



Review of Global Wood Markets and China's Growing Impact on N.A. Industry

**Maritime Lumber Bureau
Halifax, June 16, 2011**

G. Van Leeuwen

International WOOD MARKETS Group Inc.

Introduction to: International WOOD MARKETS Group

- We are wood product industry consultants and we assist companies around the world to develop operational, marketing & business strategies.
- We are known as global market & industry experts/analysts on timber, lumber, panels & many millwork products sold in the N.A. market & key export markets.
- We produce Multi-Client Reports: Europe & Russia; Clearwood Pine; Global Lumber Benchmarking; The China Book; WOOD Markets 2000, 2002, 2006, 2010; & the WOOD Markets Monthly Report

Presentation Outline

1. Global Perspectives + Export Markets
2. China:
 - A) Wood Demand and “Gap”
 - B) Log Imports
 - C) Lumber Imports
 - D) Russia Log Export Tax
 - E) Profile of the Chinese Industry
3. China vs. US PNW sawmills
4. North American Lumber Outlook
5. Summary/Review

1. Global Timber & Lumber Supply

Short Term to Mid Term Demand Issues (2011-2013):

- U.S. housing starts – return to a “more normal” 1.5 million units when?
- Slow growth expected in U.S. market for 2011 & 2012.
- EU demand to remain ‘flat’ in 2011 & 2012 (due to debt crisis and economic recovery?).
- China’s growing demand (emerging gap vs. demand).
- Rising demand in Middle East & North Africa markets.
- Japan – rebuilding after the earthquake & tsunami.
- Other Asian growth markets – steady increasing demand in S.Korea, Taiwan, Viet Nam. Growing demand for softwood logs and lumber in India.

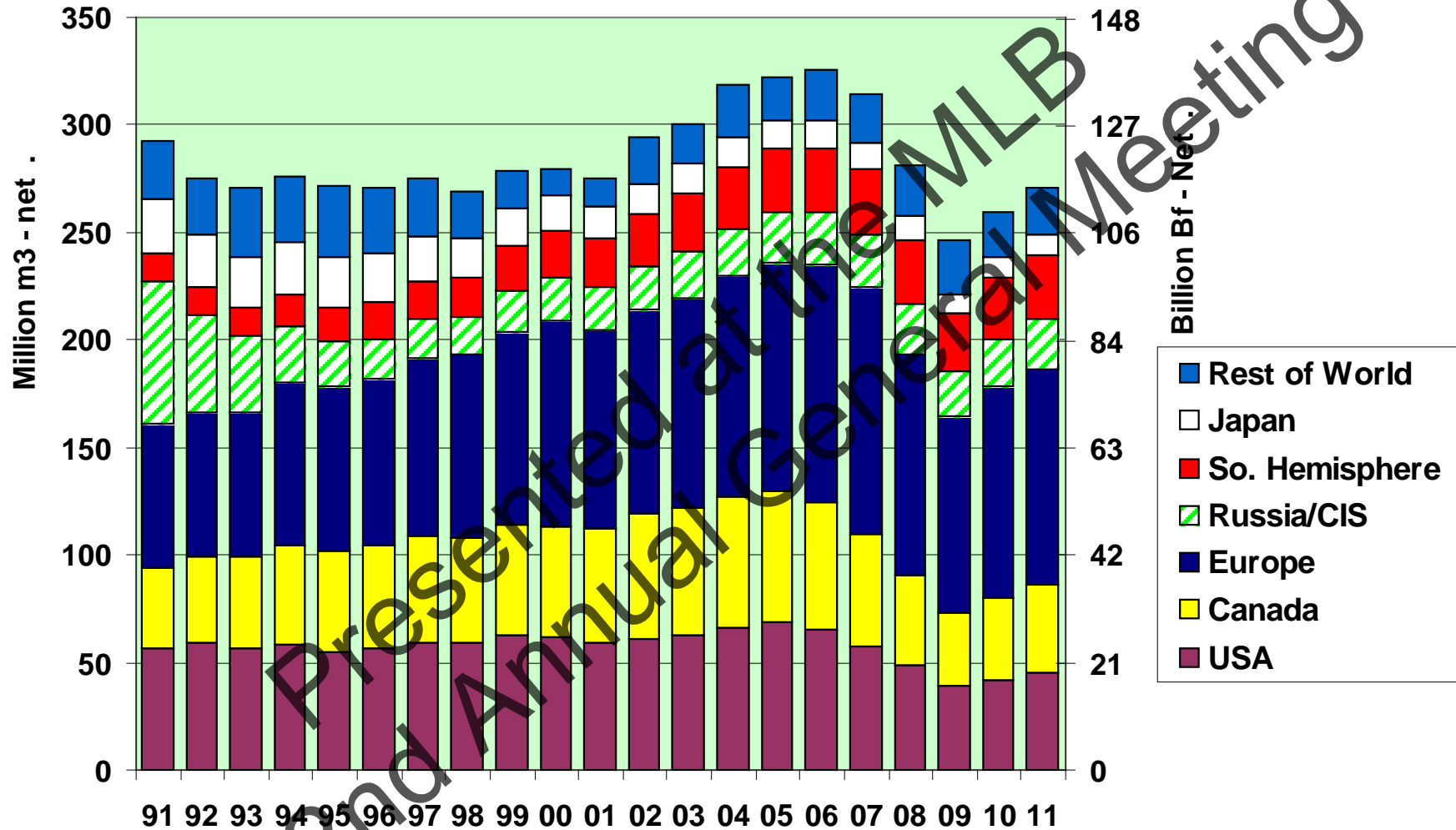
Global Timber & Lumber Supply

Mid to Longer Term Supply Issues (2011+):

- Strategy of Timberland Investment Mgt. Organizations (TIMO's) in U.S., New Zealand and other countries.
- Rising wood costs in Europe due to biomass demand
- China's ongoing timber supply "gap" and need for imports
- Russia log export tax & WTO: going from 25% to 12.5%?
- BC mountain pine beetle (and its expansion east).
- Quebec (2nd largest region in Canada) – 25% reductions in timber supply + 10% further reduction expected by 2013.
- US/global timber lumber supply gap looming by 2015?
- Other wildcards: Markets in India, Other Asia, sawmill competitiveness between regions and in export markets.
- Ocean freight rates & currency fluctuations

Global Softwood Lumber Production

Global Softwood Sawnwood Production



Global output to increase about 5% per year in 2011 & 2012 after 22% decrease from 2006-2009.



Outlook for Traditional Asian/Oceania Markets

- **China: Continuation of strong Growth!**
- **South Korea**
 - **Steady to increasing demand for logs & lumber**
- **Japan**
 - **Rebuilding will increase demand for logs and lumber in 2012.**
- **Australia**
 - **Strong demand due to rebuild flood damage & strong economy.**
 - **Very high lumber prices (US\$325/m³; US\$600/Mbf - nominal).**
 - **Strong demand drivers in other parts of Asia.**

Emerging Export Markets + Europe

- **Middle East and North Africa:** huge lumber and panel market for Europeans, Russians, Southern Hemisphere, etc., but high freight rates
- **India:** a growing import market:
 - **New Zealand:** exporting 1+ million m³/yr of logs
 - **More softwood lumber** is going to this market, but traditionally a teak/tropical hardwood market.
 - **Is expected to become the 'next China'.**
- **Vietnam:** continues to import softwood lumber (little to no domestic forests).
- **Pakistan:** a hot market for Europeans.
- **Europe:** high prices in Europe (US\$270+/m³) could create some opportunities.

Global Sawn Lumber Prices

- WOOD MARKETS Monthly Lumber Price Index for three key wood market regions in the world – June 2011 (mixture of products & cif prices)
- Japan = US\$974/Mbf or \$434/m³
- Europe = US\$777/Mbf or \$329/m³
- U.S. = US\$289/Mbf or \$186/m³
- Conclusion: U.S. market is by far the lowest priced lumber market in the world.
- Need stronger focus on off-shore exports as can't wait for normalized U.S. market.
- Much has been done in Canada (B.C.). Much more can be done!

2. CHINA: Growing Role in Global Trade

China's rank in wood products global production & trade:

<u>Production:</u>	<u>Global Rank</u>
• Plywood	#1
• MDF	#1
• Furniture	#1
• Hardwood lumber	#2
• Particleboard	#3
• Softwood lumber	#3 (after US & Canada)
• Finished Products	Soaring
• Imports	#2 (after the USA)
• Lumber Imports	#1 (in 2011 or 2012???)
• Exports	#1

China needs IMPORTED RAW MATERIALS



China: Trends & Issues

Economic Growth & Wood Products Demand:

- Strong economic growth in China = has rebounded quickly and strongly since early 2009 and is expected to continue at ~8-9%/yr.
- China's domestic wood products demand growing at about 10-15+% per year and this huge growth trend is forecast to continue to at least 2015 (Source: **WOOD MARKETS' *The China Book***).
- China consumes about 75-85% of its domestic production, so GDP growth and wood products growth are tied closely.

Some Reasons Behind Rapid Growth of Wood Demand

- Chinese government plans to build 36 million low-income houses (apartments) by 2015. Private housing starts of 18-20 million will create 50-60 million new houses by 2015.
- McKinsey estimates that China's urban population will increase by 350 million people by 2025.
- By 2025 China expected to have 221 cities over one million population (Europe has 35 today).
- China's middle class is projected to double in next ten years (increase by 350 million).
- Government believes strongly they must improve quality of living for majority of people. Key to social stability.

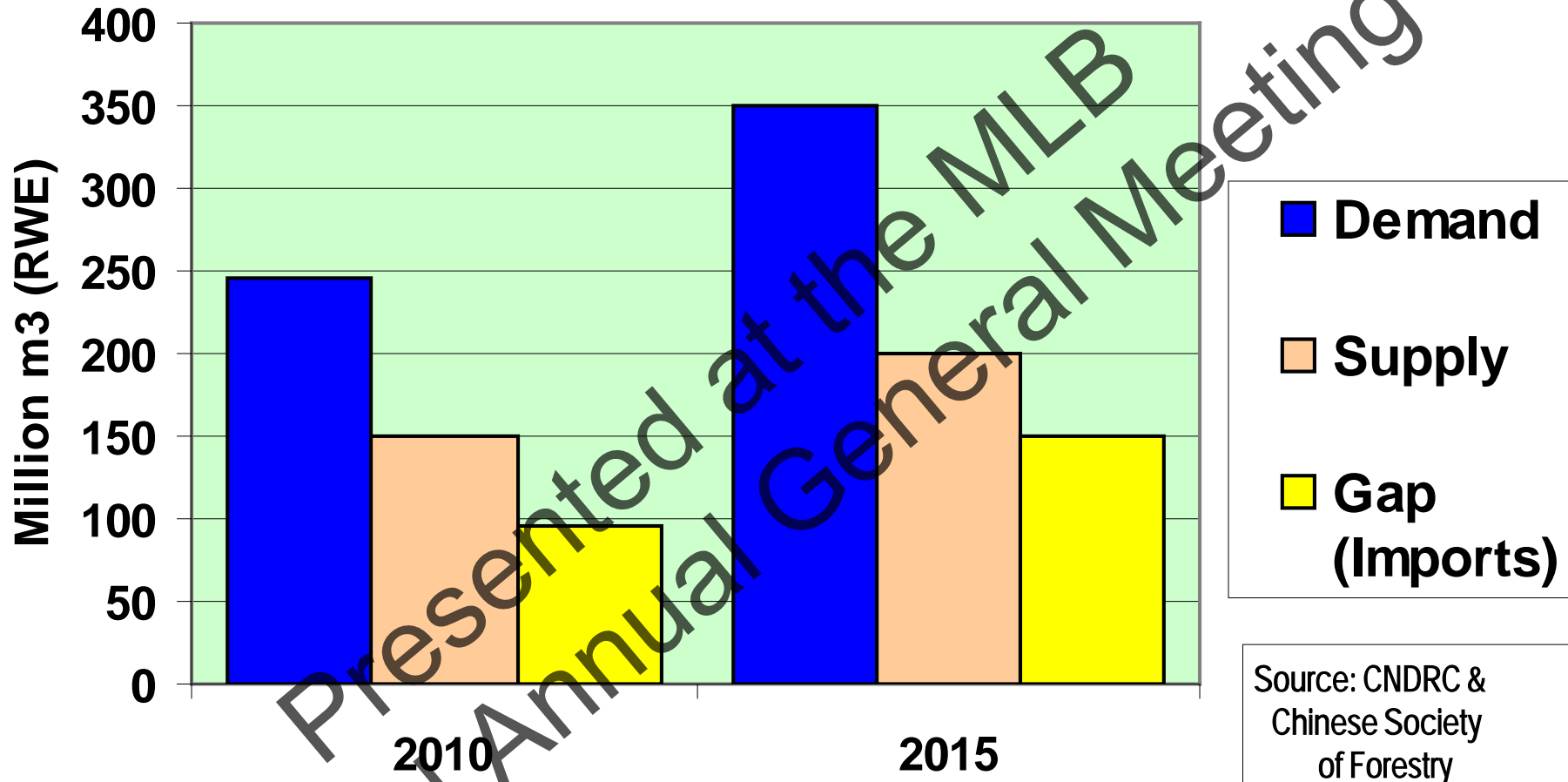
2A. China: Raw Material Gap

China's total "wood" demand:

