

2013 Economic State of the B.C. Forest Sector

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Prepared by Alex Barnes
Competitiveness and Innovation Branch

Outline

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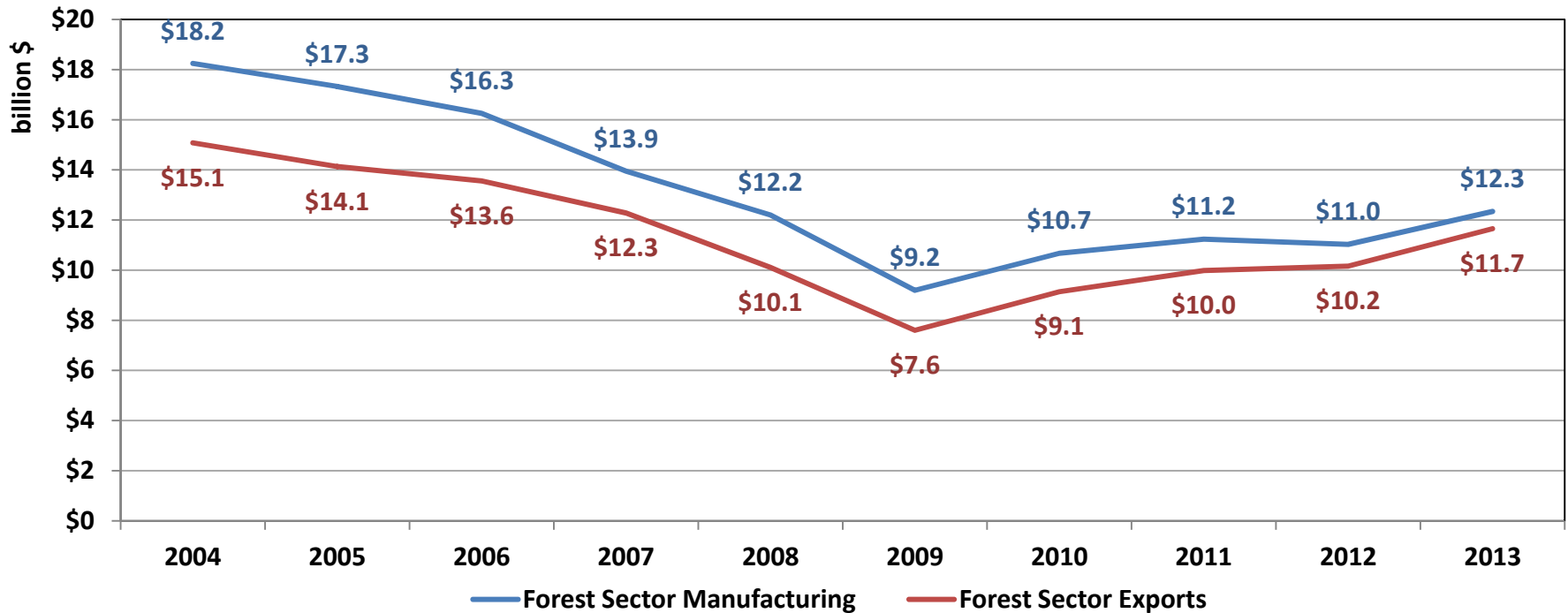
Overview of B.C. Forest Sector

- ❖ **Includes** forest management, harvesting, reforestation, wood product manufacturing, and paper product manufacturing.
- ❖ **Plays a key role in the provincial economy**, especially in many communities outside the lower mainland.
- ❖ **Is export-oriented**, depending heavily on global markets and exchange rates.
- ❖ **Is cyclical**, affected by the global forest commodity markets and general performance of the world economy.

Overview of 2013

- ❖ **B.C.'s forest sector manufacturing sales increased** in 2013, with many product prices increasing substantially compared to 2012.
- ❖ **The U.S. economy** continued to gradually improve, as seen in the employment status and housing market, and this was reflected in higher forest sector exports to the U.S.
- ❖ **China*** continued as the second largest export market for B.C.'s forest sector and helped to make up for lower U.S. demand.
- ❖ **Employment remained relatively steady** in the B.C. forest sector, achieving a small increase in 2013.
- ❖ **The B.C. forest sector continues to recover** from 2009, the sector's worst year of the recession, and one of the worst years for B.C. forestry in recent history.

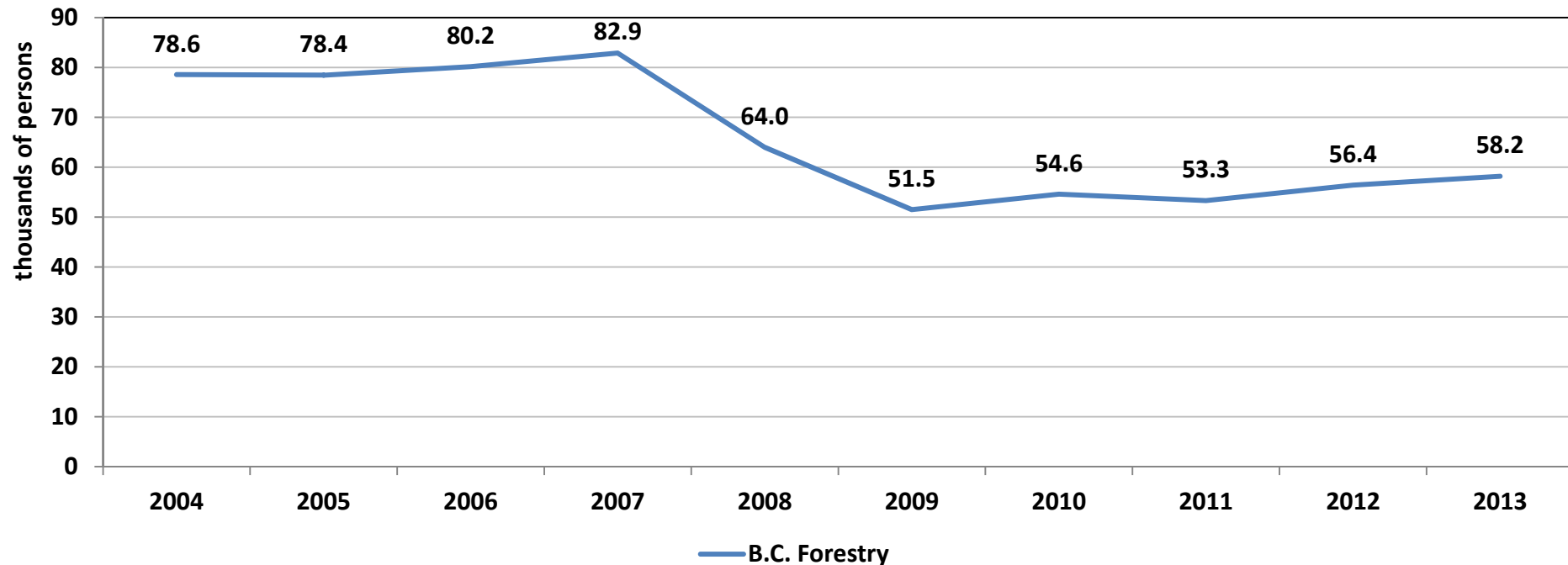
B.C. Forest Sector Manufacturing Sales and Exports



Data source: Statistics Canada; CANSIM 304-0015, and Canadian International Merchandise Trade Database (CIMTD). Logs are not included in manufacturing sales, but are included in exports.

Overview Indicator 1 – B.C. forest sector manufacturing sales in 2013 were up 12% from 2012 and accounted for 31% of B.C. total manufacturing sales. Exports were up 53% from 2009, and were up 15% from 2012, accounting for 35% of B.C. total merchandise exports. During the U.S. Housing boom 2004 was the peak in forest sector manufacturing sales and exports.

B.C. Forest Sector Direct Employment



Data source: Statistics Canada; Labour Force Survey. Includes Wood Product Manufacturing, Paper Manufacturing, and Forestry and Logging with Support Activities.

Overview Indicator 3 – B.C. forest sector direct employment was 58,200 in 2013, up 3.2% from 2012 and 13% from 2009, and accounted for 2.5% of B.C. employment. Employment is still climbing upward after the dip from the recession.

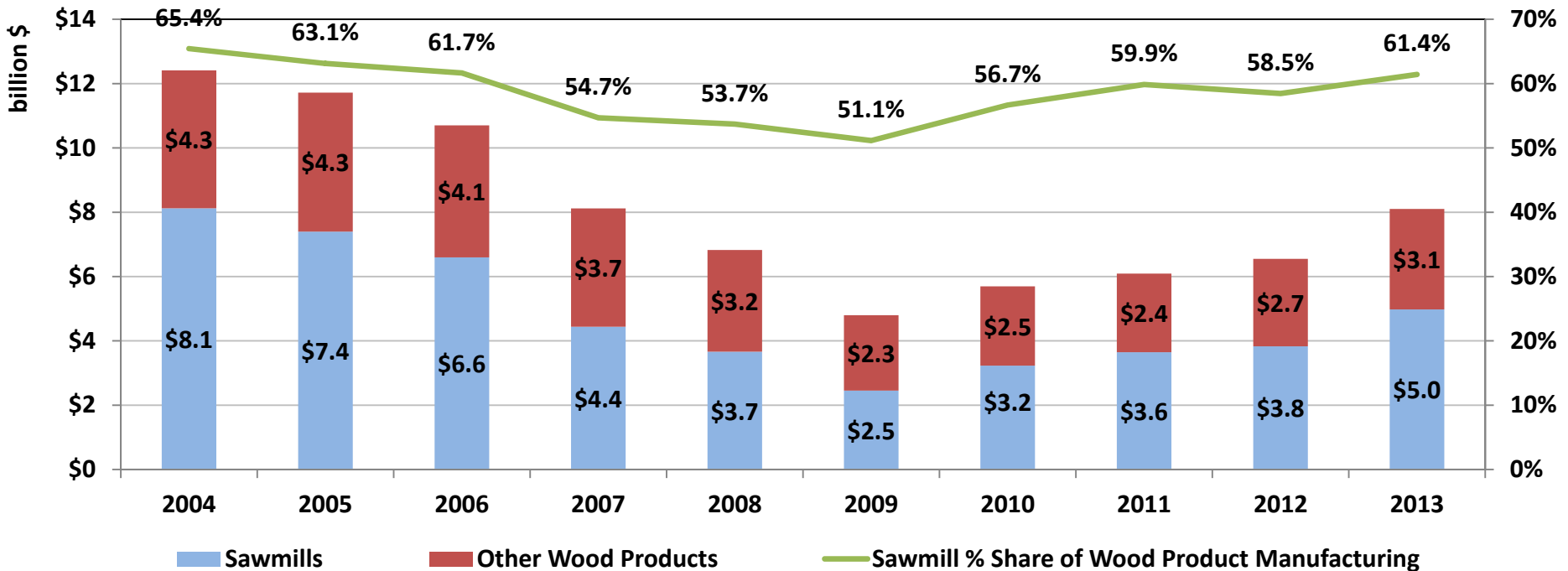
Products Overview

- ❖ **Wood Products, especially Lumber:** In 2013, B.C. produced 30.1 million cubic metres of lumber, or 52% of Canada's total softwood lumber production. B.C. sawmill* sales (primarily lumber) were \$5.0 billion in 2013, or 61% of total Wood Product Manufacturing sales in B.C.
- ❖ **Pulp and Paper Products, especially Market Pulp:** B.C. pulp mills** sold 4.2 million tonnes of market pulp for \$2.4 billion in 2013, or 57% of total Paper Manufacturing sales in B.C.
- ❖ **Logs:** In 2013, 70.9 million cubic metres of logs were harvested. Exports of 6.7 million cubic metres (9.4% of harvest), mostly from coastal areas, were worth \$802 million.
- ❖ **Energy Products:** B.C. exported 1.3 million tonnes of wood pellets, primarily to Europe, worth \$195 million.

