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# **QUEBEC'S FOREST REGIMES: LESSONS FOR A RETURN TO PROSPERITY**

By Alexandre Moreau, with the collaboration of Jasmin Gu nette



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# Quebec's Forest Regimes: Lessons for a Return to Prosperity

Montreal Economic Institute

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October 2016



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## HIGHLIGHTS

Over time, the Quebec government has modified, on several occasions, the forest regime that governs the activities of the forestry industry. This *Research Paper* reviews the history of the forest concessions regime, the TSFMA regime, and the main events that influenced the new 2013 forest regime. It also proposes reforms inspired by the positive aspects of the former regimes and of practices that prevail elsewhere.

### Chapter 1 - The Management of Public Forest Lands: From "Laissez-Faire" to State Control

- In 1826, we see the emergence of Quebec's first formal forestry regime, namely the forest concessions regime, whereby the government granted exclusive logging rights to the trees located within the limits of the concession.
- Being almost the equivalent of owners, it was in the interest of concession holders to invest and to sustainably harvest the forests they were allocated since the long-term profitability of their companies depended on it.
- Although the forest concessions regime had many positive features, the government declared in the early 1960s that the exclusive logging rights granted to concession owners on all species did not allow for the public forests to be harvested to their full potential.
- In 1974, the government proceeded with the gradual revocation of forest concessions through its *Act to amend the Lands and Forests Act*, and between 1972 and 1985, the total area of concessions diminished by 36%.
- By adopting the *Forest Act* in 1986, the government put a definitive end to the forest concessions regime that had prevailed for over 150 years, redefining the division of responsibilities between companies and the government in such a way that the latter now played a predominant role in terms of the management of public forests.

### Chapter 2 - Centralizing Responsibility and Overharvesting the Resource

- Quebecers' discovery of the forest coincided with growing reservations about commercial forestry activities, and in a poll conducted in 1989, a consider-

able portion of the population expressed a negative attitude toward the forestry industry.

- Despite the fact that the determination of the volumes of timber available to be harvested has ultimately been the responsibility of the Department and not of private actors since the introduction of the TSFMA regime in 1986, many claimed that logging companies were responsible for the potential overharvesting of public forests in the early 2000s.
- As Quebec's Auditor General revealed in 2002, it was indeed the Department of Natural Resources that was not living up to its responsibilities.
- The Coulombe Commission subsequently showed that the government's annual allowable cut estimates were much too optimistic, and consequently, that the harvest objectives were too high relative to the forest's capacity to regenerate.
- The government's directives aiming to increase the timber harvest thus certainly contributed to the 22% reduction in stocks of timber for softwood species between 1970 and 2008, although this reduction in stocks was compensated for by a considerably reduced forest harvest in subsequent years due to the financial crisis and the reduction in housing starts in the United States and Canada.
- Surprisingly, even though the criticisms formulated by the Coulombe Commission and the Auditor General are directed toward the Department, they led to the virtually complete centralization of forest management in the hands of government agencies.

### Chapter 3 - Reforming the Forest Regime in a Time of Crisis

- Due to the softwood lumber dispute between Canada and the United States, and the 2008 economic crisis, thousands of jobs were lost in the forestry industry and many mills had to shut down.
- It is in this context of crisis that another major overhaul of the forest regime was undertaken, culminating in the adoption of the *Sustainable Forest Development Act* in 2013.
- A tiny proportion of the timber volumes in public forests are harvested annually, amounting to slightly less than 1% since 1990.

- The short-term vision that characterizes supply guarantees under the current regime and the often downward revisions of timber volumes allocated in public forests serve to discourage investments that require long-term planning.
- Nine years after it came into effect, the Softwood Lumber Agreement between Canada and the United States reduced Canadian softwood lumber imports by an estimated 7.78% while tariffs were in effect.
- This reduction cost the Canadian forestry sector over \$2 billion, and American consumers lost \$6.36 billion, whereas American softwood lumber producers earned an extra \$4.63 billion.
- Quebec's forestry regions have suffered through an economic situation that has been unfavourable to the timber industry since the early 2000s, but despite this decline, forestry remains an important sector of economic activity in Quebec's regions.
- Between 2010 and 2014, the government fees paid by Quebec companies more than doubled and are now nearly twice as high as those paid by their Ontario competitors.
- In other countries, mills generally have greater latitude in developing forestry management plans and a longer timeframe within which to plan their investments.

## Chapter 4 - Reform Proposals for a More Competitive Forest Regime

- The 2013 centralization of responsibility for the management of public forests was presented by the government as an improvement over the former TSFMA regime that would lead to economies of scale.
- Timber volumes in public forests were allocated with no time limit under the forest concessions regime, and for a period of 25 years under the TSFMA regime, but currently, they are allocated only for periods of 5 years or less, at the discretion of the Minister.
- Because of the short-term aspect of the new system, holders of supply guarantees must now plan their operations and investments over very short time periods, which makes it difficult to predict supply and exacerbates the risk associated with investment and with the hiring of labour.
- According to a Groupe DDM study carried out more than a year after the new forest regime came into effect, it was found that there had been no savings, and that companies even saw cost increases.



## INTRODUCTION

The challenges facing Quebec's forestry sector are numerous and longstanding. There is of course the softwood lumber dispute between Canada and the United States that has persisted since the early 1980s; there are the contradictory hypotheses of under- and overharvesting of the resource; and for several decades, there have been social demands for more government intervention in the management of public forests.

Over time, the Quebec government has responded to these pressures and challenges by modifying, on several occasions, the forest regime that governs the activities of the forestry industry. The gradual abolition of forest concessions starting in the 1970s was a turning point. From that moment on, the trend has been toward the centralization of responsibility in the hands of the government department responsible for the forests and the different agencies it oversees. Today, companies have hardly any responsibility left, and the competitiveness of mills depends in large part on the work of government officials.

The first chapter of this *Paper* reviews the history of the forest concessions regime in order to highlight some of its positive aspects and debunk some myths that were used to justify greater government involvement in the management of public forests. Chapter 2 focuses mainly on the TSFMA regime and the hypothesis of overharvesting. Chapter 3 demonstrates the economic importance of the forestry sector in Quebec's regions by emphasizing the main events that influenced the new 2013 forest regime. Based on these observations, Chapter 4 targets the new forest regime's flaws and proposes reforms inspired by the positive aspects of the former regimes and of practices that prevail elsewhere.

**"Today, companies have hardly any responsibility left, and the competitiveness of mills depends in large part on the work of government officials."**



## CHAPTER 1

### The Management of Public Forest Lands: From “Laissez-Faire” to State Control

A historical look at forestry in Quebec reveals a decisive moment at the start of the 1970s,<sup>1</sup> when a new paradigm was emerging. At that moment, the role of the government went from that of a simple monitor in a regime characterized by a hands-off approach to that of an actual forest operator invested with near-total responsibility.

#### The Forest Concessions Regime

From the start of the 1600s in New France, we see the first allocations of volumes of wood in the form of royal concessions, with a view among other things to occupying territory for purposes of colonization and to building ships for the royal navy. It is not until 1826, however, under the English regime, that we see the emergence of Quebec's first formal forestry regime, namely the forest concessions regime. Without transferring its rights as landowner, the government thereby granted exclusive logging rights to the trees located within the limits of the concession.<sup>2</sup>

It is at this point that a public auction system was set up to issue logging licenses for the wood inventoried on the forest concessions.<sup>3</sup> Concession holders had to conform to the conditions and restrictions established by the government, all while paying the premiums and royalties charged.

The royalties were not as “paltry” and “ridiculous” as some imply today, and were more than mere stumpage fees.<sup>4</sup> The concession-holder had to pay an initial “leasing premium” (“*affermage*”) at the moment of acquisition, and then pay an annual “land rent” in order to exercise his rights. The amount of this rent was actually a form of tax, but at a much higher rate, to discourage the acquisition of too many concessions by a single

holder. Finally, a holder had to pay “stumpage fees” on the volume of wood he harvested or had harvested for him, in addition to an “education fund tax.”<sup>5</sup>

Not only did concession holders have to incur these costs, but they were also almost solely responsible for the management of public forests. Among other things, they were responsible for developing the road network on the concessions. The development of a road network across a concession did not give the owner of the concession exclusive use of it, however. Any other company could use it in exchange for the payment of compensation set by the government based on the value of the work carried out.<sup>6</sup>

**“It is not until 1826, under the English regime, that we see the emergence of Quebec's first formal forestry regime, namely the forest concessions regime.”**

Moreover, they had to carry out an inventory and develop forest management plans. On an annual basis, they produced a logging program specifying the volume of wood to be cut and the areas to be harvested. Finally, they had to ensure the protection of their concessions against forest fires according to the norms and methods accepted by the government. At each stage of the forest management process, the plans and activities of concession owners had to be verified and approved by the Department.<sup>7</sup>

Being almost the equivalent of an owner, it was in the interest of the concession holder to invest and to sustainably harvest the forests he was allocated since the long-term profitability of his company depended on it. As pointed out in the 2004 Duchesneau report, prepared for the Commission for the Study of Public Forest Management in Quebec, apart from a few minor cases, it was generally admitted that concession holders fulfilled their responsibilities adequately.<sup>8</sup>

Back then, the government was aware of the importance of ensuring the predictability and the stability of the timber supply to reassure lenders and thereby encourage

1. Eric Alvarez, “Histoire forestière du Québec : deux ères distinctes,” *La Forêt à cœur*, April 8, 2016.

2. Quebec Department of Lands and Forests, *Exposé sur l'administration et la gestion des terres et forêts du Québec*, Green Paper, 1965, pp. 30-32; Government of Quebec, *Lands and Forests Act*, Chapter 93, Article 72, 1925.

3. In 1937, the law was modified to permit the sale of forest concessions without the need for public auctions. The last auctions took place in 1943. Quebec Department of Lands and Forests, *op. cit.*, footnote 2, pp. 29-30.

4. Pierre Dubois, “Forêt : Une histoire d'aliénation,” in Simon Tremblay-Pepin (ed.), *Dépossession : Une histoire économique du Québec contemporain—Tome 1 : Les ressources*, Lux Éditeur, 2015, p. 94.

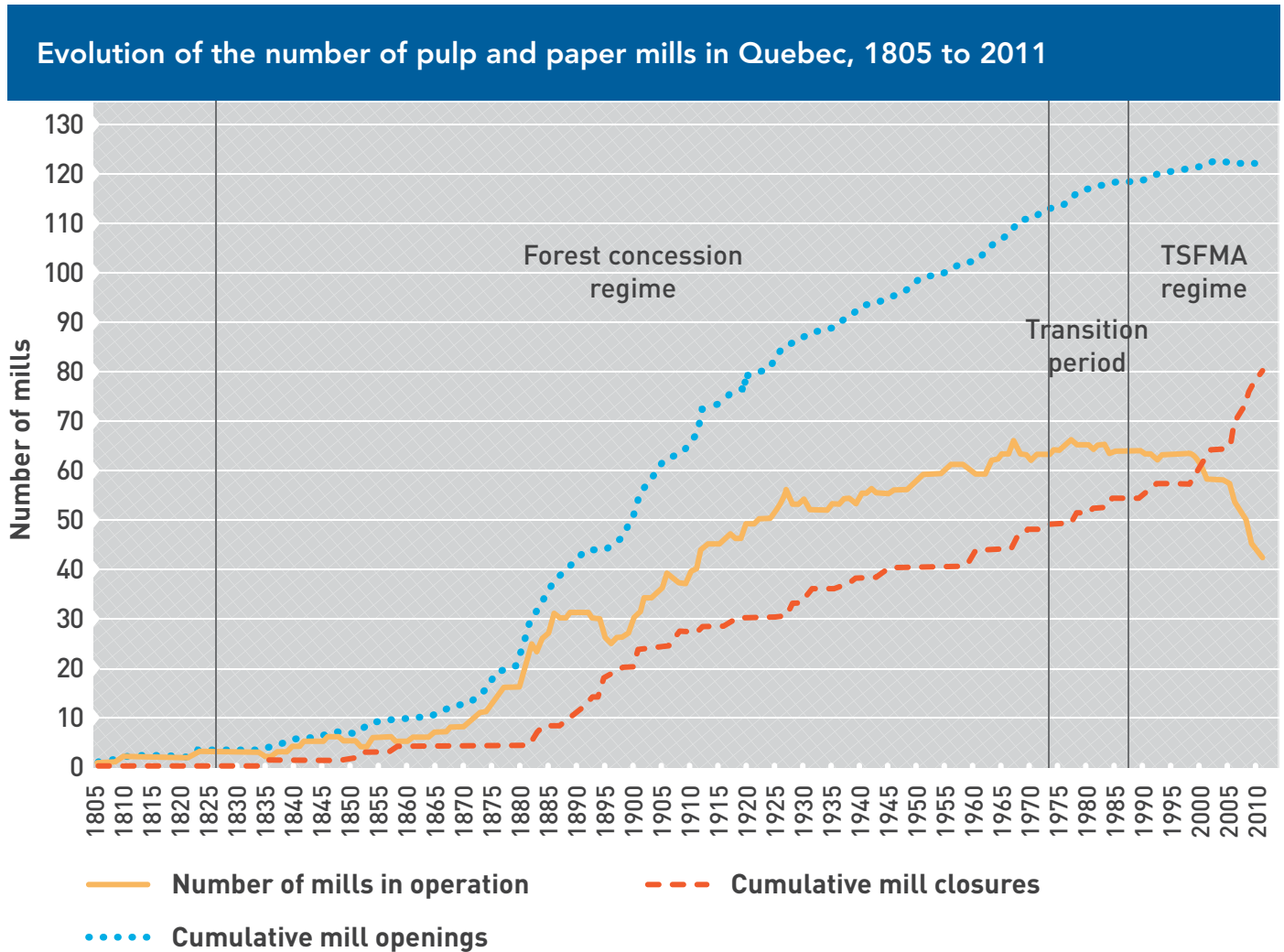
5. Quebec Department of Lands and Forests, *op. cit.*, footnote 2, pp. 35-37.

6. Government of Quebec, *op. cit.*, footnote 2, Articles 102 and 103.

7. Quebec Department of Lands and Forests, *op. cit.*, footnote 2, pp. 34-35.

8. Michel Duchesneau, *Gestion de la forêt publique et modes d'allocation de la matière ligneuse avant 1986*, Report prepared for the Commission for the Study of Public Forest Management in Quebec, May 2004, p. 10.

Figure 1-1



Source: Jean-Paul Gilbert, *Surviv de l'évolution de l'industrie des pâtes et papiers au Québec : 1805 à 2015*, Société d'histoire forestière du Québec, December 2015, p. 10.

**“Not only did concession holders have to incur these costs, but they were also almost solely responsible for the management of public forests.”**

private investment. Since the beginning of the 20<sup>th</sup> century, it granted forest concession holders the right to borrow against the volumes of wood harvested and to keep their logging permits as long as the conditions it established were respected.<sup>9</sup>

9. This was a renewal on an annual basis with no time limit, while the property rights were applicable to the volumes of wood harvested and not to the volumes of standing timber or to wood in the forest as a whole.

This tenure system thus allowed for a long-term vision favouring private investment, and therefore the development of an industrial sector in full expansion that represented 25% of the economy in the early 1900s. Indeed, it is in the era of the concessions regime that we see the fastest growth in the number of pulp and paper mills in the history of Quebec (see Figure 1-1).

### Were the Forests Under-Harvested?

Although the forest concessions regime had many positive features, the government declared in the early 1960s that the exclusive logging rights granted to concession owners on all species did not allow for the public forests to be harvested to their full potential. It is this argument in favour of a more intense harvesting of the forests that underlies the paradigm shift that followed.

In the first place, concession holders were accused of not harvesting enough softwood lumber in public forests. According to the estimates of the Quebec Department of Lands and Forests, concession holders harvested just 65% of the annual allowable cut. For its part, the industry stated that it was “wise” to keep a 10% margin of safety in the use of the annual allowable cut in anticipation of losses in case of fire, insect infestations, or unpredictable fluctuations in demand. From this perspective, the proportion of the unharvested annual allowable cut was actually just 25%, and this was an average for the province as a whole.

Moreover, many concession holders were already making optimal use of the available timber. This 25% average was influenced by the presence of remote peripheral sectors involving operating costs that were too high to justify harvesting. As the Chief Forester of Consolidated Bathurst Limited at the time, Roland Royer, expressed it, the tenure system was “far from being the main cause of such a state of affairs.”<sup>10</sup>

**“This tenure system allowed for a long-term vision favouring private investment, and therefore the development of an industrial sector in full expansion.”**

It should also be noted that the system for determining logging rights applied a uniform price to all species across Quebec. By not varying from one region and one forest to another to reflect varied operating costs, the system did not encourage the harvest of trees that were hard to reach and/or of smaller size. The policy of fixed payments that prevailed at the time was therefore not only suboptimal, but it also treated concession holders inequitably.<sup>11</sup>

The government also criticized concession holders on the grounds that they only harvested the species they needed without even selling so-called “secondary” species like deciduous trees to third parties that could have used them to supply sawmills.<sup>12</sup> According to the Department, this exclusive right covering all tree species did not allow for the growing needs of this industry to be met.

However, the situation was much more complex than the Department's interpretation makes it sound by referring to a “freeze of deciduous forests” in the early 1970s. The different hardwood species are mainly used for two specific purposes, namely for pulp and paper mills and for sawmills and veneer mills. Whereas the hardwood species suited to the first purpose were indeed not harvested much, those used for the second were on the contrary over-exploited due to strong demand from mills.<sup>13</sup>

Yet it was the Department that had held the entire responsibility for allocating hardwood species as of 1967. Moreover, the Department was aware of harvest levels being too high to allow for the regeneration of hardwood stocks, but was slow to sufficiently reduce harvest levels in order to ensure the sustainability of deciduous species.<sup>14</sup> Twenty years later, the Quebec Furniture Manufacturers Association submitted a report to the Department condemning the pitiful state of deciduous forests serving sawmills and veneer mills, pointing out that the harvest was equivalent to 160% of the annual allowable cut between 1984 and 1987.<sup>15</sup>

Considering all this, claims that centralized management by the government necessarily leads to wood use that is compatible with the goal of ensuring its sustainability can certainly be called into question. It would have been possible to modify the law to make sure that concession holders only had the right to those species they anticipated using, all while promoting the development of silviculture, without the abolition of forest concessions being in any way inevitable. However, it was the government's ambition to profoundly reform the regime, and that is what it did over the course of the following decade.

## Central Planning to Maximize the Harvest

The criticisms expressed by the Department, to the effect that concession holders were under-utilizing the trees in public forests, led to the publication of a White Paper in the early 1970s. In this document, the government revealed its intention to revoke all forest concessions and to take over more responsibility itself in order to maximize the harvest of public forests. This was a decisive moment in the governance of the public forests that reflected the vision of the role of government that prevailed at the time.

10. Roland Royer, “Pourquoi abolir les concessions forestières?” Presentation by the Chief Forester of Consolidated Bathurst Limited at the meeting of the Association forestière québécoise, December 27, 1972, pp. 6-7.

