PERSPECTIVE

The Wood Processing Industry: Walking a Tightrope

The wood processing industry is going through a number of changes. Until recently, softwood lumber prices had shattered previous highs. In 2018, skyrocketing prices suddenly came crashing down. The question now is, will history repeat itself in 2020? Once again, it's a tough time for the wood and pulp and paper industries and they have to work hard to maintain some stability in the face of shifting prices, trade wars, supply chain problems, insect pests, fires and fluctuating demand to name but a few of the challenges. Should the pandemic still be around next year, 2021 may generate a lot of turmoil, just like 2020. Once again, it will take the talents of a tightrope walker to survive.

The Importance of the Forest Industry in Quebec

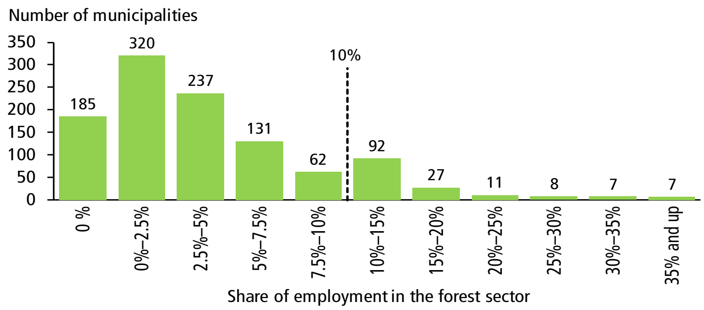
A lot of attention has been focused in recent years on digital technologies because they work, they drive change, they offer limitless possibilities and they're everywhere. At the same time, age-old economic activities, such as the forest industry, carry on and continue to keep communities alive. Based on the research carried out by the Ministère des Forêts, de la Faune et des Parcs (MFFP), estimates indicate that, at the end of the 2010s, the forest industry directly employed roughly 60,000 salaried workers in nearly 2,000 companies located throughout Quebec.[1]

The forest industry can be broken down into three groups. According to the MFFP's research, the industry initially consisted of forestry and supporting businesses (18% of the industry's jobs), followed by the manufacturing of wood products (sawn lumber, veneer, plywood and other wood products) (50% of the jobs) and, last but not least, mills producing commercial pulp, paper, paper board and converted paper products (e.g., bags and toilet paper) (32% of the jobs).

According to MFFP estimates, the forest sector was active and generated economic benefits in at least 902, or 83%, of Quebec's municipalities. Based on the ministry's calculations, in 2015, 10% or more of the salaried jobs in 152 municipalities depended on the forest sector (graph 1).

The Bas-Saint-Laurent administrative region had the highest number of municipalities (33) with a high concentration

GRAPH 1
Quebec: number of municipalities based on salaried employment in the forest sector



Source: Ministère des Forêts, de la Faune et des Parcs, adapted from Statistics Canada, 2016 Employment Income (based on 2015 data)

of employees working in the industry (table 1 on page 2). Chaudière-Appalaches came in second with 28 municipalities, followed by Abitibi-Témiscamingue with 20. Table 1 shows that there 14 out of 17 regions in Quebec had municipalities where 10% or more of the salaried jobs were based in the forest industry. In short, there are still many workers and municipalities that rely heavily on Quebec's forest industry for jobs. This article will focus more on wood, pulp and paper processing than on forestry as such.

Roller-Coaster Prices

In recent years, the softwood lumber and plywood markets can best be described as chaotic. Record prices were smashed last summer and fall. Even the spectacular levels seen in the summer of 2018 were surpassed. The question is: How did it get to that point?

[1] Ministère des Forêts, de la Faune et des Parcs, *Importance du secteur forestier dans le développement économique des municipalités et des régions du Québec*, May 2019, p 8.