*Excludes shake and shingle mill sales. Sawmills are a subcategory of Wood Product Manufacturing.

**Pulp is a subcategory of Paper Manufacturing.

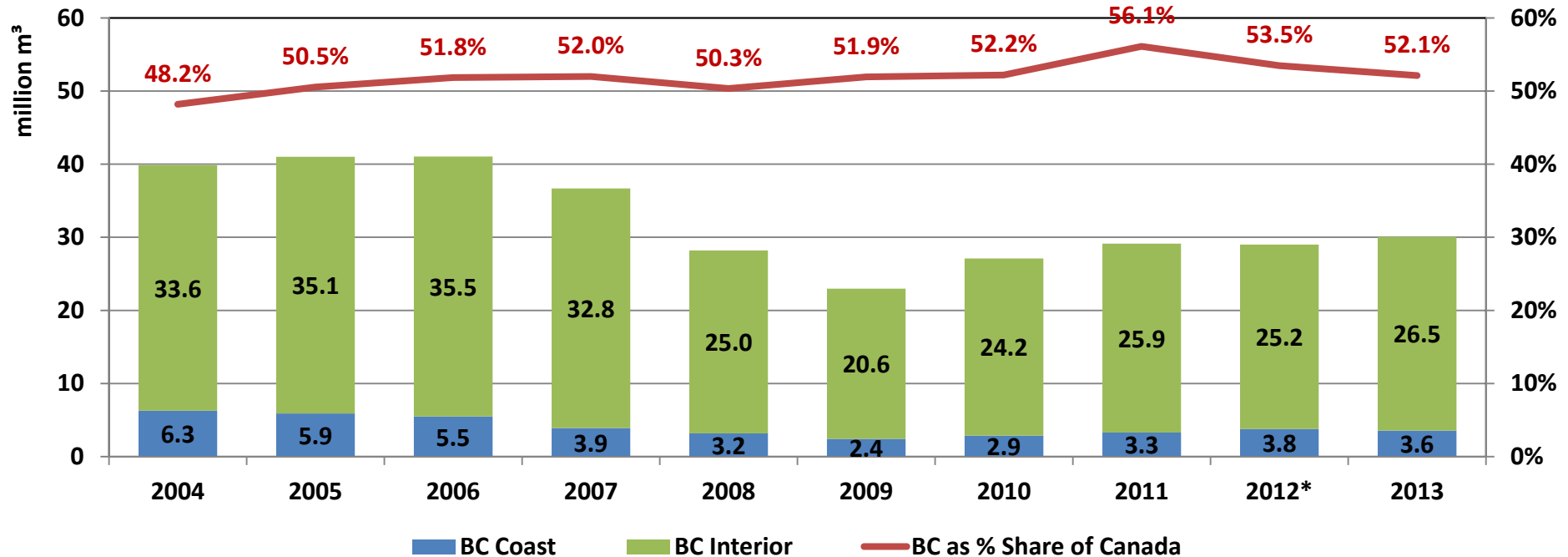
B.C. Wood Product Manufacturing Sales



Data source: Statistics Canada; CANSIM 304-0015. Sawmill sales are primarily lumber, and include chip and sawdust sales. Other wood products include veneer, plywood, oriented strand board, shake and shingles, wood pellets, and many other products.

Products – Wood Products – Wood Product Manufacturing sales totaled about \$8.1 billion in 2013. Sawmill sales accounted for 61% of Wood Product Manufacturing sales. From 2012 to 2013, Sawmill sales increased 30% and Other Wood Products increased 15%.

B.C. Softwood Lumber Production

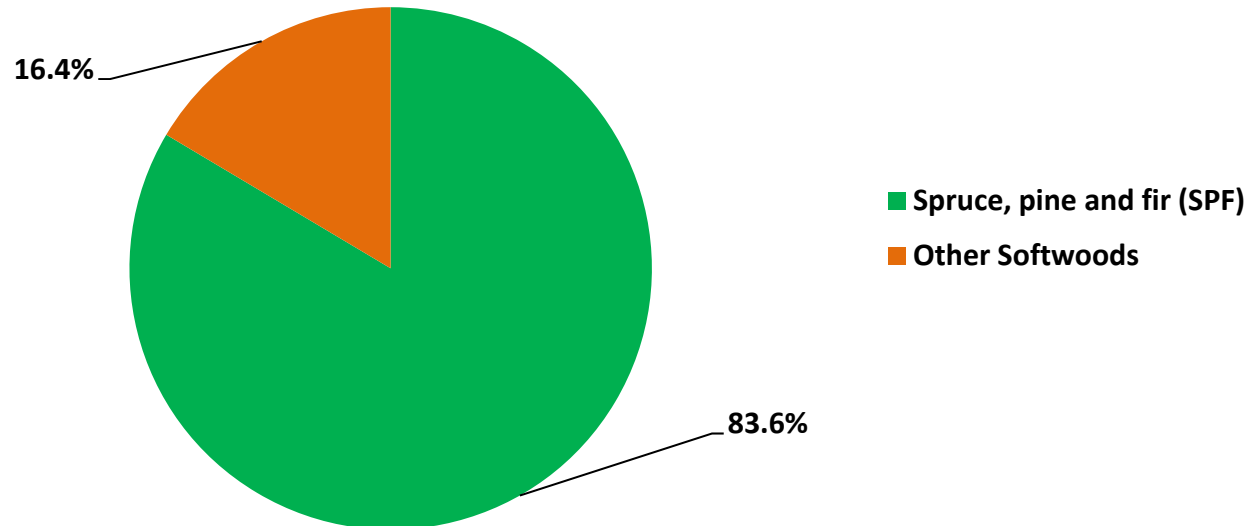


*Interior and Coast Share are Estimates. In all years the Interior includes Northwest Territories, Yukon, and Nunavut, but their share is minimal.

Data source: Statistics Canada; CANSIM 303-0064.

Products – Softwood Lumber – Softwood lumber production volume held relatively steady in 2013, inching up by 3.1%. The Coast accounted for 12% of B.C. production. Volumes were up 31% from 2009. B.C.'s share of Canada's lumber output increased to more than a half over the past decade.

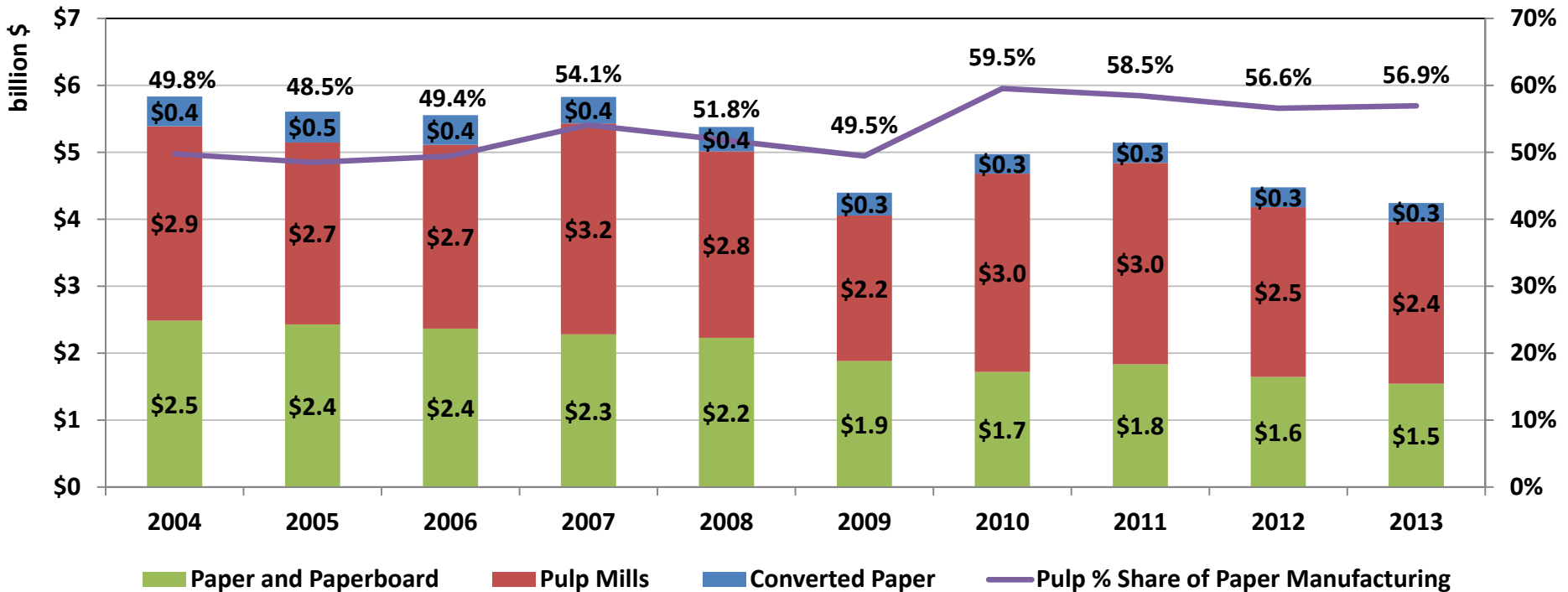
B.C. Softwood Lumber Production (30.1 million m³) Share by Species, 2013



Data source: Statistics Canada; CANSIM 303-0064. Based on volume in cubic metres.

Products – Softwood Lumber – In 2013, 84% of softwood lumber production volume was spruce, pine or fir (SPF), and 16% was from other species such as cedar and Douglas fir.

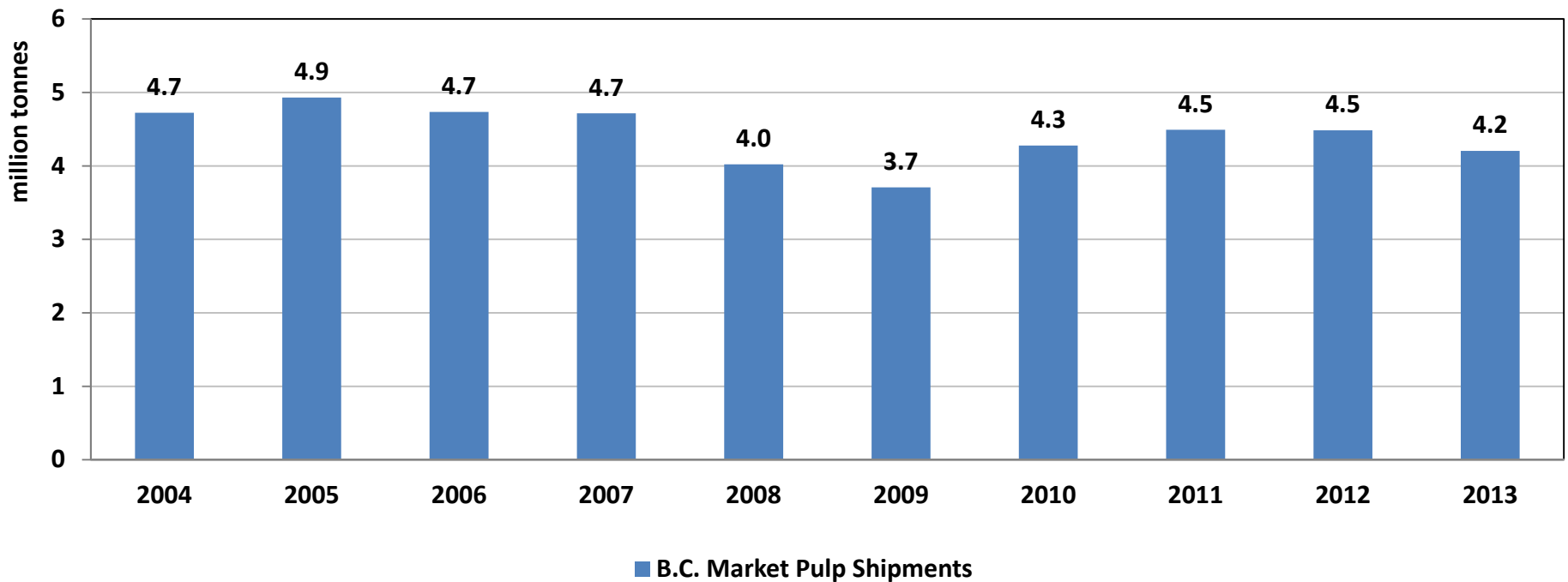
B.C. Paper Manufacturing Sales



Data source: Statistics Canada; CANSIM 304-0015.