11. Quebec Department of Lands and Forests, *op. cit.*, footnote 2, p. 38.

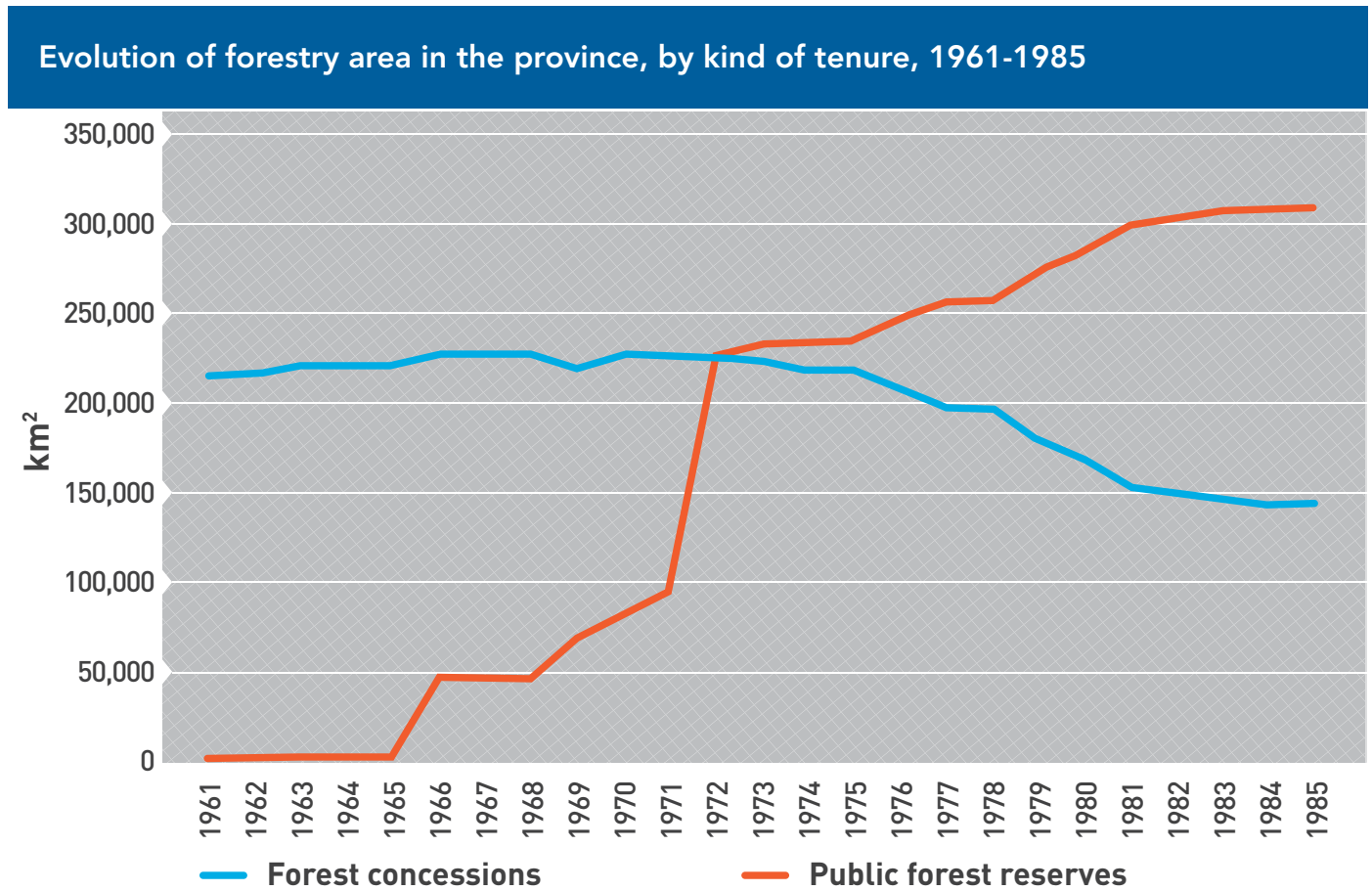
12. *Ibid.*, pp. 30-33.

13. Roland Royer, *op. cit.*, footnote 10, pp. 7 and 17.

14. Bureau du forestier en chef, *Le portrait de la forêt feuillue et mixte à feuillus durs au Québec : Survol historique*, January 2015, pp. 30-36.

15. *Ibid.*, p. 44.

Figure 1-2



Source: Michel Duchesneau, *Gestion de la forêt publique et modes d'allocation de la matière ligneuse avant 1986*, Report prepared for the Commission for the Study of Public Forest Management in Quebec, May 2004, p. 11.

**“The government declared in the early 1960s that the exclusive logging rights did not allow for the public forests to be harvested to their full potential.”**

In particular, the Department stated that “in an era of command economies and of planning, it is much more efficient to proceed, in the granting of forest concessions, according to particular laws, with conditions determined by the legislature.”<sup>16</sup> From this perspective, the Department considered it altogether natural for the government to want to take over the management of the forests that belong to it.<sup>17</sup> The emergence of this new paradigm left marks that can still be seen.

Paradoxically, the Quebec Minister of Lands and Forests had proposed the creation of a Forest Management Company on the grounds that the government had a reputation as a bad manager. He had even highlighted the “disappointing experience with departmental administration of the public forest reserves [‘forêts domaniales’] and the weight of governmental administration” all while admitting that the Department “had behaved like the least efficient of the concession holders, and was not meeting the conditions that it required of them.”<sup>18</sup> At the same time, the Department declared that a “concern for realism and efficiency” encouraged the government to preserve for a time the participation of private enterprise to take advantage of its experience and of the skills acquired by the holders of forest concessions.<sup>19</sup> Disregarding the positive elements inherent

16. *Ibid.*

17. Quebec Department of Lands and Forests, *Exposé sur la politique forestière : Tome 2—Réforme et programme d'action*, 1972, pp. 32-33.

18. Speech by the Minister of Lands and Forests, cited in Roland Royer, *op. cit.*, footnote 10, p. 10.

19. Quebec Department of Lands and Forests, *Exposé sur la politique forestière : Tome 1—Prospective et problématique*, 1971, p. 155.



in the forest concessions regime, however, the government opted for their complete revocation rather than responding to the criticisms of the day by modifying the *Lands and Forests Act*.<sup>20</sup>

In 1974, the government proceeded with the gradual revocation of forest concessions through its *Act to amend the Lands and Forests Act*.<sup>21</sup> Between 1972 and 1985, the total area of concessions diminished by 36%. Parallel to this initiative, the government allocated logging rights in public forests that were specifically meant to be held in reserve for the needs of the forestry industry ("forêts domaniales").<sup>22</sup> The total surface area of these forests thus grew from 1,272 km<sup>2</sup> in 1961, to 228,354 km<sup>2</sup> in 1972, and to more than 310,000 km<sup>2</sup> in 1985 (see Figure 1-2).

With the mechanization of mills and the specialization of tasks, employment was falling even as the timber harvest was growing. By using public forest reserves and by revoking forest concessions, the government thus hoped to reduce operating costs and increase the harvest to create jobs and bring an end to the high unemployment affecting certain regions.<sup>23</sup> The allocation of new public forest reserves would indeed allow for the sustained growth of the harvest in public forests, which reached the historic threshold of 25 million m<sup>3</sup> toward the end of the 1980s (see Figure 1-3).

By adopting the *Forest Act* in 1986,<sup>24</sup> the government put a definitive end to the forest concessions regime that had prevailed for over 150 years. This major reform of the forestry regime redefined the division of responsibilities between stakeholders and the Department, in such a way that the latter now played a predominant role in terms of the management of public forests. Under this reform, the allocation of volumes of wood happened through the use of Timber Supply and Forest Management Agreements (TSFMAs), valid for a period of 25 years under the condition that the recipients meet evaluation criteria verified every five years. The government also required TSFMA holders to develop general management plans and annual intervention plans that they had to submit to the Department for approval.<sup>25</sup>

Within the context of the development of these plans, TSFMA holders were required to collaborate with regional groups to reach harvest targets determined by the Department.<sup>26</sup> The conditional criteria for the approval of general management plans as well as annual intervention plans submitted to the Department were defined through legislation in accordance with a regulation.<sup>27</sup> The volumes of wood made available for the harvest for each TSFMA were thus determined by the Department according to principles of "sustained yield."<sup>28</sup>

**"Claims that centralized management by the government necessarily leads to wood use that is compatible with the goal of ensuring its sustainability can certainly be called into question."**

This new law ultimately aimed to force holders of TSFMAs to harvest the maximum volumes of wood that the public forests could supply and to democratize the process of developing forest management plans, all while ensuring the conservation of biodiversity and better compatibility among forest activities.<sup>29</sup>

A decade after the overhaul of the forestry regime, a first assessment published in 1998 indicated that certain problematic situations observed under the concessions regime were little improved. Among other things, it points out that each year, a portion of the volumes allocated in public forests remained unused and that the government had to consider easing requirements in order to ensure the full harvest of these volumes. It also noted that the method used to calculate the annual allowable cut had to be updated, among other things by including more documentation in order to do a better

20. There was also the matter of making the public forest more accessible for recreational and touristic purposes, and for other purposes besides commercial logging.

21. Government of Quebec, *Act to amend the Lands and Forests Act*, 1974.

22. A provision of the law appearing in the revised statutes of 1909 allowed the harvesting of public forest reserves which could be carried out "by the state or by private companies," under the supervision of the Forest Service.

23. Quebec Department of Lands and Forests, *op. cit.*, footnote 19, pp. 279-280.

24. The law took effect in 1987.

25. If the Minister deemed it necessary for the public good, he could also allocate volumes through a Forest Management Contract (FMC) or a Forest Management Agreement (FMA). Quebec Department of Forests, Wildlife and Parks, *De précieux outils de gestion*.

26. Government of Quebec, *Forest Act*, Articles 35.4, 54, and 213, 1986 (Replaced April 1, 2013).

27. The regulation has since been amended. Government of Quebec, *Regulation respecting standards of forest management for forests in the domain of the State*, 2016.

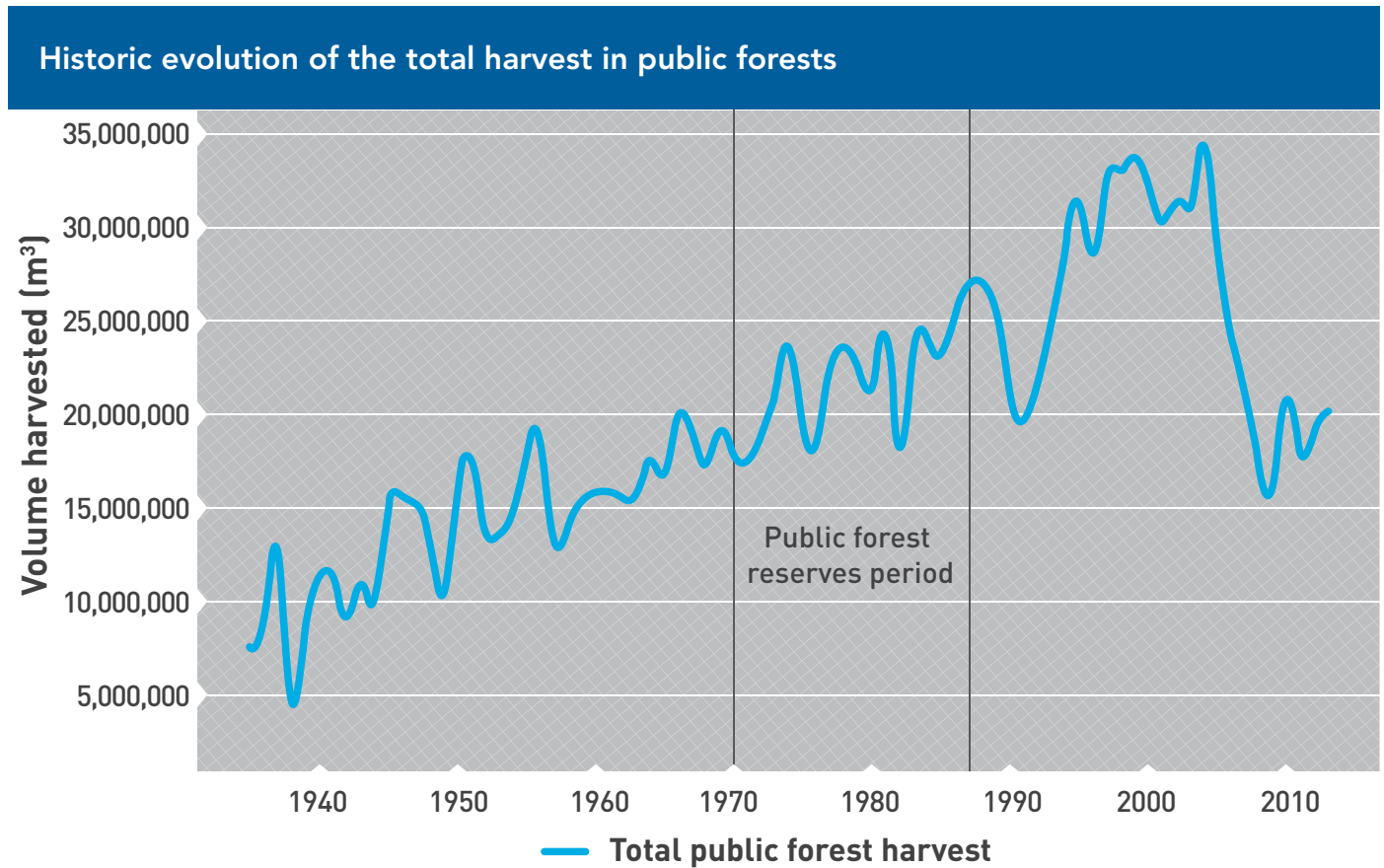
28. This method remains in effect despite the repeal of the *Forest Act* in 2013.

The allowable cut thus determined corresponds to "the maximum volume of annual timber harvests by species or groups of species that can be collected in perpetuity, without diminishing the productive capacity of the forestry sector, all while taking into account certain sustainable forest management objectives, like the natural dynamic of forests, including their composition and their age structure, as well as their diversified use." Héloïse Rheault, "Rendement soutenu : Fascicule 1.3," in Marc Plante (ed.), *Manuel de détermination des possibilités forestières 2013-2018*, Bureau du forestier en chef, 2013, pp. 19-21.

29. Quebec Department of Natural Resources, Wildlife and Parks, *Manuel d'aménagement forestier—4<sup>e</sup> édition*, 2003, pp. 1-2.



Figure 1-3



Source: Eric Alvarez, "Cut and run: une philosophie gouvernementale? L'épopée des forêts domaniales," *La forêt à cœur*, March 23, 2016.

job of taking into consideration the effects of natural disturbances.<sup>30</sup>

### Questioning Myths

We have seen that the greater participation of private players in the harvesting of the public forest under the concessions regime did not entail a "dissipation" of resources, as some claim.<sup>31</sup> In fact, it is because it believed that concession holders were under-harvesting the resource that the government started tightening its grip in the 1970s.

It therefore seems pertinent to reconsider the historical evolution of forest management in Quebec, so that the positive aspects of previous regimes are not forgotten and obscured by the myths and beliefs that shape this debate today. As the next chapter will demonstrate, al-

**"By using public forest reserves and by revoking forest concessions, the government thus hoped to reduce logging costs and increase the harvest to create jobs."**

though we often accuse private actors of harvesting the forest with a short-term vision that is incompatible with the principles of sustainable management, it turns out that on the contrary, it is the absorption of responsibilities by the government that encouraged unsustainable logging.

30. Quebec Department of Natural Resources, *Updating the Forest System: Reference Document – Review, Issues, Orientations*, 1998, p. 69.

31. See among others Pierre Dubois, *Les vrais maîtres de la forêt québécoise*, Écosociété, March 2002.

## CHAPTER 2

### Centralizing Responsibility and Overharvesting the Resource

In order to justify centralizing responsibility for the management of public forests in the 1960s, the Quebec government argued that the resource was being underharvested. This same argument was used again in 1998. Yet as we shall see, the Coulombe Commission's 2004 report revealed that it was based on an estimate of the annual allowable cut that overestimated public forests' ability to regenerate. Indeed, the harvest level objectives set by the Department of Natural Resources exceeded the annual allowable cut on a few occasions under the TSFMA regime. There was therefore, on the contrary, a temporary overharvesting of the resource.

Although attributable to the government's goal of maximizing the public forest harvest, this overharvesting was often used to criticize logging companies. The shocking images from the documentary film *Forest Alert*, released in 1999, had a profound impact on the perceptions of Quebecers, who were already receptive to unflattering messages about the forestry industry. The desire expressed by the government to be "masters in one's own house" when it comes to forest management, discussed in the previous chapter, thus found an echo among the population. To regain the confidence of the public, the government modified the forest regime once again to reduce the responsibilities assigned to logging companies even further. It is therefore pertinent to summarize the events that led up to the implementation of the new forest regime in April 2013.

#### Quebecers Discover the Public Forests

Hunting, fishing, trapping, and other forest activities have traditionally been reserved for rural populations. The development of the road network by logging companies and the improvement of socioeconomic conditions in urban settings have allowed city-dwellers to discover the public forests and the activities that are practised there.<sup>32</sup> The intensive use of the forest for purposes of recreation and tourism is relatively recent, however, and has grown spectacularly since the late 1960s (see Figure 2-1).

In 2012, forest-related activities represented over 15 million days of activities and \$1.6 billion of spending.<sup>33</sup> Quebecers' discovery of the forest coincided with growing reservations about commercial forestry activities. In 1971, Gordon Weetman, a researcher with the Pulp and Paper Research Institute of Canada, remarked that tourists objected to "the intense and unattractive changes to the forest, as well as the noise of machinery."<sup>34</sup>

**"The shocking images from the documentary film *Forest Alert*, released in 1999, had a profound impact on the perceptions of Quebecers, who were already receptive to unflattering messages about the forestry industry."**

In a poll conducted in 1989, a considerable portion of the population expressed a negative attitude toward the forestry industry. Asked if they believed that the industry was making an effort to protect the environment, 66% of Quebecers stated that it was not working very hard at it or not at all, compared to 43% for all Canadians. At the same time, 67% of Quebecers and 57% of Canadians somewhat disagreed or strongly disagreed with the statement that environmentalists went too far in preventing logging.<sup>35</sup> The discovery of the public forest therefore seems to have made the population rather doubtful about its harvesting, and consequently receptive to a message aimed at reducing the responsibility assigned to logging companies.

#### The Hypothesis of Overharvesting in Public Forests

Despite the fact that the determination of the volumes of timber available to be harvested has ultimately been the responsibility of the Department and not of private actors since the introduction of the TSFMA regime in

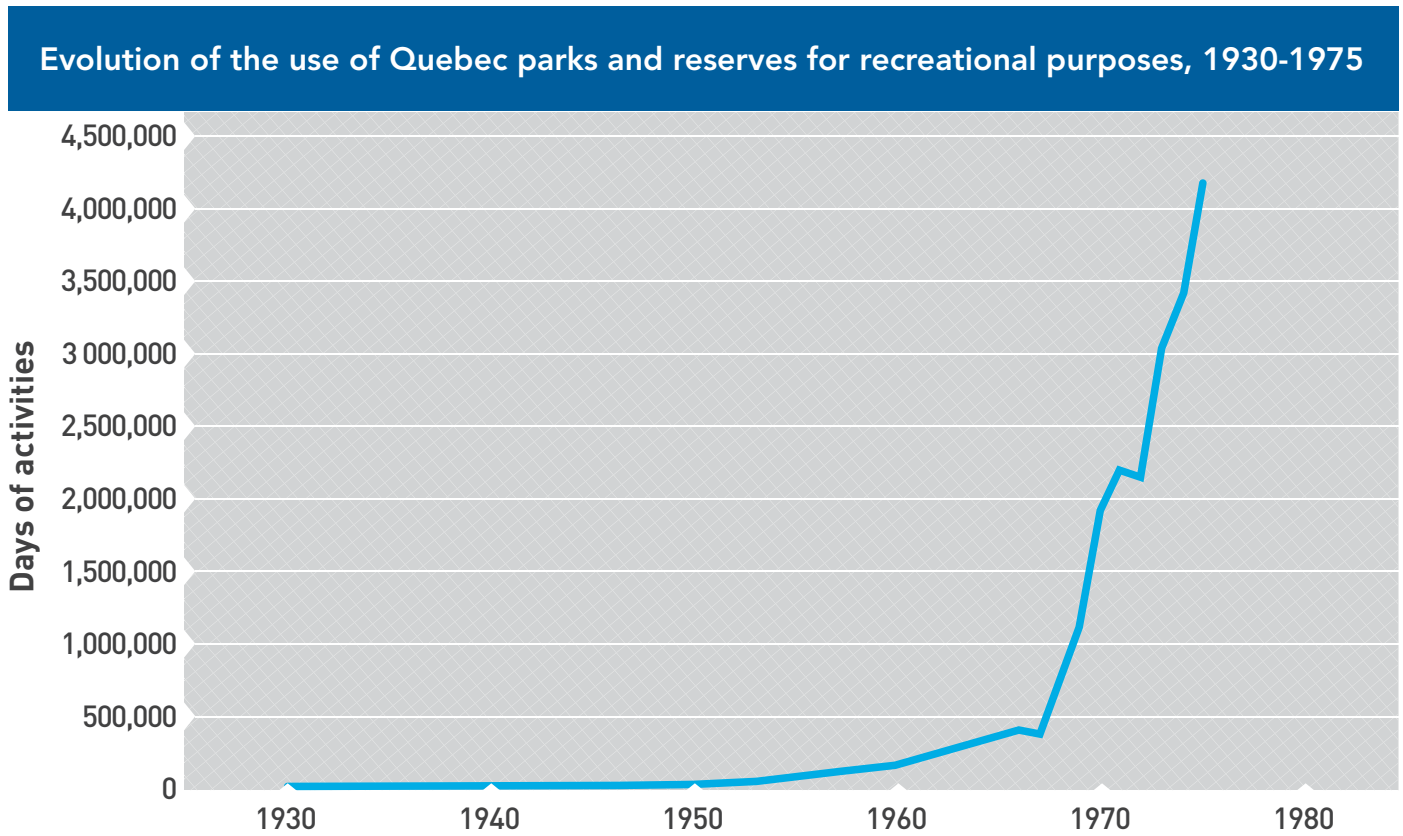
32. Eric Alvarez, "La 'citifaction' des forêts québécoises," *Opérations forestières*, December 2015, p. 30.

