

Geloso, Vincent; Foucher-Paquin, Félix

**Article**

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# Weak states and the commons: Fisheries and economic development in the Gaspé Peninsula circa 1830<sup>☆</sup>

Vincent Geloso<sup>a,\*</sup>, Félix Foucher-Paquin<sup>b</sup>

<sup>a</sup> George Mason University, United States of America

<sup>b</sup> Desjardins Credit Union, Canada

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## ABSTRACT

The inefficiencies of common property fisheries are well-known to economists. To avoid over-exploitation, they propose multiple forms of government solution such as taxes, quotas and the enforcement of property rights regimes designed to avoid over-harvesting. But can efficient arrangements also exist under statelessness, or in the presence of weak states? One such example is the Gaspé Peninsula (in the Canadian province of Quebec) during the first half of the nineteenth century. There, a single firm (the Charles Robin Company) came to dominate the market and was able to restrict entry effectively. In this paper, we explain that it was able to do so by reducing the prices on imported goods that it would give to local fishermen in exchange for a part of their catch. This had the effect of deterring fishermen from contracting with other merchants as well as deterring other merchants from entering the market. It also made the region richer than most regions of Canada at the time, contrary to what historians have depicted. We take this as an example of the ability to deal with commons problems in the presence of weak states.

## 1. Introduction

Fisheries have been the best example of resource depletion resulting from free entry into the harvesting of hard-to-enclose resources (Gordon, 1954; Scott, 1955; Cheung, 1970; Eckert, 1979; Johnson and Libecap, 1982; Libecap, 2007; Smith, 2016). Under a common-pool resource regime, each fisherman considers only his net private benefits and ignores broader issues such as resource sustainability. Overharvesting ensues and the income of communities dependent on fishing falls. There are multiple instances in which governments have produced property rights arrangements that effectively permit enclosure (Eythórsen, 2000), and which have led to more sustainable fishing practices (Costello et al., 2008). But is enclosure possible absent a state that enforces a property rights regime? And if it is, can it also yield high living standards for local populations?

In this paper, we examine the case of the Gaspé peninsula, during the first half of the nineteenth century. This region, which protrudes into the Gulf of the Saint-Lawrence River in Canada (see map below), qualifies to answer our questions. At the time, the state's influence in the area was nominal at best, but local merchants considered over-fishing to be a real possibility.

Historians seem to agree that during the first half of the nineteenth century—when the state was at its weakest in the region—fishing output remained stable nonetheless thanks to an ingenious regional monopoly created by Charles Robin, a merchant who hailed from the island of Jersey in the English Channel (Ommer, 1990; Mimeault, 1995, 1985).

This monopoly was not on fishing *per se*, but rather on the transformation process of cod for exports. To deter entry (i.e., by establishing *de facto* property rights in order to create the same effects as enclosures), the Charles Robin Company (CRC) and others firms from the Channel Islands relied on elaborate credit systems known as catch-shares to tie the fishermen in their respective area of operation to the firm. In exchange for a fixed share of their catch, which the CRC would then dry, salt, and export to foreign markets (mostly in Britain and the Caribbean), the fishermen would obtain scarce import goods (e.g., sugar, molasses, rum, tobacco, clothing) and fishing inputs (e.g., hooks, nets, lines, boats) as credit. If the catch-share was insufficient to pay for the goods provided, a debt would be carried to the next year. As a result of this monopoly, Robin had no incentive to over-fish, as he would only be competing against his future self. By the 1830s,

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\* Corresponding author.

E-mail address: [vgeloso@gmu.edu](mailto:vgeloso@gmu.edu) (V. Geloso).

the CRC and the other firms had cemented their monopoly, and catches would remain stable right up until Confederation in 1867.

This monopoly, we argue, generated high living standards relative to the rest of eastern Canada. We identify two reasons for this. First, this monopoly existed despite the real possibility of entry into the local fisheries industry. This meant that merchants who were not associated with Channel Islands firms could have competed to hire the local fishermen. Second, the weakness of the state (notably, the absence of any serious administration of justice until the 1850s) meant that there were no strong mechanisms for enforcing repayment of the debts contracted under the catch-share system. In situations of open access/common-pool resources, the rents from monopoly are welfare-enhancing in the long-run (whereas open competition dissipates these rents resulting in falling returns per unit of effort and declining resource stocks). However, because local fishermen had exit options and because competition was possible, the CRC was compelled to share *some* of those monopoly rents in order to deter entry by other merchants. The sharing would match the fixed cost of entry to contestants. This sharing took place via provision of imported goods (e.g., sugar, salt, rum, molasses) at prices below those observed elsewhere in North America in general, and in eastern Canada in particular. This rent-sharing was necessary to complement the weakness of the state in the region (notably regarding deterring entry by contestant firms). The result was exceptionally high per capita levels of consumption of these goods (by the North American standards of the time). We find that, rather than being as impoverished as commonly depicted, the period of “weak state” was characterized in the region by relative prosperity (i.e., high real wages, rapid population growth, rapid expansion of non-fishing industries). The by-product was that contestant firms were kept out of the area as long as the rents it retained for itself were too small for them to incur the fixed costs of entry.

This state of affairs is rife with implications. In the last 40 years, a substantial literature has emerged on the ability to provide governance in situations of statelessness (i.e., the economics of anarchy) (Candela and Geloso, 2018, 2019a,b; Clay, 1997; Ellickson, 1994; Friedman, 1979; Leeson, 2014; Richman, 2017; Scott, 2010; Solvason, 1993; Stringham, 2015; Maltsev, 2022b,a). That literature has shown that the private provision of governance is feasible and can be stable for long periods of time. The case of the fishing monopoly suggests a result consistent with the rest of that literature — private governance mechanisms can deal with problems of market failure. Because the existing literature has been concerned with the feasibility of governance under statelessness, there are few attempts to compare the outcomes in similar societies that had stronger states. What little exists suggests that these arrangements produced comparable outcomes as in societies with stronger states (Leeson, 2007; Powell et al., 2008; Geloso and Leeson, 2020; Candela and Geloso, 2021).<sup>1</sup> Our study adds an additional case with the twist that there is also a serious potential market failure (i.e., over-harvesting the commons) that could have led to dramatically lower well-being. Our findings suggest that living standards nevertheless matched and surpassed those of other British colonies in the vicinity. As such, we find support for the tentative result that private governance in the presence of weak states or statelessness can yield comparable outcomes.

In Section 2, we briefly describe the Gaspé peninsula and its institutional setting. We also describe the regionalized monopolies of the CRC and the other Channel Island firms, highlighting that there was a credible threat of entry and contest by non-incumbent firms. In Section 3, we provide a wide array of evidence regarding living

standards in the region. We show that the region was growing fast and had quite favorable living standards compared with the rest of eastern Canada. The most important evidence in this section is the data regarding importation of foreign goods such as sugar, rum, coffee, tea, salt and molasses. This consumption evidence is used in Section 4 to explain how the monopolies shared their rents with the local fishermen in order to deter entry by foreign firms. This ties the stateless monopolies to the strong evidence of comparatively high living standards in the region. In Section 5, we conclude by pointing out that the later poverty of the region is unconnected to the CRC's monopoly during the first half of the nineteenth century.

## 2. The Gaspésie and the fishing trade

### 2.1. A brief description

The Gaspé peninsula is a relatively isolated region. Because of the shape of Quebec's Lower Saint-Lawrence area, there is a long strip of land to be traveled in order to reach any important settlements south of Quebec City. Moreover, the inland portion of the peninsula is largely uninhabitable, which limits settlements to a few hospitable pockets along the coastline (Bélanger et al., 1981, pp. 15–19).

Since 1550, seasonal European fishermen had been operating around the peninsula which offered large cod stocks—a highly prized staple good in Europe (Bélanger et al., 1981, pp. 80–90). Between mid-May and mid-September, these seasonal fishermen dried and salted the cod on the coast before returning to Europe on ships whose size tended to exceed 200 tons (Bélanger et al., 1981, p. 81). However, permanent settlements did not begin in earnest until the eighteenth century. On the eve of the British Conquest, some 300 to 600 permanent settlers lived there year-round, with an additional 600 individuals present seasonally because of the fishing trade (Bélanger et al., 1981, pp. 117, 122).<sup>2</sup> At that point, before the region's population began to increase quite rapidly, this represented 2.6% of the total population of the wider colony of Quebec (later known as Lower Canada).

Fishing was the region's main economic activity (Mimeault, 1995, p.35) even after the permanent population had increased to more than 20,000 by 1851 (Public Archives of Canada, 1874). While it was at the periphery of the cod fishing area, the region's fisheries were not marginal. According to Ommer (1990), its cod output represented between 0.8% and 2.1% of the total volume of cod exports for Atlantic Canada and Quebec. This is in line with the region's demographic weight (1.4% circa 1851). As a result, historians emphasize that the region could be deemed mono-industrial even though there were other resources of significant value, such as forestry and dairy farming (Bélanger et al., 1981, p. 184). Historians describe “the austerity of Gaspesian life” (Bélanger et al., 1981, p. 150) as a result of this heavy reliance on fishing. The “drama” of isolation (Bélanger et al., 1981, p. 153) further compounded this problem as the region “was thinly inhabited by poor people living predominantly from the sea” (Bélanger et al., 1981, p. 159).<sup>3</sup> This meant that the settlers were reliant on importing foodstuffs from elsewhere (Dechêne, 2018, p. 49). This relative poverty continued right up to the 1950s when the region's average income per person stood at roughly 70% of the average level

<sup>1</sup> It should be noted that the first two articles only compare one country – Somalia – before and after state collapse. They both argue that compared with the low-quality state that existed before, outcomes improved. As such, these two studies only weakly qualify to the question of living standards under weak states or statelessness.

