



## Trends in North American Forest Products Markets: A TIMO Perspective

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November 17, 2014

# Campbell Global LLC Overview

- **Founded in 1981 & headquartered in Portland, Oregon, USA**
- **Business focus: Timber & timberland resources**
- **US\$6.4 billion in timberland assets under management\***
- **3.1 million acres (1.3 million hectares) under management**
- **Employ more than 300 staff members in 14 states & two countries**
- **Timber Industry Management Organization (TIMO):**
  - **Source & structure timberland investments for clients**
  - **Manage client-owned timberland**
  - **Market & sell clients' timberland investments**

\* Current asset value based on the most recent independent appraisal or internal valuation data.

# Assets Under Management

## U.S. Pacific Northwest

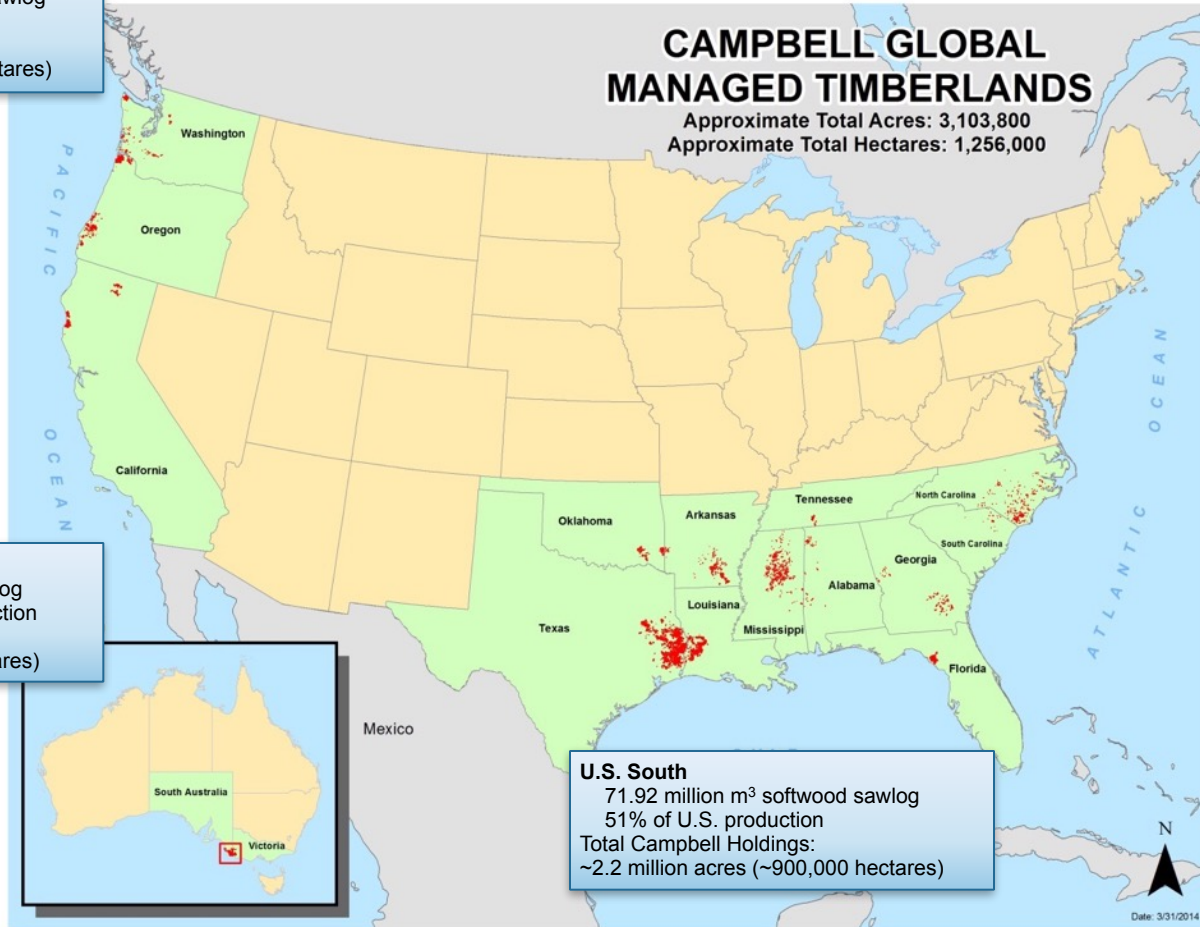
47.36 million m<sup>3</sup> softwood sawlog  
34% of U.S. production  
Total Campbell Holdings:  
~660,000 acres (~270,000 hectares)

## Australia Green Triangle

3.7 million m<sup>3</sup> softwood sawlog  
25% of Australia total production  
Total Campbell Holdings:  
~232,000 acres (~94,000 hectares)

## CAMPBELL GLOBAL MANAGED TIMBERLANDS

Approximate Total Acres: 3,103,800  
Approximate Total Hectares: 1,256,000



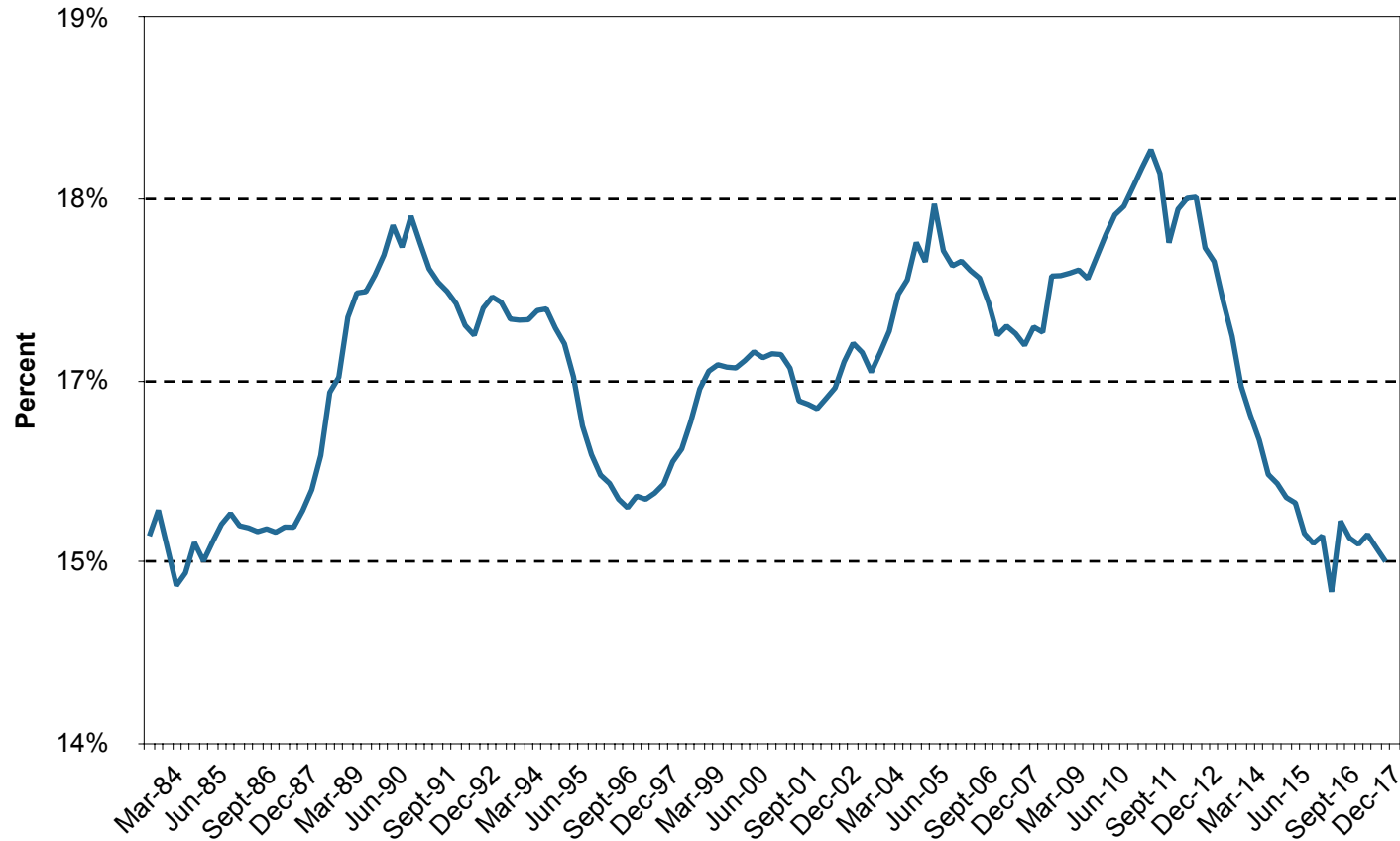
Source: RISI, CG

# Key US Macroeconomic Considerations

- **Most factors needed for wood products demand recovery are in place:**
  - Improved household balance sheets
  - Lenders are taking on increased risk
  - Accelerating employment growth
  - Consumers loosening purse strings ... cautiously

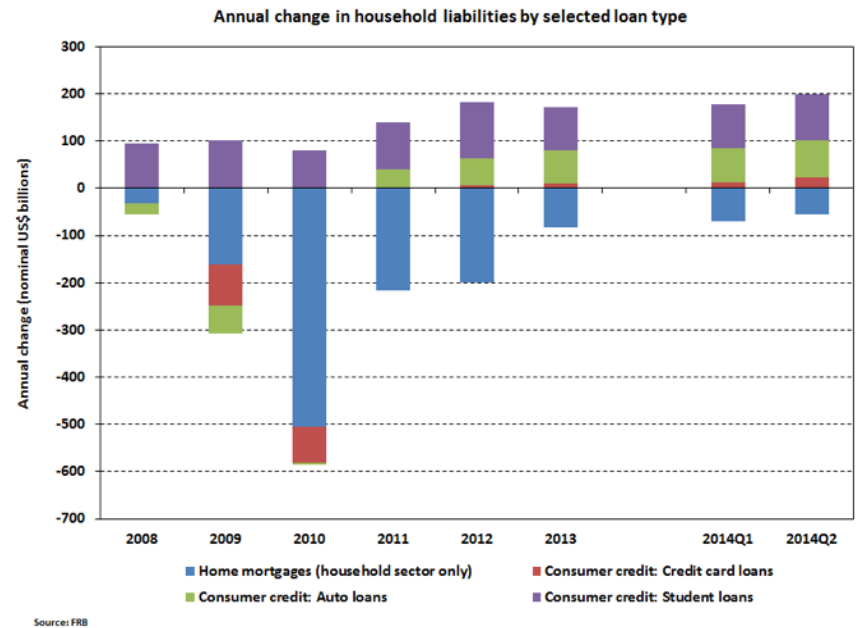
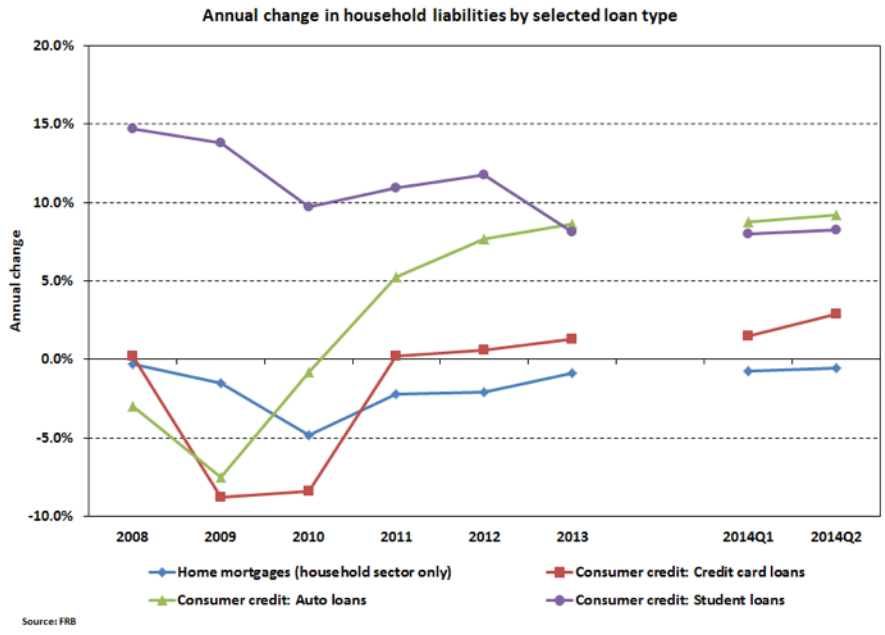
# Household Balance Sheets are in Great Shape

