

**Trends and Prospects**  
**69<sup>th</sup> Session ECE Timber Committee**  
**October 12-13, 2011**

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**September 2011**

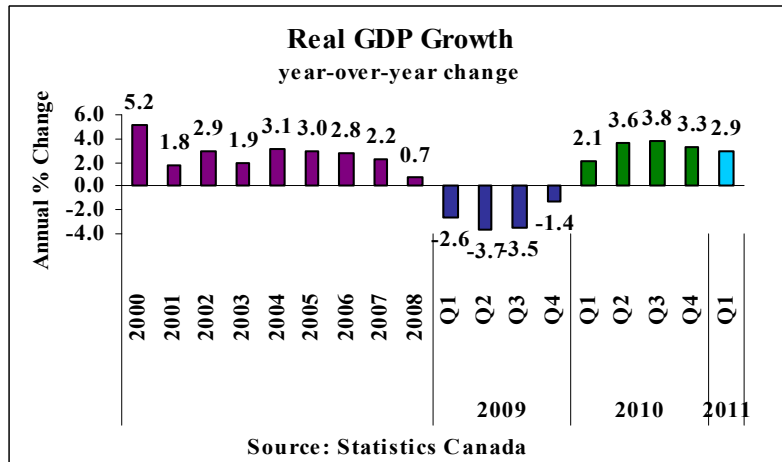
## CANADA

### I. An Economic Overview

#### *General Economic Conditions*

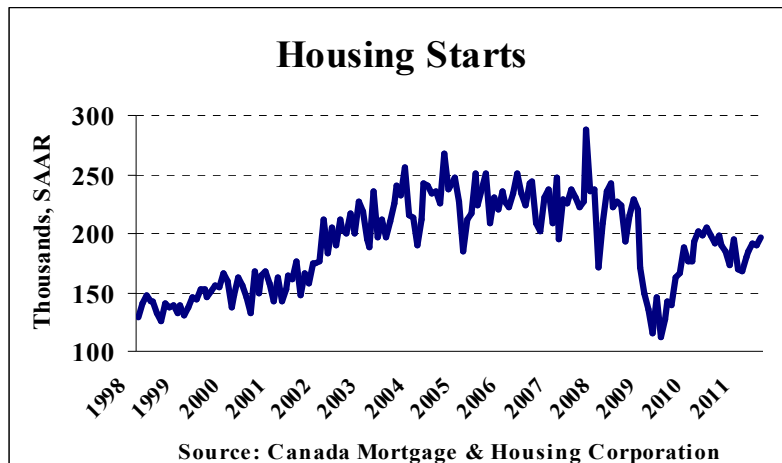
The Canadian economy continued to grow in 2011, by 2.9% in the first quarter. While this was in-line with earlier projections for all of 2011, recent news of a stalling economic recovery combined with high debt loads in the U.S. and uncertain economic prospects in Europe are pointing to challenges ahead. The International Monetary Fund is now projecting only 2.1% growth in 2011 and 1.9% next

year. Canadian GDP growth had surged to 3.4% in the first four quarters after the recession ended, but this surge is now looking increasingly likely to be finished, with subpar GDP growth in the near future and unemployment forecasted to rise.



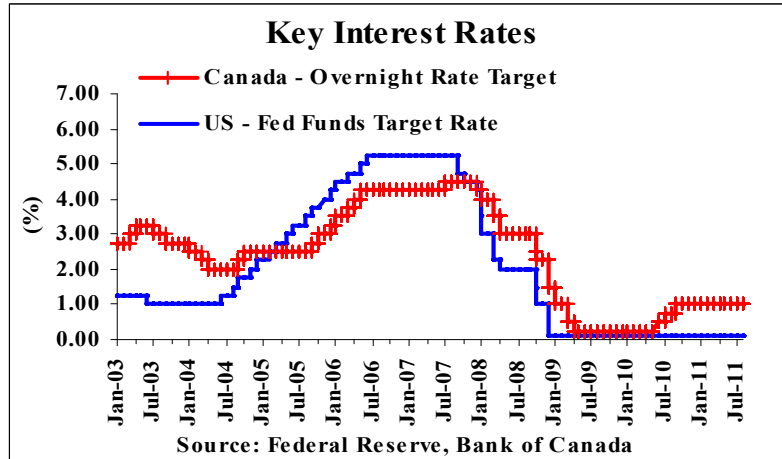
Canadian housing starts fell 6.4% in the first half of 2011 compared to the same period in 2010. During this period new house prices were up across most of the country while new housing inventory levels stabilized after declining by 28.4% in 2010 relative to 2009. Additionally, credit access conditions have tightened in recent months. For example, the amounts Canadians can borrow

to refinance their mortgages has been lowered while the terms of new mortgages for homebuyers has been reduced. These factors have dampened Canadian starts, although interest rates have remained stable and total employment across Canada is up. Overall, if these conditions prevail moderate levels of Canadian housing starts are anticipated. However, if the Canadian economy weakens further then housing starts could decline.

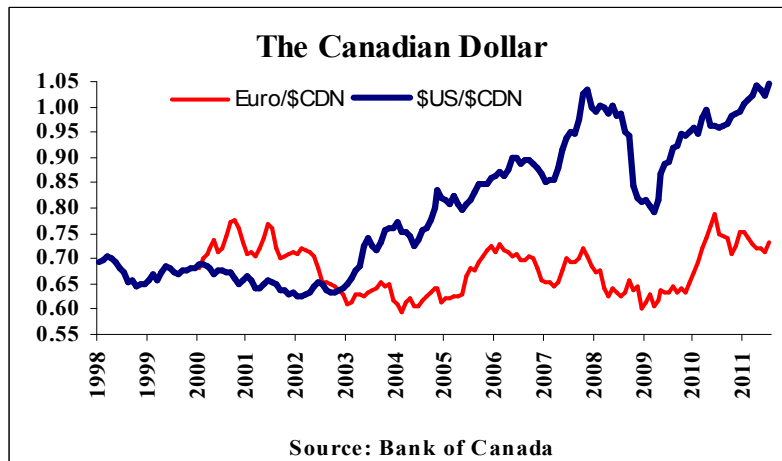


From mid 2007 until the beginning of 2009, the Bank of Canada lowered its overnight rate target (ORT) as the nation's economy weakened. This action was taken mainly due to the impact of the global economic downturn. Unsurprisingly, by December 2008, with a recession in full swing,