<sup>2</sup> The geographic isolation, pre-European contact, can be seen to have had impacts on population sizes. The native population of the area was far below what was observed for other parts of the northeast (Bélanger et al., 1981, p.50). The estimate for the region is roughly 900 Mi'kmaq (Comeau, 2021, p.100).

<sup>3</sup> Road infrastructure was not well developed and riverway transportation along the Saint-Lawrence River was slow. *L'Ami du Peuple*, for example, reported in July 1833 that it took seven and ten days for two different ships from the Gaspé to enter the port of Quebec City (*L'ami du peuple, de l'ordre et des lois*, July 13, 1833).

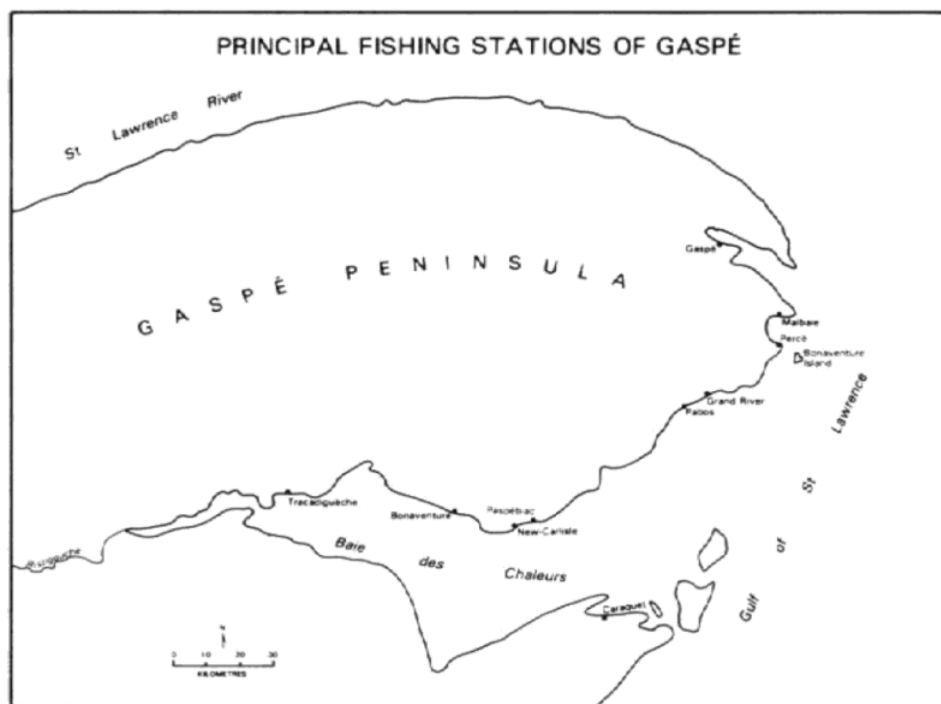


Fig. 1. The Gaspesian peninsula and its fishing stations in the first half of the nineteenth century.

of the rest of Quebec (Ministry of Commerce and Industry of Quebec, 1962, p. 39).

This “drama” of isolation translated into a relatively weak state presence in the area. In the seventeenth century, observers remarked that the few inhabitants had “neither police, nor taxes, nor office, nor commandment which is absolute” (Heaman, 2015, p. 5). While the state’s influence over the region grew gradually, government agents in the 1840s still bemoaned the “neglect it [the Gaspésie] has experienced from the Government and Legislature” (Legislative Assembly of the Province of Canada, 1844, p. G2). The state had a hard time enforcing any form of rule.<sup>4</sup> The problem of state weakness most frequently mentioned—and which will weigh heavily below—was the difficulty in administering justice in that portion of the colony. Observers testifying for a government inquiry spoke of a “want of police” (Legislative Assembly of the Province of Canada, 1844, p. G3) and, when comparing the administration of justice in the district to that of the neighboring colony of New Brunswick, asked how “imbecile is our state compared to theirs” (Legislative Assembly of the Province of Canada, 1844, p. G3)? The commissioners for that inquiry stated that “existing system of judicature in the inferior district of Gaspé has failed” (Legislative Assembly of the Province of Canada, 1844, p. G3).<sup>5</sup> Particularly difficult was the adjudication of disputes involving small sums (Legislative Assembly of the Province of Canada, 1844, p. G5-G7, G23, G67).<sup>6</sup> As such, most legal cases brought concerned substantial disputes such as the seizure of larger estates (see more below). These administrative problems were

sufficiently important for many to openly consider ceding the district to the neighboring colony of New Brunswick (*The Settler, or British, Irish, and Canadian Gazette*, September 24, 1833).

An equally important illustration of this weak state presence is the regulation of fisheries itself. The colonial authorities were intent on preventing monopolies in the region very early on (Ommer, 1990, p. 26). In the 1780s, the colonial governor exerted significant effort to prevent the formation of fishing monopolies on the coasts of the Gaspé peninsula—efforts that were largely unsuccessful (Ommer, 1990, p. 26).<sup>7</sup> Similar complaints about the monopoly of the Jersey merchants were made in the 1830s and legislators in the Lower Canada House of Assembly advanced proposals to break it up (Innis, 1954, p. 281). In addition, colonial waters were reserved to British ships (or those of its colonies). Yet, American ships were known to venture there frequently, suggesting that the state was largely unable to enforce its diktats. Further complicating the issue was the fact that fisheries were regulated from London until 1850 which meant long delays in information being sent and directives being received in response (Mimeault 1994, p. 41).

## 2.2. The channel island merchants and the monopoly

Historians agree that Charles Robin—a merchant from the island of Jersey in the English Channel—had managed to establish a virtual monopoly. Operating in the Baie des Chaleurs region (the area in Fig. 1 that is encompassed by the triangle from Caraquet to Paspébiac and Tracadigueche and which includes the area of New Carlisle which will be crucial data-wise), Robin was fully aware of the danger of over-fishing in the area since there was “no entry problem” to the Gaspé fisheries for local fishermen and other merchants (from Halifax, Boston, Quebec City or Guernsey) (Ommer, 1990, pp. 25, 27).<sup>8</sup> The possibility of entry implied a rent dissipation process whereby the open access

<sup>4</sup> For example, price and marketing regulations for flour and wheat were frequently ignored in the region (Dechêne, 2018, p. 192).

<sup>5</sup> In one testimony to the same commission, Robert Christie reported a case of the theft of \$9 worth of salted salmon. The thieves went to him to make amends, but Christie refused to intercede. In the end, the two thieves went their way due to the “total impotency of the laws here” (Legislative Assembly of the Province of Canada, 1844, p. G23).

<sup>6</sup> Strangely enough, and of relevance to our story, the same observers and commissioners describe a rapidly growing region with burgeoning industries (Legislative Assembly of the Province of Canada, 1844, p. G1, G2, G4, G13, G21, G24, G26-27, G36).

<sup>7</sup> A petition from the Gaspé region to the Legislative Assembly mentioned that they believed that a proposed scheme for bounties to encourage entry would end up benefiting the CRC (Unnamed, 1829).

<sup>8</sup> One report of a special committee of the Legislative Assembly of Canada reported observations from local inhabitants suggesting they understood that

fishery would be overfished, thus leading to smaller returns on his capital investments for Robin. There was therefore a need to establish some form of informal property rights, as the state could not (and actually did not want to) enforce any form of regulation in order to reduce entry.<sup>9</sup> Robin's approach was a combination of three steps that allowed him to control two key stages of production—marketing and processing.

The first step was to acquire vast swaths of land on the coastline. This was because such lands entailed control of the inshore fisheries (i.e., closer to the coastline). The need to control inshore fisheries was dictated by the need for salting and drying cod as spoilage of green cod was rapid. Ships for the high seas had to be larger to operate in offshore fishing grounds. This meant, however, that one would have had a harder time to offload catches in order to dry and salt. If high seas merchants aimed to transform cod rapidly, they would have had to carry equipment to do so. This, in turn, meant less cod cargo to bring to Europe. Moreover, the transformation process was of a lower quality when on the high sea than on the shore. In contrast, ships operating closer to the shoreline could be smaller and had an easier time offloading catches to local salting and drying stations. Lepage (1982, p. 81). This technical limitation also meant that Robin could more easily detect trespassers in the form of salting and drying stations established on the shoreline that he possessed. By restricting settlements to a few key points allowed him to essentially prevent entry in the local fishing trade.

