Perspective

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The forest industry: Things are looking up

The forest industry is in the process of redefining itself. The last decade has been trying in many respects. However, business is picking up, both in the forest and in the mills. It is far from the past records, but the trend is on the upside. The industry is turning the corner, both economically, thanks to the resurgence in the American housing sector, and structurally, thanks to the wide range of new products that are under development. After languishing in the doldrums, the industry is about to perk up by seeking ways of making optimal use of wood fibre. The future has arrived, and both researchers and industry players are taking the gamble of putting wood components to uses that were not even guessed at 10 or 15 years ago: here's how.

AN INDUSTRY THAT HAS COME A LONG WAY

In the first decade of this millennium, the forest industry was faced with the collapse of the American housing market, the draconian slump in demand for certain types of paper, the dematerialization of the economy thanks to the Internet, the fierce trade war with the United States over lumber, the redefinition of forest use, the calling into question of operating practices and the reduced logging opportunities on crown lands, not to mention rising competition in markets that were thought to be secure. Clearly, the decade that just ended has been devastating for the Quebec industry, and has left us with a picture of a sector in decline.

In terms of employment, the industry is still keeping plenty of workers busy: 10,755 jobs in the forest, 26,964 in wood products and 25,058 in pulp and paper in 2011. Since April 1, 2005, Quebec mills manufacturing wood products, pulp, paper and wooden furniture have lost 16,530 jobs according to a report issued by the province's Ministère des Ressources naturelles. Yet, with its 52,022 workers in wood products and pulp and paper, the industry accounted for 10.7% of Quebec's manufacturing jobs in 2011. That's nothing to sneeze at. Moreover, in some communities, this industry hires nearly all of the available labour force, be it in the mills or in the forest.

ON AN UPHILL OR A DOWNHILL TRAJECTORY?

Is the worst behind us? As far as lumber is concerned, the answer would seem to be yes. The number of indicators showing a recovery is slowly increasing. Prices, production and exports to the United States have picked up steam just recently. With respect to prices, the upturn is perceptible and is consistent with the rise in housing starts in the United States. The price (Pribec[1]) was $474.31/bf (board foot) in 2002, on average, and it bottomed out at $306.22/bf in 2011. It surged by 16.7% in 2012 ($357.39/bf).

In terms of production (graph 1 on page 2), the improvement observed in 2012 was welcome after the pronounced slump that had held sway since 2005. As for exports to the United States, an upturn was noted in 2011 (graph 2 on page 2), but was followed by stagnation in the following year. Despite this increase, we are still far from the record levels seen at the beginning of the 2000 decade. Given the higher prices, we may assume that the value of exports rose last year.

[1] This is a composite price representing all products. It reflects each product according to a different weighting, e.g. 2 x 4 x 8 studs headed for the Great Lakes represent 24.7% of the composite price. The Pribec composite price is a combination of 15% Toronto green and 85% Great Lakes dry. This year it was changed to 15% Montreal dry and 85% Great Lakes dry, because green wood is used less and less.

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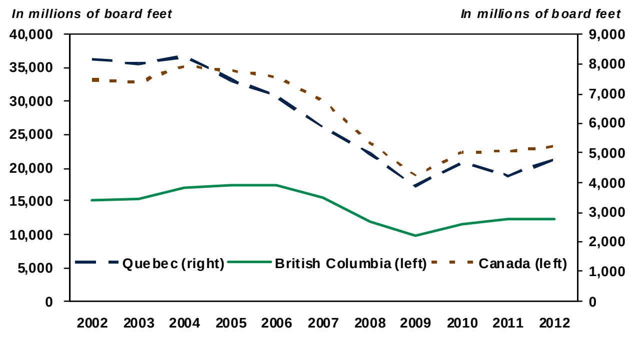
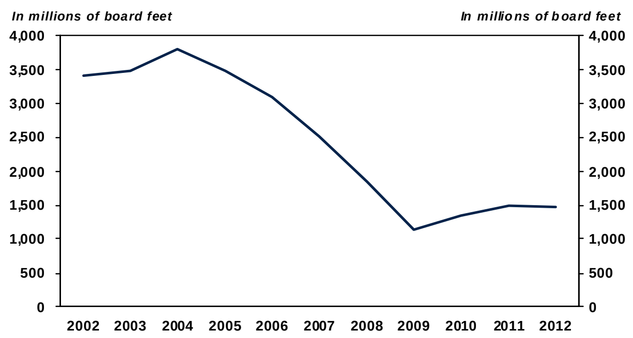
Graph 1 – Softwood lumber production is slowly picking up