US Household Debt Payments as a Proportion of Disposable Personal Income



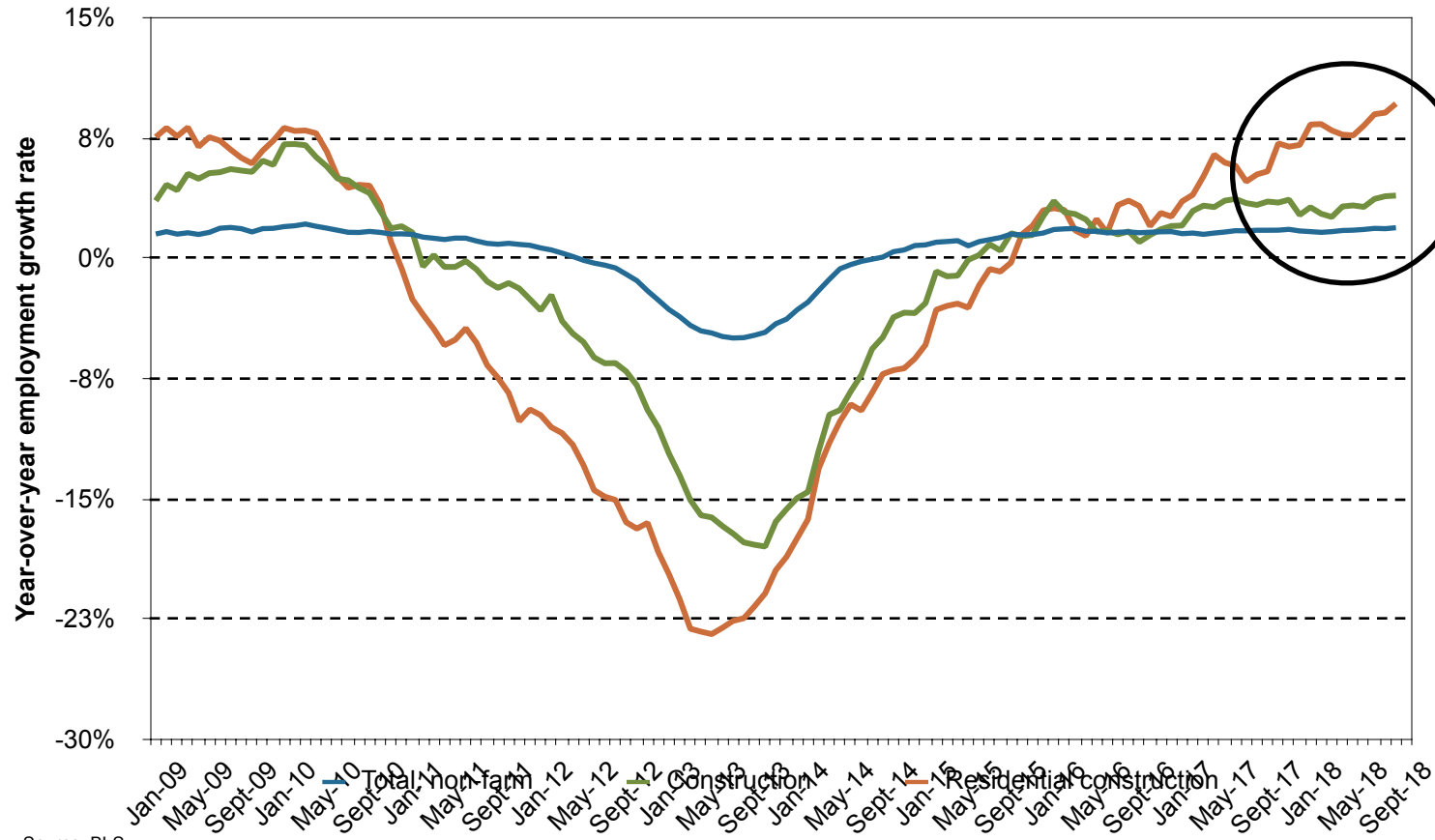
Source: FRB

# Lenders Becoming Increasingly Expansive; Mortgage Lending Still Lags



# Residential Construction Employment Especially Buoyant

US Employment Growth



Source: BLS

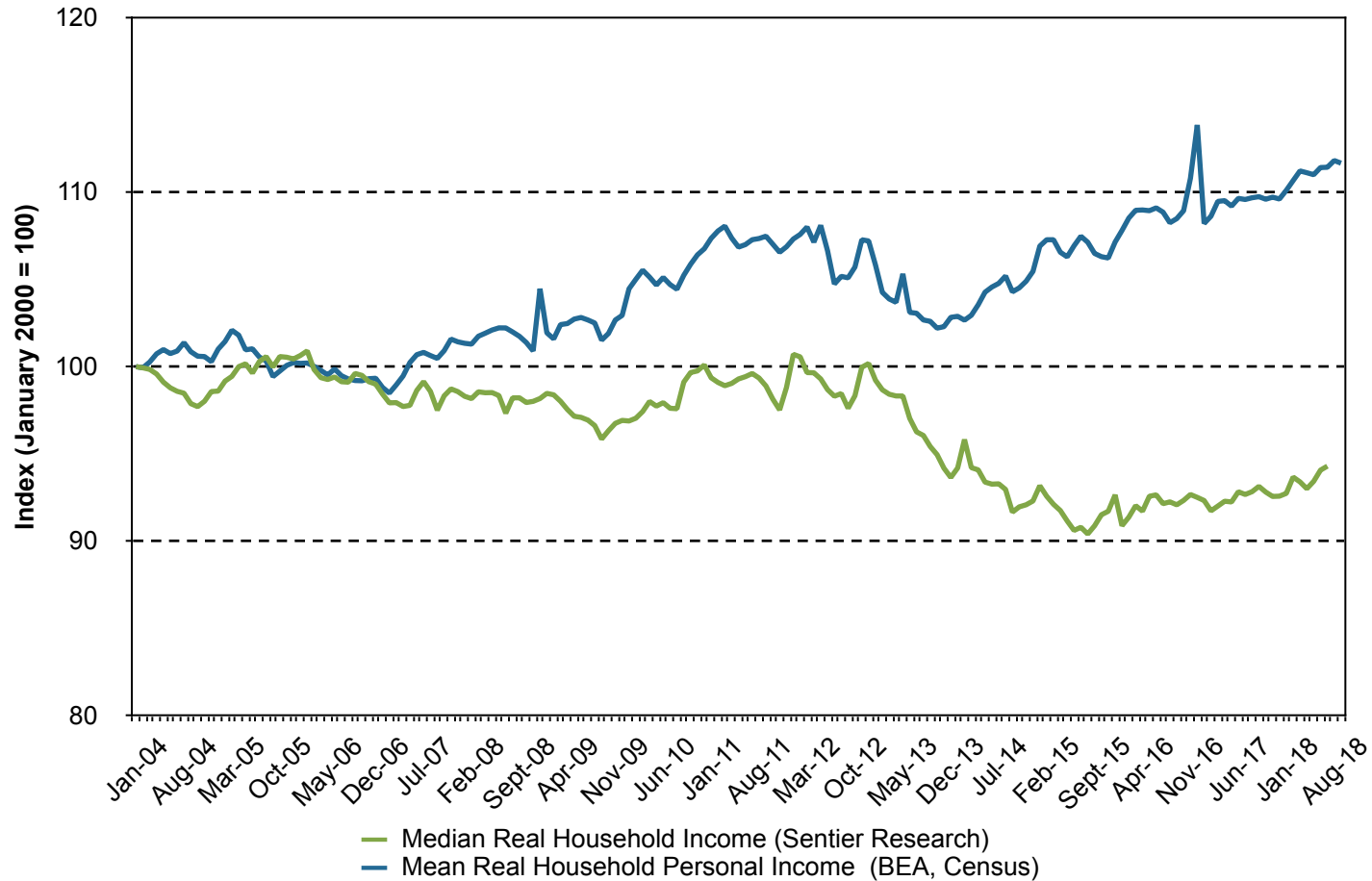
# Awaiting Return of the US Consumer ...