The second step consisted in hiring the local population to fish for him. He would then dry, salt and export the catch. If Robin managed to successfully monopolize processing and marketing of cod from the region, he could act as a monopsonist on the labor market. Such a monopsony power reduced entry from the local population. It also allowed him to control output levels near or at the sustainable yield level.

The third step consisted in combining the processing of cod with salt (which required importation) with the provisioning of the region in imported capital and consumer goods. The local fisherman would be furnished with foreign goods (e.g., sugar, rum, tobacco, salt, fishing gear and equipment) for a share of his future catch. If the catch turned out to be insufficient, he would be in arrears and owe a debt to Robin's firm (which had, by the late 1780s, become the CRC). This was essentially a truck system that led to bonds of indebtedness tying the fisherman to the CRC and limiting the ability of foreign firms to enter the market to hire the local fishermen to work for them. Ommer argues that the CRC fixed the prices on the wares being bartered well above the market price in close colonial markets (Ommer, 1989, pp. 100–101) such that the fishermen would be permanently in debt to it (Ommer, 1990, p. 37).<sup>10</sup> In a petition republished in *La Minerve* (February 11 1830) demanding for more electoral counties in the peninsula, petitioners from the broader Gaspé county noted that nearly all the population of the area around the Gaspé basin and at New

Carlisle were part of that credit system. Taken together, these three steps are supposed to have given Robin an effective monopoly over cod processing and marketing in the region.

The CRC's monopoly effectively expanded to encompass the entire peninsula and can be seen as an "import/export monopoly" (Ommer, 1989, p. 115). The most notable way this was accomplished was through marriage with other families from the island of Jersey. Many of the other merchants who had created equivalent monopolies in the Baie de Gaspé (the bay at whose tip the city of Gaspé lay in Fig. 1) and in La Malbaie (the area between Malbaie, Percé and Bonaventure Island in Fig. 1) were also from the island of Jersey. They joined in a management structure with the CRC through linked directorships. For example, members of the Janvrin family—which had established itself firmly in the 1790s in the Baie de Gaspé (Mimeault, 1995, p. 36)—were directors of the CRC (Ommer, 1990, p. 50). The Janvrin family adopted the same approach as Robin to control entry. Some non-Robin members of the CRC were also tied to Robin members through marriage. The different families were so connected that they used the same agent in London for their affairs (Ommer, 1990, p. 50). This web of interrelations essentially allowed the segmentation of the peninsula into non-compete areas for the two main families (Janvrin and Robin with the latter being the larger one) (Bélanger et al., 1981, pp. 204–207).

Historians (most notably Rosemary Ommer, who provided the most detailed accounts) agree that this monopoly yielded a sustainable form of fishing as output per unit of effort seemed mostly stable until Confederation in 1867 (Lepage, 1982).

This monopoly is also directly associated with the regional poverty mentioned in the previous section. Robin's monopoly has been described by one historian as "draining the region's resources" with little to no benefit for the area (Comeau, 2021, p. 284). A government publication from the 1930s called it one of "worst monopolies of Canadian economic history" (Department of Municipal Affairs, Industry and Commerce, 1937, p. 26). The label of "servitude" to describe the living conditions of the fishermen is often deemed to be a relatively accurate descriptor (Mimeault, 1995, p. 34). The oft cited Harold Innis speaks of the "glaring evils of the truck system" that allowed the Jersey merchants to secure a monopoly (Innis, 1954, p. 282). Essentially, while it is clear that the monopoly prevented the depletion of the resource, and was thus an effective solution to the commons problems, the methods used by the CRC to achieve that monopoly in the absence of a strong state were detrimental to the region's development.

### 2.3. Evidence regarding the effects of the monopolies

There are, however, three major problems with the claims regarding living standards. First, the evidence the historians present regarding living standards is somewhat limited. Ommer (1990), Lepage (1982, 1992) and Bélanger et al. (1981) mostly offer data regarding agricultural production. Ommer (1990) uses the 1831 census in that regard, but she fails to perform some well-known and necessary corrections to the data reported in the tabulations (McInnis, 1981; Geloso et al., 2017).<sup>11</sup> Ommer also eschews the wage and price data in the census that could be used to compare living standards across regions (i.e., the rest of Quebec and Atlantic Canada). In fact, she has scattered estimates about wage rates which she fails to compare with the rest of the colony.

Second, Ommer and others lean heavily on the truck system and the indebtedness of the fishermen. This set of evidence offers even more problems than the use of agricultural data, because it assumes that the Channel Island merchants had a strong monopoly in the sense

free entry could lead to falling catch rates. They observed that during the War of 1812, the cod fisheries "were unusually productive" (House of Assembly of Lower Canada, 1821, p. 14) in excess of 300 quintals per barge compared to the usual 150 to 300 quintals per barge (House of Assembly of Lower Canada, 1821, p. 12). However, the post-1820 proportions mentioned by Ommer (1990) suggest that 150 to 300 quintals remained the norm thereafter with declines beginning only in the post-confederation era (post-1867).

<sup>9</sup> In fact, the state attempted to encourage entry on multiple occasions. For example, the *Montreal Vindicator* carried transcripts of legislative debates in which the region was described as being injured by "a monopoly that existed there which there was no way to destroy but by encouraging competition" (January 10, 1832). One of the members of the legislature proposed bounties to encourage entry against the CRC.

<sup>10</sup> It should be noted that the practice of barter preceded the CRC's as mentions of its existence are found before its arrival in the region (Comeau, 2021, p. 129).

<sup>11</sup> Mimeault (1995) also warns against using other sources describing agricultural practices and output. This is particularly true for observations made by members of the clergy who were locked in a bitter fight with fish merchants (Mimeault, 1995, p. 34, fn3). See also Remmigi (1979).

that competitors could not enter the market. Yet, there are multiple signs that other merchants could enter easily. For example, the *Quebec Mercury* carried ads for cod from merchants in Quebec City who were not associated with the CRC (September 2, 1811; July 28, 1831). Other newspapers frequently carried news regarding other “whale mongers and traders” in the region who appeared to have competed with the CRC (*Quebec Gazette*, March 26, 1829). This suggests the presence of Quebec-based competitors that would have added themselves to the American competition. American vessels registered themselves in Halifax to circumvent navigational regulations (Innis, 1954, p. 279). In 1804 alone, some 300 ships and 10,600 men from the US were involved in the Gulf of Saint-Lawrence (Innis, 1954, p. 222). Between 1790 and 1810, an annual average of 650 Americans schooners went to the coast of the Baie des Chaleurs and Labrador (Innis, 1954, p. 223). In 1824, a newspaper reported that eight American schooners were operating in the Baie des Chaleurs which is where the CRC’s monopoly was supposed to operate (Mimeault, 1995, p. 40). There were “pedlars who touched at each small port and cove” and sold “goods at prices considerably lower than those offered by the large companies” (Lee, 1980, p. 146). This was compounded by former CRC employees frequently entered the trade (using their localized knowledge) by forming alliances with merchants from other regions (Bélanger et al., 1981; Mimeault, 1995).<sup>12</sup>

Moreover, sales of land deeds were controlled by the government of Lower Canada and it is clear that non-CRC individuals were able to buy plots that allowed them to compete with CRC (*Le Canadien*, January 3, 1840; *Quebec Gazette*, July 8, 1830). This created cases where the CRC had competing salting/drying stations in proximity to its own. One case of that for which we have evidence is contained in the court case between George Molloy and the CRC in 1829. Molloy apparently had “his land and tenements” on which he operated a “fishing room with the dwelling house stage (...) in front of the west cove at Percé” (*Quebec Gazette*, March 26, 1829). His “fishing room” was close to one owned by the CRC and by another merchant named Edmond Flynn.<sup>13</sup> In a report to a parliamentary committee in 1830, one merchant named Francois Buteau who was established in Quebec City also reported owning a fishing establishment in competition with the CRC (*House of Assembly of Lower Canada*, 1831, p. T25). In his testimony, Buteau was also asked about the most extensive fishing firms as well as their size. He mentioned the Janvrin and Robin houses – which were intimately linked as we pointed out above – but also added that there were “several others who trade in the upper part of the Bay des Chaleurs, and at the Basin of Gaspé” (*House of Assembly of Lower Canada*, 1831, p. T25). He then quoted the size of the CRC at producing an output of “perhaps ten vessels of 200 tons each every year” (*House of Assembly of Lower Canada*, 1831, p. T25). This proportion cited by Buteau confirms that the CRC was a dominant player but not the single player. At both of the main ports (New Carlisle and Gaspé), the total tonnage cleared

stood at roughly 10,000 tons which places the CRC at roughly 20% of total tonnage (Multiple Editions of the Journals of the House of Assembly of Lower Canada).<sup>14</sup>

All of this suggests that entry was feasible and thus the different fisheries were contestable markets (Baumol, 1982). There are signs that this was a particularly contestable market, as hit-and-runs from American and Quebec City merchants were frequent. As such, contestable entry meant that the price of the goods traded for catch could be lowered — especially if the Channel Islands merchants invited entry by setting prices too high. Historians note that this is exactly what happened when John Le Boutillier began operating in competition with the Channel Islands merchants with the help of Quebec City financial backers (Lee, 1980, p. 156). This is consistent with results that, even with imperfect contestability, potential entry disciplines incumbent firms (Morrison and Winston, 1987). Thus, there was a force present to actually drive down the barter-price.

