



## Forest Sector Remains a Vital Economic Engine for BC

### Highlights

- The BC forest products sector remains an important source of high paying jobs and is one of the province's leading economic engines.
- The relative size of the forest industry has diminished gradually over time, but BC's forest products cluster is still the largest in North America.
- Forest products are the number one export category for the province and a key reason why BC's export base is geographically diverse.
- Because of the mountain pine beetle, the amount of timber available to harvest is poised to contract, which will lead to consolidation and shrinking in the size of the wood products industry.
- Far from being a sunset industry, the forest sector is highly innovative and utilizes advanced technology. The BC industry has exceptionally high environmental standards and is sustainably managed.
- The industry faces rising costs and other competitive challenges. Because of the sizable economic footprint and contributions of the forest products cluster, government must focus on establishing a climate that supports renewed investment in the forest sector.

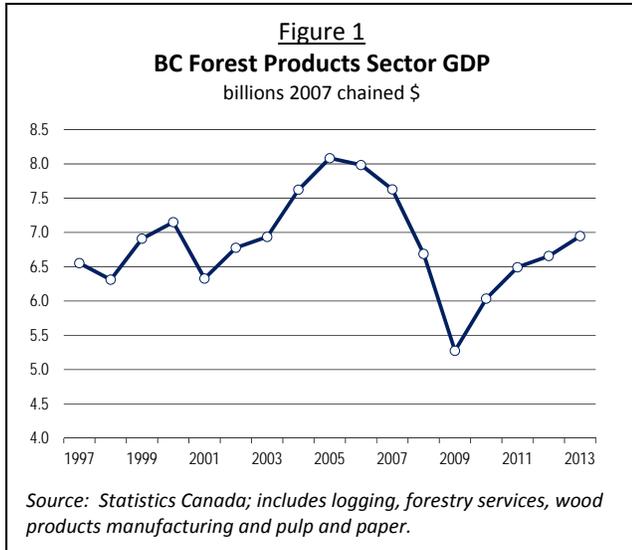
British Columbia's forest industry is an integral part of our economy and remains one of the most important economic engines for the province. It generates tens of thousands of jobs directly and supports many more jobs in other sectors that sell goods and services into the different elements of the forest products cluster.

There was a time when BC's economy rose and sank on the fortunes of forestry. The provincial economy is now more diversified, which is a positive development. Although its relative economic footprint has diminished with the expansion of numerous other industries, the forest sector is still large enough to have a material impact on provincial economic growth. Critically, forest products are the largest source of export

earnings for BC. And the industry is the economic backbone of dozens of communities all across the province.

The good news is that amid an uncertain global economic backdrop, the near-term outlook for the forest sector is quite encouraging. The ongoing, multi-year recovery in new residential construction in the US will boost the demand for wood products and other building materials and support product prices in North America. This upswing will be further reinforced by the lower Canadian dollar, which makes BC's forest products more competitive in the American marketplace. The BC industry is also benefiting from the success it has had in diversifying into offshore markets in China and other parts of Asia. In light of these

favorable conditions, a fresh look at the BC forest sector’s economic significance is timely.



**Overview of the BC Forest Sector**

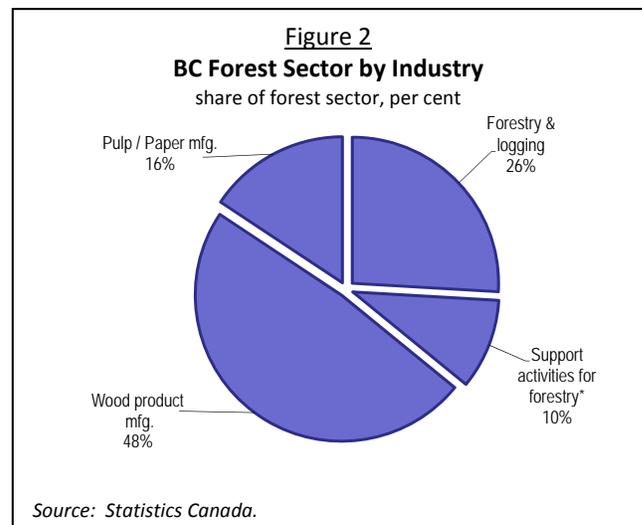
The provincial government owns 95% of the land in BC and therefore exercises control over the majority of forest resources.<sup>1</sup> Industry relies on the government, in the form of land tenure, for access to the resource, and in turn pays the government for harvesting trees. The very high proportion of public ownership of forest resources coupled with private industry’s dominant role in harvesting the fibre is unique in North America.