- **Paying down debt remains a priority for many**
  - Interest rates will only go up!
- **Baby-boomer demographics**
  - Older households tend to spend less than younger households
- **Consumer purchasing power turning around**
  - Weak US\$ turning around now
  - Declining fuel prices
- **Subdued income growth**
  - Real wages have struggled to beat inflation for last 5 years
  - Job quality issues
- **Income distribution**



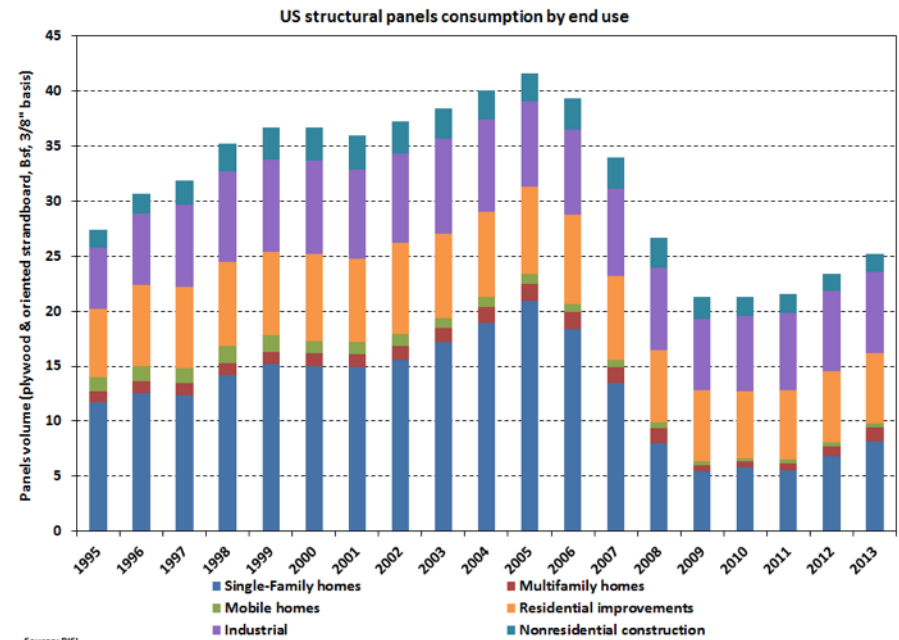
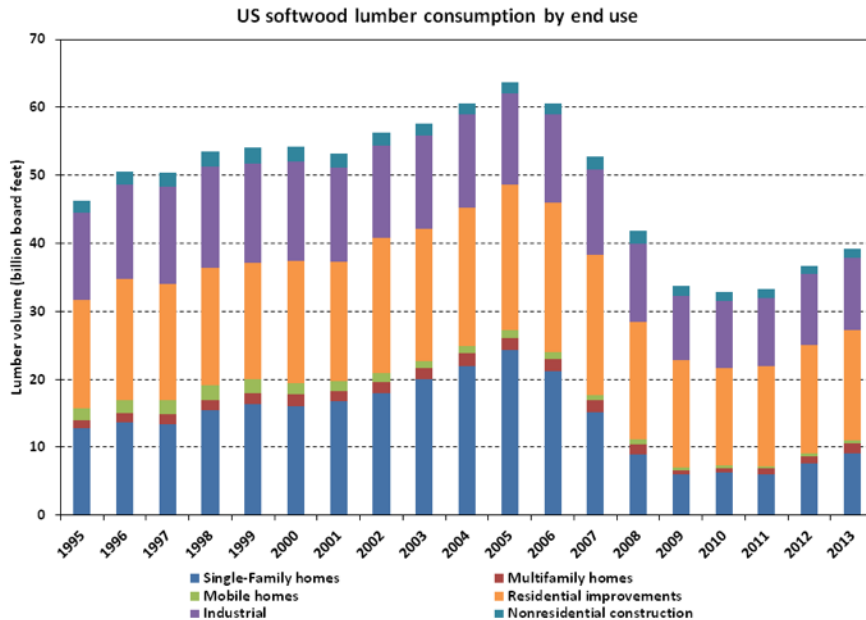
# Median Real Income Growing Slowly; Rising Wages Needed to Fill Gap

Real Household Income: Comparison of Median with Mean



Source: FEA

# Sawn Timber & Structural Panels Consumption will Recover when Housing Recovers



Data are in units reported by source. 1 Mbf sawn timber equals 2.36 m<sup>3</sup> full sawn volume or 1.57 m<sup>3</sup> actual volume. 1 Msf (3/8" basis) equals 0.89 m<sup>3</sup>.

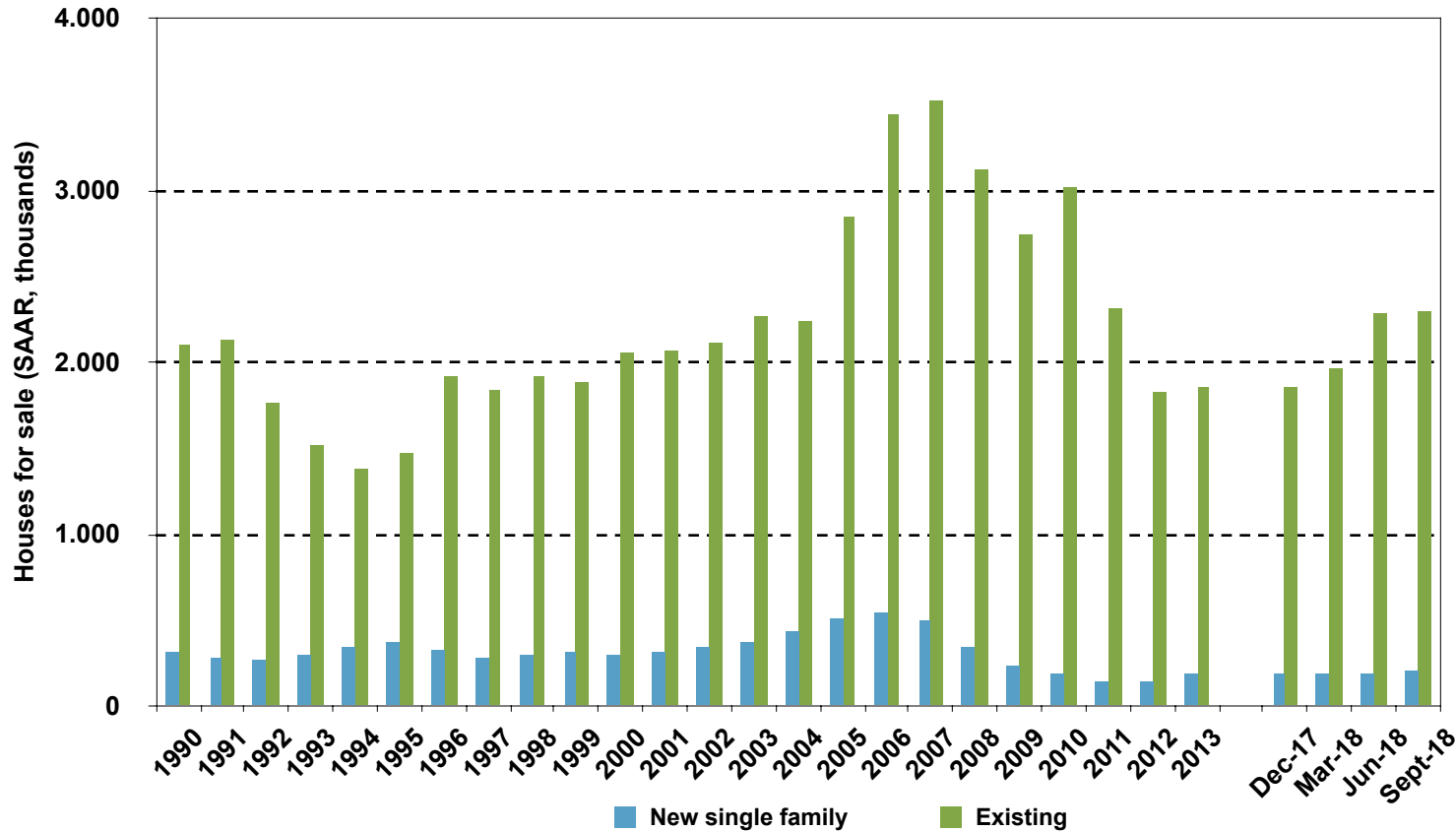


# Most Factors Needed for Housing Recovery also in Place

- **Excess unsold home inventories down**
  - Shadow inventories declining also
- **Pent-up housing demand building**
- **Affordability remains favorable**
  - Despite rising house prices & subdued income growth

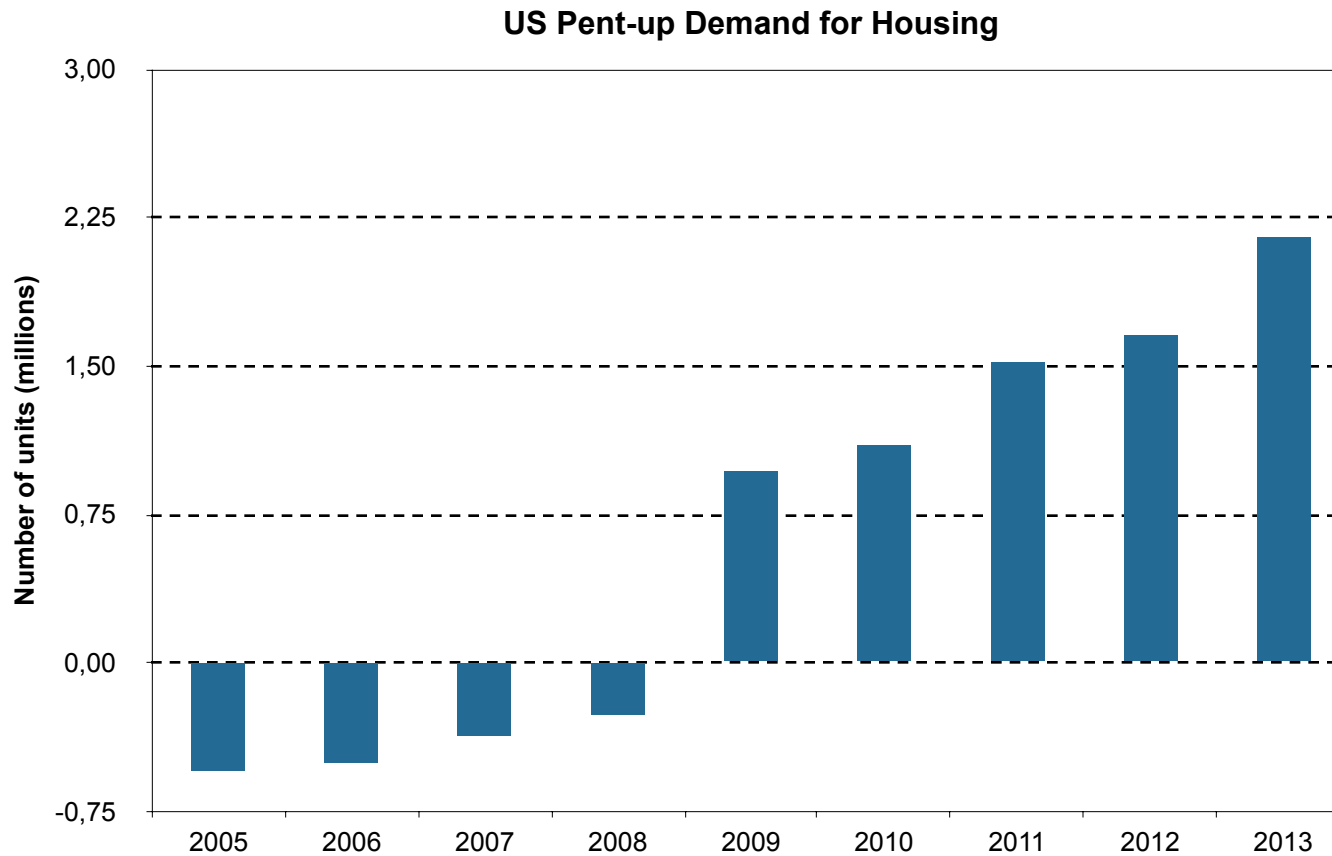
# Unsold Housing Inventories At or Below Pre-downturn Levels