More importantly, the region’s relatively weak state presence meant that the truck system would have been hard to enforce legally. A fisherman who denied his debt was unlikely to be brought to justice. Using the *Quebec Gazette* which was essentially a governmental legal publication<sup>15</sup> as a source confirms that state enforcement was a weak proposition for the monopolist Channel Islands merchants. Indeed, between 1825 and 1835, it reports only 5 instances of “Charles Robin” and “Gaspé” together — two of which are for the same case being discussed twice. When we drop the name “Charles”, the number increases to 14. Many of the citations are unrelated to asset seizures for delinquent accounts.<sup>16</sup> In her discussion of the credit system, Ommer mentions that the only solution the CRC had was to cut the delinquent fishermen after several years in arrears. This reveals that the CRC knew that local fishermen had exit options, either via seeking out other merchants, or by refusing repayment. The CRC also complained that local fishermen were often able to sell their catch to foreign merchants at higher prices and then simply pay back their debt to the company in cash despite its preference for repayment in kind (Lepage, 1982, p. 89). In fact, the testimonies to the 1830 select committee of the legislature suggest as much. The aforementioned Francois Buteau asserted that less than 10% of all inhabitants were not indebted to the “fishing houses” of the region but then went to mention that there were multiple “fishing houses” (*House of Assembly of Lower Canada*, 1831, p. T25). This suggests that there may have been multiple credit systems in competition (although the evidence from Buteau is not conclusive in that regard). In order to remedy the problem the CRC lobbied for and obtained (in 1829) legal privileges whereby it was deemed to own *all* of the catch of the indebted fishermen (Lepage, 1982, p. 90). However, the colonial legislature backtracked following a strong uproar in the region and the privileges were repealed. This essentially confirms that legal support was weak and that the potential for entry was strong enough to sway the terms of trade (i.e., goods for cod) in favor of the local fishermen. The weakness of punishment mechanisms meant that the fishing houses had to rely on self-enforcement (i.e., fishermen not seeing the need to cheat them).

The third evidentiary problem with the claim that the monopoly was detrimental to the region’s development is with regard to the prices for goods being bartered. Ommer (1989) and Lepage (1992) argue that goods were sold at prices that carried substantial premiums. Ommer states the premiums embedded in barter prices were

<sup>12</sup> This applied strongly from the 1830s onward. One notable case is that of John Le Boutillier who had been a manager in Percé for the CRC (Bélanger et al., 1981, p. 210). While his financial backers from Quebec City dissolved the partnership in 1839, Le Boutillier continued his operations thanks to the contact networks he had developed (Mimeault, 1995, p. 36). Another key example is that of William Fruing who established himself on the side of the Baie des Chaleurs that stood in the colony of New Brunswick in 1830 and he competed vigorously with the CRC (Bélanger et al., 1981, p. 211).

<sup>13</sup> While we know that the CRC was able to seize Molloy’s “fishing room” as the information is contained in a writ of *feri facis* (writ of execution for seizing property), we do not know the context that led to the legal quarrel. However, it is clear that this was a large property (210 ft by 384 ft for the fishing room plus “a lot of land and a stable” in the rear of the fishing room (*Quebec Gazette*, March 26, 1829). This confirms our contention that the state’s arm could only be depended upon for larger disputes. We know, however, from a 1824 notice from the board of land claims in the *Quebec Gazette* (December 23 1824) that Molloy had opened his fishing room in that year.

<sup>14</sup> As we discuss below, the proportion is probably even smaller as there are multiple smaller ports that accepted ships that the New Carlisle and Gaspé reports would not have recorded.

<sup>15</sup> This would include publications of *feri facis* (writs of execution for seizing property) and writs of *venditioni exponas* (sale of seized assets) which would be relevant to the issue of state support for enforcing debts in the region.

<sup>16</sup> Or they refer to robins (i.e., the bird).

usually 25 to 40% higher than the cash price (Ommer, 1989, p. 101).<sup>17</sup> Ommer briefly mentions that they do not account for “isolation and transportation difficulties” (Ommer, 1989, p. 101).<sup>18</sup> Lepage (1982, 1992) cites roughly similar proportions and quotes prices for flour (per barrel) in the region in the winter of 1833-34 (42.5 shillings) and 1835-36 (50 shillings). However, he does not report comparisons with prices elsewhere in the colony nor for goods other than wheat flour. Neither scholar explains how these proportions are measured. We do not know what reference price they used, but it is highly likely that they guesstimated, because continuous retail price series for goods sold in Canada such as salt, sugar, rum, wine, tea, coffee were not available until very recently (Geloso, 2019a). This, as we will see below, is a dangerous omission, as it affects claims of low living standards caused by the monopoly. Most importantly, we are not told anything about wage rates, the purchasing power and the consumption levels of local inhabitants.

Answering each of these problems individually yields a totally different interpretation of what the fishing house monopoly entailed for the region's living standards.

### 3. Evidence about living standards

In this section, we deal with the first problem underlined above—namely that the region was exceptionally poor. The available evidence suggests that it was not. In fact, it may have enjoyed living standards slightly superior to those elsewhere in Canada. We select the period of the 1820s and 1830s for our assessment for two reasons: (1) it is the period which represents the peak of the CRC's monopoly; and (2) it is the period for which Ommer and Lepage provide the most evidence. We make comparisons with two other regions: Quebec and the colonies of Atlantic Canada. This is appropriate because by the 1820s they were all well-settled areas with a heavy focus on sea-based trade (as opposed to other British colonies such as Upper Canada, which was deeper inland). We divide our evidence by indicators.

#### 3.1. Population growth

Preindustrial economies such as the Gaspésie's are heavily dependent on a fixed input (i.e., the sea). In such settings, decreasing marginal returns to labor impose a ceiling on population levels—a Malthusian equilibrium. If, however, the rate of productivity growth at least equals the rate at which returns to labor diminish, then both population and living standards can increase permanently. A rising population level would thus be indicative of rising productivity. This is especially true if population growth is driven by migration, as migrants must choose to move because of more appealing living standards.

We tabulate population changes using population data from the different censuses of British North America. Our data cover four territories: the areas of Gaspé and Bonaventure (the Gaspé peninsula), the neighboring colony of New Brunswick, the colony of Nova Scotia and the colony of Lower Canada. This last colony was responsible for administration of the Gaspésie, and corresponds to the modern-day province of Quebec. Population estimates are available for between 1765 and 1851.

Over this time period, all four territories' populations grew significantly. They did not, however, grow equally. The Gaspésie grew faster than Lower Canada and Nova Scotia in all sub-periods. It also

grew faster than New Brunswick in most sub-periods after 1825.<sup>19</sup> The growth of the Gaspésie population was particularly fast between 1825 and 1851, nearly tripling in the span of 26 years.

Such a rapid pace of demographic growth puts a dent in the argument, as a Malthusian economy could not sustain positive growth rates in the long-run. To be sure, one could reply that land constraints were not binding, but this claim is dubious. First, the population levels of the Gaspésie in those periods were not far from its levels today (north of 90,000). Second, the region's farming areas being quite limited, the sea's productivity in terms of fishing output was the main constraint and the behavior of the CRC (i.e., to aggressively discourage entry) suggests that it was a binding constraint. Most importantly, the region's population grew largely through migration. Indeed, the numbers reported in Table 1 above cannot be accounted for by natural increases in population. Assuming a natural growth rate of between 2.5% and 3%<sup>20</sup> from 1825 to 1851 would leave the population standing at between 12,240 and 13,891. This is significantly below the population level observed in 1851, which means that migration of roughly 7,000 individuals is required to make up the difference. This is important because people moving to the Gaspé peninsula would have required a premium on income to offset the net present cost of moving.

#### 3.2. Wage evidence from the census of 1831

Was there such a premium for moving to the Gaspésie? The best available evidence to test this is the census of 1831 of Lower Canada (Quebec).<sup>21</sup> The census has generally been used to estimate agricultural production (Ouellet, 1972; Geloso et al., 2017) because of its detailed output tables. However, census enumerators were also asked to report daily and monthly wage rates as well as wheat prices in the different localities they visited. This provides a geographical cross-section of wages and prices for some 250 districts in the colony (Geloso and Kufenko, 2019; Geloso and Macera, 2020; Geloso et al., 2023).<sup>22</sup> The wage rates concern farming which, at first glance, may appear to be a limitation given that the Gaspé peninsula was oriented towards the fishery. However, the agricultural wage rates reported in the census are sufficiently similar to the daily fishing wages reported by Ommer (1990, p. 128, 134) (even though she does not discuss them).<sup>23</sup> This similarity suggests that workers could move between sectors so as to cause a convergence in wage rates.<sup>24</sup> In other words, because there

<sup>19</sup> The faster population growth in New Brunswick between 1765 and 1825 was due to the inflow of Empire Loyalists following the American Revolutionary War.

