



COMMENTARY NO. 687

## The Price of Over-Regulation: Assessing the Impact of Rate Controls on Auto Insurance Market Flexibility in Canada

This study looks at the provincial auto insurance regimes across Canada and draws a striking conclusion. Overly strict regulation can have bad consequences for consumers as well as insurers.

Gherardo Caracciolo

## THE C.D. HOWE INSTITUTE'S COMMITMENT TO QUALITY, INDEPENDENCE AND NONPARTISANSHIP

## ABOUT THE AUTHOR

GHERARDO CARACCIOLO is a Fellow-in-Residence at the C.D. Howe Institute.

The C.D. Howe Institute's reputation for quality, integrity and nonpartisanship is its chief asset.

Its books, Commentaries and E-Briefs undergo a rigorous two-stage review by internal staff, and by outside academics and independent experts. The Institute publishes only studies that meet its standards for analytical soundness, factual accuracy and policy relevance. It subjects its review and publication process to an annual audit by external experts.

No C.D. Howe Institute publication or statement will endorse any political party, elected official or candidate for elected office. The Institute does not take corporate positions on policy matters.

As a registered Canadian charity, the C.D. Howe Institute accepts donations to further its mission from individuals, private and public organizations, and charitable foundations. It seeks support from diverse donors to ensure that no individual, organization, region or industry has or appears to have influence on its publications and activities. It accepts no donation that stipulates a predetermined result or otherwise compromises its review processes or inhibits the independence of its staff and authors. A comprehensive conflict-of-interest policy, including disclosure in any written work, applies to its staff and its authors.

Commentary No. 687 June 2025



Alexandre Laurin
Vice-President and Director of Research

## THE PRICE OF OVER-REGULATION: ASSESSING THE IMPACT OF RATE CONTROLS ON AUTO INSURANCE MARKET FLEXIBILITY IN CANADA

#### by Gherardo Caracciolo

- Automobile insurance regulation must walk a fine line: ensure actuarially accurate pricing while also
  ensuring that insurers are not overburdened with unnecessary barriers that could prevent them from setting
  appropriate prices given market conditions.
- By examining the varying levels of regulation across the provinces, the author shows that stricter price controls such as those in Alberta, Ontario, and the Atlantic provinces significantly restrict insurers' ability to adjust premiums in response to changing risks. This limitation could compromise their financial resilience in the long run, especially as market conditions become increasingly volatile. This is particularly concerning as Canada faces an increased frequency of extreme weather events, which have had direct impacts on the auto insurance sector and heighten the urgency for insurers to be agile in their pricing strategies. Without that, it could force insurers to limit coverage or withdraw from markets, worsening other market inefficiencies.
- From a policy perspective, this study highlights the importance of ensuring rate regulation regimes do not necessarily hinder market flexibility. While some policymakers view rate regulation regimes as a means of consumer protection, market conduct concerns are best dealt with elsewhere. Rigid rate regimes often prevent insurers from setting appropriate prices, which could ultimately create challenges as insurers are in greater need of agility in light of growing risks.

#### 1. INTRODUCTION

Automobile insurance is an essential component of modern road safety, ensuring that drivers are protected in case of accidents, theft, and other risks. However, as with most financial products, the pricing of automobile insurance premiums is a complex issue, influenced by a multitude of interplaying factors ranging from individual risk profiles to larger macroeconomic conditions and shocks. One of the most important elements in this complex pricing process is the set of regulations that apply to auto insurance rates. Unlike many other industries, including other lines of property and casualty (P&C) insurance, auto

The author extends gratitude to Jordan Brennan, Alister Campbell, Charles DeLand, Jeremy Kronick, David Longworth, Karin Ots, Mark Zelmer, and several anonymous referees for valuable comments and suggestions. The author retains responsibility for any errors and the views expressed.

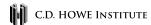
Policy Area: Financial Services and Regulation.

Related Topics: Industry Regulation and Competition Policy.

To cite this document: Caracciolo, Gherardo. 2025. The Price of Over-Regulation: Assessing the Impact of Rate Controls on Auto Insurance Market Flexibility in Canada. Commentary 687. Toronto: C.D. Howe Institute.

*C.D. Howe Institute Commentary*© is a periodic analysis of, and commentary on, current public policy issues. Percy Sherwood and James Fleming edited the manuscript; Yang Zhao prepared it for publication. As with all Institute publications, the views expressed here are those of the author and do not necessarily reflect the opinions of the Institute's members or Board of Directors. Quotation with appropriate credit is permissible.

To order this publication please contact: the C.D. Howe Institute, 67 Yonge St., Suite 300, Toronto, Ontario M5E 1J8. The full text of this publication is also available on the Institute's website at www.cdhowe.org.



insurance is mandatory by law. This compulsory nature is where one gets the idea for pricing regulation. Rate regulation is intended to ensure the best combination of stable premiums and a competitive market. The goal is to make sure that insurers adhere to predictable and understandable pricing models and schedules over time while allowing for a competitive environment.

There are theoretical reasons behind this type of rate regulation (I present a simple theoretical model that explains the foundations for this approach in Appendix A). The idea stems from what is often referred to as the "first-best" scenario: in short, a social planner would remove any economic friction and uncertainty and would set insurance rates well in advance, making sure they remain constant. In such a scenario, consumers could plan ahead with confidence and commitment, and social welfare would, therefore, be maximized. In this certain and frictionless world, any type of price volatility would lead to socially suboptimal outcomes and should be tamed.

In practice, however, it is important to acknowledge that frictions, uncertainty, and unforecastable shocks play a fundamental role in the real world (e.g., the COVID-19 pandemic, the tariff war between Canada and the United States, etc.) The automobile insurance market examined here is no exception, and it often deviates from the first-best scenario and, therefore, from the socially optimal allocation.

Financial frictions and sudden and unexpected macroeconomic shocks make it difficult for there to be a long-term commitment from both insurers and consumers. A simple example of this is the current tariff war. The resulting unexpected inflation in car parts and repair costs will make it hard for insurers to stick to their previous rates. At the same time, general inflation and economic uncertainty might make consumers more willing to re-discuss their previous contracts.

Further, insurers are subject to stringent capital reserve requirements (set up to make them financially resilient). Not meeting these requirements can lead to a downgrade in credit rating and, in the worst scenario, can lead to insolvency. These requirements act as strict participation constraints (i.e., minimum conditions that firms must meet to remain viable market participants) and have become increasingly more important and binding in recent years as weather-related extreme events and major economic shocks have become more and more frequent. The argument for regulation is, then, to close this gap with the first-best scenario.

However, it is not easy to do so, and automobile insurance regulation is looking to walk a fine line: ensure pricing is reasonable for the consumer, while allowing insurers to respond to economic conditions.

A well-regulated insurance environment must encourage healthy competition to guarantee benefits and choice for consumers, while maintaining solvency among insurers. To achieve these goals, several regulatory models are employed around the world, each with its own set of advantages and challenges. The existing systems can be classified into four regulatory archetypes: Prior Approval, File and Use, Use and File, and Open Competition.

This paper starts by presenting these four archetypical regulatory frameworks, highlighting the strengths and weaknesses of their designs. I will then, after a brief overview of how regulatory systems around the world work, focus on the Canadian market. I will show how different provinces opt to adopt different combinations of the above-mentioned regulatory systems. Finally, through a structural and quantitative analysis, I address the central question: do stricter regulatory regimes hinder insurers' ability to appropriately respond to economic shocks, and is there a cost to these stricter regulatory regimes?