Inventories of new single-family and existing houses for sale



Sources: US Census Bureau, National Association of Realtors

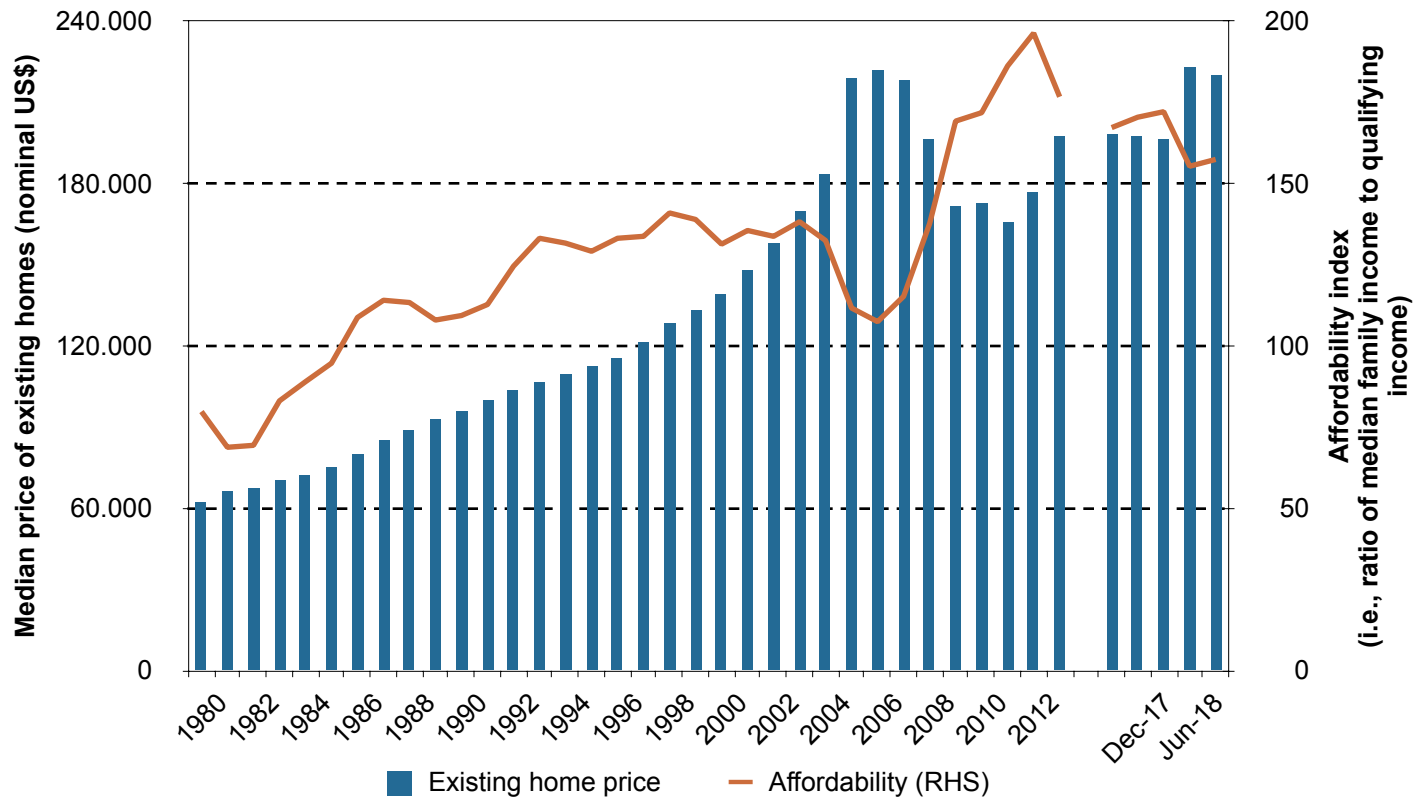
# Looking Forward to Release of Pent-up Demand from Recession Years



Source: RISI

# Housing Affordability Remains High

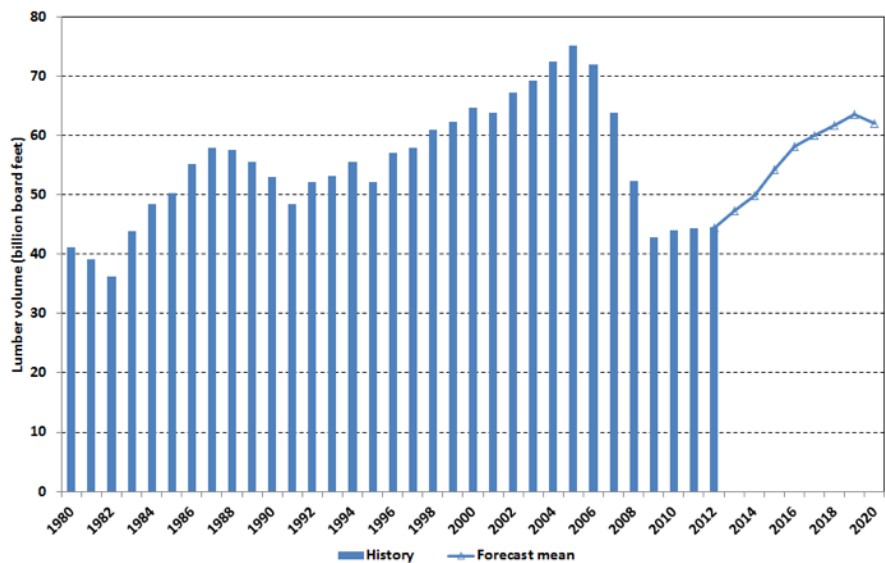
Comparison of Median Price for Existing Homes with Home Affordability Index



Source: NAR

# Sawn Timber & Structural Panels Consumption Forecast to Rise Steeply

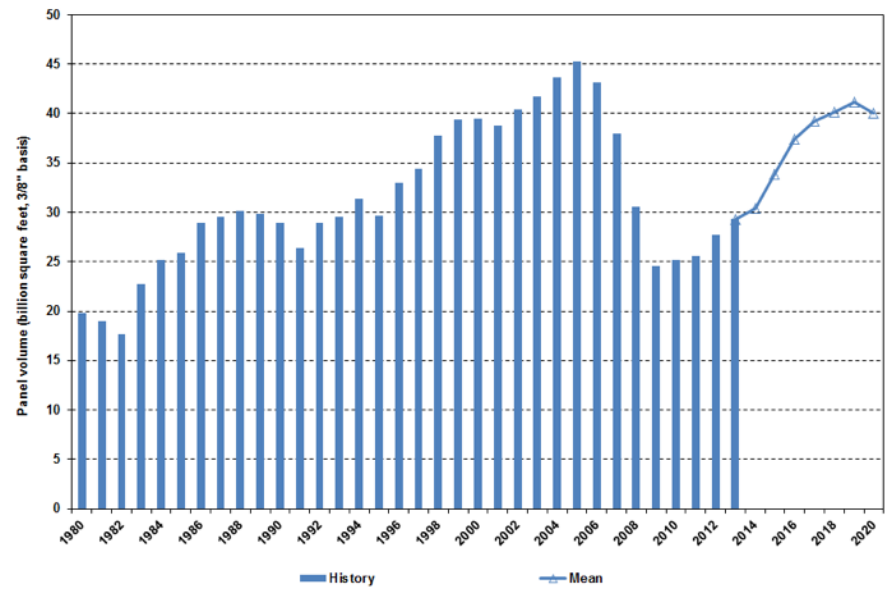
North American softwood lumber consumption: History and mean of selected forecasts



Sources: Various

Data are in units reported by source. 1 Mbf sawn timber equals 2.36 m<sup>3</sup> full sawn volume or 1.57 m<sup>3</sup> actual volume. 1 Msf (3/8" basis) equals 0.89 m<sup>3</sup>.