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TABLE 1

Quebec: Distribution of the 152 municipalities dependent on the forest sector according to administrative region

ADMINISTRATIVE REGION	NUMBER OF MUNICIPALITIES IN WHICH THE FOREST SECTOR ACCOUNTS FOR 10% OR MORE OF TOTAL SALARIED JOBS
Bas-Saint-Laurent	33
Chaudière-Appalaches	28
Abitibi-Témiscamingue	20
Estrie	17
Saguenay–Lac-Saint-Jean	15
Centre-du-Québec	8
Outaouais	7
Laurentides	6
Gaspésie–Îles-de-la-Madeleine	4
Mauricie	4
Côte-Nord	3
Montérégie	3
Lanaudière	2
Nord-du-Québec	2
TOTAL	**152**

Source: Ministère des Forêts, de la Faune et des Parcs, adapted from Statistics Canada, Employment Income, 2016 (based on 2015 data)

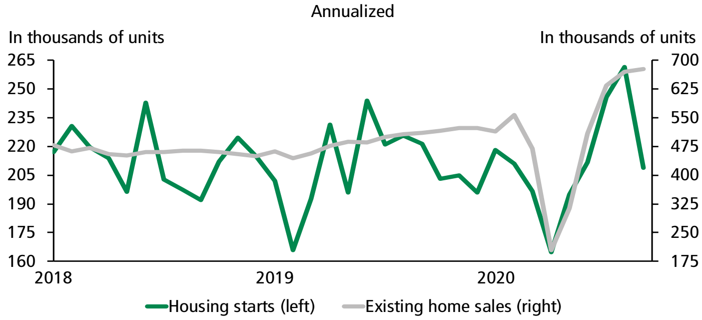
It all comes down to several factors coming together. The pandemic and the slowdown on construction sites around North America in March and April led sawmills to limit their production primarily to wood chips to supply pulp and paper mills. During this time, many people were stuck at home. Some had time on their hands, others had put money aside to travel or take a vacation that could now be used for other things.

As a result, renovating became all the rage. The demand for 8-foot long 2x4s, used mostly in renovations, literally jumped, pushing prices higher. All of this was happening while production remained stuck in the slow lane at the sawmills. The lifting of the lockdown in Quebec and Canada and the economic recovery in North America quickly caused the number of housing starts and home resales to skyrocket (graphs 2 and 3). In the United States, the popularity of single-family dwellings is breaking records set more than 13 years ago.[2] And it is these homes that are using the most softwood lumber (more than twice that of multi-family homes). It's easy to imagine a sharp increase in demand for materials for new construction, but existing home resales have also created a need for renovations. In fact, in June, July and August, renovations were in full swing.

Similarly, garden equipment and supply store sales were up somewhat in June and July. A comparison with 2019 and previous years speaks volumes (graph 4). Higher softwood lumber and plywood prices may have inflated sales figures, but

GRAPH 2

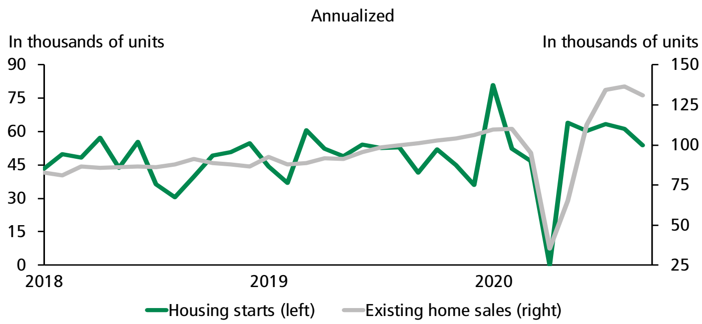
Canada's housing market skyrocketed after the lockdown was lifted



Sources: Canada Mortgage and Housing Corporation, Canadian Real Estate Association and Desjardins, Economic Studies

GRAPH 3

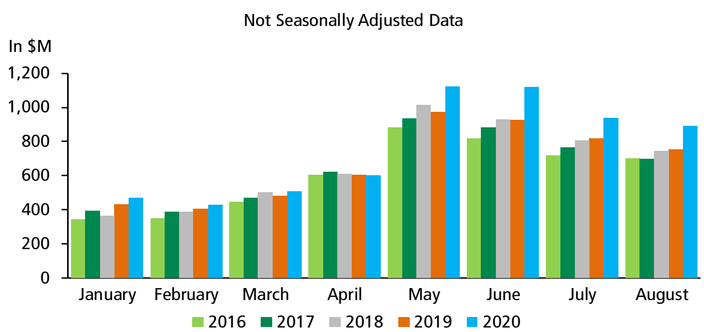
Housing starts and existing home sales rebounded after Quebec temporarily lifted the lockdown



Sources: Canada Mortgage and Housing Corporation, Canadian Real Estate Association and Desjardins, Economic Studies