Products – Pulp and Paper – Paper Manufacturing sales totaled about \$4.2 billion in 2013, decreasing by 5.3%. Pulp decreased 4.7% from 2012 to 2013, but still accounted for 57% of Paper Manufacturing sales. Paper and Paperboard sales were down 6.2%.

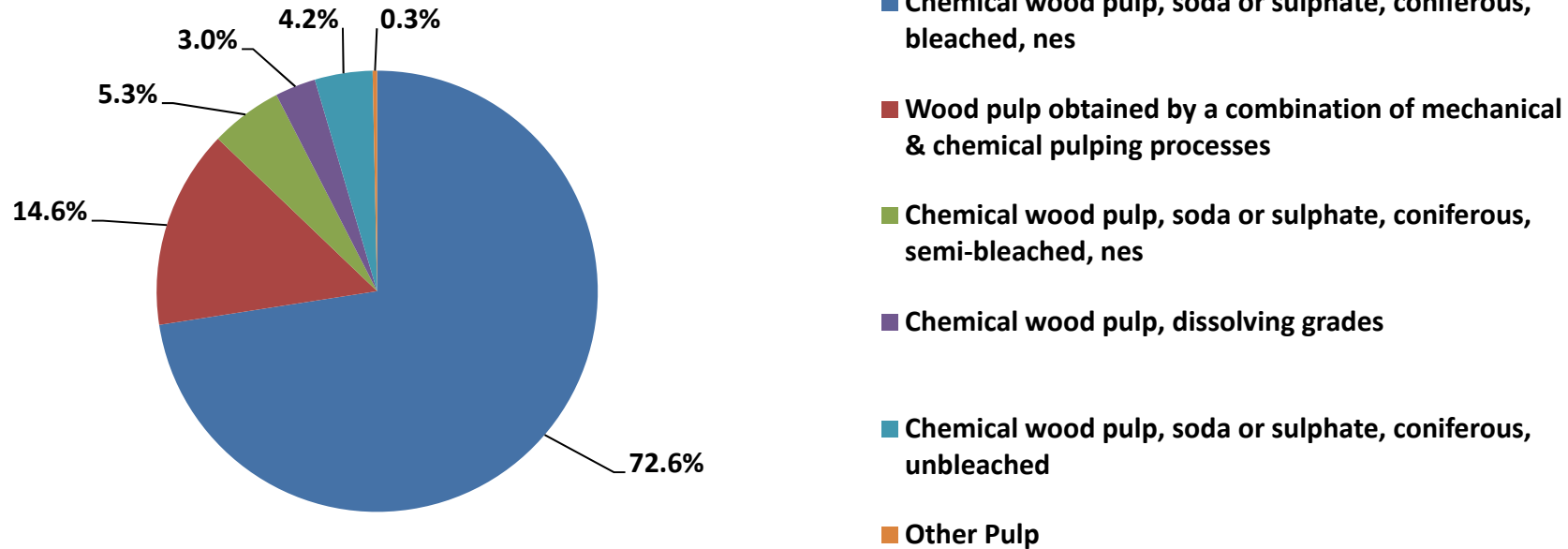
B.C. Market Pulp Shipments



Data source: B.C. Stats and Canadian Forest Service statistics.

Products – Pulp – B.C.'s market pulp shipments fell 6% from 2012 to 2013. Compared with lumber production, market pulp shipments were fairly stable over the past decade. Note that if pulp is used on site (at the same factory) for paper production then said pulp is not included in market pulp.

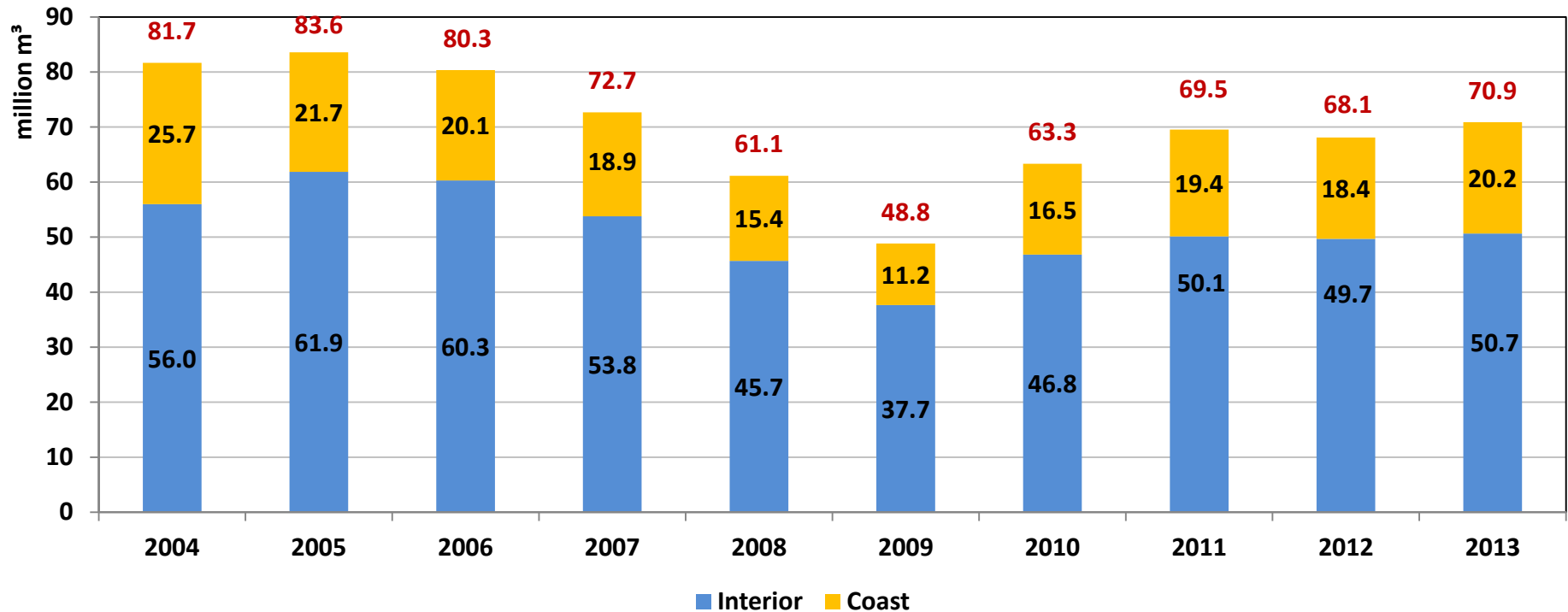
B.C. Pulp Export Share (4.15 million tonnes) by Product, 2013



Data source: Statistics Canada; CIMTD. Based on air dry tonnes.

Products – Pulp – Bleached sulphate (kraft) pulp dominates B.C.’s pulp exports. High-value dissolving pulp accounts for 3.0% of the export volume. Exports of 4.15 million tonnes account for 99% of the 4.21 million tonnes of market pulp shipments reported in B.C.

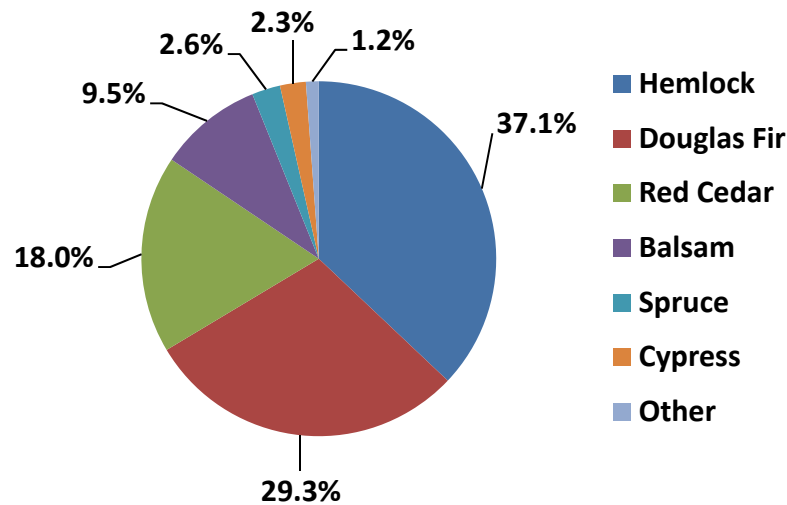
B.C. Timber Harvest Volume



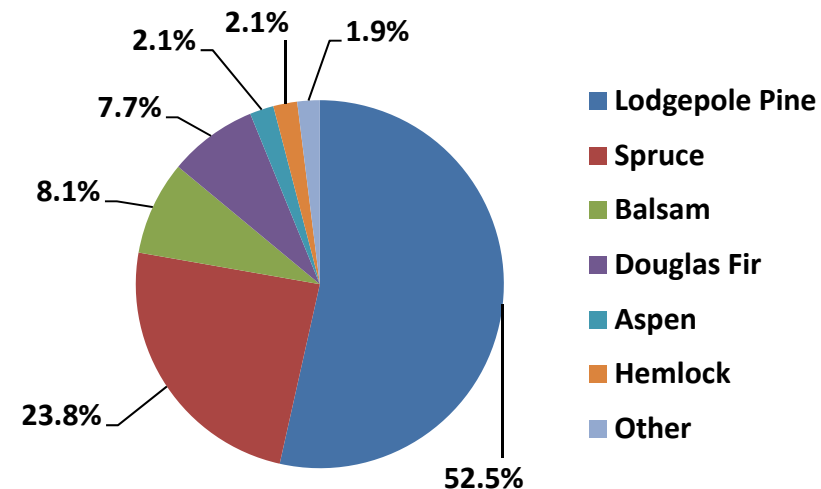
Data source: B.C. Ministry of Forests, Lands, and Natural Resource Operations (FLNR). All logs, special forest products, species and grades billed excluding waste, reject and Christmas trees, data run on May 1, 2014. Includes both Crown and Private lands.

Products – Logs – Total harvest volume (70.9 million m³) was up 4.1% from 2012, and up 45% from 2009. The Interior accounted for 71% of the harvest, and the Coast for 29%.

