

Global and Regional Forest Products Economic Trends

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A photograph of a lumber yard. In the foreground, there are large stacks of logs, some with blue markings. In the background, a worker wearing a hard hat and a light-colored shirt is standing near a stack of logs. The sky is blue with some clouds.

Overview

Global Marketplace

North America

European

Asia



Overview

World Economy

Recovering from the most severe financial shock since the Great Depression

Deepest economic downturn since World War II

Debt crisis in the Eurozone



Overview

World Economy

U.S. recovery is stalled – despite massive intervention

Declining home prices in the U.S. and western Europe

→ **One constraint for housing & construction employment**

Sovereign debt problematic – Eurozone

China, Germany, Canada, and India – moderate to good growth

Global Marketplace

Overall Outlook – Varied

North American lumber demand – 61.0 bil bf by 2015? (40.6 bil – ‘09)¹

Consumer switch to electronic media hampers newsprint worldwide

– new uses? - - biofuels, biochemicals, bioproducts^{2,3}

China leads the way for increasing worldwide demand for pulp & paperboard

– China has a fiber deficit and a burgeoning wood industry

¹ - International WOOD Markets Group

²- deloitte.com/assets/Dcom-Global/Local%20Assets/Documents/Manufacturing/dttl_%202011%20Forest%20Paper%20Packaging%20Outlook_1_27_11.pdf

³ - pwc.com/en_GX/gx/forest-paper-packaging/publications/pdf/FPP_deals_2011_v6.pdf

Global Marketplace

Overall Outlook – Varied

All signs indicate that China will be a market- and price-maker for most forest products

South American, Canadian, and European pulp & paperboard producers are the primary beneficiaries

South America – particularly Brazil, followed by Uruguay and Chile – are favored for producing low-cost fiber³

BC & NW U.S. – should benefit from increasing log & lumber exports

³ - pwc.com/en_GX/gx/forest-paper-packaging/publications/pdf/FPP_deals_2011_v6.pdf



Global Marketplace

Housing

Recovered or remained steady in Canada, Switzerland, Germany

Is still an 'anchor' in the U.S., Ireland, Spain, U.K., Italy, Poland, etc.

China, Russia, Mexico, and now Japan - - need millions of housing units

Again – BC & NW U.S. should benefit from increasing log & lumber exports

Global Marketplace

World and Regional Economies – Forecast

GDP → Slow to moderate recovery

2011⁵

- | | |
|-----------------|------|
| • CIS (Russia) | 4.5% |
| • EU-31 | 1.8% |
| • North America | 2.4% |
| • World | 3.5% |

⁵ World Bank : <http://web.worldbank.org>

United States Marketplace

The U.S. economy is stalled

- Persistent unemployment
- Consumer confidence trending downwards
- Massive budget deficits – Federal & State
- Commercial & residential construction spending
 - both declining: 6.8% & 8.1% year-over-year



United States Marketplace

U.S. Housing

*You can have any kind of a home you want.
You can even get stucco.*

Oh, how you can get stucco!

– Groucho Marx

From , “The Cocoanuts” 1929

United States Marketplace

U.S. Housing

**Historically, 70% of NA softwood & 50% of hardwood production
- - directed to the U.S. housing market**

**Housing mkt mired in start levels not seen since World Wars I & II,
and the Great Depression**

Jobs, consumer confidence, mortgage availability, household formation

Foreclosures, shadow inventory, underwater homes

– All must improve substantially before the housing mkt improves

United States Marketplace

Housing Market

Starts and sales of new homes are still plunging
- in spite of low-mortgage interest rates