<sup>20</sup> This rate is derived from Quebec's Catholic population (Geloso and Kufenko, 2015). As a result of the conquest of Quebec in 1760, the Catholic population largely grew because of natural increases (migration of Catholics becomes a factor in the 1830s when Irish migrants arrived, first in small numbers, and then in larger numbers in the 1840s). Thus, we can approximate the fertility behavior based on that group.

<sup>21</sup> There are other sources such as teacher's wages across the colony. The average wages for teachers in the Gaspé areas was £28 per annum compared with £26.57 for the rest of the colony (when two clear outliers are excluded, that number falls to £24.16) (House of Assembly of Lower Canada, 1833). The problem is that Quebec as a whole had low literacy rates and schooling was limited. This makes teachers somewhat unrepresentative and the data cannot be used as in other sub-fields of economic history (Mokyr, 1984; Kelly and Gráda, 2015).

<sup>22</sup> Geloso et al. (2017) uniformized wheat measurement units to prevent false comparisons due to the different systems of measurement used by the French and English settlers of Quebec.

<sup>23</sup> They are in fact slightly lower, as the census range is 2.5 to 3.5 shillings whereas the fishing wages reported by Ommer range from 2.5 to 4 shillings between 1826 and 1847.

<sup>24</sup> Lepage (1982) provides indirect evidence to that effect by pointing out that the CRC often attempted to recruit skilled workers near Quebec City to come work temporarily in the region. To attract these workers, the CRC must have offered competitive wages to those in Quebec City (pp. 145–149).

<sup>17</sup> A contemporary observer stated an even higher proportion of 50% (House of Assembly of Lower Canada, 1835, App. BB).

<sup>18</sup> However, from the work of Lepage, we can estimate their magnitude. The cost of wharfage, storage, and loading sat between 2.5% and 5% of cargo value (Lepage, 1982, p. 217). Adding insurance brings the total to 10% (Lepage, 1982, p. 217). As such, the premiums were probably between 15% to 40% rather than 25% to 50%.

**Table 1**

Population Growth and Changes in Gaspé and Bonaventure, Lower Canada, Nova Scotia and New Brunswick, *circa* 1765–1851.

*Source:* The demographic data for Lower Canada, Bonaventure and Gaspé are from ([Public Archives of Canada, 1874](#)), the Legislative Assembly of the Province of Canada ([1844](#), p. G20) and estimates from the *Canadian Times* (January 30, 1824). There are some differences in population estimates in the historical sources. There are alternative demographic data for Gaspé and Bonaventure in the work of [Bélanger et al. \(1981, p. 149\)](#). However, while these numbers differ in magnitude, they do not alter the growth rates significantly. The dates of censuses for New Brunswick and Nova Scotia do not match with those for Lower Canada. In order to compare, we have interpolated based on the compounded average growth rate between census years.

|                     | Gaspé and Bonaventure | New Brunswick | Nova Scotia | Lower Canada |
|---------------------|-----------------------|---------------|-------------|--------------|
| 1765                | 411                   | 1196          | 11779       | 69810        |
| 1819                | 4024                  | –             | –           | –            |
| 1823                | 5030                  | –             | –           | 425965       |
| 1825                | 6441                  | 77796         | 113703      | 479218       |
| 1827                | 7777                  | 85575         | 123630      | 473475       |
| 1831                | 10969                 | 103544        | 147948      | 553134       |
| 1842                | 14176                 | –             | –           | –            |
| 1844                | 15714                 | 168937        | 233992      | 697084       |
| 1851                | 21748                 | 193860        | 276854      | 890261       |
| <b>Δ Population</b> |                       |               |             |              |
| Δ 1765–1825         | 1467%                 | 6405%         | 865%        | 586%         |
| Δ 1825–1827         | 21%                   | 10%           | 9%          | –1%          |
| Δ 1827–1831         | 41%                   | 21%           | 20%         | 17%          |
| Δ 1831–1844         | 43%                   | 63%           | 58%         | 26%          |
| Δ 1844–1851         | 38%                   | 15%           | 18%         | 28%          |
| Δ 1765–1851         | 5191%                 | 16109%        | 2250%       | 1175%        |

**Table 2**

Wage Levels in Gaspé and Bonaventure, 1831.

*Source:* The data are taken from the Appendix to the Journal of [House of Assembly of Lower Canada \(1832\)](#). The eastern portion of Lower Canada is defined as all the sub-districts east of Quebec County (and inclusive of the sub-districts in that county). The data for New Brunswick *circa* 1835 are taken from ([Wedderburn, 1836](#)) The New Brunswick data for 1831 are taken from the *Acadian Recorder* (April 16, 1831) and [Great Britain Parliament House of Commons \(1832\)](#). The wage data for Nova Scotia are taken from the *Acadian Recorder* (January 22, 1831) and the price data are from [Martin \(1843, p. 230\)](#).

| Region                             | Nominal      |            | Deflated by Grain Price |                    |
|------------------------------------|--------------|------------|-------------------------|--------------------|
|                                    | Daily        | Monthly    | Daily                   | Monthly            |
| Gaspé                              | 2.5s         | 47.5s      | 0.25 bu/day             | 4.75 bu/mo         |
| Bonaventure                        | 3.5s         | 50s        | 0.35 bu/day             | 5 bu/mo            |
| Rest of Lower Canada               | 1.89s        | 28.65s     | 0.30 bu/day             | 4.52 bu/mo         |
| Eastern Portion of Lower Canada    | 1.85s        | 24.19s     | 0.29 bu/day             | 3.78 bu/mo         |
| New Brunswick ( <i>circa</i> 1835) | 2.5s to 3.5s | 30s to 40s | 0.35 to 0.50 bu/day     | 3.87 to 5.16 bu/mo |
| New Brunswick ( <i>circa</i> 1831) | 2.5s         | –          | 0.25 to 0.50 bu/day     | –                  |
| Nova Scotia ( <i>circa</i> 1831)   | 2 s to 2.5s  | –          | 0.33 to 0.42 bu/day     | –                  |

existed the outside option of working in fisheries, agricultural wages had to capture the opportunity cost of *not* being involved in fisheries.<sup>25</sup>

The counties of interest to us in the census are those of Gaspé and Bonaventure which were those of the Gaspé peninsula. These are reported in [Table 2](#) below. As can be seen, the wage rates in nominal terms—for both daily and monthly work—are noticeably higher in the Gaspésie than in the rest of Lower Canada. In real terms (i.e., by dividing the nominal wage rates by the price of wheat), the Gaspé peninsula appears equal to Lower Canada when looking at daily wages, and richer when looking at monthly wages. A stylized fact amongst economic historians is that monthly or annual wages are more representative of living standards because they circumvent a key problem in agricultural labor markets, i.e., laborers uncertain of stable employment tended to ask for premiums on their wages if hired on a daily basis. In contrast, annual wage rates do not carry this premium and are thus more accurate representations of the marginal product of labor ([Humphries and Weisdorf, 2019](#); [Stephenson, 2018](#); [Hatcher, 2018](#)). As such, it is more likely that the Gaspé peninsula was richer than the rest of Quebec than simply equal to it. Moreover, comparing the rest of Quebec with the Gaspé peninsula is biased against the latter because it includes the highly productive areas around Montreal (endowed with larger and denser populations, and greater soil quality). Restricting the area compared with eastern Quebec—which had lower land quality and

lower density levels—the comparison appears even more favorable to the Gaspé. Furthermore, comparison with the neighboring colonies of New Brunswick and Nova Scotia reveals that the Gaspé peninsula did equally well. Overall, the region does not appear to have been poor by the standards of the day and, if anything, offered noticeably better living conditions—a finding consistent with the claim that there was in-migration to the region.

Furthermore, other sources suggest higher wage rates in the years other than 1831. For example, [Lepage \(1982\)](#) reports in-kind payments of three shillings per day for ship labourers in addition to unspecified cash wages (pp. 147–148). Ship workers' monthly cash wages—without taking into consideration in-kind payment—varied between 41 and 47 shillings ([Lepage, 1982, p. 152](#)) which is close to the monthly farm servant wages in the census. Lepage also reports a salter's wage at 80 shillings per month (far above the monthly figures in the census) ([Lepage, 1982, p. 152](#)). Finally, it should be noted that a committee of the House of Assembly in 1830 reported that between 300 and 600 workers (i.e., 2.7% to 5.5% of the population of the peninsula) from the south shore of Quebec City found employment in the fisheries of the Gaspésie ([House of Assembly of Lower Canada, 1831, p. T2](#)). To attract workers to temporarily come to the peninsula implies that wages had to be higher than around Quebec City — something that [Table 2](#) confirms.

### 3.3. Non-farm sector

One could reasonably object to the wage data used above by arguing that the census data represent only one point in time. If the timing

<sup>25</sup> These high wages appear consistent with qualitative observations. Notably, farmers further to the southwest boarded ships at smaller ports and “made for Gaspé” to work in the fisheries ([Harris, 2008, p. 253](#)).

**Table 3**

Indicators of Economic Diversity (normalized per 1,000 persons), 1827.

