

Changes & Challenges in the Forest Products Sector

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NFRPA
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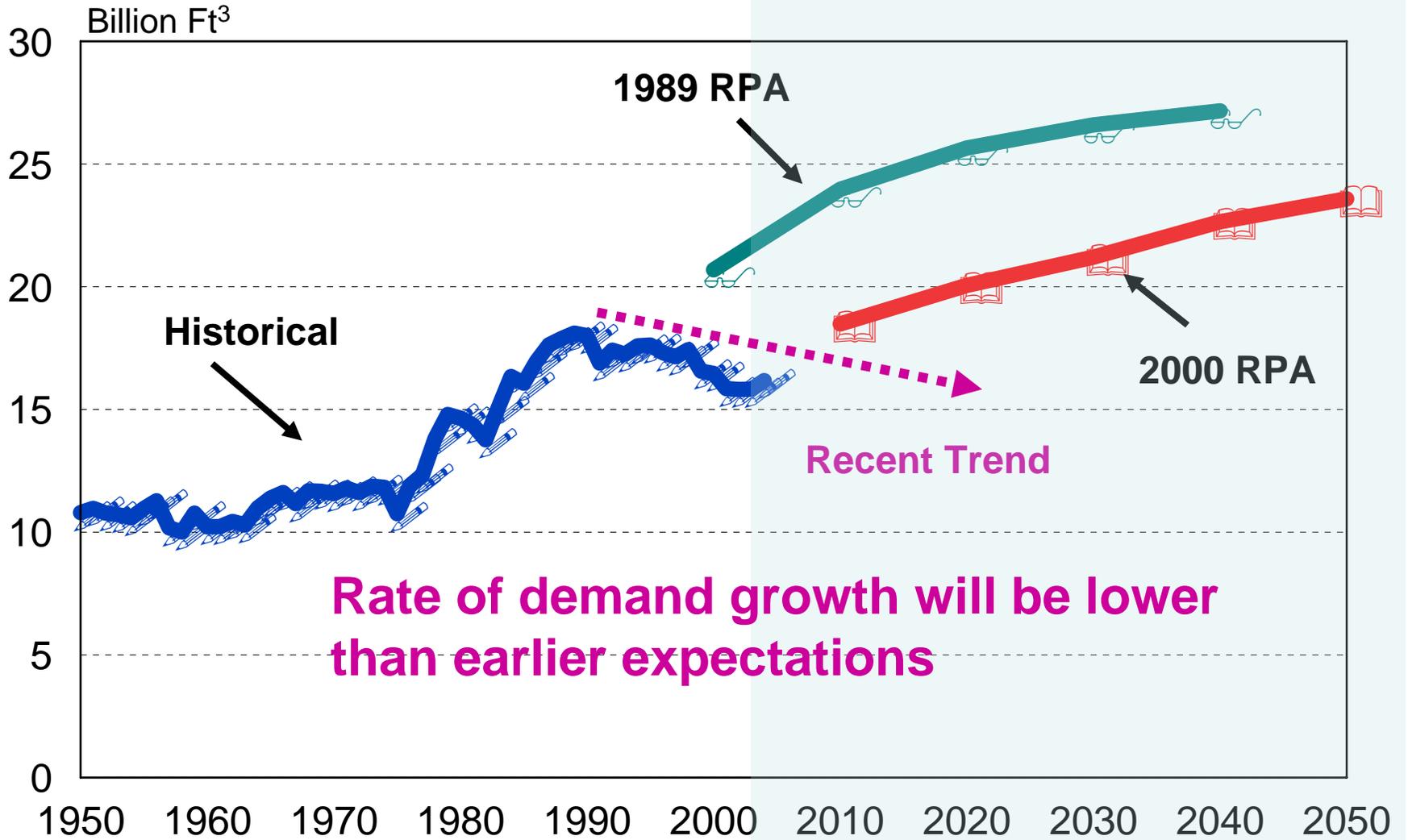
Mentionables

- Slower Timber Demand Growth
- Timberland Ownership Changes
- Trends in Stumpage
- Market-Based Forest Management Drivers
- Globalization

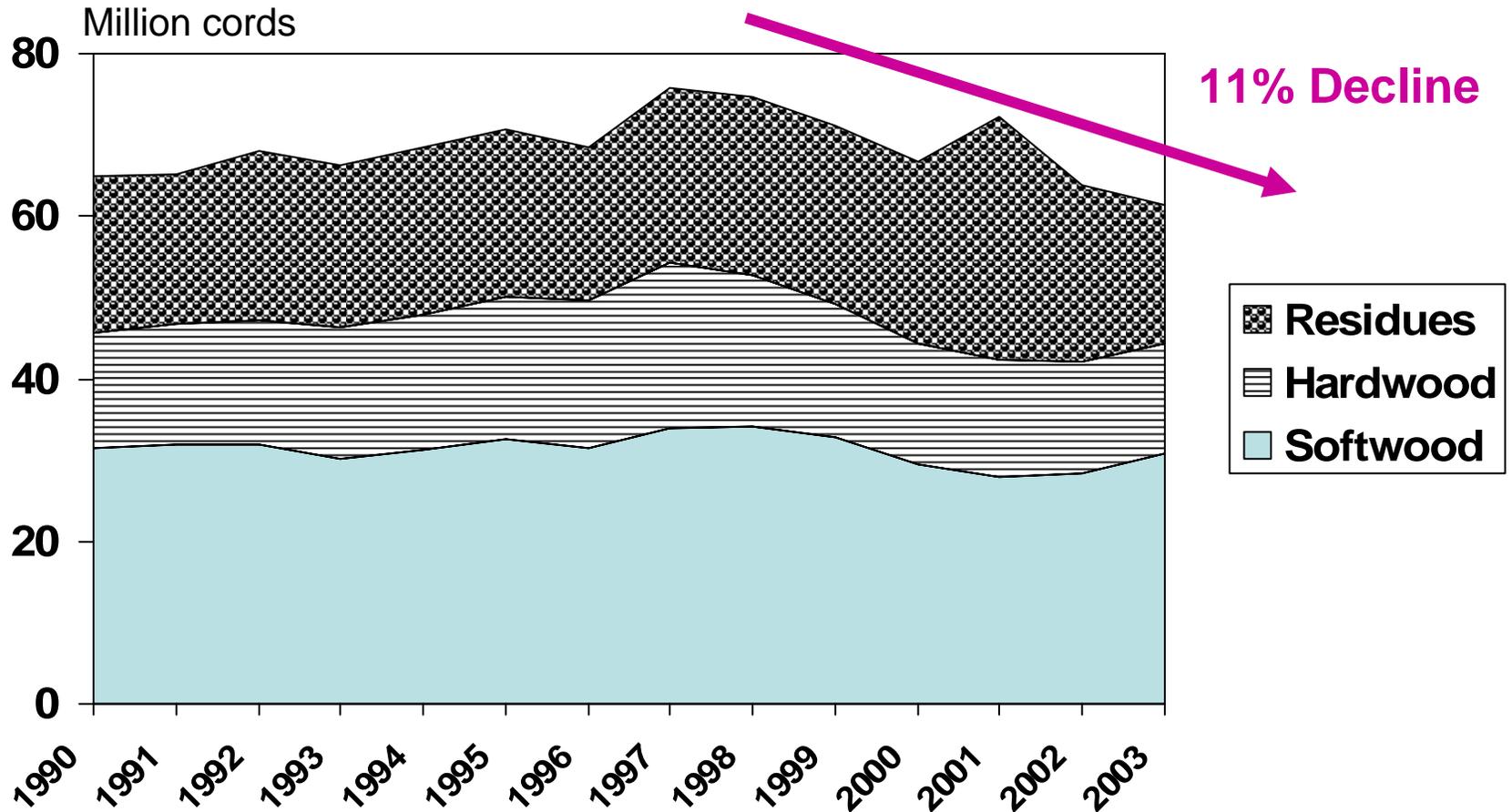
What Has Changed?

- (1) Domestic demand for wood fiber will grow more slowly than during the past 25 years.....