33. Quebec Department of Sustainable Development, Environment, Wildlife, and Parks, *Retombées économiques des activités de chasse, de pêche et de piégeage au Québec en 2012 : Synthèse*, 2013, pp. 1-2.

34. Cited in Eric Alvarez, "La forêt québécoise en mode 'Révolution tranquille' depuis 40 ans," *La Forêt à Cœur*, September 23, 2015.

35. Environics Research Group Limited, *Sondage national de l'opinion publique sur les questions de foresterie : Rapport final*, Report prepared for Forests Canada, 1989, cited in Eric Alvarez, "L'Erreur boréale... 10 ans plus tôt!" *La Forêt à Cœur*, September 2015.

Figure 2-1



Source: Eric Alvarez, "La forêt québécoise en mode 'Révolution tranquille' depuis 40 ans," *La Forêt à Cœur*, September 23, 2015.

1986,<sup>36</sup> many claimed that logging companies were responsible for the potential overharvesting of public forests in the early 2000s.

In *Forest Alert*, for instance, Richard Desjardins and Robert Monderie denounced among other things clear-cutting and logging companies by implying that the latter were transforming the Abitibi region into a desert.<sup>37</sup> Shortly thereafter, Pierre Dubois, a forest engineer who was interviewed in *Forest Alert*, published a second edition of his book *Les vrais maîtres de la forêt québécoise* to double down on the thesis of overharvesting caused by the forestry industry. According to him, Quebecers

**"The development of the road network by logging companies and the improvement of socioeconomic conditions in urban settings have allowed city-dwellers to discover the public forests and the activities that are practised there."**

were "on their knees" before an industry that is overharvesting the public forest.<sup>38</sup>

Many forestry experts were highly critical of the documentary by Desjardins and Monderie due to the gulf that existed between current forestry knowledge and the directors' statements.<sup>39</sup>

36. Holders of TSFMA were responsible for calculating annual allowable cuts which ultimately had to be approved by the Department until the *Forest Act* was amended in 2001. Subsequently, the calculations became the responsibility of the Department. Government of Quebec, *Forest Act*, Article 34.5, 1986; Jean-François Dallaire, *La réforme du régime forestier permettrait-elle une gestion durable des forêts?* Essay written as part of a master's thesis in environmental studies, Université de Sherbrooke, May 17, 2009, p. 7.

37. National Film Board of Canada, *Forest Alert*.

38. Pierre Dubois, *Les vrais maîtres de la forêt québécoise*, Écosociété, March 2002.

39. See for example Pascale Guéricolas, "Desjardins coupé à blanc," *Le fil*, April 8, 1999.

As Quebec's Auditor General revealed in 2002, it was indeed the Department of Natural Resources that was not living up to its responsibilities. In its final report, the Auditor was not able to determine if there had been any overharvesting of public forests.<sup>40</sup> According to the report, the calculation of the annual allowable cut needed to be improved to ensure that this responsibility was adequately carried out by the Department. The main findings were that the Department:

- was not in a position to determine if the annual allowable cut was overestimated, which increased the risk of overharvesting timber in the public forest;
- had no guarantee that the activities listed in its management plans were carried out and had the expected results;
- had not given itself a systematic approach to the sustainable management of the forest;
- had no guarantee that it collected all of the stumpage fees provided for in the legislation; and
- did not have a reliable, clear, continuous picture of the forest resource and did not have an accountability process that allowed for an overall and complete evaluation of the management of this resource.<sup>41</sup>

In reaction to this debate, the government announced in 2004 the start of work by the Commission for the Study of Public Forest Management in Quebec, presided over by Guy Coulombe. Its purpose was to provide an objective and transparent picture of the public forest and to ensure that there was a balance between protecting the environment and harvesting the forest. Ultimately, its work was intended to lead to reforms that would re-establish the confidence of the population.<sup>42</sup>

The conclusions of the Coulombe Commission lent support to the hypothesis that public forests were overharvested, specifically for softwood species.<sup>43</sup> By

placing too much confidence in models for estimating the volumes of wood available and predicting the rate of forest regeneration, the Department indeed seems to have allocated volumes of timber for harvest that were too high.

## Computer Simulations for Estimating Harvest Volumes

Technological and scientific advances have changed the way of calculating the annual allowable cut. Computer simulations are used to determine today's harvest based on an estimate of tomorrow's volumes in a hypothetical future forest. The entry into force of the TSFMA regime in 1986 concretized this approach, in contrast with the one that prevailed before which was based on current stocks.<sup>44</sup> Now, it is the concept of sustained yields that is used to determine the annual allowable cut on a horizon of up to 150 years.<sup>45</sup> In order to carry out such an exercise, it is important for all factors that could affect timber volumes to be taken into account and for annual allowable cut calculations to be updated. It turned out that the simulations conducted by the Department were not precise enough.

**"In a poll conducted in 1989, a considerable portion of the population expressed a negative attitude toward the forestry industry."**

To develop these simulations, the Department has been producing forest inventories since 1970 in order to quantify volumes and predict how they will change over time. By using samples among the different management units, it hoped to achieve a 95% level of precision for the total merchantable volume as well as 70% precision per stratum within a sample unit.<sup>46</sup> By integrating the information thus obtained, but also increasing expected yields with the intensification of silvicultural activities, the Department raised the annual allowable cut for softwood species in public forests starting in 1986. It grew from 18,000,000 m<sup>3</sup> to 26,000,000 m<sup>3</sup> in that single

40. Alain Fortin, "Chapitre 4 : Gestion de la ressource forestière—Vérification menée auprès du ministère des Ressources naturelles," in Auditor General of Quebec, *Rapport à l'Assemblée nationale pour l'année 2001-2002—Tome II*, 2002, p. 69.

41. National Assembly of Quebec, "Rapport des conclusions à la suite de l'audition du sous-ministre des ressources naturelles concernant la gestion de la ressource forestière," Preliminary report presented to the Committee on Public Administration, March 2003, p. 1.

42. Quebec Department of Natural Resources and Wildlife, "Le ministre Pierre Corbeil souligne le début des travaux de la Commission d'étude sur la gestion de la forêt publique québécoise," Press release, February 3, 2004; Quebec Department of Natural Resources and Wildlife, *Forests: Building a Future for Quebec – Green Paper*, February 2008, p. 10.

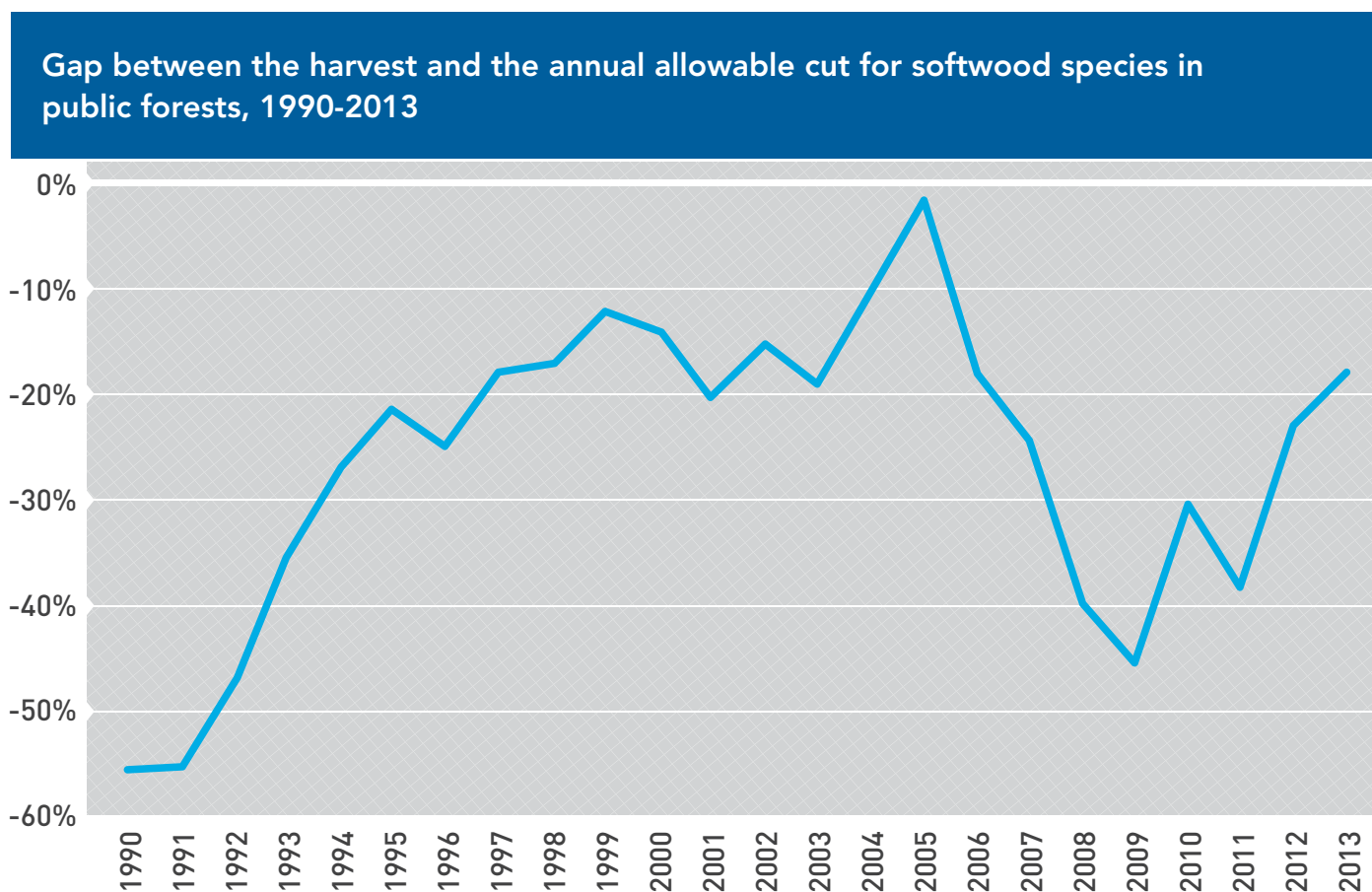
43. Guy Coulombe et al., *Commission d'étude sur la gestion de la forêt publique québécoise*, December 2004, p. 144.

44. Eric Alvarez, "Du réel comme base d'une culture d'aménagistes forestiers," *La Forêt à Cœur*, May 7, 2015.

45. From 1987 until 2018, the annual allowable cuts must respect the concept of sustained yields. Héroïse Rheault, "Rendement soutenu : Fascicule 1.3," in Marc Plante (ed.), *Manuel de détermination des possibilités forestières 2013-2018*, Bureau du forestier en chef, 2013, p. 19.

46. A rate of precision of 70% means that if the average volume of wood determined by the sampling on the ground is 100 m<sup>3</sup>/ha, this value is actually (19 times out of 20) between 70 and 130 m<sup>3</sup>/ha.

Figure 2-2



**Note:** The annual allowable cut and the forest harvest include net merchantable volumes of wood for softwood species on provincial land.  
**Source:** National Forestry Database, Forest products—Jurisdictional Tables, Table 5.1.2.0: Volume of Roundwood Harvested by Ownership, Category, and Species Group, and Wood Supply—Jurisdictional Tables, Table 2.1.1.1: Potential Harvest, 1990-2013.

year.<sup>47</sup> When the level of the annual softwood lumber harvest is compared with the annual allowable cut calculated by the Department, there is a gap indicating that the harvests carried out by economic actors were significantly lower between 1990 and 2013 (see Figure 2-2).

The Coulombe Commission, however, showed that these annual allowable cut estimates were much too optimistic, and consequently, that the harvest objectives were too high relative to the forest's capacity to regenerate. Among other things, the method used to calculate the annual allowable cut overestimated the contribution of silvicultural work to the future yields of the forests. Also, the precision of the samples used to calculate the allowable cut were found to be well below the 70% threshold aimed at for the sample units. This percentage

varied between 17% and 69% in certain sample units.<sup>48</sup> Given that the calculation of the annual allowable cut is (among other things) based on these results, its reliability was significantly overestimated.

**"As Quebec's Auditor General revealed in 2002, it was indeed the Department of Natural Resources that was not living up to its responsibilities."**

There exist different ways of calculating annual allowable cuts, and different results can thus be obtained. The Hanzlik method, for example, is known for a considerable overestimation of annual allowable cuts. By

47. Gilbert G. Paillé and Robert Deffrasnes, "Le nouveau régime forestier du Québec," *The Forestry Chronicle*, Vol. 64, No. 1, 1988, p. 7.

48. Guy Coulombe et al., *op. cit.*, footnote 43, p. 109.



Table 2-1

Gap between Hanzlik and Sylva for determining the annual allowable cut			
	ABITIBI- TÉMISCAMINGUE	SAGUENAY— LAC-SAINT-JEAN	NORTH SHORE
Percentage of common areas listed in the region	57%	38%	30%
Area (ha)	2,539,758	5,792,108	1,630,917
Hanzlik/Sylva gap	10%	-6%	3%
Softwood	9%	-7%	2%
Intolerant hardwood	20%	7%	27%

Source: Guy Coulombe et al., *Commission d'étude sur la gestion de la forêt publique québécoise*, December 2004, p. 144.

comparing the results obtained using Hanzlik with those of the Sylva program that was used by the Department at the time, it turns out that the Department overestimated the forest's capacity to regenerate. Indeed, the results of the Sylva software program indicated higher harvest volumes than Hanzlik in the Saguenay–Lac-Saint-Jean region, and slightly lower cuts in the Abitibi-Témiscamingue and North Shore regions (see Table 2-1).

In light of this observation, the Coulombe Commission proposed the creation of a new agency, the Bureau du forestier en chef, to replace Forêt Québec in the managing of forestry inventories and of everything related to the calculation of annual allowable cuts.<sup>49</sup> It also recommended a reduction in the annual allowable cut to ensure the sustainability of softwood species in public forests.<sup>50</sup>

Starting in 2006, the Bureau du forestier en chef applied a reduction applicable to all public forests of 23.8% on average for softwood species, a percentage that varied between 13.4% and 36.6% depending on the region.<sup>51</sup>

49. Bureau du forestier en chef, "Rapport de gestion du forestier en chef 2005-2006," June 2006, pp. 8-12.

50. It was recommended that "from now until the 2008-2013 Integrated Forest Management Plan comes into effect, the annual allowable cut for the fir-spruce-grey pine-larch group be reduced by 20% in each of the common areas, as compared to the allowable cut listed in the general plans currently in effect, and that the allocations be adjusted according to the particular situation of each common area." Guy Coulombe et al., *op. cit.*, footnote 43, p. 245.

51. Gilbert Paillé et al., *Analyse du rapport du Forestier en chef sur la possibilité forestière 2008-2013*, Report of the Paillé Commission to the Bureau de l'Ordre des ingénieurs forestiers du Québec, March 2007, pp. 12-13.

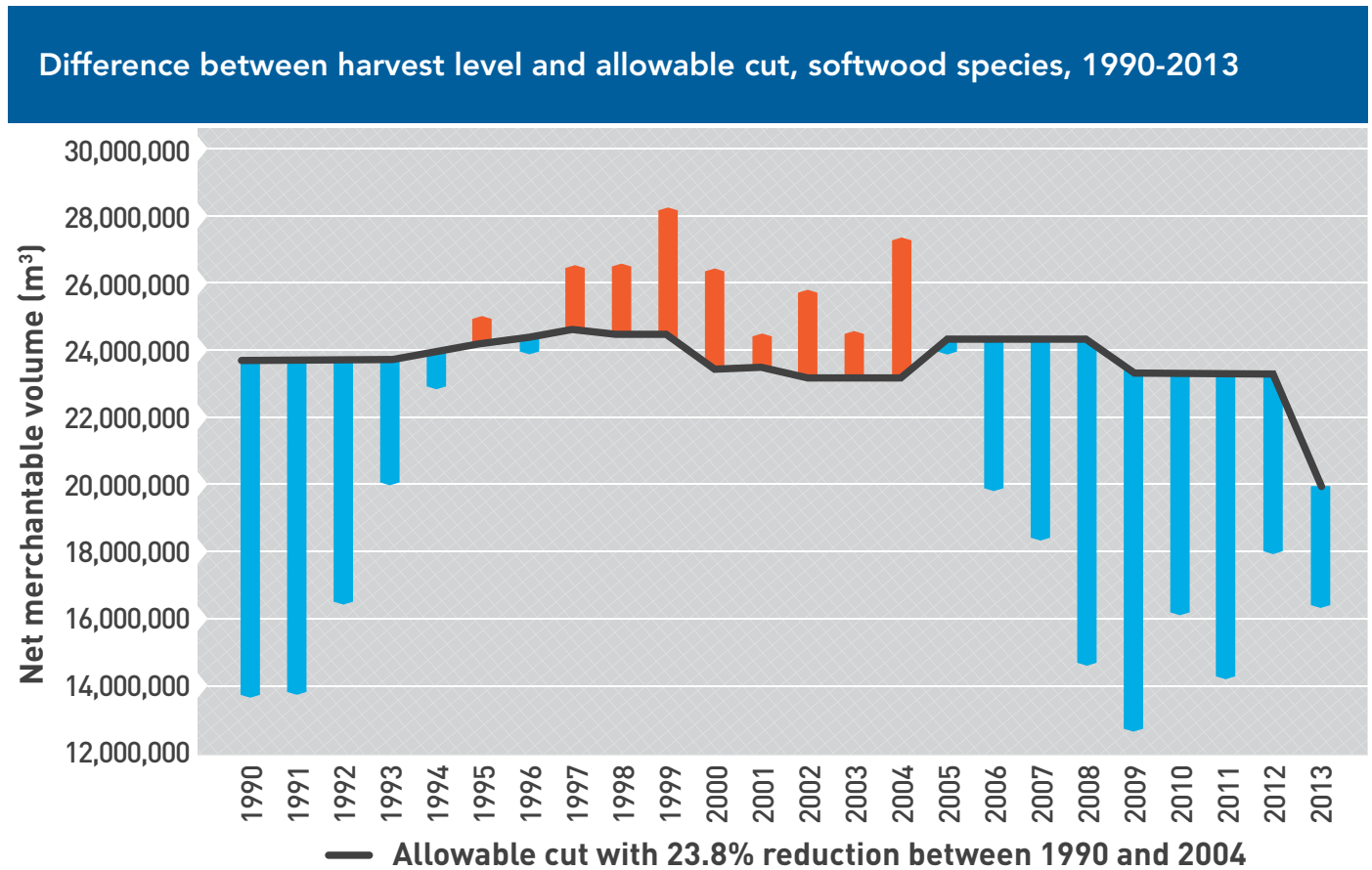
By retroactively applying this 23.8% reduction to the period from 1990 to 2004, we find that the softwood lumber harvest exceeded the allowable cut 9 times (see Figure 2-3).