North American structural panels consumption: History and selected forecasts



Sources: Various



# WHAT DOES THIS MEAN FOR LOG PRICES?



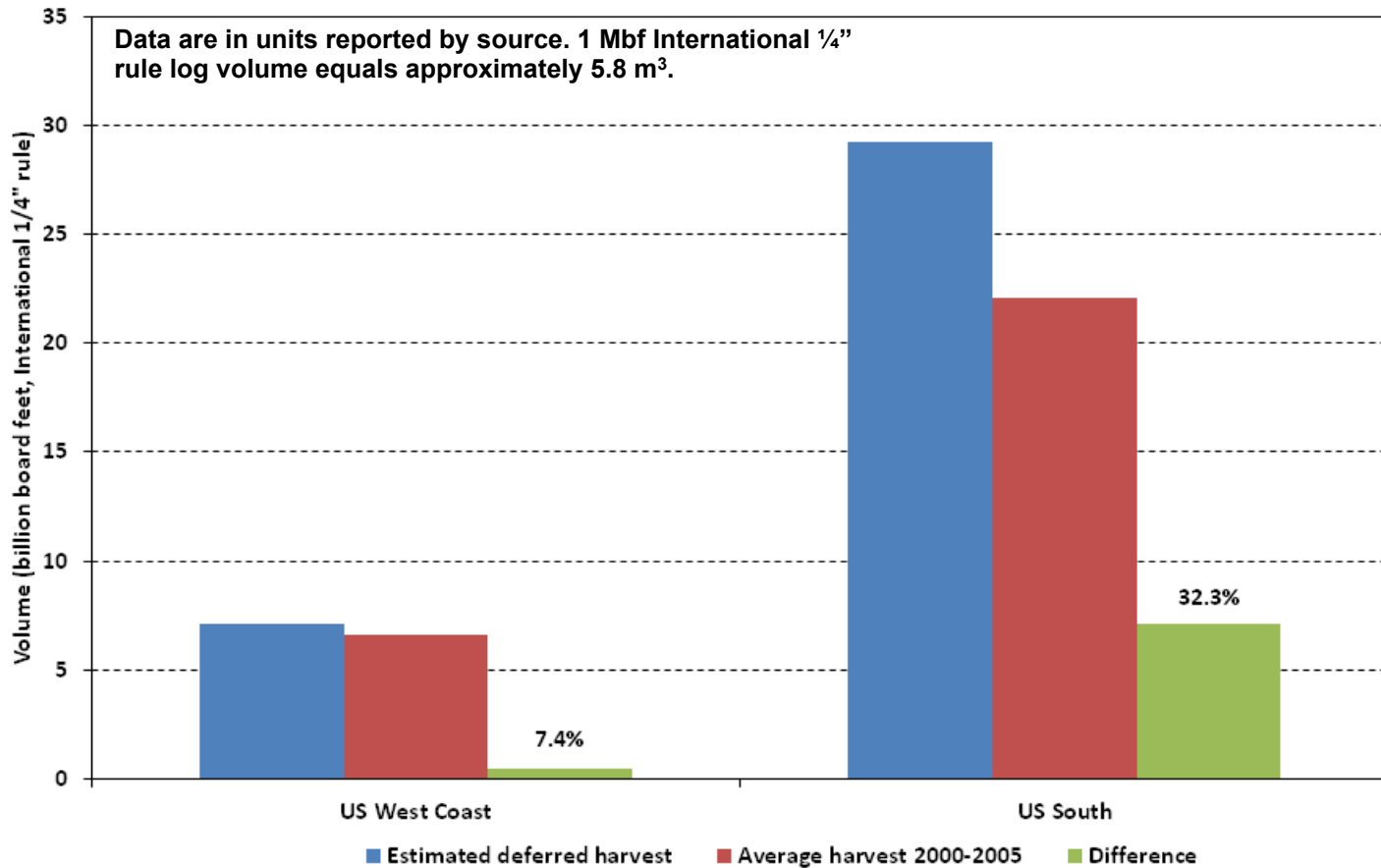


# What Does this Mean for Log Prices?

- **Cyclic adjustment phase**
  - **Recovery in US housing drives expanding demand**
    - **Especially in US South**
  - **Reduction of deferred harvest volume in US South**
  - **Softening log demand in China**

# Significant Deferred Harvest Volumes in US South

Estimated deferred harvest compared with average harvest prior to downturn

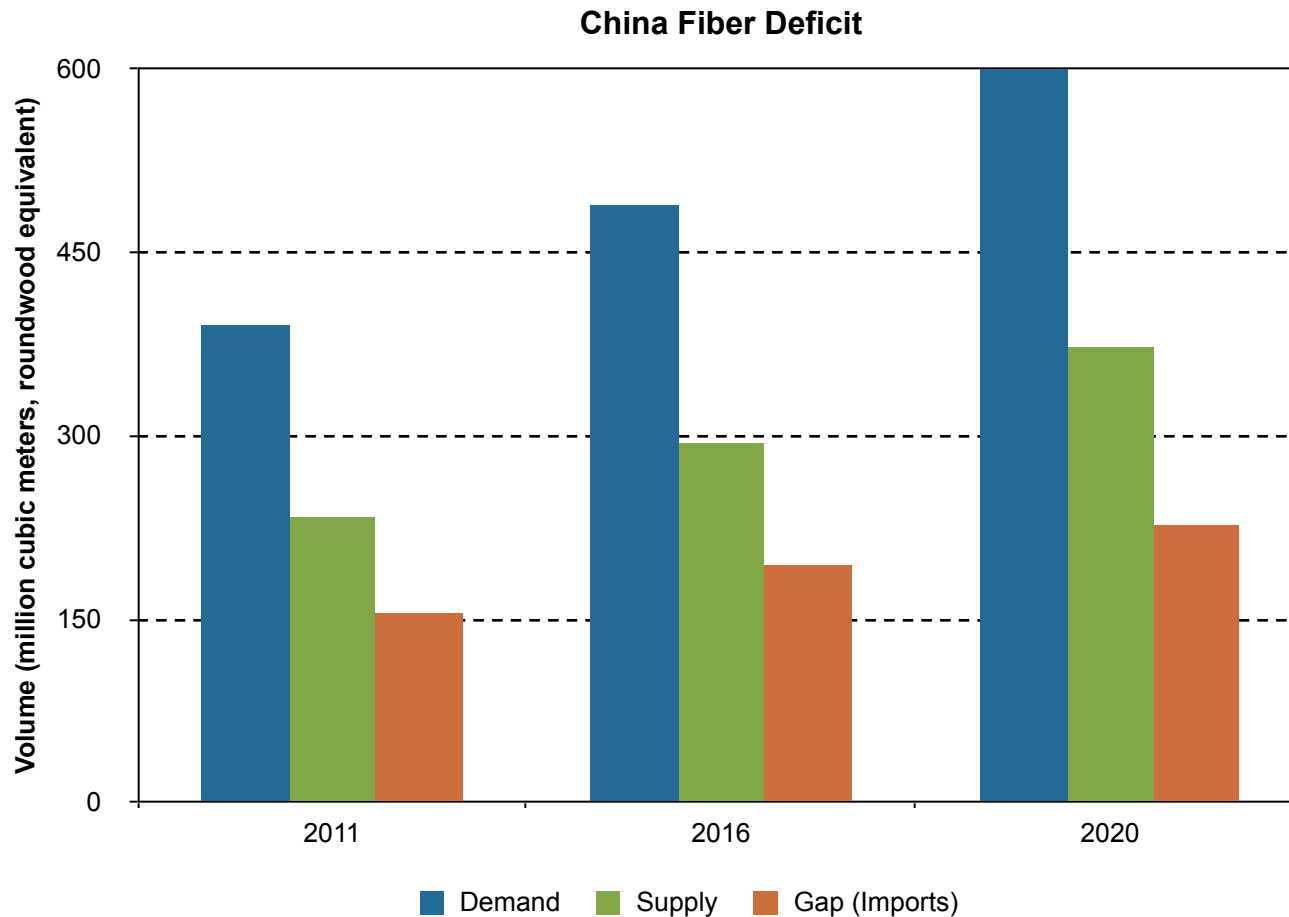


Source: FEA

# What Does this Mean for Log Prices? (cont.)

- **Cyclic adjustment phase**
- **Trend phase**
  - **Expanding log demand**
    - **Domestic & foreign**
  - **Contracting Canadian timber supply**
  - **Potentially expanding US South timber supply**

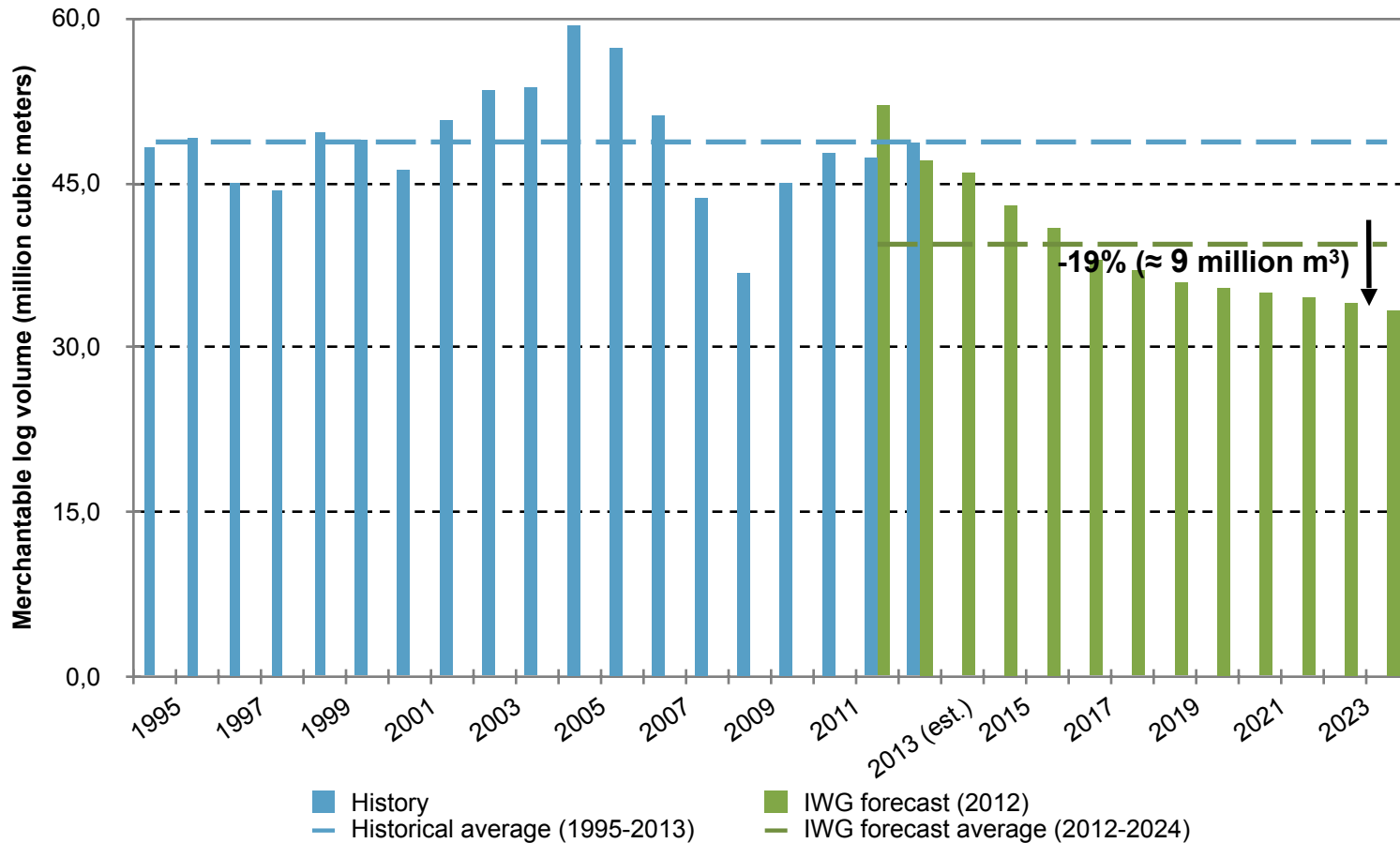
# North American Export Prospects: China's Fiber Demand not a Passing Fad