Another important feature of BC’s forest sector is that it is integrated. The logging and harvesting industry and forestry management (replanting and managing forests) feeds into the lumber and other wood products industries. At the same time, the by-products from wood manufacturing

<sup>1</sup> However, essentially all Crown land in BC is subject to unresolved aboriginal claims, which can serve to

(as well as lower quality logs) provide fiber for BC’s pulp and paper industry. In the North American Industrial Classification System (NAICS), forest sector economic activity is tracked and reported in four distinct NAICS industries. But the practical reality is that in BC these four industries are inter-related and make up what we like to refer to as the “forest products cluster.”

Another important feature of the forest sector is that most of its component parts are very capital intensive. Heavy equipment is used to harvest trees which are then transported to sophisticated, high-tech manufacturing facilities. Massive investments have been made in BC lumber producing facilities to drive unit costs down and expand output. Pulp mills are also very capital intensive. The large amount of capital equipment used in the forest products cluster means that most parts of forestry consist of high productivity facilities and sub-industries that pay comparatively high wages and benefits.



fetter the province’s authority to manage both land and resources.

The wood products industry is divided into two main regions, the coast and the interior. The coast produces a wide variety of higher-value products from larger diameter logs and sought-after species, such as douglas-fir and western red cedar. Fibre costs are high in the coast region, and the industry focuses on making products that maximize value from the scarce forest resource. By volume, the majority of BC's timber harvest comes from the interior. Much of this is processed in large, advanced manufacturing facilities.

While the near-term outlook for the industry is bright, over the medium-term the aggregate size of BC's forest industry will contract due to imminent reductions in the annual allowable cut (AAC). By 2016, the mountain pine beetle infestation in the interior is projected to have infected or destroyed 58% of the harvestable lodgepole pine in the province. As a result, the total AAC will decline by 20% from historical norms. This reduction in timber supply will result in higher fibre costs, as sawmill, panel, pulp and paper, wood pellet and bioenergy operations compete for a diminished supply of timber and some communities in the interior are buffeted by consolidation and closure of certain facilities. On the upside, however, a strong pricing environment (and a Canadian dollar that likely will continue to trade in the US 80 cent range) should help to keep BC operations profitable and limit the job losses associated with a smaller AAC. Note that because of the extended growing cycle of interior trees, the AAC is not expected to return to its historic norm until 2080.

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<sup>2</sup> Measured in 2007 dollars.

### **The Forest Sector's Economic Footprint**

By any measure, the forest products cluster remains one of the province's dominant economic engines. In value-added terms, the sector's GDP in 2013 amounted to \$6.8 billion.<sup>2</sup> About one quarter of this comes from logging while nearly half is from the manufacturing of wood products (mostly lumber, but also plywood and other panel boards and some specialty products). Pulp and paper production makes up about 15% of the sector's total value-added, while another 10% comes from support activities for forestry.<sup>3</sup>

As is evident in Figure 1, output in BC's forest products cluster is cyclical and was well above normal during the years when the US housing bubble was inflating. After the US housing bubble burst, GDP for the BC sector tumbled from more than \$8 billion to \$5.2 billion. The downturn would have been even steeper if BC wood product exports to China had not increased sharply during this period.

Back in 1997, forestry directly accounted for about 5% of total economic activity (real GDP) in the province. Even though the industry grew in the mid-2000s, the sector's share of total economic output slipped to about 4.5%, as other industries in the province expanded. The downturn in the wood products industry stemming from the US housing bust pushed forestry's share of GDP down to 3% in 2009. With the expansion and recovery in recent years, that figure has climbed back to 3.5% and it may edge higher over the rest of the decade thanks to buoyant lumber markets. Over

<sup>3</sup> Note the industrial category for support activities for forestry includes support activities for agriculture as well.

time the proportional size of the forest sector has fluctuated, but generally trended lower.

A somewhat smaller share of total economic activity should not be interpreted as meaning that forestry’s economic importance to BC is in the past. The true picture is more complicated.