- Ave 30-year mortgage 4.86%
- Ave 15-year mortgage 4.07%

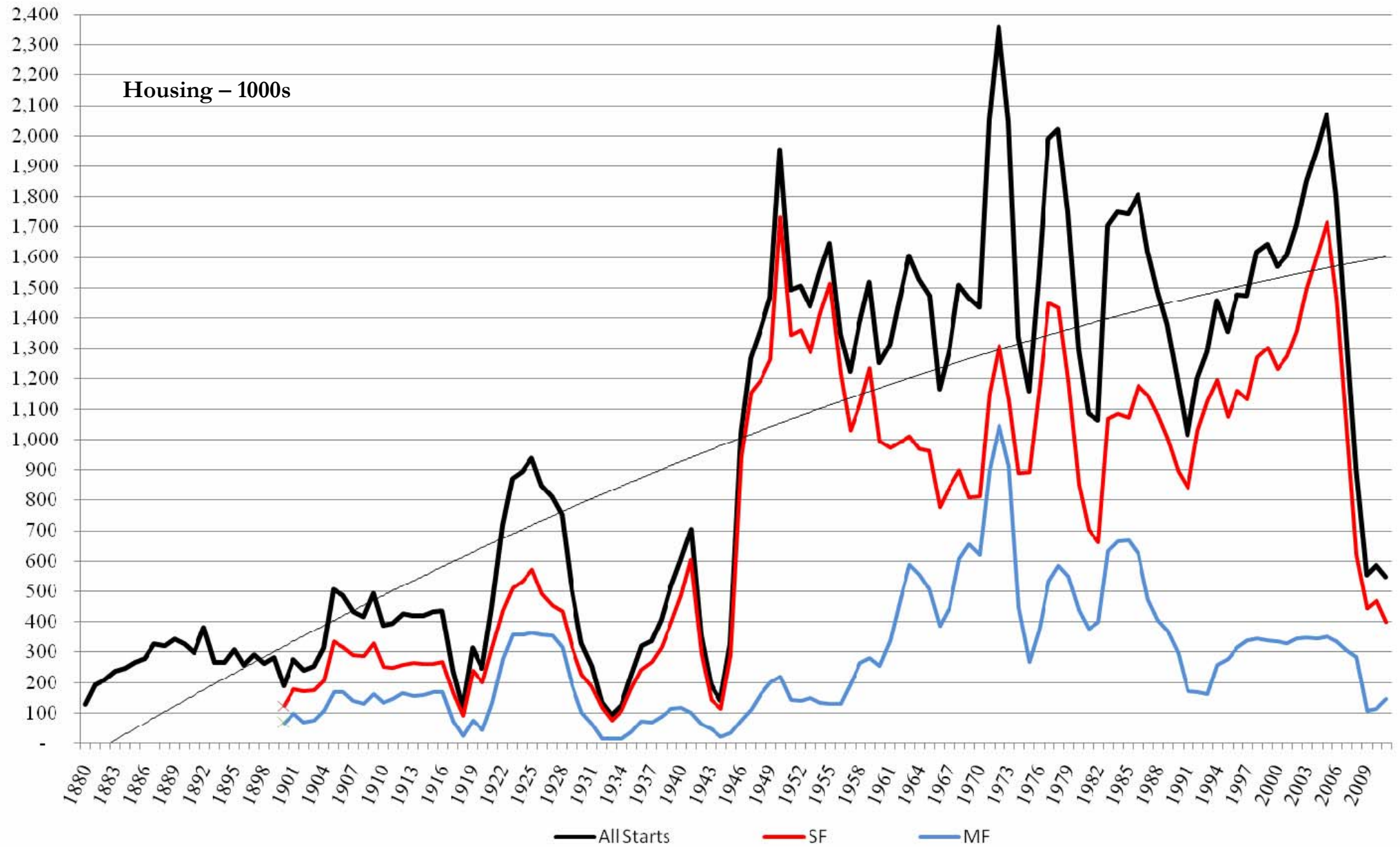
Over construction, 'Shadow' homes, & foreclosure inventory -
will have a negative impact for years

- ~ 1.5 mm excess homes for sale⁸
- 1.8 mm to 6.97 mm shadow homes?⁹
- ~ 23% (2 mm) of home mortgages 'underwater'
- Combined – 2 to 6 years of inventory