the Bank of Canada lowered the ORT to 1.5% from 2.25% while by May 2009, the Bank lowered the ORT to 0.25%. The Bank of Canada kept the ORT at this level until June 2010. It was adjusted three times since and kept at 1% since September 2010. With the Canadian economy slowly improving, the Bank of Canada considered raising the ORT again but has since reconsidered given the prolonged economic downturn in the U.S. and the uncertainty in Europe.

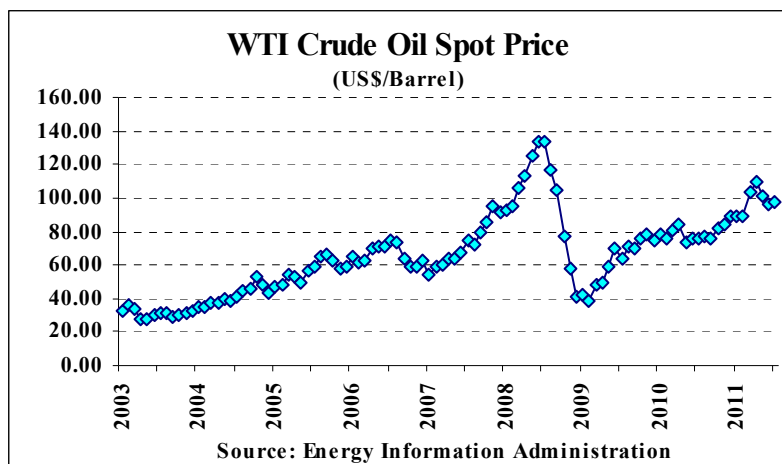


Having steadily appreciated over the period 2002-2007 against the US currency, the Canadian dollar plummeted in 2008 as the global financial crisis gripped the Canadian economy. From a monthly high of US\$1.04 in November 2007, the Canadian dollar hit a low of US \$0.79 in March 2009. However, since then the Canadian dollar has rebounded to an all-time monthly high of US\$ 1.05 in July 2011.



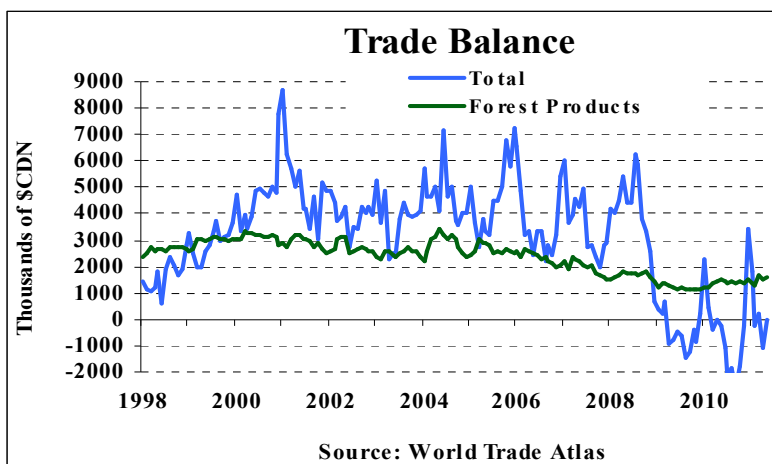
While the Canadian dollar has performed well against the US dollar, it has also strengthened against the Euro. In June 2010, the Canadian dollar reached an all-time high against the Euro of € 0.79. Overall, since January 2010 the Canadian dollar averages € 0.73. This is above its long-term average of € 0.68, taken over the period January 2000 through July 2011.

One of the most important factors driving changes in the Canadian dollar are fluctuating prices of exported Canadian commodities, namely crude oil and metals. Canada's largest export market for crude oil is the U.S., while for numerous metals it is China. In the case of crude oil, the West Texas Intermediate (WTI) monthly crude oil price spiked at US \$133.88 in June 2008 before embarking on a



dramatic slide that ended with the WTI hitting US \$ 41.12 in December 2008. It has since recovered, peaking in 2011 during the month of April at US \$109.53.

Canada's annual forest products trade balance has steadily declined since 2000. The slide occurred from 2000 through 2003, spiking briefly in 2004, before falling right through 2009. While the forest products trade balance fell 28.0% in 2009 compared to 2008, in 2010 it rebounded, growing 15.1% compared to 2009. This was in part helped by an increase in forest product exports to Asia.



This trend continued through the first half of 2011 when Canada's forest products trade balance grew by 9.5% compared to the same period in 2010. The trade balance for wood products and pulp industries grew by 10.0% and 16.9%, respectively.

## II. Policy Measures in Canada Impacting Forest Management and Forest Product Trade

### 1. Commitment to Sustainable Forest Management

In 2008, the Canadian Council of Forest Ministers (CCFM) released *A Vision for Canada's Forests: 2008 and Beyond* which presents a long-term, strategic vision for maintaining and advancing sustainable forest management in Canada. During a period of transition for Canada's forests and forest sector, the Vision also focuses on two key areas: forest sector transformation and climate change.

For more information on *A Vision for Canada's Forests: 2008 and Beyond*, see the Canadian Council of Forest Minister's website at [www.ccfm.org](http://www.ccfm.org).

### 2. Competitiveness Initiatives

Canada's forestry sector is facing significant challenges from declining demand in the residential construction markets in the United States and increasing competition from emerging economies. In recent years, a number of initiatives have been implemented to help secure a more sustainable forest industry by helping the sector develop new products and processes, and take action on new opportunities in the international market place.