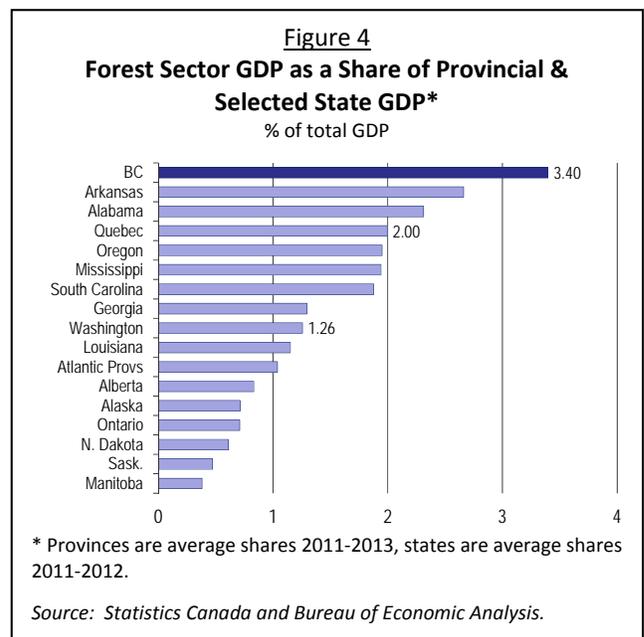
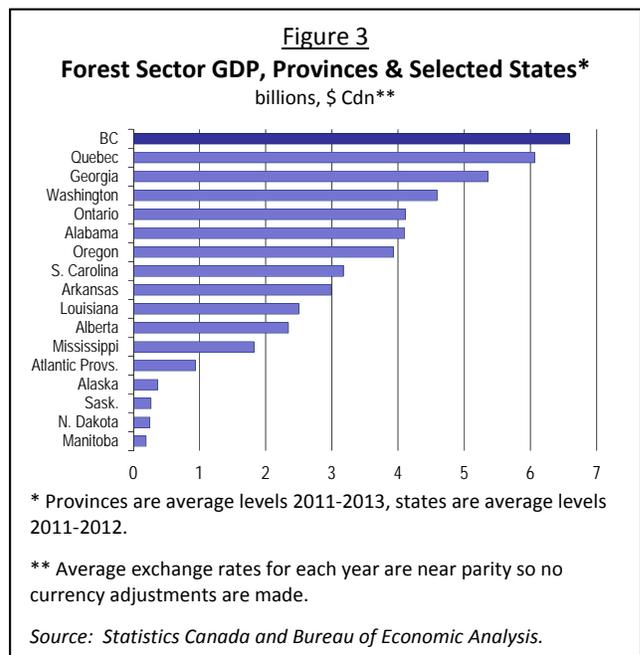
British Columbia’s economy has become more diverse and complex, but the forest products cluster is still very significant and makes an outsized contribution to the province’s overall prosperity. Some data and comparative metrics help to underscore this point.

BC is the biggest source of softwood lumber in Canada. In 2013, BC’s production was 12.7 billion board feet of lumber, representing just over half of Canada’s total softwood lumber production. The vast majority of this production is shipped to other countries with around 53% of exported lumber going to the United States, 25% to China, 13% to Japan, and smaller shares to other markets. BC is also home to three of the four largest forest products companies in North America.

Broadening our comparisons to include the US and looking at value-added economic output, BC’s forest sector stands out as the largest in North America. As shown in Figure 3, the GDP of the BC forest sector is larger than that in any other province or state with substantial forestry operations.

In considering the proportional size of the forest products sector, which is a more meaningful metric for evaluating comparative size, forestry looms even larger in BC than in other jurisdictions. In recent

years, forestry’s direct contribution to, or share of, the provincial economy has been ~3.5%. Among relevant US states and other provinces the next largest share is Arkansas (2.7% of total state GDP). In Quebec, whose economy is larger than BC’s, forestry accounts for a more modest 2% of provincial GDP.



To summarize, BC's forest products cluster is the largest in North America in both absolute and proportional terms. When governments ponder economic development strategies, the starting point is frequently to identify the industries where a jurisdiction already has a comparative advantage. Both historically and today, BC has a substantial comparative advantage in the forest products sector and related downstream activities. Thus, it makes good economic sense for government to take steps to nurture and support the sector.

Another important measure that speaks to the economic importance of forestry in BC is employment. Collectively, the different segments of forestry directly employ more than 63,000 individuals in the province.<sup>4</sup> Those who work full-time in the sector receive hourly wages and employment incomes that are well above the all-industry average.