Source: The data are taken from the fourth volume of the census of 1871 that compiled all pre-1871 censuses (Public Archives of Canada, 1874, p. 97). \*The census of 1827 makes clear from the French–English translations that merchants are in fact shopkeepers (a narrower category of middlemen). The Lower Canada values are computed by excluding the Gaspé peninsula from the totals.

|                | Saw mills | Grist Mills | Shipyards | Physicians | Merchants* |
|----------------|-----------|-------------|-----------|------------|------------|
| Gaspé District | 0.64      | 0.77        | 0.90      | 4.11       | 3.60       |
| Lower Canada   | 1.19      | 0.67        | 0.09      | 0.91       | 2.10       |

of the census was particularly fortuitous for the Gaspesian peninsula, then it could lead to a biased comparison.<sup>26</sup> However, there is complementary evidence for other points in time around 1831 that implies a relatively high productivity in the region. The main piece of complementary evidence is the “census”<sup>27</sup> of 1827. This census provides two key pieces of useful information. The first is that it provides a detailed account of the industries present in the different counties—notably the timber and shipbuilding industries. Both industries were important contributors to the region’s economic activity: shipbuilding because of ties to the shipping and fishing industries, and timber because of the readily available trees in the peninsula’s hinterland. Both industries hired large numbers of unskilled workers. Table 3 shows that while there were fewer saw mills (for transforming felled trees into planks) per capita than in the rest of Lower Canada, there were more shipyards relative to the population.<sup>28</sup> This complements the wage data because it shows that there was quite significant demand for unskilled labor outside of the fishing sector.<sup>29</sup>

The second piece of information that the census provides is tied to the occupational structure of the region, notably the number of merchants and physicians whose relative numbers were superior to those

<sup>26</sup> While we do accept this criticism, we only do so for the sake of assembling the most exhaustive set of evidence. If anything, the timing works against the possibility that the region was rich. Production of cod for exports between 1830 and 1832 was well below what it had been between 1826 and 1829 and would be between 1833 and 1850 (Ommer, 1990, p. 109). Thus, if anything, the values presented in Table 2 probably understate living standards.

<sup>27</sup> The quotes are due to the lack of a better term. Joseph Bouchette, the surveyor-general of British North America, produced a two-volume topographical description of the colony (The British dominions in North America; or a topographical description of the provinces of Lower and Upper Canada). Based on data collected by Bouchette, the description was rich enough to warrant inclusion in the fourth volume of the 1871 census of Canada, which itemized and summarized all the pre-Confederation censuses of the British holdings in North America. In other words, it is often considered to be a census.

<sup>28</sup> The census of 1831 does not report shipyards. However, we were able to find some advertisements in Quebec newspapers such the *Quebec Gazette* for ships built in the Gaspé region. For example, in April 1808, Peter Brehaut put up for sale a 43-ton schooner christened the *Raven* which had been built at Gaspé in 1802 (*Quebec Gazette*, April 14, 1808).

<sup>29</sup> Ommer (1990) presents evidence to the effect that the region was not diversified, but it hinges on households reporting their main occupation (Ommer, 1990, p. 108). The problem with this is that it assumes a single occupation rather than pluriactivity. As Geloso (2019b) and Courville (2009) document, employment in multiple sectors was the norm, such that relying on reported occupations does not accurately reflect the fraction of total labor inputs employed in other sectors. This is particularly problematic in agrarian economies where farmers claim agriculture to be their main employment source while earning a sizeable of their income from non-farm work (Lewis, 2001). Evidence specific to the Gaspésie suggests that many people had multiple trades—“farmer and whaler”, “millwright and farmer”, “farmer and cooper”, “farmer and miller”, etc. Legislative Assembly of the Province of Canada (1844, p. G76–77). Similar evidence is found for the 1830s in testimonies to the select committee of the House of Assembly charged with investigating economic conditions in the Gaspésie. Some witnesses, such as Abel Lucas, reported being both a fisherman and a farmer (House of Assembly of Lower Canada, 1831, p. T9).

observed in the rest of the colony. This speaks to the level of services available to the local population. It is unlikely that an exceptionally poor region would have high availability of medical services (especially as this represented a normal-luxury good). Yet, the Gaspé peninsula had four times the density of medical services observed for the rest of the colony. This reinforces the claim that the region was not comparatively poor.

### 3.4. Consumption

The most convincing complementary set of evidence is derived from the imports and exports tables of the different appendices to the Journal of the House of Assembly of Lower Canada. The appendices annually reported a breakdown of imported goods by port of entry into the colony. This allows us to separate the rest of Lower Canada (represented by the ports of Quebec, Montreal, and Saint-Jean) from the Gaspé peninsula (represented by the ports of Gaspé and New Carlisle) and to compare consumption levels of key imported goods.

Although they are a highly imperfect measure of living standards, imports per capita have frequently been used by economic historians (Egnal, 1975; Gwyn, 1998; de Vries, 2008; Hersh and Voth, 2011; Rousseau and Stroup, 2011; McCusker and Menard, 2014). This is because expansion in import volumes act as an imperfect proxy of economic expansion and consumption (de Vries, 2008; McCusker and Menard, 2014). In our case, this assumption is quite plausible as the virtual totality of daily consumption items such as alcohol, sugar, salt and molasses, tea and coffee needed to be imported.<sup>30</sup>

There are, however, two issues associated with the import data. First, the numbers for some goods will likely lead us to underestimate consumption in the Gaspesian peninsula. This is particularly true for rum, sugar, tea and coffee. This is because the CRC often bought these goods in Quebec City and Halifax (House of Assembly of Lower Canada, 1831, p. T2) – where they had already been taxed and thus recorded in customs reports for these ports – and hired schooners to bring those to the Gaspesian peninsula (Lepage, 1982, p. 212). Ships from the rest of the colony did not have to pay fees for entering or clearing ports (House of Assembly of Lower Canada, 1831, p. T16).<sup>31</sup> As such, some of the imports at Quebec City are actually consumed in the Gaspésie. For example, in 1841, the CRC hired six schooners to bring 1,850 pounds of tea from Quebec City (Lepage, 1982, p. 216). These re-exports from Quebec City within the colony would not have been recorded in tables for Gaspé and New Carlisle. The schedules of imports and exports for 1841 report 2,339 pounds of tea being imported at both ports (Legislative Assembly of the Province of Canada, 1843, App. S.S. No. 3,4). If we assume that the examples of CRC purchases of tea that Lepage gives are comprehensive (they are not)<sup>32</sup> and include them with

<sup>30</sup> According to Geloso (2019a), the weight of sugar, alcohol and salt in the consumer price index stood at 21% (he had no estimates for molasses and he did not include coffee and tea). This gives these goods a predominant weight on total consumption.

<sup>31</sup> Moreover, it would have imported them at smaller stations where no records were kept because the state had not yet built customs houses to collect duties. For example, it appears that numerous imports were entering at the port of Percé which is why legislators argued there was a need to open additional customs house in the region (House of Assembly of Lower Canada, 1831, pp. T5, T16). Other docking places such as Paspébiac, Carleton and Newport were apparently available to eschew dealing with customs officials (House of Assembly of Lower Canada, 1831, p. T7). Finally, there is the need to mention that smuggling was a much larger issue in that region than elsewhere in the colony (Harvey, 2016, p. 30). As a result, we believe that the consumption numbers are bound to suggest less consumption in the peninsula.

<sup>32</sup> We know there are not because of the select committee report of 1830. In that report, the collector of customs reported that 64 vessels (18,327 tons) had brought imported goods directly but that there were 96 ships (3,904 tons) which had brought goods from Quebec City (House of Assembly of Lower Canada, 1831, p. T28). That number is far larger than that reported by Lepage.

tea imports from the schedules to arrive at a total, this implies that the import tables underestimate tea consumption in the Gaspésie by at least 40%. Relaxing the assumption that Lepage's list is comprehensive would only increase that proportion. However, this works *against* our claim. Indeed, the bias suggests that we should find *less* consumption in the Gaspésie than there truly was. If we find an advantage for the region with the flawed data, we can be confident that there really was an advantage.

Second, there is the issue transit through the Quebec ports. The geography of Canada is such that ships carrying goods from Britain or its Caribbean holdings would enter by the Saint-Lawrence river and they would then have to unload certain goods. It was at that point that the goods would enter the tables of imports and exports. They would then be loaded onto smaller ships and carried downriver to reach the Great Lakes and the populous colony of Upper Canada (modern-day Ontario). Upper Canada was growing rapidly in both demographic and economic terms (Lewis and Urquhart, 1999). By sheer virtue of the transit through ports such as Montreal and Quebec City, the volume of imports destined for Upper Canada would enter as Lower Canada's imports.<sup>33</sup> As such, there is a need to subtract the portion of imports that were consumed elsewhere. To do so, we employed a report in the appendices of the Journal of the House of Assembly for 1815 regarding imports in 1814. It provides the share of goods re-exported to Upper Canada. We took these values and divided them by the population of Upper Canada at that juncture. Assuming that per capita consumption remained stable over time, we were able to create a population-adjusted share of imports that went to Upper Canada.<sup>34</sup> In turn, we are able to recreate the consumption levels in Lower Canada to achieve a fair comparison with those of the Gaspé peninsula. We took the ten year period from 1825 to 1835 which centers at 1830.<sup>35</sup>

Table 4 reports these consumption levels per capita for six key import goods: molasses, rum, coffee, tea, salt and muscavado sugar. The first column shows the level for the ports of the Gaspésie whereas the second shows those for Lower Canada. For four of these six goods, the Gaspé peninsula exhibits higher consumption levels. The third column shows the ratio of consumption of the rest of Lower Canada over the Gaspésie. As can be seen from this column, some of the differences are quite large. However, one of these differences needs to be contextualized. Because it was a key industrial input in the cod trade, salt was bound to be imported in exceptionally large quantities. Nevertheless, the results for sugar, molasses and rum suggest relatively high living standards. As indicated above, our calculations are biased against the Gaspé because of smuggling, the unreporting of some

<sup>33</sup> The ports of the Gaspé peninsula are not affected by this issue.