US Timber Harvest Assessment/Trend Comparison

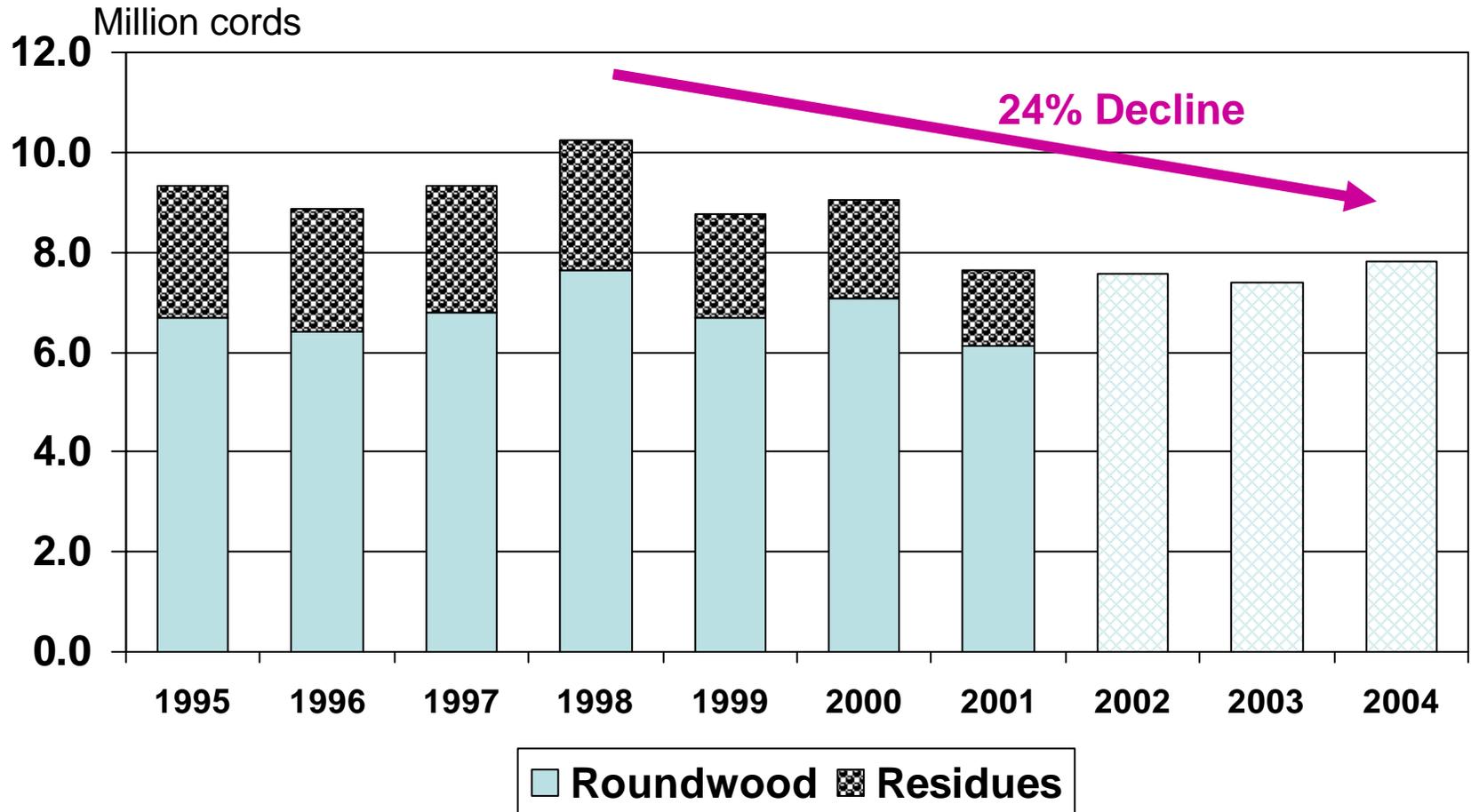


Pulpwood Consumption by Southern Paper Mills



Source: US Forest Service

Northeast Pulpwood Production

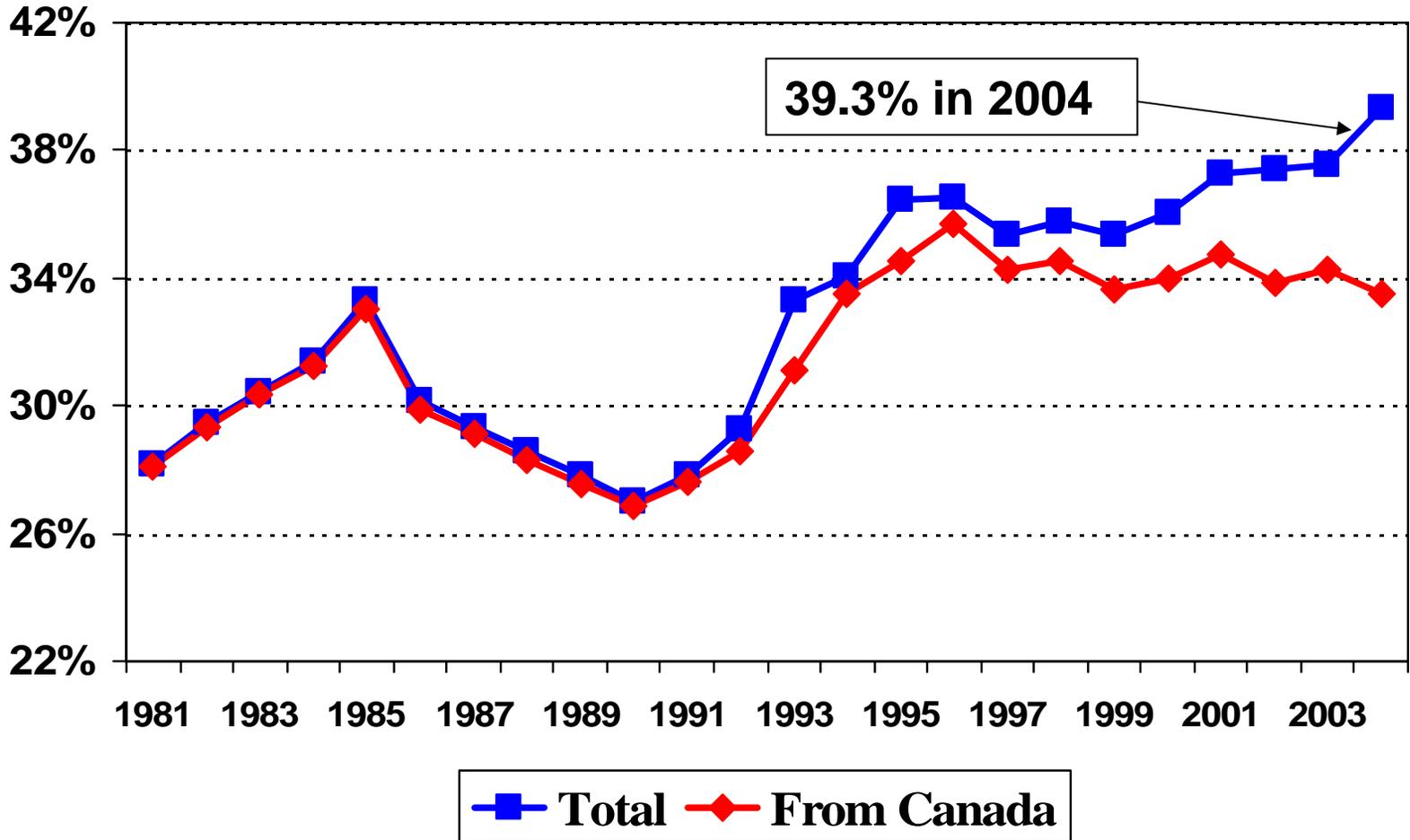


Source: US Forest Service; SCA Estimates 2002 - 2004

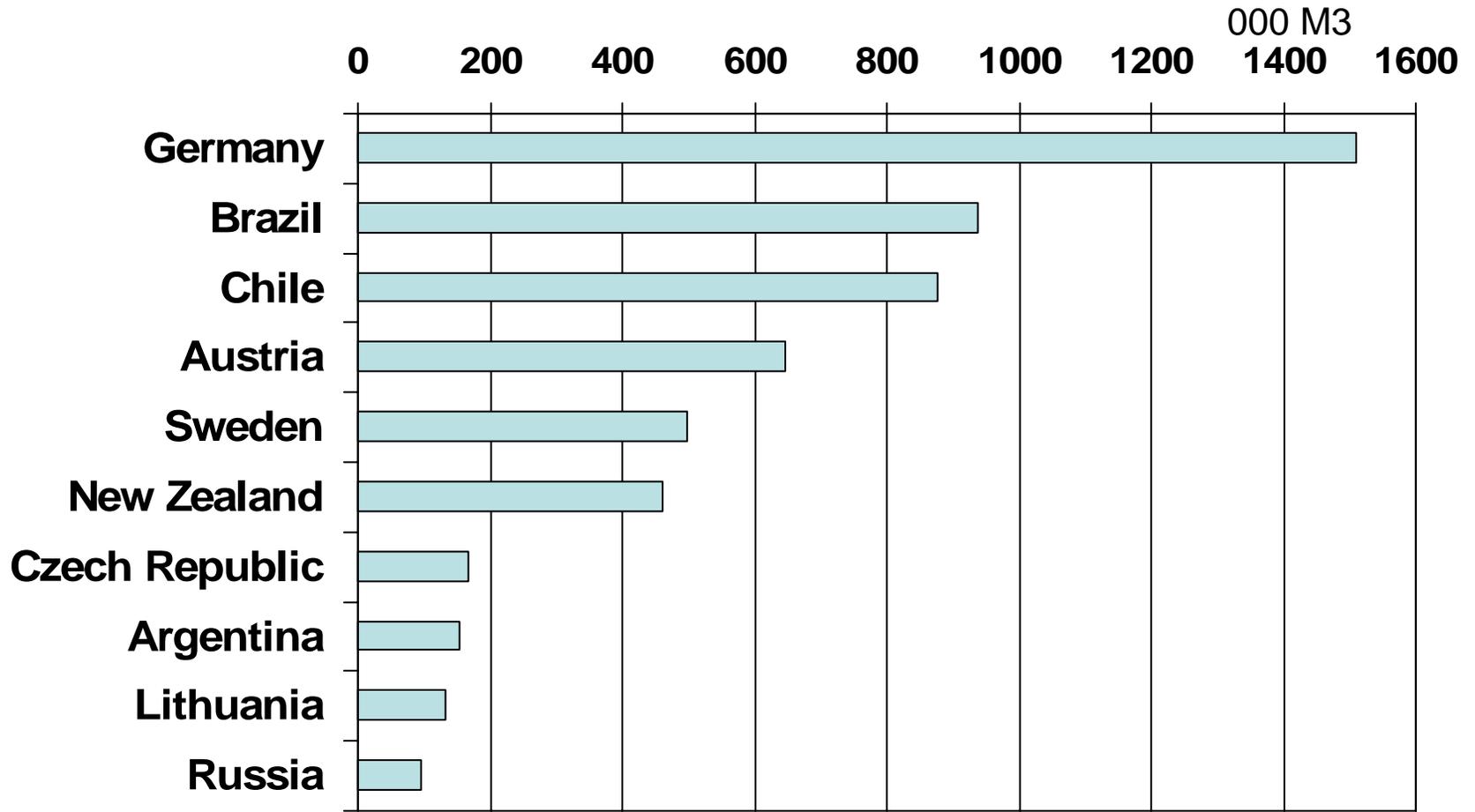
Why is Timber Demand Growing at Slower Rate?