Coast Harvest Volume Share by Species, 2013



Interior Harvest Volume Share by Species, 2013



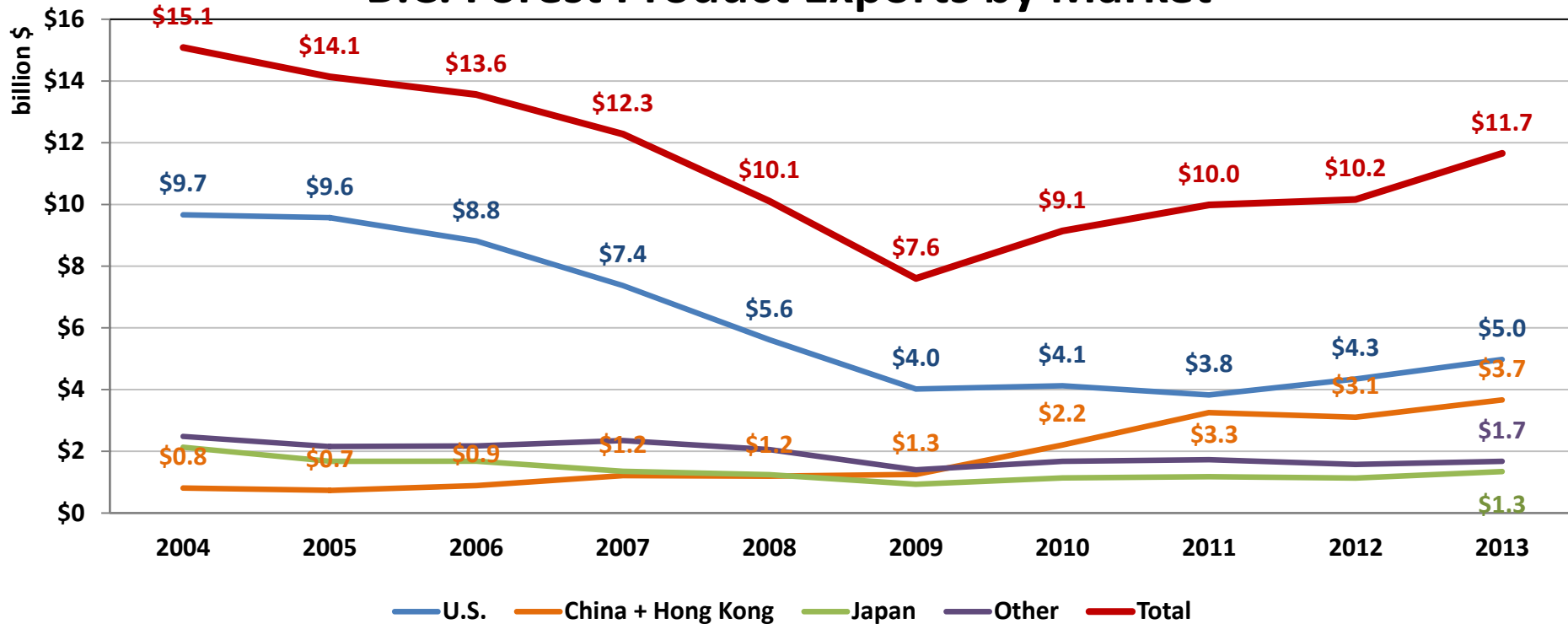
Data source: B.C. FLNR. Includes harvest of all species from all land types. Does not include waste, reject, or Christmas trees.

Products – Logs – Hemlock and Douglas fir make up roughly 2/3 of the harvest on the Coast. In the Interior the main species is lodgepole pine, followed by spruce.

Markets Overview

- ❖ **The U.S., China, and Japan** are the top three export markets for the B.C. forest sector.
- ❖ **The U.S. is the largest**, but has decreased considerably since 2005.
- ❖ **China has increased** substantially since 2006 and is now in a strong second place. China's share has remained around 30% since 2011.
- ❖ **Japan has decreased** since the late 1990s, but has been steady lately, and remains in 3rd place since 2009.
- ❖ **Other export markets** made up 14% of total forest sector exports in 2013.

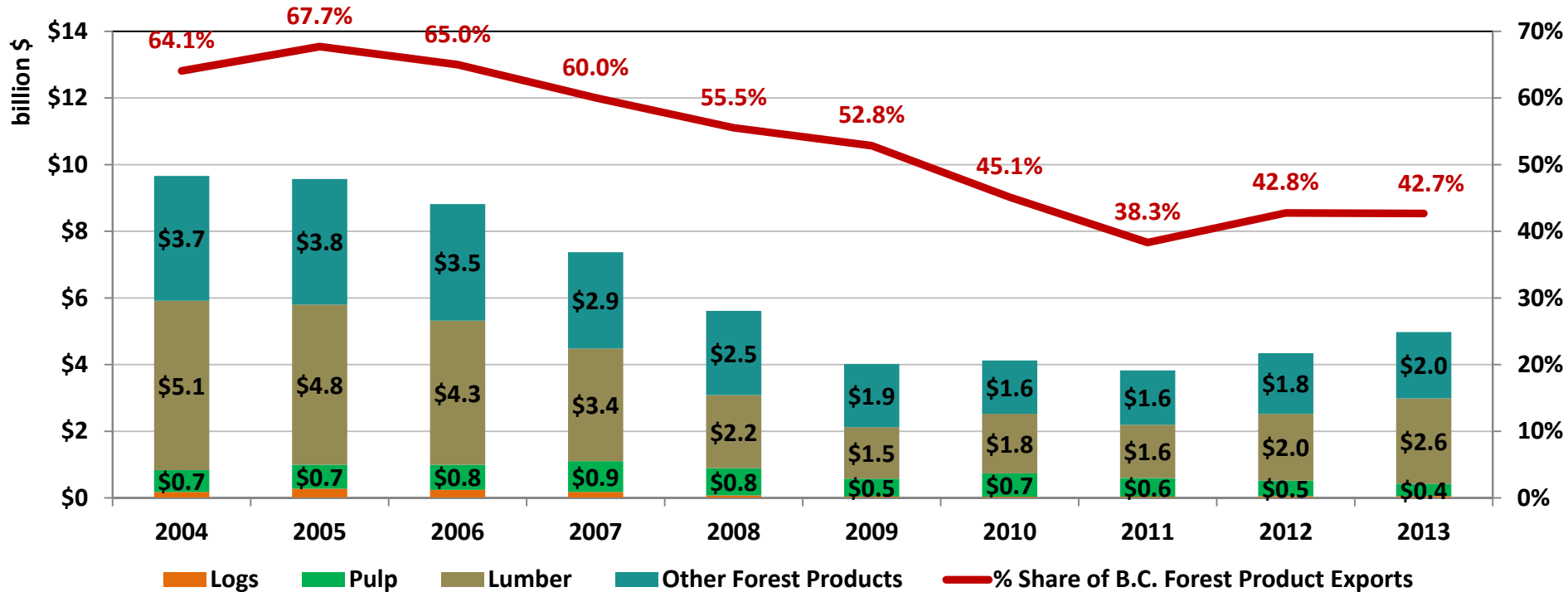
B.C. Forest Product Exports by Market



Data source: B.C. Stats extract from Statistics Canada data. Also available from Statistics Canada CIMTD.

Markets – The U.S. was the #1 export market by value, even after the U.S. housing market crashed. China became the #2 market in 2009 and has been a key driver of the forest sector’s sales recovery since 2009. Japan was #2 for many years until 2009 and is now #3.

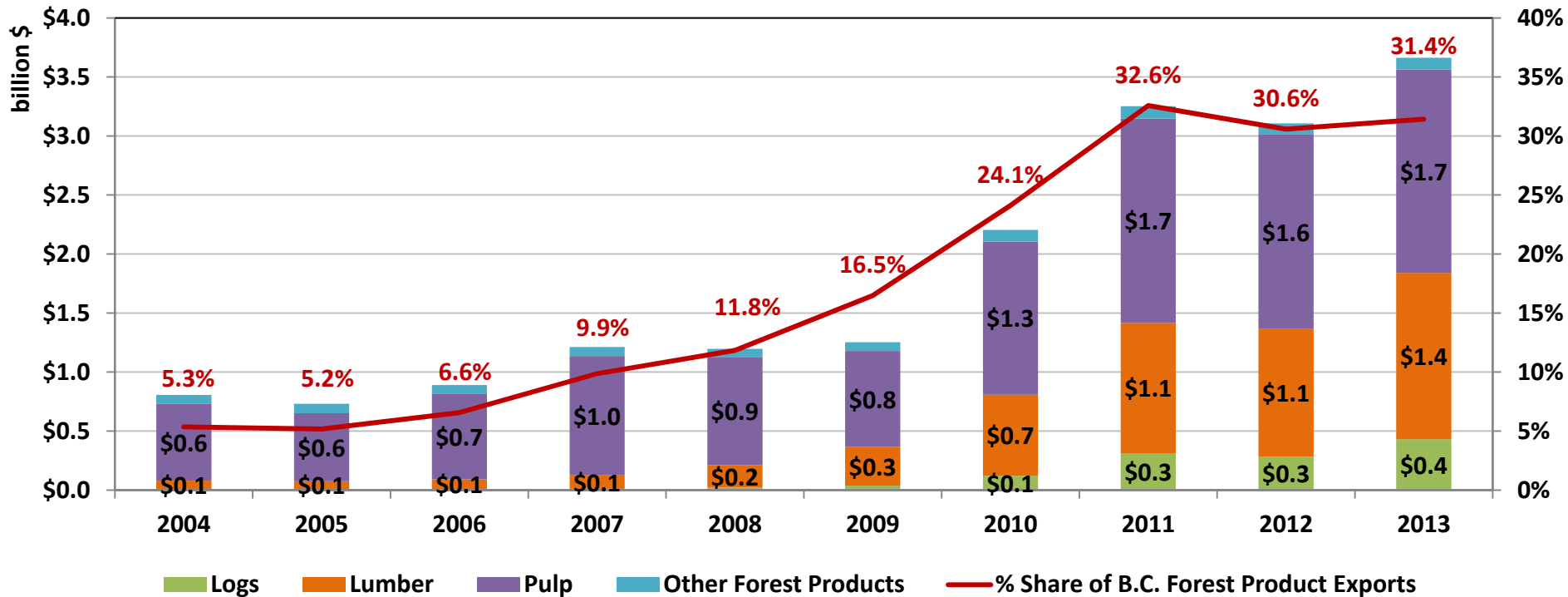
B.C. Forest Product Exports to the United States



Data source: B.C. Stats extract from Statistics Canada data. Also available from Statistics Canada CIMTD.

Markets – U.S. – The U.S. was B.C.’s largest market in 2013 at \$5.0 billion, an increase of 15% over 2012. The U.S.’s share of B.C.’s forest product exports decreased from a high of 67.7% in 2005 to 38.3% in 2011, and has since risen to 42.7%.

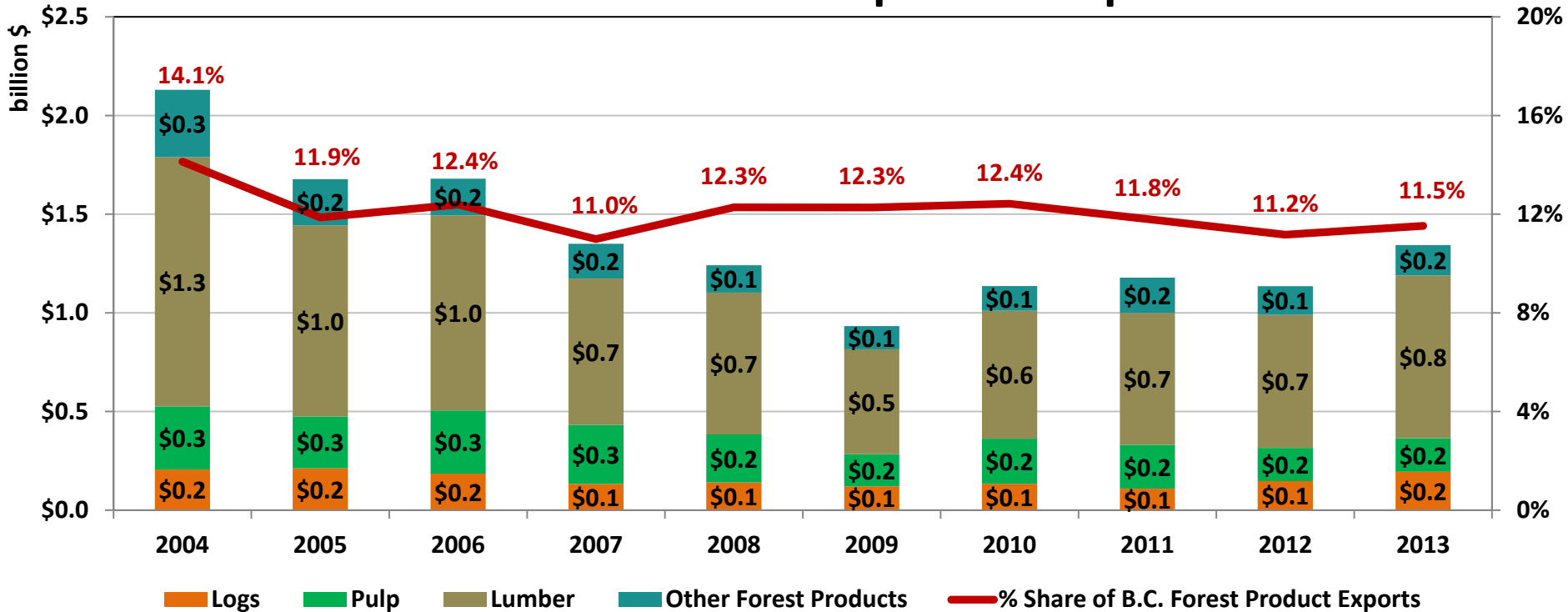
B.C. Forest Product Exports to China



Data source: B.C. Stats extract from Statistics Canada data. Also available from Statistics Canada CIMTD.