<sup>34</sup> This assumption works against us. The work of Lewis and Urquhart (1999) and McCallum (1980) and McCalla et al. (1993) suggests that it is more likely that there was an increase in per capita income in Upper Canada throughout the period. Rising standards of living suggest rising per capita consumption levels. As such, a more realistic assumption regarding Upper Canada's consumption level would only lower the level of consumption in Lower Canada.

<sup>35</sup> However, the imports tables have a gap for 1828. We should also note that in the process of revising this paper, we spotted something strange in the tables of trade for 1831. The appendices of the *Journals of the House of Assembly of Lower Canada* normally provide a clear mention of exports and imports "at/from" a port. This is made to allow breakdowns of the destinations/origins of trade. For example, the reports for the Quebec City port will include all the destinations and origins of goods. This will include some other Canadian ports (generally under the heading of British North America) including some ports *within* the colony. However, in the 1832 appendix that reports for 1831. The word "at" is absent for the Gaspé and New Carlisle entries which made us realize that this could be imports into Quebec City *from* these ports. We were unable to be sure of whether this was a printing problem or if this was a genuine entry. As such, we excluded 1831 from our computations. When they are included, the differences are small, but we prefer to err on the side of caution.

**Table 4**

Average Consumption Per Capita, 1825–1835.

Source: The data are taken from the appendices of the Journal of the House of Assembly of Lower Canada from 1825 to 1836.

|                         | Gaspé | Lower Canada | Ratio (Lower Canada/Gaspé) |
|-------------------------|-------|--------------|----------------------------|
| Molasses (gl/pc)        | 0.50  | 0.17         | 0.34                       |
| Rum (gl/pc)             | 0.82  | 0.69         | 0.84                       |
| Coffee (lb/pc)          | 0.08  | 0.15         | 1.75                       |
| Tea (lb/pc)             | 0.09  | 1.18         | 12.92                      |
| Salt (lb/pc)            | 4.17  | 0.49         | 0.12                       |
| Muscavado Sugar (lb/pc) | 1.95  | 1.29         | 0.66                       |

key imports and the assumptions regarding the adjustment for Upper Canada's share of imports (see footnote 34). As such, Table 4 presents a rather conservative estimate of the Gaspesian living standards. Any relaxing of the assumptions we made or improvement to the quality of the data would only improve the Gaspésie's relative position.

#### 4. Sharing rents

The evidence marshalled above is particularly damning for the claim that the fishing monopoly was detrimental to development. Everything suggests that the Gaspé peninsula was a region either on par with, or superior to, comparable areas. Consider the truck system which was supposed to have tied the peasants into bonds of indebtedness. This mechanism hinges on the assumption that the local population had no other sectors to work in. However, the wage data suggests that wages in agriculture (a major source of alternative employment) were similar to those in fishing while the size of the shipbuilding and timber industries was not negligible. This is problematic because a key claim of monopoly behavior is that payments for factors of production should reflect monopoly status—which is not the case here, as wages appear to equalize across sectors. To this must be added the fact that we demonstrated above (in Section 2.3), that entry into the fishing trade was entirely possible. This would have acted to weaken the system of the bonds of indebtedness to the monopoly (or allowed fishermen to work for multiple merchants at once thus driving down prices of goods being bartered). Moreover, we also showed that legal punishment of debt delinquency and for working for other firms was a difficult proposition.

But this leaves open one question: how did the Jersey merchants get such a large share of the market? The answer we propose is that they shared the rents of the monopoly with the peninsula's inhabitants as a means of deterring competition. As long as they were able to share these rents to a sufficiently large extent (bounded by the fixed cost of entry to contestants), they could make it unappealing for new entrants to incur the fixed costs of entry (which were non-zero). This would have secured their monopoly. This sharing meant that they kept *some* of the rent associated with their monopoly, but significantly less than if they had a legal monopoly with state-backed enforcement.

How can we document this sharing? By dealing with the claim made by Ommer that prices offered in the truck system were high. The sharing could have been made by offering relatively lower prices for goods and wares under the truck system. As we pointed out above, this claim was weakly documented (both in terms of what goods and what reference point) and Ommer made it clear that she did not adjust for transportation cost differentials. Unfortunately, price evidence for the Gaspésie is quite limited. Beyond the wheat price data reported above, there is little to nothing. However, the data amassed in Section 3 is sufficient to circumvent that issue.

Consider the following demand function for each of the goods in Table 4:

$$q_{i,g} = p_{i,g}^{\alpha} p_{j,g}^{\beta} y_{i,g}^{\gamma} \quad (1)$$

where  $q_i$  is any of the goods traded by the CRC,  $p_i$  is the price of these goods,  $p_j$  is the price of substitute goods not traded by the CRC (this

**Table 5**  
Price Ratios (Lower Canada as share of Gaspésie).

|                 | (a) Baseline            | (b) Adjusting for Underreporting |
|-----------------|-------------------------|----------------------------------|
| Molasses        | 3.89                    | –                                |
| Rum             | 0.85                    | –                                |
| Coffee          | 0.25                    | –                                |
| Tea             | 0.01                    | 0.38                             |
| Salt            | 22.36                   | –                                |
| Muscavado Sugar | 1.25                    | –                                |
|                 | (c) Tripling Salt Share | (d) Unique Income Elasticities   |
| Molasses        | 4.34                    | –                                |
| Rum             | 0.95                    | –                                |
| Coffee          | 0.28                    | 0.35                             |
| Tea             | 0.42                    | 0.48                             |
| Salt            | 8.88                    | –                                |
| Muscavado Sugar | 1.40                    | 1.50                             |

would include wheat for example) and  $y$  is income. The function is subject to the condition to the sum of  $\alpha$ ,  $\beta$  and  $\gamma$  being equal to zero. The data marshalled in the previous section allows us to obtain the  $q$  for goods  $i \in$  (molasses, salt, tea, coffee, rum, muscavado sugar). All six goods are substitute foods to wheat ( $j$ )—whose price we also possess as a result of computing the grain-price deflated wages in Table 3. We define  $y_i$  as  $\theta_i \times m$  where  $\theta_i$  is the share of income ( $m$  for the wages) devoted to each good and  $m$  being provided by the wage estimates in the census of 1831. The subscript  $g$  is for the Gaspésie region. Solving the above identity for  $p_i$  gives

$$p_{i,g} = \left( \frac{q_{i,g}}{p_{j,g}^\beta y_{i,g}^\gamma} \right)^{\frac{1}{\alpha}} \quad (2)$$

This re-expression allows us to generate prices for goods  $i$  if we reorganize every term in (2) as ratios of Lower Canada to Gaspésie. This gives us Eq. (3) below

$$\frac{p_{i,lc}}{p_{i,g}} = \left( \frac{\frac{q_{i,lc}}{q_{i,g}}}{\left( \frac{p_{j,lc}}{p_{j,g}} \right)^\beta \left( \frac{y_{i,lc}}{y_{i,g}} \right)^\gamma} \right)^{\frac{1}{\alpha}} \quad (3)$$

where the subscript  $lc$  refers to Lower Canada. The numerator in Eq. (3) are the ratios of consumption per capita from Table 4. The first term of the denominator is the ratio of wheat prices in Lower Canada to the Gaspésie (taken from Table 3) whereas the second is the ratio of the income (adjusted for share on good  $i$ ) between the two regions (also taken from Table 3). The left-hand side of the equation gives us the ratio of prices between both regions. To simulate a first set of ratios, we assume  $\alpha = -0.6$ ,  $\beta = 0.1$  and  $\gamma = 0.5$  which are commonly used elasticities by economic historians for estimating economy-wide demand systems (Allen, 2000; Abad and van Zanden, 2016; Ridolfi and Nuvolari, 2021). We also assume that  $\theta_i$  is the same for each goods for both Lower Canada and the Gaspésie. This gives us column (a) in Table 5 below. As can be seen from the resulting price ratios, prices must have been lower for three out of six goods in the Gaspésian peninsula. However, two of the six results appear strange. The first is the result for tea which suggests that the price of tea in Lower Canada was 1% of the price in the Gaspésie – a highly implausible result. The second is that price of salt in Lower Canada must have been 2236% of the price in the Gaspésie – also a highly implausible result.