My results show that in Canada, insurers operating in provinces with stricter rate regulation tend to be less responsive to increases in claims and losses. This reduced flexibility is particularly concerning given the rising frequency and severity of major economic shocks and extreme weather events, which directly affect auto insurance claims and losses. Economic shocks such as inflation and supply chain disruptions (e.g., the ones caused by tariffs) have increased the cost of vehicle repairs and replacement parts, driving up claim costs.<sup>2</sup> Meanwhile, extreme weather events, such as floods, hailstorms, and severe winter conditions, have caused significant spikes in auto insurance claims across the country.<sup>3</sup> If insurers cannot adjust premiums promptly in response to these shocks due to regulatory constraints, they may face financial strain, potentially leading to market exits. This would reduce competition and increase market friction, ultimately harming consumer welfare. My findings suggest that Canadian regulatory regimes should evolve toward more flexible pricing frameworks that allow insurers to better manage risk in a dynamic environment.

## 2. THE FOUR REGULATORY ARCHETYPES: THEORY AND GLOBAL PRACTICE

Globally, automobile insurance markets are regulated using different models, each with the aim of balancing insurer flexibility with stability in consumer pricing. As noted above, these models are

generally categorized into four distinct frameworks: Prior Approval, File and Use, Use and File, and Open Competition. The first two (Prior Approval and File and Use) are by far the most common approaches, including in Canada. Each of these four models offers a different approach to how insurance rates are set, how much control insurers have over their pricing decisions and the degree of regulatory oversight they are subject to. The following subsections will briefly present them (Table 1 summarizes each, while Box 1 contains a short discussion on other models used in practice).

#### 2.1 Prior Approval System

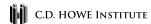
The Prior Approval system requires insurers to submit their rate proposals to regulatory authorities for approval before they can implement any rate changes. Under this model, insurers, before making any change, must justify their proposed adjustments with supporting data and detailed actuarial analysis. The regulatory authority reviews the proposal to determine whether the rate change is warranted based on factors such as risk, market conditions, and economic forecasts. Only once the proposal is approved can the insurer apply the new rates.

The Prior Approval system is intended to provide greater protection to consumers by ensuring that rate changes are thoroughly checked, verified, and justified.

However, the Prior Approval approach has limitations. Most notably (and intuitively), the approval process can be slow, in many markets

<sup>2</sup> McGillivray, Marisa. 2025. *Impacts of Rising Costs and Claims on Personal Automobile Insurance Profitability and Consumers in Canada. Statistics Canada*, Analysis in Brief, April 2. <a href="https://www150.statcan.gc.ca/n1/pub/11-621-m/11-621-m2025003-eng.htm">https://www150.statcan.gc.ca/n1/pub/11-621-m/11-621-m2025003-eng.htm</a>.

<sup>3</sup> For example, in 2024, severe weather events across the country resulted in over \$8 billion in insured losses and approximately 250,000 insurance claims, many of which are related to vehicle damage from flooding, hail, and icy roads. See: de Pruis, Rob. 2025. "Protecting Your Tomorrow: Canada's Insurers Rise to the Challenge When Disaster Strikes." Insurance Bureau of Canada. March 31. https://www.ibc.ca/news-insights/in-focus/protecting-your-tomorrow-canada-s-insurers-rise-to-the-challenge-when-disaster-strikes; Recamara, Josh. 2025. "Auto Insurance Sector Under Pressure: Statistics Canada." Insurance Business Canada. April 3. https://www.insurancebusinessmag.com/ca/news/auto-motor/auto-insurance-sector-under-pressure-statistics-canada-530845.aspx.



#### Box 1: A Brief Overview of Auto Insurance Price Regulation Over the World

The history of rate regulation in both the United States and Europe is more established than in Canada, with different legislative frameworks shaping how insurance prices are controlled. In the United States, the *McCarran-Ferguson Act* of 1945 exempted insurance companies from federal anti-trust laws as long as they were regulated at the state level. As a result, by 1951, all states had set up rate regulations for insurance companies, mainly to ensure solvency. Since then, the regulation of auto insurance prices, which has seen the most extensive oversight, has fluctuated quite a lot.\* Nowadays, most states adopt versions of the File and Use system, while only a few opt for the stricter Prior Approval regulatory framework.

In Europe, during the early 1990s, the Third Council Insurance Directives established the principle of "freedom of service," which led to the creation of a single European insurance market. The goal was to allow consumers to access insurance services and products from any European member country, incentivizing competition and providing consumers with more options in terms of price and coverage. The directives sought to harmonize the regulations across member states to promote fair competition. As part of these reforms, the directives stipulated that:

Member States shall not adopt provisions requiring Prior Approval or systematic notification of general and special policy conditions, scales of premiums, or forms used by insurers in dealings with policyholders. Furthermore, prior notification or approval of proposed premium rate increases is only permitted as part of a general price-control system (Third Council Insurance Directive 1990).

As a result, following the introduction of the Third Insurance Directives in 1992 and of the Passport System, most European countries moved away from stringent price regulation. Today, regulatory bodies in Europe generally have limited involvement in setting insurance premiums: most of the member states adopt a Use and File type of approach. There is evidence that this deregulation process has deeply enhanced competition, fostering innovation and efficiency (Turchetti and Daraio 2004). This deregulation has incentivized insurers to adopt more sophisticated risk classification methods and advanced pricing models, allowing for better alignment of premiums with individual risk profiles. As a result, insurers have been able to offer more customized products and improve underwriting accuracy, which in turn enhances market efficiency, financial stability, and also consumer satisfaction. Moreover, the increased competitive pressure has driven firms to streamline operations and invest in technological innovation, further boosting productivity and fostering a dynamic insurance environment.

Harrington (2002) and the Insurance Information Institute's data and reports show clear examples of this.

taking several months, which limits insurers' ability to react and adjust rates quickly in response to rapidly changing market conditions. Additionally, the bureaucratic nature of the process can lead to inefficiencies, with insurers needing to submit multiple revisions to satisfy the regulatory body's requirements. This delay can become problematic in situations where there are significant shifts in risk or economic conditions, leaving insurers unable to adjust their rates in a timely manner and, therefore, risking financial instability. In fact, in the automobile insurance market, recent reports have noted that delays in premium adjustments, especially in response to rising claims costs and inflation, can lead insurers to reduce their market participation or withdraw certain products,<sup>4</sup> ultimately reducing consumer choice, competition, and welfare.

#### 2.2 File and Use Model

Contrary to the Prior Approval model, the File and Use model is a more flexible regulatory framework and is particularly prevalent in markets where the regulatory environment favours swift responses to market conditions. Under this system, insurers are required to file their proposed rates with the regulatory authority, but they do not need prior approval to implement them. Once a rate is filed, insurers are free to apply it immediately, though regulatory bodies retain the authority to review it, require further documentation, and take corrective actions if necessary.

This flexibility allows insurers to respond quickly to emerging risks and shifting conditions, such as changes in accident frequency, evolving road and weather patterns, or cost pressures linked to economic factors and shocks such as tariffs. Events like wildfires, flooding, or hailstorms can suddenly and sharply increase claims in certain regions,<sup>5</sup> while supply chain disruptions can drive up repair costs. The File and Use system enables insurers to reflect these factors in their pricing without waiting for lengthy regulatory approval. It also promotes more direct competition, encouraging innovation and potentially more competitive rates.