**"By placing too much confidence in models for estimating the volumes of wood available and predicting the rate of forest regeneration, the Department indeed seems to have allocated volumes of timber for harvest that were too high."**

While the size of the sample used in the Coulombe Commission's work is small and concerns just three regions, the evolution of timber volumes during this period lends support to the hypothesis of overharvesting. The government's directives aiming to increase the timber harvest thus certainly contributed to the 22% reduction in stocks of timber for softwood species between 1970 and 2008.<sup>52</sup> This reduction in stocks was compensated for, however, by a considerably reduced forest harvest in subsequent years due to the financial crisis and the reduction in housing starts in the United States and Canada.

52. This reduction is also explained by forest fires and a spruce budworm outbreak that raged from 1967 to 1992. Bureau du forestier en chef, *État de la forêt publique du Québec et de son aménagement durable : Bilan 2008-2013*, November 2015, pp. 137-138.

Figure 2-3



**Note:** The annual allowable cut and the forest harvest include net merchantable volumes of wood for softwood species on provincial land. Given the lack of certain data on the website of the Quebec Department of Forests, Wildlife and Parks, and for the sake of consistency, we have used the National Forestry Database in this *Research Paper*. The use of different dates in the compilation of annual data as well as methodological differences give rise to a small differences when compared to the Department's data in terms of harvest levels and the allowable cut. However, these variations are too small to affect either the trends or the conclusions that are drawn from them.

**Sources:** Author's calculations. Gilbert Paillé et al., *Analyse du rapport du Forestier en chef sur la possibilité forestière 2008-2013*, Report of the Paillé Commission to the Bureau de l'Ordre des ingénieurs forestiers du Québec, March 2007, p. 13; National Forestry Database, Forest products—Jurisdictional Tables, Table 5.1.2.0: Volume of Roundwood Harvested by Ownership, Category, and Species Group, and Wood Supply—Jurisdictional Tables, Table 2.1.1.1: Potential Harvest, 1990-2013.

**“The Coulombe Commission showed that these annual allowable cut estimates were much too optimistic, and consequently, that the harvest objectives were too high relative to the forest’s capacity to regenerate.”**

Indeed, the Quebec forest has been under-harvested since 2006. More precisely, the annual harvest for softwood species has been systematically below the annual allowable cut, even after its downward revision. On average, just 74% of the allowable cut is harvested each year (see Figure 2-4).

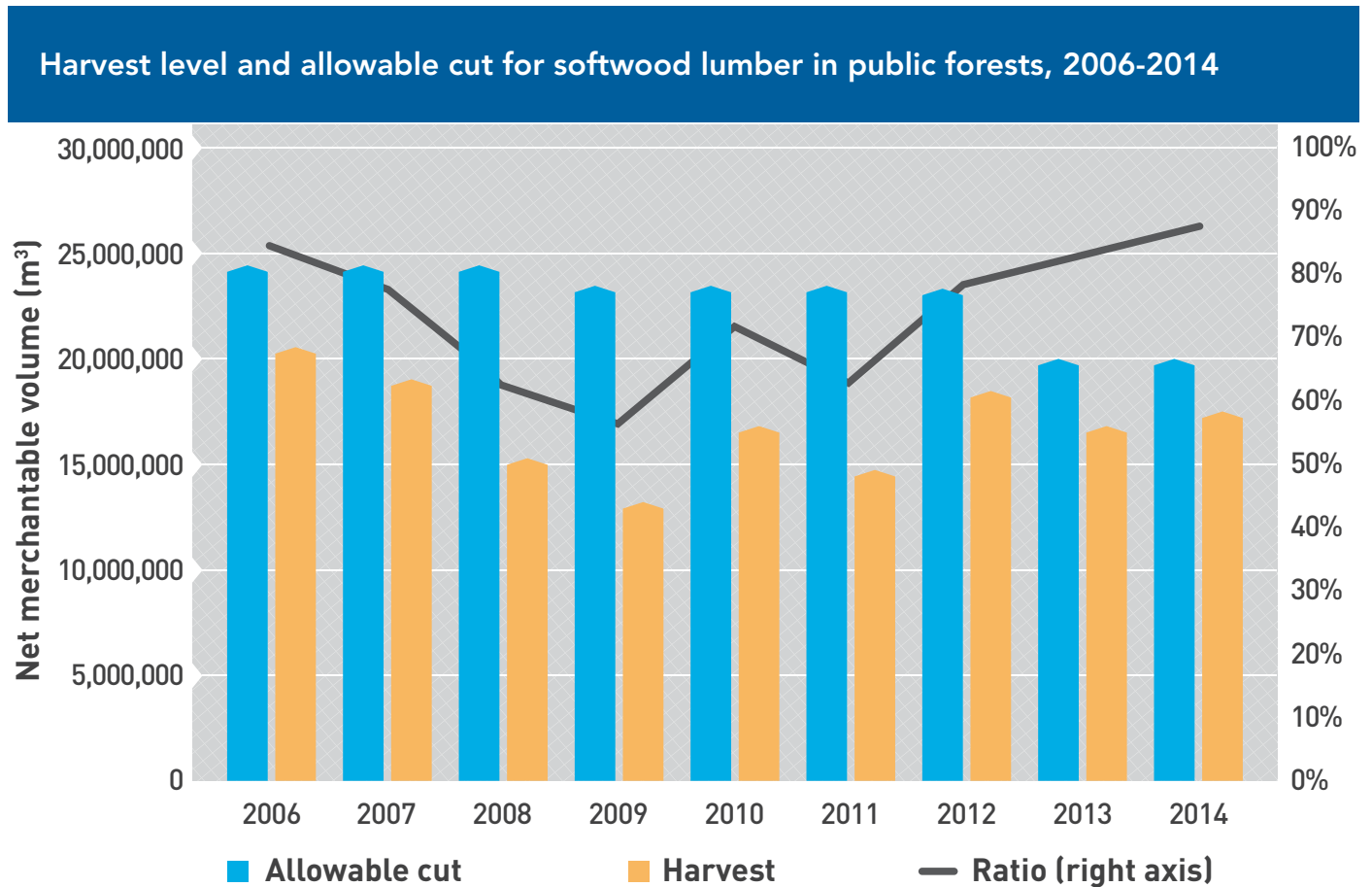
### After Coulombe

Shortly after the recommendations of the Coulombe Commission were submitted, many things changed in terms of the management of public forests. Since the transfer of Forêt Québec’s responsibilities to the Bureau du forestier en chef,<sup>53</sup> the methods and software programs used to calculate the annual allowable cut have evolved considerably. In order to avoid allocating volumes of timber greater than the regenerative capacity of the forest, the Chief Forester replaced the Sylva software program with a new program for evaluating allow-

53. Government of Quebec, *An Act to amend the Act respecting the Ministère des Ressources naturelles, de la Faune et des Parcs and other legislative provisions*, 2005.



Figure 2-4



Source: Author's calculations. National Forestry Database, Forest products—Jurisdictional Tables, Table 5.1.2.0: Volume of Roundwood Harvested by Ownership, Category, and Species Group, and Wood Supply –Jurisdictional Tables, Table 2.1.1.1: Potential Harvest, 2006-2014.

able cuts more precisely.<sup>54</sup> More recently, new variables like “societal values” and climate change have been integrated into the calculation of allowable cuts.<sup>55</sup>

Moreover, a process of regionalization of the development of management plans was begun in 2004. This process led to the delegation of certain responsibilities to regional conferences of elected officials and to the creation of regional forestry commissions. Although the scope of consultation was apparently widened to include regional organizations and municipalities, the Department still has the last word.<sup>56</sup>

54. Bureau du forestier en chef, *Rapport d'activités du Forestier en chef 2014-2015*, September 2015, p. 21.

55. Bureau du forestier en chef, *Plan stratégique du Bureau du forestier en chef 2012-2016*, 2012, p. 8.

56. Marlène Bachand, *Les commissions forestières régionales et les commissions régionales sur les ressources naturelles et le territoire comme nouveau modèle de gouvernance de la ressource forestière au Québec*, Essay presented to the Centre Universitaire de Formation en Environnement de l'Université de Sherbrooke, May 2008, pp. 24-26.

**“The government’s directives aiming to increase the timber harvest certainly contributed to the 22% reduction in stocks of timber for softwood species between 1970 and 2008.”**

In a second Green Paper published in 2008, the Department of Natural Resources and Wildlife observed that “these changes to the forest regime have failed to generate either public confidence in the way the forests are managed or a consensus among stakeholders concerning priorities for the future.”<sup>57</sup> This document served as a basis for the most recent revision of the forestry regime in 2013.

57. Quebec Department of Natural Resources and Wildlife, *Forests: Building a Future for Quebec – Green Paper*, February 2008, p. 9.

Table 2-2

Characteristics of forest management systems, 1826-2013			
TIME PERIOD	TYPE OF SYSTEM	RESPONSIBILITIES	LENGTH OF CONTRACTS
1826-1974	Concessions	Concession holders allocate volumes of wood, manage inventories, prepare management plans and protect their lands from fire.	No time limit, as long as the government's pre-established conditions are respected
1974-1987	Transition period: gradual abolition of concessions and use of reserves in "forêts domaniales"	Logging rights in "forêts domaniales" allocated by the Minister of Lands and Forests.	Determined by the Minister of Lands and Forests
1987-2013	Timber supply and forest management agreements (TSFMAs)	The government determines the volume of wood to be harvested given the annual allowable cut for each species. Holders of TSFMAs must submit management plans and silvicultural strategies.	25 years
2013-	Supply guarantees	The government is responsible for forest planning, the follow-up and monitoring of forest operations, the granting of forestry rights, timber scaling and the auctioning off of a portion of the wood.	Five years or less, at the Minister's discretion

Source: Jasmin Guénette and Pierre Desrochers with the collaboration of Alexandre Moreau, "Are Quebec's Forests Threatened?" Economic Note, MEI, August 2014, p. 3.

Surprisingly, even though the criticisms formulated by the Coulombe Commission and the Auditor General are directed toward the Department, they led to the virtually complete centralization of forest management in the hands of government agencies. The new forestry regime that came into effect on April 1<sup>st</sup>, 2013 replaced TSFMAs with supply guarantees lasting five years or less, at the discretion of the Minister. This new regime grants the government near-total responsibility for the forest, including forest planning, follow-up and monitoring of forestry operations, the allocation of logging rights, the

measurement of timber, and the auctioning of a portion of the timber harvested in public forests.<sup>58</sup>

This new regime has reduced companies' responsibilities. Under the concessions regime, and up to a point under the TSFMA regime as well, companies had financial incentives to manage the forest sustainably. Today, they have practically no autonomy, and must content themselves with following the directives of government agencies year after year (see Table 2-2).

The 2002 Auditor General's report and the 2004 Coulombe Commission report challenged several myths re-

58. Government of Quebec, *Sustainable Forest Development Act*, Articles 52 and 104, July 2014.

garding forestry. While some claim that only the government can harvest the forest sustainably, and that economic actors think only of short-term profits,<sup>59</sup> it is actually government management that led to overharvesting. The Department was criticized for not leaving enough room to manoeuvre in dealing with recurring natural disturbances like fire, insects, and diseases, and also anthropogenic disturbances.<sup>60</sup> Ironically, as mentioned in the previous chapter, concession holders were criticized for under-harvesting the forest's potential, whereas they were leaving themselves room to manoeuvre in anticipation of these same disturbances.

**“Although the scope of consultation was apparently widened to include regional organizations and municipalities, the Department still has the last word.”**

Despite the period of intensive harvesting in the early 2000s, Quebec's public forests are not about to disappear. On the contrary, today we harvest on average just 65% of the annual allowable cut for all species.<sup>61</sup> Moreover, contrary to what is often stated, logging companies have practically no influence left over the quantities of timber harvested. It is essentially the government that manages Quebec forests today, a situation that raises numerous concerns regarding the future of the industry.

59. Pierre Dubois, “Une histoire d’aliénation,” in Simon Tremblay-Pepin (ed.), *Dépossession : Une histoire économique du Québec contemporain*, Institut de recherche et d’informations socio-économiques, Lux éditeur, 2015.

60. Alain Fortin, *op. cit.*, footnote 40, p. 81.

61. National Forestry Database, Forest products—Jurisdictional Tables, Table 5.1.2.0: Volume of Roundwood Harvested by Ownership, Category, and Species Group, and Wood Supply—Jurisdictional Tables, Table 2.1.1.1: Potential Harvest, 2006-2014.



## CHAPTER 3

### Reforming the Forest Regime in a Time of Crisis

Due to the softwood lumber dispute between Canada and the United States, and the 2008 economic crisis, thousands of jobs were lost in the forestry industry and many mills had to shut down. It is in this context of crisis, described in this chapter, that another major overhaul of the forest regime was undertaken, culminating in the adoption of the *Sustainable Forest Development Act* in 2013.

#### Forest Harvest and Timber Supply

The maintenance of jobs and investments in the forestry sector depends on an accessible, transparent, predictable supply of timber. In Quebec, mills get their wood from forests covering a substantial portion of Quebec's land area and featuring a variety of tree species. Of the province's 761,100 km<sup>2</sup> of forestland, just 36% is dedicated to forestry work.<sup>62</sup> This portion is subdivided into 71 management units by the Bureau du forestier en chef in order to calculate the allowable cut for the harvest. A tiny proportion of the timber volumes thus recorded are harvested annually, amounting to slightly less than 1% since 1990 (see Figure 3-1).

Whether in public or private forests,<sup>63</sup> the volumes of timber harvested are below the annual allowable cut.<sup>64</sup> As was demonstrated above, this is a situation that has existed for some time, and that was even used to justify the revoking of forest concessions in the 1960s, when logging companies were criticized for harvesting only 65% of the allowable cut. Yet this ratio averaged 66% in

public and private forests alike even after the end of the concessions regime (see Figure 3-2).

This ratio is heavily influenced by the evolution of the allowable cut and by the demand for forestry products. Since the Coulombe Commission, there have been several consecutive reductions of the allowable cut in public forests. Despite a modest increase in recent years, the harvest levels currently permitted in public forests are relatively low. For all species, the allowable cut went from nearly 56,000,000 m<sup>3</sup> in 1990 to just over 45,000,000 m<sup>3</sup> in 2015 (see Figure 3-3). This reduction is essentially due to the 33% reduction of the allowable cut for softwood species in public forests over the same period.<sup>65</sup>

**“Due to the softwood lumber dispute between Canada and the United States, and the 2008 economic crisis, thousands of jobs were lost in the forestry industry and many mills had to shut down.”**

Despite these reductions since the peak reached in the 1990s, public forests still represent the largest portion of the harvest in Quebec. For the period from 1990 to 2014, they accounted for 75% of the total harvest on average (see Figure 3-4).

Processing plants are thus very dependent on supply from public forests. Indeed, the frequency of variations and the reduced allowable cut in recent years complicates their work, since they need to plan long-term when they invest to increase production.

The abolition of the TSFMA's ushered in a climate of uncertainty that seems to persist to this day, as demonstrated by the case of the Lauzon sawmill in the Outaouais, among others. In 2007, the sawmill had invested \$25 million in anticipation of the assignment of 210,000 m<sup>3</sup> of timber from the government. Since the entry into force of the new forest regime, allowable cuts were revised downward and the volume allocated has been just 158,000 m<sup>3</sup> of timber.<sup>66</sup> The sawmill therefore does not have the volume it needs to yield a return on

62. This rate is based on the area retained for the calculation of the revised allowable cut for the 2014-2018 period and the total area of the inventory zones. Bureau du forestier en chef, *Calcul des possibilités forestières, Période 2013-2018*; Quebec Department of Forests, Wildlife and Parks, *Milieu forestier*.

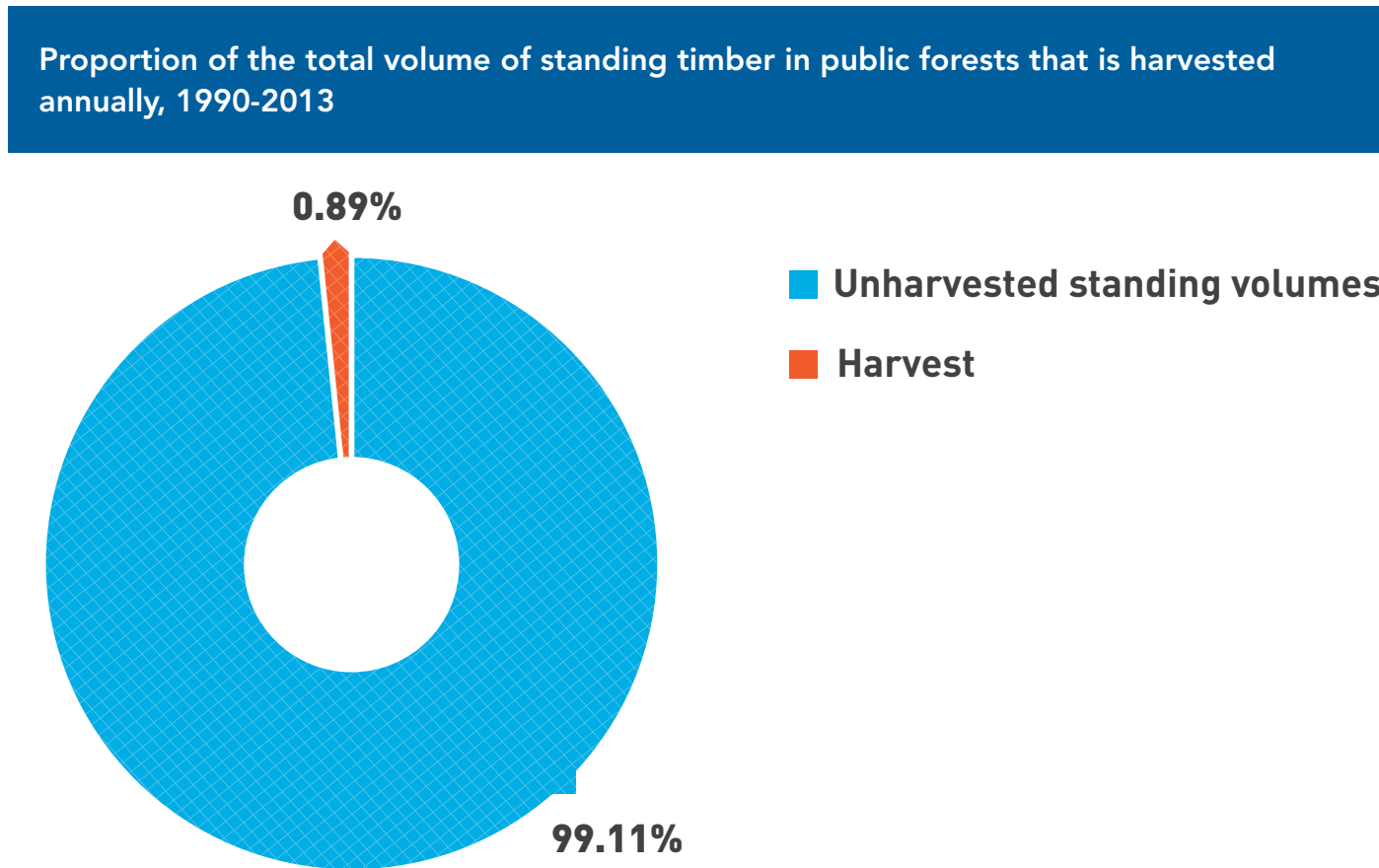
63. Since 1990, regional agencies for the development of private forests produce forest management plans including allowable cuts for private forestry producers that have to sell their timber through a joint plan. Following the implementation of the new forest regime, these agencies must put in place orientations retained by the Forum des partenaires provinciaux presided over by the Minister, who plays an executive role. The volumes made available for holders of supply guarantees or at public auctions are ultimately determined by the Minister, with recommendations provided by the Chief Forester. Quebec Department of Forests, Wildlife and Parks, *La gouvernance en forêt privée*; Government of Quebec, *Sustainable Forest Development Act*, Articles 1, 47, and 91; Government of Quebec, *Act Respecting the Marketing of Agricultural, Food and Fish Products*, Articles 44 and 50; Bureau du forestier en chef, *Avis du Forestier en chef relatif au calcul des possibilités forestières en forêt privée*.

