casualty underwriting cycle." It is apparent that, over time, workers' compensation and other commercial insurance prices in the U.S. have moved up and down in relation to loss costs in alternating "hard" and "soft" markets.

The conventional wisdom is that this cycle behavior is caused by "cash-flow underwriting," i.e., insurers cut prices below costs to increase their market share and rely on cash flows from premiums and investment income to sustain their operations, causing a "soft market." However, losses eventually mount as claims are paid, causing insurers to retrench, tighten their underwriting, and raise prices, which leads to a "hard-market." The resulting improvement in profits established the conditions for another soft market, and the cycle is perpetuated.

Some analysts have challenged this explanation of the underwriting cycle, suggesting other causal factors such as movements in interest rates and loss shocks (see Cummins, Harrington, and Klein, 1991). While these alternative theories are supported by empirical evidence, there appears to be a residual "behavioral" component to cyclical patterns in commercial insurance pricing and underwriting that defies explanation simply by changes in external economic variables. This cyclicity can increase uncertainty and instability for employers in terms of the availability and cost of workers' compensation coverage. Workers also may be adversely affected to the extent that market cycles influence insurers' quality of service.

Potential agent-principal problems raise other issues with respect to reliance on private markets to finance and deliver workers' compensation insurance. Private insurers, employers, and workers have different interests and incentives. Workers seek to maximize their wages and benefits, while employers and insurers seek to maximize their profits. Statutory provisions governing workers' compensation benefits necessarily leave some room for interpretation and application by insurers to specific claims. Insurers can increase profits by minimizing workers' compensation benefit payments if it serves to lower their workers' compensation premiums and total labor costs.

In theory, workers' ability to bargain for wages and other benefits should impose some check on employers' and insurers' inclinations to "low-ball" workers' compensation benefit payments. However, in practice it is costly and difficult for workers and employers to monitor and control insurers' claims adjustment practices. Workers are unlikely to choose to leave an employer on the basis of its workers' compensation carrier, and an injured worker must engage in costly litigation if the worker cannot reach an agreement with the carrier on the payment of the claim. Consequently, under a system where workers' compensation benefits are privately financed, workers' interests may be compromised without regulatory protections.

The problems of adverse selection and moral hazard also plague insurance markets, including workers' compensation, and induce insurers to reject some risks and limit the coverage provided to others (Borch, 1990). Adverse selection refers to the greater tendency of high-risk individuals to seek insurance, particularly if the premium they would pay is less than their

expected loss. Workers' compensation insurers are subject to adverse selection unless they are able to reject high-risk employers or charge them a rate commensurate with their higher risk. Insurers subject to adverse selection are forced to increase their prices to cover higher loss costs, which, in turn, leads to further concentration of high-risk employers among these insurers. Low-risk employers will be discouraged from buying insurance from insurers charging premiums that exceed the employers' expected loss costs. Insurers attempt to avoid adverse selection by coordinating their selection of risks and pricing so that every risk they insure is charged an adequate rate. This is the reason for insurance groups, with different companies and different prices designed for market segments. However, this can lead to situations where some employers are unable to obtain workers' compensation insurance through the voluntary market.

Moral hazard occurs when insurance diminished an insured's incentive to prevent or contain losses. Insurers counteract moral hazard by offering less than full coverage and using an employer's previous loss experience as a rating factor. Partial coverage is an issue in workers' compensation because of the concern that injured workers may become a burden to society, particularly if they fail to receive the benefits due them from the employer/insurer. Consequently, in the U.S., workers' compensation policies are structured so that insurers pay full benefits to workers and seek reimbursement from employers for any residual portion of benefit costs for which the employer are responsible.

### Plan of Presentation

As we describe these two exemplary workers' compensation systems, we will utilize a common framework. This comes from the desire to provide consistent descriptions of the two systems in spite of the considerable differences in details between them. After giving a picture of the general administrative organization of the workers' compensation system, we will describe the claims administration process. This will be followed by a discussion of the benefits provided to injured workers. Then the dispute resolution mechanisms employed will be described, followed by a discussion of the incentives implicit in the system. This thumbnail sketch should be sufficient to give a flavor of the day-to-day operations of the systems, as they are experienced by injured workers, employers, and providers.

Next, the insurance models will be examined in separate sections. There is less consistency in the treatment here, because there is not much in common. The British Columbia section will describe the assessment structure and function at the WCB. Then some specific policy issues will be considered, including self-insurance, experience rating, and protection for extremely small risks. Last, the two basic performance issues of revenue sufficiency and cross-subsidization among classes of employers will be discussed.

The Michigan analysis is more formal and utilizes a structure-conduct-performance model to examine the Michigan insurance mechanism. This discussion should be particularly valuable in identifying the issues and possible outcomes from different approaches to privatizing various workers' compensation functions. While this discussion focuses primarily on Michigan, it draws

on other jurisdiction where needed, and uses U.S. averages as bases of compensation coverage, and administrative cost levels are all considered.

The final section of the report extends our analysis to consider some policy implications of alternative approaches to public and private provisions of the core workers' compensation system functions. Based on the underlying framework of the report and prior analysis, we discussed the potential outcomes of the options available to policy makers in structuring the public and private sector roles in a workers' compensation system. This discussion also considers the interrelationship among the policy choices for administering measures in Victoria without a detailed study of its system features and environment, we do offer some observations on possible outcomes for policy makers in Victoria to assist in considering options for privatization.

**Table 1.1 Core Workers' Compensation Insurance Functions**

Core Functions	Public Monopoly Model	Private Market Model
Benefit provisions and policy design	Uniform benefits and coverages set by law	Law established uniform benefits and basic coverages but insurers may vary services and risk sharing with employer
Marketing/distribution	Limited policy issuance activities performed by agency	Competition among private insurers necessitates marketing and distributions efforts and commissions/salaries to agents
Underwriting selection	Employers are automatically part of the system	Insurers evaluate and can refuse to accept certain risks
Pricing/premium verification	Agency administers uniform price and cost allocation	Insurers determine prices and audit premiums governed by competition with limited regulatory oversight
Loss prevention	Performed by agency	Service provided by insurers and other vendors
Claims adjustment/case management	Performed by agency	Performed by insurers and third party administrators
Statistical reporting	Not an issue in public system	Function shared by agency and private statistical agents appointed by regulators
Availability guarantee	Not an issue in public system	Residual market mechanism administered by state or private entity under regulatory supervision
Solvency protection	Not needed in public system	Solvency regulated and claims obligations insured by private association of private insurers