Source: Quebec Forest Industry Council, L'INDEC – 2012 – The YEARBOOK

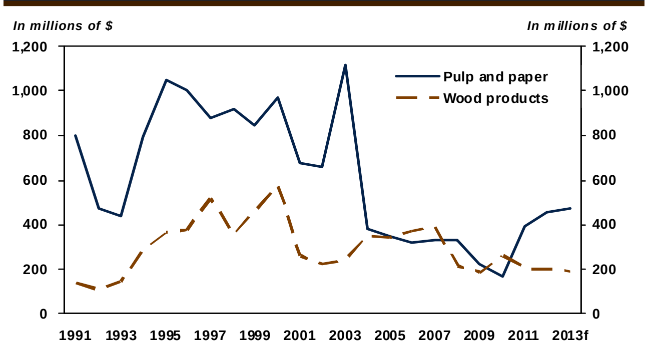
Graph – Softwood exports are far below their peak



Source: Quebec Forest Industry Council, L'INDEC – 2012 – The YEARBOOK

With respect to investments, we note that they are also far from their past peaks (graph 3). We must take into account the permanent closure of 145 wood product mills between April 2005 and 2013. In the pulp and paper sector, investments have escalated since 2010 despite the numerous closures that have occurred over that same period.

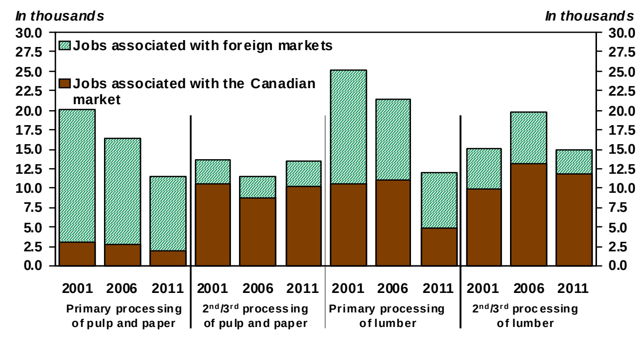
Graph 3 – Investments: Marked differences between wood products and pulp and paper



Source: Statistics Canada

In pulp and paper, the value of shipments has dropped considerably between 2002 and 2011. The proportion of exports in total shipments has oscillated between 64% and 69% over that decade, a less spectacular range of fluctuation than we have seen in lumber, where it plummeted from 45.1% in 2002 to 29.4% in 2011. However, this sector is confronted with a gradual waning of traditional demand (for newsprint and printing paper) which, unlike the case of lumber, is not temporary. As far as job numbers are concerned, they have edged up to some degree more recently, thanks entirely to secondary and tertiary processing activities (graph 4).

Graph 4 – Employment has fluctuated more in primary processing



Note: Jobs were distributed based on degree of processing and destination of shipments.
Sources: Statistics Canada and Institut de la Statistique du Québec

Have the forest industry's recent disappointments left it bereft of future prospects? Certainly not. However, the conditions it will be facing are a far cry from those it was used to during the 20th century.