Source: IWG

# But Where will the Needed Product Come From? (Boiling Frogs)

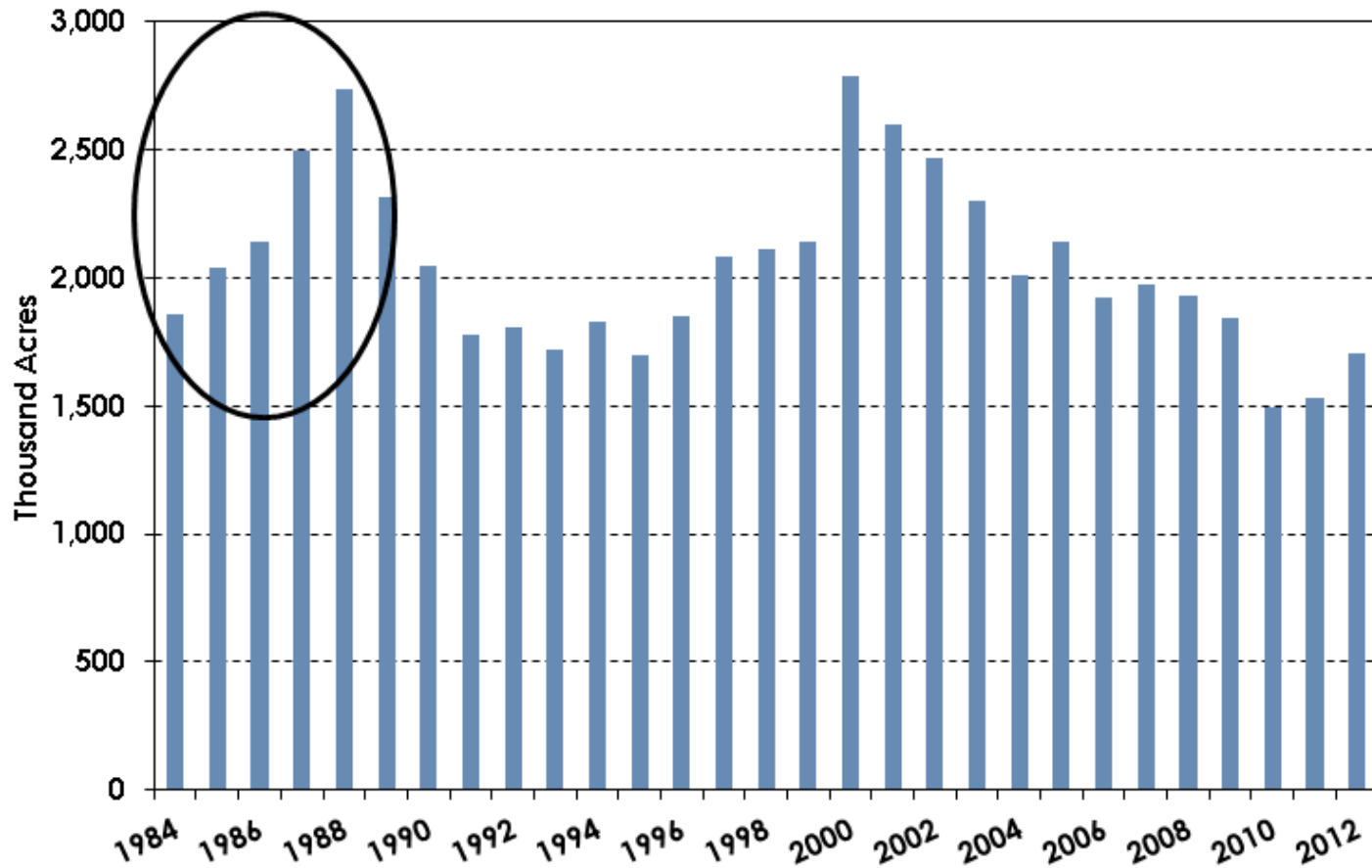
BC Interior Merchantable Softwood Log Harvest: History and Forecast



Note: Merchantable includes sawlog and "low-grade" logs  
Sources: BC MoFR, IWG

# Maturing Age Classes Approaching Harvest in the US South

Area planted in Southern Yellow Pine in the US South



Source: Harper et al.

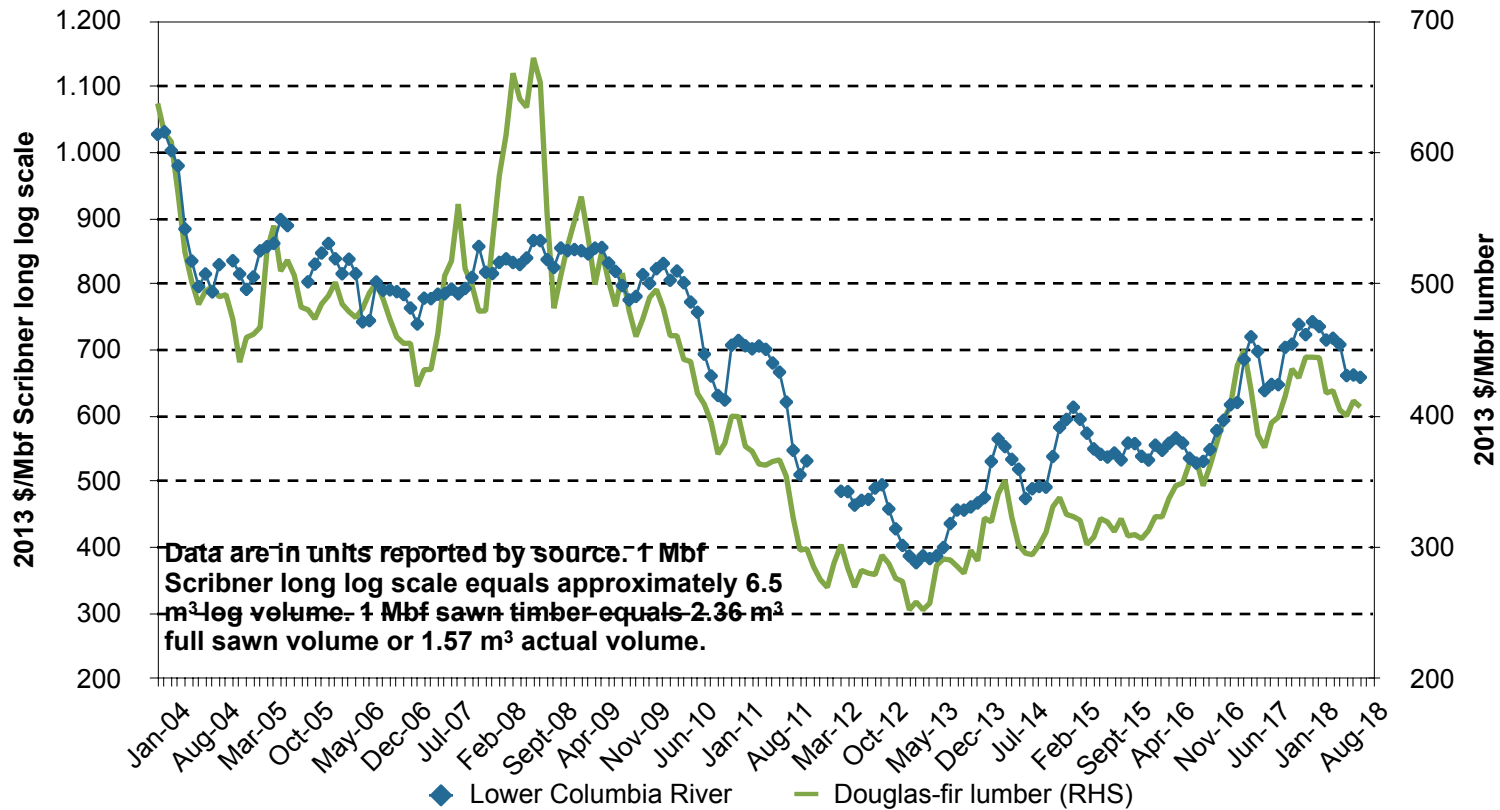


# How Much Southern Timber will be Harvested?

- **Available harvest & haul capacity**
- **Operability, e.g., ground conditions, economic margin**
- **Over-mature age classes, especially natural regeneration**
- **Other harvest restrictions, e.g., conservation plantings, etc.?**
- **Conversion from timberland to 'higher & better' use**

# Sawlog Prices Tracked Sawn Timber Prices Through the Downturn in US West Coast Region ...

**Delivered Price for Douglas-fir #2 Sawlogs in Lower Columbia River Region Compared with Douglas-fir Lumber Price Index**

