
How Globalization Affects the U.S. South's Forest Industry?

Jacek P. Siry, Thomas G. Harris, Jr. & Sara S. Baldwin
TimberMart-South
Forest Business Center
University of Georgia

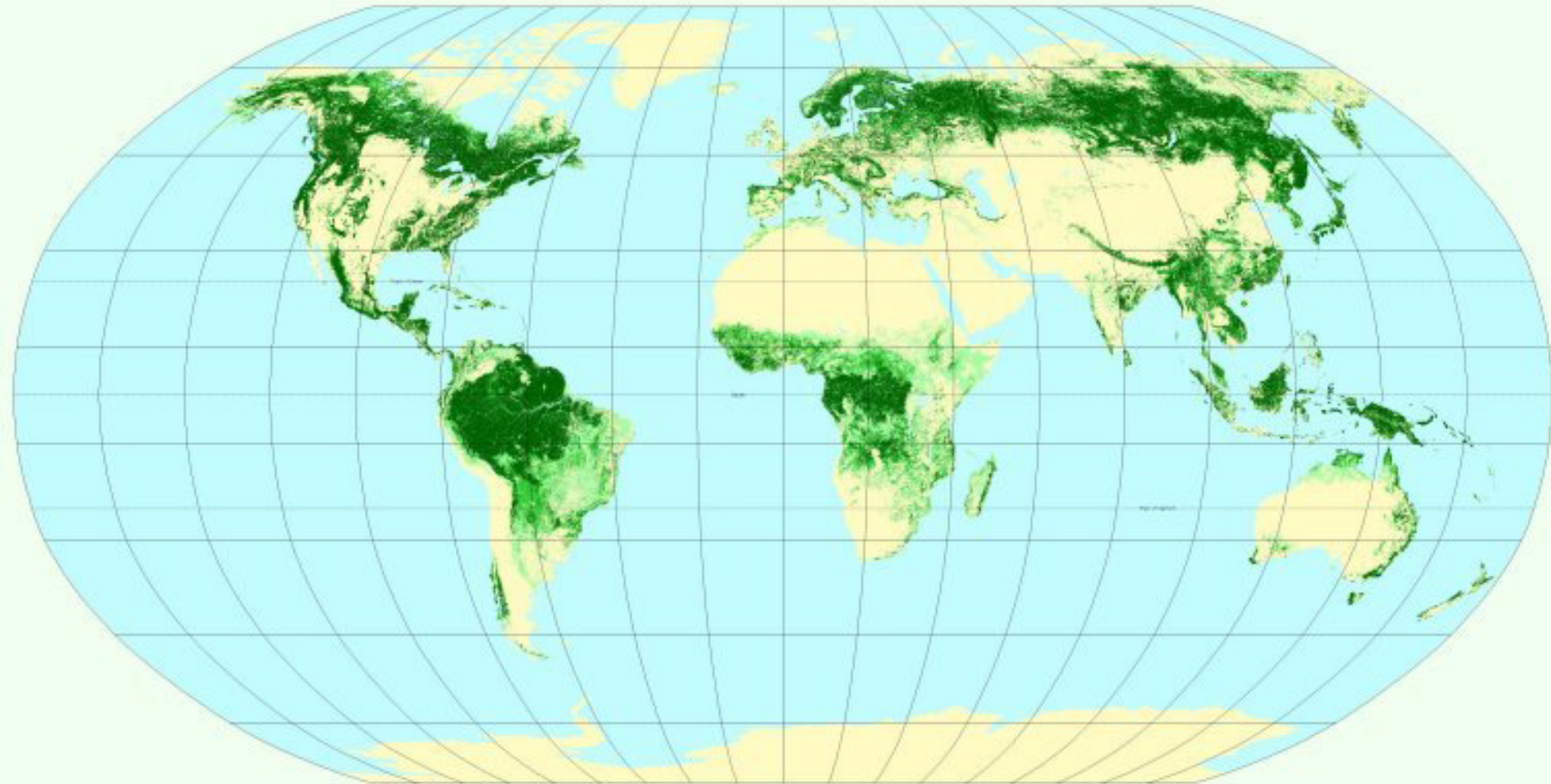
Presented at:
57th Forest Products Society Annual Meeting, Seattle
25 June 2003

Introduction

- Where we are today
 - > forest resources
 - > production
 - > population
- Globalization
- Forest industry impacts
- U.S. South's competitive advantage
- Conclusions