While the flexibility offered by the File and Use system allows insurers to respond more swiftly to market conditions, the counterpoint would be that it also limits the time regulators can take to ensure price changes are appropriate. In markets where there isn't sufficient competition, this could lead to potential abuses. However, in Canada, by the commonly used Herfindahl-Hirschman Index, the P&C insurance industry, including auto insurance, falls in the competitive marketplace range (Campbell 2024). Regardless, regulators have a range of existing tools, regulations, and guidelines aimed at protecting consumers. The Canadian Council of Insurance Regulators, for instance, has issued a fair treatment of consumers guideline that all insurers are expected to follow.

#### 2.3 Use and File

The Use and File System is a further step in the direction of price flexibility. Under this framework, insurers are allowed to immediately apply rate changes without needing prior approval from the regulatory authority. Under this system, insurers have the flexibility to adjust rates and implement them in the market first. Only afterwards, within a preestablished time frame, must they file the rates with regulators and provide any necessary justification or documentation to explain the changes. Once filed, regulators review the rates to ensure they are not

<sup>4</sup> Contant, Jason. 2024. "Why Canada's Auto Line Isn't Stable – or Profitable." *Canadian Underwriter*. July 23. <a href="https://canadianunderwriter.ca/news/claims/why-canadas-auto-line-isnt-stable-or-profitable/">https://canadianunderwriter.ca/news/claims/why-canadas-auto-line-isnt-stable-or-profitable/</a>.

<sup>5</sup> Smith, John. 2024. "How Do Extreme Weather Events Impact Car Insurance Rates?" *VandenBout Law Blog*. November 22. <a href="https://www.vandenboutlaw.com/how-do-extreme-weather-events-impact-car-insurance-rates/">https://www.vandenboutlaw.com/how-do-extreme-weather-events-impact-car-insurance-rates/</a>.

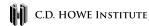


Table 1: Key Theoretical Features of the Four Archetypical Regulatory Models					
Model	Filing Requirement	When Rates Are Used	Regulatory Oversight	Pros	Cons
Prior Approval	File before use	After approval	Full pre-approval review	Short-term price stability	Lack of insurer pricing flexibility; Expensive for consumers, as insurers need to pay for the regulatory framework
File and Use	File before use	Immediately	Post-filing review possible	Fast response; some oversight	Delayed oversight; potential for unfair pricing in uncompetitive markets
Use and File	File after use	Immediately	Post-filing review possible	Maximum speed; some oversight	(Even more) delayed oversight; potential for unfair pricing in uncompetitive markets
Open Competition	No filing or approval required	Immediately	None	Innovation; competitive pricing	Risk of unfair pricing in uncompetitive markets

excessive, unfair, or discriminatory. This language is used in US states, with each of these three elements strictly defined. If the rates are found to be problematic, the regulatory authority can require insurers to adjust them post-implementation. This system is efficient in terms of allowing insurers to respond quickly to market dynamics while still maintaining oversight to prevent pricing practices that could harm consumers.

It is worth underlining that the Use and File System differs from the File and Use System primarily in the timing of rate application and filing. In File and Use, insurers are required to file their rates before applying them to the market. In contrast, the Use and File System is even more flexible, as it allows insurers to implement rates first and then file them afterward for regulatory review. Both systems remove the need for prior approval, allowing insurers to adjust rates with more agility,

but the difference lies in the order in which rates are applied and submitted.

#### 2.4 Open Competition System

The Open Competition system is the least restrictive of all regulatory models. In fact, it does not entail any type of price regulation or price control. Under this framework, insurers are free to set their rates based on market forces – essentially allowing competition to determine the pricing. Insurers are not required to file their rates with regulatory authorities or seek approval before making adjustments. The thinking behind this system is that the competitive nature of the market will drive insurers to set fair prices, as consumers will have the ability to shop around for the best rates.

Proponents of the Open Competition system argue that it promotes innovation, as insurers are encouraged

to create new products and offer competitive pricing to attract customers. The system also allows consumers a high degree of choice, as multiple insurers compete for business in a free market. Additionally, with sufficient competition, prices may remain relatively low, as insurers have an incentive to keep their rates competitive, acting as price takers.

Of course, the lack of regulation in the Open Competition model can lead to risks in terms of unsustainable premiums depending on levels of competition (and on levels of market conduct regulation)<sup>6</sup> within the market.<sup>7</sup>

#### 2.5 In Practice: Hybrid Systems

In practice, many insurance markets implement variants of the four archetypical regulatory systems, with File and Use by far the most common baseline approach. This use of a hybrid approach tries to strike the best possible balance between predictability for consumers and price flexibility based on market conditions for insurers. For instance, a very popular hybrid system is a mix of File and Use and Prior Approval systems. Within this framework, while insurers are allowed to implement some rate changes quickly (and then have them reviewed later), some other changes (oftentimes the biggest ones) may need Prior Approval, as they often involve significant adjustments for consumers. Alternatively, some markets that operate under Open Competition might still impose filing requirements for particular changes (de facto a mix between Open Competition and Use and File) to ensure that insurers' rates align with broader regulatory guidelines or to prevent discriminatory practices.

In most of these hybrid systems, insurers are given some flexibility in how they set rates, but regulators ensure that they remain within acceptable limits, adjusting the level of oversight based on the type of insurance or specific market conditions.

### 3. AUTOMOBILE INSURANCE REGULATION IN CANADA

Unlike the United States, Canada has never had a similar anti-trust law like the *McCarran-Ferguson Act*, nor has it experienced a push for national regulation in the manner of Europe's Third Insurance Directives (see Box 1 for more).<sup>8</sup> Consequently, active price regulation in Canada is a relatively recent and heterogeneous development and, until 2003, was limited to Ontario. Nowadays, it is the responsibility of the provinces, and there is no national harmonization. Because, for a long time, Canada's automobile insurance industry operated de facto under an Open Competition model, the effects of regulation – and the necessary data to perform the analysis – are largely still uncharted. This paper will help fill the gap.

Since insurance regulation is determined at the provincial level, there is a diverse set of frameworks across the country that reflect the distinct economic, social, and regulatory needs of the regions.

All Canadian automobile insurance regimes can be described as being based primarily upon liability-based or no-fault-based rules and can be characterized as being publicly or privately provided. Alberta, the Atlantic provinces, and Ontario have purely private provision (subject to provincial regulations and the tensions this can have with the insurance sector), whereas British

- 6 For example, see the UK's Financial Conduct Authority.
- Without rates oversight, it is possible in an uncompetitive market that insurers may engage in predatory pricing offering unsustainable low rates to attract customers, only to later raise premiums once they have gained market share (a lack of commitment plays the biggest role in reducing consumers' welfare) (Aizawa 2024). We note that the abuse of dominant market positions in Canada is monitored and forbidden under the *Competition Act* (<a href="https://competition-bureau.canada.ca/en/how-we-foster-competition/education-and-outreach/abuse-dominance-enforcement-guidelines">https://competition-bureau.canada.ca/en/how-we-foster-competition/education-and-outreach/abuse-dominance-enforcement-guidelines</a>).
- 8 As consumer protection and market conduct issues related to insurance fall under provincial, not federal, jurisdiction.