- Is expected to grow from 250 million m³ in 2010 to 350 million m³ by 2015 (conservative +8% per year).
- The projected wood deficit (or the role of imports) is expected to grow from 100 million m³ to 150 million m³ – Roundwood Equivalent (10% per year).
- However, Chinese industry forecasts indicate that China's wood demand should grow more at a rate of 10-15% per year to 2015, so the import gap could be up to double what is currently forecast.
- Where will the additional 100-150+ million m³ (RWE) of imports come from over the next 5 years??

China's Fibre Deficit = Huge!

China Fibre Deficit

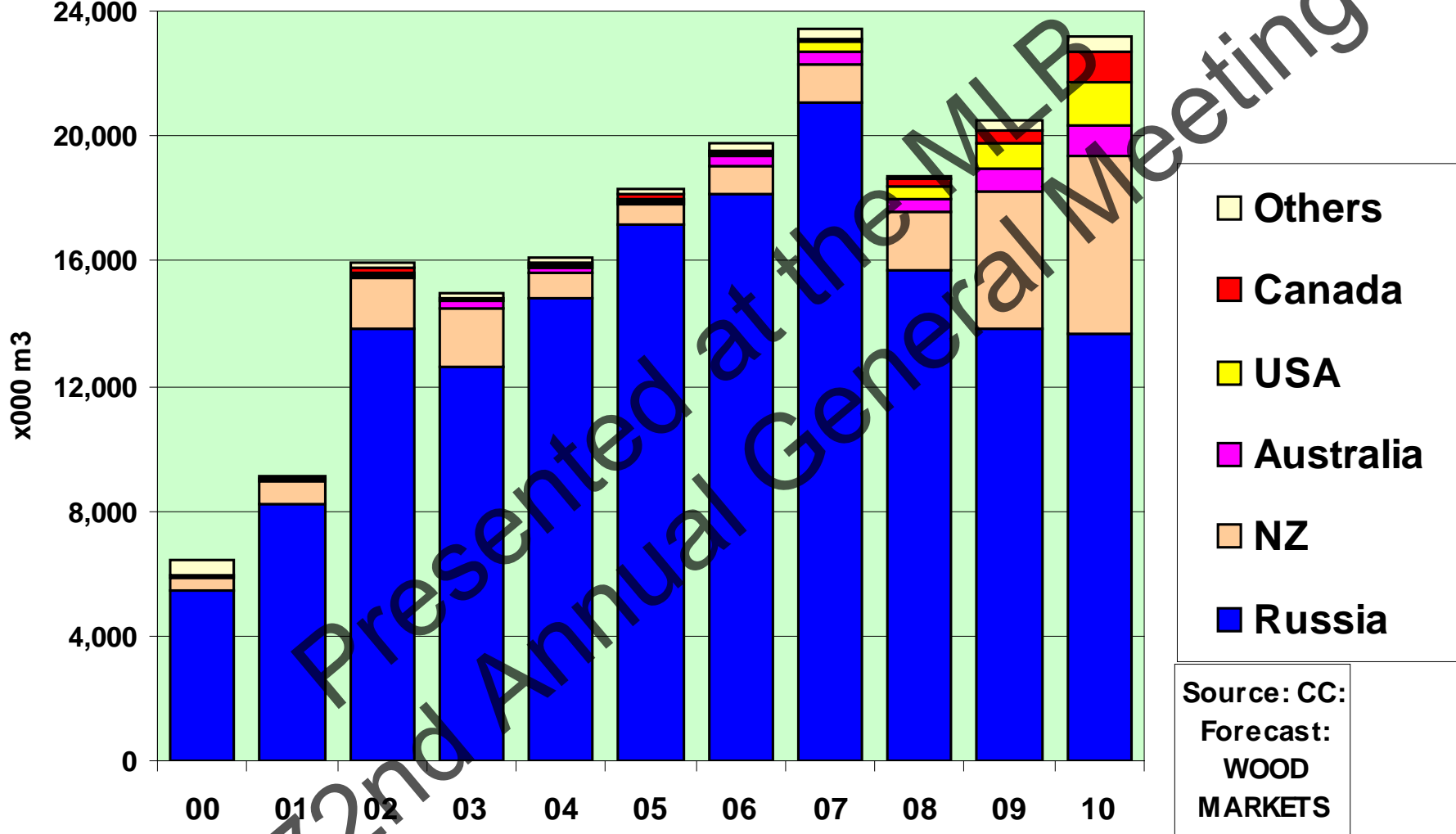


China's demand is growing at 8-10% per year = requires huge raw material supplies to be sustained!