- Higher utilization
 - Advances in Technology
 - Recovered Paper
 - Engineered Wood Products
- Electronic Substitution
- Higher Imports

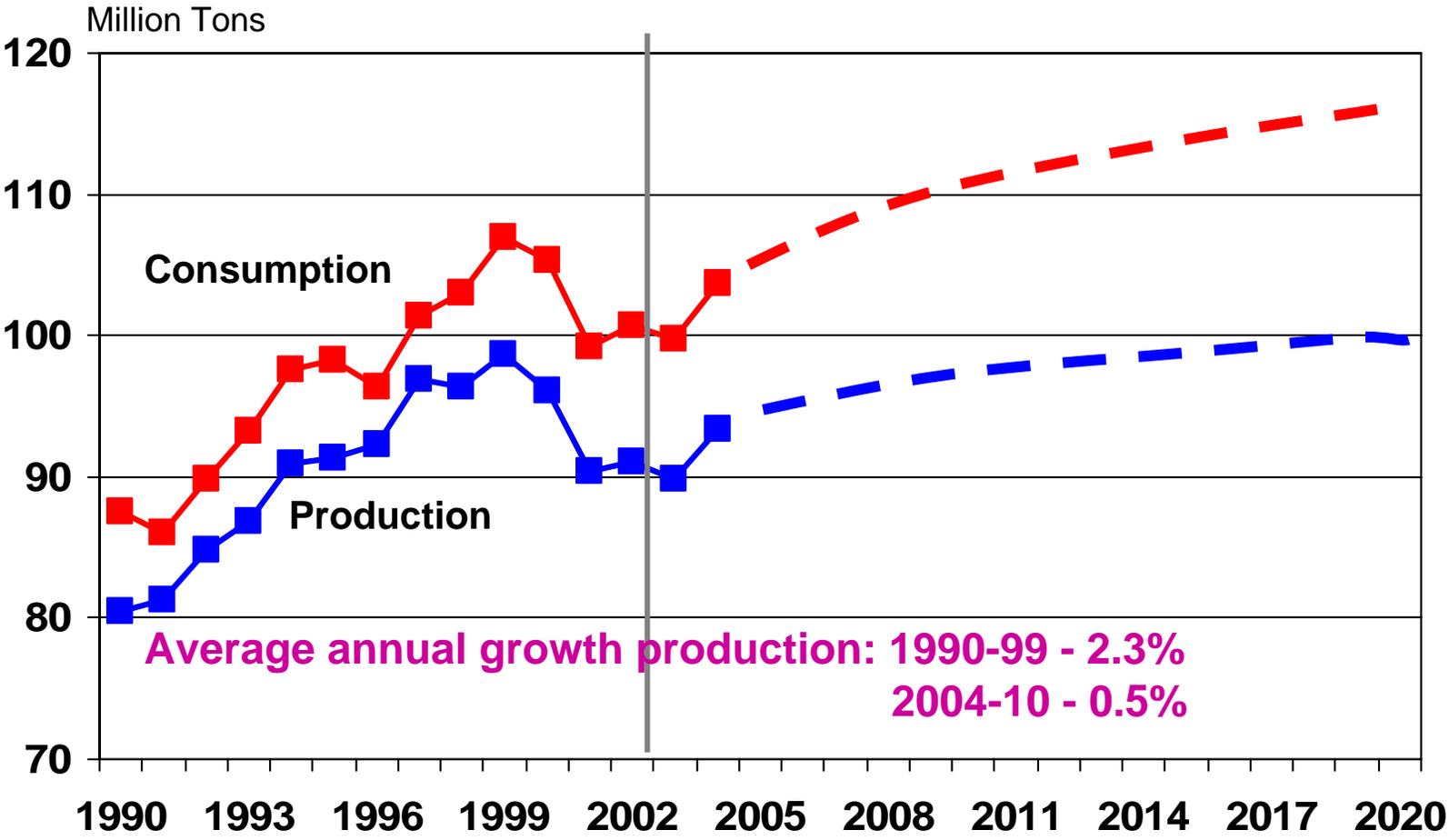
Softwood Lumber Market Share



Off-Shore Softwood Lumber Imports, 2004



U.S. Paper & Paperboard Consumption & Production



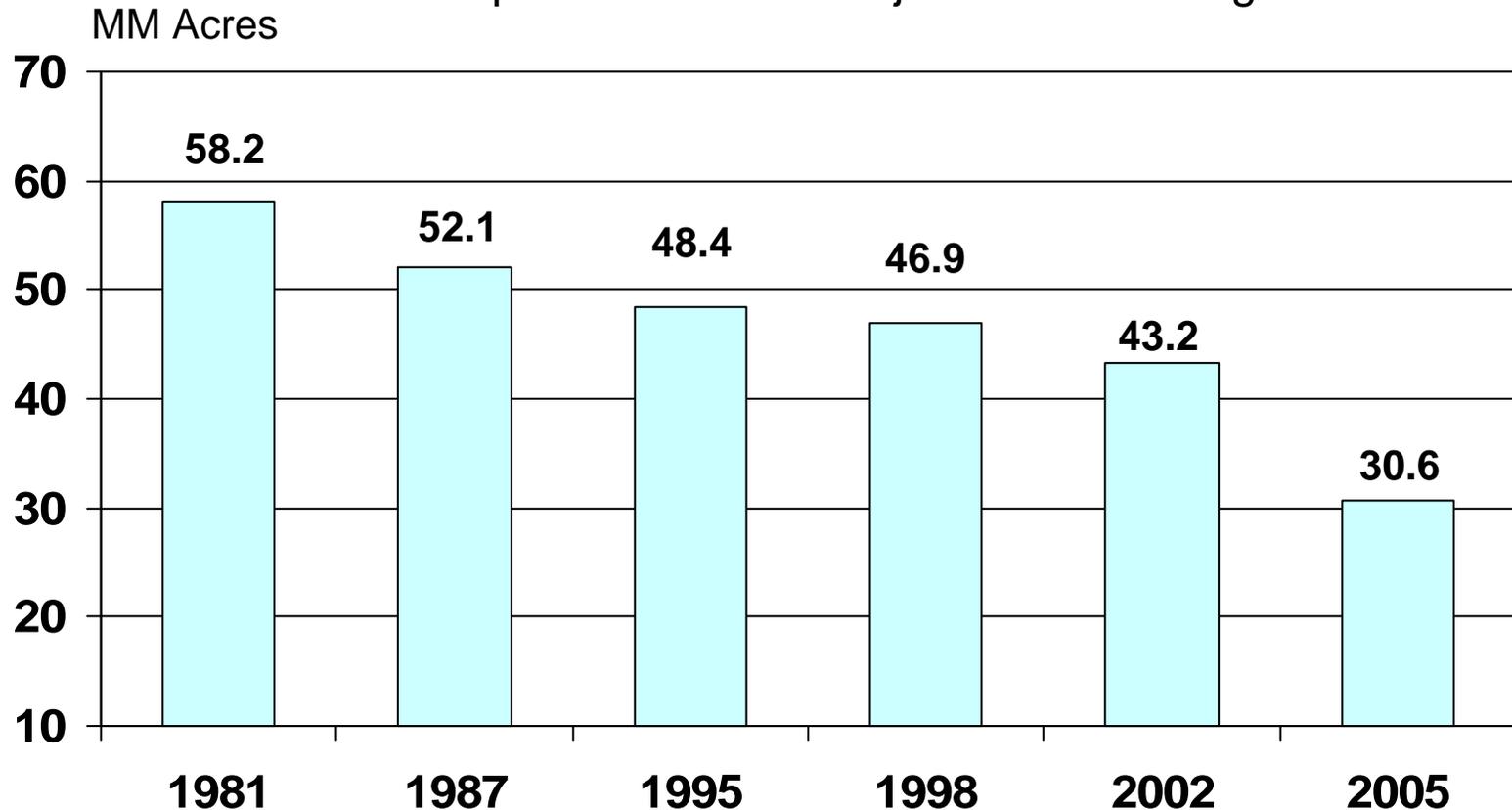
2004 Net Imports = 9%

What Has Changed?

(2) Timberland ownership is undergoing a sea-change....

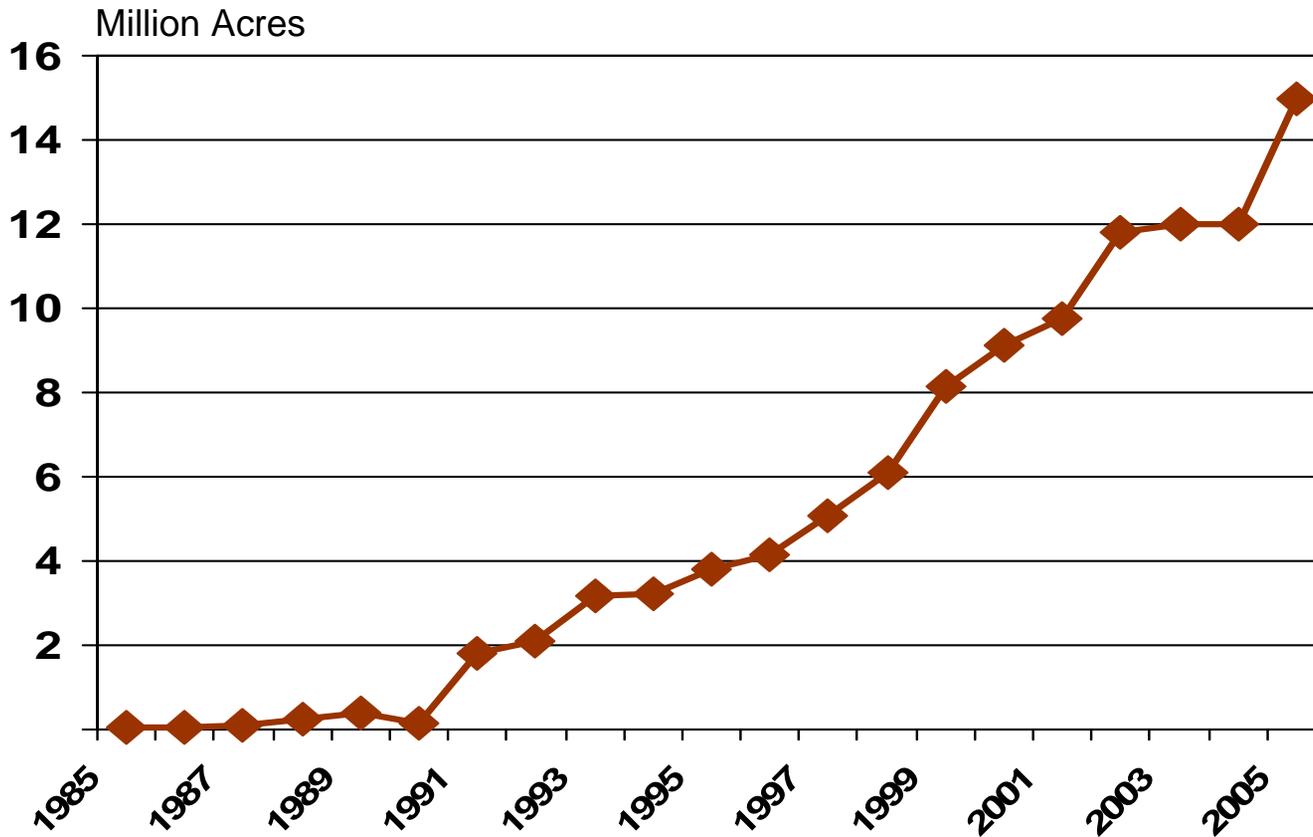
Timberland Ownership of Publicly-Traded Entities *

□ Companies listed on major stock exchanges.