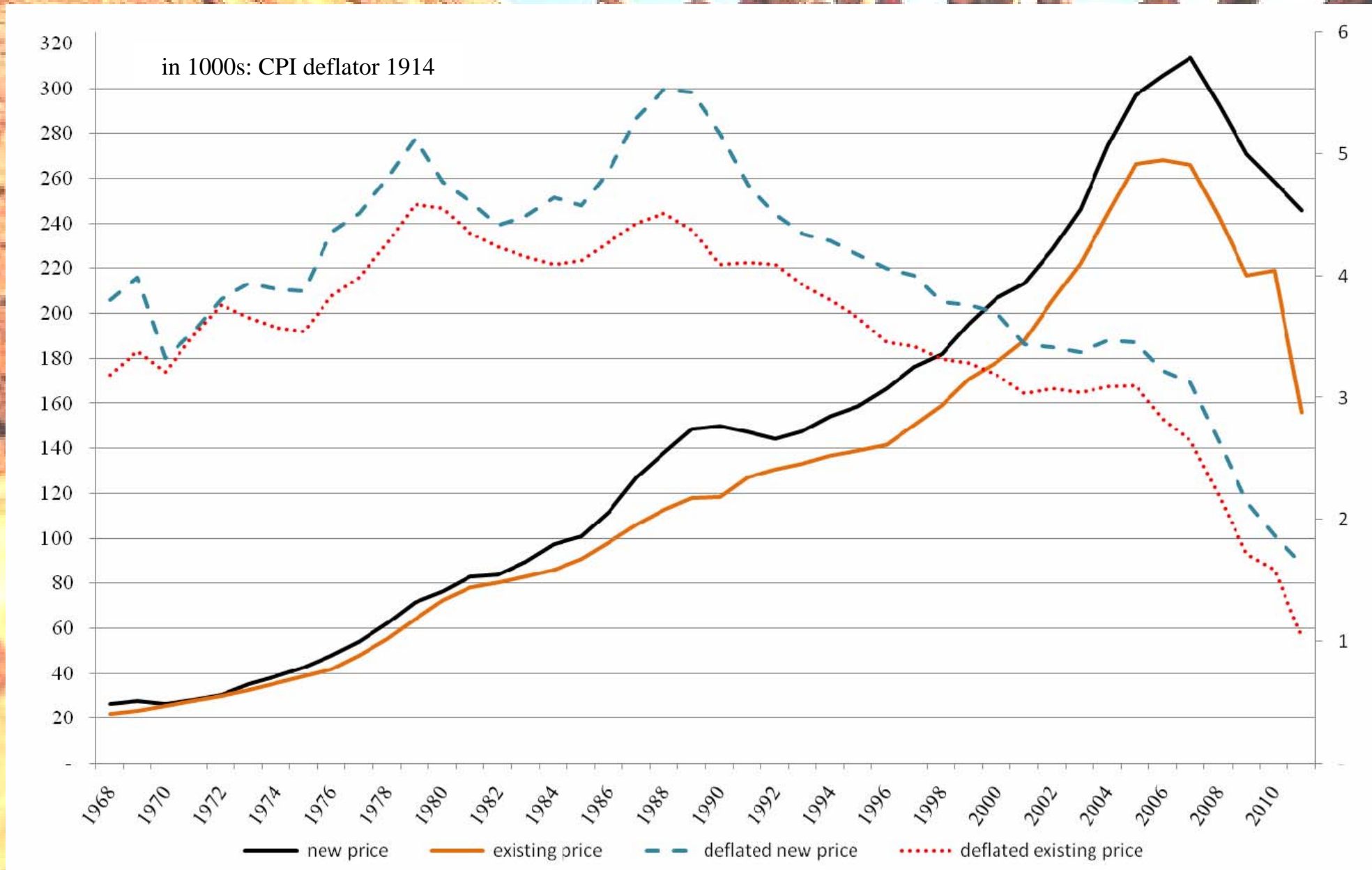
⁸ Al Schuler, Housing Notes, December 2010

⁹ - CoreLogic and www/marketwatch.com/story/housing-isnt-even-close-to-stabilizing-2010-09-22?pagenumber=2

United States Marketplace



United States Marketplace



United States Marketplace

Housing Market

February: Less than 550 m starts – down 73% from '05¹⁰

SF trending at 400 m annual rate – 23% of '05 level

- **Historically, SF construction uses 1/3 of All softwood lumber**

New home sales 288 m units (SAAR) – down 78% from '05

- **February sales – historic low for the series**

Existing home sales: 5.14 mm units (SAAR)

- **Down 27% from peak (7.07 mm units)¹¹**
- **39% of existing home sales were foreclosed homes¹²**

¹⁰ - U.S. Census

¹¹ - National Association of Realtors®

¹² - ShadowStats.com

United States Marketplace

U.S. Housing – Remodeling

- 2010 DIY home improvement market – 21% decline from '05-'09
- 32% of DIYers earn \$75-99.9 m – reported they lacked the money for a major home improvement project⁶
- LIRA projects annual spending growth of 6.5%
3rd qtr 2011⁷

⁶ – Mintel Ltd, Consumers Have the Motivation, but Lack the Money for Home Improvement