In the June 2011 Federal Budget, \$60M was provided during fiscal year 2011/12 for the ongoing transformation of the forest sector in the areas of innovation and markets.

## **Innovation**

The severe global recession has markedly increased the importance of research and innovation in better ensuring the future international competitiveness of the Canadian forest sector. The emphasis on research and innovation is particularly critical in the pulp and paper sector given the growing importance of electronic media and competition from new hardwood kraft mills in the southern hemisphere which use fast rotation, plantation wood fibre. With so many communities and forest industry suppliers dependent on a viable forest sector, in 2007 the federal government helped restructure and consolidate the three forest research institutes (FERIC, Forintek and Paprican) into FPInnovations, which is linked to Natural Resources Canada's Canadian Wood Fibre Centre (CWFC). Consequently, FPInnovations is now the world's largest public private partnership for forest-related research. The focus of its research is the development of emerging and breakthrough technologies related to forest biomass utilization, nanotechnology and next generation forest products.

The restructuring of Canada's forest innovation system also requires improved integration of the efforts by academia. The Natural Sciences and Engineering Research Council (NSERC) in partnership with Natural Resources Canada and FPInnovations has created Forest Sector R&D Initiative, a \$34 million, five-year initiative to identify commercially relevant research programs that will create new market opportunities for the Canadian forest sector. The goal is for all researchers – not just those working in disciplines traditionally associated with the forest sector – to participate in this initiative to develop new products and enhanced production processes that will benefit the Canadian forest sector.

The Government of Canada and provinces working with industry have continued to support research at FPInnovations in partnership with major universities. One of the more significant federal support programs for the Forest Industry is the Transformative Technologies Program (TTP), which was launched in 2006. The objective of this Program is to undertake pre-competitive, non-proprietary research and development (R&D) having a longer-term focus to address the development and adaptation of emerging technologies. This initiative was renewed in 2011, with the Government providing \$40 million to continue the work of the Transformative Technology Program.

An example of new technologies developed under the Transformative Technology Program is the use of wood in non-residential applications and in mid-rise residential construction. With the support of TTP, FPInnovations produced a peer-reviewed Cross-Laminated Timber (CLT) Handbook developed in collaboration with several national and international universities, research institutes, engineering firms, organizations and industry partners. It provides information on the history of CLT products, information on the various European manufacturers, a few case studies from Europe and a summary of CLT research conducted at FPInnovations in areas such as manufacturing, fire and sound performance, connections, and environment. Furthermore, it provides an overview of CLT's development in Europe and assesses the value proposition for North America.

Ultimately, with support from the federal government, the integrated and coordinated R&D and innovation system of the Canadian forestry sector will see the sector emerge from this period of

unprecedented crisis operationally lean and efficient and ready to embrace new and transformative products and market opportunities.

## **Markets**

Budget 2011 provided Natural Resources Canada with \$20 million over one year to continue the Canada Wood, North America Wood First and Value to Wood programs. The primary focus of these programs is to expand Canadian wood markets through building exports into new offshore markets while simultaneously developing non-traditional markets in North America and helping secondary wood manufacturers to access these markets.

### *Canada Wood Export Program*

The Canada Wood Export Program (Canada Wood) funds activities that help Canadian wood products producers diversify and expand offshore export markets for their products in both traditional and emerging markets through its Canada Wood Offices in Shanghai, Beijing, Tokyo, Seoul, London and Toulouse, France. Since its inception, Canada Wood has raised the profile of Canadian wood products, influenced the development of residential construction codes and standards and stimulated exports. Since 2001, Canadian exports of wood products have increased by 26 fold to China and by almost 5 fold to Korea. Canada Wood will continue to build on its initial accomplishments and will expand its activities such as through the support of exploratory missions and trade shows to new emerging markets.

### *North American Wood First Initiative*

The North American Wood First Initiative (Wood First) funds activities that promote the use of wood in non-residential construction such as school, health care facilities, retail establishments etc. throughout Canada and targeted regions of the U.S. In fiscal 2011/12, the Initiative aims to expand into Texas, the Greater D.C./Baltimore region and the Seattle/Portland area. Market studies have indicated that these U.S. regions have the highest level of construction activity and the best potential for significant success in growing the non-residential market for wood. Examples of activities undertaken by the wood products associations are market research and benchmarking studies, technical support, technology transfer and training projects and the development of communication tools.

### *Value to Wood*

The Value to Wood program provides funding for research related to the development of new and modified value-added wood products, such as floors, kitchen cabinets and finger-joined lumber. As well, it provides technical assistance to small and medium-sized companies wanting to adopt new technologies. The research is conducted by leading wood research organizations across Canada, which includes universities and the world's largest forest research organization, FPInnovations. Technical assistance to value-added wood products companies is provided by a network of industry advisers located across the country. These advisers have specialized technical and markets expertise.

Activities funded through Programs announced in Federal Budgets 2009 and 2010 continued through 2011.

### **Community Adjustment Fund**

The Community Adjustment Fund (CAF) was announced as part of Canada's Economic Action Plan in January 2009, to provide \$1 billion over two years to address the short-term economic needs of Canadian communities impacted by the global recession. The national fund provided an economic stimulus by supporting projects that created jobs and maintained employment in and around communities that have experienced significant job losses and lack alternative employment opportunities. The Fund had positive impacts on forest-based communities with over \$240 M in federal funding provided for forestry-related activities, resulting in over 37,000 forestry-related jobs across Canada between 2009 and 2011.

### **Pulp and Paper Green Transformation Program**

Announced in June 2009, the \$1 billion Pulp and Paper Green Transformation Program (PPGTP) is laying the groundwork for a greener, more sustainable future for Canada's pulp and paper sector by supporting innovation and environmentally friendly investments in areas such as energy efficiency and renewable energy production.