Source: SEC Filings & Business Publications

Timberland ownership by large Timber Investment Management Organizations (TIMOs) has grown to well over 15 million acres in the US (\$15 billion of asset value).



Source: Hancock Timber Resource Group (adapted by Seneca Creek Associates, LLC), based on estimated valuations

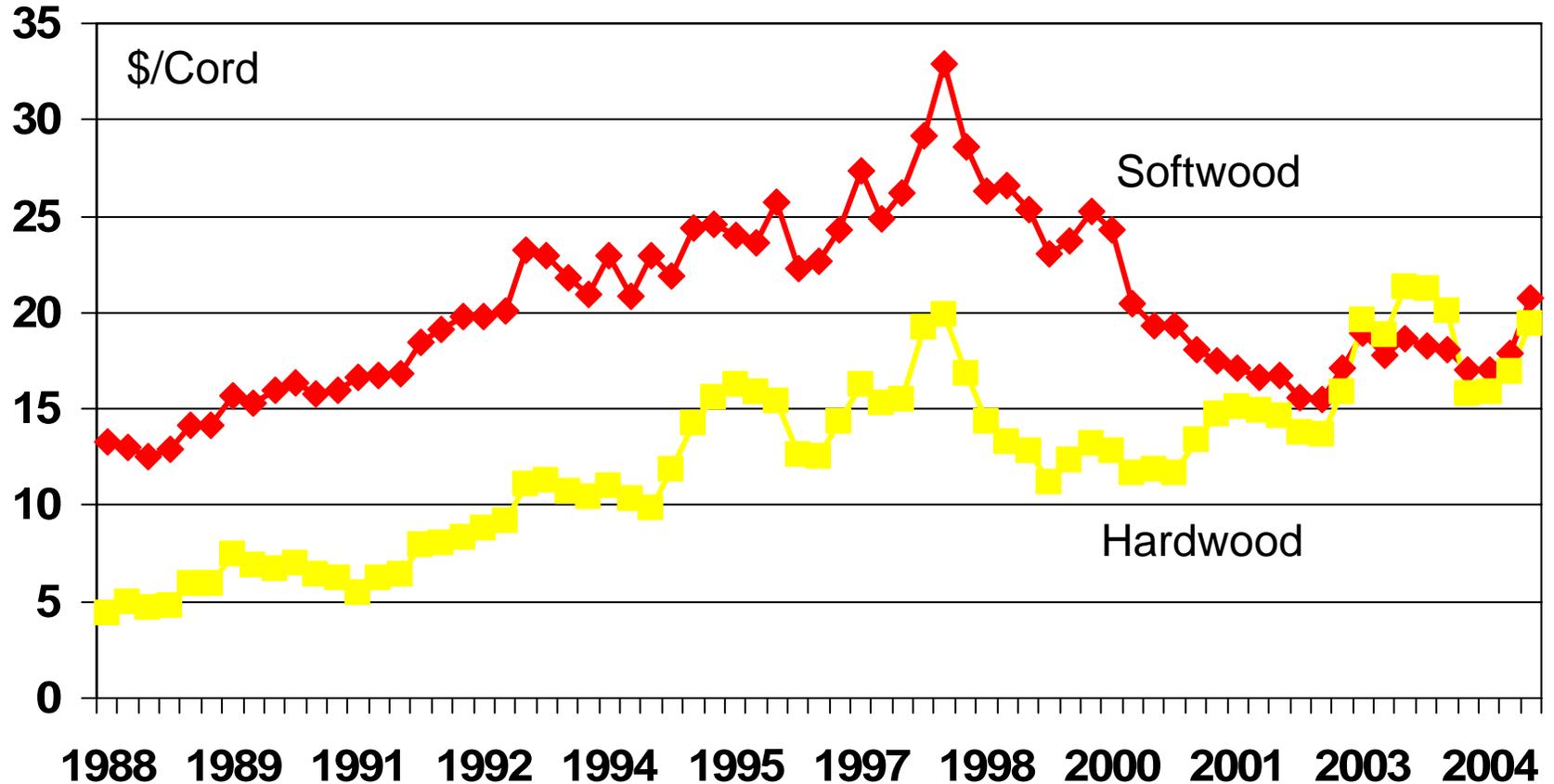
Ownership “Ecology”

- Forest industry timberland ownership has declined dramatically
- Number of landowners is increasing
- Average parcel size is declining
- Forest industry FIA definition is no longer valid
- Forest industry no longer accounting for 30% + of timber harvest

What Has Changed?

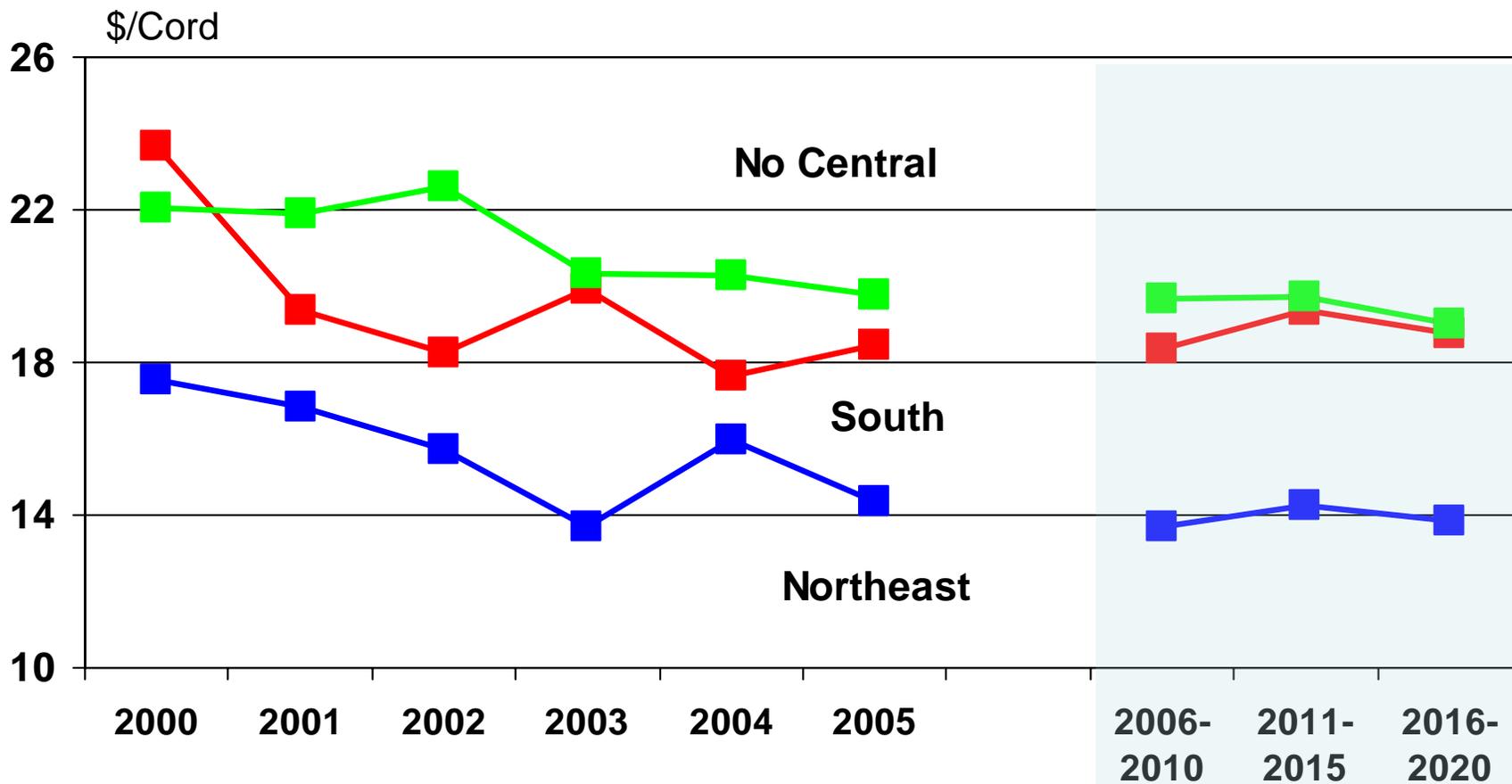
- (3) Timber stumpage values going through a deflationary period....