China future = tied to plantation forests – but there is a gap

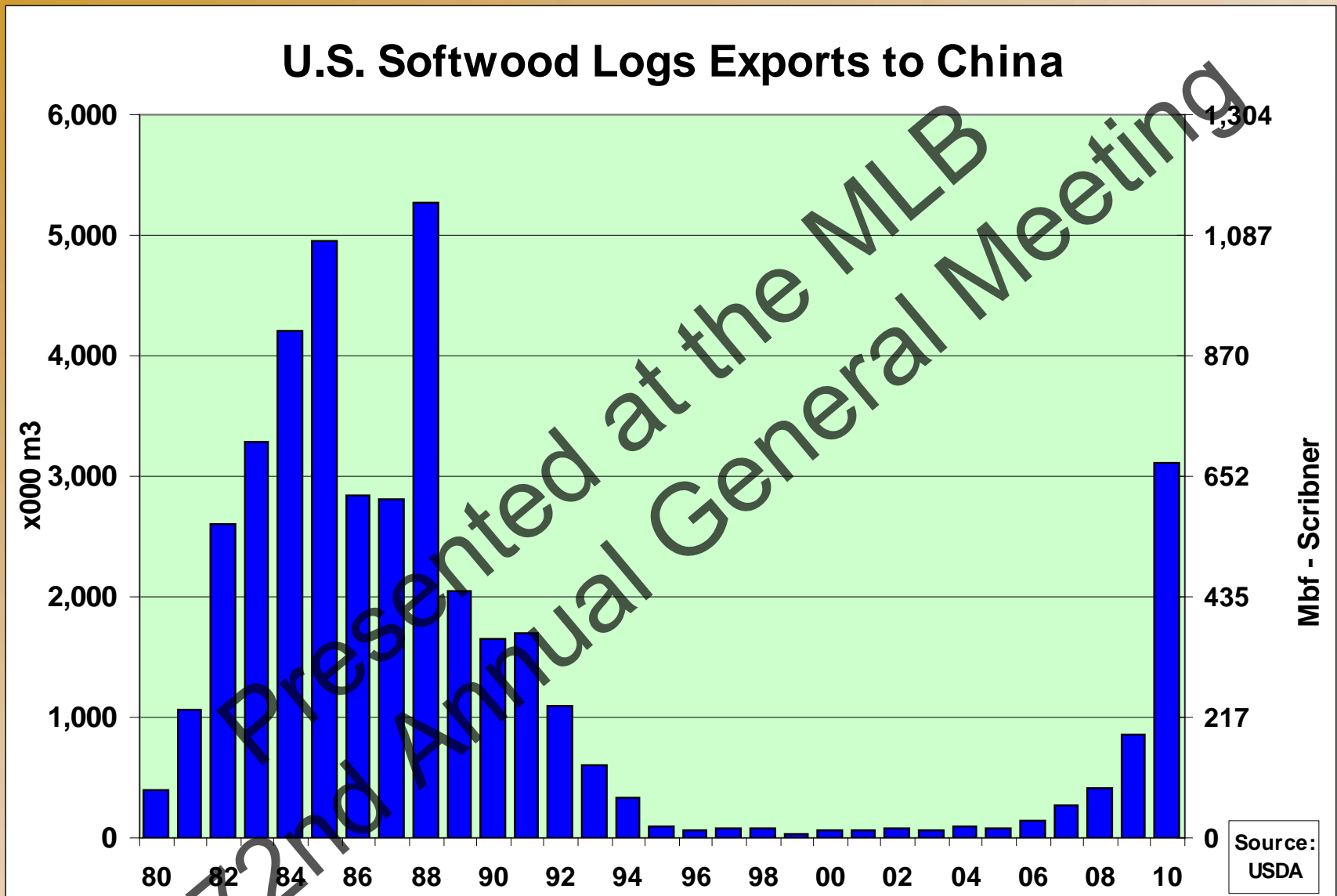
2B: China: Softwood Log Imports

China: Softwood Log Imports by Major Country



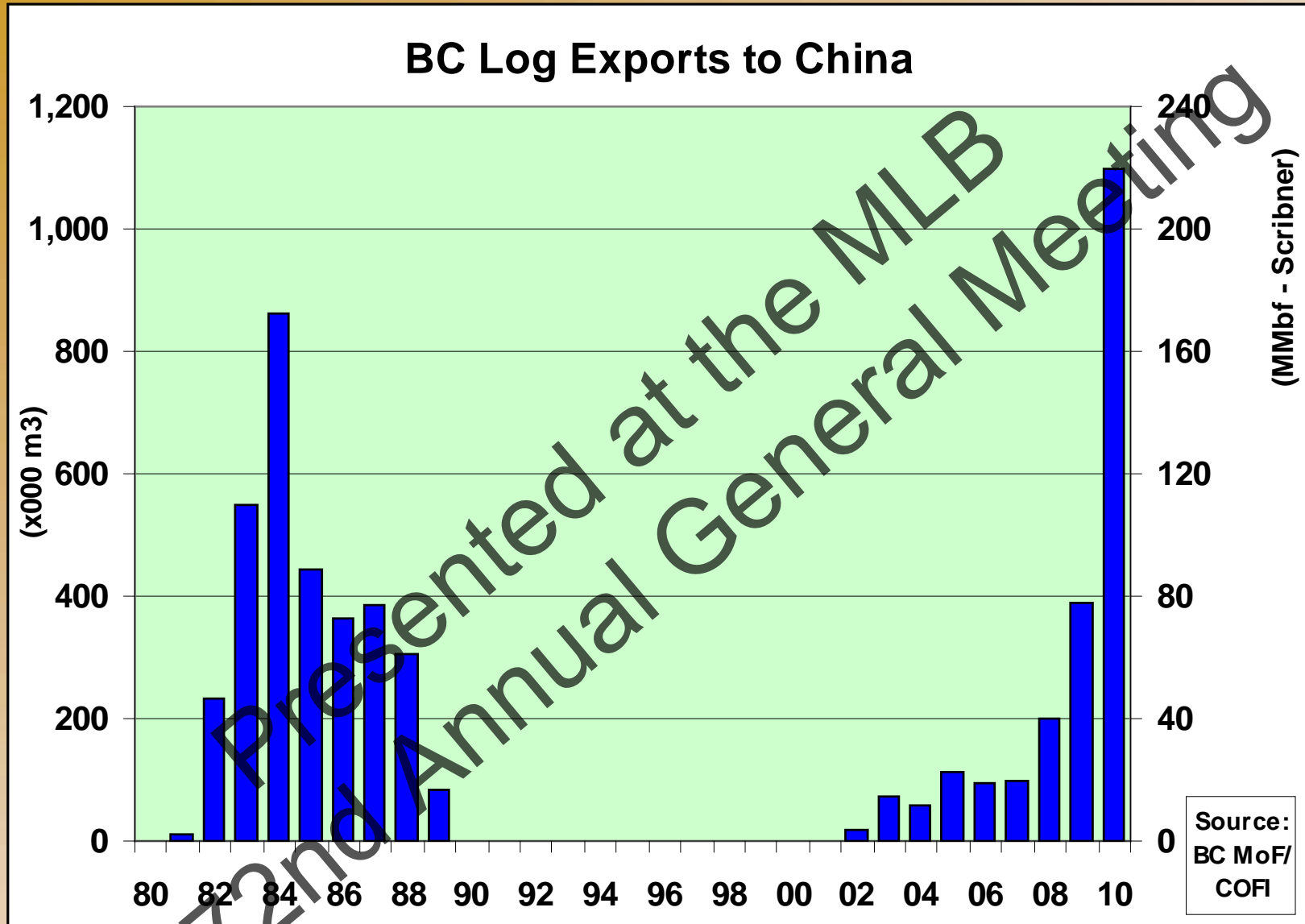
Russia still dominates, but NZ, US & Canada exports rising

US Log Exports to China



US exports in 2011 – Expect new record level!

BC Log Exports to China

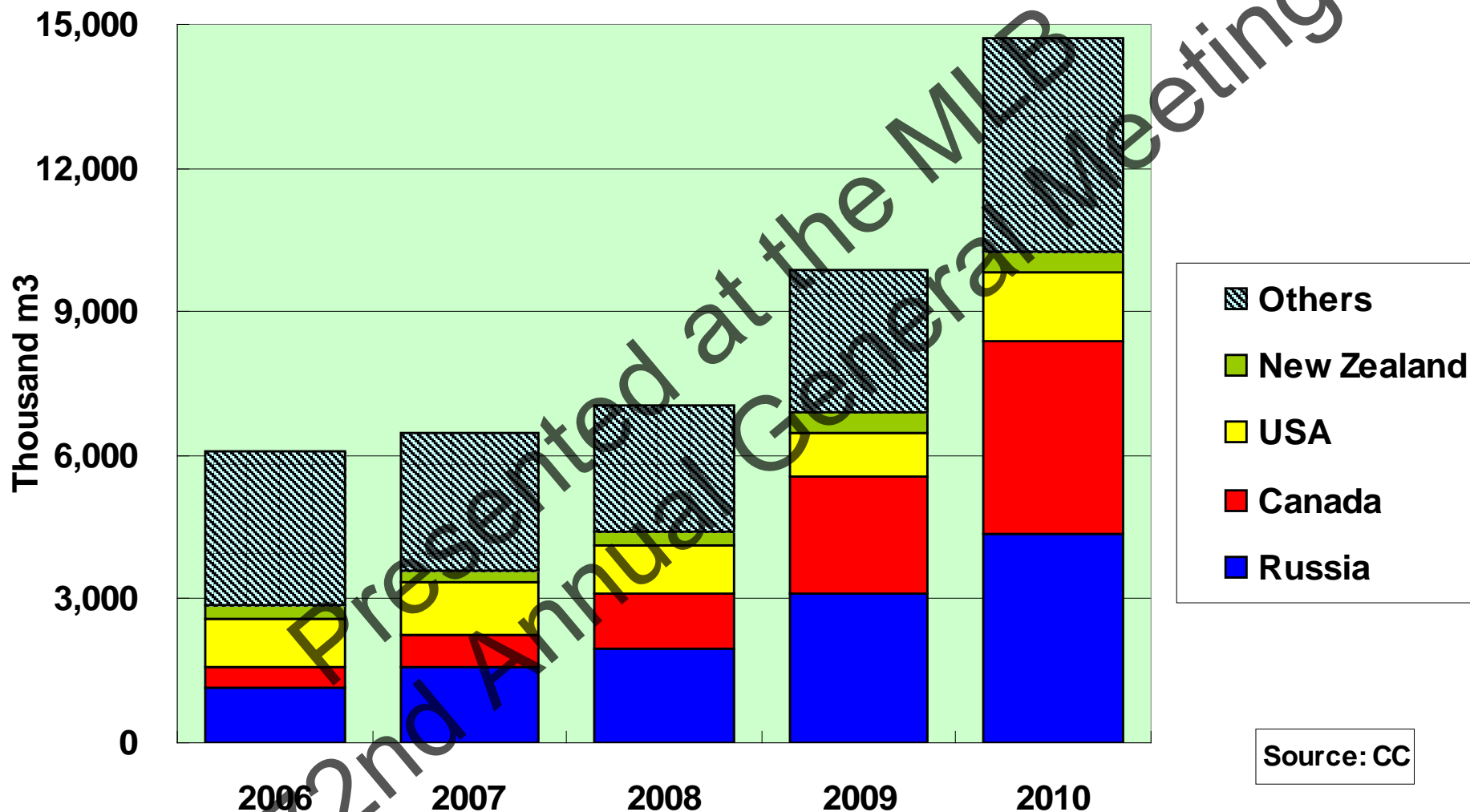


BC Exports surpass 1984 high in 2010 and going higher!



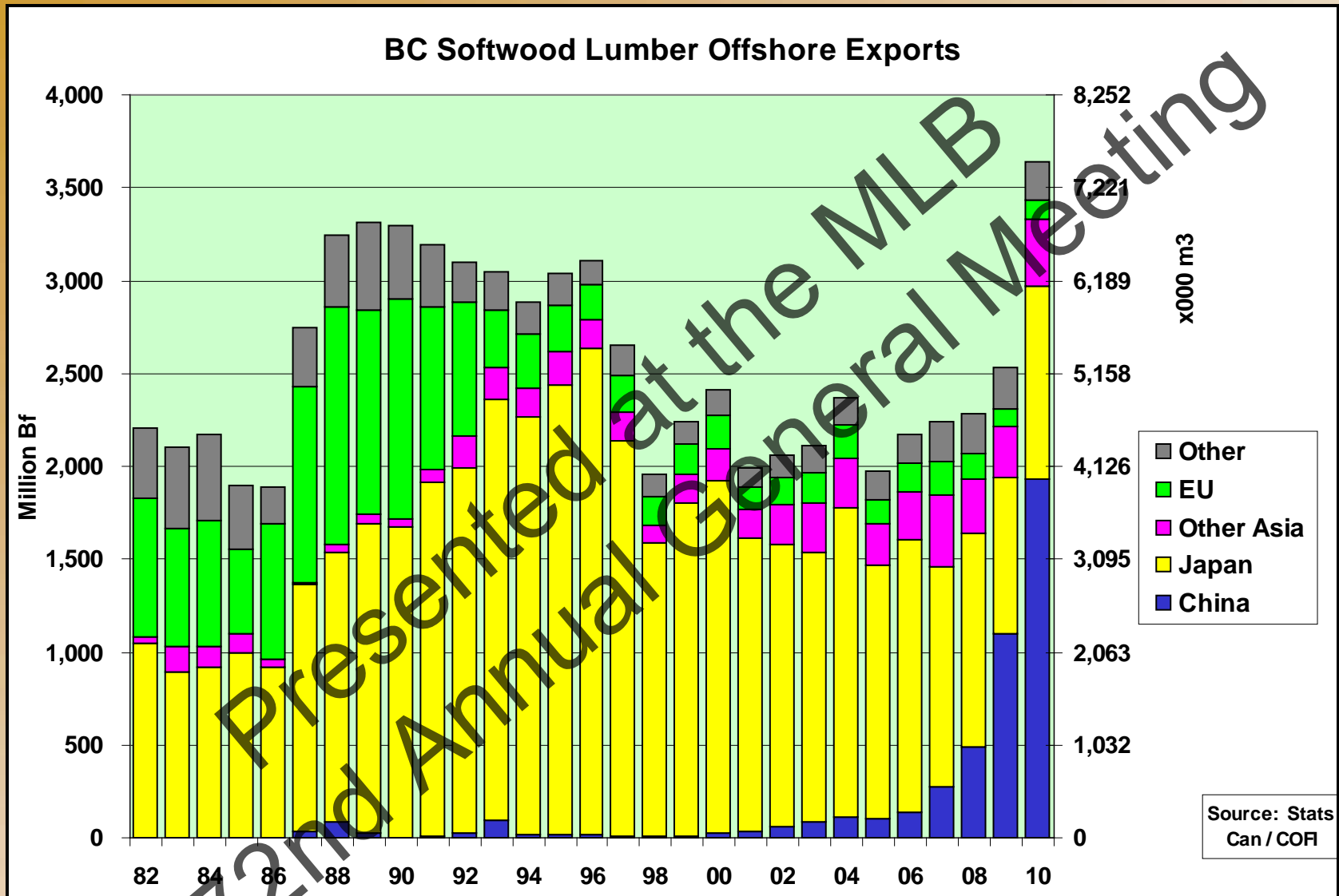
2C. China's Lumber Imports = Soaring

China: Lumber Imports by Country



Likely to reach record 21-23 million m3 in 2011!