As we explained in Section 3, we believe that the result for tea (and maybe coffee and sugar as well) is due to the nature of the consumption data. Indeed, large quantities of imports of tea were bought in Quebec City by fishing houses. These quantities had already been taxed and recorded in Quebec City and thus were not reported or taxed again when they entered the ports of the peninsula. Moreover, some quantities might have been imported at the smaller ports of the peninsula where no customs houses existed to record import of goods from abroad (i.e., those that did not transit from Quebec City). How can we account for this? An imperfect solution consists in joining the

details provided by Lepage (1982) and the House of Assembly of Lower Canada (1831). The former reported a partial list of six ship voyages chartered by the CRC from Quebec City that brought enough tea to the Gaspésie to increase consumption by 40% of what the official records reported. The latter reports that 96 ships had left from Quebec City to the peninsula in 1829. If we conservatively assume that three quarters of the ships did not carry tea,<sup>36</sup> that they all performed a single voyage<sup>37</sup>, and that the remainder carried the same quantity of tea per hold as the six ships for which we have data in 1841, we get that 7,400 pounds of tea could have been imported but not included in the ratio from Table 4. This would bring the consumption from 0.08 pounds to 0.85 pounds per inhabitant of the Gaspésie. Subtract the 7,400 pounds from the Lower Canada estimates to arrive at a adjusted ratio of consumption for both regions of 1.36 instead of 12.92 (as in table 4). In column (b) of Table 5, we replicated column (a) for tea but with the adjusted ratio of consumption and find a more plausible figure that the price of tea was three times higher in the Gaspésie. The assumption we made above are conservative and thus we believe that the proportion was probably closer to parity.

Secondly, the assumption of  $\theta_i$  being the same across region fails to reflect the exceptional importance of salt as a commodity for the Gaspésie. Salt being a key input into the fishing industry (and the consumption of fish), the Gaspésian population was bound to devote a greater share of its income to salt than the rest of Lower Canada. To produce more a more realistic set of theta, we use the weights proposed by Geloso (2019a) as representative of the rest of Lower Canada. We then alter and redistribute the weights proportionally after raising the share of salt in the basket to thrice (from 3.4% to 10.2%) its level in order to depict the Gaspésie. This proportion is arbitrary as we were unable to find any empirical evidence of sufficient quality to determine what share of expenditures went to salt. However, given that the consumption levels are so high (4.17 pounds per capita versus 0.49 in Lower Canada), we believe that this tripling is a highly conservative assumption. Replicating column (a) for all goods (except for tea where we used the figures we got for column (b)) with the adjusted budget shares gives us column (c). As can be seen, making this adjustment brings the price of rum nearly on par for both regions such that four out of six goods are either cheaper or equally cheap as in Lower Canada.<sup>38</sup>

One could object to our choice of elasticities. The problem is that we have no estimates of price elasticity specific to Canada. However, historical sources suggest that our assumption of own-price elasticities of  $\alpha = -0.6$  for coffee, tea and sugar is within the range found for multiple countries (Mokyr, 1988; Mokyr and Gráda, 1988) (between  $-0.3$  and  $-0.7$ ). However, the income elasticity we used ( $\gamma = 0.5$ ) is probably too low. We were unable to find income-elasticities for molasses, rum and salt. However, there exists estimates for the remaining goods (Clark et al., 1995, p. 224) and they are all higher than our assumed elasticity.<sup>39</sup> If we replace our assumed income-elasticity with those estimates, keep the own-price elasticity assumption and reweight the cross elasticity under the constraint that all elasticities should sum to zero, we can create column (d). In that last column, we keep the changes in budget shares from column (c) and the adjustment for under-reporting for tea in column (b). As can be seen, changing these elasticities does not dramatically affect our baseline results. The main issues seem to be tied to underreporting and the issue of the expenditure shares. Fortunately, the limitations of our data actually

<sup>36</sup> It is a conservative assumption because we are omitting the possibility of imports of tea from other ports such as Halifax.

<sup>37</sup> Which is unlikely as ships could easily do two to three voyages per season given the distance.

<sup>38</sup> Any unrecorded imports of rum to the region would eliminate the remaining gap.

<sup>39</sup> For sugar, tea, and coffee, the estimated income elasticities are respectively 0.79, 1.05 and 1.51. These are for British workers in the 1830s.

play against finding an advantage for the Gaspésie such that our results must be overestimating prices in the region.

While this is a crude approach to estimating whether the monopoly shared its rents by reducing prices in the truck system, it is nonetheless suggestive that the pattern is not the one described by Ommer (1990) and Lepage (1992). In fact, because of its misinterpretation, both fail to realize that their evidence actually confirms the claim of lower prices that we make.

For example, the only price for sugar reported by Ommer is six pence per pound in 1826 (Ommer, 1990, p. 128). The appendices to the 1830 Journal of the House of Assembly of Lower Canada reported purchases of sugar at six pence per pound (House of Assembly of Lower Canada, 1831, App. S). Other sources suggest prices that were even higher elsewhere in the colony.<sup>40</sup>

The same is true for the flour price evidence advanced by Lepage (1992) who cited a price in the winters of 1833-34 and 1835-36 that increased from 42.5 shillings to 50 shillings per barrel. These may appear high, but they are winter prices, which tend to be higher than the annual averages or harvest-time prices used by historians (Dechêne, 1992). When compared with other winter price levels, the prices in Gaspé compared favorably with those elsewhere in Quebec. A report dated from Quebec Fire Office from February 1834 cited the price of a barrel of flour at 37.5 shillings per barrel (Quebec Mercury, April 5, 1834). The Farmer's Magazine reported a price at Quebec varying from 52.5 to 60 shillings per barrel in January 1836 (Anonymous, 1836b, p. 241).<sup>41</sup> Winter prices were also higher in Halifax (Nova Scotia) than in Gaspé (Anonymous, 1836a, p. 403) (60 shillings per barrel). Overall, it appears that the region actually quoted similar or even lower prices than comparable cities in British North America. Given that transport costs would have added close to a shilling per barrel (Pedersen et al., 2020) and that nominal wages were higher, this suggests that real prices were comparable (if not lower) in the region.

There is thus very weak evidence for saying that the barter price was exceptionally high. How do we reconcile it with the findings in Table 5? The answer is tied to the mechanism of the barter system. Generally, truck systems (and company stores) come with some premiums (Ommer, 1989)—premiums that reflect the fact that there was a risk involved for the lender. Thus, an interest rate was embedded in the price paid by the Gaspésians. In contrast, people in Lower Canada did not have such a barter system and so the prices there reflect the money-price only. Stripping the barter price of six pence per pound of sugar reported by Ommer from an interest rate of 20% (for the sake of illustration) would bring the price for sugar paid in-cash in the Gaspésie to 4.8 pence (implying a ratio of Lower Canada to Gaspésie prices of 1.25—a proportion closer to that in Table 5). In other words, the premiums that are found by Ommer (1989, 1990) and Lepage (1982) suggest that—all else being equal—prices were lower in the Gaspésie. This is thus consistent with our claim that some part of the rents associated with a monopoly on an open access resource was shared with the local population.

The sharing of the rent from a monopoly on the fisheries was the key mechanism to deter entry. It tied the local population to the monopoly not by virtue of the bonds of indebtedness, but rather by low-price debt. As long as the incumbent was able to share the rents to an extent sufficiently large to prevent other competitors from entering and recouping their fixed costs (i.e., entry cost), the monopoly would preserve itself. In the process, this would explain the relatively favorable living conditions of the Gaspesian population at the time.

<sup>40</sup> On July 26, 1830, the *Quebec Gazette* reported prices of 7 pence per pound and on July 22, 1831, the *Quebec Mercury* reported prices of 6 to 6.5 pence per pound. In Montreal, the prices were even higher at close to 7 to 7.5 pence per pound (*The Vindicator and Canada Advertiser*, July 6 1830). In fact, prices of imported goods from Europe were always dearer as one moved west from Quebec City and towards Montreal.

<sup>41</sup> This is consistent with newspaper reports that the price of flour had been particularly high in the mid-1830s due to recurrent crop failure (e.g., *The Vindicator and Canadian Advertiser*, May 27, 1836).

## 5. Conclusion

Multiple claims have been made that the monopoly that emerged in the fishing industry of the relatively stateless Gaspésie in the first half of the nineteenth century 1) prevented overfishing, and 2) deterred economic development in the region. The second of these claims is based on shaky empirical and theoretical foundations. The possibility of entry by other fishing vessels, the presence of other industries competing for rival inputs, and a weak state presence all made it hard for the monopoly to persist unless it was somehow able to deter entry in a viable way. We argue that the main mechanism by which the monopoly staved off entry was that it shared rents with local workers in the form of lower barter prices. The causes of the region's relative poverty should thus be moved forward in time and away from the beginning of the fish processing monopoly. More importantly, the Gaspé peninsula circa 1830 provides an illustration of how private arrangements to deal with commons problems can emerge in the presence of a weak state. Far more importantly, we also provided robust comparisons that private governance in the presence of a weak state can yield living standards that match or surpass those of societies with strong states. As such, we add to the growing literature regarding outcomes under statelessness or in the presence of weak states.

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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