Southern Pulpwood Prices



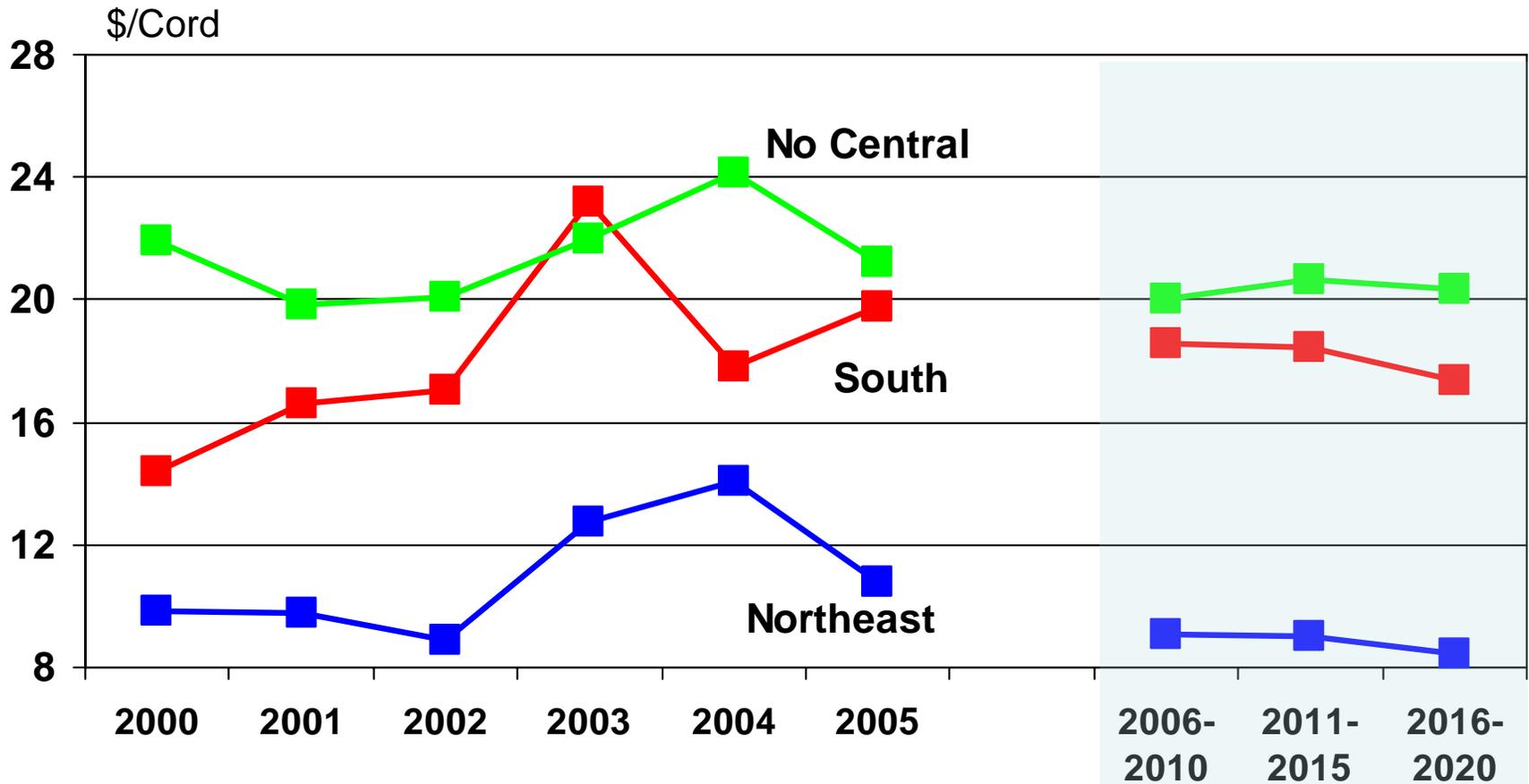
Source: Timber Mart South

Softwood Pulpwood Stumpage Base Forecast (\$ 2004)



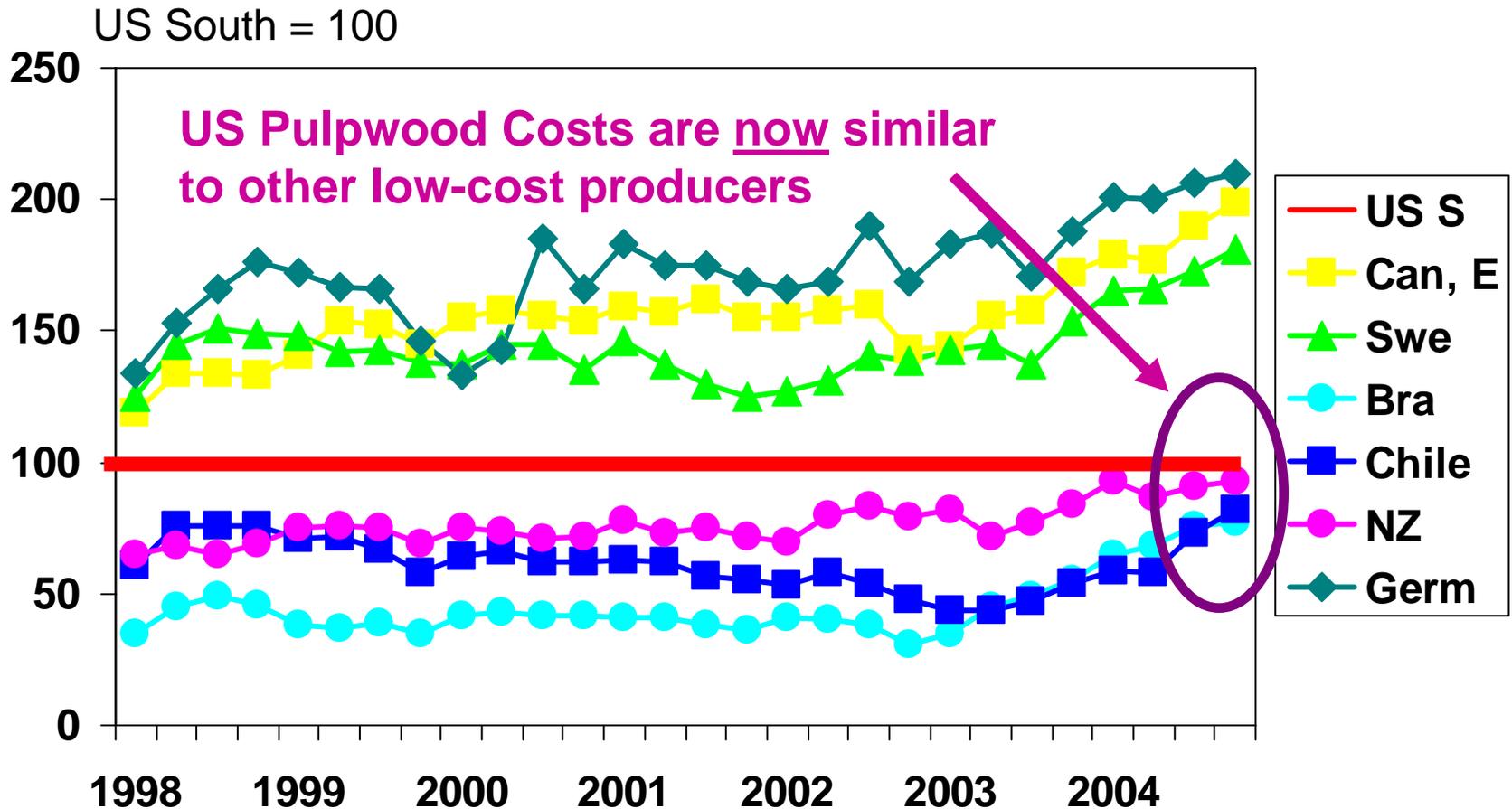
Source: Paperloop (RISI)

Hardwood Pulpwood Stumpage Base Forecast (\$ 2004)



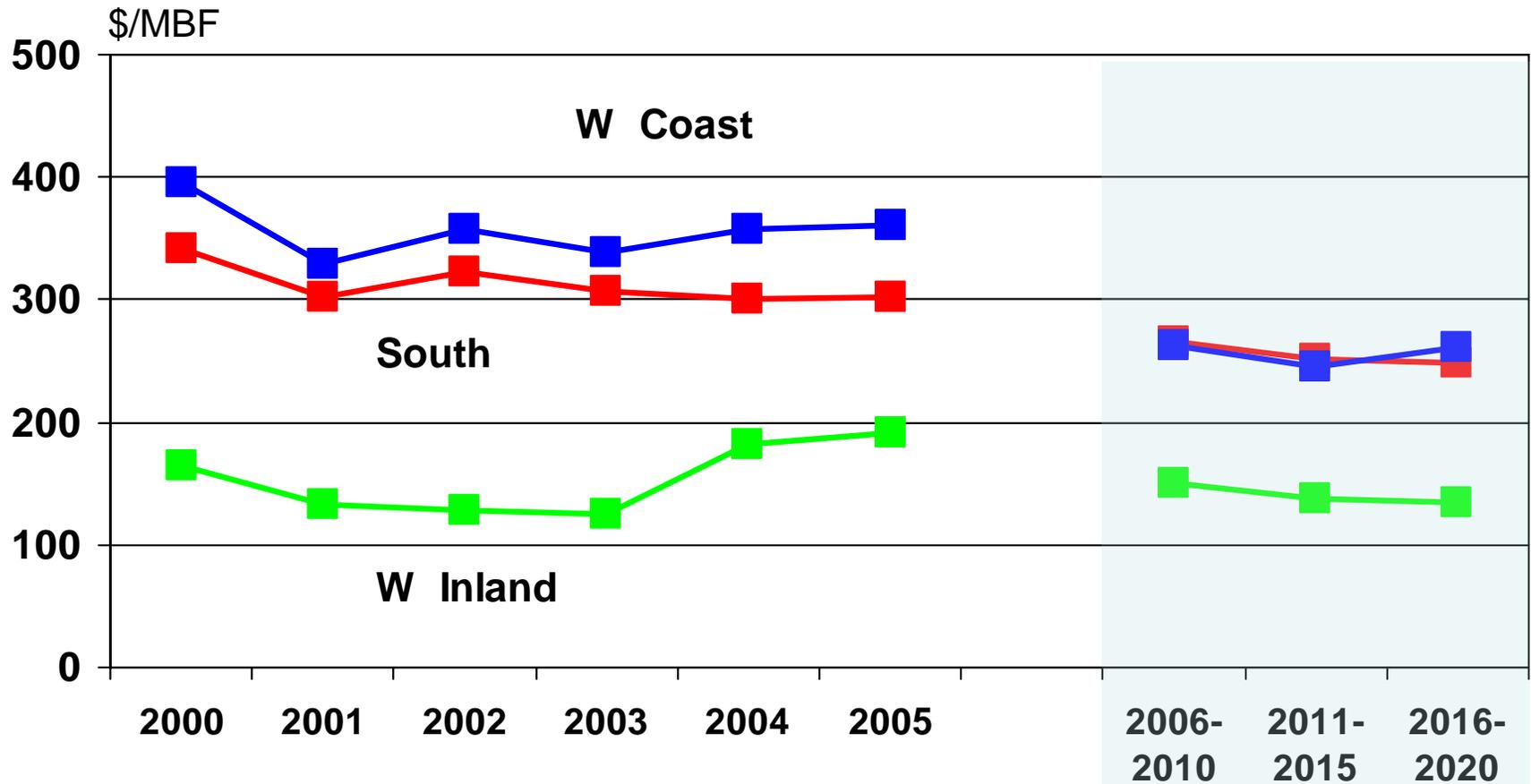
Source: Paperloop (RISI)

