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The Great U.S. Recession and Canadian Forest Products

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.	not available for any reference period
..	not available for a specific reference period
...	not applicable
0	true zero or a value rounded to zero
0^s	value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
^{p}	preliminary
^{r}	revised
x	suppressed to meet the confidentiality requirements of the *Statistics Act*
^{E}	use with caution
F	too unreliable to be published
*	significantly different from reference category ($p < 0.05$)

The Great U.S. Recession and Canadian Forest Products

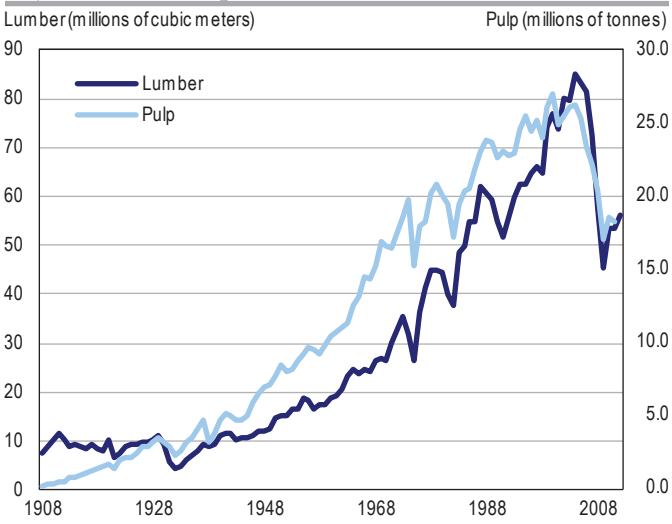
by Lydia Couture and Ryan Macdonald

This article in the *Economic Insights* series reports on changes in the production of Canada's forest industries. This article is published as part of a program at Statistics Canada that examines the role of natural resources in the Canadian economy.

Canada is a small, open economy that trades extensively. Its products, particularly its resource products, are oriented towards global export markets, and the largest of these markets is the United States. Changes in economic conditions in the United States can therefore be transmitted to Canada through changes in demand for Canadian exports.

The U.S. recession of 2007-to-2009 and the collapse of the U.S. housing market heralded a period of reduced global demand which significantly affected Canadian forestry production. Lumber output and pulp output declined sharply. Between 2006 and 2009, lumber production in Canada fell from 81.2 million cubic metres to 45.5 million cubic metres, a decline of 44% (Chart 1). Canada had not produced lumber at this level since the early 1980s. Pulp production decreased from 23.4 million tonnes in 2006 to 17.1 million tonnes in 2009, a decline of 26.9%.

Chart 1
Physical volume of production, 1908 to 2012[1]



1. Pulp data ends in 2011.
Sources: Statistics Canada, Canadian Pulp and Paper Association, Natural Resources Canada; authors' calculations.

Declines during the last U.S. recession the largest since the Great Depression

Lumber production and pulp production in Canada grew in a pro-cyclical fashion over much of the last century. Production levels tended to rise during economic expansions and fall during recessions. Since 1908, there have been five occasions when recessions led to sharp reductions in forestry production; all of those periods corresponded to economic weakness in the United States.

The largest decline in forestry output on record occurred during the start of the Great Depression. Between 1929 and 1932, lumber production fell by 61.6%, and pulp production decreased by 33.3%. Following the Great Depression, there was a long period without a significant negative event affecting forestry production volumes. Although there was some decline in pulp output in 1939 as Canadian production turned to wartime materials and a pause in the mid-1940s, the period between the onset of the Great Depression and the first oil shock, in 1973, tended to be one of expansion for forest products—a pattern at odds with the effect of business cycles on forestry production before or since.

The 1973 oil shock ended forestry's long expansion and was accompanied by sharp declines in production volumes. Between 1973 and 1975, lumber production decreased by 25.3%, and pulp production fell by 18.3%. The recessions of the 1980s and 1990s brought about smaller declines. Lumber production declined by 15.2% between 1980 and 1982 and by 12.7% between 1989 and 1991. Pulp production in those periods decreased by 14.4% and 2.5%, respectively. The U.S. recession in 2007 to 2009 brought about a 44% reduction in lumber output levels and a 26.9% reduction in pulp output levels, the largest decline in more than 70 years.