Markets – China – B.C. forest product exports to China have hovered around 30% of total forest exports since 2011. The value in 2013 was \$3.7 billion, an increase of 18% over 2012. Lumber and log exports grew the fastest in recent years, largely in response to Russia restricting log exports, but pulp still dominated with 47% of export value.

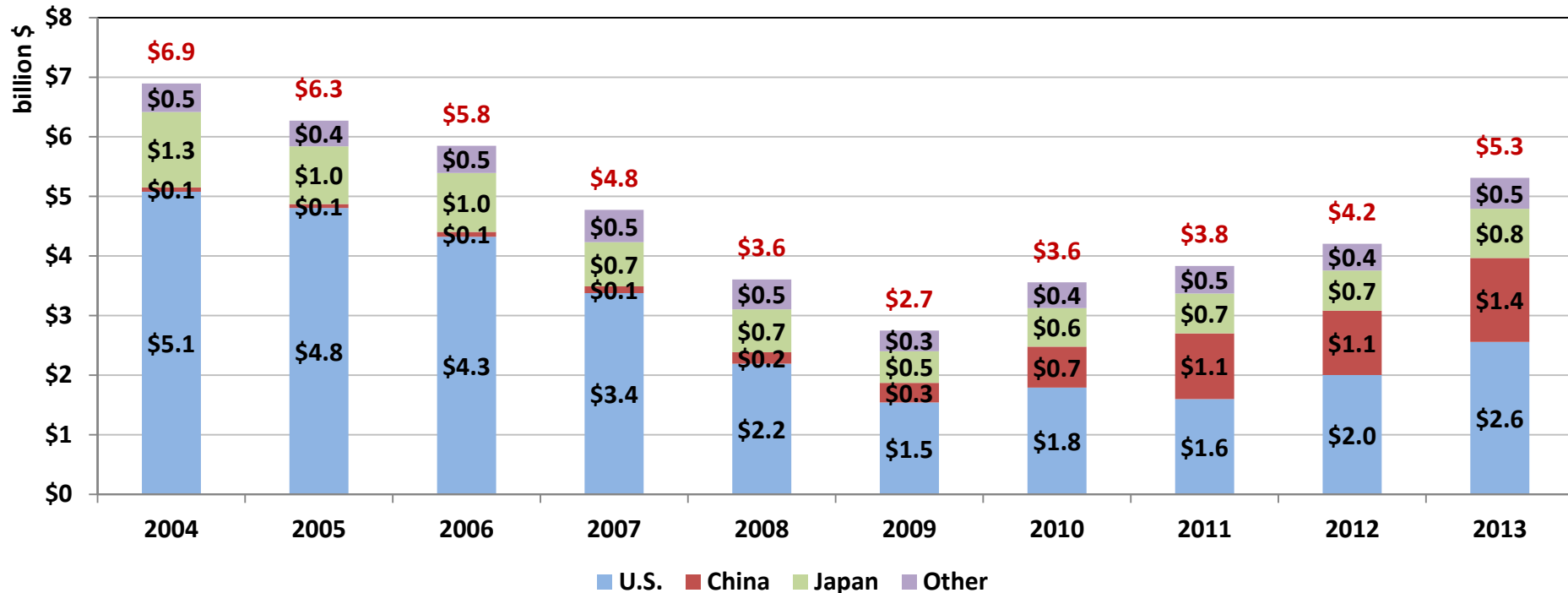
B.C. Forest Product Exports to Japan



Data source: B.C. Stats extract from Statistics Canada data. Also available from Statistics Canada CIMTD.

Markets – Japan – B.C.'s exports to Japan have decreased about 75% from peak years in the mid-1990s, but exports have been relatively steady in recent years. Exports were valued at \$1.3 billion in 2013, an increase of 18% from 2012. Lumber had the highest share of value with 61% in 2013.

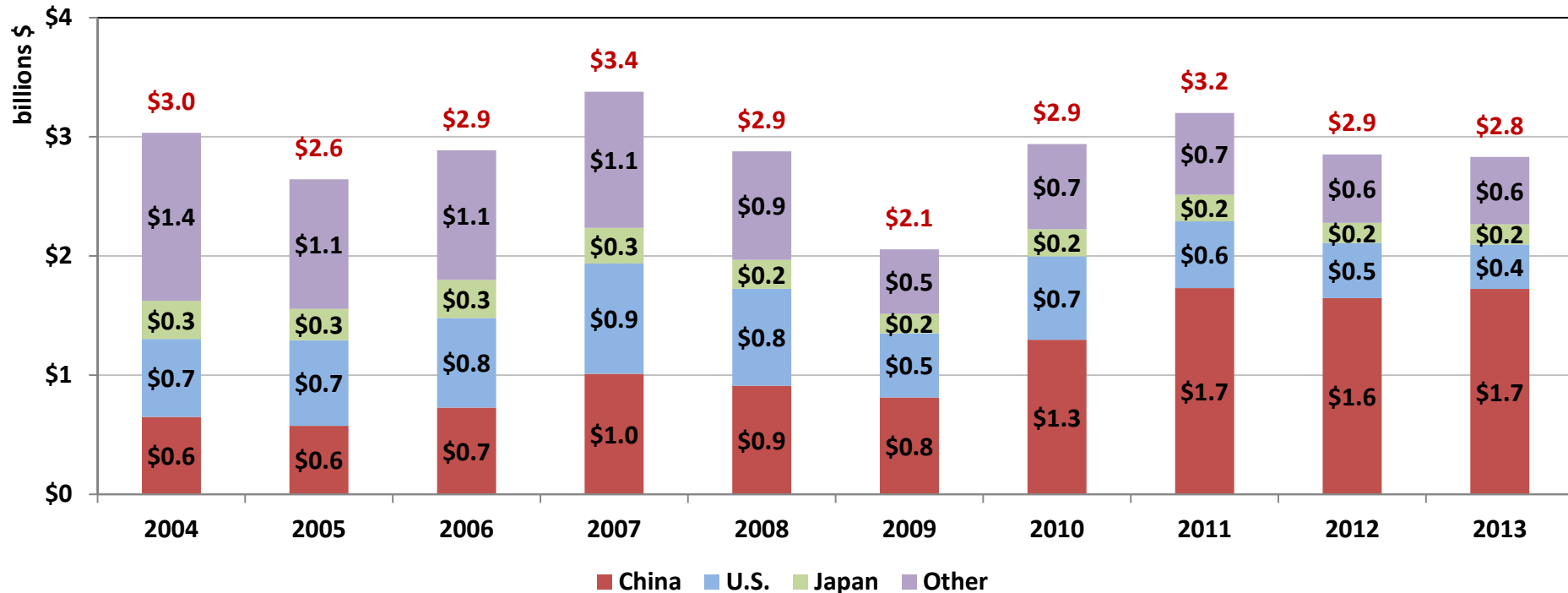
B.C. Softwood Lumber Exports by Market



Data source: B.C. Stats extract from Statistics Canada data. Also available from Statistics Canada CIMTD.

Markets – Softwood Lumber – Over the past decade, B.C.’s lumber export market changed from U.S.-dominated to a more even distribution among the U.S., China, and Japan.

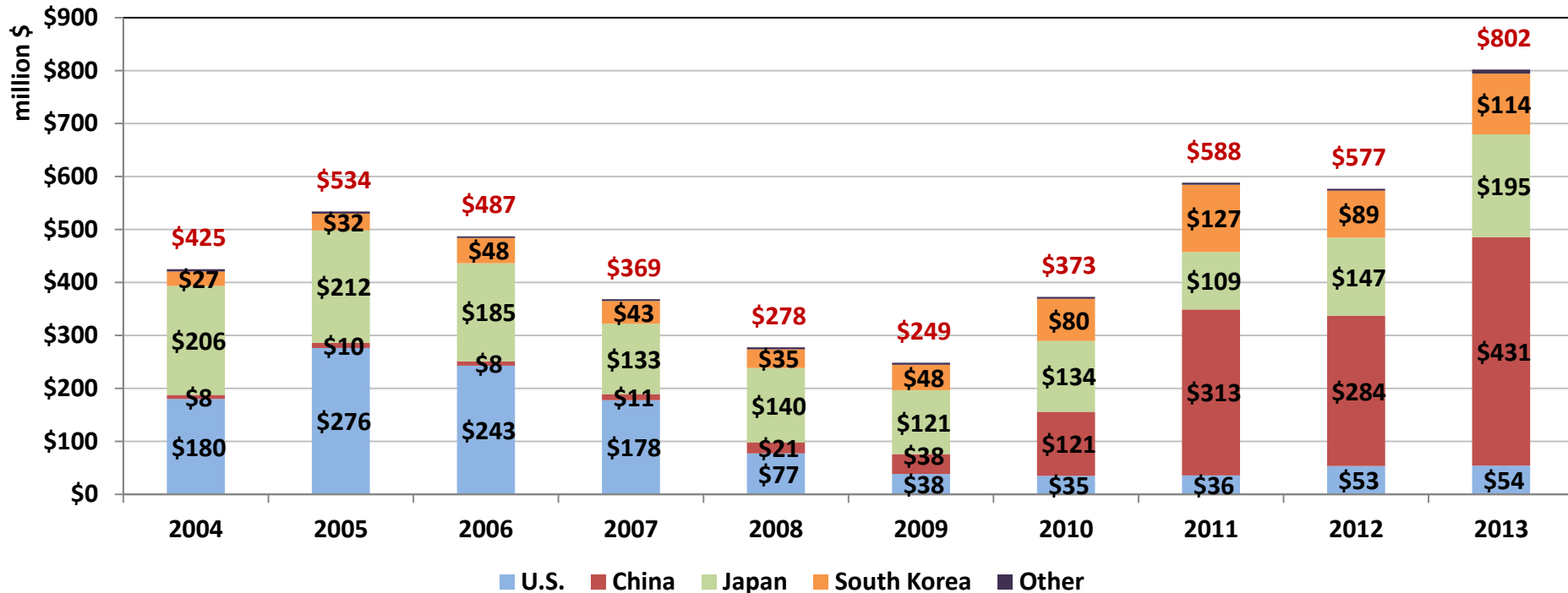
B.C. Pulp Exports by Market



Data source: B.C. Stats extract from Statistics Canada data. Also available from Statistics Canada CIMTD.

Markets – Pulp – China had a dominant 61% share of B.C. pulp exports in 2013, followed by the U.S. (13%), Japan (6%) and other destinations (20%). Over the past decade, exports to China have tripled while exports to other destinations have shrunk.