Columbia, Manitoba, and Saskatchewan have public monopoly provision (apart from Manitoba, which is fully public, the others are really "hybrid" systems<sup>9</sup> insofar as private companies can provide insurance beyond the basic mandated package).<sup>10</sup> Quebec is an outlier as it has publicly provided insurance for bodily injuries and privately provided insurance for property damages. Given its particular nature and, therefore, the incomparability of its data, I leave Quebec out of this analysis.<sup>11</sup>

Nowadays, all the provinces' insurance rate regulation systems can be described as a combination of the regulatory frameworks presented earlier. The two systems that appear most prevalent (in pure or combined forms) are the File and Use and the Prior Approval systems.

## 3.1 Ontario, Alberta, and the Atlantic Provinces: Modified File and Use Systems

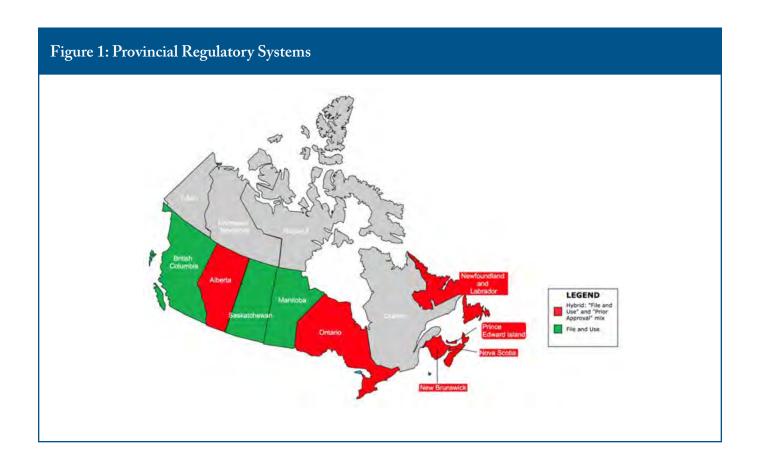
Ontario, Alberta, and the Atlantic provinces have all adopted particular mixes between the File and Use and the Prior Approval regulatory models. <sup>12</sup> Insurers are allowed to implement some of their rates immediately after filing them with the relevant regulatory authorities, provided they meet regulatory standards; in general, most provinces allow a range of up to 5 percent. <sup>13</sup> However, prior

approval is still required for larger rate increases or other big changes. This means that if an insurer seeks to implement a significant increase in premiums (often defined as a certain percentage increase) or a substantial alteration to the structure of its rates, it must receive explicit approval from the regulatory body before the rates can take effect. As previously explained, the rationale behind this mixed approach is to allow for some flexibility in rate setting while ensuring that regulators have the authority to intervene if they believe prices have been set inappropriately.

#### 3.2 Public Insurance Models: British Columbia, Manitoba, Saskatchewan, and the File and Use System

British Columbia, Manitoba, and Saskatchewan all operate under a File and Use system for regulating automobile insurance rates. <sup>14</sup> Insurers are allowed to implement their rates immediately after filing them with the relevant regulatory authority, provided that those rates meet certain regulatory standards. Regulatory authorities review these filings and intervene if the rates are found to be excessive or inadequate, in theory ensuring that rates align with the province's regulations.

- 9 In BC, ICBC holds roughly 85–90 percent of the optional auto insurance market. See: Kent, Nigel. 2011. "A Commentary on the Auto Insurance System in BC." *Clark Wilson LLP*. November 8. <a href="https://www.cwilson.com/commentary-on-auto-insurance-system-in-bc/?utm.">https://www.cwilson.com/commentary-on-auto-insurance-system-in-bc/?utm.</a> This illustrates how the BC market is publicly dominated, with a limited private presence even in the optional coverage.
- Wallcraft, Stephanie. 2024. "Public vs Private Car Insurance: How Car Insurance Differs Across Canada." *Driving.ca*. January 6. <a href="https://driving.ca/features/shopping-advice/public-private-car-insurance-across-canada">https://driving.ca/features/shopping-advice/public-private-car-insurance-across-canada</a>.
- 11 Devlin, Rose Anne. 2019. "A Comparison of Automobile Insurance Regimes in Canada." Assurances et Gestion Des Risques 86(1-2): 55–96. https://www.revueassurances.ca/wp-content/uploads/2021/02/03 AGR Vol 86 1-2 Art03 Devlin Proweb.pdf. It is worth noting that there is no evidence that this paper is aware of that Quebec, which essentially lacks rate regulation for private vehicle damage, exhibits indications of unfair treatment towards consumers. In fact, insurers are required to adhere to the Canadian Council of Insurance Regulators (CCIR) guidelines on the fair treatment of consumers.
- 12 For a detailed breakdown of the regulatory models in each province, see Appendix B.
- 13 It should be noted that this threshold is rarely reconsidered and adjusted. This reduces the model's benefits.
- 14 For a detailed breakdown of the regulatory models in each province, see Appendix B.



## 4. Assessing the "Cost of Regulation"

After describing the regulatory systems and their differences, I now address the central question of this study: do stricter rate regulation regimes hinder insurers' ability to adopt necessary rate changes in response to economic shocks and market conditions, potentially affecting their solvency, adaptability to changing risks, and efficiency in serving customers?

To tackle this issue in depth, I have constructed a structural pricing model (presented in Appendix C) that builds on two of the most used and influential

models in the literature on insurance pricing (Hiebert 1976; Hizawa and Ko 2023). Through this model, I derive a statistic that shows how the premiums' rate of change primarily depends on the change in insurers' losses. <sup>15</sup> A virtue of this approach is that by looking at the change in premiums from a change in losses, it becomes possible to disentangle the effects of regulation from the effects of competition. <sup>16</sup> The critical parameter is the adjustment parameter,  $\phi$ . In fact,  $\phi$  shows the fraction of the change in losses that directly translates into a change in rates. Following a shock that affects losses because levels of competition do

<sup>15</sup>  $\frac{p_t}{p_{t-1}} = \phi_r \frac{L_t}{L_{t-1}}$ , where  $\frac{p_t}{p_{t-1}}$  is the rate of change of the premiums, and  $\frac{L_t}{L_{t-1}}$  is the rate of change of the losses.

<sup>16</sup> Details can be found in Appendix C, Focus: Identifying the Sole Effect of Regulation.

not change significantly from period to period, <sup>17</sup>  $\phi$  captures only the unintended consequences of price regulation. In the presence of rate regulation, insurers might not be able to adjust their rates as much as they would need, and  $\phi$  reflects exactly how much insurers' ability to adjust their rates in response to changing market conditions is affected. A lower value of  $\phi$  corresponds to a more significant regulatory burden, as it means that it is harder for insurers to quickly adjust their premiums in response to economic shocks.

These are not just hypotheticals. Empirically and historically, there is evidence of this. Hiebert (1974) shows how, in the US, stricter rate regulation regimes decrease the speed of the rates' adjustment process, advocating for the adoption of more flexible regimes. More recently, Born and Klimaszewski-Blettner (2023) provide empirical evidence that heavy regulatory frameworks, which affect pricing decisions, unintentionally push insurers outside the market, impeding their willingness to provide coverage against natural disasters.