Largest volume change in British Columbia

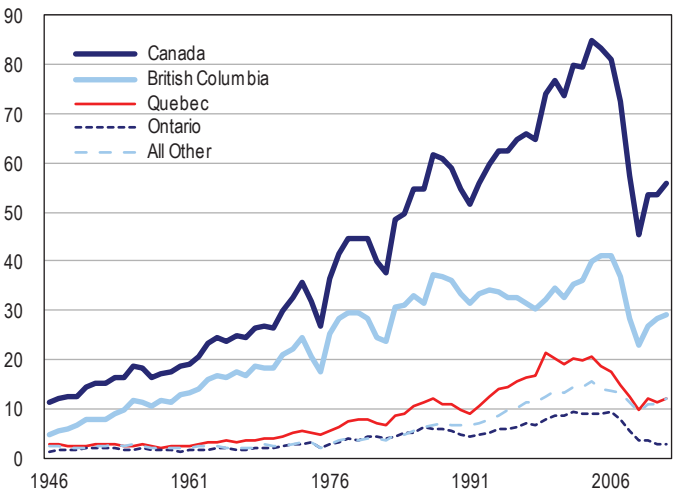
Since 1946, British Columbia has produced the largest volumes of lumber in Canada (Chart 2). Until the early 1980s, British Columbia was the major driver of the trend in overall domestic lumber production. At its highest point, in 1966, British Columbia produced 71% of the volume of sawn lumber in Canada. In 2006, British Columbia's share of national production declined to a low of 51%. All other provinces have expanded their shares of production since the late 1960s, but the changes were particularly pronounced after the early 1980s, when lumber production in British Columbia leveled off. Overall, however, Canada-wide production continued its upward trend as production moved east. It reached a historic peak in 2004.

British Columbia's dominant position meant that, as the last U.S. recession took hold, its production fell by the largest amount among the Canadian provinces - 18.3 million cubic metres. This represented half of the total decline for Canada. In Quebec, production fell by 7.7 million cubic meters; in Ontario, production decreased by 5.7 million cubic meters. While British Columbia experienced the largest absolute decline, lumber production in percentage terms decreased by 44.4% in British Columbia, about the national average, and by 44.3% in Quebec; the percentage decline in Ontario (62.0%) was larger.

Changes in forest product gross domestic product (GDP)

Production statistics measured in terms of GDP can provide a complementary view of events, one that allows for a more detailed discussion because industry and provincial data are available. Real GDP data for forestry and logging, wood product manufacturing, and pulp, paper, and paperboard mills manufacturing show production declines for Canada as a whole, and for the major forestry provinces (Table 1).

Chart 2
Physical volume of production, 1946 to 2012



Source: Statistics Canada; authors' calculations.

The bursting of the U.S. housing bubble initiated provincial declines of 13.9% to 16.8% per annum between 2007 and 2009 in the real GDP for forestry extraction and wood product manufacturing in Canada. Following the recession, the recovery in these industries was uneven. While the 2009-to-2012 period averaged 7.3% growth per year in real GDP for Canada in forestry and logging extraction, the recovery in wood product manufacturing real GDP was 5.5% per annum and pulp, paper, and paperboard mills manufacturing GDP continued to decline. Across wood and paper product extraction and manufacturing industries, the recession brought about widespread reductions in real GDP, but the subsequent recovery favoured extraction.

There was also an uneven recovery across provinces. British Columbia, which experienced some of the largest declines in real GDP across the forestry industries, had the strongest recovery. For example, following a decline of 22.5% and 14.9% in the forestry extraction and paper manufacturing industries, respectively, real GDP in British Columbia increased by 11.3% and 6.5% per annum in those industries through the recovery. Quebec, which experienced somewhat less of a decline in real GDP, and Ontario, had slower recoveries.

Table 1
Forestry real gross domestic product (GDP), annual percentage change

	Forestry and logging extraction [NAICS 113]				Wood product manufacturing [NAICS 321]				Pulp, paper, and paperboard mills manufacturing [NAICS 3221]			
	Canada	Quebec	Ontario	B.C.	Canada	Quebec	Ontario	B.C.	Canada	Quebec	Ontario	B.C.
	percent											
2007 to 2009	-15.1	-6.1	-15.6	-22.5	-13.9	-9.0	-20.1	-14.9	-16.8	-13.2	-19.6	-21.7
2009 to 2012	7.3	7.8	3.4	11.3	5.5	1.6	-1.0	6.5	-3.8	-5.4	-3.0	-1.1

Source: CANSIM tables 379-0030 and 379-0031.

The overall effect?

The Great U.S. Recession had a significant impact on Canadian forestry production. Across all forestry activities, from extraction to manufacturing, real GDP and output declined. Production volumes for sawn lumber and pulp have increased since the trough in U.S. real output, but production levels remain well below pre-recession peaks.

References

For more information, see:

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