64. Apart from a few occasions when the softwood harvest exceeded the allowable cut under the TSFMA regime (see Chapter 2), public forests have historically been under-harvested.

65. National Forestry Database, *Wood Supply—Jurisdictional Tables*, Table 2.1.1.1: Potential Harvest, 1990-2015.

66. Jessy Laflamme, “Scierie Lauzon : le gouvernement refuse d’augmenter le volume de bois,” *Info07*, August 23, 2016.

Figure 3-1



**Note:** This is an average based on data from forest inventories compiled by the Bureau du forestier en chef, namely 1990-2002, 2008, and 2013.  
**Sources:** National Forestry Database, Forest products—Jurisdictional Tables, Table 5.1.2.0: Volume of Roundwood Harvested by Ownership, Category, and Species Group, 2014; Bureau du forestier en chef, *État de la forêt publique du Québec et de son aménagement durable : Bilan 2008-2013*, November 2015, p. 137.

its investment, and no jobs have been created, even though the forest is under-harvested.

**“Despite a modest increase in recent years, the harvest levels currently permitted in public forests are relatively low.”**

This is not an isolated instance, and many investment projects depend on a political decision negotiated on an *ad hoc* basis to obtain the timber supply volumes they need.<sup>67</sup> The short-term vision that characterizes supply guarantees under the current regime and the

often downward revisions of timber volumes allocated in public forests serve to discourage investments that require long-term planning.<sup>68</sup> As a result, these investments are not made or do not have a chance to become truly profitable, and fewer jobs are created or maintained.

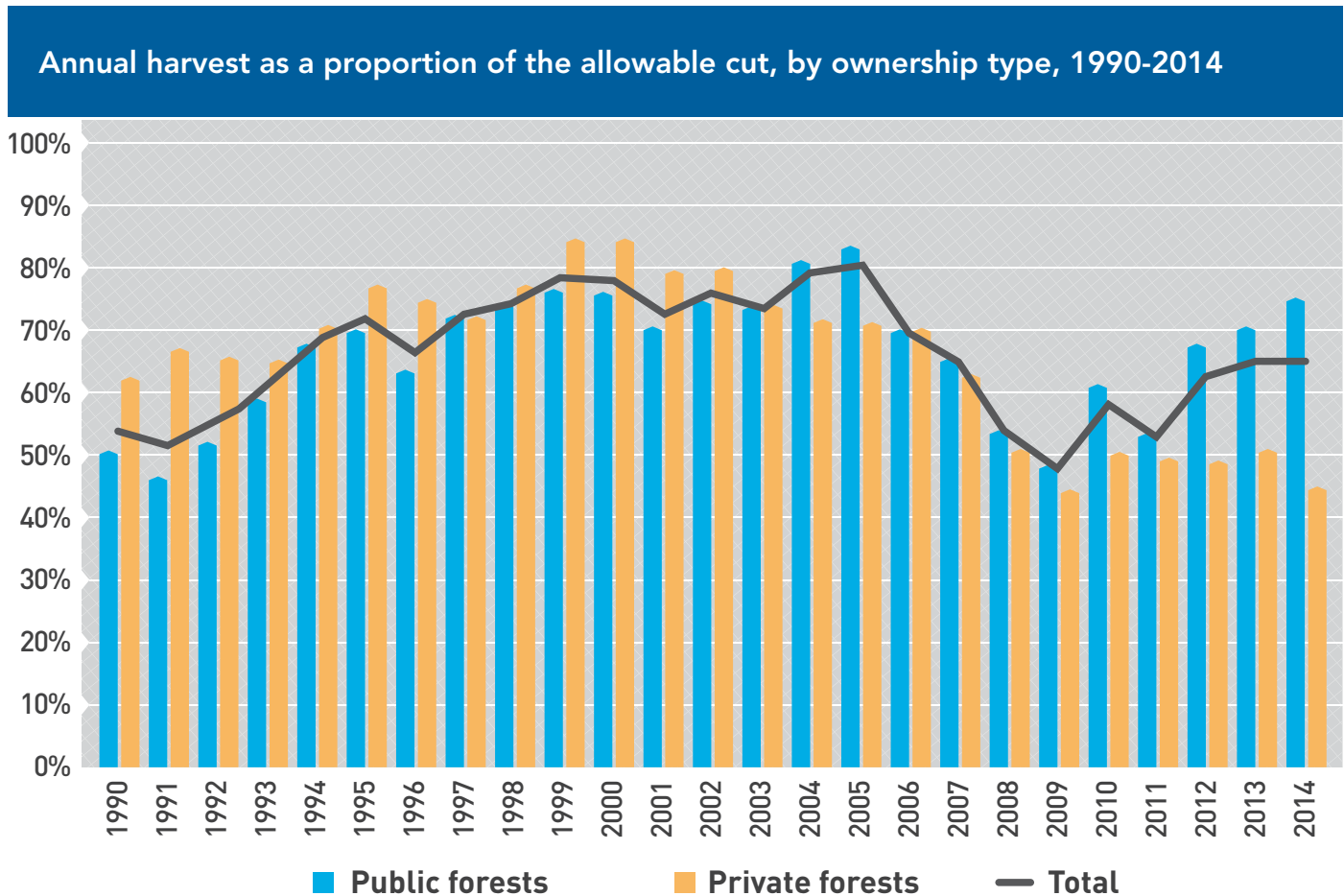
### The Tenure Systems at the Heart of the Softwood Lumber Crisis

The size of the forest harvest from Quebec’s public forests, like that of several other Canadian provinces, is a source of conflict with the United States.<sup>69</sup> Outside of the Atlantic Provinces, provincial governments are the primary owners of the forests located on their respective

67. Government of Quebec, Office of the Premier, “Dix projets d’investissement en analyse pour utiliser les volumes de bois disponibles,” Press release, September 21, 2015.

68. Louis Tremblay, “PFR pourrait investir 1G\$ à Saint-Félicien,” *Le Quotidien*, April 6, 2016.  
 69. Peter Berg, “The Canada-U.S. Softwood Lumber Dispute,” Topical Information for Parliamentarians, Library of Parliament of Canada, June 10, 2004.

Figure 3-2



**Source:** National Forestry Database, Forest products—Jurisdictional Tables, Table 5.1.2.0: Volume of Roundwood Harvested by Ownership, Category, and Species Group, and Wood Supply—Jurisdictional Tables, Table 2.1.1.1: Potential Harvest, 1990-2014.

territories. For Canada as a whole, nearly 95% of forests are public property compared to only 42% for the United States (see Figure 3-5). Hence, nearly all of the Canadian forest harvest comes from public forests, whereas 90% of American softwood comes from private forests.<sup>70</sup>

As early as 1982, a group of American softwood lumber producers filed a complaint with the US International Trade Administration stating that the Canadian softwood lumber industry was unfairly subsidized. According to them, the fees paid by Canadian mills were lower than those paid by their American competitors.<sup>71</sup> The absence of a true market mechanism for determining the level of fees charged by the provinces is at the heart of the dispute, which has lasted for over 30 years.<sup>72</sup> A

NAFTA decision actually did confirm the existence of a subsidy, but it was below the threshold of 1% required to justify sanctions according to American law.<sup>73</sup> The existence of harm or the threat of harm caused to the American industry has therefore never been demonstrated beyond a doubt by the American government.

**“The abolition of the TSFMs ushered in a climate of uncertainty that seems to persist to this day, as demonstrated by the case of the Lauzon sawmill in the Outaouais, among others.”**

70. Peter A. Piliounis, “Anatomy of a Trade Dispute: The Question of Softwood Lumber,” *Dalhousie Journal of Legal Studies*, Vol. 1, No. 1, 1992, pp. 71-86.

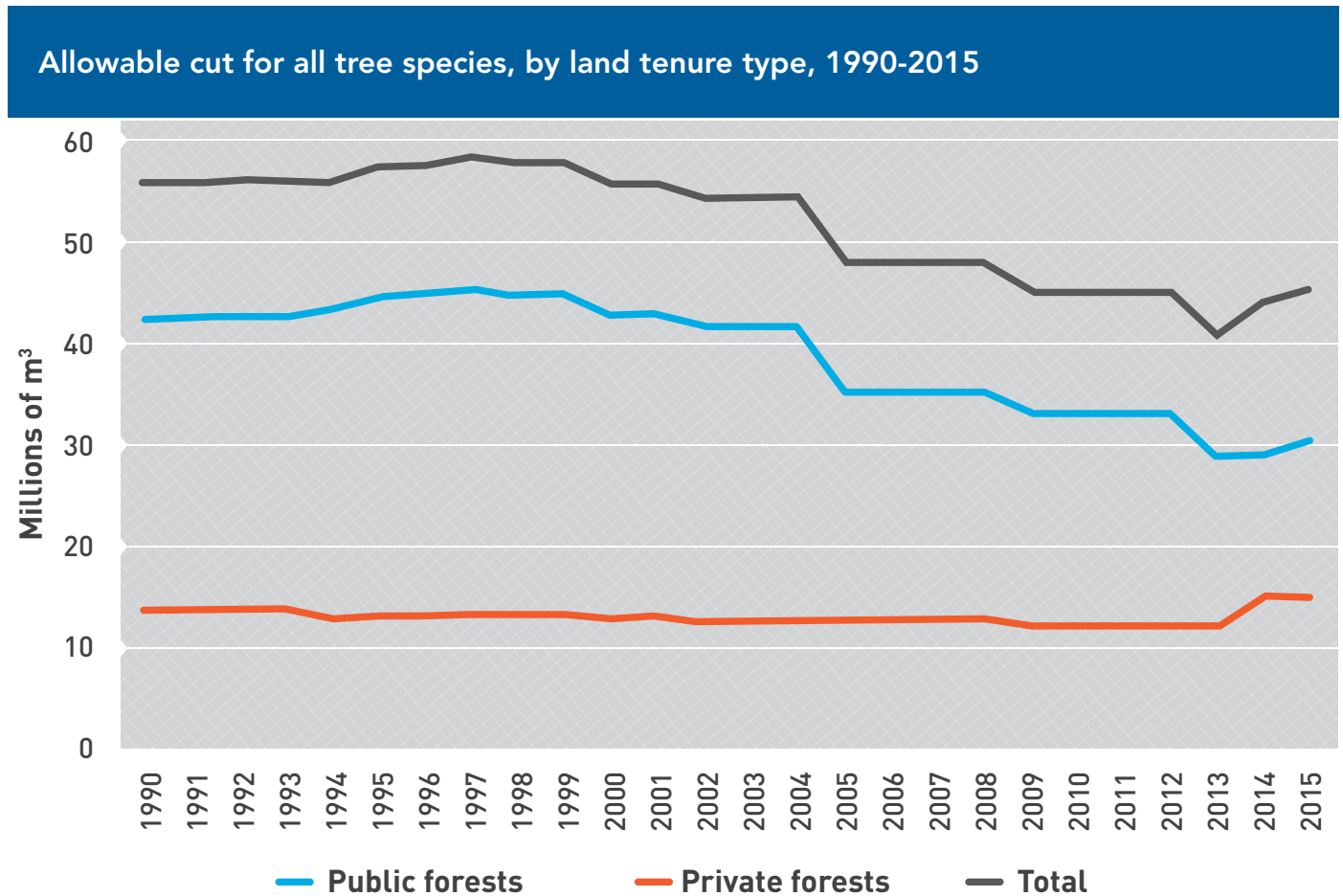
71. *Ibid.*

72. Peter Berg, *op. cit.*, footnote 69.

73. NAFTA tribunal decision, November 2005. See U.S. Lumber Coalition, “U.S. - Canada Lumber Trade Dispute: A Brief History,” October 2015, p. 3.



Figure 3-3



Source: National Forestry Database, Wood Supply—Jurisdictional Tables, Table 2.1.1.1: Potential Harvest, 1990-2015.

Despite multiple setbacks before the highest legal authorities governing international commerce,<sup>74</sup> the American government was able to negotiate an agreement imposing tariffs and quotas on softwood lumber from Canada. The most recent agreement signed in 2006, which ended in October 2015,<sup>75</sup> allowed Canadian softwood lumber producers to export certain products based on one of two options. The first included an export charge combined with a volume limit, while the second included only a much higher tax. The rate imposed varied from 0% to 15% and was proportional to

the gap between the softwood lumber price at the source and the reference price determined on a monthly basis.<sup>76</sup>

**“The short-term vision that characterizes supply guarantees under the current regime and the often downward revisions of timber volumes allocated in public forests serve to discourage investments that require long-term planning.”**

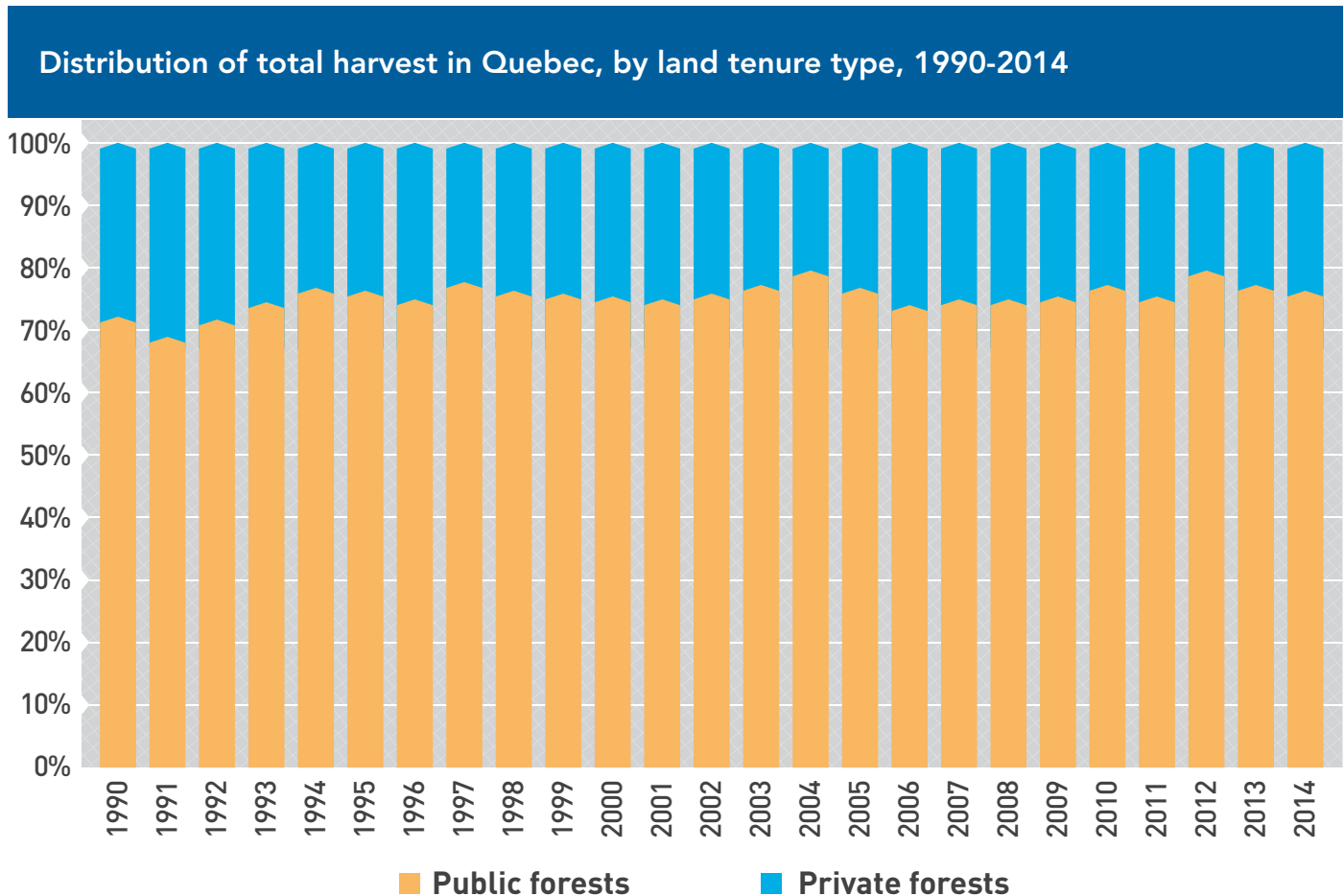
Nine years after it came into effect, the agreement has reduced Canadian softwood lumber imports by an

74. Peter A. Piliounis, *op. cit.*, footnote 70, pp. 74-76; Peter Stollery and Consiglio Di Nino, *Uncertain Access: The Consequences of U.S. Security and Trade Actions for Canadian Trade Policy—Volume 1*, Report of the Standing Senate Committee on Foreign Affairs, June 2003, pp. 105-108.

75. A grace period of one year was then agreed upon, and came to an end on October 12, 2016. At press time in mid-October, no agreement had been signed, and there was still much uncertainty regarding possible taxes and quotas that could be imposed by the American government. Christian Noël, “Vers une 5<sup>e</sup> guerre commerciale sur le bois d’œuvre?” Radio-Canada, June 6, 2016; Global Affairs Canada, “Statement by Canada and United States on softwood lumber,” Press release, October 12, 2016..

76. Global Affairs Canada, “Softwood Lumber Agreement between the Government of Canada and the Government of the United States of America,” Article VII, September 2006.