#### 4.1 Data and Methodology

This analysis draws on a combination of private insurance data from the General Insurance Statistical Agency (GISA) (covering Alberta, the Atlantic provinces, and Ontario) and public insurance data from Saskatchewan, British Columbia, and Manitoba, with additional cross-validation using Statistics Canada data. <sup>18</sup> Provinces are then categorized into two groups: "File and Use" (British Columbia, Manitoba, and Saskatchewan), where insurers have more flexibility in rate

adjustments, and "hybrid" provinces (Alberta, Ontario, and the Atlantic provinces), which have stricter regulatory oversight. As explained, the hypothesis tested in this study is that the coefficient  $\phi$  is smaller in the more regulated hybrid provinces.

This suggests that insurers are not responding to economic shocks or changes in claims experienced as much as they would like to due to more significant regulatory barriers. By comparing the price adjustment behaviours of insurers across these two groups, I aim to gain a clearer understanding of how varying levels of regulatory intensity impact insurers' ability to adapt their pricing strategies in response to evolving market conditions.

#### 4.2 Quantitative Results

The results of the analysis (reported in Appendix E, Table E1) suggest that the regulatory intensity across Canadian provinces has a significant and relevant impact on insurers' ability to adjust their premiums. On average, provinces with more stringent rate regulations (i.e., Alberta, Ontario, and the Atlantic provinces) face increased challenges in adjusting their premiums, with adjustments around 2.1 percent smaller than in less regulated provinces.<sup>19</sup>

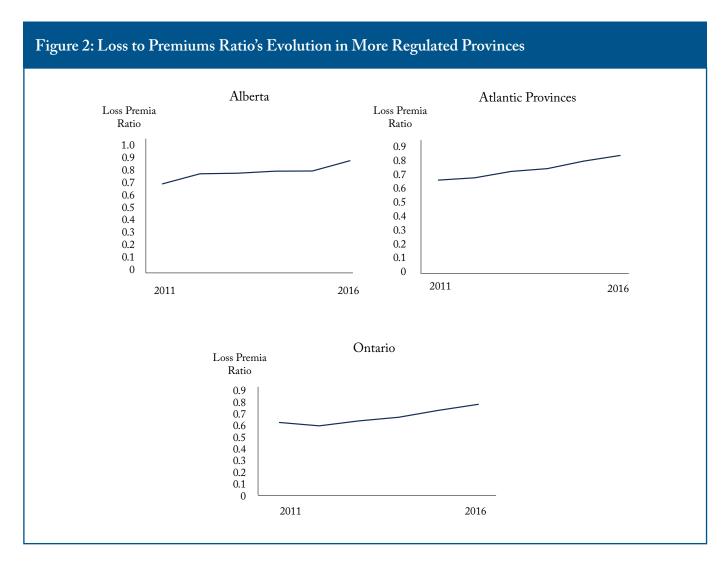
While this percentage difference may seem modest at first glance, it assumes greater importance when considering the broader context. Over the past few years, Canada's automobile insurance sector has been struggling with big economic shocks driven by a combination of supply chain disruptions, inflation, and severe weather events.<sup>20</sup> As a result, the need to quickly react and adjust

<sup>17</sup> In Canada, while Intact Financial Group has the largest market share by a significant margin, as discussed earlier, the industry's Herfindahl-Hirschmann Index, a measure of market concentration, remains comfortably in the range of a competitive marketplace (Campbell 2024).

<sup>18</sup> See Appendix D for more details on data sources including issues of comparability.

<sup>19</sup> I performed different robustness checks around time periods and empirical techniques but found no significant differences in the results.

<sup>20</sup> Recamara, Josh. 2025. "Auto insurance sector under pressure: Statistics Canada." *Insurance Business Canada*. April 3. <a href="https://www.insurancebusinessmag.com/ca/news/auto-motor/auto-insurance-sector-under-pressure-statistics-canada-530845.aspx">https://www.insurancebusinessmag.com/ca/news/auto-motor/auto-insurance-sector-under-pressure-statistics-canada-530845.aspx</a>.



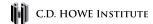
insurance rates in response to these shocks becomes paramount for insurer survival. In provinces with stricter regulations, insurers' ability to adjust prices in a timely and appropriate manner is more constrained, and these restrictions might very well create a mismatch between premium levels and actual risk exposure.

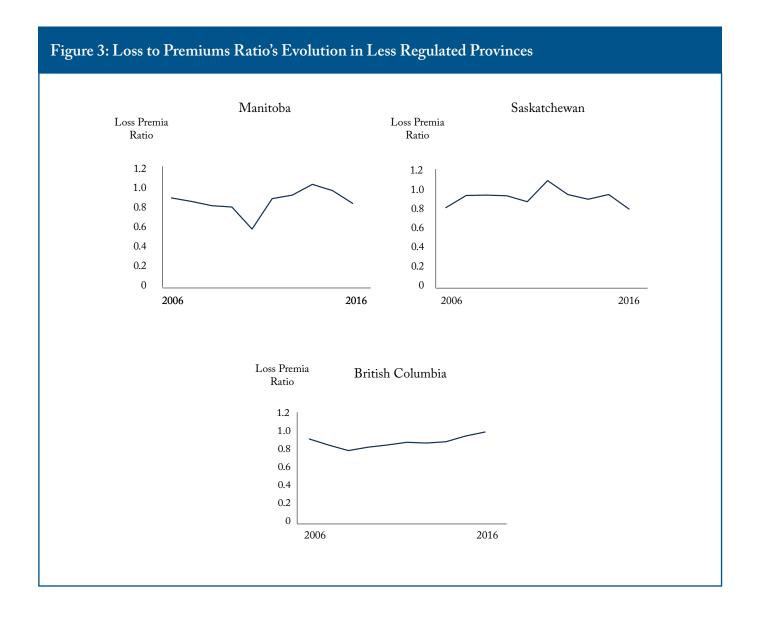
The findings are further validated by a visual analysis of the data. Comparing the growth rate of the ratio between losses and premiums reveals a different trend between the more and the less regulated provinces (Figure 2 vs Figure 3, respectively). While the loss to premiums ratio of the less regulated provinces has remained somewhat constant (Figure 3) and does not exhibit any trend, the loss to premiums ratio of the more regulated

ones is upward-sloping (Figure 2), indicating a greater change in losses than a change in premiums. This positive trend points to the strain on insurers posited in the analysis. At some point, if this trend continues, insurers might be forced to consider whether to continue in certain market segments. Stricter regulatory frameworks could, in the long run, contribute to greater market inefficiencies than the ones they help to solve.

## 5. CONCLUSION AND POLICY DISCUSSION

This study complements previous C.D. Howe Institute papers highlighting the necessity of reforming the Canadian auto insurance system





(Marshall 2022; Campbell 2024). Here, the focus shifts to auto insurance market regulation and focuses on how different regulatory environments and approaches shape auto insurance pricing behaviour in Canada. Rate regulation is a rather new phenomenon in the country. Hence, studies in this field are crucial to understanding what has and has not worked and how to improve the current policy and regulatory frameworks. By examining the varying levels of regulation across the provinces, I have shown that stricter price controls – such as those in Alberta, Ontario, and the Atlantic provinces – significantly restrict insurers' ability

to adjust premiums in response to changing risks. This limitation could compromise their financial resilience in the long run, especially as market conditions become increasingly volatile. This is particularly concerning as Canada faces an increased frequency of extreme weather events, which have had direct impacts on the auto insurance sector and heighten the urgency for insurers to be agile in their pricing strategies. Without that, it could force insurers to limit coverage or withdraw from markets, worsening other market inefficiencies and diminishing consumers' ability to purchase insurance to protect themselves.