In October 2009, the PPGTP allocated funding envelopes to 24 pulp and paper companies based on a \$0.16 per litre credit for the black liquor produced by their Canadian mills between January and May 2009 (when the program cap of \$1 billion was reached). Firms are now accessing these funds to finance approved capital projects that offer demonstrable environmental benefits. As of mid-July, 2011, 62 PPGTP projects have been announced, with funds requested totalling \$790 million. Those projects are expected to generate more than 2 million MWh of additional renewable energy per year and save 6.3 million GJ annually. Taken together, this is enough energy to power more than 320,000 homes. These projects are also expected to reduce mills' greenhouse gas emissions by nearly 365,000 tonnes per year. Firms have until March 31, 2012 to invest their credits.

### **Investments in Forest Industry Transformation**

The Investments in Forest Industry Transformation (IFIT) Program, launched in August 2010, will help expand opportunities for Canada's forest sector by investing in innovative technologies that support a more diversified, higher-value product mix in the forest sector. These products include bioenergy, biomaterials, biochemicals, and next generation building products. Over the long term, these investments will improve the forest sector's economic viability and environmental sustainability, helping to secure a more prosperous future for Canada's forestry industry and forest-dependent communities.

The \$100 million, four-year program was announced in Budget 2010, and launched its first Call for Proposals in early fall 2010. As a result of that process, the program is funding the installation of an Organic Rankine Cycle system to capture waste heat and produce power for

external sale – the first project of its kind in a Canadian mill, with significant potential for replication across the sector.

The IFIT program announced its second and final Call for Proposals in July 2011, to support additional innovative projects for Canada’s forest sector.

### 3. *Climate Change*

The attention paid to the impacts of climate change on Canada’s forest and forest sector has increased substantially in recent years. The 2008 Council of Forest Ministers document “*A Vision for Canada’s Forests: 2008 and Beyond*”, stated that “consideration of climate change and future climate variability is needed in all aspects of sustainable forest management.” The first steps toward adaptation are to undertake assessments, raise awareness and understanding, and then assess and implement appropriate responses. In 2009, two new synthesis reports discussed adaptation in Canada’s forest sector. Natural Resources Canada (Canadian Forest Service) released *The Importance of Forest Sector Adaptation to Climate Change*, a report intended for forest scientists interested in understanding the degree to which climate might change, possible impacts, and why adaptation is needed (see [http://bookstore.cfs.nrcan.gc.ca/detail\\_e.php?recid=12588568](http://bookstore.cfs.nrcan.gc.ca/detail_e.php?recid=12588568)).

In a separate report, the aspects of forestry that were initially addressed in the 2007 Government of Canada report, “*From Impacts to Adaptation: Canada in a Changing Climate*” were expanded upon. The report, “*Climate Change and Canada’s Forests: From Impacts to Adaptation*” was published by Natural Resources Canada (Canadian Forest Service) and the Sustainable Forest Management Network Centre of Excellence hosted by the University of Alberta ([http://bookstore.cfs.nrcan.gc.ca/detail\\_e.php?recid=12589030](http://bookstore.cfs.nrcan.gc.ca/detail_e.php?recid=12589030)). It draws on a combination of scientific and technical expertise to provide an in-depth assessment of current and future biophysical impacts, regional vulnerabilities, forest sector impacts and implications for adaptation.

The Canadian Council of Forest Ministers (CCFM) is undertaking work to prepare Canada’s forest sector and forest manager community for the impacts of climate change (<http://www.ccfm.org/english/coreproducts-cc.asp>). In 2009, the CCFM published the report “*Vulnerability of Canada’s Tree Species to Climate Change and Management Options for Adaptation: An Overview for Policy Makers and Practitioners*.” The study provides policy makers and forest managers with the latest knowledge about the vulnerability of Canada’s major commercial tree species and potential adaptation options. Building on this work, the CCFM is developing new tools and methodologies designed to enable Canada’s forest management community to better understand ways that forest management is vulnerable and options for adaptation. The core products include a) a framework for assessing vulnerability of sustainable forest management to climate change, b) a methodology for evaluating organizational readiness to adapt to climate change, and c) a practitioners guidebook for climate change assessment. The CCFM is also actively involved in the production of a number of technical reports, as well as in specific kinds of analysis, the development of practitioner networks, and the promotion of knowledge exchange.



The federal and provincial governments continue to conduct the extensive analysis and consultation work required to prepare for a regulatory approach to limit greenhouse gas emissions that could include forest carbon. The Canadian Forest Service along with provincial/territorial partners in the National Forest Sinks Committee are conducting an analysis of the mitigation potential of forest sector including the wood product sector and the potential contribution of the forest sector to achieving the 2020 climate change goal.

In 2008, Provincial and Territorial Premiers requested that the CCFM develop a forest carbon management offset system quantification protocol for all jurisdictions in Canada to use. In 2009, the CCFM published *A Framework for Forest Management Offset Protocols*. The report identifies the technical issues fundamental to quantification of forest carbon offsets and evaluates options to address these key technical issues.

These efforts feed into the Government of Canada broader goals of reducing Canada's total greenhouse gas emissions, relative to 2005 levels, by 17 percent by 2020. Canada continues to support the G8 partners' goal of reducing global emissions by at least 50% by 2050, as well as the goal of developed countries reducing emissions of greenhouse gases in aggregate by 80% or more by 2050.

The Government of Canada also continues to work constructively to implement the Copenhagen Accord (2009) and Cancun Agreements (2010) and to complete the negotiations under the UNFCCC for a comprehensive, legally binding post-2012 agreement. Under the UNFCCC negotiations, Canada is promoting new international forest carbon accounting rules that would 1) provide improved incentives for mitigation efforts involving forest carbon, 2) more accurately reflect what happens to forest carbon including carbon in harvested wood products, and 3) not penalize countries for natural disturbances (e.g. wildfires, insect infestations), which they do not control, but instead focus on the direct impacts of human activity, including forest management activities. Analysis of the role of Canada's forests, forest products and wood-based bioenergy in helping to mitigate climate change will contribute to a cross-sectoral, inter-departmental assessment of mitigation potential.