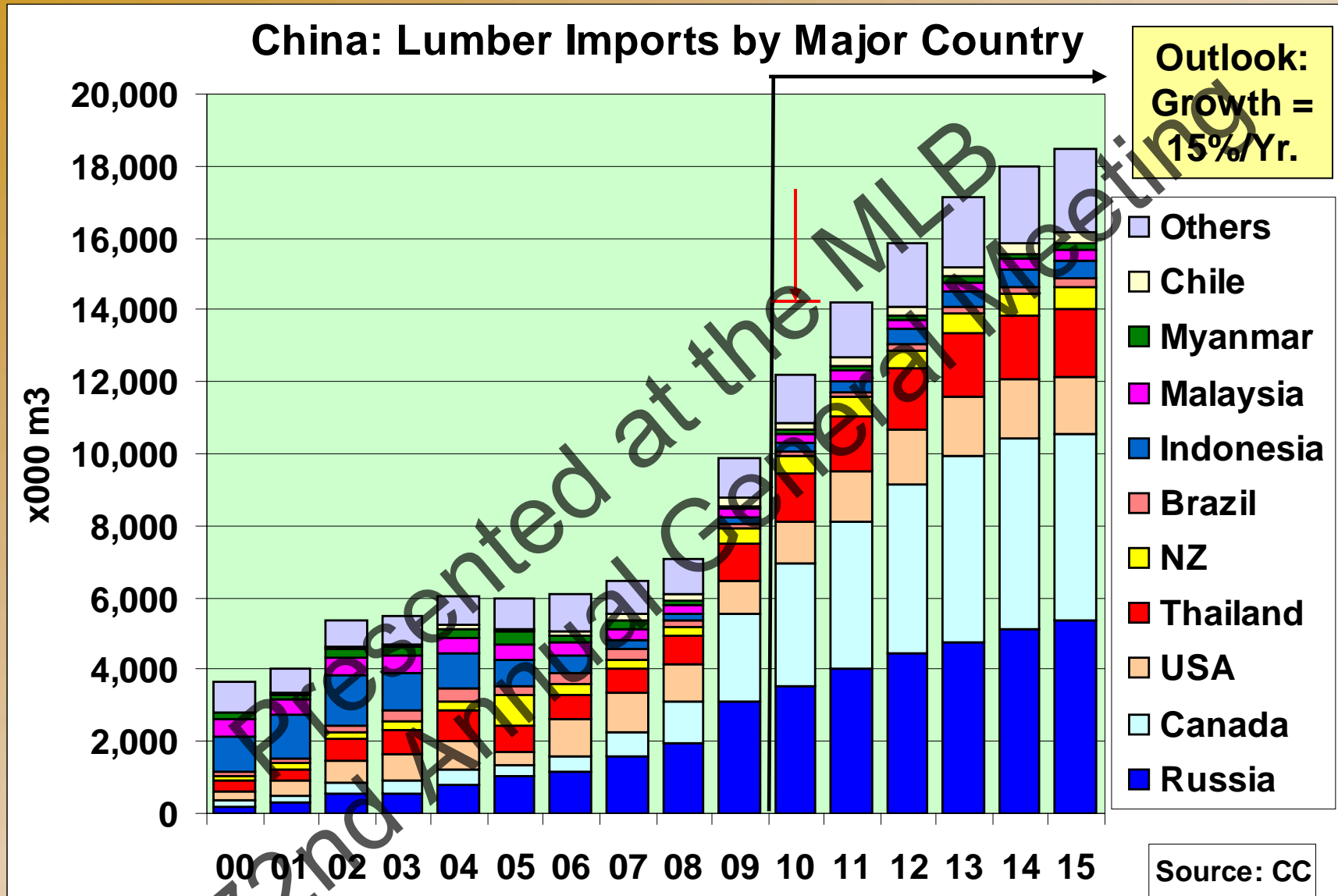
Canada (BC) Lumber Exports to China



Canada (B.C.) Lumber Exports to China Expected at 2.8 – 3.0 billion bf (net) in 2011(4 – 4.5 billion bf nominal).

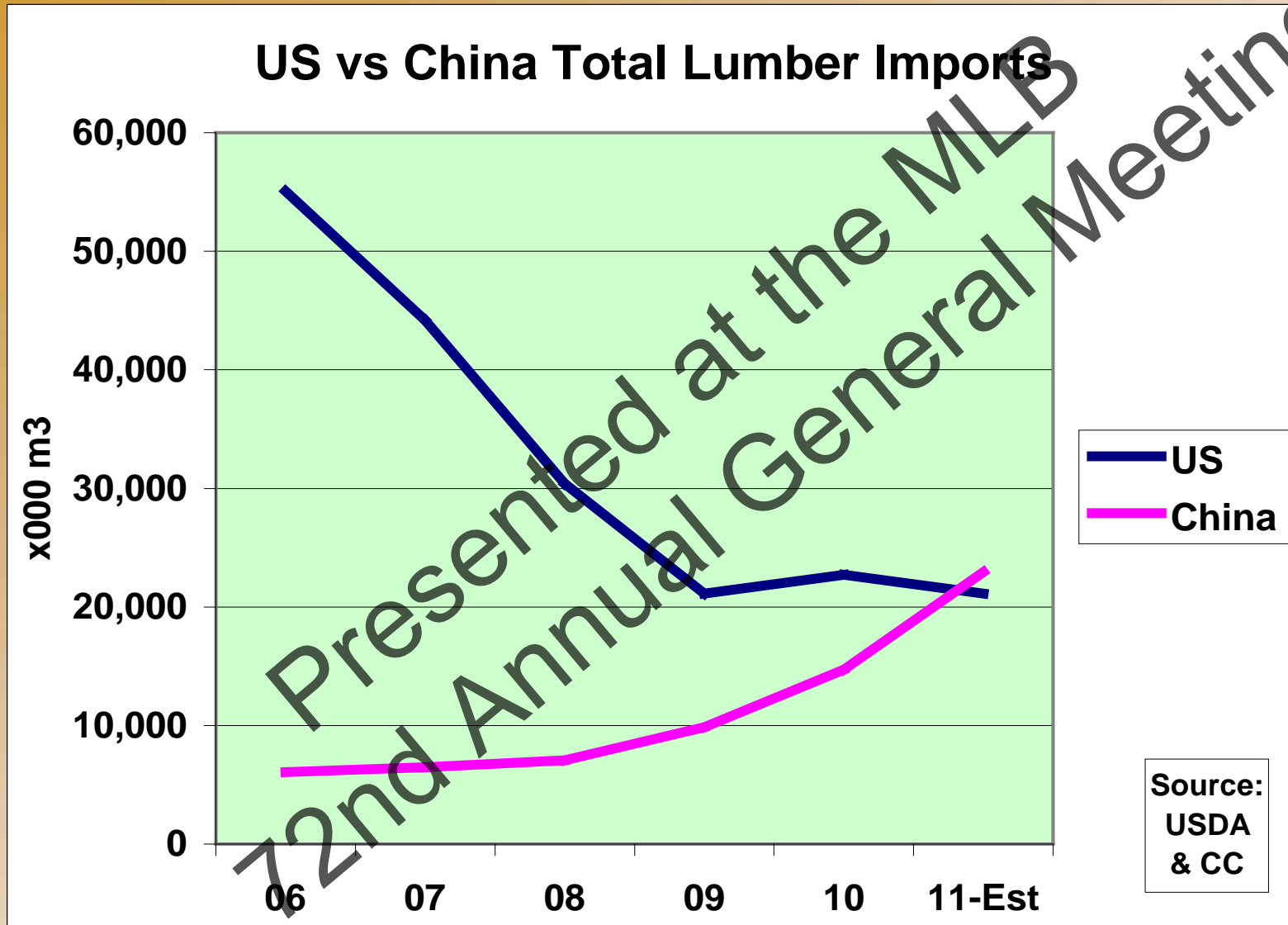


China Lumber Imports to Soar!



China lumber imports expected at over 20 mil. m3 in 2011

China to become largest lumber importer in the world in 2011?



2D. RUSSIA: Timber Export Tax

- For softwood logs, the tax has risen:
 - from 6.5% to 20% (euro 10/m³) in July 2007.
 - to 25% (euro 15/m³) in April 2008.
- Russian log export tax may be reduced by 50% to 67% after Russia joins WTO = an unknown
- Russian log prices have been driven higher and this has caused the Chinese industry to look for new log and lumber suppliers to fill the gap.
- Many Chinese sawmills (estimate 150-200 sawmills) have been built in South East Russia to avoid log tax. Continues to grow.

Russian Log Export Tax: Impact

Russian Log Costs & Margins - Delivered to Shanghai

COST CATEGORY	COSTS US\$/m3	COSTS US\$/m3	COSTS US\$/m3
Russian Log Export Tax	@25%	@12.5%	@0%
Logging, Hauling, Stumpage, Rail Car Loading Rail Cost to Border/Border Charges Importer Margin & Rail Costs to Shanghai Unloading & Transport to Shanghai Mills			
Total Costs	\$140	\$140	\$140
Russian Log Export Tax	\$21	\$11	\$0
Total Delivered Log Costs - Shanghai	\$161	\$151	\$140
Log Market Price (April 2011)	\$170	\$170	\$170
Margin to Russian Logger	\$9	\$20	\$30
Margin to Russian Logger	LOW	MODERATE	HIGH

Source: WOOD MARKETS - Global Timber / Sawmill / Lumber
Cost Benchmarking Report 2011 - release date: June

Lower export tax improves logging margin, but this would likely lower Chinese market prices & then reduce logging margin

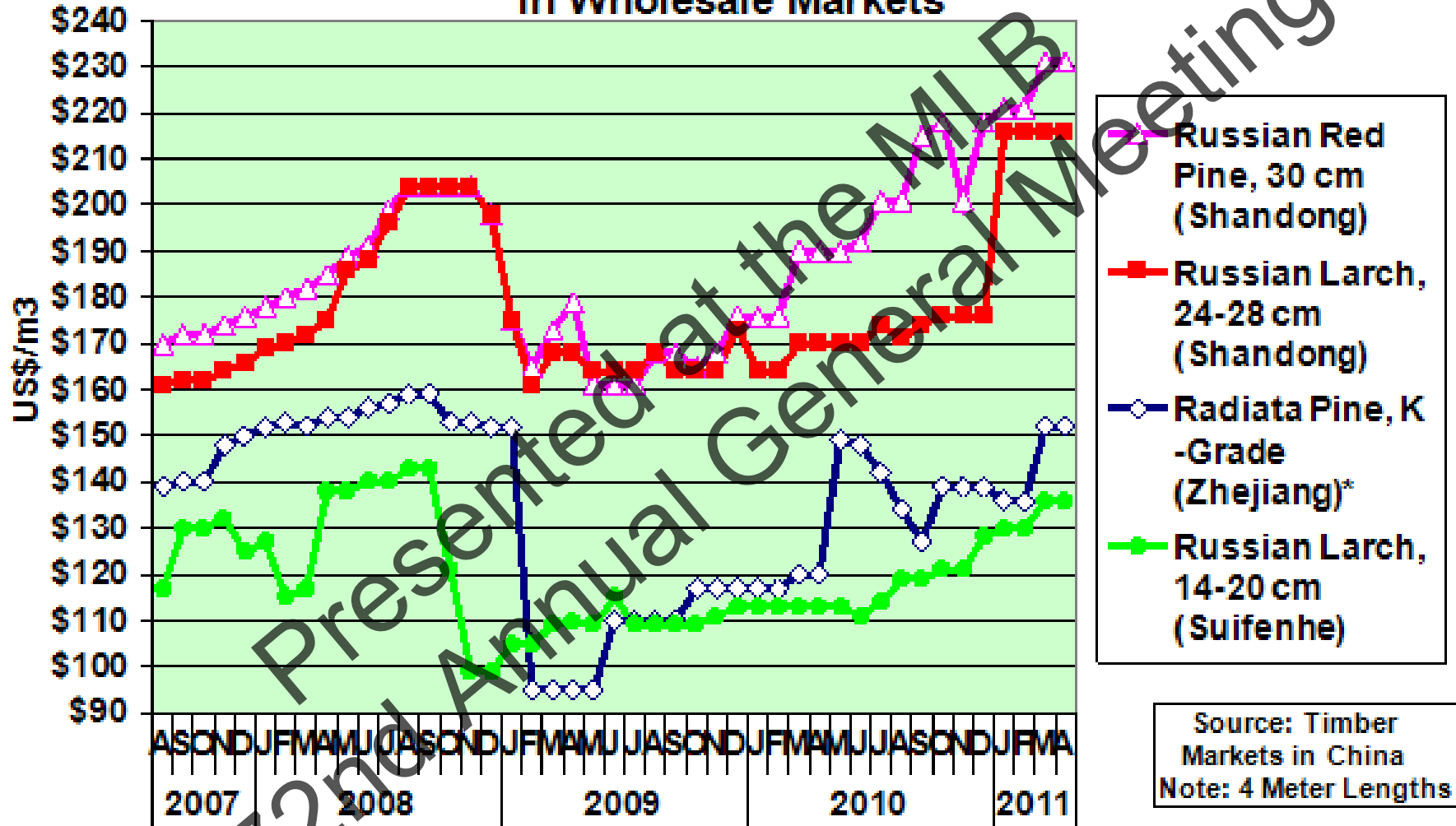
2E. Profile of the Chinese Industry

Featuring the lowest cost sawmills in the world (low labour costs), but some of the highest log costs in the world