13 COMMENTARY 687

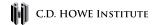
From a policy perspective, this study highlights the importance of striking the right balance between consumer affordability for a mandated product, and the need to ensure insurer solvency and market dynamism. While the first goal might be more popular and might seem more pressing from a political perspective, the results indicate that neglecting the latter paradoxically leads to harmful consequences for the former. It begs the question of whether regulation focused on market conduct instead of price setting is better at achieving desired consumer protection.

The findings should also be combined with the fact that regulating rates is expensive to administer. These costs are ultimately passed down to consumers – either through inevitable price adjustments or through decreased competition.

Focusing on market flexibility does not mean abandoning consumer protection. There may be complementary ways to preserve consumer safeguards while moving toward more competitive and responsive regulatory frameworks. For example,

encouraging the development and accessibility of reliable, independent price comparison tools can help reduce consumer information search costs. Such tools improve transparency, empower consumers to make informed choices, and promote market discipline on prices, supporting consumers without relying on rigid rate controls.

Short of that, policymakers need to improve their assessments and estimates of the evolution of risks across regions and market segments in setting their regulatory strategy. Certainly, in areas that are more vulnerable to extreme weather events and other sudden and quickly emerging risks, regulators should adopt flexible regulatory frameworks, such as pure File and Use or Use and File systems. This will maintain regulatory oversight while enabling insurers to respond immediately, making it easier for a competitive environment to thrive – ultimately, a primary driver of achieving robust consumer protection.



## APPENDIX A: A SIMPLE STRUCTURAL ANALYSIS OF THE RATIONALE BEHIND RATE REGULATIONS

In this appendix, I present a basic model that illustrates the main economic dynamics guiding insurance rate regulation. Imagine a population of consumers who are identical and live for two periods (t = 1, 2). The income in each period is denoted as y, and their preferences are characterized by a risk-averse utility function  $u(\cdot)$ .<sup>21</sup> Consumers face automobile-related financial risks in each period, and the actual cost of claims is represented by  $\mu_{i,k,t}$ . This claims cost,  $\mu_{i,k,t}$  arises from two sources of uncertainty: first, each individual's unique expenditure risks (denoted by *i*) affect their claims, and second, there are aggregate macro risks in the future (second) period (denoted by *k*) that influence the overall claims (these risks derive from macroeconomic conditions, e.g. trade shocks, etc.) The key question is: what would a benevolent social planner choose? The planner would aim to design an optimal long-term contract that solves the following problem:

Here  $\mu_1$  denotes the anticipated claims cost during the first period ( $\mu_1 = E[\mu_{i,1}]$ ), while  $\mu_{k2}$  reflects the expected claims cost in state k during the second period, with k representing the realized condition of the overall shock. The probability of the second period falling into state k = 1, k is given by  $\pi_k$ . The optimal social scenario would ensure that c is constant, i.e.  $c_1 = c_{k,2}$  would hold true across all states k, thereby achieving perfect consumption smoothing in response to both individual and overall risks (Cochrane 1995). Hence, in principle, the goal of rate regulations is exactly this: keeping rates as fixed, stable, and predictable as possible.

However, it is essential to note that the first-best outcome is feasible within a competitive market, provided both consumers and insurers face no uncertainty and can, therefore, commit to binding insurance contracts for both periods. This situation is far from what we observe in reality, meaning we need to adjust the model, taking into account shocks and frictions, and adjust regulation accordingly (which I do in Appendix C).

$$max_{c_1,c_{2,k}}u(c_1) + \sum_k \pi_k u(c_{k,2})$$
 s.t.  $c_1 + \sum_k \pi_k c_{k,2} = y_1 + y_2 - \mu_1 - \sum_k \pi_k \mu_{k,2}$ 

21 Standard in the literature. See, for example: Cochrane (1995) and Koijen and Yogo (2015), among others.

### APPENDIX B: BREAKDOWN OF REGULATORY MODEL BY PROVINCE

#### Alberta:

In Alberta, insurers can immediately implement rate changes up to 5 percent after filing with the Alberta Insurance Rate Board (AIRB), as long as the rates meet regulatory standards (a File and Use approach).<sup>22</sup> However, Prior Approval is required for certain significant changes, such as large premium rate increases, new or modified rating programs, or changes to coverage options that may significantly affect policyholders. These types of changes cannot be implemented until the AIRB explicitly approves them.

#### Ontario:

Ontario was the first province to introduce rate insurance regulation. During the challenging market conditions of the late 1980s, Ontario commissioned Justice Coulter A. Osbourne to investigate potential solutions to escalating rates, including the possibility of nationalizing the industry. In 1989, the Automobile Insurance Rates Control Act (Bill 10) was passed, introducing a strict Prior Approval system for insurance rates. This was later amended under Bill 68 in 1990, and in 2000, the Financial Services Commission of Ontario implemented a "respond-to-market" (R2M) process, streamlining approval times for rate changes below a certain threshold and providing some flexibility in the system. Since then, the Financial Services Regulatory Authority of Ontario (FSRA) has

introduced more modifications that have shifted the regulatory approach in the direction of a more File and User-oriented system, though most rate changes still require Prior Approval from FSRA itself.<sup>23</sup> Insurers must submit their proposed rates to FSRA, which reviews them before they can be implemented. FSRA is, in this way, safeguarding consumers from unpredictable increases. As of today, insurers can only implement minor rate changes or minor adjustments to specific forms of coverage, such as usage-based insurance, immediately after filing with FSRA.<sup>24</sup>

#### **Atlantic Provinces:**

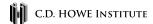
The Atlantic provinces - New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador – operate under a hybrid system that combines both File and Use and Prior Approval elements. Until 2003, insurance rates were not regulated; however, following hard market conditions and substantial rate increases in 2001 and 2002, the Atlantic provinces decided to adopt stricter price control regimes in 2003 and 2004. This was due to major political pressure: governments needed to show active control over rates in order to maintain political support for efforts to manage claims costs.<sup>25</sup> Nowadays, their system is more File and Use than Prior Approval-oriented, as insurers are generally allowed to implement their rates immediately after filing them with the relevant regulatory authority, such as the Nova Scotia Utility and Review Board (NSUARB) or the Board of Commissioners of Public Utilities in Newfoundland and Labrador, provided they meet regulatory standards.

<sup>22</sup> See: Automobile Insurance Rate Board. 2025. "Filing Guidelines for Change in Rates and Rating Programs." Government of Alberta. <a href="https://albertaairb.ca/for-industry/filing-guidelines/?">https://albertaairb.ca/for-industry/filing-guidelines/?</a>.

<sup>23</sup> See: Financial Services Regulatory Authority of Ontario. 2019. "Standard Filing: Approach No. AU0126APP." Government of Ontario. Effective October 9. <a href="https://www.fsrao.ca/industry/auto-insurance/regulatory-framework/guidance-auto-insurance/standard-filing">https://www.fsrao.ca/industry/auto-insurance/regulatory-framework/guidance-auto-insurance/standard-filing</a>.

<sup>24</sup> For example, changes to driver accident benefits can often be filed and used without needing Prior Approval from FSRA.

<sup>25</sup> New Brunswick's government risked a major electoral defeat because of this issue.