In 2010, Canada endorsed the global voluntary partnership to Reduce Emissions from Deforestation and Forest Degradation, and enhance sustainable forest management in developing countries (the REDD+ Partnership), as it aligns with priorities outlined in the Copenhagen Accord. Additionally, as part of Canada's commitment to provide its fair share of fast-start financing under the Copenhagen Accord, Canada contributed \$400 million in new and additional climate change financing in 2010. This funding is directed toward supporting developing countries' efforts to reduce greenhouse gas emissions and adapt to the adverse impacts of climate change, focusing on three priority areas: adaptation, clean energy, and forests and agriculture. Of the 2010 funding, \$40 million was used to support the Forest Carbon Partnership Facility's (FCPF) Readiness Fund, which, in turn, supports the building of national capacity to address deforestation and forest degradation. Funding allocations for the second and third years of the three year fast-start commitment (2011-2013) have yet to be determined.

In January 2011, the Government of Canada announced that it will take a sector by sector approach to regulating GHG emissions, and, where appropriate, the environmental regulations

will be aligned with those of the United States. Federal and provincial governments are currently conducting research and analyses to determine the potential contribution of the forest sector to meeting Canada's GHG emissions reductions targets,

At the provincial level, Ontario, Quebec and British Columbia continue to be active members in the Western Climate Initiative which is a collaboration of independent jurisdictions working together to identify, evaluate, and implement policies to tackle climate change at a regional level. The Province of Ontario has publicly committed to implementing carbon trading in the near term and draft carbon trading regulations are under development. Ontario is participating in the development of a forest carbon offset quantification protocol inside the WCI protocol development process. In July 2011, the Province of Quebec announced that a province-wide GHG cap-and-trade system will come into force on January 1, 2012.

In 2008, the Province of British Columbia announced its intention to achieve zero net deforestation (ZND) and on March 22, 2010, tabled legislation requiring ZND by the end of 2015. Under the ZND Act, the overarching goal of zero net deforestation would be achieved via a combination of reducing deforestation and increasing afforestation leading to no net loss of forests within provincial boundaries.

The Province of British Columbia has passed and enacted the Greenhouse Gas Reduction Act as of 2008. The Act authorizes hard caps on greenhouse gas emissions, provides the statutory basis for setting up a market-based cap and trade framework and provides authority for a Reporting Regulation. The Province of British Columbia has developed the initial institutional framework for carbon offsets as part of that province's target of carbon neutral public sector by 2012: including the establishment of a provincial crown corporation, the Pacific Carbon Trust. In November 2010, the Province of British Columbia released a draft of the British Columbia Forest Carbon Offset Protocol for public review.

### **Using Wood to Mitigate Climate Change**

In 2011, the Canadian Council of Forest Ministers (CCFM) decided to promote the *Use of Wood to Mitigate Climate Change* by capitalizing on environmental attributes of wood and promoting the benefits of using wood as a means to mitigate the effects of climate change. This new initiative implements a former commitment of the CCFM to promote wood as a building material, as a renewable energy source, and in biorefining. Federal, provincial, and territorial Governments will work together on this new initiative to share knowledge and best practices that will contribute to increasing the use of wood.

### ***4. Mountain Pine Beetle Infestation in Western Canada***

The Mountain Pine Beetle infestation has caused widespread timber losses in British Columbia and is now established in the boreal forest of central Alberta. There is a risk that the beetle may continue to spread eastward across Canada's boreal forest, further impacting Canada's forest industries and the well-being of forest-dependent communities located in affected areas.

Because of the vital role the forest industry plays in Canada's economy as a whole, and the growing threat the beetle poses to forests throughout Western Canada, the Government of Canada has identified the infestation as an issue of national importance and is working closely with the Provinces of British Columbia and Alberta and other provinces and territories to deliver an effective response to the beetle infestation and assess the risk of spread in the boreal forest. The Canadian Council of Forest Ministers brings together Federal, Provincial and Territorial Governments to work collaboratively on the *National Forest Pest Strategy* to ensure a coordinated approach to managing risks associated with forest pests, including the Mountain Pine Beetle. As a result of these efforts, there is increased capacity to detect beetles early and to manage risks associated with population growth and spread.

### **5. Trade Policy**

In addition to the Softwood Lumber Agreement with the United States, and the North America Free Trade Agreement (1994), Canada has free trade agreements in force with Colombia (2011), Peru (2009), the European Free Trade Association (2009), Costa Rica (2002), Chile (1997) and Israel (1997). Canada also signed free trade agreements with Panama (2010) and Jordan (2009) and these are in the process of being implemented. In 2011, negotiations were concluded towards a Canada-Honduras free trade agreement.

Currently, negotiations for free trade agreements are underway with the European Union, as well as with Morocco, Korea, the Andean Community, the Caribbean Community, Dominican Republic, India, Singapore, Ukraine, Guatemala, Nicaragua and El Salvador. Since 2010, Canada is also engaged in exploratory discussions with Turkey on the possibility of launching free trade negotiations. Finally, Canada announced in 2011 the launch of a joint study to examine the potential for an Economic Partnership Agreement with Japan.

## **III. Market Drivers**

The Canadian forest sector has slowly emerged from the global economic downturn of 2008/09. Recovery in the sector has been driven primarily by growing demand from Asia (particularly by China and South Korea) for wood products. Exports of wood products to China have increased by 26-fold between 2001 and 2010.

The months of May and June 2011 marked the first time that British Columbia (B.C.) softwood lumber exports to China exceeded those to the United States. In May, B.C. producers exported \$120 million worth of softwood lumber to China compared to \$119 million to the U.S, while in June, B.C. exported \$127 million to China and \$125 million to the U.S.