Presented at the
72nd Annual General Meeting

Imported Log Prices Up

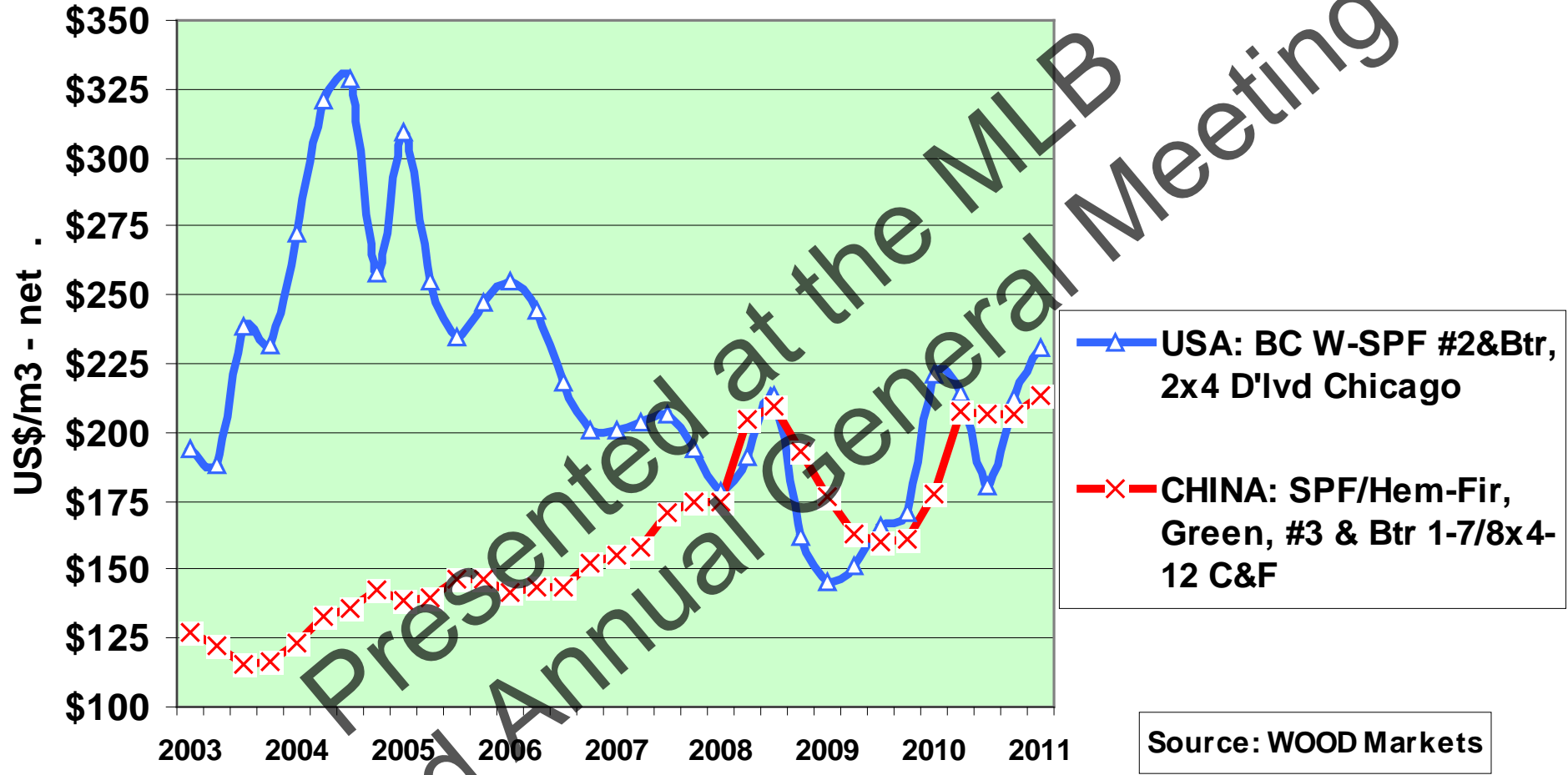
China: Softwood Log Prices
in Wholesale Markets



The timber supply gap is increasing log prices (in US\$)

Chinese Prices Look Better to NA Mills..

Delivered Softwood Lumber: US vs China - Quarterly Prices



BC, Oregon, Washington mills now running for China as it is possible to make money selling to China!

**THE CHINA BOOK:
Wood Products Industry
and Market Review**

**Assessment of China's Raw Material
Requirements, Production Scale
and Fit in Export Markets**

**WOOD
MARKETS**

AVAILABLE MARCH 2010

PREPARED AND PUBLISHED BY
International WOOD MARKETS Research Inc.



**WOOD MARKETS'
China Bulletin**
Monthly Since 2007

Featuring:
**Industry Trends &
Analysis, Statistics**
+
**Import/Domestic Log,
Lumber & Panel
Prices**

3. China Impact on U.S. PNW Sawmills

- Logs are critical to China's employment levels, GDP growth and (JIT) supply chain, so more logs will be imported from the U.S., Canada, NZ, etc.
- Russia log supply is a wildcard due to number of political and logistical issues.
- China is able to match or outbid US PNW mills for logs at today's U.S. lumber prices. Current US PNW log price is about \$100/m³ (\$650/Mbf Scribner) or about \$165-\$175/m³ cif China port. **Chinese mills are still profitable at this log price.**
- Continuing pressure expected for PNW log supply & prices, as China's sawmilling industry is hungry for increased log supply!

Comparison of Logs processed in U.S. PNW vs. China Sawmills

US PNW Logs: Domestic Mills vs Logs Processed in China

COST CATEGORY	US WEST COAST SAWMILL	CHINA SAWMILL (Imported US Logs)
Log Cost - US\$/Mbf - Scribner	650	650
Log Conversion - Scribner to m3	6.5	6.5
Log Cost - US\$/m3	100	100
Ocean & Inland Freight Costs		55
Port and Handling Costs (both sides)		30
Total Delivered Log Costs - US\$/m3	100	185
Total Delivered Log Costs	ADVANTAGE	
Sawmill Recovery - Logs to Lumber		ADVANTAGE
Labour costs		ADVANTAGE
Other cash conversion costs		ADVANTAGE
Total Costs	ADVANTAGE	
Average By-Product Revenue	ADVANTAGE	
Average Lumber Revenue		ADVANTAGE
EBITDA Margin		ADVANTAGE
EBITDA Margin	SUBSTANTIAL LOSS	MODEST GAIN

Source: WOOD MARKETS - *Global Timber / Sawmill / Lumber*

From the publishers of WOOD MARKETS MONTHLY INTERNATIONAL REPORT,
WOOD MARKETS 1996, 2000, 2002, 2006, 2010 and many other strategic industry reports

2011 EDITION WOOD MARKETS

The Solid Wood Products Outlook • 2011 to 2015

**A DETAILED ANALYSIS OF THE
NORTH AMERICAN WOOD PRODUCTS MARKET**

COVERING: Lumber, OSB, Plywood, MDF and Particleboard

*FEATURING: A Five-Year Outlook for Supply, Demand
and Prices, including Mill Operating Rates*

*INCLUDING: An Economic Analysis of
the U.S. Housing-Market Recovery and
the Key Demand Drivers*



Prepared and published by
International WOOD MARKETS Group Inc.

LUMBER • PANELBOARDS • TIMBER • ENGINEERED WOOD • ECONOMICS • MARKETS • FORECASTS

4. US & Canada Lumber Outlook: 2011-2015

**Excerpts from
our latest 5-
year forecast**

**Outlook for Lumber &
Panel Products**

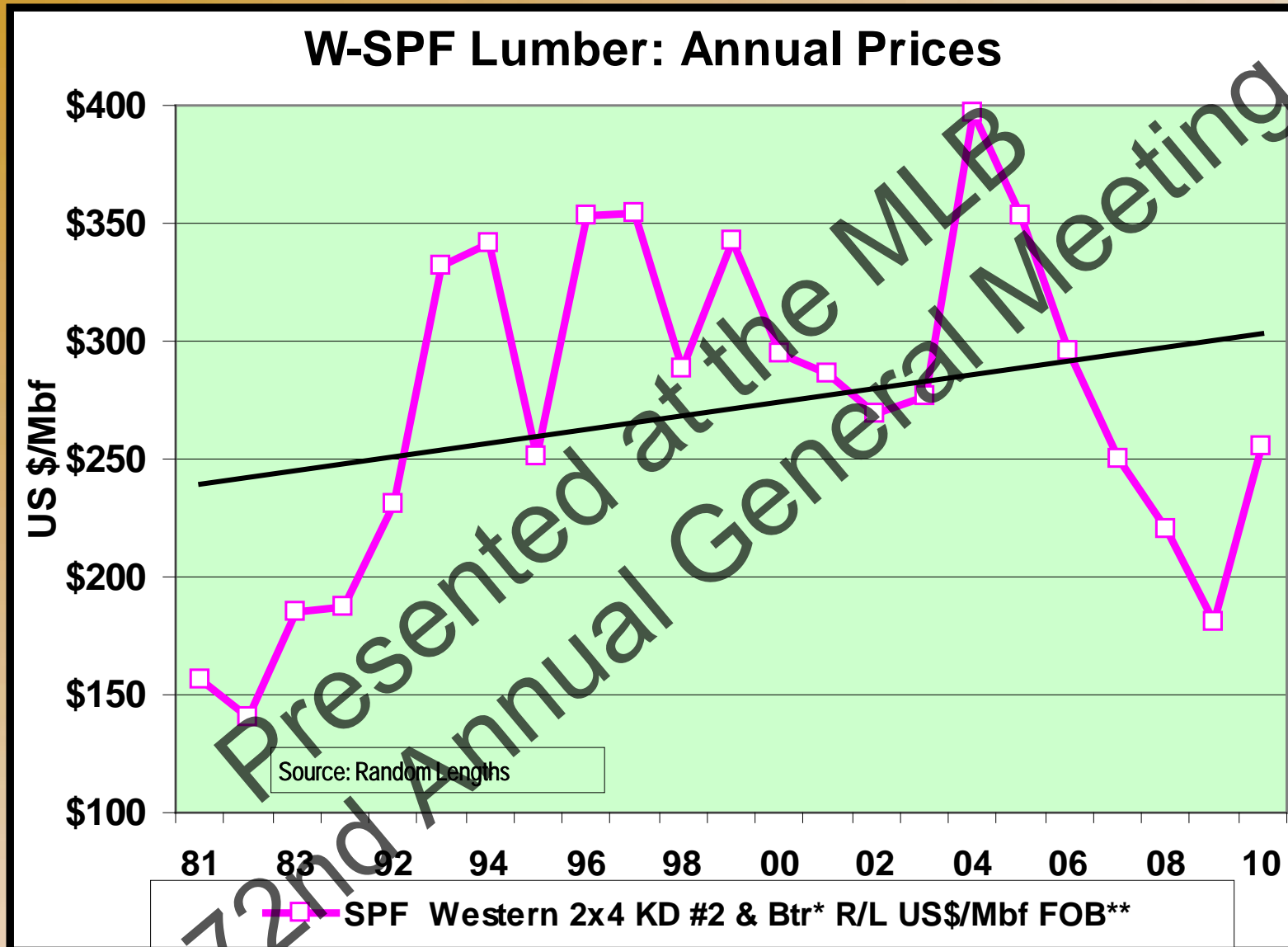
**Released:
Dec 2010**



Forecast: N.A. Major Supply Drivers

- Timber supply availability (public vs. private)
- Log export volumes in U.S. and B.C.
- Mountain pine beetle implications in B.C. and Alberta;
- Reduced timber supply in Quebec;
- Cost competitiveness (log and mill costs)
- Transportation & delivered costs to market;
- Currency exchange rates;
- Impact of Softwood Lumber Agreement;
- Growing Opportunities in export markets;