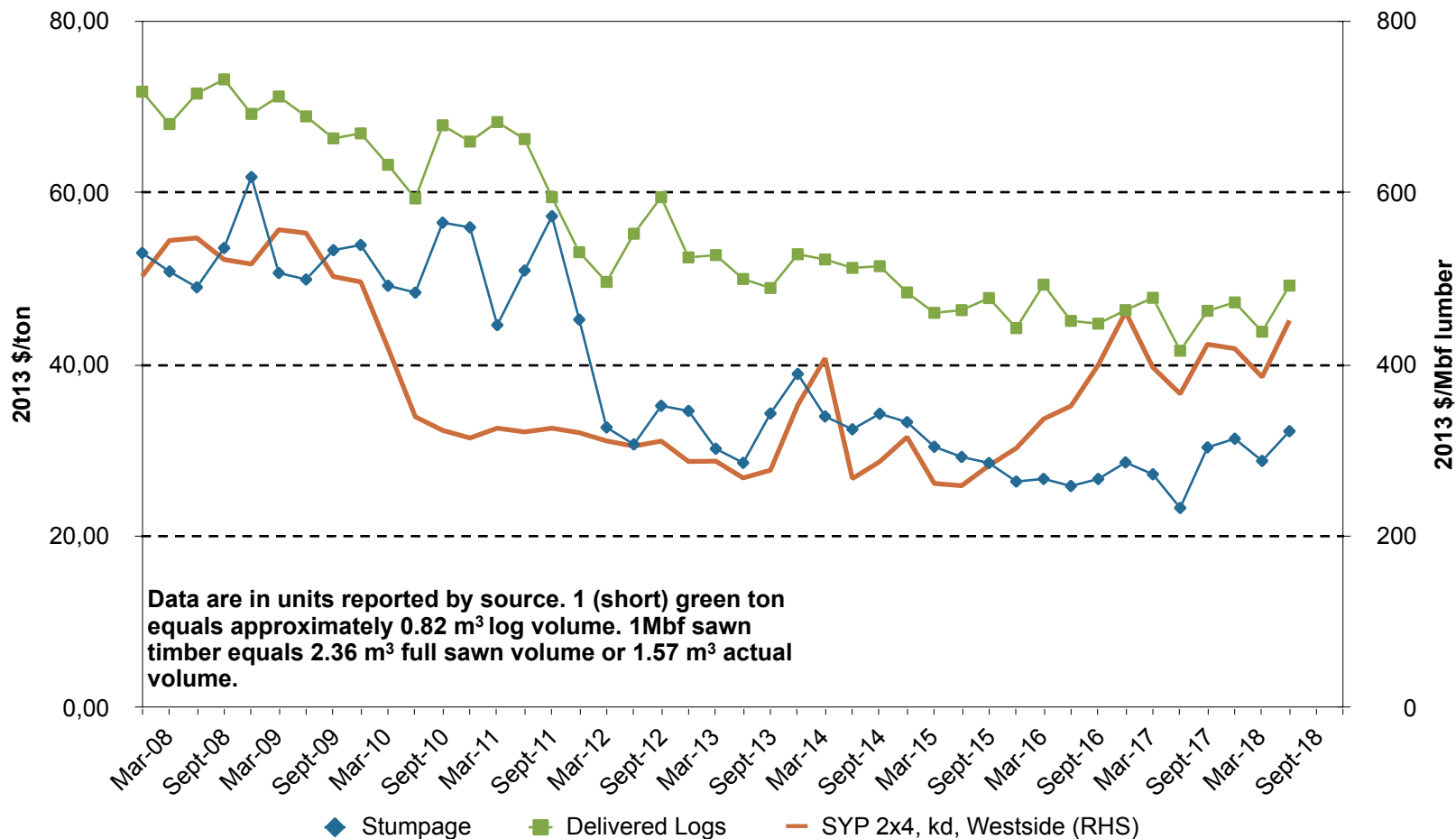


Sources: Loglines, WWPA



# ... But Sawlog-Sawn Timber Price Tracking Slow to Re-emerge in US South

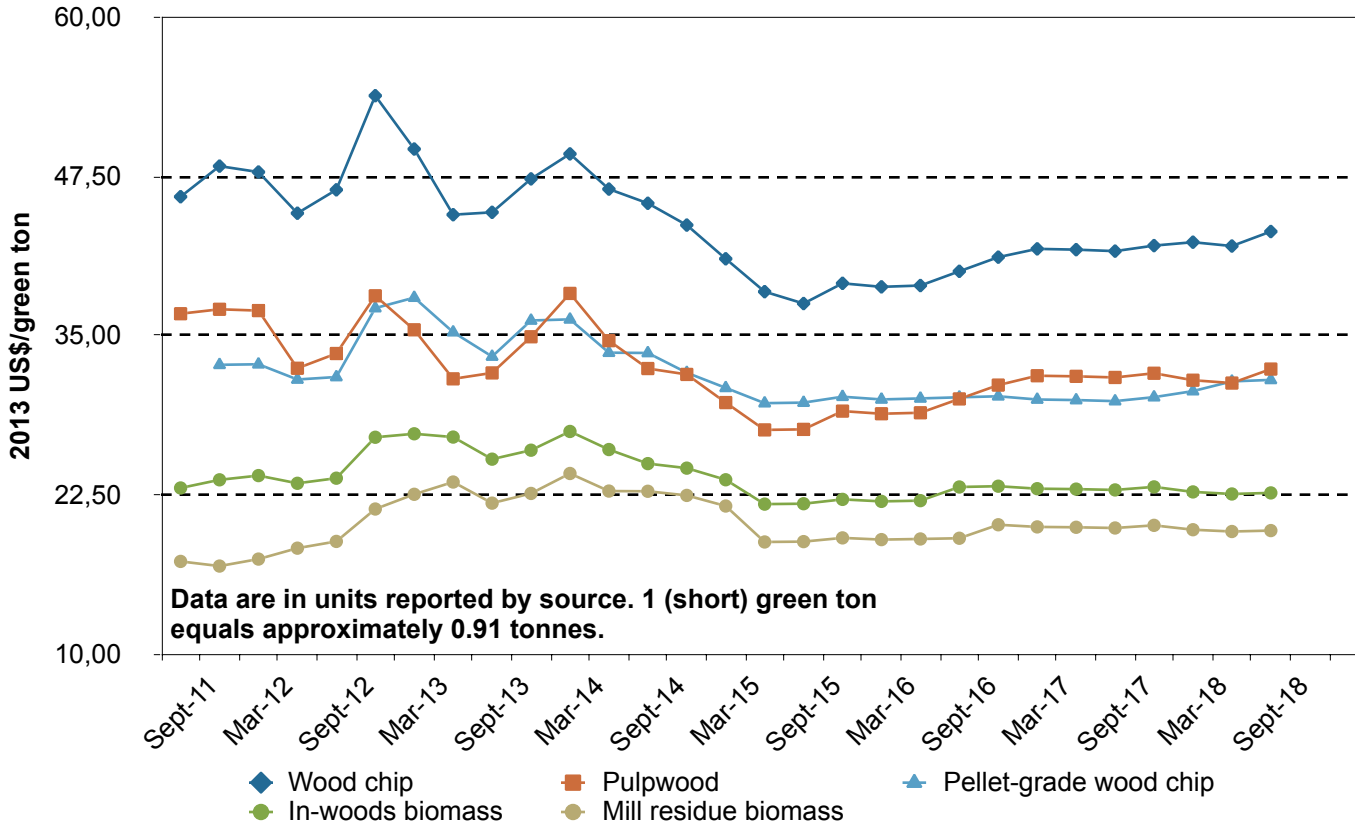
**Pine Sawtimber: Comparison of Stumpage and Delivered Prices in Southeast Texas (TMS Region 2) with Southern Yellow Pine Lumber Price (2x4, #2 kd, Westside)**



Sources: Timber Mart-South, Random Lengths

# Different Set of Drivers Influencing Pulpwood Prices, Especially in US South

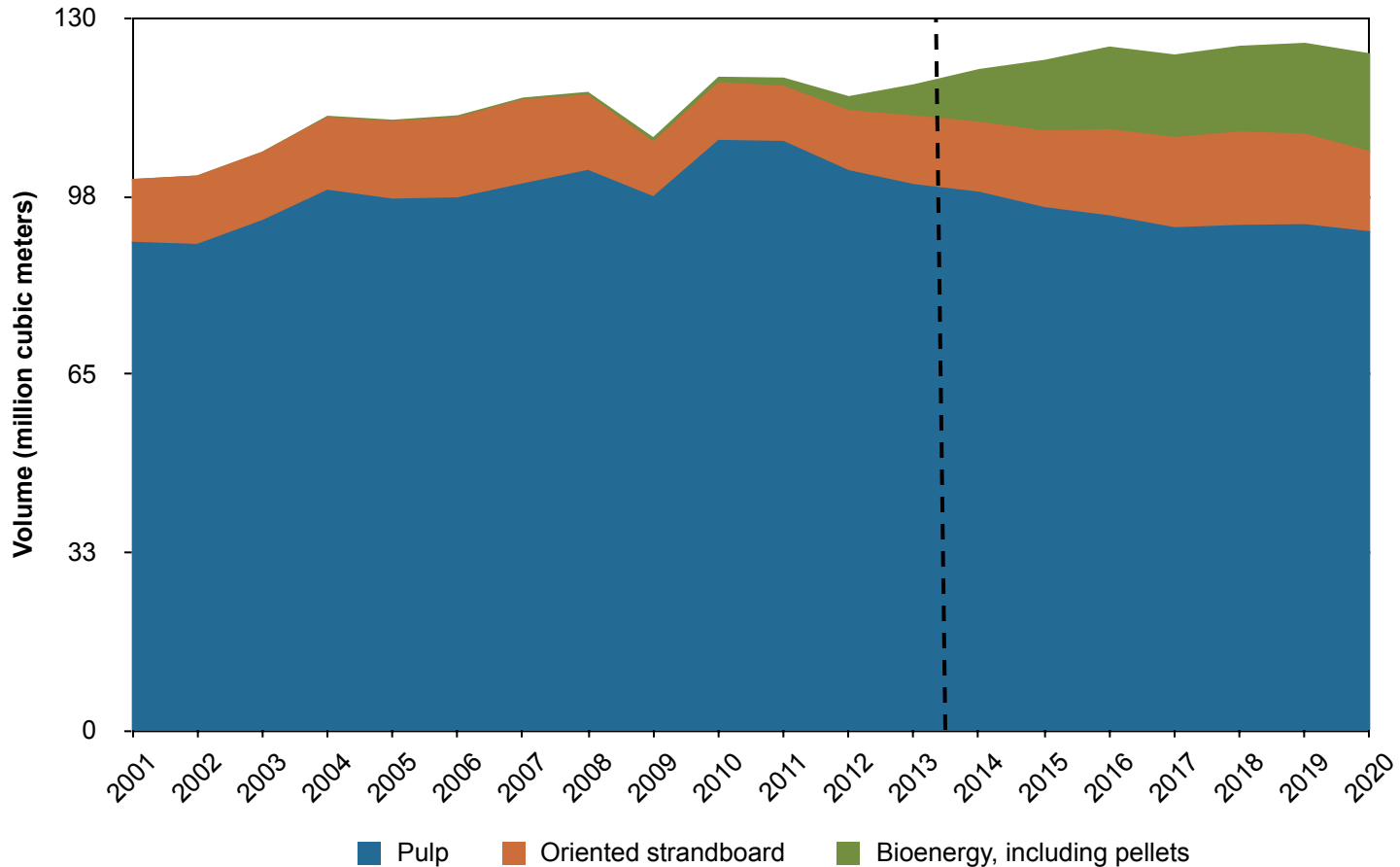
## Delivered Softwood Fiber Prices in the US South Central Region