#### **British Columbia:**

In British Columbia, the Insurance Corporation of British Columbia (ICBC) is the primary provider of basic automobile insurance coverage, and it operates under the File and Use system for both basic and optional insurance rates. ICBC submits its rate filings to the British Columbia Utilities Commission (BCUC),<sup>26</sup> but once these rates are filed, ICBC is allowed to implement them immediately. The BCUC does have the authority to review these filings and intervene if needed. For what concerns optional coverage, this can also be provided by private insurers.

#### Manitoba:

In Manitoba, Manitoba Public Insurance (MPI), a government-owned insurer, is the only provider of basic automobile insurance coverage. MPI follows the File and Use system for its basic insurance rates:

it can implement changes to rates immediately after filing them with the Manitoba Public Utilities Board (MPUB) without requiring Prior Approval. The MPUB retains the power to review these filings and can intervene if the changes are considered unjustified.

#### Saskatchewan:

Saskatchewan follows the File and Use system. SGI Canada, the government-run insurer, is the primary provider of basic coverage and can implement rate changes immediately after filing them with the Saskatchewan Rate Review Panel without Prior Approval. Private insurers offering additional coverage also follow the File and Use system in Saskatchewan. Once they file their rates with the Saskatchewan Insurance Council, they are permitted to implement those rates immediately.

26 See: British Columbia Utilities Commission. 2025. "Regulating ICBC Basic Insurance." Government of British Columbia. https://www.bcuc.com/WhatWeDo/ICBC. 17 COMMENTARY 687

# APPENDIX C: THE COST OF REGULATION IN A GENERAL SIMPLE PRICE SETTING MODEL FEATURING UNCERTAINTY AND MARKET POWER

The baseline model presented in Appendix A fails to include unexpected shocks and frictions. It is, therefore, necessary to depart from this first-best scenario and work in a setting that accounts for potential unexpected losses to which insurers would need to quickly react, as well as market power and information frictions. In order to do so, I build and expand on two of the most popular models in the literature: Hiebert (1976) and Hizawa and Ko (2023).<sup>27</sup> I model the desired insurance premiums as determined by adding to the realized losses at time *t* a percentage amount of gross premium for profit (this, of course, is market power dependent but assumed to be constant through time). Hence, for each market *i*, at time *t*, premiums are equal to:

$$P_{i,t}^* = L_{i,t} + k_i P_{i,t}^* \to \frac{L_{i,t}}{P_{i,t}^*} = 1 - k_i$$
 (1)

where  $P^*$  is the desired earned premiums, L measures the realized losses at time t, and k is the percentage profit margin (province-specific, depending on the degree of competition in the market).

With the assumption that k is constant over time (i.e., the degree of competition is constant), this relationship holds for all the periods t, giving:

$$\frac{L_{i,t-1}}{P_{i,t-1}^*} = 1 - k \qquad (2)$$

Hence dividing  $P_{i,t}^*$  by  $P_{t-1}^*$  gives us:

$$\frac{P_{i,t}^*}{P_{i,t-1}^*} = \frac{L_{i,t}}{L_{i,t-1}} \quad (3)$$

Following standard practice, I assume that the growth rate of the loss, and therefore the desired growth rate of the premiums, is composed of a constant baseline (e.g., driven by standard expected inflation, standard increase in the number of vehicles, and an allowed margin against shocks etc.), and a shock dependent component. Hence:

$$\frac{P_{i,t}^*}{P_{i,t-1}^*} = \frac{L_{i,t}}{L_{i,t-1}} \quad (3) = \text{Baseline growth rate} +$$

shock-dependent growth rate. (4)

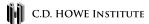
The pricing rule provided above shows a simple, intuitive, but empirically effective model of price adjustment between periods.

However, as previously discussed, in any realistic context, equation (4) will not always be satisfied as prices do not always immediately and fully adjust even when losses are reasonably expected to change. We, therefore, need to account for the possibility of a partial adjustment and will achieve this by introducing an adjustment coefficient in equation (4):

$$\frac{P_{i,t}}{P_{i,t-1}} = \phi \, \frac{L_{i,t}}{L_{i,t-1}}$$

Here,  $P_t$  and  $P_{t-1}$  are now the actual premiums in period t and t-1, and  $\phi_r$  is our proportional adjustment coefficient. I interpret  $\phi$  as the cost of price regulation, with the hypothesis that regulation imposes rigidities on price adjustment, with a distribution of results across  $\phi$  (represented by the subscript r). In practice, let's assume that given a level of regulation – strict versus mild – there is an ideal amount of price adjustment by insurers. My hypothesis is that the probability of seeing a degree of price adjustment in practice that is less than these ideal amounts is higher under strict regulation

<sup>27</sup> I also considered a difference-in-difference approach, however, a clear policy shock would be needed, common to the group of provinces identified as the treatment group, and a valid control group with parallel trends. Here, the regulatory regimes are "long-standing," provinces differ significantly, and there's no significant shared policy change, so using difference-in-difference wouldn't be a good idea.



than mild regulation. I will, therefore, empirically test the following stochastic dominance hypothesis:

 $Pr[\phi < \overline{\phi}|strictreg] > Pr[\phi < \overline{\phi}|mildreg]$ 

#### Focus: Identifying the Sole Effect of Regulation

A virtue of the model is that it allows us to disentangle the effects of regulation and competition. In fact, the effect of competition is captured by the *level* parameter k (i.e., a classic markup). Looking at the premium *change* allows us to remove the competition effect and to identify solely the pure effect of regulation,  $\phi$  (an adjustment parameter).

To illustrate this distinction, consider a steadystate scenario where market power is present. In such a scenario, the price is equal to the marginal cost plus a markup determined by the level of competition (represented by k). Now, assume a shock increases the marginal cost. In the absence of regulation, the change in price would be directly proportional to the shock, as the level of competition remains unchanged, and thus, the markup remains constant (which is why k becomes moot when considering the adjustment). However, in the presence of regulation, the price adjustment would be less than proportional. This adjustment is not directly related to the level of competition but instead reflects a regulatory friction that alters the price response.

19 COMMENTARY 687

#### APPENDIX D: DATA

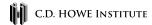
Collecting reliable and, most importantly, comparable data on insurance pricing and regulation is a fundamental but challenging task. The complexity arises from fundamental differences in available data and from the variety of regulatory environments across different provinces (in particular, differences in mandatory insurance packages among different provinces). As such, for my analysis, there is a need to combine data coming from several different sources. For Alberta, the Atlantic provinces, and Ontario, I mostly use data provided by the General Insurance Statistical Agency (GISA), which has collected comprehensive insurance data for Canadian provinces since 2011.<sup>28</sup> GISA is an independent legal entity established to gather statistical information on behalf of all participating Canadian jurisdictions. These standardized data provide great information regarding premiums, claims, and other key metrics

that are essential for understanding how regulatory regimes impact insurers' pricing behaviour. To supplement and integrate the data provided by GISA, I also rely on information coming from the regulators themselves, such as FSRA and the Alberta Insurance Rate Board (AIRB), among others. These regulators maintain detailed records of rate filings and decisions, which I use to cross-check and validate the data I collected from GISA.

In addition to these private insurance data, I also incorporate data from public insurance provinces. Public insurance programs, such as those in Saskatchewan, British Columbia, and Manitoba, are administered by government-run entities, and their data is typically more readily available. Furthermore, I use information coming from Statistics Canada, mostly to cross-validate the data coming from all the sources, putting together an adequate set of controls.<sup>29</sup>

28 See: General Insurance Statistical Agency. 2025. AUTO1005 and AUTO9501. https://www.gisa.ca/StatisticalInformation.

<sup>29</sup> For Alberta, the Atlantic provinces, and Ontario, I use data from 2011 to 2016. For British Columbia, Manitoba, and Saskatchewan, I use data ranging from 2006 to 2016. Controls include geographic fixed effects.