Demand for paper and paperboard has been robust in India with exports increasing by 304% between 2002 and 2010. Likewise, the demand for Canadian pulp has been strong in China which has seen exports increase by 215% between 2002 and 2010. Pulp demand in India has also been increasing, although less rapidly than in China. Exports of pulp to India increased by 91% during the same period.

It should be noted that the U.S. is still Canada's largest market for forest products; however, as a percentage of total forest exports, the share going to the U.S. has been declining. For example, almost 80% of forest product exports went to the U.S. in 2002 compared to 64.7% in 2010. In contrast, forest exports to China went from 1.8% in 2002 to 11.5% in 2010. This can partly be explained by the fact that the U.S. economy is still undergoing a slow economic recovery. U.S. unemployment stood at 9.2% (as of June 2011) and housing starts remain low.

Canada's forest sector still faces numerous challenges; among them are rising energy costs, a strong dollar and increasingly aggressive foreign competition.

### ***Emerging Opportunities***

While many traditional markets for Canadian forest products are mature, there are still opportunities for growth by pursuing developing or emerging markets. This also includes increased use of wood in non-residential construction and expanding offshore export opportunities for Canadian wood products in emerging markets. Climate change considerations and a growing recognition of the environmental benefits of wood use are helping to open up opportunities for wood products; including bio-energy and next generation bio-fuels.

### ***Energy Prices***

The price of oil has risen steadily since 2001 when it was priced at US\$25.98 per barrel. Between 2001 to 2008, the price of oil increased by 283.6% to US\$99.67. It retreated to US\$61.95 in 2009 during the height of the economic recession before rising again to average US \$79.48 in 2010. In July 2011, oil averaged US\$97.30 per barrel while for the first three weeks of August 2011, it averaged US\$86.36. Oil prices have exhibited volatility from one period to the next. Steadily rising energy costs certainly poses challenges to the forest industry. Over the years, the pulp and paper industry has been particularly impacted by rising energy costs. Rising oil prices may be providing opportunities for alternative energy sources such as bio-energy and bio-fuel.

### ***Exchange Rates***

Exchange rates continue to play a role in the prosperity of the forest industry since most Canadian forest products are exported and sold in U.S. dollar terms while the sector pays most of its costs in Canadian dollars. The Canadian dollar has made steady gains against the U.S. dollar over the past 5 years, averaging 88 cents (US) in 2006 and up to 97 cents in 2010. The first half of 2011 has seen the Canadian dollar average US\$1.02, the strongest showing in years. The strength of the dollar will invariably play a role in determining the profitability of Canadian forest products firms in the near term.

## ***US Housing Market***

The U.S. housing market is the primary driver behind softwood lumber and wood panel demand in North America. The U.S. housing market is still reeling from the effects of the economic downturn and sub-prime mortgage crisis. U.S residential investment has contracted by 71.6% between the peak year of 2005 to 2010. For comparison, housing starts in 2005 were a record 2.1 million units. In 2010, starts were just over a quarter of the 2005 figure at 587,600 units.

As a consequence, U.S. demand for softwood lumber has decreased, leading to a drop in softwood lumber exports of 65% between 2005 and 2010. Recovery of the U.S. housing market is likely still a few years away as there is still a large overhang of existing housing inventory on the market which has impacted the demand for the construction of new homes.

According to recent analysis, it is expected that it will likely take five years before the overhang of housing inventory in the U.S. is cleared.<sup>1</sup>

Even though Canada has benefitted from strong Chinese demand for lumber, many Canadian lumber producers are facing challenging economic times since new home construction in the U.S. is a key demand driver for Canadian wood products (softwood lumber in particular). Losses for the industry have also been impacted by the strong Canadian dollar along with the fact that recovery of the U.S. housing market is taking significantly longer than initially predicted.

## ***Shifting Global Demand for Paper***

The pulp and paper sector is finally anticipated to realize a small pre-tax profit this year of \$251 million after eight consecutive years of losses, according to a recent Conference Board of Canada report.<sup>2</sup> The Conference Board forecasts that the industry will post modest profits averaging \$512 million annually over the next four years. The turnaround in fortunes will be driven by an increase in the number of new orders and shipments, especially to emerging markets such as China, India and Brazil.

While these are all positive indications for the industry, there are a few challenges that pose a risk to the long-term outlook. These challenges include:

- Continued appreciation of the Canadian dollar
- Declining demand in North America
- Structural shift away from print media towards electronic media
- High crude oil prices impacting energy and transportation costs
- Excess production capacity in Canada (impacts price increases on many paper grades)

The challenges above may seem significant but there are also opportunities for the industry that should be noted. These opportunities include:

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<sup>1</sup> FEA Macroeconomic Advisor report, May 2011

<sup>2</sup> Conference Board of Canada, *Canadian Industrial Outlook: Canada's Paper Products Industry – Spring 2011*

- Rapidly developing economies in countries such as China and India where per capita paper consumption is much lower than developed countries. This presents significant opportunity to grow market share in these new markets. Population growth and growing affluence will likely further drive demand.
- Niche or specialty papers (e.g. coated papers and flexible packaging) have shown growth possibly as a result of rising disposable incomes which has improved demand for items such as wallpaper and gift wrapping.
- Increasing e-commerce activity will stimulate demand for paper packaging materials such as corrugated boxes which are needed to ship purchases.

## **IV. Developments in Forest Products Markets Sectors**

### ***1. Wood Energy Policy***

The Canadian forest sector makes widespread use of forest biomass in the cogeneration of heat and electricity for use in industrial processes and sale to 3<sup>rd</sup> parties. About 6.5% of Canada's total secondary energy use is now coming from forest biomass. In 1990, fossil fuel usage accounted for 38% of the forest sector's energy needs. A focus on changing the fuel supply mix and improving energy efficiency in the industry has caused the fossil fuel share to fall to 22% by 2009 while the share of bioenergy, hydro and nuclear power usage rose from 62% to 78%.