GRAPH 4

Quebec: Garden equipment and supply sales jumped in May and June 2020



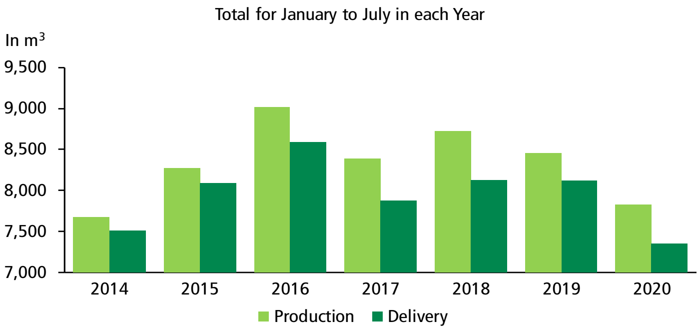
Sources: Statistics Canada and Desjardins, Economic Studies

they aren't the only reason for the hike. The material shortages noted here and there are proof of the urge to renovate.

Despite the urgent demand, graph 5 on page 3 shows that, in Quebec, the volume of wood produced and delivered was less in 2020 than in 2019 if we add up the first seven months of the

[2] Building permits for single-family dwellings surpassed the 1-million unit mark in August 2020 for the first time since May 2007. Sources: U.S. Census Bureau and Conseil de l'industrie forestière du Québec.

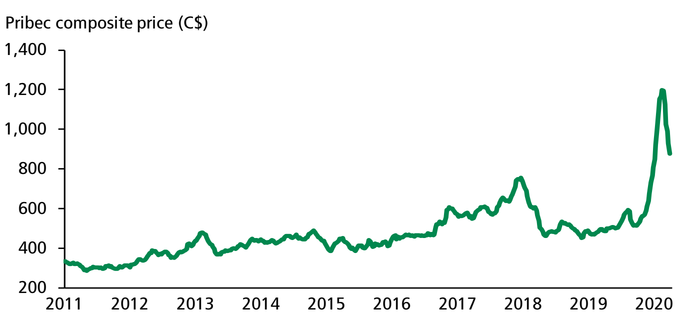
GRAPH 5
Quebec: Production volumes and deliveries of sawn wood fell during the first seven months of 2020 compared to 2019



Sources: Statistics Canada and Desjardins, Economic Studies

year. With stocks extremely low and demand rising ever higher, prices have literally soared (graph 6) to double what they were a year ago and have clearly beaten the records set in the summer of 2018. And, if we add to this a particularly active hurricane season, it will be a seller's market. Plywood prices followed the same trend.

GRAPH 6
Softwood lumber prices that literally soared are now falling



Source: Conseil de l'Industrie forestière du Québec

To illustrate the effects of this phenomenon, the National Association of Home Builders in the United States estimated that, between mid-April and the end of August 2020, the average price of a single-family dwelling increased US$16,000 and the average price of a condominium rose US$6,000.

As the lockdown was lifted, we saw a V-shaped recovery for sawtimber and oriented strand board (OSB). Things have calmed down in recent weeks, with softwood lumber and plywood prices gradually falling. How quickly prices drop remains to be seen and will depend on a bunch of factors, including what happens next with the pandemic.

It's Not Just about the Sawtimber

Still, a healthy forest industry is not based solely on a leap in softwood lumber prices. It's much more complicated than that. First, it's important to understand that all this feverish activity is temporary. A good year doesn't suddenly sweep away all the previous, difficult years, just as it doesn't erase the mills' financial history.

Furthermore, the sawtimber industry isn't the only one changing: It's one link among many that make up the forest industry. And sawtimber means wood chips. We can't ignore the fact that square beams are being cut from round tree trunks. Even the best cutting tools can't deny this. Something has to be done with the chips that result from the sawing, and they're a major source of revenue for sawmills. In good times or bad, more than half of the wood that enters a mill leaves it as chips, sawdust and/or shavings.

What happens to the wood chips? They're used to produce different things, albeit mostly papermaking pulp, but also pellets, which are a source of energy when burned. It's no secret that the demand for printing paper has been declining for decades. The arrival of the internet has led to the gradual dematerialization of the economy. The offshoring of some manufacturing to Asia, environmental concerns and the shutdown of many newspapers are just some of the factors that have also contributed to the gradual decrease in the demand for newsprint, printing and writing paper, especially in North America, where most of the opportunities for local mills are found.