### **Spin off Benefits are Also Significant**

It is impossible to discuss forestry in BC and not touch upon the interconnections and linkages between forest products and other parts of the economy. The forest products cluster purchases goods and services from a vast array of businesses across the province. Industry participants procure a range of services, including accounting, environmental, banking, engineering, insurance, consulting, information technology, and customs services. Forest products companies also purchase maintenance services and inputs of machinery and equipment. In many instances local

companies are initially formed to manufacture equipment for near-by forest products firms and then subsequently expand to sell and export their products and related expertise to other jurisdictions.

Forest products companies are also major purchasers of BC transportation services, electricity, and other inputs such as seedlings, fertilizer and other forestry related items and services. Transportation services are especially significant as the industry relies on road, rail and waterways and port infrastructure to move wood products and pulp and paper throughout the province and to international markets. In 2013 the forest industry utilized 245,000 rail cars to ship products to US destinations, which amounted to almost 15% of all single mode railcars loaded in Western Canada in that year. Similarly, the forest industry shipped 14 million metric tonnes through BC ports in 2013. In the case of Port Metro Vancouver, forestry accounted for 8.5% of all cargo shipped and half of all laden export containers handled in 2013.<sup>5</sup>

Tracking these linkages and adding up the associated employment impact, the forest industry in BC supports another 82,000 jobs beyond the industry itself.<sup>6</sup> Adding up the direct and indirect employment, more than 145,000 British Columbians owe their livelihoods to the province's forest products cluster.

### **A Critical Part of BC's Export Economy**

The defining economic characteristic of exporting is that it provides a vital external

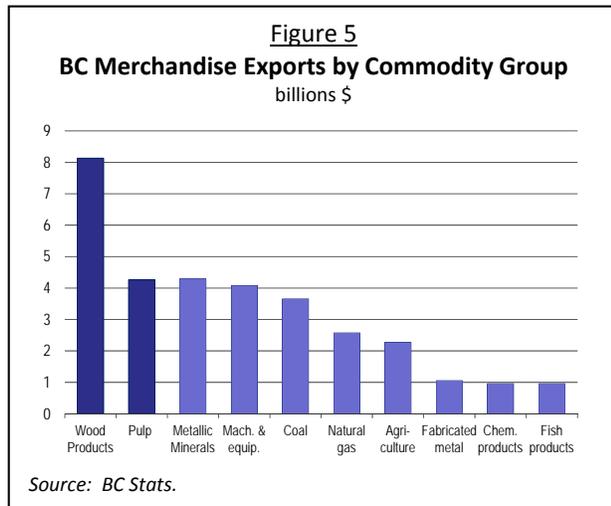
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<sup>4</sup> BC Forest Industry Economic Impact Study, MNP, (January 2015).

<sup>5</sup> Ibid.

<sup>6</sup> Ibid. Indirect jobs are measured as full-time equivalents.

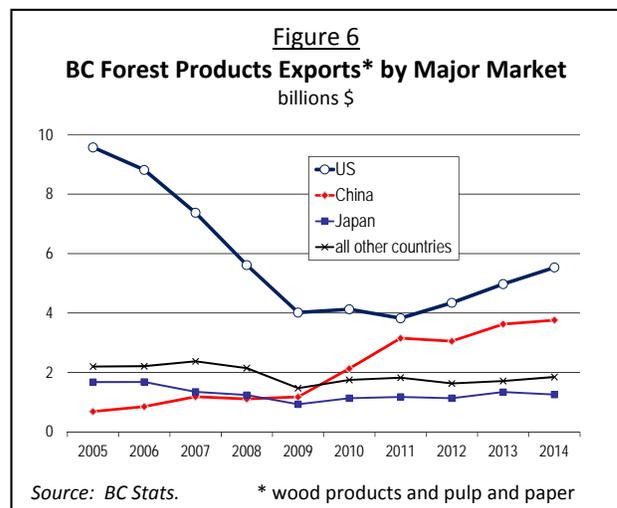
source of income for the province whereas most non-traded industry sectors are mainly involved in re-circulating existing dollars. Conceptually, these export-related dollars help to finance purchases of imported products and services, which dramatically expands consumer choice and improves our overall quality of life.



As an export-oriented industry, forestry also generates other, more subtle economic benefits that are equally important in terms of enhancing prosperity. Having access to external markets allows local companies to operate more efficiently by taking advantage of economies of scale that would otherwise be unavailable if they only served the domestic market. Exposure to international markets is a powerful stimulus for efficiency and higher productivity. Firms competing in a North American or global arena need to regularly innovate and invest in capital equipment to remain competitive. For this reason, export-oriented firms are typically more productive and tend to pay higher wages. Over the long-term, productivity is the single most important factor that determines the scope to achieve gains in real incomes.