THE TIMES, THEY ARE A-CHANGIN'

Upheaval: that word sums up the transition period that the entire forest industry is now going through. The changes are legion, and affect all levels of the industry. Having a supply of wood to offer is no longer all it takes to find a buyer for it. As far as lumber is concerned, the collapse of the American housing market in the middle of the 2000 decade sent prices plunging and caused its share of mill closures. At the same time, British Columbia found itself faced with huge quantities of lumber to sell off due to an infestation of insect pests which precipitated the harvesting of trees. The market was literally flooded with supply, which sent prices tumbling. On the economic front, the convalescence of the American housing sector will be a long one.

At the same time, we note that traditional materials and products are less popular than they used to be. The demand is changing: pre-assembled products, which provide builders with ready-made solutions that save costs at the building site, are increasingly sought after (secondary and tertiary processing). But we must not delude ourselves into thinking that everything will revert to the way it was before. Too many parameters have changed for the conditions that existed at the start of the millennium to re-materialize. The markets are changing, players are regrouping and an increasingly avid search for added value in every log is changing ways of working.

In the pulp and paper sector, the plunge in demand is far less driven by the economy and has more to do with changes of a "sociological" nature. For example, the digitization of the economy via the Internet in particular has considerably reduced the use of newsprint and printing paper. Many analysts assert that this decline is irreversible. On the other hand, demand for less traditional products (cardboard, tissue paper, commercial pulp, etc.) is better standing the test of time. There is increasing discussion of getting more out of the wood fibre, and exploiting its multiple possibilities.

THE RULES OF THE GAME HAVE CHANGED

Variations in demand are only one part of the changes affecting the industry. Expanding supply all around the world (in Asia and South America in particular) is also making itself felt. Besides making inroads in markets that had been taken for granted, foreign competition is forcing local industry players to increase their productivity and to invest in order to reduce their production costs.

On top of all this upheaval, a new forest regime took effect in Quebec on April 1 of this year. The *Sustainable Forest Development Act*, passed in 2010, changes the way Quebec forests are managed. The main goals are to ensure the longevity of the forest heritage, promote ecosystem-based management as well as integrated and regionalized resource management, support the viability of forest communities and sell wood on a free market at a price that reflects its market value, to name just a few. The impact will be wide-ranging. One of the major developments of the reform now underway is that the government department is responsible for forest management plans; this responsibility was formerly delegated to the companies that harvested crown lands.

Among the key changes, we note a new method for allocating logging territories. Henceforth, 25% of the available timber on crown lands will be marketed by auction in all parts of Quebec. In the past, 100% of the timber was allocated to the logging companies by means of timber supply and forest management agreements. The "Quebec timber marketing board" has been set up to run these auctions. Also, the price that is established by this mechanism will be used by the government to set the value of guaranteed supplies (the remaining 75%). One of the goals of this new method of assigning stumpage rights is, on one hand, to continue maintaining some security of supply for the mills and, on the other hand, to give more companies access to crown lands through auctions.

So far, industry leaders have expressed fears of a possible rise in prices. The allocation mechanism still needs to be fined-tuned across Quebec, although trials have been carried out in certain parts of the province in recent years. To what extent might this new way of doing things shift industry players' demand to privately held forests? (There are over 130,000 owners of forest lands in Quebec.) This remains to be seen; there are still many unknowns. In the meantime, it is to everyone's advantage to take good care of the resource. While the demand for wood products is likely to change, we will still need good quality trees to satisfy it.

There is still some turmoil in the industry, not only in the demand but also in the supply. All this hesitation could quell industry leaders' enthusiasm and lead them to hold back on their investments for a few more quarters. Meanwhile, the Canadian and Quebec housing markets are in a slowdown, providing no encouragement to maximize production for the sake of domestic demand. Lastly, the bad press that the industry has received, both in the forest and in the mills, is making recruitment difficult at a time when the labour force is rapidly aging. All these factors are casting a shadow on the horizon of the Canadian market, just when the American market is starting to recover, at least as far as wood products are concerned.