APPENDIX E: REGRESSION RESULTS

Table E1: OLS Regression				
Variables	(1) Premiums			
Claims Growth rate X Strict	-0.021***			
Regulation Dummy	(0.0097)			
Controls	X			
Robust Standard errors in parenthese Significance levels: *** p<0.01, ** p<0				

2 1 COMMENTARY 687

REFERENCES

- Aizawa, Naoki, and Ami Ko. 2023. "Dynamic Pricing Regulation and Welfare in Insurance Markets." SSRN Electronic Journal. https://doi.org/10.2139/ssrn.4356238.
- Campbell, Alister. 2024. The High Price of Prudence:
  Benchmarking Canada's Property and Casualty
  Industry (Second Edition). Commentary 671.
  Toronto: C.D. Howe Institute. December. <a href="https://cdhowe.org/publication/high-price-prudence-benchmarking-canadas-property-and-casualty-industry/">https://cdhowe.org/publication/high-price-prudence-benchmarking-canadas-property-and-casualty-industry/</a>.
- Caracciolo, Gherardo, and Pierre-Carl Bourque. 2024. The Good, the Bad and the Unnecessary: A Scorecard for Financial Regulations in Canada. Commentary 664. Toronto: C.D. Howe Institute. <a href="https://www.cdhowe.org/public-policy-research/good-bad-and-unnecessary-scorecard-financial-regulations-canada">https://www.cdhowe.org/public-policy-research/good-bad-and-unnecessary-scorecard-financial-regulations-canada</a>.
- Cochrane, John H. 1995. Time-Consistent Health Insurance. *Journal of Political Economy* 103(3): 445–73.
- Devlin, Rose. 2020. "A Comparison of Automobile Insurance Regimes in Canada." *Insurance and Risk Management* 86(1): 1–2. https://www.revueassurances.ca/wp-content/uploads/2021/02/03

  AGR Vol 86 1-2 Art03 Devlin Pro web.pdf.
- Koijen, Ralph S. J., and Motohiro Yogo. 2015. "The Cost of Financial Frictions for Life Insurers." *American Economic Review* 105(1): 445–475.

- Hiebert, L. Dean. 1976. "Regulation and Price Rigidity in the Property-Liability Insurance Industry." *The Journal of Risk and Insurance* 43(1): 129. <a href="https://doi.org/10.2307/251614">https://doi.org/10.2307/251614</a>.
- Insurance Bureau of Canada (IBC). 2025. "How Auto Insurance Rates Are Set." <a href="https://www.ibc.ca/">https://www.ibc.ca/</a> <a href="mailto:insurance-rates-are-set">insurance-basics/auto/how-auto-insurance-rates-are-set</a>.
- Leadbetter, Darrell, Jane Voll, and Erica Wieder. 2023. "The Effects of Rate Regulation on the Volatility of Auto Insurance Prices – Evidence from Canada." Assurances et Gestion des Risques 76(1): 21–54. https://doi.org/10.7202/1106532ar.
- Marshall, David. 2022. *Time for a Tune-up: Reforms to Private-Sector Auto Insurance Could Lower Costs and Add Value for Consumers*. Commentary 619. Toronto: C.D. Howe Institute. <a href="https://cdhowe.org/publication/time-tune-reforms-private-sector-auto-insurance-could-lower-costs-and-add-0/">https://cdhowe.org/publication/time-tune-reforms-private-sector-auto-insurance-could-lower-costs-and-add-0/</a>.
- Turchetti, Giuseppe, and Cinzia Daraio. 2004. "How Deregulation Shapes Market Structure and Industry Efficiency: The Case of the Italian Motor Insurance Industry." *The Geneva Papers on Risk and Insurance Issues and Practice* 29(2): 202–218. http://www.jstor.org/stable/41953110.

OTES:			

OTES:			

OTES:			

#### RECENT C.D. HOWE INSTITUTE PUBLICATIONS

June 2025	Lilly, Meredith. "Urgency and Caution: Charting a Careful Path to the CUSMA Review." C.D. Howe Institute Verbatim.
June 2025	Irvine, Ian, and Samuel Hampsher-Monk. <i>Clearing the Air: The Taxation and Regulation of Reduced-Harm Nicotine Products</i> . C.D. Howe Institute Commentary 686.
June 2025	Pierlot, James. "Guns for Butter: A Continental Pact for Security and Prosperity." C.D. Howe Institute Working Paper.
June 2025	Hiebert, Daniel. Fast vs. Slow: How Different Immigration Rates Can Impact Canada's Economic Challenges and Regional Disparities. C.D. Howe Institute Commentary 685.
May 2025	Fierlbeck, Katherine. <i>Reinterpreting the</i> Canada Health Act: <i>The 2025 "Holland Letter" and What it Means for Healthcare in Canada</i> . C.D. Howe Institute Commentary 684.
May 2025	Betermier, Sebastien. Briser l'impasse : comment les banques d'infrastructure stimulent les investissements privés et compensent les défaillances du marché. Institut C.D. Howe Commentaire 683.
May 2025	Betermier, Sebastien. Breaking the Catch-22: How Infrastructure Banks Can Kickstart Private Investment and Overcome Market Failures. C.D. Howe Institute Commentary 683.
May 2025	Kronick, Jeremy, Steve Ambler, and Thorsten Koeppl. "Flexible Inflation Targeting Beats a Dual Mandate: Lessons for Canada's 2026 Framework Renewal." C.D. Howe Institute E-Brief.
May 2025	Beatty, Stephen. "Back to the Future? Canada's Auto Strategy in a New Tariff Era." C.D. Howe Institute E-Brief.
May 2025	Hiebert, Daniel. <i>Balancing Canada's Population Growth and Ageing Through Immigration Policy</i> . C.D. Howe Institute Commentary 682.
April 2025	Nunes, Joe. "Rethinking Age Cutoffs in Canada's Long-Term Disability Insurance." C.D. Howe Institute E-Brief.
April 2025	Robson, William B.P., and Nicholas Dahir. <i>Could Do Better: Grading the Fiscal Accountability of Canada's Municipalities</i> , 2024. C.D. Howe Institute Commentary 681.
April 2025	Wyonch, Rosalie. <i>Enhancing Innovation in Canadian Hospitals: The Obstacles and the Solutions</i> . C.D. Howe Institute Commentary 680.

#### SUPPORT THE INSTITUTE

For more information on supporting the C.D. Howe Institute's vital policy work, through charitable giving or membership, please go to www.cdhowe.org or call 416-865-1904. Learn more about the Institute's activities and how to make a donation at the same time. You will receive a tax receipt for your gift.

#### A REPUTATION FOR INDEPENDENT, NONPARTISAN RESEARCH

The C.D. Howe Institute's reputation for independent, reasoned and relevant public policy research of the highest quality is its chief asset, and underpins the credibility and effectiveness of its work. Independence and nonpartisanship are core Institute values that inform its approach to research, guide the actions of its professional staff and limit the types of financial contributions that the Institute will accept.

For our full Independence and Nonpartisanship Policy go to www.cdhowe.org.



67 Yonge Street, Suite 300, Toronto, Ontario M5E 1J8