As noted above, forest products are BC's largest export. In 2014 wood products exports alone amounted to nearly double the value of exports of metallic minerals. Wood products are also double the size of machinery and equipment exports. The total value of pulp and paper exports alone is similar to value of metallic minerals. If the two key segments of forestry are added together, forest products represent by far BC's largest merchandise export product group.

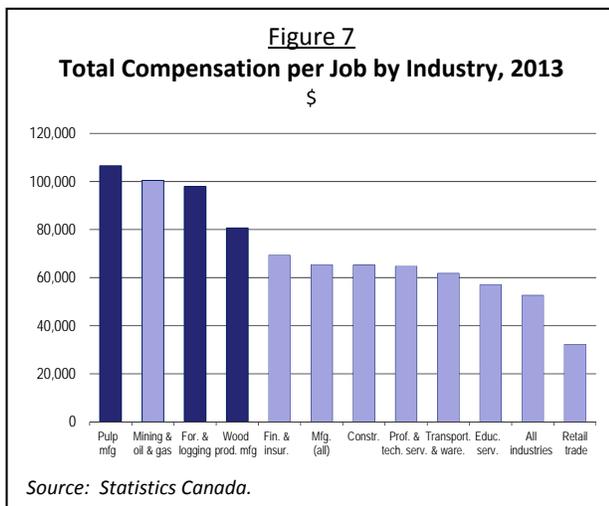
BC forest products have also supported the growing diversity of BC's trade in the past decade. Increases in wood product and pulp and paper exports have been especially notable in the case of the Chinese marketplace.



**Higher Wages and Employee Benefits**

All elements of the forest sector are high productivity industries and thus generally pay above average wages. As is evident in Figure 7, the different parts of forestry are among the highest paying industries in the province. The total compensation per job in

the pulp industry is among the very highest and is more than double the all industry average. Total compensation in the forestry and logging sector is close to that of pulp mills. Wood products manufacturing also pays excellent wages – more than 50% higher than the all industry average.



The majority of jobs in the BC forest sector are located outside of the major population centers. These jobs provide vital sources of income for families who reside in smaller communities. More and more younger households are being pushed out of the lower mainland because of high housing costs or else are looking to live in communities where lower home costs mean a higher standard of living. Forest sector jobs provide an attractive alternative and also help to support local employment in other industries as well.

### **Final Thoughts:**

#### **Outlook, Advantages and Challenges**

The BC forest products cluster is in the midst of an upswing that should persist for several more years. The industry is benefiting from past success in diversifying into Asian

markets and from the recovery of the US housing market. In spite of the pine beetle infestation, the BC industry has a strong and sustainable supply of fibre. British Columbia is well known for its sustainable practices and sound stewardship of the forest resource. The industry is also advancing partnerships with First Nations and is an important source of jobs and income for many Aboriginal individuals in the province.

However, forestry in BC also faces many challenges. Because of the mountain pine beetle, the absolute size of the industry is set to contract in the coming years. BC is also a complex jurisdiction in which to operate. Among other things, BC has unsettled native land claims, often cumbersome environmental regulations, complex and lengthy permitting processes, and rising operating costs. The BC carbon tax, steadily escalating power costs, and hundreds of millions of dollars of extra production and operating costs for forest products companies as a result of the shift back to the Provincial Sales Tax in 2013 have all weighed on new investment in the sector. Some BC forest product companies also suffer from what are widely recognized to be punitive municipal property taxation on their capital intensive manufacturing facilities. Ongoing trade disputes with the US are another longstanding challenge for the BC sector. For these and other reasons, certain American jurisdictions have become increasingly attractive investment locations for some BC forest products companies.

In spite of a complex operating environment and some erosion of the province's overall competitive position, the forest products cluster remains one of BC's most powerful economic engines. It provides a vital

foundation for jobs and economic activity for dozens of communities spanning every region of the province. While the fallout from the pine beetle infestation may limit the prospects for future growth, forestry is not a sunset industry. Rather, it is a mature, sophisticated, high-productivity industry that supports many communities, buys billions of dollars of local supplies, services and other inputs, and remains one of the province's leading sources of high paying jobs.

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