Figure 3-4



**Source:** National Forestry Database, Forest products—Jurisdictional Tables, Table 5.1.2.0: Volume of Roundwood Harvested by Ownership, Category, and Species Group, 1990-2014.

estimated 7.78% while tariffs were in effect, which cost the Canadian forestry sector over \$2 billion. American softwood lumber producers thus earned C\$4.63 billion,<sup>77</sup> whereas American consumers lost \$6.36 billion.<sup>78</sup>

**“Nearly all of the Canadian forest harvest comes from public forests, whereas 90% of American softwood comes from private forests.”**

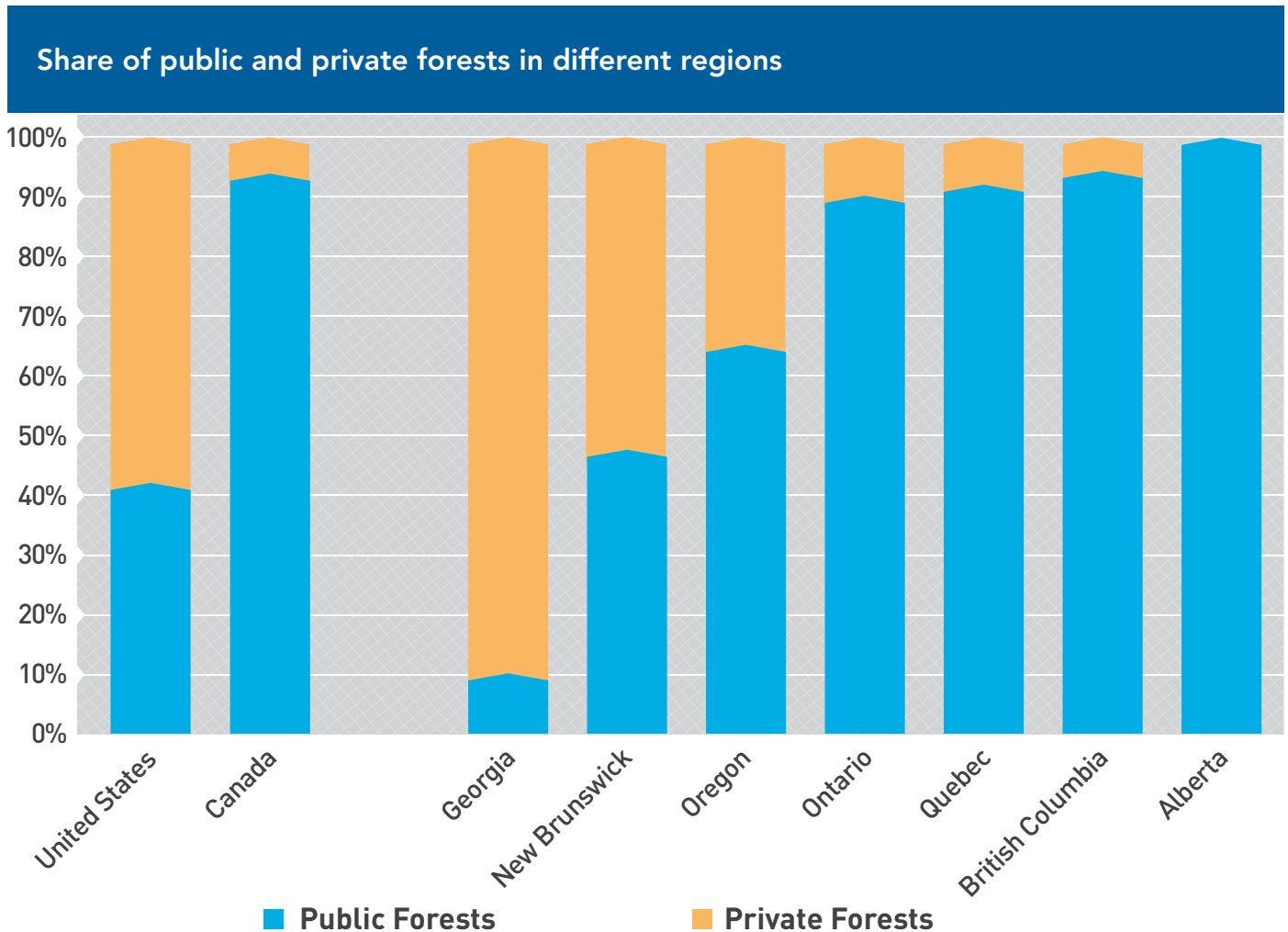
The total value of Canadian softwood lumber exports went from \$7.1 billion in 2006 to \$5.6 billion in 2015. On average, 23% of sales and jobs in the Canadian wood product manufacturing sector are dependent on the terms of the Canada-United States Softwood Lumber Agreement, namely \$4.4 billion and 21,461 jobs.<sup>79</sup> Quebec also saw its softwood lumber exports to the American market fall during this period. The value of exports represented \$1 billion in 2015, far less than the levels reached in the late 1990s and early 2000s (see Figure 3-6). Quebec, and to a lesser extent Canada as a whole, are thus highly dependent on the American market for their softwood lumber exports.<sup>80</sup> On average, 96% of Quebec’s softwood lumber exports headed to

77. Unless otherwise indicated, all amounts are expressed in Canadian dollars.  
78. Author’s calculations based on data from the article by Rajan Parajuli and Daowei Zhang, “Welfare Impacts of the 2006 United States – Canada Softwood Lumber Agreement,” *Canadian Journal of Forest Research*, Vol. 46, May 2016, pp. 950-958. See Alexandre Moreau, “The Economic Costs of Protectionism: The Case of Softwood Lumber,” Viewpoint, MEI, September 15, 2016.

79. Average for 2006-2015 not including exports from the Atlantic Provinces. See the Technical Annex in Alexandre Moreau, *Ibid.*

80. As for exports to other countries, they represent a tiny portion of exports and therefore have little impact. Daniel Dufour, “The Canadian Lumber Industry: Recent Trends,” Analytical Paper, Statistics Canada, 2007, p. 7.

Figure 3-5



Sources: Sustainable Forest Management in Canada, Forest Products, Canada's Legal Forest Products, Canada's Forest Governance Framework; Oregon Forest Resources Institute, Ask a forester; Georgia Forestry Commission, Georgia Statewide Assessment of Forest Resources, August 2015, p. 23; Brett J. Butler et al., "Findings from the USDA Forest Service's National Woodland Owner Survey," *Journal of Forestry*, Vol. 114, 2016, p. 4.

American markets between 1995 and 2015, compared to 72% for Canada as a whole.<sup>81</sup>

This substantial reduction in exports, however, is not due exclusively to the restrictions imposed as part of the Agreement between Canada and the United States. Indeed, softwood lumber sales are very sensitive to variations in the number of residential housing starts in the United States and to variations in the CAD/USD ex-

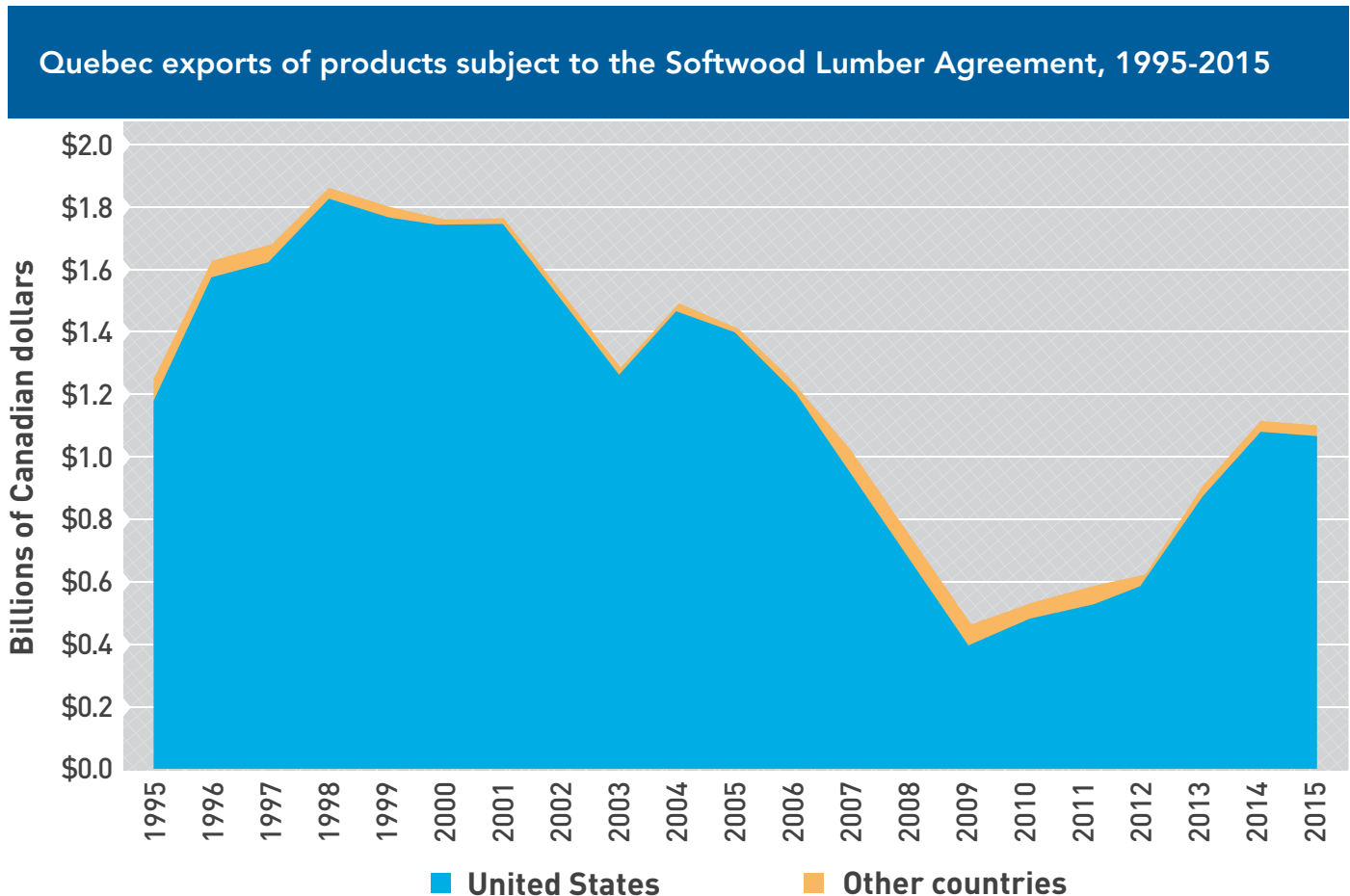
change rate.<sup>82</sup> Comparing just housing starts with the value of Canadian softwood lumber exports subject to the Canada-United States Agreement, a very strong correlation can be observed (see Figure 3-7).

**"Despite multiple setbacks before the highest legal authorities governing international commerce, the American government was able to negotiate an agreement imposing tariffs and quotas on softwood lumber from Canada."**

81. Average for 2006-2015 including exports from the Atlantic Provinces. Innovation, Science and Economic Development Canada, Trade Data Online (TDO), Domestic Exports of Canada by Product (HS Code), 1995-2015; Statistics Canada, CANSIM Table 329-0077: Industrial product price indexes, by North American Industry Classification System (NAICS), 1995-2015; Global Affairs Canada, "Softwood Lumber Agreement between the Government of Canada and the Government of the United States of America," Annex 1A, September 2006.

82. Natural Resources Canada, Forest products and applications, January 2016; Fédération des producteurs forestiers du Québec, "Bois d'œuvre : Soubresauts sur les marchés," *Forêts de chez nous PLUS*, Vol. 20, No. 11, November 1, 2015.

Figure 3-6



**Note:** These are “domestic exports,” which include goods manufactured in Canada (including goods of foreign origin that have been transformed in Canada) and excluding re-exported products. The list of products includes the categories mentioned in Annex 1A of the Agreement, namely HS440710 and HS440910. The values are expressed in constant 2015 Canadian dollars. The few Quebec mills excluded from the Agreement are included, but represent a negligible share of the total.

**Sources:** Innovation, Science and Economic Development Canada, Trade Data Online (TDO), Domestic Exports of Quebec by Product (HS Code), 1995-2015; Statistics Canada, CANSIM Table 329-0077: Industrial product price indexes, by North American Industry Classification System (NAICS), 1995-2015; Global Affairs Canada, “Softwood Lumber Agreement between the Government of Canada and the Government of the United States of America,” Annex 1A, September 2006; Statistics Canada, Data quality, concepts and methodology: Technical notes, April 5, 2016.

Between 2002 and 2006, no agreement was in effect between Canada and the United States. The latter thus had a free hand to impose antidumping and countervailing duties, over C\$4.5 billion of which was reimbursed following the lengthy negotiations that led to the 2006-2015 Agreement.<sup>83</sup>

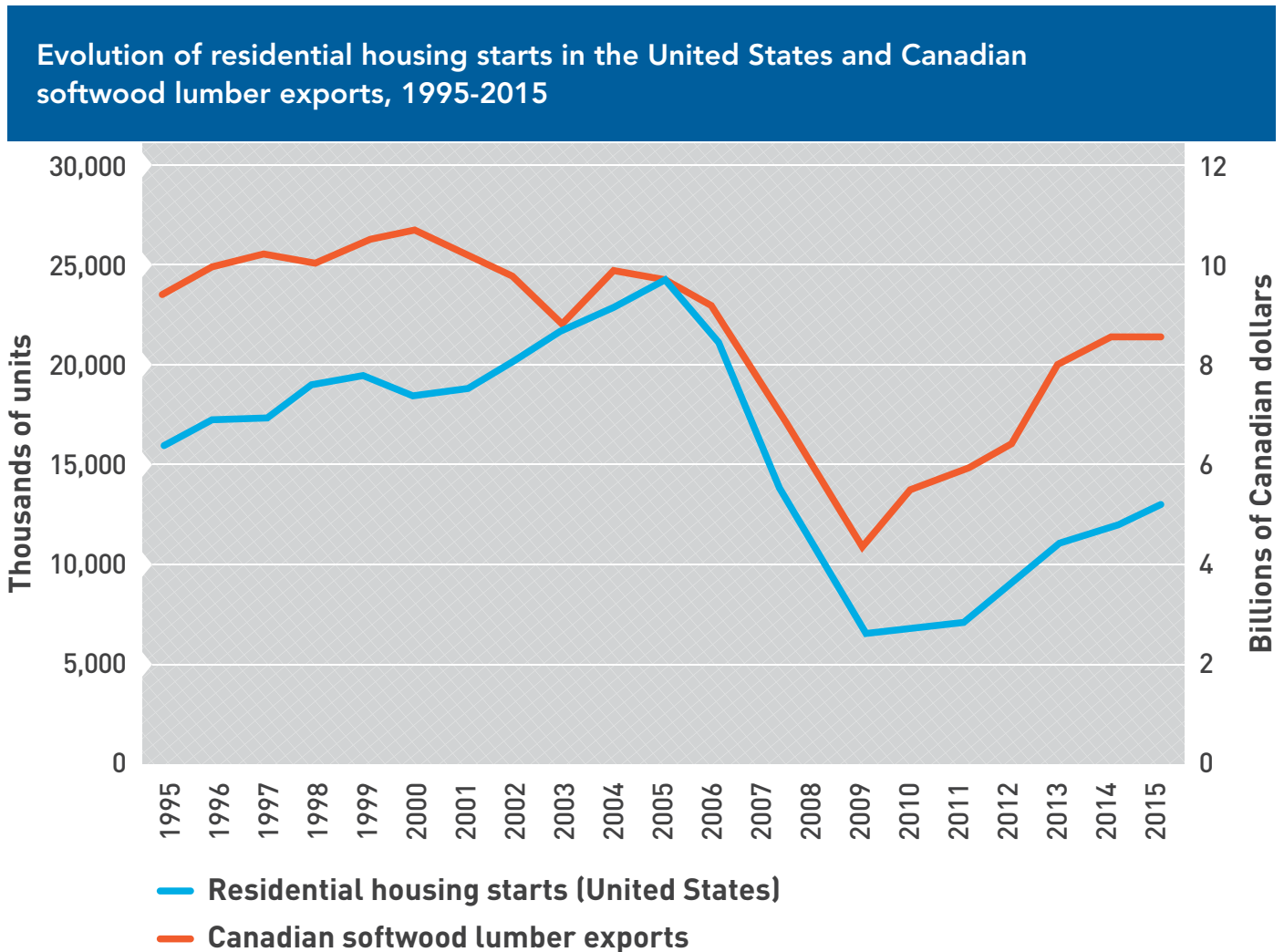
### The Economic Importance of the Forest in Quebec and Its Regions

The interdependence of the logging sector with the raw materials processing sector makes employment throughout the forestry sector very sensitive to variations in demand and to policies that affect the allocation of timber volumes in public forests. A decrease in the demand for processed products or a reduction in timber volumes assigned for harvest will thus have the effect of reducing the number of jobs in the entire forestry sector.

In recent years, government commitments to create protected areas have reduced the annual allowable cut by

83. This was the 4<sup>th</sup> softwood lumber dispute since the 1980s. Quebec Department of Economy, Science and Innovation, Accord sur le bois d’œuvre résineux de 2006 entre le gouvernement du Canada et le gouvernement des États-Unis; Katie Hoover and Ian F. Fergusson, *Softwood Lumber Imports From Canada: Current Issues*, Congressional Research Service, August 27, 2015, p. 9.

Figure 3-7



**Note:** These are “domestic exports,” which include goods manufactured in Canada (including goods of foreign origin that have been transformed in Canada) and excluding re-exported products. The list of products includes the categories mentioned in Annex 1A of the Agreement, namely HS440710 and HS440910. The values are expressed in constant 2015 Canadian dollars and include the Atlantic Provinces which are not a part of the Softwood Lumber Agreement.

**Sources:** Innovation, Science and Economic Development Canada, Trade Data Online (TDO), Domestic Exports of Canada by Product (HS Code), 1995-2015; U.S. Bureau of the Census, Housing Starts—Total: New Privately Owned Housing Units Started, drawn from the FRED database, Federal Reserve Bank of St. Louis; Statistics Canada, CANSIM Table 329-0077: Industrial product price indexes, by North American Industry Classification System (NAICS), 1995-2015; Global Affairs Canada, “Softwood Lumber Agreement between the Government of Canada and the Government of the United States of America,” Annex 1A, September 2006; Statistics Canada, Data quality, concepts and methodology: Technical notes, April 5, 2016.

10%.<sup>84</sup> Other proposals, including for the protection of boreal caribou habitat, could reduce the allowable cut by 1,000,000 m<sup>3</sup> to 2,000,000 m<sup>3</sup>, representing between 1,592 and 3,186 jobs just in the Saguenay–Lac-Saint-Jean region.<sup>85</sup> The effects of these measures are currently attenuated by the reduced demand following the

crisis in the mid-2000s. Given the recovery observed over the past few years, however, companies will likely have little room to manoeuvre in increasing their harvest levels in order to respond to demand if the allowable cut keeps falling.

Increases in the forest harvest for all tree species led to a peak around the turn of the millennium. The number of jobs generated followed this trend, approaching the 95,000 mark. However, the last softwood lumber dispute, combined with the 2008 economic crisis, had the effect of reversing this upward trend. From 2000 to

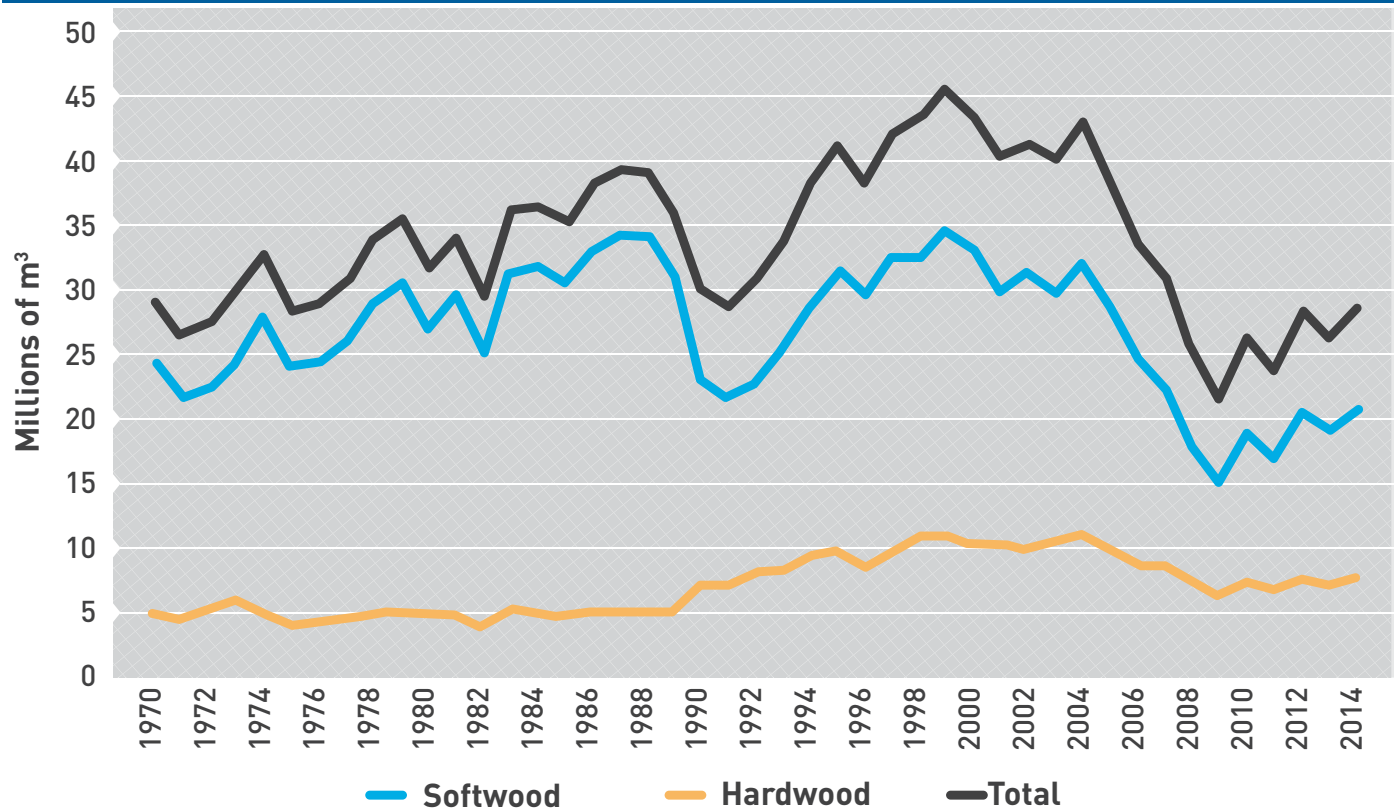
84. Quebec Department of Finance, *Budget 2016-2017 : Compétitivité de l'industrie forestière au Québec*, March 2016, p. 19.