Still, the arrival of COVID-19 and the lockdown measures have accelerated this drop, so much so that some people feel that the current demand is between five and ten years ahead of the expected decline. The pandemic also caused mills to shutter throughout Quebec. Knowing that a pulp and paper mill worker's average weekly wage ($1,438.60) was one and a half times higher than the average wage in Quebec in 2019 ($965.08), we can only surmise that some towns felt the impact of the lost income more than others. Of course, not all of these shutdowns are permanent, and some mills have even fired up a few of their machines again, but the fact remains that business has slowed down as the wait for markets to reopen continues.

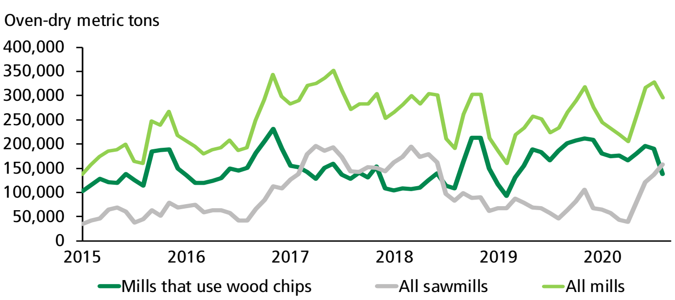
It's true that the drop in demand for newsprint is nothing new. However, it intensified when companies cut back on their spending on advertising, especially in dailies, weeklies and flyers on the heels of a shift that began earlier. Furthermore, copies of the dailies that restaurants bought for their customers no longer had any takers as dining rooms closed for several months. Additionally, the demand for printing paper suddenly fell because of teleworking and schools suspending classes in the spring. This, and the lack of interest in these types of paper, explains why mills that produce thermomechanical pulp (roughly 10 in Quebec) are running out of steam.

Fortunately these aren't the only types of paper. The future lies in chemical or kraft pulp plants. The manufacturing process helps take advantage of the cellulose fibre and its exceptional qualities. It's used to produce goods that are increasingly in demand: toilet paper, sanitary products and food packaging to replace plastic to name but a few. The cellulose filaments help reinforce certain papers or other materials, such as paint and even cement. Global demand for this type of pulp is forecast to grow between 2.5% and 3.2% annually in the next few years. Quebec has five such mills, including one in Windsor, one in Saint-Félicien, one in La Tuque and one in Témiscaming. The last one to reopen in 2020 is a thermomechanical pulp mill located in Lebel-sur-Quévillon that was converted to use the chemical (kraft) process 15 years after it closed.

Therefore, successful sawtimber operations are linked to successful pulp and paper mills. Meanwhile, the paper industry itself is in transition, converting machinery, switching processes and diversifying markets to respond to the changing demand. Nonetheless, there's still the problem of what to do with the wood chips. Many sawmills are dealing with growing stocks. Graph 7 illustrates how the sawmills' wood chip stocks rapidly began to rise starting in April, reaching levels in August like those in 2017, which led to serious storage problems. Furthermore, graph 8 shows that the estimated revenue from wood chips expressed in today's dollars is fairly low, especially compared to the last 15 years.

Aside from the money, managing the wood chips is also subject to environmental standards. Over time, storing huge amounts risks can't only contaminate ground water, but also the air.

GRAPH 7
Wood chips have been piling up in Quebec's sawmills since the spring

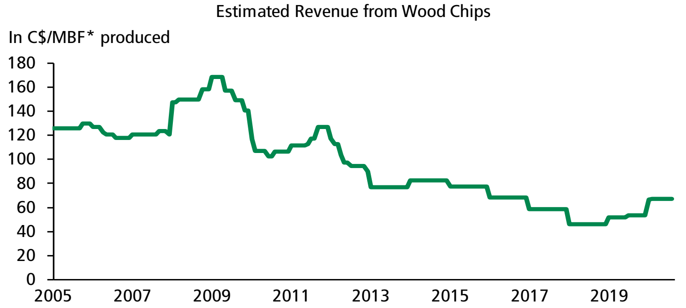


Sources: Inventaire mensuel de copeaux SEMP au Québec, August 2020, Association des producteurs de copeaux du Québec and ministère des Forêts, de la Faune et des Parcs

The Softwood Lumber Dispute

What about the softwood lumber dispute? Tariffs were slapped on exports of Canadian softwood lumber to the United States in 2017. The first review occurred in September 2019 following a decision by the Binational Panel of the North American Free Trade Agreement (NAFTA) Secretariat. It ruled that the United States International Trade Commission did not have sufficient grounds for concluding that Canadian softwood lumber was harming the U.S. industry. The United States then had three months to review its approach. Last spring, the NAFTA panel on harm accepted the ruling that the U.S. industry was being harmed. This first step doesn't prove anything. The current tariffs are under review, and the results of the first administrative review will be made known on November 24.