⁷ - Leading Indicator of Remodeling Activity (LIRA)

U.S. Marketplace

Housing Market

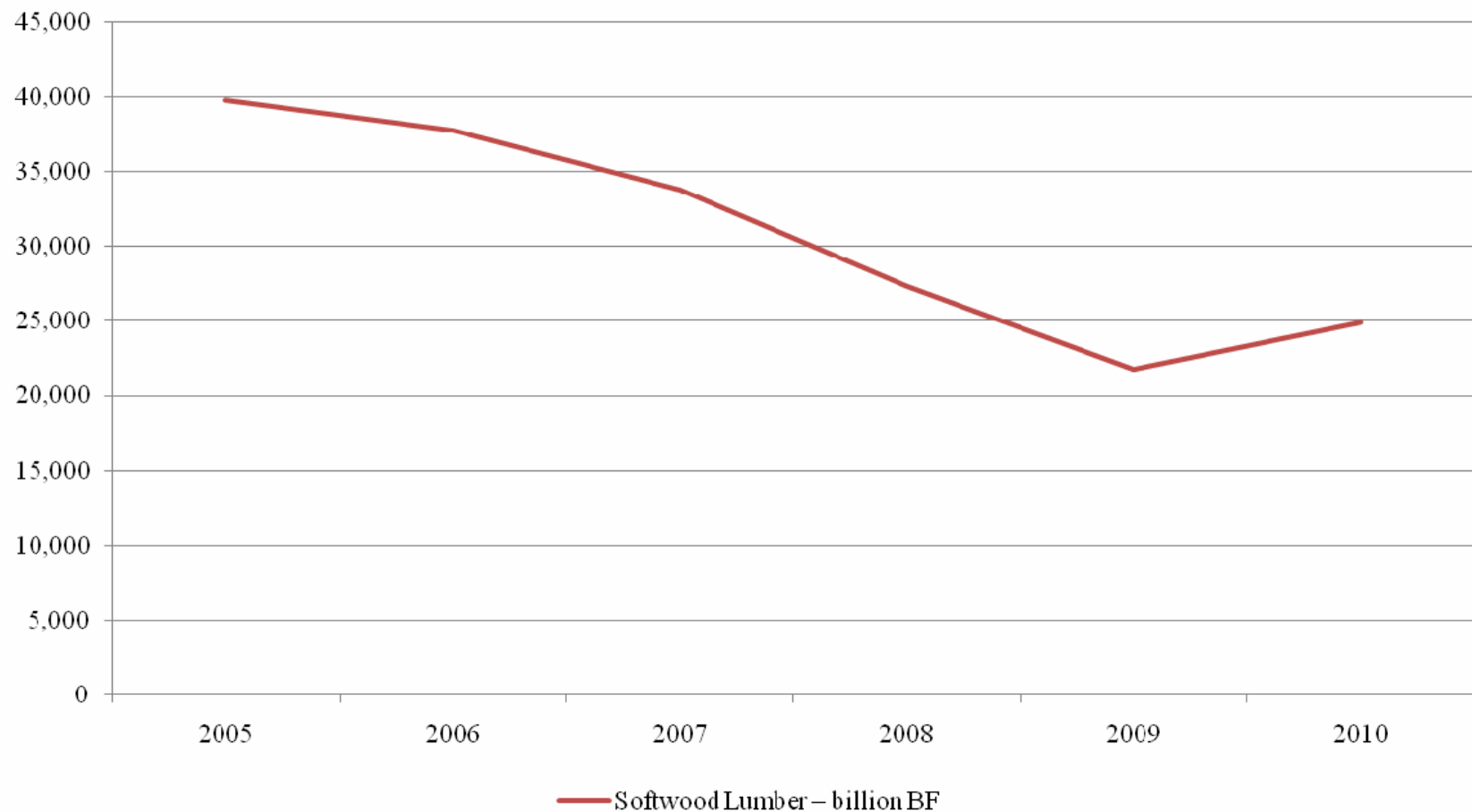
Current conditions:

- Monthly sales continue to weaken
- Foreclosures sell at an average 26% discount¹⁰
 - Commercial RE is weak too
 - ~ 13% of all U.S. homes are vacant¹⁰