Delivered Softwood Pulpwood Prices – Relative to US South



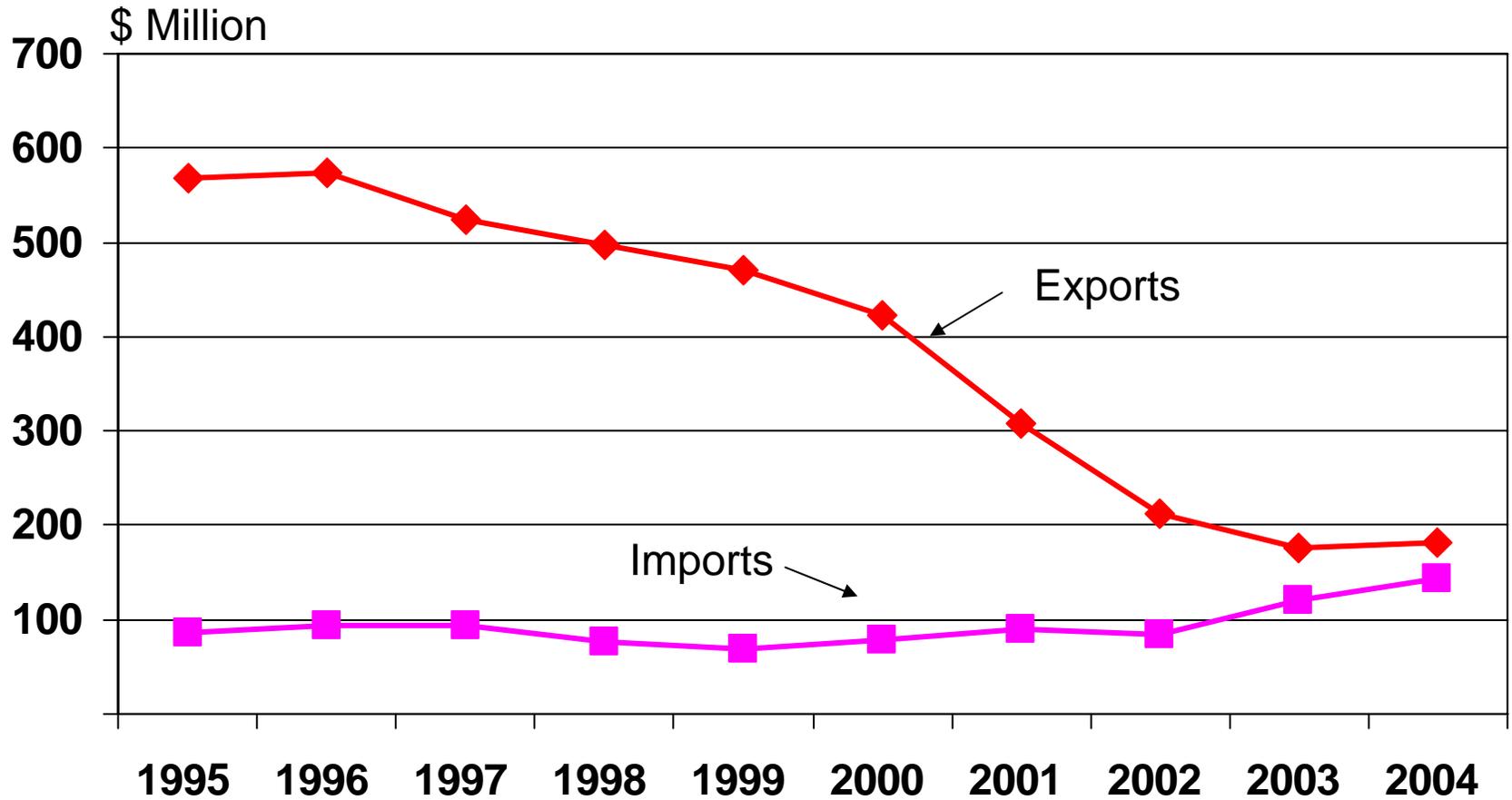
Source: Wood Resources International, LLC

Softwood Sawtimber Stumpage (\$ 2004)



Source: Paperloop (RISI)

US Chip Imports and Exports



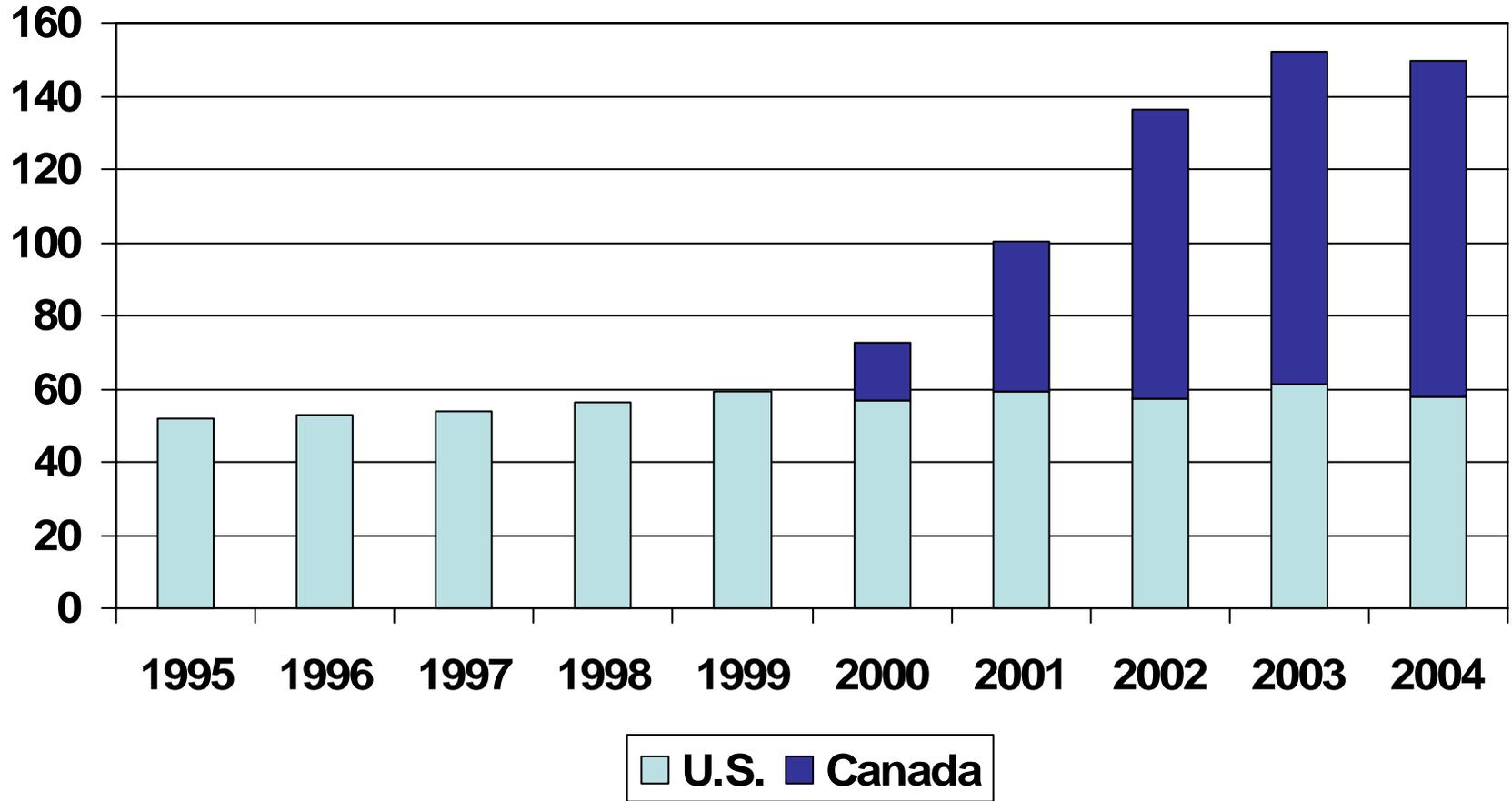
Source: Census

What Has Changed?

(4) More NGO (and market) pressure to meet non-governmental standards

Examples: Forest Certification
Green Building

SFI Enrolled Acres



Certification-US

- Sustainable Forestry Initiative Program
 - 152 million acres (61.5 million ha)
 - 125 million certified (50.6 million ha)
 - 90% of volume certified
 - Supported by US forest industry
- American Tree Farm System
 - 53,000 family forests
 - 30 million acres (12.1 million ha)

U.S. Certified/Enrolled Acres

	<u>FSC Certified</u>	<u>SFI Certified</u>	<u>SFI Enrolled</u>	<u>Tree Farm</u>
U.S.	13.0*	45.8	57.5	22.6
Northern States	8.0	4.7	12.9	5.5

* Includes 2 MM acres dual-certified under FSC and SFI

Green Building

- All positives (win-win)
- Promotes Environmental Protection
- Makes Good Economic Sense
- Wood Products are Green

Role of Forest Products

- Only Renewable Resource
- Energy Efficient
- Recyclable
- Cleans Our Air ~ Carbon Storage

Green Building Programs in the U.S.