Sources: IWR, WBMR

# Expanding Consumption of Pulpwood Anticipated for OSB & Bioenergy Production

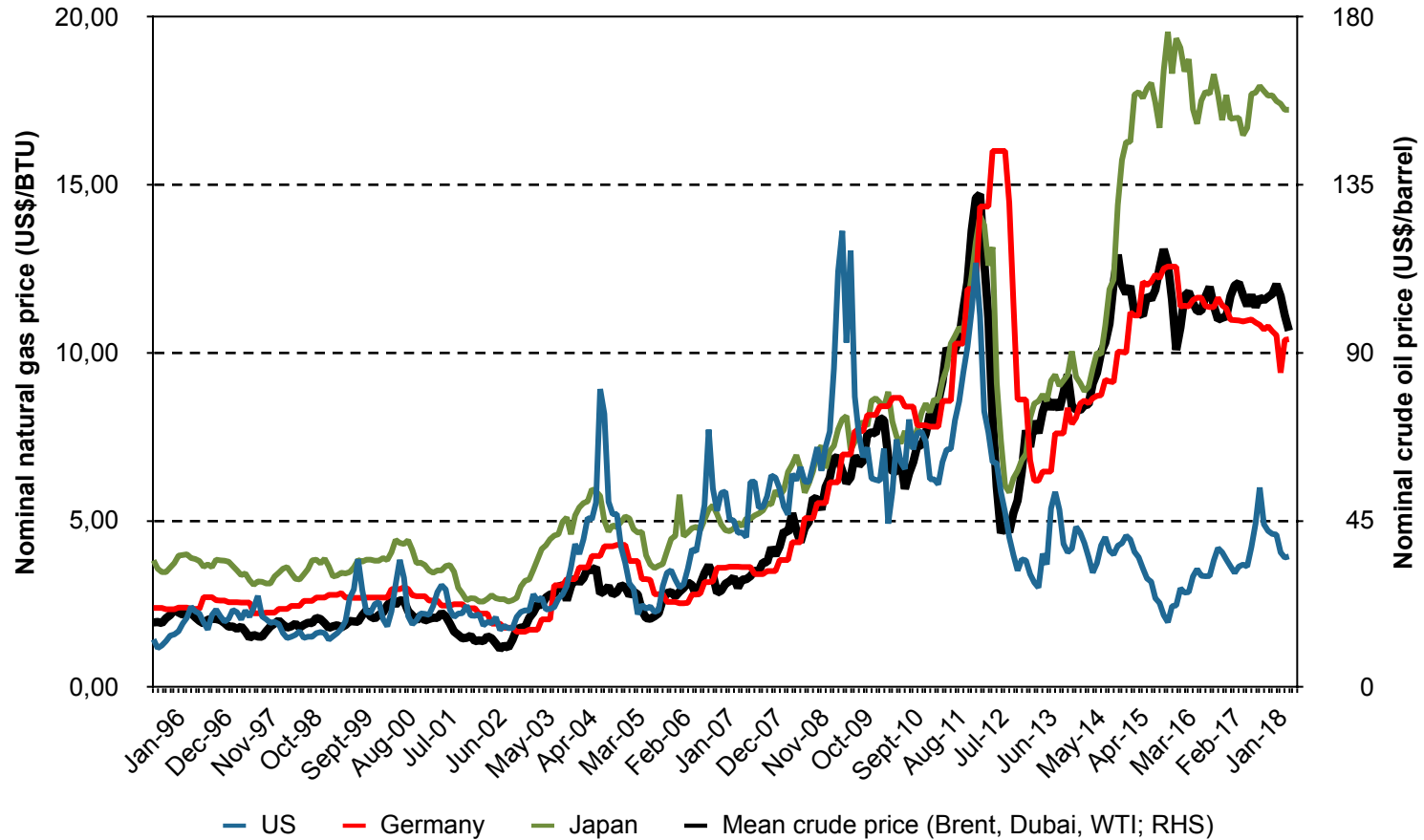
Roundwood Demand in the US South for Pulp, Oriented Strandboard, and Bioenergy Production



Source: FEA

# Will Upsurge in North American Wood Pellet Production Have Legs?

Comparison of Natural Gas Prices in the USA, Germany, and Japan Compared with Average Crude Oil Price



Source: IMF

# Outlook for Rising Real Prices for US Softwood Sawlogs

- **US housing recovery slowly gathering traction**
- **Strong export demand**
  - A boon to western timber growers
- **Log demand & price recovery in the US South awaits:**
  - Accelerating US housing recovery, in conjunction with
  - Tightening SPF sawn timber supply from Canada
  - A matter of timing: Which will come first?
- **Increasingly fierce competition for fiber at woodshed level:**
  - Pulpmills, pellet mills, OSB mills

# What Does This Mean for Timberland Value?

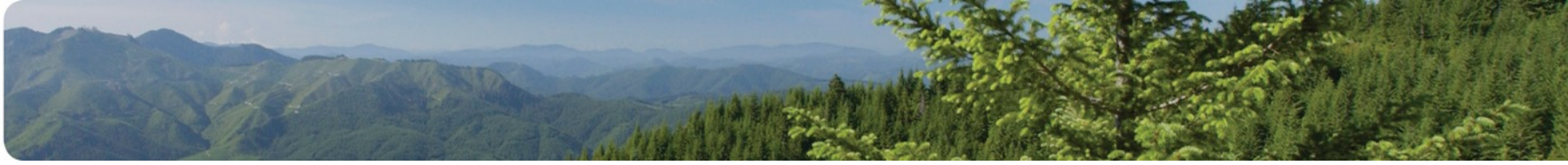
## ■ Major value drivers:

### – Price

- Sawlog prices typically double pulplog prices
- Cyclic log price adjustment
- Longer-term US demand & supply fundamentals drive trend prices
  - Outlook for rising real softwood sawlog prices

### – Discount rate

- Currently compressing, reflecting:
  - Product price expectations
  - Demand for timberland investments
  - Availability of investment opportunities



# QUESTIONS ARE WELCOME

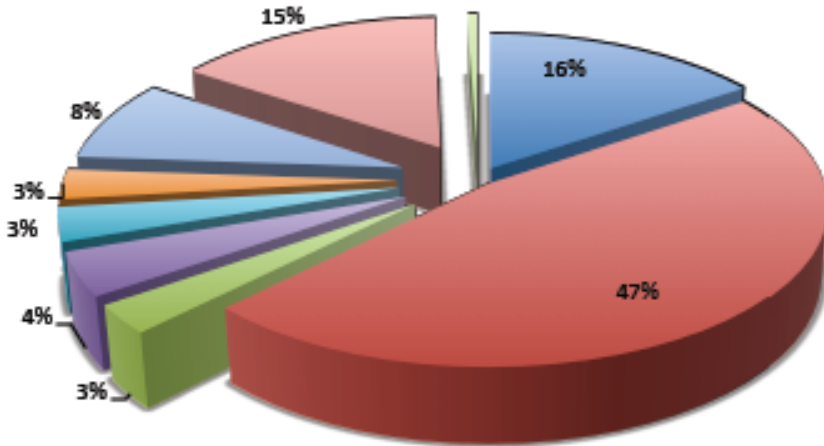


# APPENDIX



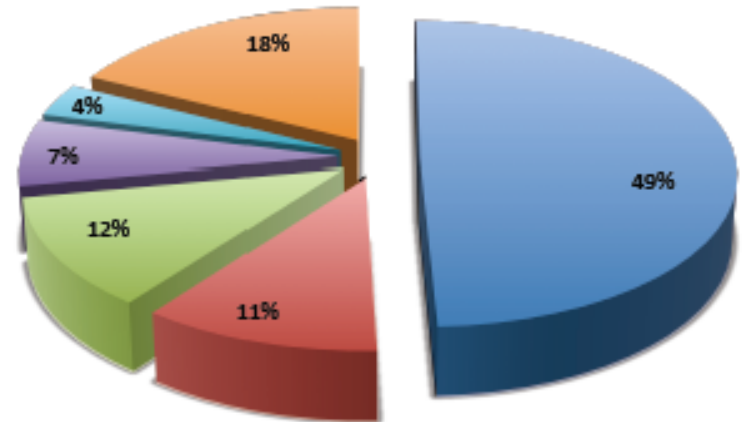
# About US\$44 Billion in Assets & 30 Million Acres Under Management (12/31/2013)

**AUM by Region (Market Values)**



- US Northwest
- US South
- US Lake States
- US Northeast
- US Appalachia
- Canada
- South & Central America
- Australia & New Zealand

**AUM by Client**

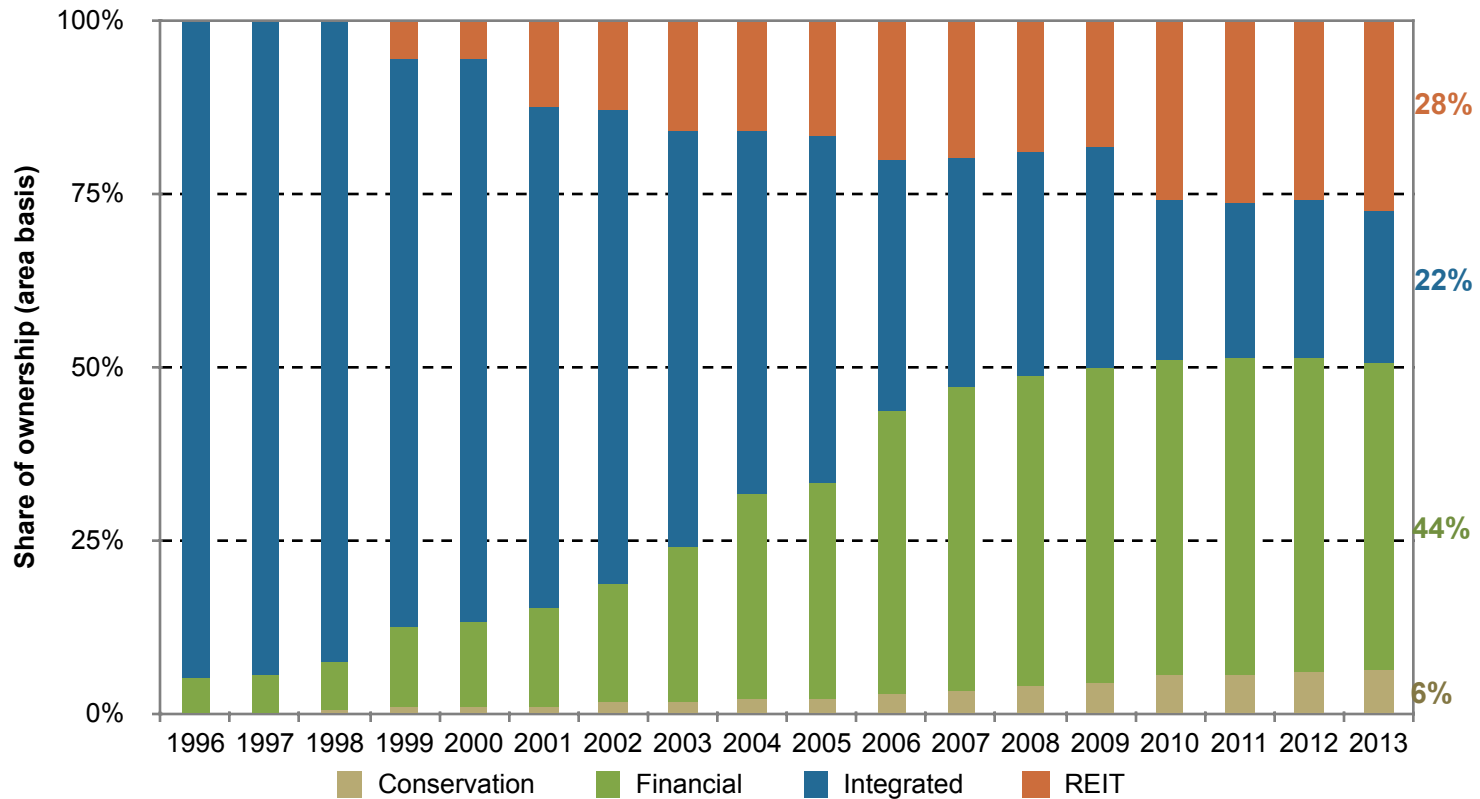


- Public pension funds
- Corporate pension funds
- Foundations, endowments
- High net worth, family offices
- Funds of funds
- Other

Source: Timberlink

# US Private Timberland Ownership Increasingly Dominated by TIMOs & REITs

Change in Ownership Status of Timberland Formerly Owned by the US Forest Industry, by Ownership Category



Notes: (1) Includes REIT conversions; (2) Timberland data from USFS (GTR-NC241 & GTR NRS-27); (3) Totals may not add due to rounding