B.C. Log Exports by Market



Data source: B.C. Stats extract from Statistics Canada data. Also available from Statistics Canada CIMTD.

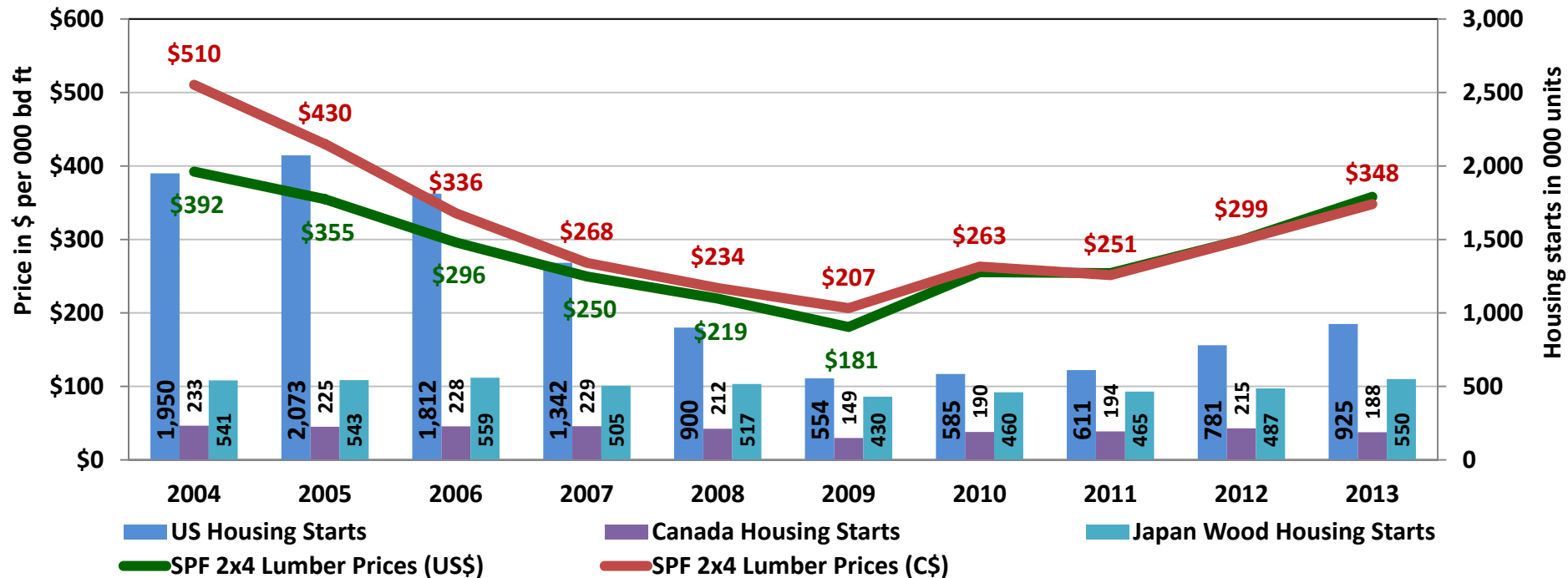
Markets – Logs – The value of log exports increased by 40% in 2013. China (54%) remained the largest destination, and accounted for the majority of growth. South Korea (14%) fell slightly, while the U.S. (7%) and Japan (24%) had higher values in 2013 over 2012. Over the past decade China replaced the U.S. as the main log export market.

Overview of Competitiveness Indicators

- ❖ **Prices and Costs:** Over the past decade, B.C. forest sector companies faced fluctuating product prices, an appreciating Canadian dollar, and high production costs compared to some other jurisdictions. Combined with the aftermath of the recession, these factors created a challenging business environment in B.C.
- ❖ **Investment:** Forest sector capital expenditure fell from 2011 to 2012, and repair expenditures also fell from 2011 to 2012. Current projections show capital expenditure increasing in 2013, and again in 2014*.
- ❖ **B.C.'s Share of Canadian Production:** B.C.'s share increased slightly for the fourth year in a row, reflecting positively on the competitiveness of the B.C. forest sector within Canada.
- ❖ **Government Revenues:** Government revenues increased in fiscal year 2013/14, but were still well below historical levels. The 2013/14 increase was primarily due to increased timber sale value from higher stumpage (\$/m³).

*Repair expenditure is not projected, and so there is no estimated data for repairs in 2013 or 2014 yet.

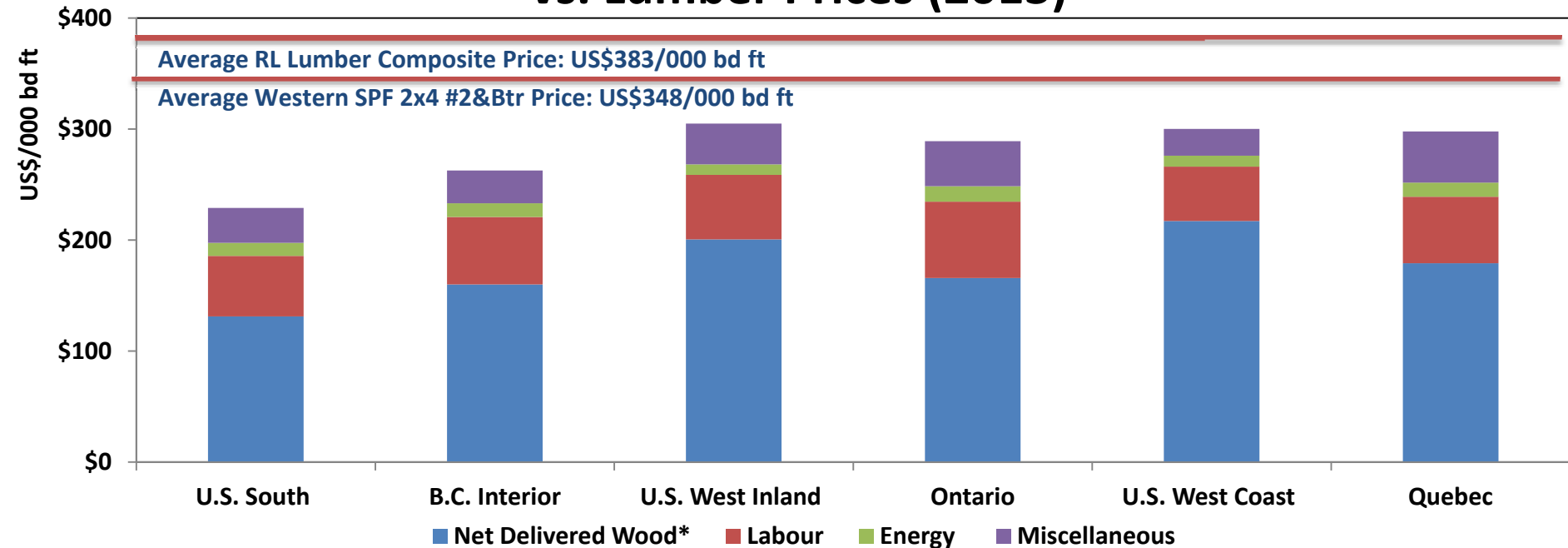
SPF 2x4 Lumber Prices and Housing Starts



Data sources: Madison's Lumber Reporter (SPF), U.S. Census Bureau, JAWIC and Statistics Canada.

Prices and Costs – North America's housing market improved in 2013, but housing starts were still low compared to the early/mid 2000's. Average SPF 2x4 lumber prices increased again in 2013.

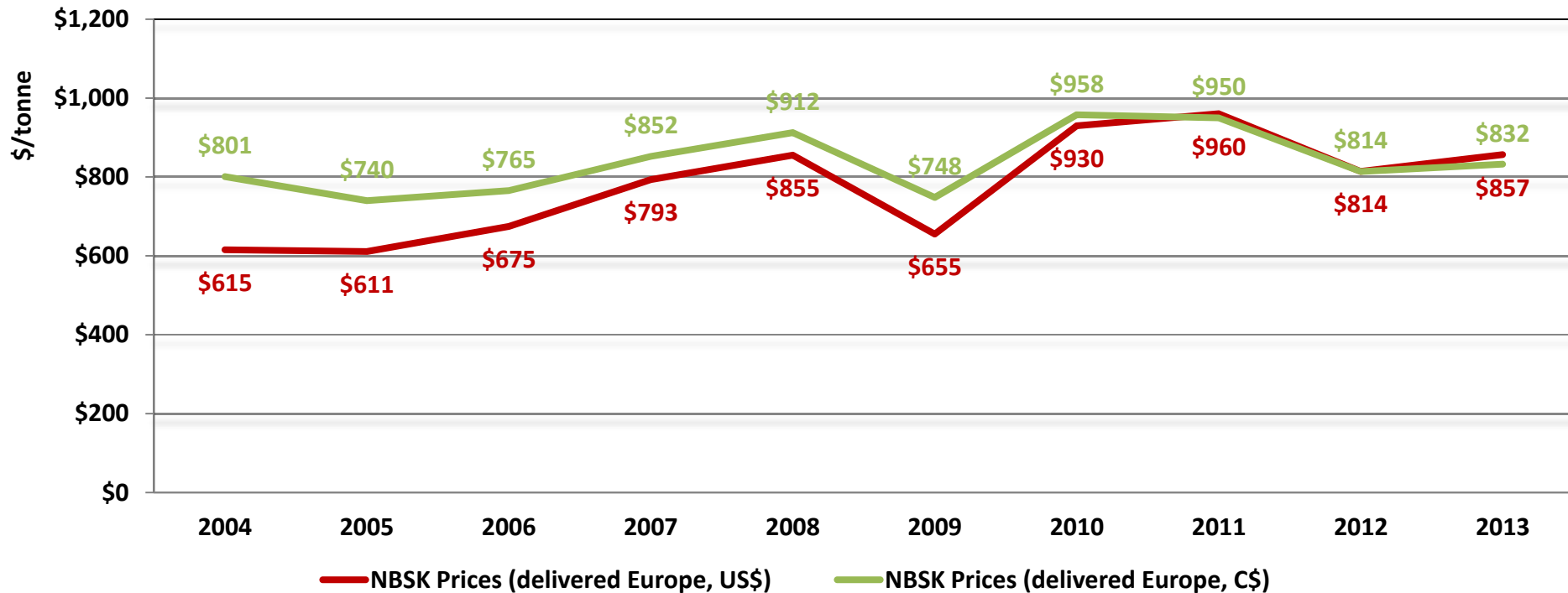
Softwood Lumber Mills' Variable Costs vs. Lumber Prices (2013)



Data source: Costs are from Forest Economic Advisors publications, composite from Random Lengths, and SPF from Madison's Lumber Reporter.

Prices and Costs – In 2013, B.C. Interior softwood lumber mills had the second lowest variable costs in the U.S. And Canada, but the South's 2012 lead increased further. In 2011, the B.C. Interior was the lowest cost region, but in 2012 it moved to second due to increased delivered wood cost.

Market Pulp Prices



Data source: FOEX.

Prices and Costs – Pulp prices edged upwards in 2013. Pricing of pulp in U.S. dollars provided B.C. producers with a foreign exchange profit that has disappeared in recent years, and costs of production are now more difficult to cover.