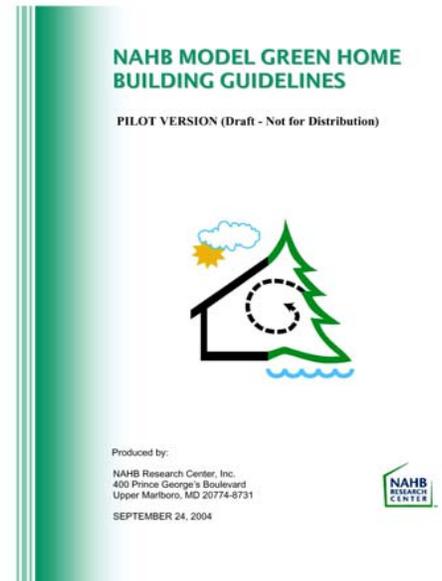
- LEED
- Green Building Initiative
 - NAHB Residential Standard
 - Green Globes US
- State Initiatives

Issues with LEED

- Discriminates Against Wood
- No Life Cycle Analysis (LCA)
- Arbitrary Support for FSC only
- Flawed Process

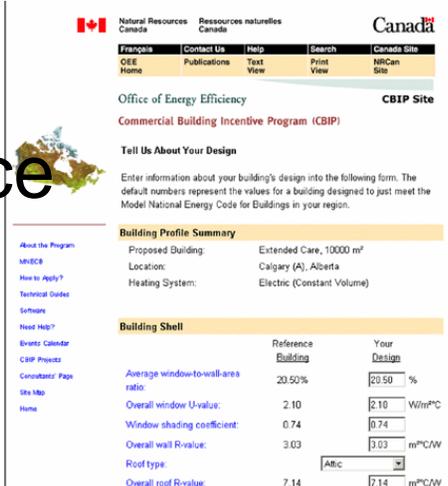
Alternatives - Residential

- Consensus Stakeholder Group
- Took best from other programs
- Developed national green building guideline for home building industry
- Launched in 2004



Alternatives - Green Globes

- Recognized and Used by Canadian Government
- 150 Buildings Rated in Canada
- Third-Party Certification Available
- Interactive Computer Program
- Forest Certification Neutral
- Incorporates LCA by Reference
- Now used in U.S.



The screenshot shows the CBIP website interface. At the top, there are navigation links for 'Home', 'Publications', 'Text View', 'Print View', and 'NRCan Site'. Below this is the 'Office of Energy Efficiency' logo and the 'Commercial Building Incentive Program (CBIP)' title. A section titled 'Tell Us About Your Design' contains a form for entering building information. The 'Building Profile Summary' section shows details for a building named 'Extended Care, 10000 m²' located in 'Calgary (A), Alberta' with an 'Electric (Constant Volume)' heating system. The 'Building Shell' section displays a table comparing reference values with user input for various metrics.

	Reference Building	Your Design
Average window-to-wall-area ratio:	20.50%	<input type="text" value="20.50"/> %
Overall window U-value:	2.10	<input type="text" value="2.10"/> W/m²C
Window shading coefficient:	0.74	<input type="text" value="0.74"/>
Overall wall R-value:	3.03	<input type="text" value="3.03"/> m²C/W
Roof type:		<input type="text" value="Attic"/>
Overall roof R-value:	7.14	<input type="text" value="7.14"/> m²C/W

Energy Questionnaire
Input into CPIB
screening tool for energy
modelling.



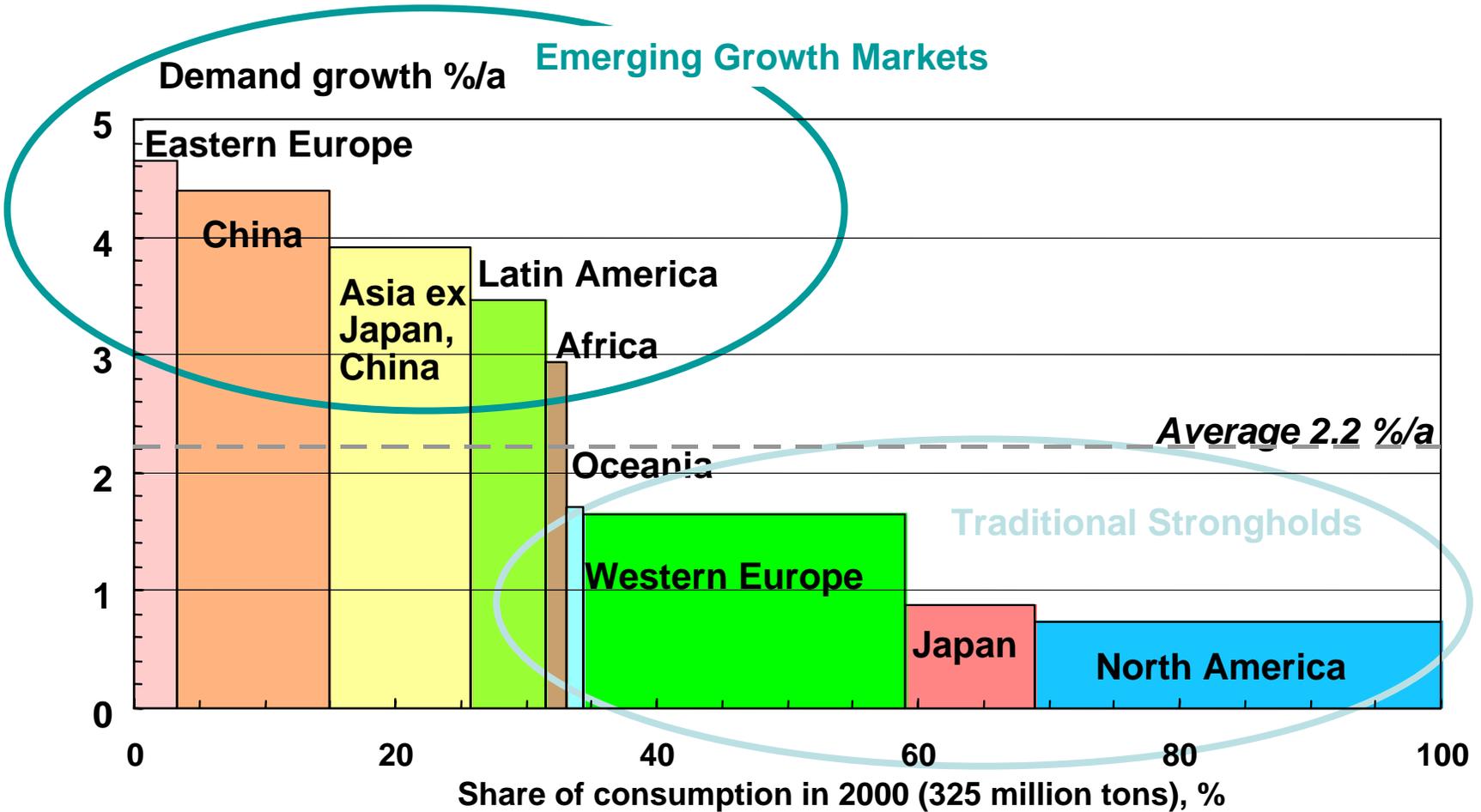
What Has Changed?

(5) It's a globalized market....