Canada's forests have a strong role to play in the production of bio-fuels from residues and opportunity wood. Studies have shown that mill residues are in short supply in some Canadian regions to a point where residue users are competing for the remaining supplies from traditional sources. However, non-traditional biomass sources, such as solid waste, represent a large potential source of wood-based bio-energy.

Timber impacted by the Mountain Pine Beetle in British Columbia represent a potentially large and underutilized energy resource for forestry operations. Wood-based transportation fuels, such as cellulosic ethanol, are currently in development, and they are expected to become commercial over the next decade. Right now, there is a need for further research and development and pilot testing of technologies to reduce production costs of bio-fuels and process co-products so that the resulting bio-fuels are cost-competitive when compared with fossil fuels.

### ***2. Certified Wood Products***

The different levels of government, and the various forestry and wood products associations, have various programs and policies in place that promote the sustainable use of wood both domestically and internationally, whether at the harvesting, manufacturing or consumption level. For example, many provincial governments have policies and guidelines requiring that the pulp and paper sector use existing wood fiber, available through primary manufacturing plants such as sawmills and other wood processing mills, before being granted a tenure license. Such a procedure ensures that existing fiber is used efficiently before new harvesting areas are opened up.

Environmental issues are, more than ever, a growing concern in the marketplace, and demand for certified forest products continues to increase. Recognizing the growing global interest in certified forest products, the Canadian forest products industry has implemented forest certification as a way of improving its forest management practices and demonstrating its commitment to sustainable forest management. Canada now has the largest certified area of sustainably managed forests in the world. As of mid-year 2011, 151.12 million hectares have been certified under one of the three forest-specific certification systems available in Canada. The distribution under the three systems is as follows — Canadian Standards Association (CSA) 63.09 million ha, Sustainable Forestry Initiative (SFI) 53.19 million ha, and Forest Stewardship Council (FSC) 41.26 million ha<sup>3</sup>.

### ***3. Value-Added Wood Products***

In the Canadian context, the value-added wood products group includes wood windows and doors, factory-built homes, millwork and joinery products, shingles and shakes, containers and pallets, engineered wood products (EWPs) such as I-beams and roof trusses, and other structural products.

Market acceptance of EWPs, the shift from larger dimension lumber to EWPs and the shift from stick-built homes to factory-built homes, all contributed to the significant growth of this segment than began in the mid-1990s. This growth has since slowed, reaching a peak of \$11 billion in 2006 and declining to \$8.6 billion in 2009.

In 2010, approximately \$1.3B in value-added products were exported, almost exclusively to the US market (92%). In 2010, the value of total exports of value-added wood products continued to decrease from previous years, with a decline of 5.7% over 2009. Between 2009 and 2010, imports of value-added wood products increased by 13% to \$1.3 billion.

The value-added sector has been affected by the U.S. housing market, which reduced demand for Canadian wood products, and the continued strength of the Canadian dollar, which has eroded Canadian-denominated revenues from U.S. markets. Furthermore, though Canada has developed some special niche markets within this product group, Canada faces increased competition from Asia.

### ***4. Sawn Softwood***

Between 2006 and 2010, Canadian sawn softwood production decreased by 34% to 37.7 million cubic metres. During this period, North American sawn softwood prices fell by 13.1% while the volume of Canadian sawn softwood exports to the U.S. dropped by 55%.

Ongoing weakness in the U.S. housing sector has been a key factor behind this decline. Softness in the U.S. housing market is attributable to weak employment figures, tepid economic growth and large volumes of unsold U.S. home inventory.

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<sup>3</sup> If a forest area has been certified to more than one standard (ISO, CSA, FSC, SFI), the area is only counted once, hence the grand total of certifications may be less than the sum of the individual totals.

There has been optimism on the part of softwood lumber producers since demand in China has been growing at an exponential rate. Between 2001 to 2010, softwood lumber exports to China have increased by almost 50 fold on a volume basis. In 2006 to 2010 alone, exports increased more than 13 fold. The demand in China is increasingly driven by growing construction demands and the desire by the Chinese government to ensure that building materials used are energy-efficient and have a low-carbon footprint.

While the Canadian sawn softwood industry has traditionally been very reliant on the U.S., market diversification efforts are appearing to be successful with the emergence of strong demand in China.

The near term demand for Canadian sawn softwood will largely be driven by the Chinese market. Once the U.S. housing market recovers, it is expected that the demand for sawn softwood will increase.

### ***5. Oriented Strand Board***

OSB represents a large portion of Canada's total structural panel exports, most of which is destined for the U.S. market. In 2006, OSB comprised over 80% of Canada's total structural panel production volume. Since then, OSB's share of the production of structural panels has slid to 74%. It is expected that as the U.S. housing market improves, OSB's share of Canada's total structural panel production will also rise.

The impacts of the U.S. housing crisis can be seen in the decline in demand for Canadian OSB. Between 2007 and 2010, total exports of OSB dropped by 43%. Exports to the U.S. during this period, declined by 45%. This is significant since the U.S. is by far the largest consumer of Canadian OSB, receiving over 86% of Canadian exports in 2010. Between 2009 and 2010, the North American price of OSB increased by 33.5%. As of the week of August 5, 2011, OSB was selling for US\$187/MMsf compared to an average of US\$165/MMsf in 2010.

### ***6. Paper and Paperboard***

In 2010, the value of Canadian exports of paper and paperboard changed little, falling by 0.1%. This is now the fifth consecutive year that exports have fallen for the industry which is reflective of the struggles the industry has faced. The industry continues to face a high Canadian dollar, escalating wood fibre costs and high energy costs, which have significantly cut into producer margins. Additionally, online media sources have successfully competed against newsprint-based media sources, significantly eroding its market share while printing and writing papers most recently have been hurt by the rise of electronic reading devices. Given the maturity of the North American market, there are limited growth opportunities for paper and paperboard.