US Lumber Prices = Below Normal



Need US \$250+/Mbf for profitable operations at “average” mill

Look at Canadian Lumber - Output & Demand: 2011-2015

Presented at the MLB
72nd Annual General Meeting

BC INTERIOR

Mountain Pine Beetle Attack

Impact and Outlook on
BC Timber Availability and
Wood Products Production



Photos courtesy of Forest Innovations
Investment Ltd. and BC Ministry of Forests

Featuring

- ▲ A proprietary modeling of BC timber fibre availability by region and by year to 2028 under key assumptions
- ▲ A modeling of BC lumber and panel production by year
- ▲ An annual projection of the likely supply of wood residuals (for pulp, MDF, particleboard, bioenergy and wood pellets) in BC
- ▲ BC's declining lumber output and its impact on the supply/demand balance in North America
- ▲ A discussion of how higher lumber or timber prices will be required to fill the looming North American deficit
- ▲ An examination of how producing regions/countries should benefit

Published by



BC Interior: Mountain Pine Beetle Attack Report

Forecast: to 2028

The future of BC's
harvest and wood
products production
produced by:

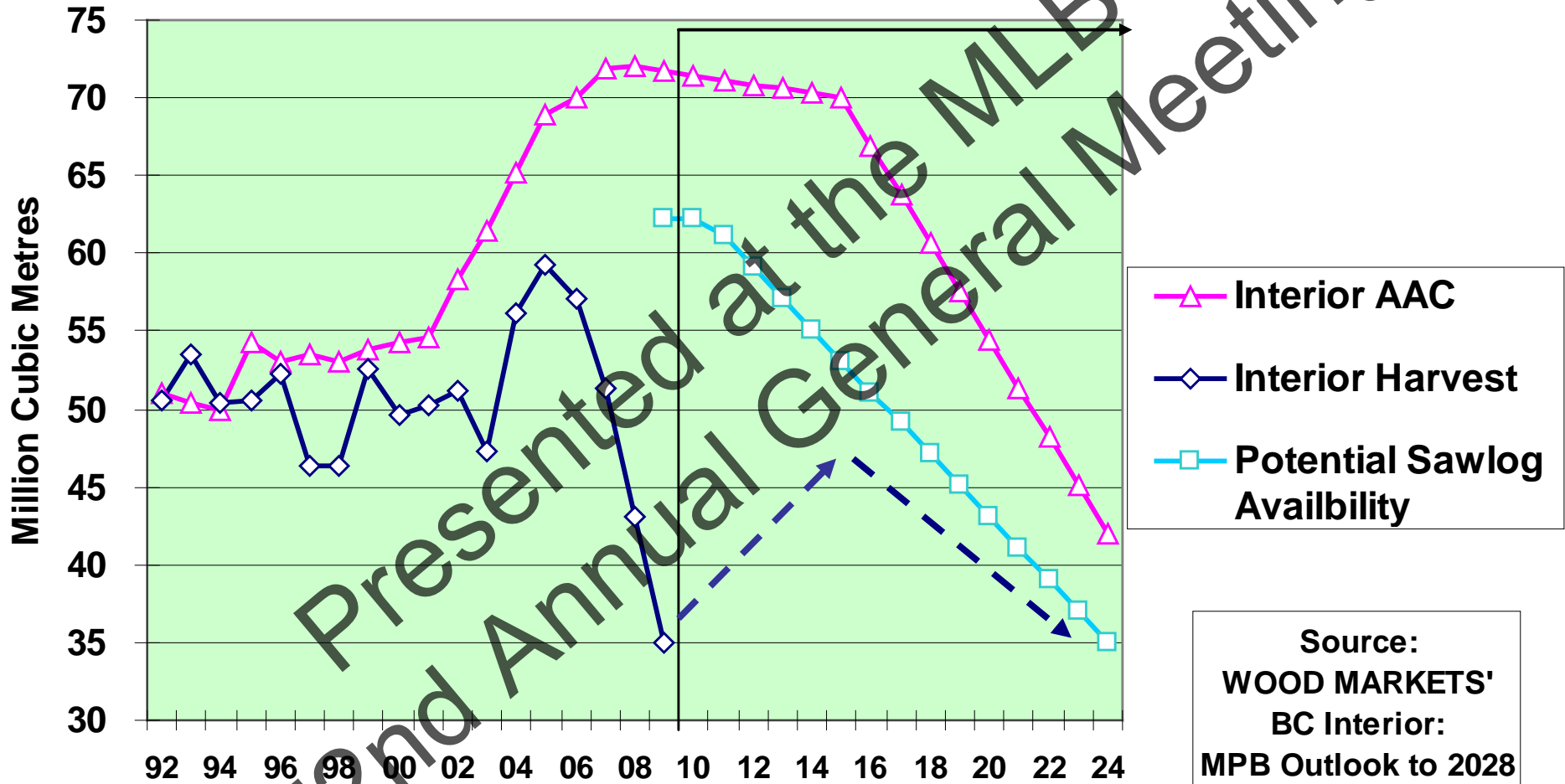
- **Jim Girvan**
- **Murray Hall**
- **Russ Taylor**
- **Gerry Van Leeuwen**

Released: Late
March 2010



BC Interior: Timber Harvest & MPB

BC Interior Timber Harvest & AAC - incl. Crown & Private Land



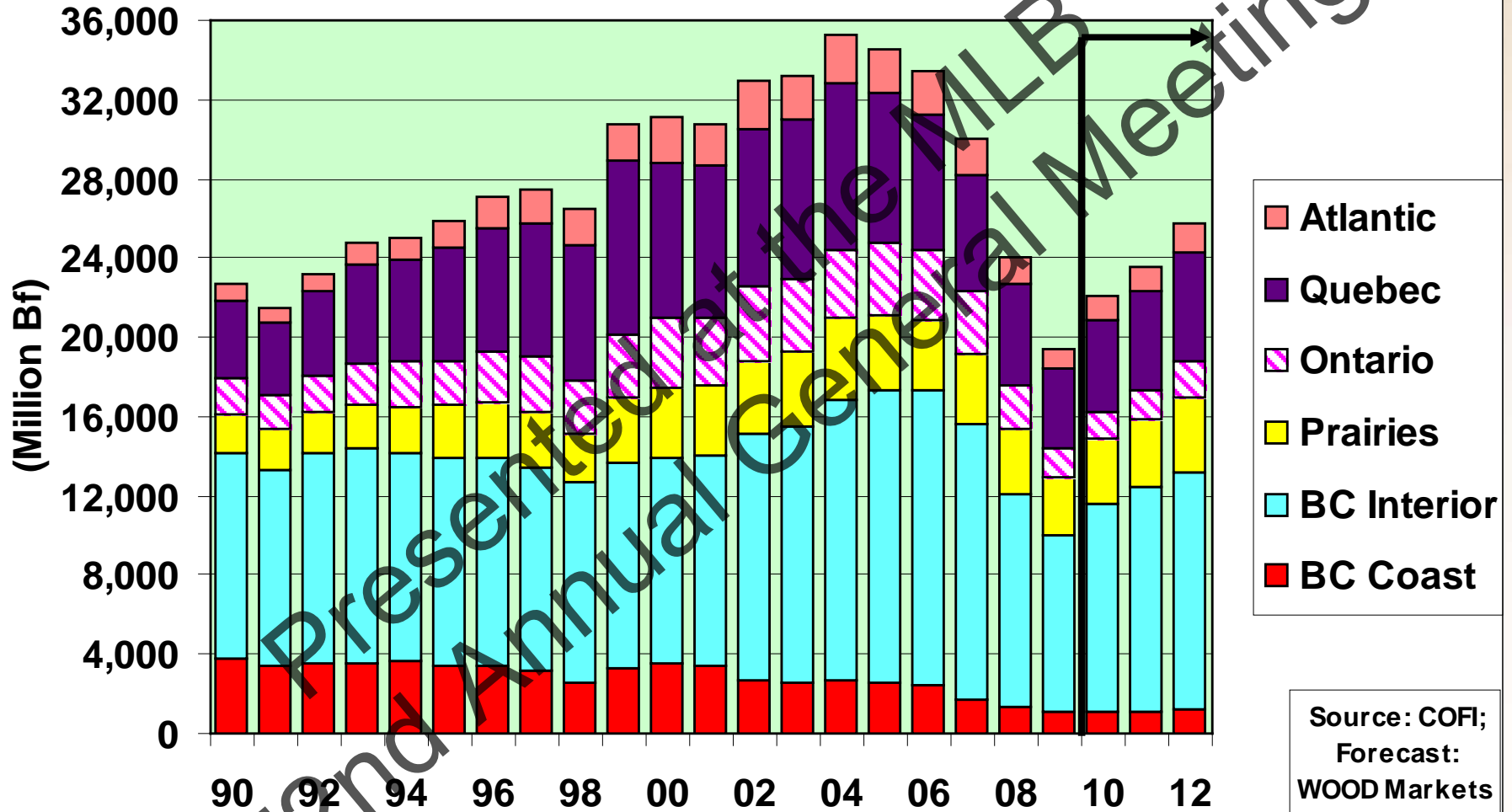
Source:
WOOD MARKETS'
BC Interior:
MPB Outlook to 2028

AAC: from 50 million to 70 million to ~40-45 million m³



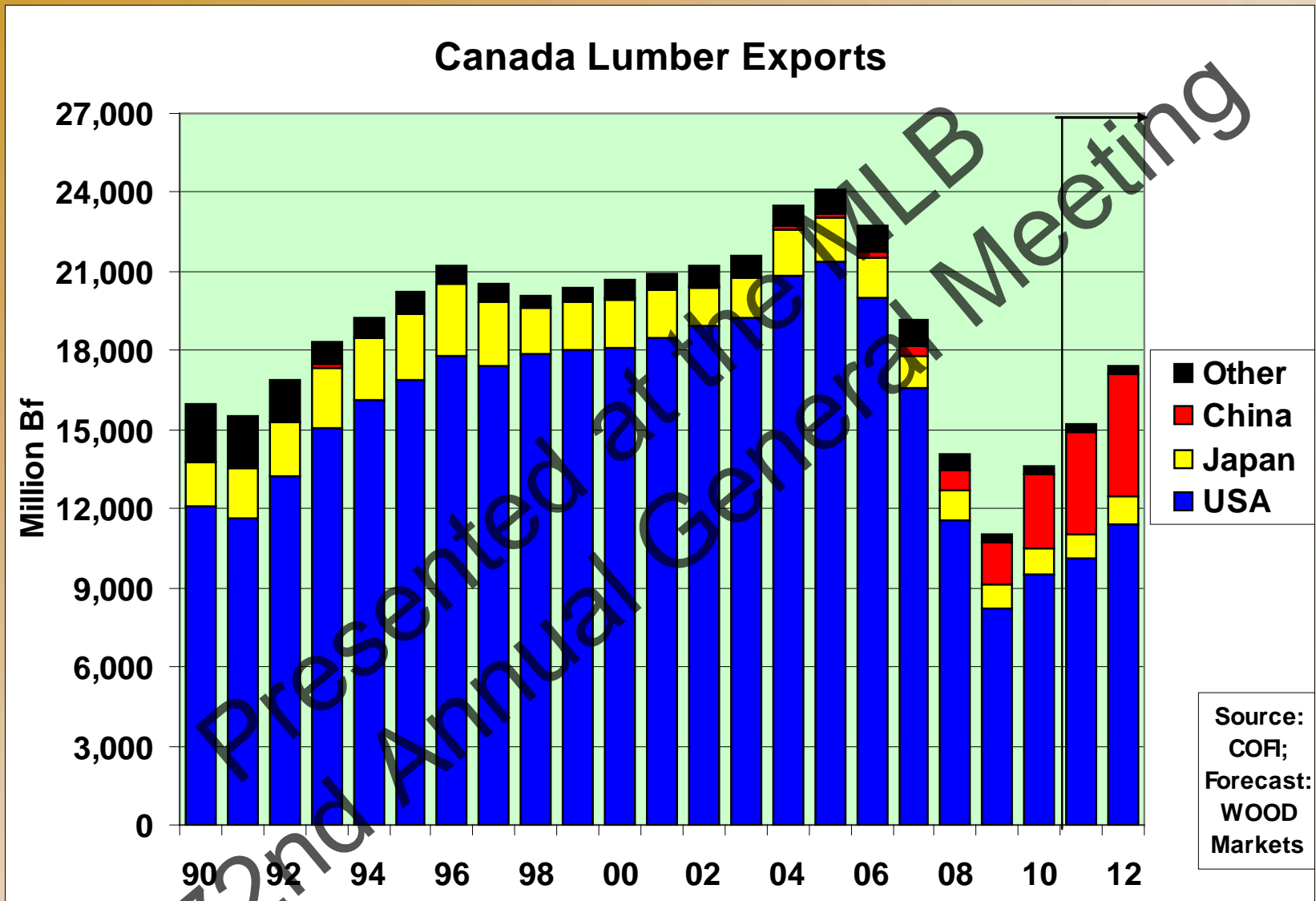
Canadian Lumber Output: Sags by 2015

Canada Lumber Production By Region



BC lumber output slows by 2013; Quebec harvest reduced by another 10% in 2013; Reductions not offset by other regions