85. Gilles Bergeron and Nancy Gélinas, *Évaluation de l'impact social et économique de la mise en œuvre des exigences du Forest Stewardship Council sur le territoire de la région du Saguenay-Lac-Saint-Jean*, December 30, 2015, p. 45.



Figure 3-8

### Evolution of timber volumes for roundwood harvested in Quebec, by tree species, 1970-2014



Source: National Forestry Database, Forest products—Jurisdictional Tables, Table 5.1.2.0: Volume of Roundwood Harvested by Ownership, Category, and Species Group, 1970-2014.

2014, the total harvest fell 52%, finally reaching a level comparable to that of 1970. As for the annual softwood harvest, which represents a substantial portion of the total harvest, it went from 33,000,000 m<sup>3</sup> in 2000 to 21,000,000 m<sup>3</sup> in 2014 (see Figure 3-8). Hence, there were just 59,053 jobs in the logging, wood product manufacturing, and paper manufacturing sectors in 2015, a 35% reduction in 15 years (see Figure 3-9).

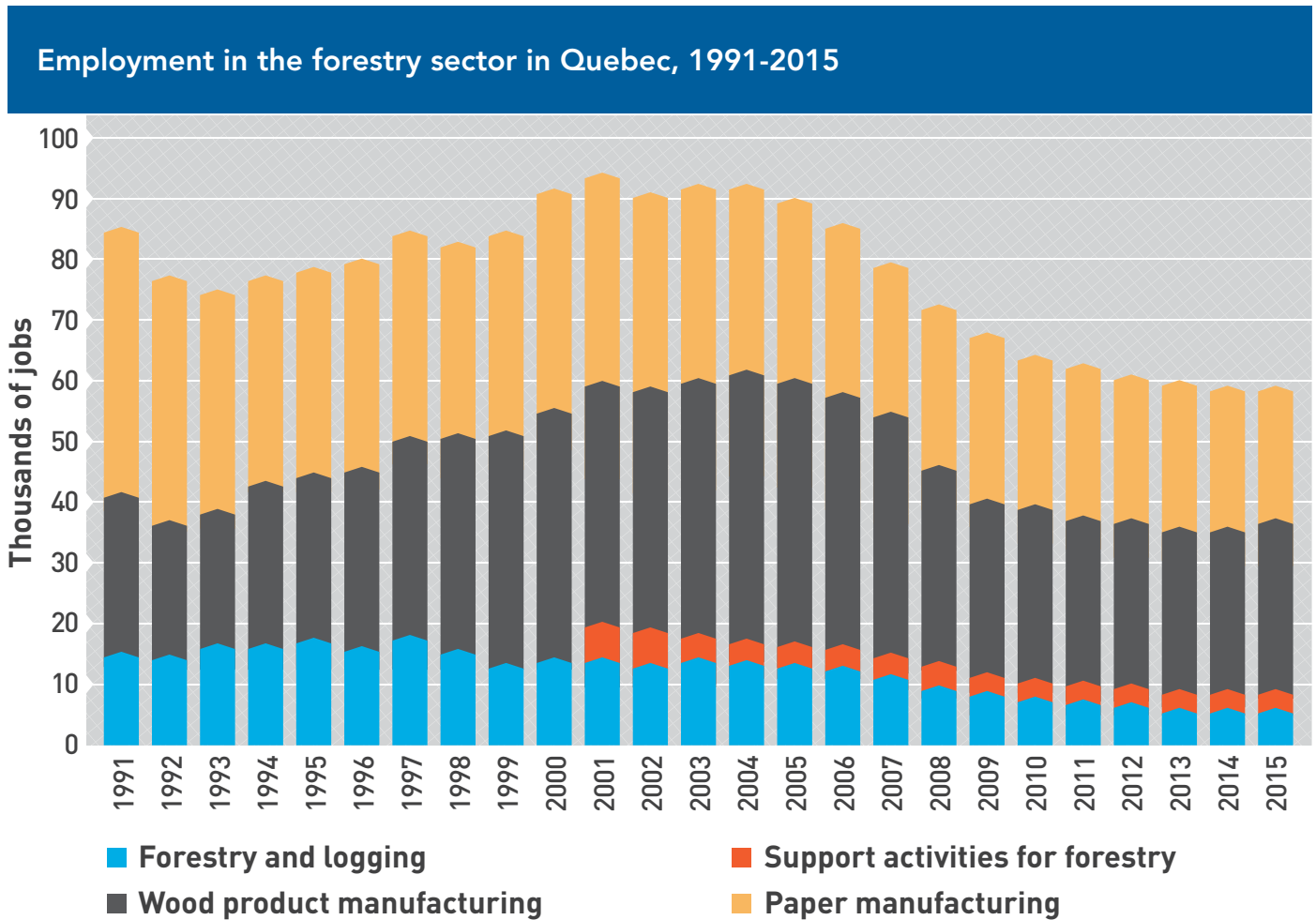
The reduction in the number of jobs in each category is not, however, exclusively the effect of market conditions and the reduction in volumes allocated. Indeed, there have been productivity gains thanks to new working methods and the adoption of new technologies. These factors have the effect of reducing labour needs for a given quantity of wood harvested and processed. This is the case for the job categories related to forestry and logging, among others. The number of jobs needed for the harvest of 100,000 m<sup>3</sup> of timber has been falling by

an average of 3% per year since 1991, going from 54 to 21 jobs during this period.<sup>86</sup>

**"On average, 96% of Quebec's softwood lumber exports headed to American markets between 1995 and 2015, compared to 72% for Canada as a whole."**

86. The jobs represent NAICS 113-Forestry and logging per segment of 100,000 m<sup>3</sup> of roundwood harvested in Quebec, all species. The contribution to GDP is also based on NAICS 113 and is expressed in chained 2007 dollars. Quebec Department of Forests, Wildlife and Parks, Importance des ressources naturelles dans l'économie québécoise, *Emplois*, May 8, 2014; Statistics Canada, CANSIM Table 281-0023: Survey of Employment, Payrolls and Hours (SEPH), employment by type of employee and detailed North American Industry Classification System (NAICS), 1991-2015; author's calculations.

Figure 3-9



**Note:** Includes categories 113, 1153, 321, and 322 of the North American Industry Classification System (NAICS).

**Sources:** Statistics Canada, CANSIM Table 281-0023: Survey of Employment, Payrolls and Hours (SEPH), employment by type of employee and detailed North American Industry Classification System (NAICS), 1991-2015; Quebec Department of Forests, Wildlife and Parks, Importance des ressources naturelles dans l'économie québécoise, Principales données économiques, May 8, 2014.

**“The annual softwood harvest, which represents a substantial portion of the total harvest, went from 33,000,000 m<sup>3</sup> in 2000 to 21,000,000 m<sup>3</sup> in 2014.”**

Quebec's forestry regions have suffered through an economic situation that has been unfavourable to the timber industry since the early 2000s. The reduction in the total annual harvest contributed to the closing of many processing plants, whose number diminished from around 580 to 339 over the past ten years.<sup>87</sup> Despite

this decline, forestry remains an important sector of economic activity in Quebec's regions. In Northern Quebec, the forestry sector represented 43% of total employment and 26% of GDP in 2013. In the Saguenay-Lac-Saint-Jean region, where 22% of Quebec's total harvest comes from, the forestry sector represented 10% of total employment and 14% of GDP for the same year. These resource-based regions are therefore very sensitive to variations in the timber harvest (see Table 3-1).

This dependence is all the more striking when considering the forestry product industry's share at the municipal level. The most recent data are from the early 2000s and show that 264 municipalities are defined as being single-industry towns since a majority of manufacturing sector jobs are related to forestry product industrial activities. Of these 264 municipalities, 140 are considered

87. Quebec Department of Forests, Wildlife and Parks, "Enquête sur les pertes d'emplois dans l'industrie de transformation du bois et du papier," July 15, 2016, p. 2.



Table 3-1

Forestry sector employment and contribution to GDP in 2013, by region							
Administrative region	Forestry jobs	Regional share of total (forest)	Total jobs	Forest share of regional total	Regional GDP (millions)	Forestry sector GDP (millions)	Forestry sector share of regional GDP
Saguenay–Lac-Saint-Jean	13,172	22%	128,000	10%	10,783	1,531	14%
Quebec City	2,284	4%	386,800	1%	34,001	265	1%
Abitibi-Témiscamingue	5,530	9%	74,700	7%	7,027	643	9%
North Shore	4,290	7%	36,290	12%	7,757	499	6%
Northern Quebec	7,258	12%	16,710	43%	3,212	843	26%
<b>Subtotal</b>	<b>32,533</b>	<b>54%</b>	<b>642,500</b>	<b>5%</b>	<b>62,780</b>	<b>3,769</b>	<b>6%</b>
<b>Quebec total</b>	<b>60,082</b>	<b>100%</b>	<b>4,060,800</b>	<b>1.5%</b>	<b>339,513</b>	<b>6,983</b>	<b>2.1%</b>

**Note:** Amounts are expressed in current dollars for the year 2013. The number of jobs per region is an average based on the number of jobs generated for the harvest of 100,000 m<sup>3</sup> of timber for Quebec as a whole. The number of jobs could be over- or underestimated for certain regions due to the productivity of sawmills.

**Source:** See Table 4 of the Technical Annex in Jasmin Guénette and Alexandre Moreau, "The Economic Costs of the Boreal Caribou Recovery Plan," Economic Note, MEI, August 20, 2015.

to be "highly dependent," which is to say that over 90% of manufacturing jobs are in this industry.<sup>88</sup> The dependence of forestry regions and municipalities thus makes them very vulnerable to market fluctuations, including the American housing market, and to public policies that reduce the allowable cut.

88. François Rouleau, "Les forêts et les villes et villages mono industriels au Québec," Société d'histoire forestière du Québec, Spring 2014, p. 54.



## CHAPTER 4

### Reform Proposals for a More Competitive Forest Regime

The governance of public forests has evolved considerably since the allocation of the first concessions in the 19<sup>th</sup> century. In the middle of the 20<sup>th</sup> century, the place of the government and of its various agencies became central to all facets of forest management. The centralization trend that has characterized reforms since the 1970s has had consequences on investment decisions and on regional employment.

#### The New Forest Regime

Historically, companies that got their timber supplies from public forests were responsible for the planning of harvests, for conducting silvicultural work, and for monitoring forestry operations. Since the new forest regime came into effect in April 2013, this has no longer been the case. The government has now taken over these activities. This centralization of responsibility for the management of public forests was presented by the government as an improvement over the former TSFMA regime that would lead to economies of scale.<sup>89</sup>

To carry out these new functions, the new forest regime was accompanied by the creation of several regional agencies to develop and coordinate management plans. This stage of forest development is crucial and affects the profitability of current and future harvests.

The development of these plans is now exceedingly cumbersome. In collaboration with the local integrated resource and land management panels (Tables locales de gestion intégrée des ressources et du territoire, or TLGIRT) and the operational panels (Tables opérationnelles)<sup>90</sup> the Department develops integrated forest management plans (Plans d'aménagement forestier intégrés, or PAFI) through public consultations aiming to define the needs of the stakeholders affected by forestry activities.<sup>91</sup>

89. Groupe DDM, "Projet de loi 57 sur l'aménagement durable du territoire forestier : Synthèse des études d'impacts et analyse critique," Document prepared for the Quebec Department of Natural Resources and Wildlife, February 2010, pp. 1-4.

90. The purpose of the operational panels is to facilitate the operational organization of logging activities and the maintenance of forestry certification by the beneficiaries of supply guarantees. Quebec Department of Forests, Wildlife and Parks, Table opérationnelle.

91. The purpose of the local panels is to hear and take into account the interests and concerns of people and groups affected by forest management activities. Quebec Department of Forests, Wildlife and Parks, Table locale de gestion intégrée des ressources et du territoire.

These plans include, for one thing, tactical integrated forest management plans (PAFI<sub>t</sub>) that aim to establish the forest management strategy with objectives specific to each forest and the planning of harvests and other management activities to reach these same objectives for each of the 71 management units into which the public forests are subdivided.<sup>92</sup> The timeframe of these plans coincides with the length of the supply guarantees, namely a period of 5 years.

**"This centralization of responsibility for the management of public forests was presented by the government as an improvement over the former TSFMA regime that would lead to economies of scale."**

These plans also include operational integrated forest management plans (PAFI<sub>o</sub>) that are dynamic and aim to update the management plans for each harvest sector included in the tactical plans (PAFI<sub>t</sub>) by providing more precision regarding volumes available for harvest and forest roads. These operational plans are developed for periods of 1 to 3 years. The possibility that changes could be imposed over such a short time period thus increases the inherent uncertainty in the planning of investments by companies.

#### The Allocation of Timber Volumes in Public Forests

Before the 2013 reform, timber volumes in public forests were allocated with no time limit under the forest concessions regime, and for a period of 25 years under the TSFMA regime.<sup>93</sup> Currently, they are allocated only for periods of 5 years or less, at the discretion of the Minister.

Moreover, in point of fact, holders of supply guarantees only have logging rights over a portion of the volumes listed. Indeed, the establishment of a public auction

92. Management units are land reference areas. It is on the basis of this segmentation that forest management strategies are defined, namely the nature and the quantity of silvicultural work to be carried out, with a view to determining the annual allowable cut. Quebec Department of Forests, Wildlife and Parks, L'unité d'aménagement (UA).

93. A TSFMA covered a period of 25 years, but it was revised every 5 years. Quebec Department of Forests, Wildlife and Parks, De précieux outils de gestion.

Table 4-1

Allocation of timber volumes (m <sup>3</sup> ) in public forests, by method and species, 2016				
SPECIES	SUPPLY GUARANTEES	TIMBER MARKETING BOARD	OTHER	TOTAL ALLOCATIONS
Softwood	12,813,250	4,482,600	1,417,730	18,713,580
Hardwood	3,581,150	1,537,400	358,350	5,476,900
Total	16,394,400	6,020,000	1,776,080	24,190,480
Share of total allocations	68%	25%	7%	100%

**Note:** The "other" category includes harvesting licences for supplying timber processing plants and volumes in residual territories.

**Source:** Quebec Department of Forests, Wildlife and Parks, *Répertoire des bénéficiaires de droits forestiers sur les terres du domaine de l'état* : version du 30 juin 2016, 2016.

system allows the Timber Marketing Board to hold back the equivalent of 25% of timber volumes allocated in public forests in order to determine the level of fees collected by government. Based on the prices revealed during the auctions, a transposition model is used to define the level of fees for the remaining 75% of the volumes.<sup>94</sup>

**"The possibility that changes could be imposed over such a short time period thus increases the inherent uncertainty in the planning of investments by companies."**

This also complicates spending carried out to build and repair forest roads that could be used by a competitor on the same piece of land after acquiring timber volumes at auction. The inverse is also possible, since bidders who win a sector must take on the fees associated with forest roadwork.<sup>95</sup>

94. The market value of standing timber is then indexed each quarter based on the price index for processed goods. Timber Marketing Board, *Tarifications forestières*.

95. In the 2016-2017 budget, the government announced a new financing program for spending related to forest roads and other activities in which the industry participates "that benefit the community." Government of Quebec, *Budget 2016-2017—Competitiveness in the Quebec Forest Industry*, March 2016, pp. 24, 38, and 75.

On June 30, 2016, supply guarantees represented the main method of allocation, accounting for 68% of the timber volumes allocated in public forests. The remaining volumes were allocated using other kinds of contracts (7% of the total) or through the Timber Marketing Board<sup>96</sup> (25% of the total) (see Table 4-1).

The supply stability of the former system reduced risks in this regard and allowed companies to plan and invest. Because of the short-term aspect of the new system, holders of supply guarantees must now plan their operations and investments over very short time periods. Such a context makes it difficult to predict supply and exacerbates the risk associated with investment and with the hiring of labour.

### High Expectations for the New Forest Regime

Before the reform came into effect, certain studies had been commissioned by the government to evaluate the effect of the transfer of these responsibilities from the industry to the government,<sup>97</sup> and of the creation of a public auction system for the sale of a portion of the timber in the forest, on the industry's supply costs and on the finances of the government.

96. As for the volumes allocated by auction, the contracts are generally for periods of 2 years. *Ibid.*, p. 24.

97. It was expected that these responsibilities would be taken on by the government through regional branches.

These studies concluded that the implementation of the new forest regime would not impose any extra costs on holders of supply guarantees.<sup>98</sup> More precisely, it was expected that the government taking over certain activities would reduce forestry companies' supply costs, but these savings would then go to the government in the form of fees.

The reform was supposed to allow forestry companies to achieve gross savings of \$3.15 per m<sup>3</sup> harvested. It was also estimated that the participation of companies and other users of the forest in the different regional panels would entail extra costs of \$0.21 per m<sup>3</sup>. As for the government, extra expenditures on the order of \$0.38 per m<sup>3</sup> were expected to be associated with the maintenance of these new administrative structures for tactical and operational planning.<sup>99</sup>

**"It was expected that the government taking over certain activities would reduce forestry companies' supply costs, but these savings would then go to the government in the form of fees."**

This transfer of responsibilities and of costs, however, was supposed to come at no net cost for holders of supply guarantees or for the government. This hypothesis implies that every increase or decrease in operating costs<sup>100</sup> for a company leads to an inverse and equivalent variation in the level of fees determined through the public auction process.<sup>101</sup> In total, the supply costs for public forest timber remain constant since companies will offer a price reflecting this variation during the auction process. Thus, the increased level of fees will allow the government to finance the extra expenditures associated with the transfer of responsibilities (see Figure 4-1).

98. Groupe DDM, *op. cit.*, footnote 89.

99. Centre d'enseignement et de recherche en foresterie de Sainte-Foy, "Mesure des impacts des processus de planification tactique et opérationnelle en comparaison de la situation actuelle," Document prepared for the Quebec Department of Natural Resources and Wildlife, 2010, cited in Groupe DDM, *op. cit.*, footnote 89, p. 3.

100. Operating costs refer to costs associated with planning harvests, building forest roads, harvesting, transportation to mills, and administrative costs associated with these activities.

101. Groupe DDM, "Impact des coûts d'opération sur la valeur de la redevance et les coûts d'approvisionnement en bois," Study prepared for the Quebec Department of Natural Resources and Wildlife, January 12, 2010, pp. 9-11.