¹⁰ - U.S. Census

United States Marketplace

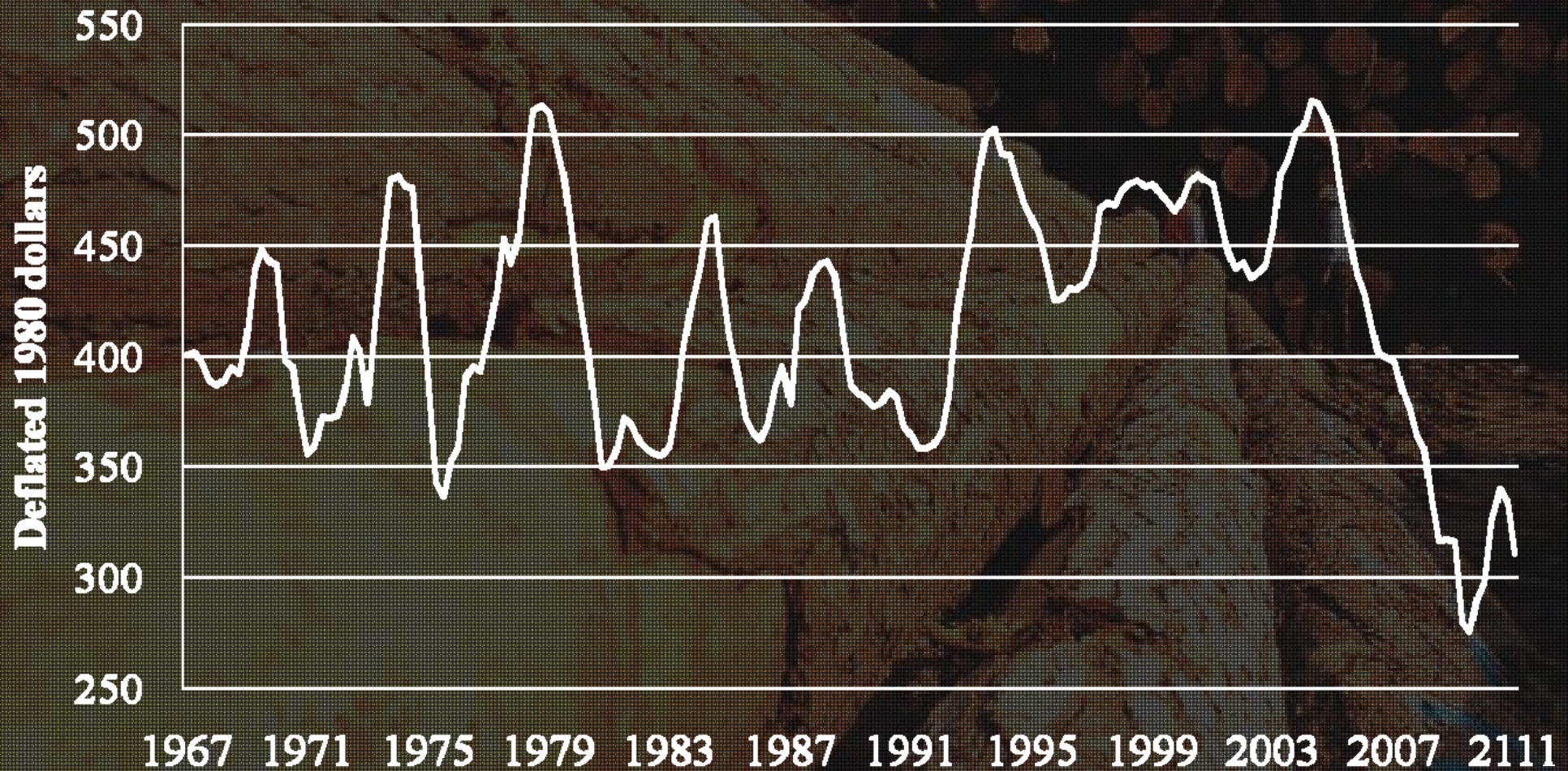
U.S. Softwood Lumber Production



Source: US DOC; Random Lengths

United States Marketplace

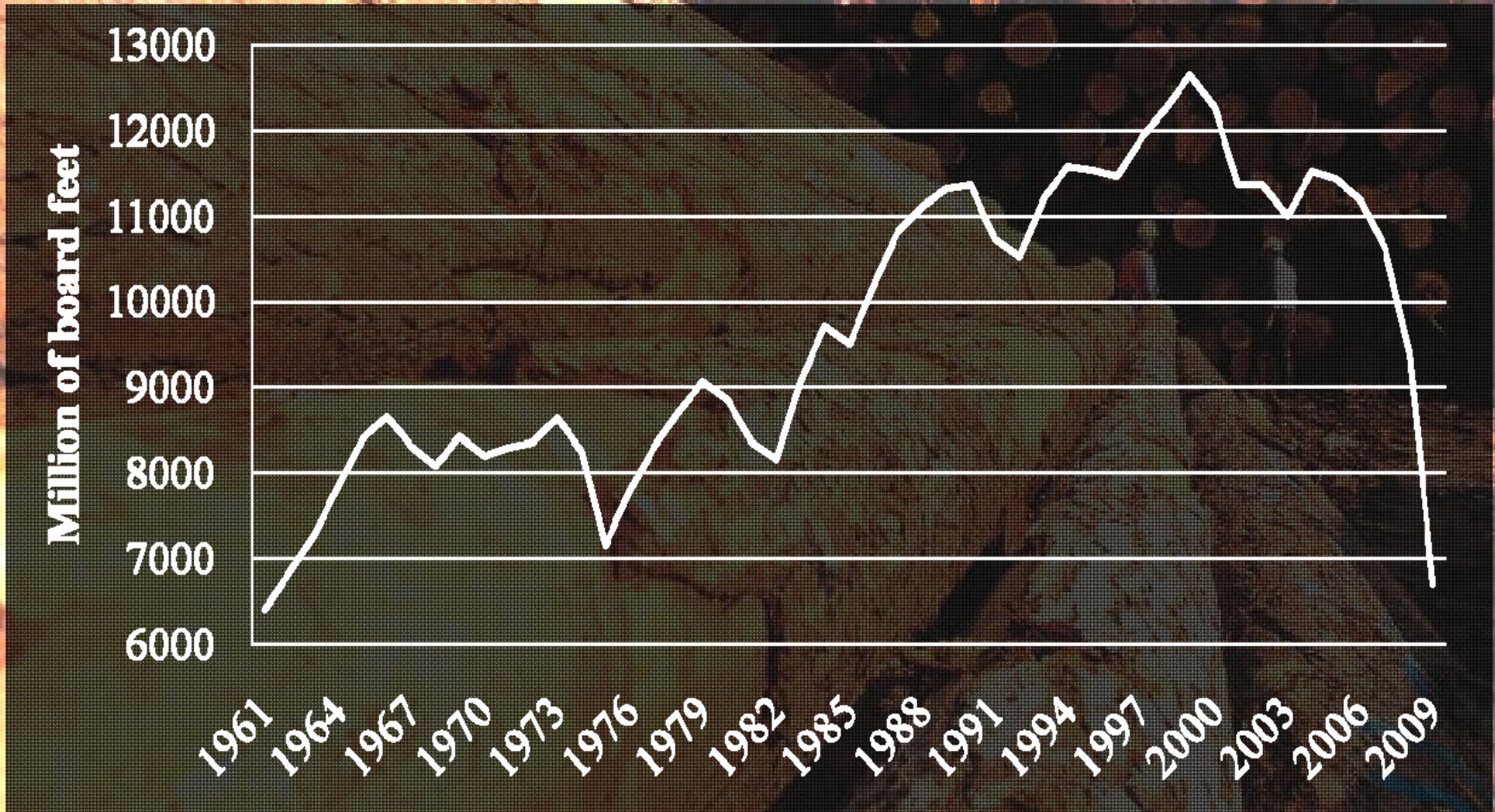
Historic Price Trends (deflated) #1 Common Appalachian Hardwood Lumber



Source: Bill Luppold, USFS-Princeton WV

United States Marketplace

Eastern Hardwood Lumber Production



Source: Bill Luppold, USFS-Princeton WV

Canadian Marketplace

The background of the slide is a photograph showing a large pile of cut logs in a forest. The logs are stacked in a way that creates a sense of depth and volume. In the distance, a person can be seen walking through the logs, providing a sense of scale. The lighting is bright, suggesting a sunny day in a clear forest.