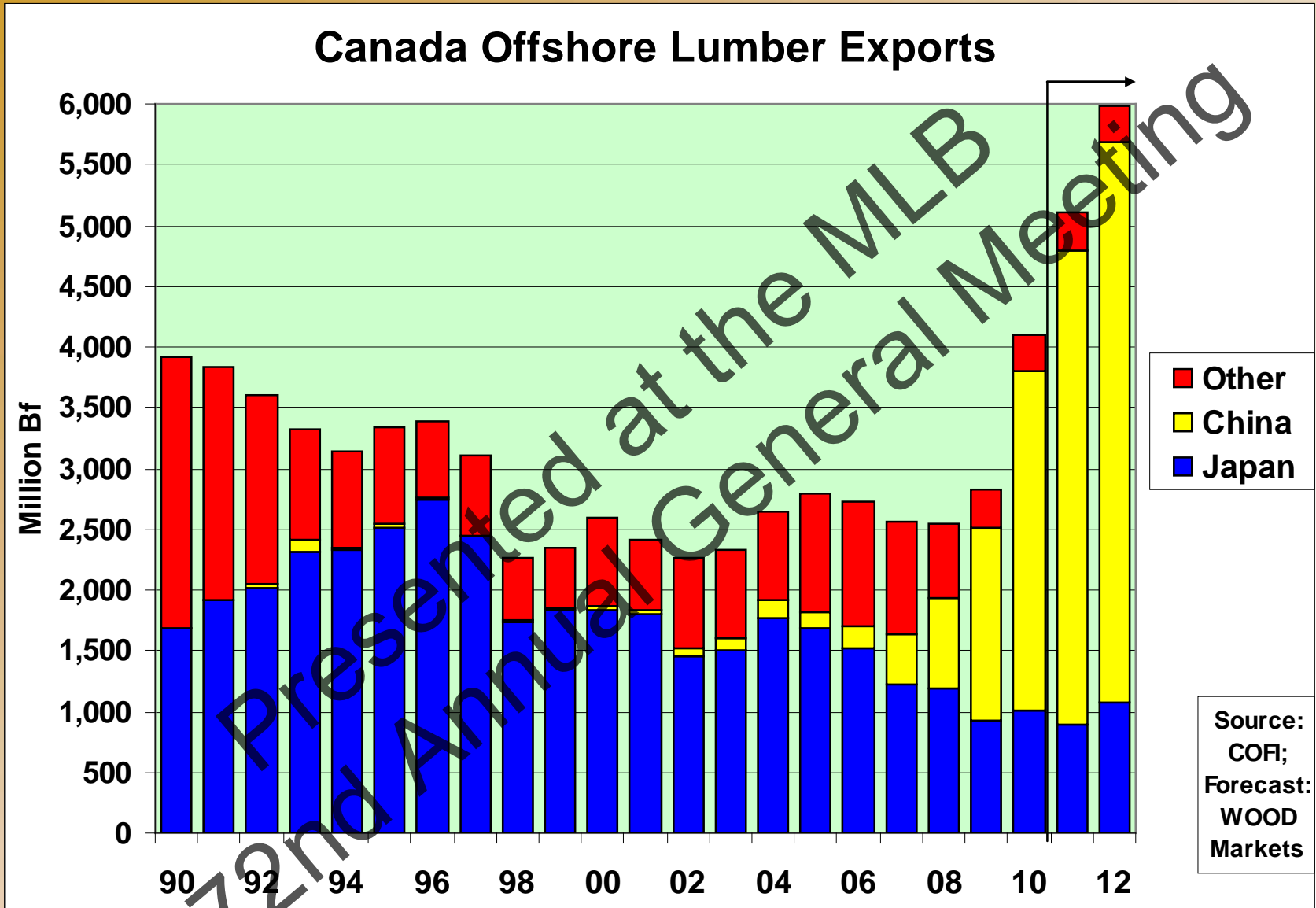
Canada Lumber Exports Rebound



China becoming most important market for BC lumber

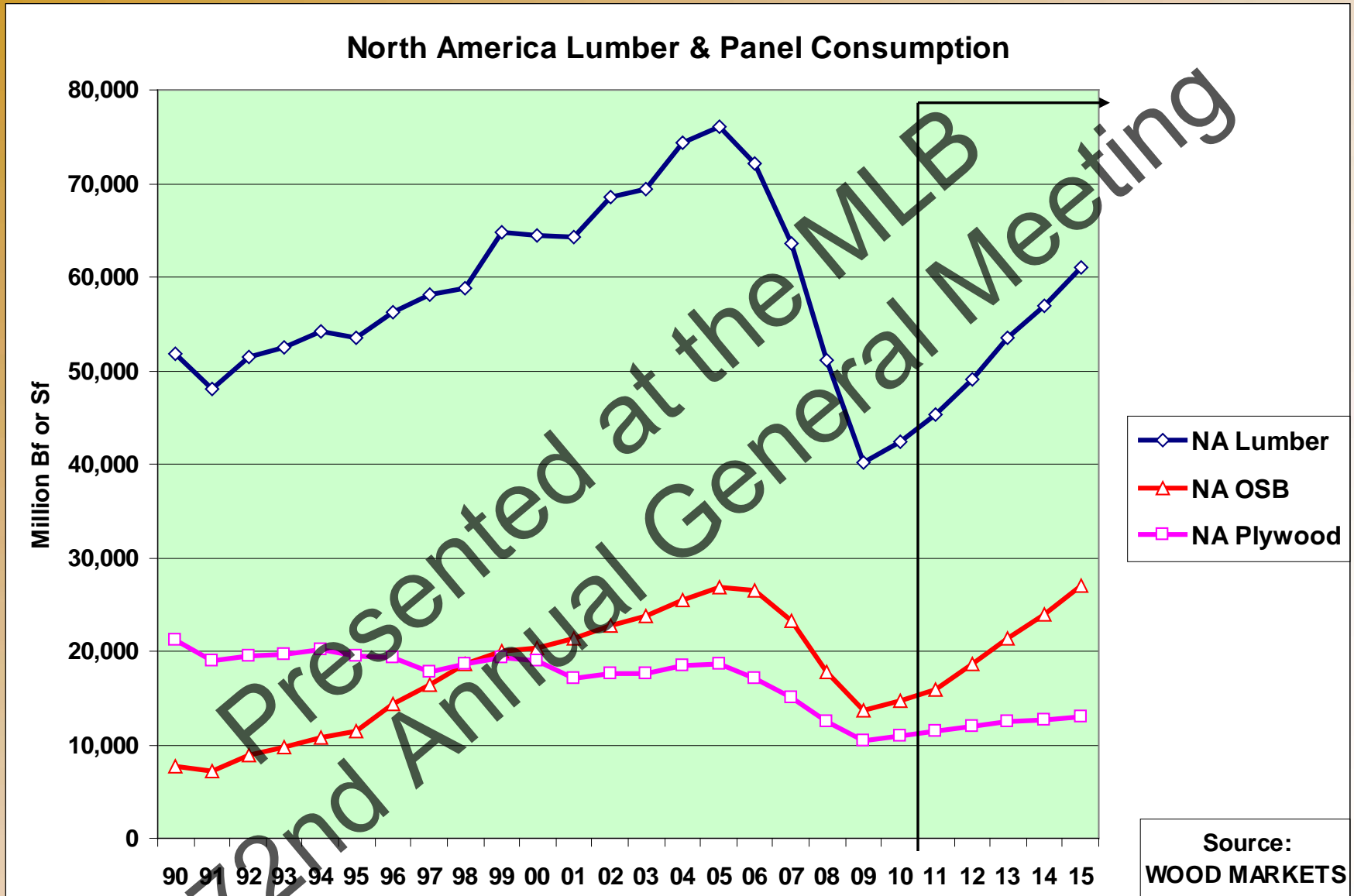


BC Lumber Exports to China = Soar



Huge upside for BC lumber exports in China.

NA Wood Products Consumption: Up!