LOOKING TO THE FUTURE AS IF IT WERE ALREADY HERE

There are grounds for hope for the forest industry. Many people are working hard, not only to re-establish the prestige of wood, but to shine a spotlight on the properties of the fibre in order to find more uses for it. To that end, Quebec has set up an organization to promote and support increased use of wood on international markets: the Quebec Wood Export Bureau. In addition, the Quebec Wood Charter, introduced this spring by the Quebec government, will promote the use of wood in the construction of buildings. These are just a few examples of actions that have been taken. Numerous industry associations are striving to restore the pride of a sector that sorely needs it.

Meanwhile, work is ongoing on all fronts. Just recently, the Quebec and Canadian governments signed agreements to ensure the sustainable management of Quebec forests, in terms of silviculture in particular ($24 million for one year). One of the challenges facing the industry going forward is that it must take into account the limits that are being imposed on the quantities of available wood substance, in order to meet environmental requirements. In such conditions, making more efficient use of wood fibre makes perfect sense.

Making better use of the resource is a broadly shared intention which is already being put into practice through the development of new processes and products using wood. Pursuing this goal should also enable the forest industry to become less dependent on the economic cycle of the housing market. The applications affect both sawmills and pulp and paper mills. They even go beyond that framework to create business opportunities in the area of capitalizing on the forest biomass to produce energy.

As far as sawmills are concerned, this means that they will have to invest in technology and undertake to manufacture new products. Cost-cutting efforts must also continue, given the growing competition. The labour force will also have to be trained, as it is a stakeholder in these changes. For companies that are involved in secondary and tertiary processing, the challenges are just as great. The promotion of wood as a building material and consumers' positive bias towards eco-friendly products like this one should help. But these factors are only part of the equation. We must continue to innovate in order to find solutions to make builders' jobs easier at work sites. We must also stress the advantage of factory assembly, in optimal conditions, and promote the cleverness and all the benefits of the new ways of doing things.

On the pulp and paper side, we must not count on increasing demand for traditional products. Therefore, the necessity of reducing the supply will lead to further closures of machines and mills. However, the research conducted in recent years gives hope of other things besides production halts. There have been some inspiring examples recently of a rebirth of certain facilities. In Alma, for instance, they have succeeded in producing paper that uses less fibre than conventional paper. In the Outaouais, kraft pulp will be used to produce rayon, a textile fibre that competes with cotton. This is not a brand-new technology, but rising cotton prices will make it marketable in the years to come. In Windsor, crystalline nanocellulose[2] will be used to develop forest nanoproducts that will find applications in pharmaceutical products, food additives, advanced or so-called "smart" packaging materials, innovative bioplastics, security paper and cosmetics, to name just a few.

The forest industry can also help produce energy using processes that optimize the forest biomass. Densified wood (such as wood fibre pellets and logs) and biodiesel (fuel for commercial transport vehicles) are just two examples. The possibility of producing oils that could replace heavy fuel oil is also being discussed. There are plenty of avenues to be explored. The industry has been giving this matter a good deal of thought for some time now. In 2011, in collaboration with FPInnovations, it published the *Future Bio-pathways Project*, a comprehensive investigation of the opportunities to produce a wide range of bio-products from wood fibre.

NOT ONLY TRUMP CARDS, BUT BOLDNESS TOO

The forest industry definitely has trump cards in its hand. For one thing, the situation is improving thanks to the recovery of the American housing market; the industry has yet to get back to cruising speed. For another, during the rough patch that lasted from the mid-2000 decade to the beginning of this decade, the industry worked to investigate the new opportunities that current technological developments are opening up for it. Some concrete achievements have been realized that will soon turn the efforts that have been made so far to good account. Obviously, lumber and pulp and paper production will not disappear. But the industry will have to work together with other economic sectors to develop innovative products and serve new markets. The conversion is underway. Boldness, combined with innovation, are being called in as reinforcements.

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[2] "NanoCrystalline Cellulose (NCC) is the primary structural building block of trees and other plants, and can be economically extracted from the wood fibres of Canada's vast forests - an abundant and renewable resource." (source: www.Celluforce.com)