## Higher Costs Due to Centralization

These studies anticipated savings, taking it for granted that the rationalization and the centralization of tasks, the optimization of planning, the elimination of the duplication of certain activities, and the harmonization of agreements between companies would lead to substantial efficiency gains. The DGR forestry consulting firm had already pointed out at the time that the promised efficiency gains were vastly overestimated. The reference lands used for these predictions were not representative of public forests as a whole. The potential for optimization and integration was thus far less substantial than what had been estimated.<sup>102</sup>

According to a Groupe DDM study carried out more than a year after the new forest regime came into effect, it was found that there had been no savings, and that companies even saw cost increases.<sup>103</sup>

The no-cost scenario assumed that the incentives of government employees are the same as for a private company and that the weight of the administrative structure would have no effect on the flexibility and the efficiency of the tasks carried out on the ground. This was not the case.

Indeed, the multiplication of structures and the centralization of responsibilities did not lead to better planning. The Department's inefficiency and lack of economic consideration in the development of these plans impose delays and additional expenditures, which increase supply costs for holders of supply guarantees.

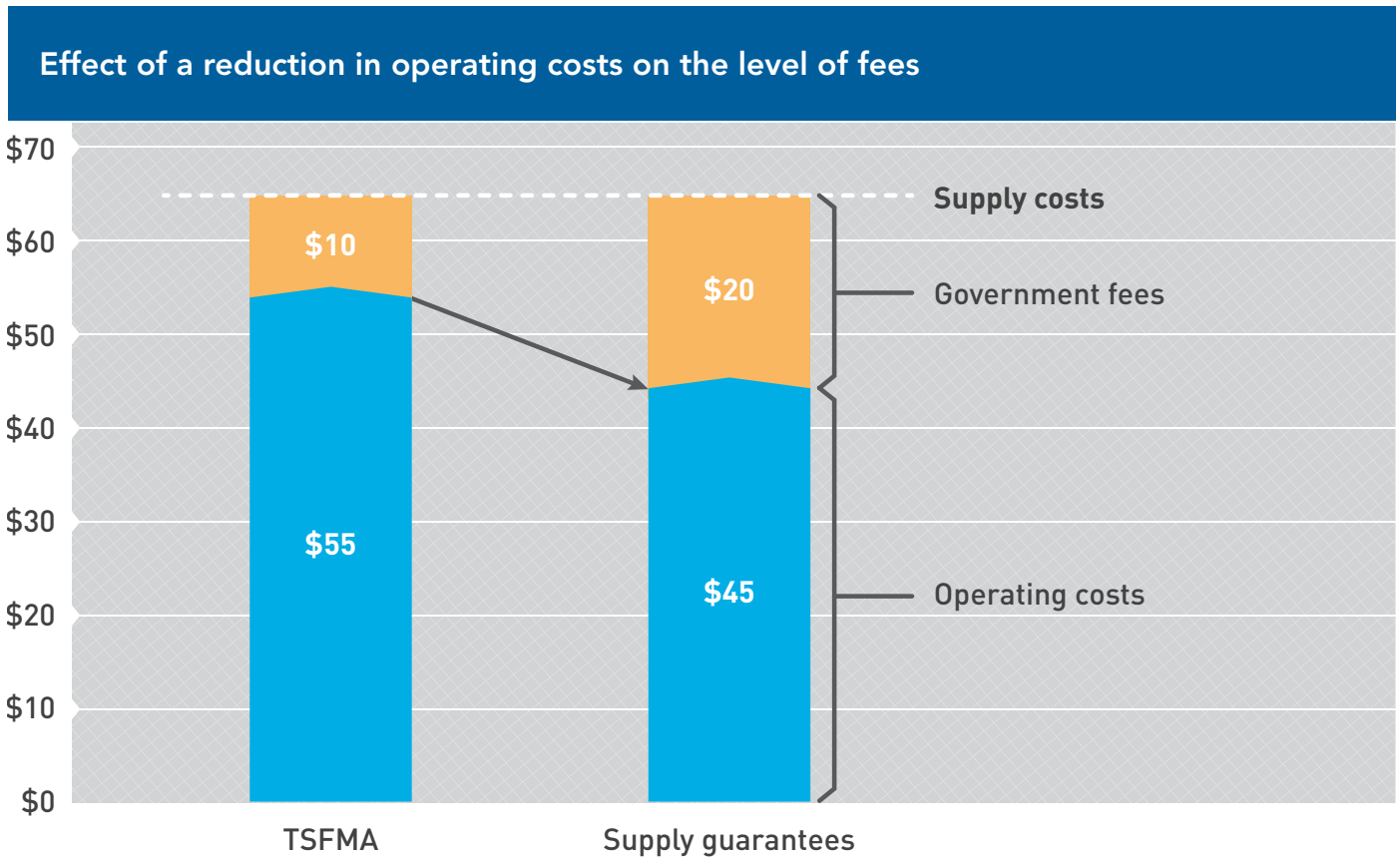
More precisely, the government was criticized because it did not adequately evaluate the costs of infrastructure with regard to the volumes that would be harvested. For example, in hardwood and mixed forests, many sectors are too detailed and stipulate logging zones with an area sometimes measuring less than two hectares. The multiplication of small zones complicates the work of forestry companies and inflates their costs.

In addition to these problems, the same Groupe DDM document points out that logging sites are more dispersed, which entails an increase in the costs of transporting personnel, machinery, and the timber itself. The

102. Consultants forestiers DGR, "Analyse de la synthèse des études d'impacts produites dans le cadre du projet de loi 57 sur l'aménagement durable du territoire forestier," Report presented to the Quebec Forest Industry Council, May 3, 2010.

103. Groupe DDM, Évaluation économique du nouveau régime forestier du Québec, Report presented to the President of the Chantier sur les améliorations à apporter à la mise en œuvre du nouveau régime forestier du Québec, December 2014, p. 5.

Figure 4-1



**Note:** This graph is inspired by DDM's analysis of the connection between the stump-to-mill operating costs and the level of fees. While the mechanism is different for the two regimes, the logic remains the same. In switching from one regime to the other, all else being equal, the expected reduction in operating costs was supposed to result in an equivalent increase in the level of fees.

**Source:** Groupe DDM, "Impact des coûts d'opération sur la valeur de la redevance et les coûts d'approvisionnement en bois," Study prepared for the Quebec Department of Natural Resources and Wildlife, January 12, 2010, pp. 10-11.

government moreover does not take into account the distance of sites from already existing camps.

**"The no-cost scenario assumed that the incentives of government employees are the same as for a private company."**

The document reports that the government is not developing access to the land in such a way as to stabilize the average supply cost, by for example balancing the number and the area of sites that are near to and far from mills from one year to the next. The planning does not seem to take into account the flexibility required to manage work teams, including the distribution of winter and summer sites and their proximity to each other.

Furthermore, the planning carried out by the government is often subject to errors. It is carried out based on

data that do not always correspond to the reality on the ground. Finally, the zones that the government harmonizes are larger than in the past, which entails both more planning work and more consultation work. This situation is probably made worse by the large number of new agencies to coordinate.<sup>104</sup>

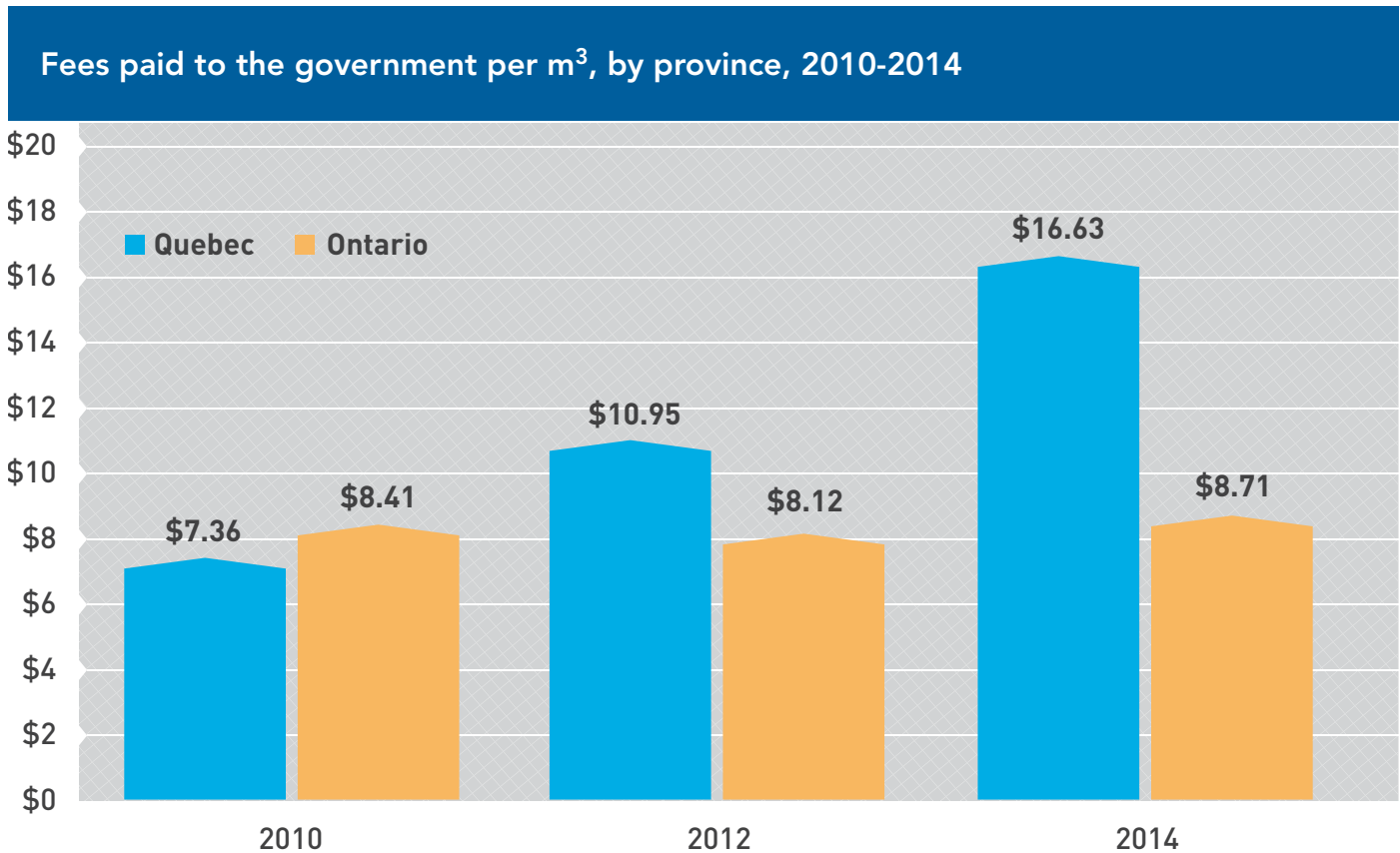
### The Transition Has Not Been Costless for Companies

Less than a year after the new forest regime came into effect, the Association québécoise des entrepreneurs en travaux d'aménagement forestier and the Québec Federation of Forestry Cooperatives denounced the increased fees charged.<sup>105</sup> To respond to the concerns of producers,

104. *Ibid.*, pp. 2-15.

105. Québec Federation of Forestry Cooperatives and Association québécoise des entrepreneurs en aménagement forestier, "Les entrepreneurs forestiers craignent pour la prochaine saison," Press release, February 17, 2014.

Figure 4-2



**Source:** Groupe DDM, *Étude comparative des coûts d'approvisionnement et de transformation : Québec/Ontario*, Study prepared for the Quebec Department of Forests, Wildlife and Parks, March 2016, Annex 1, p. 1.

a Cellule d'intervention forestière was set up by the Department to evaluate supply costs in each region of Quebec.<sup>106</sup> Indeed, a study prepared for the Department demonstrated a considerable increase in the fees charged by the government.<sup>107</sup> Between 2010 and 2014, fees more than doubled for Quebec, while they barely increased in Ontario. The fees paid by Quebec companies are now nearly twice as high as those paid by their Ontario competitors (see Figure 4-2).

The 126% increase in the level of fees per m<sup>3</sup> was not, however, compensated by an equivalent reduction in operating costs for holders of supply guarantees. Far from diminishing, these costs increased by 11% between 2010 and 2014. Together, the fees and operating

costs represent the amount that a plant has to pay to supply its production chain, namely its supply costs. During this period, supply costs thus increased by 27% (see Table 4-2).

**"Between 2010 and 2014, fees doubled for Quebec, while they barely increased in Ontario."**

A portion of the fee increase can be explained by the recovery of markets, as the fee level in Quebec does align itself more closely with changing prices than the fee level in Ontario, where there is no auction mechanism.<sup>108</sup> However, one of the causes could also be the auction mechanism that leads to an allotment rate (that is, the proportion of available lots sold) that is too low.

106. Quebec Department of Forests, Wildlife and Parks, Department of Economy, Innovation and Exports, and Department of Finance, "Industrie forestière - Québec annonce la création d'une cellule d'intervention forestière," Press release, June 17, 2015.

107. The study focuses on species in the FSPL group and to the sawmill sector. Groupe DDM, *Étude comparative des coûts d'approvisionnement et de transformation : Québec/Ontario*, Study prepared for the Quebec Department of Forests, Wildlife and Parks, March 2016, p. 1.

108. Quebec Department of Forests, Wildlife and Parks, "L'accès forestier : bulletin économique," Special Edition for the 2016-2017 Budget, April 2016, p. 2.



Table 4-2

Evolution of costs in public forests, by type of expense, per m <sup>3</sup>			
TYPE OF EXPENSE	2010	2014	VARIATION
Operating costs	\$45.86	\$51.07	11%
Fees	\$7.36	\$16.63	126%
Supply costs	\$53.22	\$67.70	27%

**Note:** The increase in operating costs can among other things be influenced by the considerable increase in the average distance between two harvest sites and the increase in prices on the market. The year 2014 also coincides with the introduction of an annual fee for holding a supply guarantee. Operating costs include expenses for harvesting, roads, transportation, and other fees.

**Source:** Author's calculations. Groupe DDM, *Étude comparative des coûts d'approvisionnement et de transformation : Québec/Ontario*, Study prepared for the Quebec Department of Forests, Wildlife and Parks, March 2016, Annex 1 and pp. 4-7.

This would create a vicious cycle in which the low allotment rate leads to an artificial scarcity of timber, which has the effect of increasing the price. Since the fees that holders of supply guarantees must pay the government are now determined by the auctions, they went up.

This low allotment rate can be explained by several factors, like the existence of an alternative supply source in private forests, the predominance of less sought-after species at auction, harvest zones that are difficult to access, an informational problem regarding the lots up for auction, or a technical problem related to the auction system itself. It is difficult to quantify the exact share of responsibility that is attributable to these different factors.

### International Competition and Examples from Other Jurisdictions

Having almost no remaining room to manoeuvre when it comes to controlling operating costs, which represent on average nearly half of production costs, holders of supply guarantees are dependent on the work of the employees of the Department of Forests, Wildlife and Parks. This limited flexibility and the upward pressure exerted by the auction mechanism on the fee level could reduce the international competitiveness of companies.

In other countries, mills generally have greater latitude in developing forestry management plans and a longer timeframe within which to plan their investments.

To face this foreign competition and acquire new markets, it is essential for Quebec's forest regime to allow mills here at home to have more predictability when it comes to supply. Indeed, in the 2008-2013 report of the Bureau du forestier en chef, it is mentioned that conditions favourable to the control of costs and the stability of supply should be created in order to maintain the competitiveness of the industry.<sup>109</sup> In all likelihood, this has not been the case since the new forest regime came into effect.

**"In other countries, mills generally have greater latitude in developing forestry management plans and a longer timeframe within which to plan their investments."**

The government should therefore take inspiration from examples elsewhere in Canada and abroad where companies have the latitude they need to reduce supply costs.

In Sweden, the regulation of the forestry sector was revised in the 1990s and the forest regime shifted from the principle of regulation to the principle of freedom with responsibility. Subsidies were abolished and forest management planning is carried out by companies, while government agencies limit themselves to overseeing

109. Bureau du forestier en chef, *État de la forêt publique du Québec et de son aménagement durable : Bilan 2008-2013*, November 2015, p. 219.

the work to avoid additional costs and to ensure that standards are respected. Market principles guide the process and everything is done in a climate of co-operation and of consideration for social concerns.<sup>110</sup> Today, Sweden's net exports represent nearly \$14 billion, placing the country second in the world behind Canada with \$19 billion.<sup>111</sup>

This logic aiming to allow more latitude to companies is also an aspect of regulation in British Columbia, the province with the largest forestry sector in Canada.<sup>112</sup> It is holders of harvesting licences who are responsible for developing forest management plans and for providing the necessary data for the calculations of annual allowable cuts carried out by the chief forester.<sup>113</sup> Previously, tasks were centralized and involved a multitude of regulations. Due to the lack of accountability, the extra costs, and the uncertainty imposed on companies, the provincial government revised the orientation of the regime.

**“In Sweden, the regulation of the forestry sector was revised in the 1990s and the forest regime shifted from the principle of regulation to the principle of freedom with responsibility.”**

Since the reforms, the government limits itself to overseeing the work and to setting long-term objectives to reduce the operating costs of mills. It also makes sure that environmental rules are respected all while allowing companies sufficient latitude to achieve the objectives that have been set.<sup>114</sup>

Quebec's forest regime should take inspiration from these reforms to allow sufficient latitude to holders of supply guarantees in order for them to be able to reduce their supply costs all while achieving sustainable harvesting objectives.

110. Carl-Anders Helander, “Forests and Forestry in Sweden,” Royal Swedish Academy of Agriculture and Forestry, August 2015, pp. 10-11.

111. Natural Resources Canada, Overview of Canada's forest industry, July 11, 2016.

112. National Forestry Database, Forestry Highlights, 2014, July 4, 2016.

113. Government of British Columbia, *Forest Act [RSBC 1996] Chapter 157, Part 2 — Classification and Management of Forests and Forest Land and Regulation of Cutting Rates*, Article 9, August 2016.

114. Government of British Columbia, A Results-Based Forest and Range Practices Regime for British Columbia, Discussion Paper, 2.0: Government Direction Regarding Forest Practices Legislation.



## CONCLUSION

The entry into effect of the new forest regime in 2013 shook the forestry sector. The addition of new administrative structures like regional panels involved in the development of management plans have complicated the process. Holders of supply guarantees in public forests today no are longer responsible for developing forest management plans. Moreover, the short-term vision that characterizes the allocation of timber volumes in public forests exacerbates the inherent uncertainty associated with the planning of investments that must be made over a long period of time.

The new regime should not be rejected in its entirety. In the context of negotiations related to the softwood lumber dispute with the United States, for instance, the setting up of a public auction process could prove very useful.

**“The centralization trend that has characterized reforms since the 1970s should be reversed in order to allow companies on the ground more latitude.”**

Adjustments should be made, however, to ensure the competitiveness of Quebec's forestry sector. The auction process should be revised to allow for an allotment rate that is sufficiently high to reveal the real value of timber volumes. The centralization trend that has characterized reforms since the 1970s should be reversed in order to allow companies on the ground more latitude. The government should therefore consider returning to holders of supply guarantees the responsibility for developing forest management plans in order to avoid the lack of efficiency, transparency, and consideration for economic imperatives that characterize them today.

This extra room for manoeuvre, combined with an increase in the duration of supply guarantees to ensure a stable and predictable supply, would provide a more favourable context for the competitiveness of a sector that is struggling to recover from the most recent economic crisis.









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Alexandre Moreau is a Public Policy Analyst at the Montreal Economic Institute. He holds a bachelor's degree in public administration with a minor in political science from the University of Ottawa and is currently completing his master's degree in public administration at the École nationale d'administration publique. With a keen interest in research, Alexandre took part in a field study in Senegal to analyze the role of the informal economy and the importance of private property. Having developed an expertise in program evaluation, he is particularly interested in the unintended economic consequences of public policies.



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