US\$ Exchange Rates Indexed to 2000

2013 Exchange Rates

1.03 C\$/US\$

6.19 Yuan/US\$

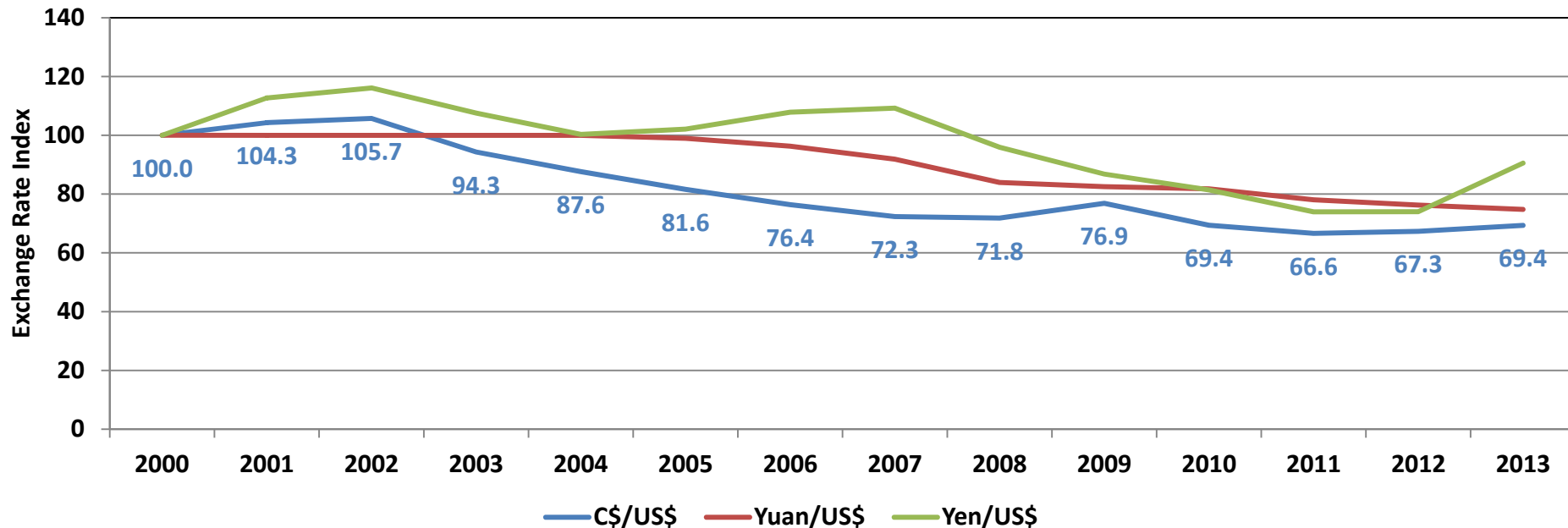
97.62 Yen/US\$

2000 Exchange Rates

1.48 C\$/US\$

8.28 Yuan/US\$

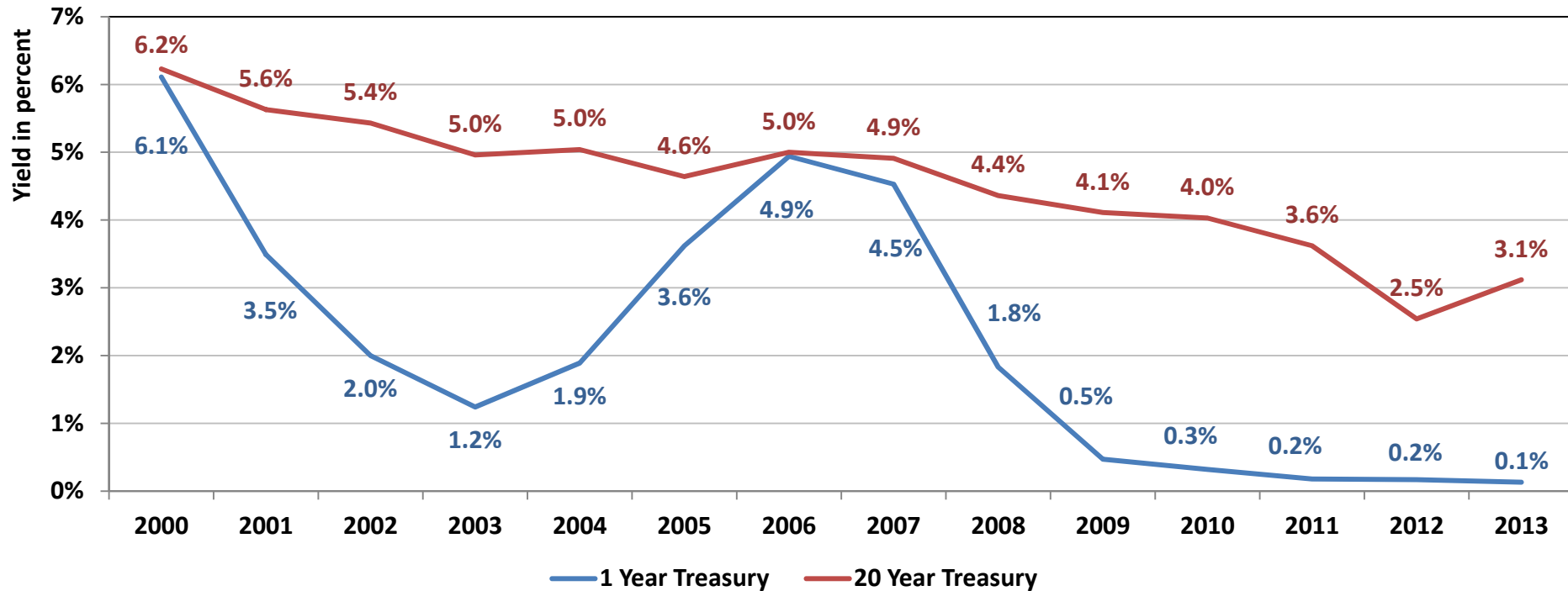
107.82 Yen/US\$



Data source: OANDA.

Prices and Costs – Over the past decade, the US\$ depreciated about 25% relative to the Chinese Yuan and Japanese Yen, and about 30% relative to the C\$, though in 2013 the US\$ appreciated markedly against the Yen. North American forest products are generally priced in US\$, so Chinese and Japanese buyers found it easier to buy them. B.C. forest sector producers, however, earned fewer C\$ for each US\$ received, making it more difficult to pay their input costs priced in C\$.

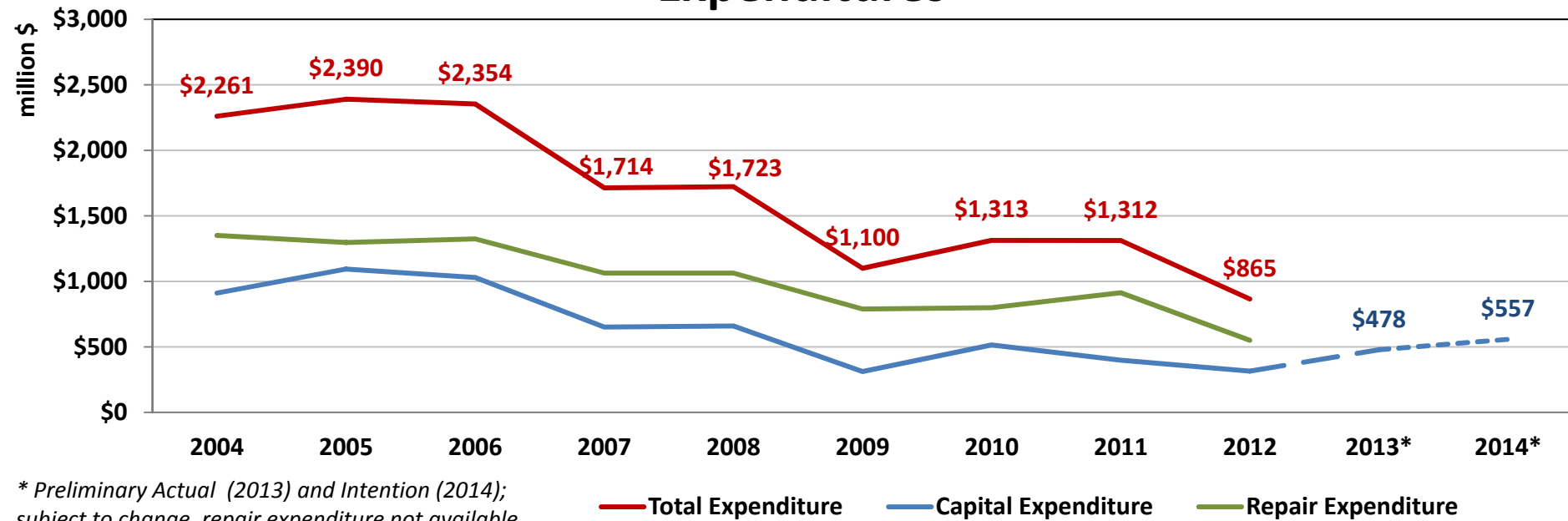
U.S. Treasury Bill Yields



Data source: U.S. Department of the Treasury.

Prices and Costs – The cost of short term borrowing decreased again in 2013, and long term borrowing saw the first increase since 2006. After the financial crisis of 2008, short and long-term rates were lowered to stimulate the housing market and capital investment by industry.

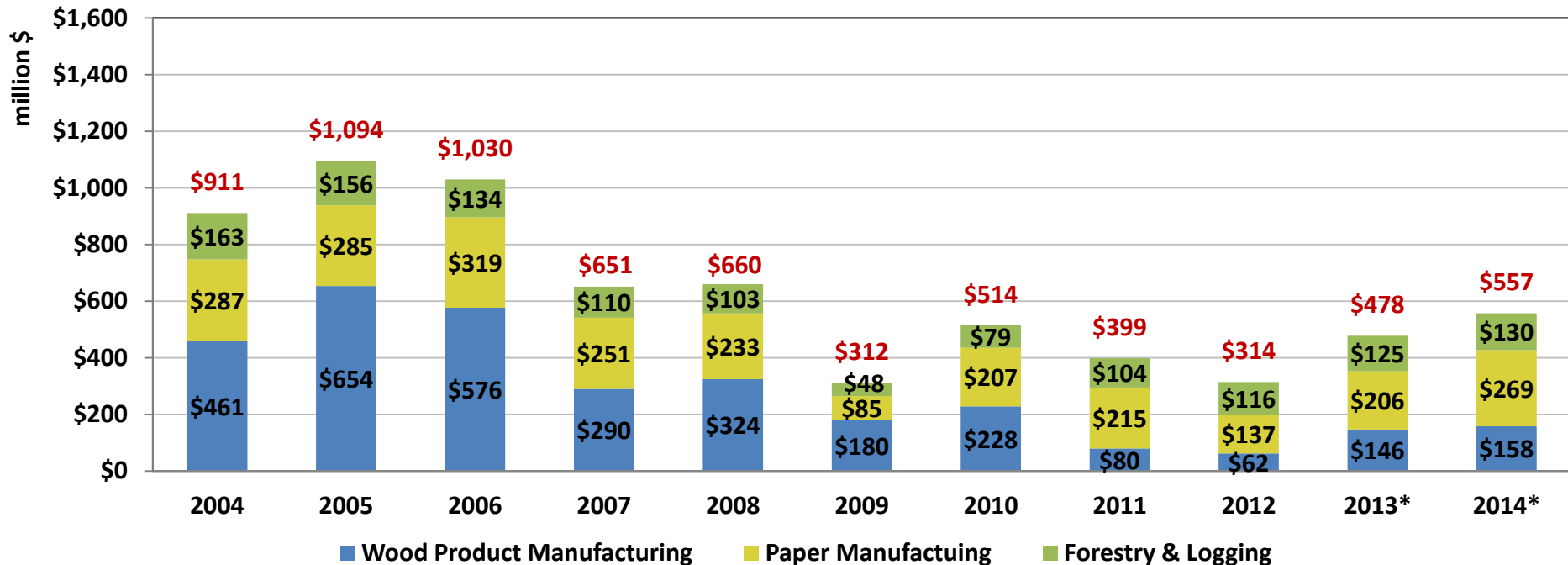
B.C. Forest Sector Investment: Capital and Repair Expenditures



Data source: Statistics Canada; CANSIM 029-0005.