## **7. Wood Pulp**

In 2010, the volume of Canadian pulp exports increased by 12.9% while overall Canadian pulp production rose by 8.4%. This rise was largely attributable to growth in the demand for pulp in new markets such as Asia where the paper industry, a major driver of pulp demand, has grown significantly. Canadian pulp exports to China grew at an annual average rate of 12.8% from 1995 through 2010. More recently, over the first 6 months of 2011, pulp exports to China have grown by 57.7% compared to the first half of 2010. This growth has been fuelled by two main factors. First, China has greatly expanded its paper capacity and this is contributing to increased demand for pulp for paper production. Second, China has significantly reduced its domestic non-timber pulp supplies and this has resulted in Chinese paper producers sourcing foreign pulp supplies to fulfill their paper production needs. The drive to reduce non-timber based pulp supplies in China will likely continue for as long as it takes to address pollution problems associated with their production.

In the long-term, Canadian pulp producers will likely continue to benefit from expanded Chinese pulp demand with Canada continuing to ship its primary pulp product, Northern Bleached Softwood Kraft (NBSK), to China. This will likely enable Canadian producers to differentiate their product by both price and quality from products sold by competitors; most commonly, Southern Bleached Softwood Kraft (SBSK), as supplied by both Brazil and the US. Nevertheless, foreign competition will likely play some role in determining the size of share that Canada gains in the Chinese pulp market as Chinese buyers may choose to substitute one product for the other in certain applications. Since 2006 Canada's share of Chinese pulp imports has dropped slightly from 27.0% to 25.6% in 2010. Over the same period, Brazil's share has risen from 12.4% to 18.8% while the US improved its share from 10.5% to 13.1%. If Canadians are able to maintain or even expand their pulp market share in China, they will benefit from having reduced their exposure to the US pulp market – one which has limited pulp market expansion opportunities. Presently, Canadian pulp exports to China amount to 36% of Canada's total pulp exports, slightly below Canadian exports to the US, at 37%

## Appendix

### *Statistics and Prospects*

\* Figures for 2010 and 2011 are estimated/forecasted

#### Sawn Softwood (000 Cubic Metres)

	2009	2010	2011*	2012*
<b>Production</b>	32,007	37,712	38,808	41,255
<b>Apparent consumption</b>	14,014	16,823	15,820	16,230
<b>Imports</b>	679	977	718	767
<b>Exports</b>	18,672	21,866	23,706	25,792

#### Coniferous Veneer and Sawlogs (000 Cubic Metres)

	2009	2010
<b>Imports</b>	2,490	2,469
<b>Apparent consumption</b>	85,458	84,232
<b>Exports (Total)</b>	2,425	3,630

#### Sawn Hardwood (000 Cubic Metres)

	2009	2010	2011*	2012*
<b>Production</b>	813	955	1,000	1,100
<b>Apparent consumption</b>	1,328	2,198	2,144	2,244
<b>Imports</b>	844	1,752	1,530	1,530
<b>Exports (Total)</b>	329	509	386	386

#### Oriented Strandboard (OSB) (000 Cubic Metres)

	2009	2010	2011*	2012*
<b>Production</b>	3,968	4,423	4,540	4,593
<b>Apparent consumption</b>	1,369	1,665	1,508	1,511
<b>Imports</b>	97	131	118	118
<b>Exports (Total)</b>	2696	2,889	3,150	3,200

**Plywood (000 Cubic Metres)**

	<b>2009</b>	<b>2010</b>	<b>2011*</b>	<b>2012*</b>
<b>Production</b>	1810	1,973	2,000	2,070
<b>Apparent consumption</b>	2,365	3,745	3,772	3,842
<b>Imports</b>	861	2,065	2,065	2,065
<b>Exports (Total)</b>	306	293	293	293

**Particleboard (000 Cubic Metres)**

	<b>2009</b>	<b>2010</b>	<b>2011*</b>	<b>2012*</b>
<b>Production</b>	5,539	6,157	6,450	7,700
<b>Apparent consumption</b>	2,951	3,842	2,700	3,250
<b>Imports</b>	678	1,275	850	850
<b>Exports (Total)</b>	3,266	3,590	4,600	5,300

**MDF (000 Cubic Metres)**

	<b>2009</b>	<b>2010</b>	<b>2011*</b>	<b>2012*</b>
<b>Production</b>	843	793	793	793
<b>Apparent consumption</b>	710	680	680	680
<b>Imports</b>	317	295	295	295
<b>Exports (Total)</b>	450	408	408	408

**Fibreboard (000 Cubic Metres)**

	<b>2009</b>	<b>2010</b>	<b>2011*</b>	<b>2012*</b>
<b>Production</b>	1,361	884	884	884
<b>Apparent consumption</b>	1,378	958	958	958
<b>Imports</b>	692	651	651	651
<b>Exports (Total)</b>	675	577	577	577

**Wood Pulp (000 tonnes)**

	<b>2009</b>	<b>2010</b>	<b>2011*</b>	<b>2012*</b>
<b>Production</b>	17,227	18,530	18,760	18,950
<b>Apparent consumption</b>	9,198	9,414	8,574	8,660
<b>Imports</b>	246	227	214	214
<b>Exports (Total)</b>	8,275	9,343	10,400	10,504

**Paper and Paperboard (000 tonnes)**

	<b>2009</b>	<b>2010</b>	<b>2011*</b>	<b>2012*</b>
<b>Production</b>	12,823	12,673	12,350	12,350
<b>Apparent consumption</b>	5,945	5,622	4,783	4,783
<b>Imports</b>	2,649	2,648	2,520	2,520
<b>Exports (Total)</b>	9,526	9,699	10,087	10,087

Note: Figures above have been adjusted to reflect actual volumes as opposed to nominal. Figures are consistent with those provided for the *2011 UNECE Timber Committee Forecasts (Forest Products)*.