Canada's economy is at pre-recession levels

- **Greatest growth among G8 nations**
- **Rich supply of timber, oil, gold, & other resources**
- **Financial sector restrained by Parliament**

Canadian Marketplace

Forest products production – recovering

Year	Sawn Lumber – billion board feet ¹
2006	34.27
2007	30.53
2008	24.26
2009	19.17
2010	22.59

Mountain pine beetle epidemic in B.C. continues
– 750 mm m³ killed; 900 mm m³ expected (total)

SLA: Complaints between Canada & US on-going

¹ - International WOOD Markets Group

Canadian Marketplace

Historically shipped the largest percentage of product to the U.S. (several years exceeded 80%)

- Due to U.S. housing crash: 3rd qtr '10, < 70% to U.S.
- More than tripled wood exports to China in the past 5-years
- Surpassed Russia, now China's largest trading partner in softwood lumber¹³
- Softwood logs & lumber exports > \$1.6 bil – 2010¹

¹ - International WOOD Markets Group

¹³ - palletenterprise.com/articledatabase/view.asp?articleID=3338

Canadian Marketplace

Housing Market – Canada

Starts/sales of new & existing homes have recovered

Projections:

182 m (SAAR) starts – 2011: up 16% from '08

**Projected existing home sales – 2011: 441.5 m units
(SAAR)**

Source: CMHC

Eurozone / CIS Marketplace

Problematic Sovereign Debt

– Reflected in increasing interest rate spreads:

Portugal, Italy, Ireland, Greece, Spain, U.K. – and now possibly Belgium

EU27 wood exports to the U.S. crashed due to thin demand & falling US\$ dollar

Central European wood markets are stabilizing – biofuel production helped greatly

Eurozone Marketplace

EU 27 Forest Products Production

	2005	2006	2007	2008	2009
Sawnwood ^a	108,082.42	112,135.25	115,379.62	99,311.30	91,031.14
Roundwood ^a	443,484.47	417,813.38	458,303.98	415,131.02	391,923.48
Paper & Paperboard ^b	97,584.31	101,486.13	101,408.53	97,879.98	88,133.00

a – 1000 m³

b – 1000 t

Source: EuroStat

Eurozone Marketplace

European housing construction is stagnant

- **Deterioration of Spain's housing market**
- **Ireland & U.K. also**

Projections for a gradual economic improvement

- **4th quarter 2010 and thereafter**

Specter of bank defaults: Spain, Ireland, Greece, & Portugal

Source: EuroStat

Eurozone Marketplace

Housing Market – Europe

Starts and money spent on new housing are trending downwards

Overproduction, as in the U.S. → negative impact for years

Projections:

- Less than 1 MM starts were projected in 2010
- 1+2 family homes & flats – not expected to near 2007-'08 levels in the foreseeable future

Source: EuroStat

Asian Marketplace

China – Developments

Import volumes & values exploding – nearly doubling each year from Canada (BC)¹

Apparent *Bull market* for exporters – recovery & expanding economic scenario in 2011 - - and beyond

Why? Increasing market demand for raw materials

By 2015, an estimated at 350 mm m³ of roundwood equivalent will be needed (all wood products)

Current domestic supply is projected at 200 mm m³ – much is plantation wood¹

¹ – International Wood Markets Group

Asian Marketplace

China – Developments

Increasing Canadian and South American imports

- Offset to decreased log import volumes from Russia

Will Russia's reduction of the log tax change import dynamics?

Double lumber imports by 2015 to meet domestic demand

China is projected to become the largest importer of lumber in the world, > U.S.¹

¹ – International Wood Markets Group

Asian Marketplace

Chinese Wooden Housing

In '09, Canada Wood & Forest Innovation won approval for a new wood-building code in Shanghai – 6-story apartment building

- nearly 7 mm housing-unit starts per year (condo style)
- 70% mid-rise residential buildings, 4-6 stories tall

Chinese gov't committed to building 10 mm affordable housing units in '11; 35 mm in the next 5-years¹³

¹³ - palletenterprise.com/articledatabase/view.asp?articleID=3338

Asian Marketplace

Chinese Wooden Housing

US-China Build Program (USCB) gov't & industry effort to promote US building materials & technologies

British Columbia efforts – Wood First & Dream Home China

- build with wood first
- wood-framed villa demonstration - Shanghai
- wood-framed school - Sichuan province
- renovation projects - Qingdao
- multi-family buildings - Beijing

Reportedly, China is approaching developers¹

¹ – International Wood Markets Group

Asian Marketplace

Chinese Wooden Housing

Caveats?

Is there a housing & building bubble in China?