GRAPH 8
Quebec: All things considered, the revenue from wood chips remains fairly low compared to the last 15 years



* MBF: thousand board feet.
Sources: La Dynamique des Produits forestiers, August 2020, Association des producteurs de copeaux du Québec and ministère des Forêts, de la Faune et des Parcs

At the end of August this year, the World Trade Organization (WTO) delivered its decision in favour of Canada, which had filed a complaint against the United States. Canada had won, but the United States decided to appeal. Still, extreme patience is called for because the Appellate Body can't meet. The United States, along with India and Japan[3], currently refuses to appoint anyone to this committee.

Canada has also a filed a complaint under NAFTA. For now, the panel ruling on countervailing duties has not yet been composed, while the anti-dumping panel is still waiting for the first panellist. In short, there will still be a lot more water under the bridge before rulings are made and negotiations begin from a new starting point. This only adds to the general air of uncertainty.

A Forest Regime in Transition

There are other elements that make up the overall picture of all the wood, pulp and paper industries. One of these is the Quebec Forest Regime. It sets out the conditions under which public forests can be developed. It's currently being updated in follow-up to a major change to the regime in 2013, with a new version expected this fall. A lot of things were changed in this version dating back to the 2010s, including forest planning and timber marketing to name but two.

[3] François DESJARDINS, Bois d'oeuvre : l'OMC donne raison au Canada, *Le Devoir*, August 25, 2020.

In terms of marketing timber, the Bureau de mise en marché des bois or timber marketing board, was created "to set up a free market for timber from the State's forests . . ." Accordingly, 25% of the available volume was auctioned off. This mechanism has its share of restrictions and is one of the industry's grievances against the current forest regime. The sawmills argue that the current system adversely affects the businesses' operational predictability and, indirectly, investments in operational productivity.

It's hard to say what the new forest regime will look like in the end. Still, governments have shown that they are sensitive to the predictability of harvesting operations and to stumpage fees. There is little doubt that businesses working in the forest industry will also have to adapt to new ways of doing things in the months to come.

As 2020 Ends and 2021 Begins

How does the end of 2020 look? If this year can be described as economically unpredictable, it's also unpredictable in terms of how softwood lumber and wood chip prices will change. In recent weeks, timber prices have fallen as demand from the North American housing market cools and timber stocks start to rebuild.

Current softwood lumber pricing levels, even if they're somewhat down from their highs, are unsustainable, especially for secondary and tertiary processors. Furthermore, they're forcing construction sites (new and renovations) to shut down while offering European producers a significant and attractive opportunity as they deal with an infestation of insect pests the likes of which British Columbia had seen a few years ago. Surplus European timber could find its way to this side of the Atlantic despite the high shipping costs and the need to adapt metric measurements to imperial. The possibility of European imports would hasten the move to lower prices that has already begun in North America.

In the pulp and paper industry, which is a big consumer of wood chips, the major trends already in place would continue: less newsprint, more speciality products. In the short-term, it's impossible to know what the extent of these changes will be. Producers are trying to adjust to markets that are also transitioning.

How the pandemic evolves (we're currently in a second wave) could also cool the demand for timber and paper quickly and chaotically. A lockdown much like the one last spring may seem unlikely, but tighter health restrictions could force changes that would impact the industry (e.g., closed restaurant dining rooms on the need for newspapers). Uncertainty remains regarding the demand for wood and paper products and the direction prices will take in a changing environment.

Furthermore, the operations of different forest industries are so closely linked that the challenges that one of them faces will have an impact on the others like a domino effect. Should the pandemic still be around next year, 2021 may generate a lot of turmoil, just like 2020. Once again, it will take the talents of a tightrope walker to survive.

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