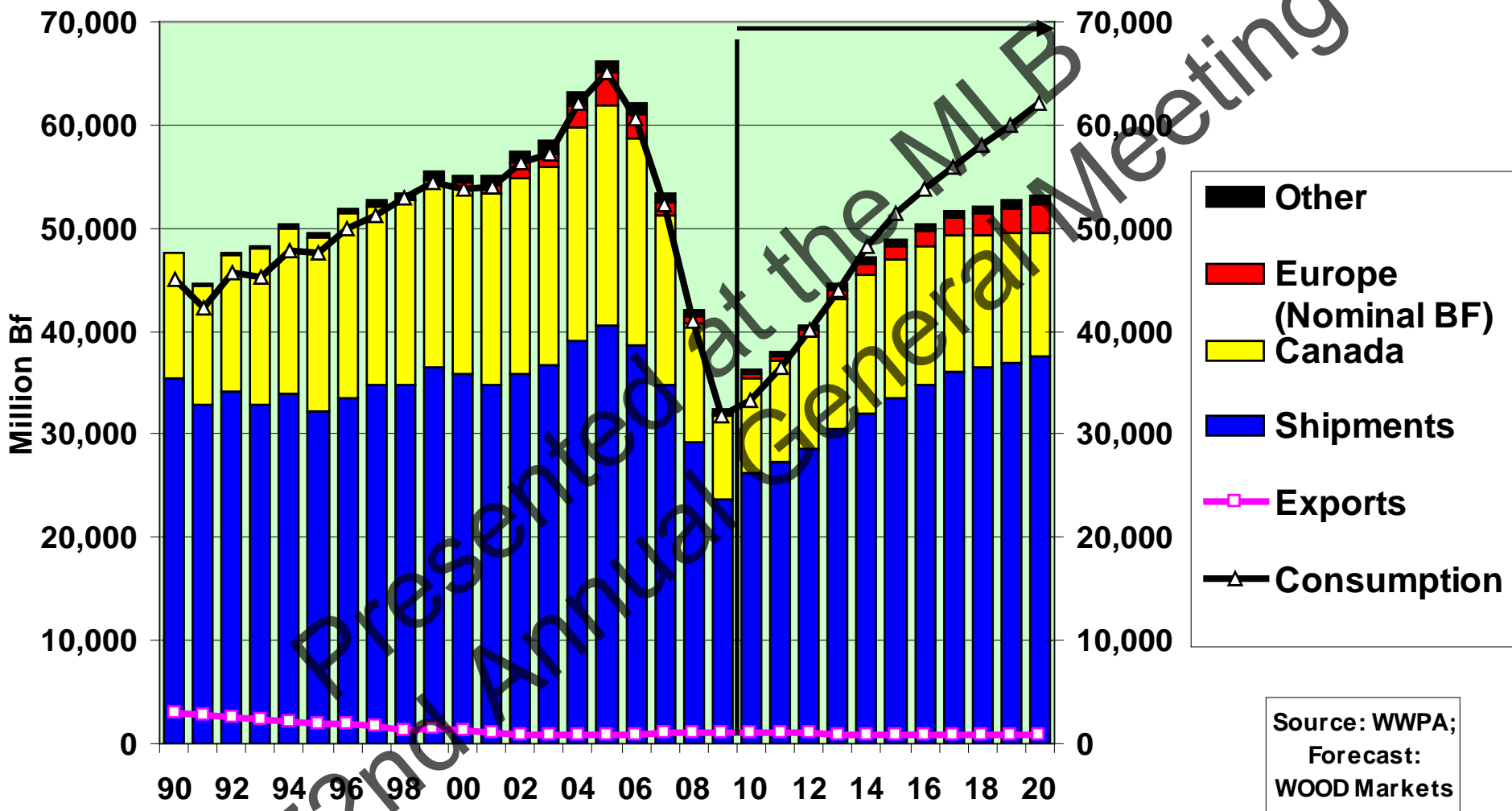


OSB will rebound to its 2006 highs by 2015; Not lumber



Potential Scenario 2020 = Lumber Gap

USA Lumber Supply & Demand

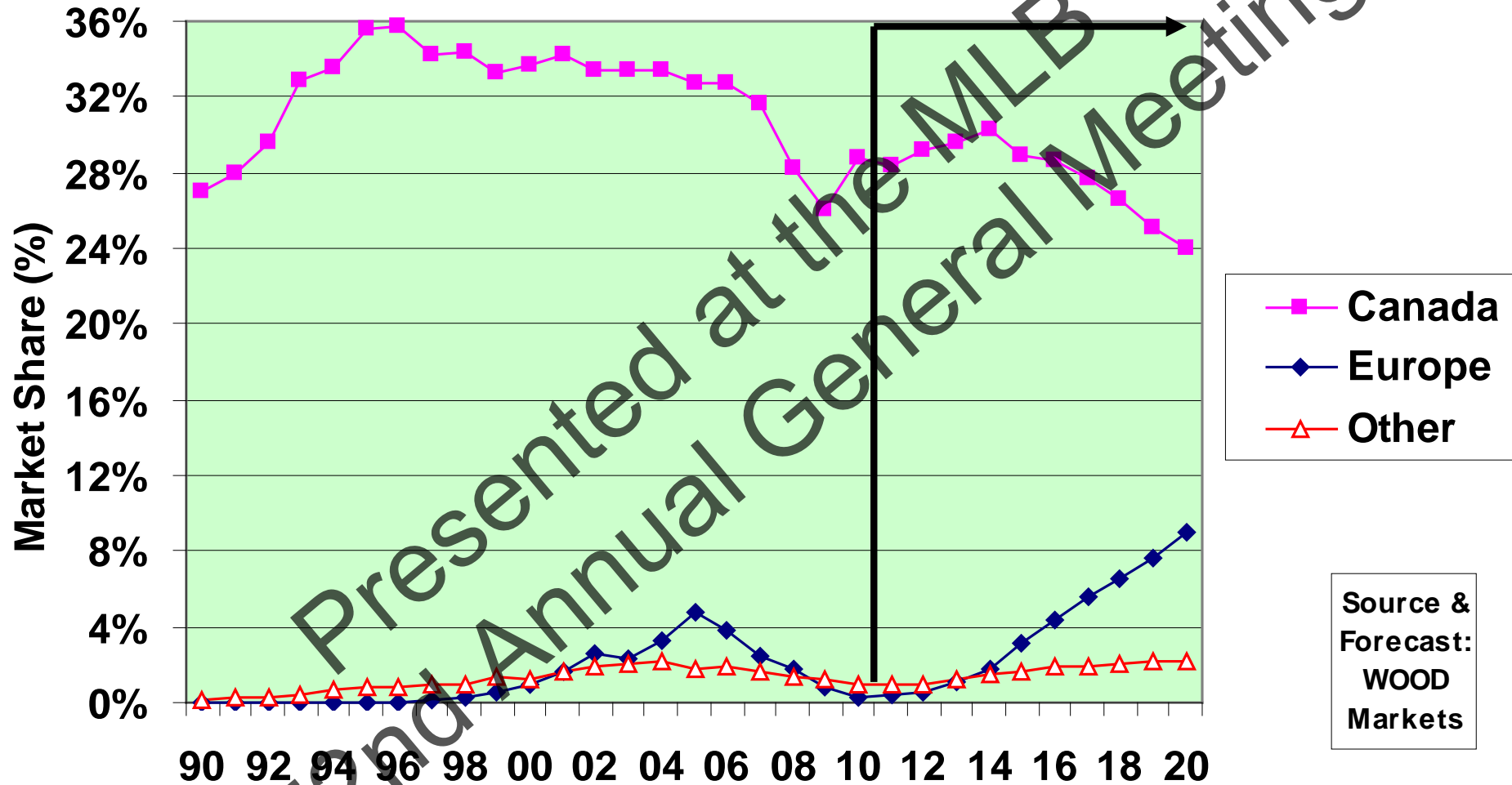


Gap will require higher prices for logs, imported lumber, etc.



Canada Market Share of US Consumption

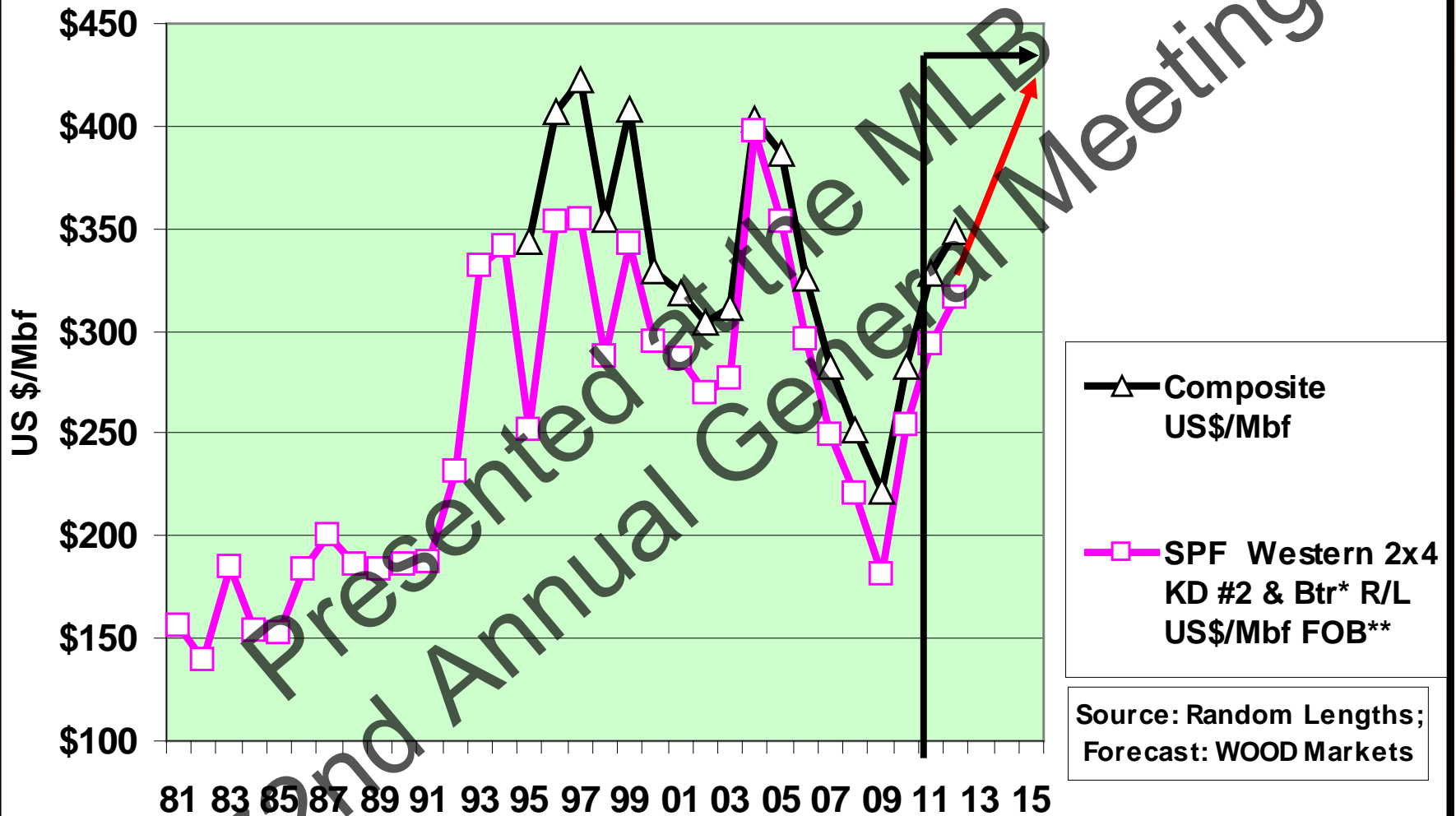
Import Lumber Market Share of US Consumption



The US starts to run out of Canadian lumber; Europe soars

US Prices to Soar by 2013-14

W-SPF & Composite Lumber Price Forecast



W-SPF Prices to spike as high as US\$500/Mbf in 2014

WOOD MARKETS: 2 Conferences:

CHINA

Sept. 12-15:

**China International
SOFTWOOD Log &
Lumber Trade
Conference**

Tianjin, China

September 15-16

**Plus: Optional 3-Day
Tour of Log Ports, Mills
and Distribution (Sept.
12-14)**

VANCOUVER BC

May 9 2012:



**GLOBAL
WOOD PRODUCTS
INDUSTRY & MARKET CONFERENCE**

May 9, 2012
VANCOUVER, BC

May 9, 2012

FEATURING

- One-day international wood products/markets conference
- A cross-section of North American and international speakers
- Discussions and analysis about challenges, new opportunities, threats and outlooks

In conjunction with:

- PwC's 24th Annual One-Day Global Forest & Paper Industry Conference: May 11, 2011
- The Pulp and Paper Producers Council Annual Meeting: May 9-11 2011
- The Global Forest Products Leadership Summit 2011: May 9 -11, 2011

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Vancouver, BC

**WOOD
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5. Summary: Global Perspectives/Trends

Key Demand Issues:

- Global softwood log demand growing at 1-2%/yr
- US & global housing starts! (we are at the bottom!) - a slow/steady rebound is expected...
- European market also to recover slowly...
- Rebuilding demand in Japan.
- Roaring demand in China to fill fibre shortage.
- Korea, Taiwan, Vietnam = all require imports.
- Middle East/North Africa = all require imports.
- Australia requires more imports.
- India = next country with major supply shortages

Global Perspectives & Trends

Key Supply Issues:

- Global timber supplies are getting tight:
 - North America: MPB & Quebec timber reductions + TIMOs in the U.S.
 - Russia: Log export tax schedule + WTO
 - Europe: private landowner strategies?
 - China's dependency on imported logs
 - Tropical hardwood log harvests declining
 - Illegal logging being restricted
- As timber gets tighter, higher log prices are expected + higher wood product prices!
- A lumber "super cycle" is coming..., (2014-2015?)
but will be supply driven, not demand driven!

Thank You!

G. Van Leeuwen, B.Com.

Vice President

International WOOD MARKETS Group Inc.

Vancouver, B.C., Canada

Suite 603 – 55 E. Cordova Street

Vancouver, BC V6A 0A5

Tel: (604) 801-5996 / Fax: (604) 801-5997

Email: retaylor@woodmarkets.com

www.woodmarkets.com