Investment – B.C. forest sector investment (\$865 million) decreased 34% from 2011 to 2012. Capital expenditure includes investment in construction (e.g. buildings and land improvements) and in machinery and equipment. Capital expenditure is projected to increase in 2013 and again in 2014.

B.C. Forest Sector Capital Expenditures

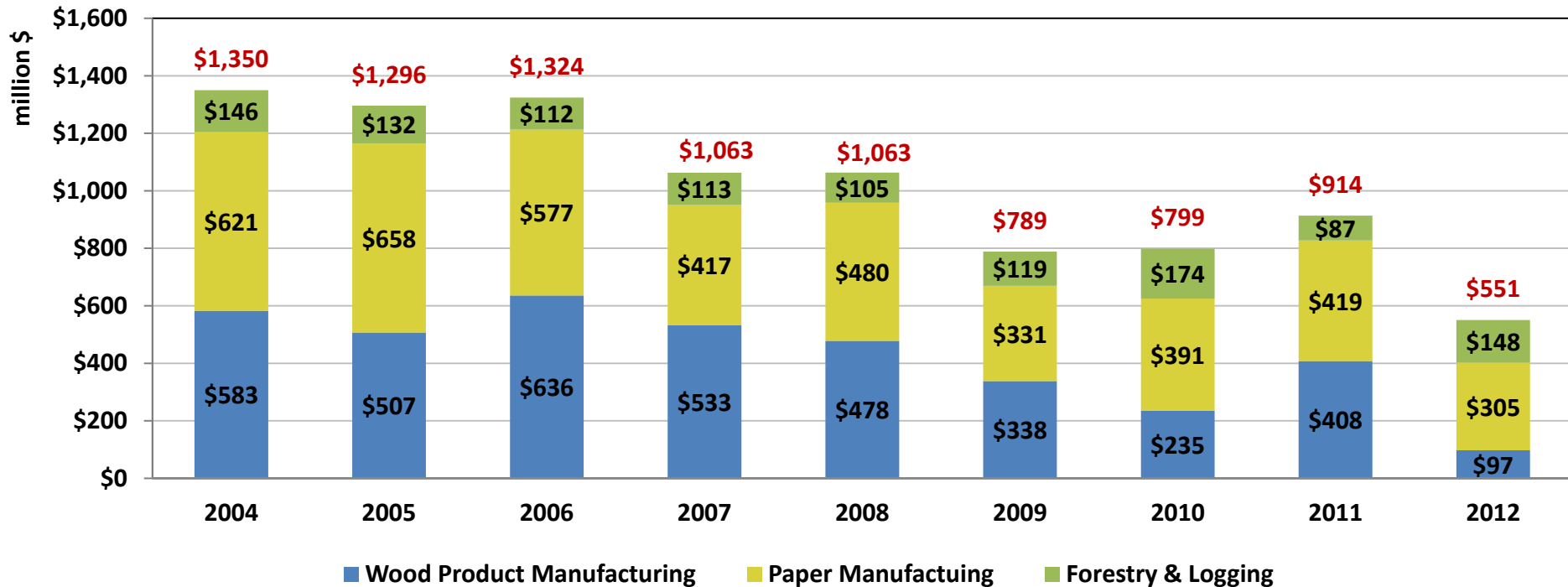


* Preliminary Actual and Intention; subject to change.

Data source: Statistics Canada; CANSIM 029-0005.

Investment – In 2012 B.C. forest sector capital expenditures (\$314 million) decreased 21% from 2011. Paper Manufacturing had the highest investment (44%), followed by Forestry & Logging (37%) and Wood Product Manufacturing (19%). Preliminary results indicate an increase in 2013, and intentions show another increase in 2014. Capital expenditure includes investment in construction (e.g. buildings and land improvements) and in machinery and equipment.

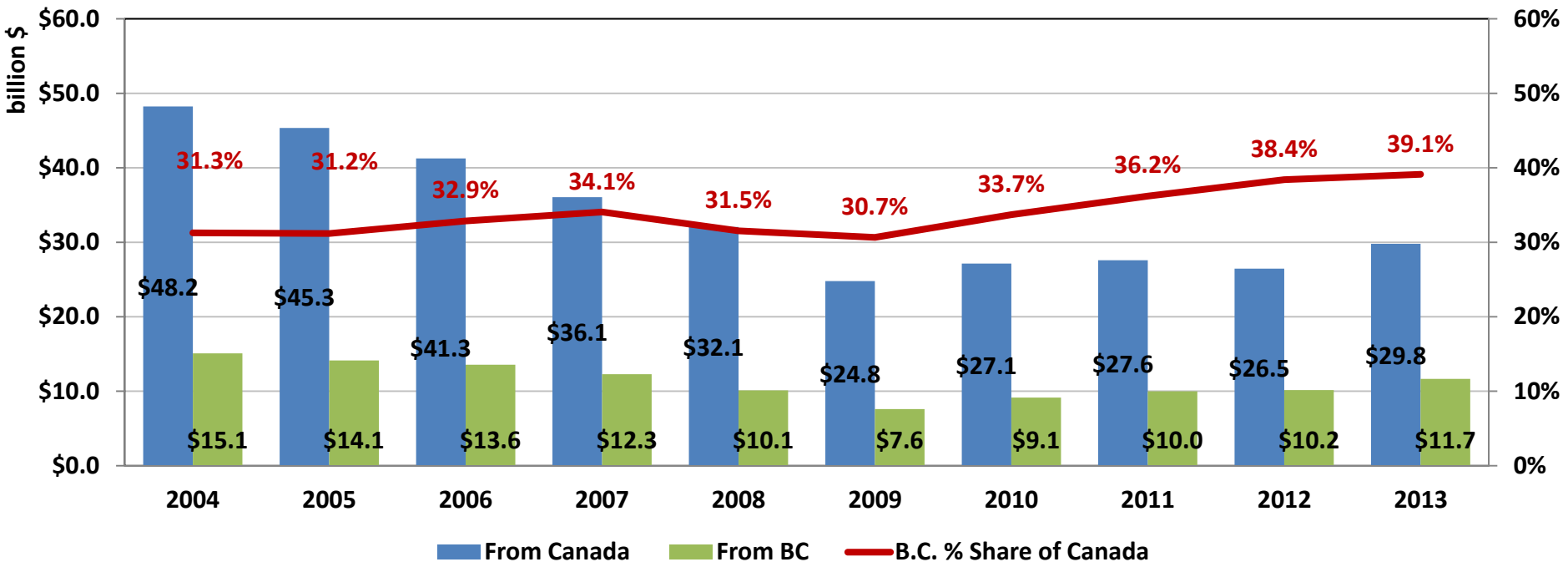
B.C. Forest Sector Repair Expenditures



Data source: Statistics Canada; CANSIM 029-0005

Investment – In 2012, B.C. forest sector repair expenditures (\$551 million) decreased 40% from 2011, and were down 30% from 2009. Paper Manufacturing had the highest investment (55%), followed by Forestry & Logging (27%) and Wood Product Manufacturing (18%). Repair expenditure includes investment in construction (e.g. buildings and land improvements) and in machinery and equipment.

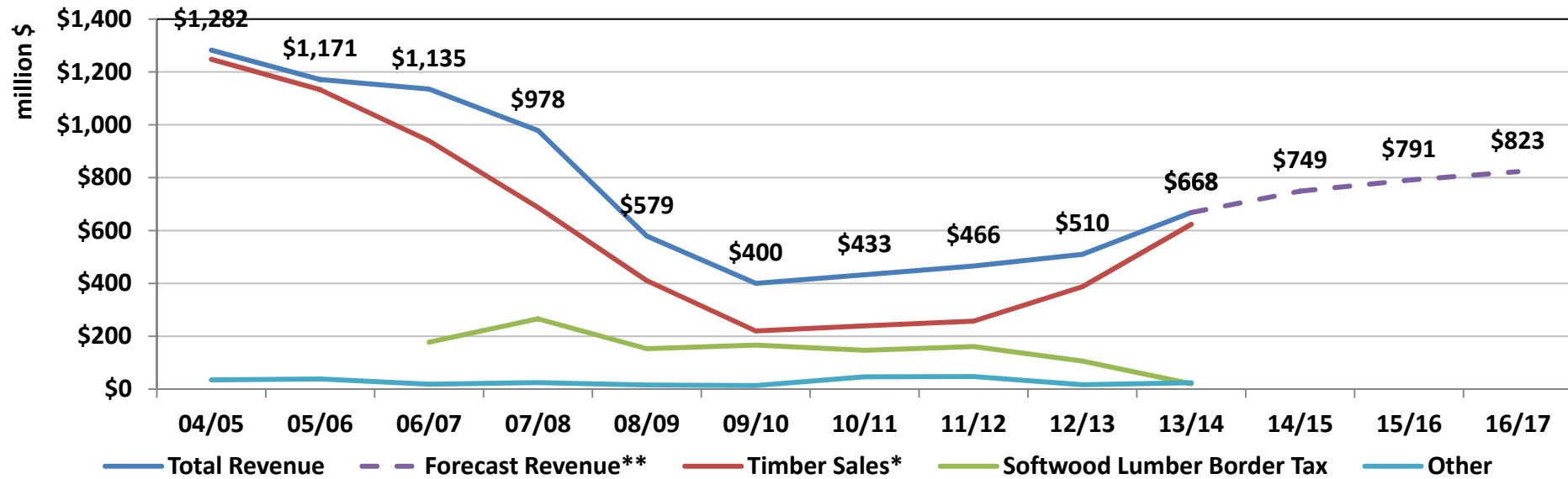
Forest Product Exports: B.C. and Canada



Data source: B.C. Stats extract from Statistics Canada data. Also available from Statistics Canada CIMTD.

B.C.'s Share – B.C.'s share of Canadian forest exports increased slightly in 2013. B.C. forest sector exports improved after the 2009 low faster than the rest of Canada, mainly due to B.C.'s promotion in and access to China, and reduced allowable harvests in Ontario and Quebec.

B.C. Government Forest Sector Revenue, by Fiscal Year



*Timber Sales includes BCTS sales. **Excludes Other CRF Revenue and Recoveries.

Data source: B.C. FLNR and B.C. Ministry of Finance Budget and Fiscal Plan. Corporate and personal income taxes are not included in these figures.

Government Revenues – In 2013/14, the B.C. government received direct forest revenues estimated at \$674 million. Revenue from timber sales increased by \$236 million from 2012/13 to 2013/14, an increase of 61%. Lumber prices were above the price cut-off for the Softwood Lumber Border Tax for most of 2013/14, and so little revenue was collected via the tax.

Outlook

- ❖ Lumber prices are expected to increase over the next several years with stronger demand (mainly from China and a recovering U.S. market) and weaker timber supply (Mountain Pine Beetle impacts and other harvesting constraints).
- ❖ Pulp prices increased from 2012 to 2013, but are still below peak levels of over US\$1000/tonne in June 2011 (NBSK delivered Europe).
- ❖ Foreign market demand for wood pellets and logs is expected to continue to be strong.
- ❖ The U.S. economy, especially housing starts, showed signs of improvement in 2013. Further increases in the U.S. housing market are expected over the next few years, though 2014 growth may be weaker than was originally anticipated.
- ❖ China continued as the world's largest importer of logs and lumber in 2013, and Chinese demand is projected to stay strong.

Conclusions

- ❖ B.C.'s forest sector showed improvement in 2013 after holding relatively steady from 2011 to 2012.
- ❖ Increased Chinese demand, along with log export restrictions in Russia (China's main log supplier), played a large role in the B.C. forest sector's improvement after 2009.
- ❖ B.C.'s forest product markets are diversifying with increasing shares for China while shares for the U.S. and Japan remain below previous levels, but are still strong.
- ❖ More robust and diversified global demand would support further improvement in the B.C. forest sector.
- ❖ Innovations and investments in markets, products & technologies will make the sector more competitive.