- 65 mm vacant homes? Which could house 15% of China's population

Reports of massive 'ghost cities & malls'¹⁴

¹ – International Wood Markets Group

¹⁴ – [youtube.com/watch?v=rPILh7TJv7E](https://www.youtube.com/watch?v=rPILh7TJv7E)

Asian Marketplace

China: Logs – 2010

34.3 mm m³ (\$US 6.1 bil), increase of 22% by vol & 49% by value from '09¹

Softwood logs – 24.3 mm m³ (20% increase)

Hardwood logs – 10.0 mm m³ (46% increase)

Russia – 14 mm m³ (5% decrease);

New Zealand – 5.9 mm m³ (35% increase)

US – 2.8 mm m³ – (266% increase)

Canada – 1.15 mm m³ – (271% increase) \$CAD 385 mm – 2009

Papau New Guinea – 2.5 mm m³

¹ – International Wood Markets Group

Asian Marketplace

China: Lumber – 2010

Imported 14.7 mm m³ (US\$ 3.8 bil), up 49% by vol & 65% by value vs. '09¹

Russia dominates lumber – 4.4 mm m³ (40% increase)

Canada – 4.18 mm bf/4.0 mm m³ (65% increase)

U.S. – 1.43 mm m³ (54% increase),

Thailand – 1.41 mm m³ (38% increase)

New Zealand – 413 m m³ (-1% decrease)

Projected annual lumber imports of 20 mm m³ by 2015¹

¹ – International Wood Markets Group

Asian Marketplace

China: Wood Chips

Wood chip imports increased 340% between '08 & '10

- 1.1 mm bone dry metric tons to 4.5 mm BDMT

Demand projected to more than double by 2015

- 5.5 mm BDMT¹⁴

¹⁴– RISI (risiinfo.com/timber/news/RISI-viewpoint-chipping-away-at-Chinas-pulp-demand.html)

Asian Marketplace

Japan

Pre-Tsunami

Largest importer of wood chips & plywood in the world

Second largest importer of logs

Third biggest importer of lumber – 2010

Imported 3.6 & 4.1 mm m³ of softwood logs – 2009 & 2010

Processed logs & chips into products valued more than \$US10 bil;

20% > '09¹⁵

Asian Marketplace

Japan – Lumber

Domestic lumber production:

1,776 m³ '06

2,289 m³ '10

2,943 m³ '15⁴ Now? Many believe production will ramp up

Lumber Imports

2,120 m³ '06

3,596 m³ '10

2,943 m³ '15¹⁵ Now?



Asian Marketplace

Japan – Housing

Post-Tsunami

Tokyo has asked for 30 m temporary houses

More than 400 m homes lost

- Average home size ~ 1,021 ft²

An estimated 100-150 m buildings destroyed

Asian Marketplace

Japan – Housing

Pre-Tsunami

Estimated Housing Starts

2006-2010 – 1,059 mm

2011-2015 – 959 m

2016-2020 – 824 m¹⁶

Now?

¹⁶ – Ivan Eastin (2008), CINTRAFOR, Japanese Green Building Program and the Domestic Woodworking Program

Asian Marketplace

Japan

For the next 6-12 months (at least), increased demand for lumber & plywood

Lumber suppliers? Canada, U.S., Russia, Sweden, & Finland, others?

Log suppliers? Canada, U.S., Russia, New Zealand, others?

Laminate suppliers? Malaysia, Indonesia, & China, others?

Currently – inquiries for glue-lam & pre-cut wood products – can be more quickly used for re-building¹⁵

Conclusions

U.S. & Europe – housing is moribund

If no improvement in the U.S. economy – it may be a decade before 1.6 mm housing starts again

U.S. - excess inventory must be absorbed

- rising foreclosures – increased supply

- falling home prices – more underwater homes

Consumer & business confidence – fragile

Most U.S. wood product markets will not improve until housing gets better

Sovereign debt problematic – Spanish & Irish banks; will Portugal and Greece remain in the EU?

Conclusions

Asia – particularly China will drive demand for ALL wood products

China – a fiber deficit and a burgeoning wood industry

China – moving towards wooden home construction

Japan – a large import market, affinity for wood, & now must rebuild

South Korea & Vietnam – important, & growing markets

B.C. & U.S. Pacific NW are positioned to take advantage of these opportunities

TOM'S SHELL

*Self
Serve*

*Cash or
Credit*

Regular

ARM 9

Plus

LEG 9

Premium

**First 9
Born**



Questions?

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