- New overseas production powerhouses
- Rapidly growing overseas markets

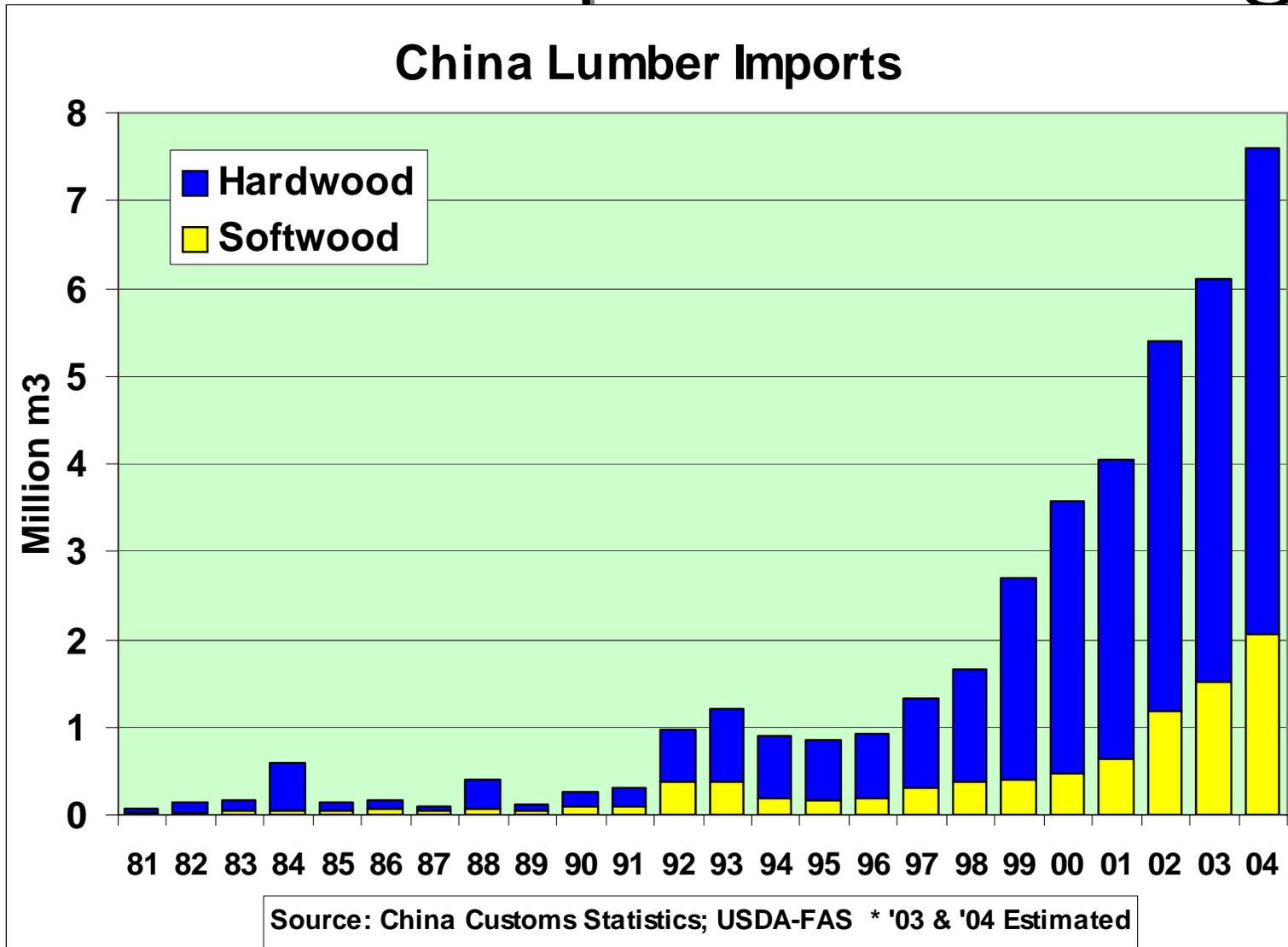
Demand Is Shifting

Paper & Paperboard Demand Growth Strongest in Emerging Markets



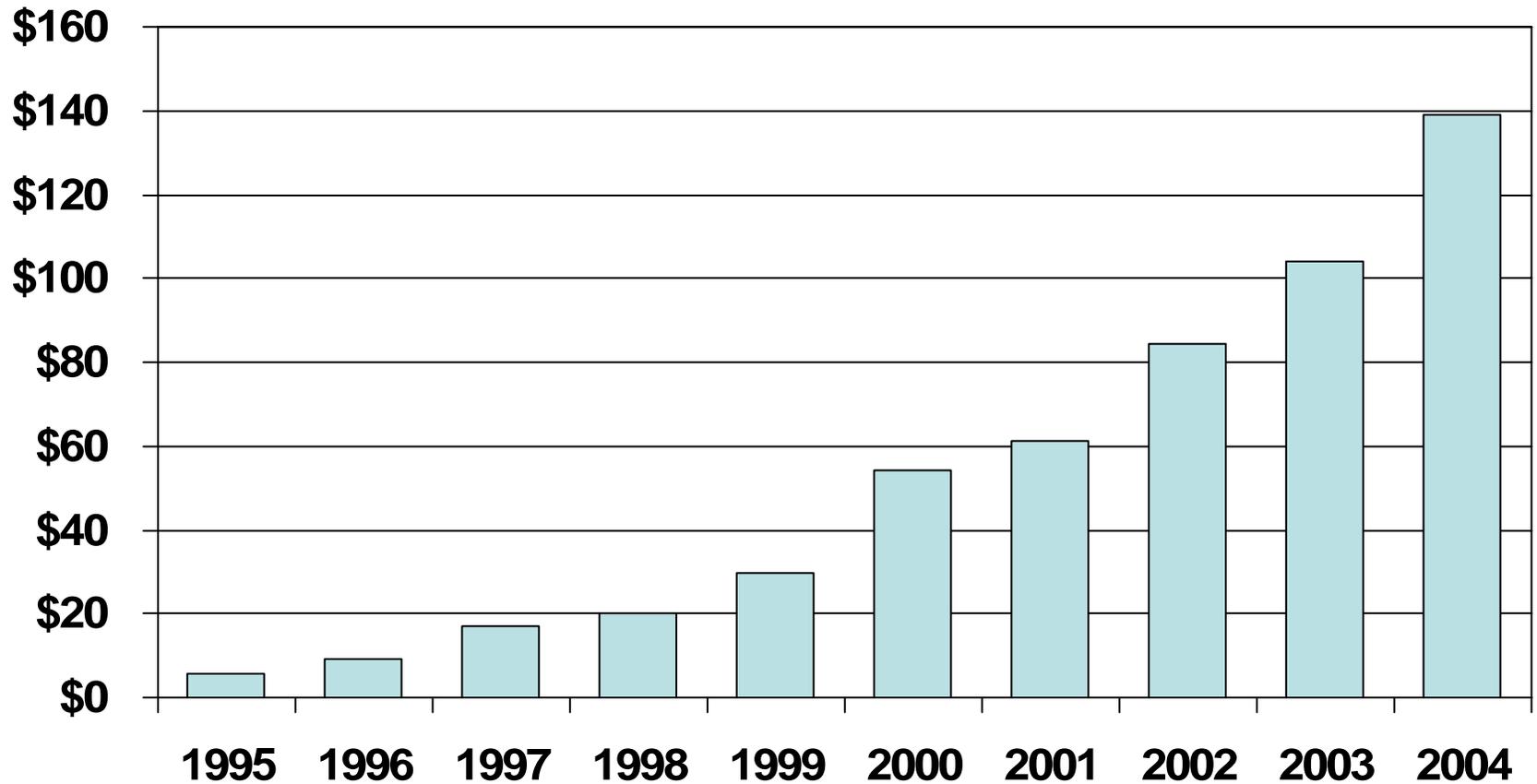
Source: Jaakko Poyry

Lumber Imports Soaring

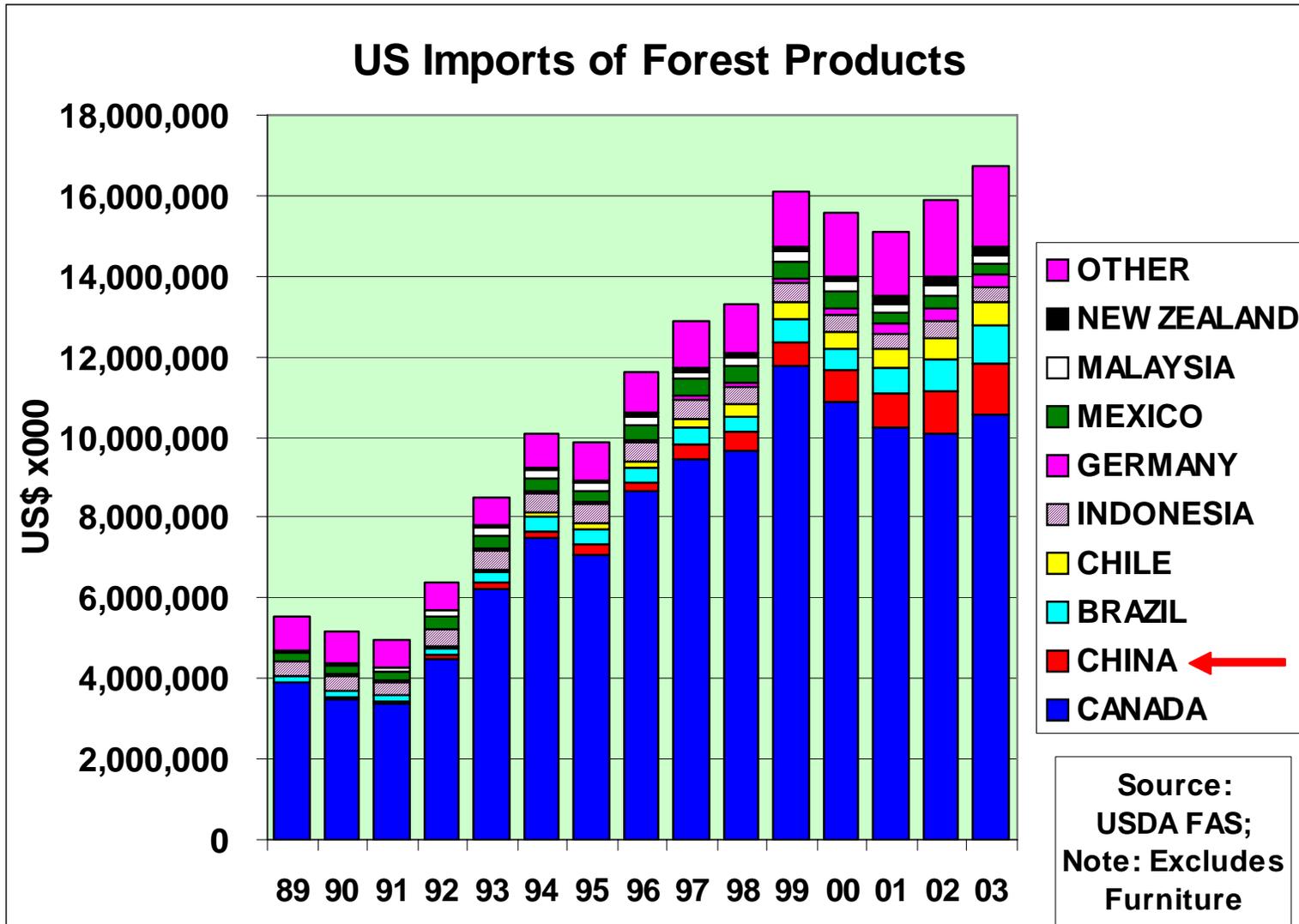


U.S. Hardwood Lumber Exports to China

\$ Million



China is the #2 Wood Products Supplier to U.S.*



* Note:
Excludes
Furniture

Challenges

(1) Learn More (R&D Needs)

- Biotechnology and Tree Improvement
- Wood Quality
- Forest Management
- Ecological Functions & Ecological Services of Managed Forests

Challenges

- (2) Create environment for more investment in forest products manufacturing in US.
- (3) Create environment that fosters stable or increasing wood demand
- (4) Create environment so that landowners have economic incentive for investment in forest stewardship.

Finally.....

- ...there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns -- the ones we don't know we don't know.
- If I know the answer I'll tell you the answer, and if I don't, I'll just respond, cleverly...

Memorable Quotations from Donald Rumsfeld