THE WORLD'S FORESTS 2000



GLOBAL FOREST RESOURCES ASSESSMENT 2000

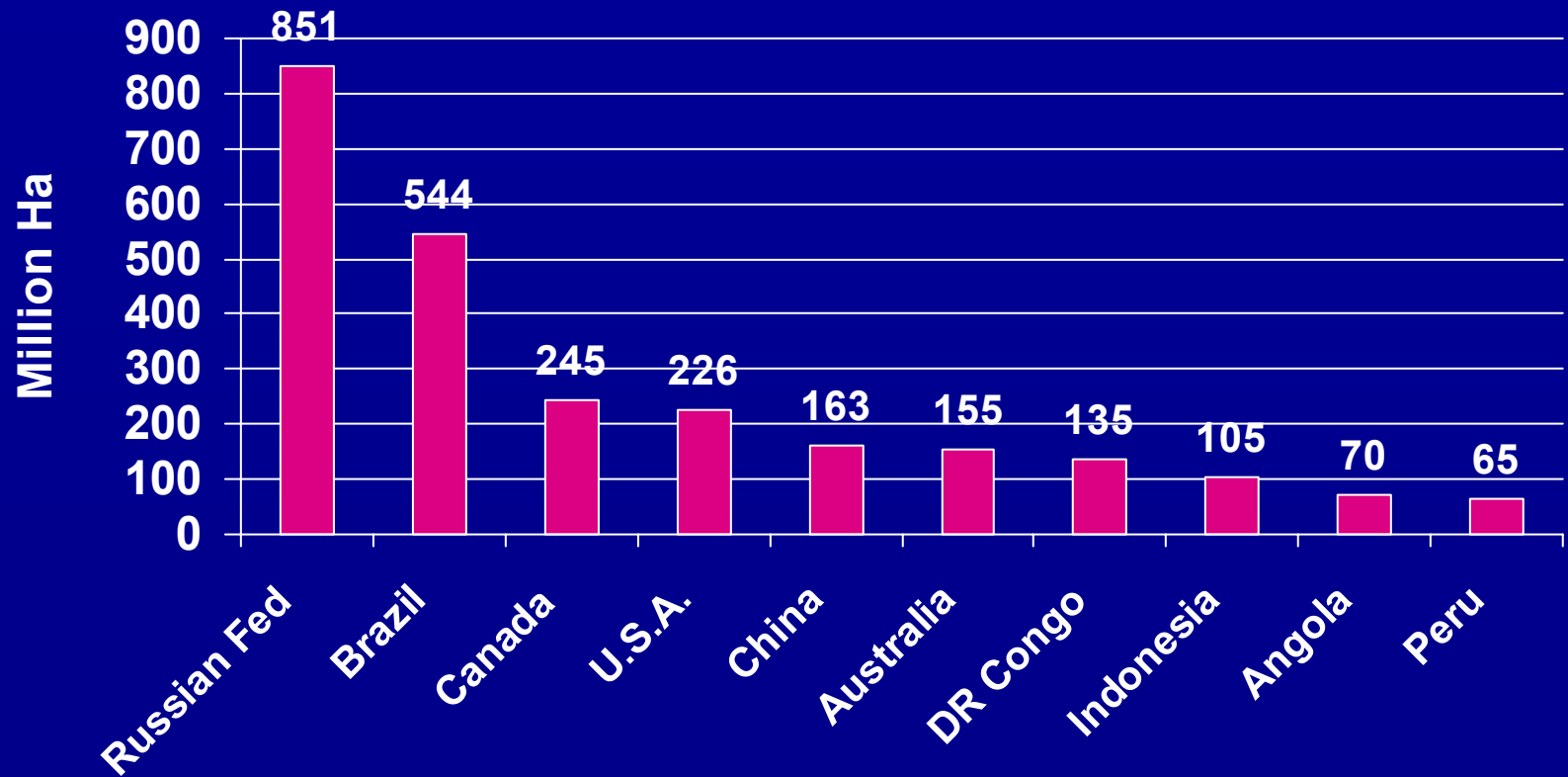
Since 1980, FAO, at the request of its member nations, has been providing regular updates on the state, changes and condition of the world's forests. The assessment is based on the Global Forest Resources Assessment 2000 (GFRA 2000) provided by information on the state and condition of forest resources for the year 2000 and data changes over the last 20 years. This information has been derived from a number of sources, including forest inventories, national forest inventories, and national forest inventories (NFI) 2000, and other data. This information has been derived from a number of sources, including forest inventories, national forest inventories, and national forest inventories (NFI) 2000, and other data. This information has been derived from a number of sources, including forest inventories, national forest inventories, and national forest inventories (NFI) 2000, and other data.

Legend

Woodland Land covering 10-20% of total land area, with a canopy cover of 10-20%.	Other woodland Land with 10-20% forest canopy cover, but not meeting the criteria for woodland.
Open and Regenerated forest Land covering 10-20% of total land area, with a canopy cover of 10-20%.	Other land cover Land not covered by forest, including agricultural land, urban areas, and bare land.
Water	

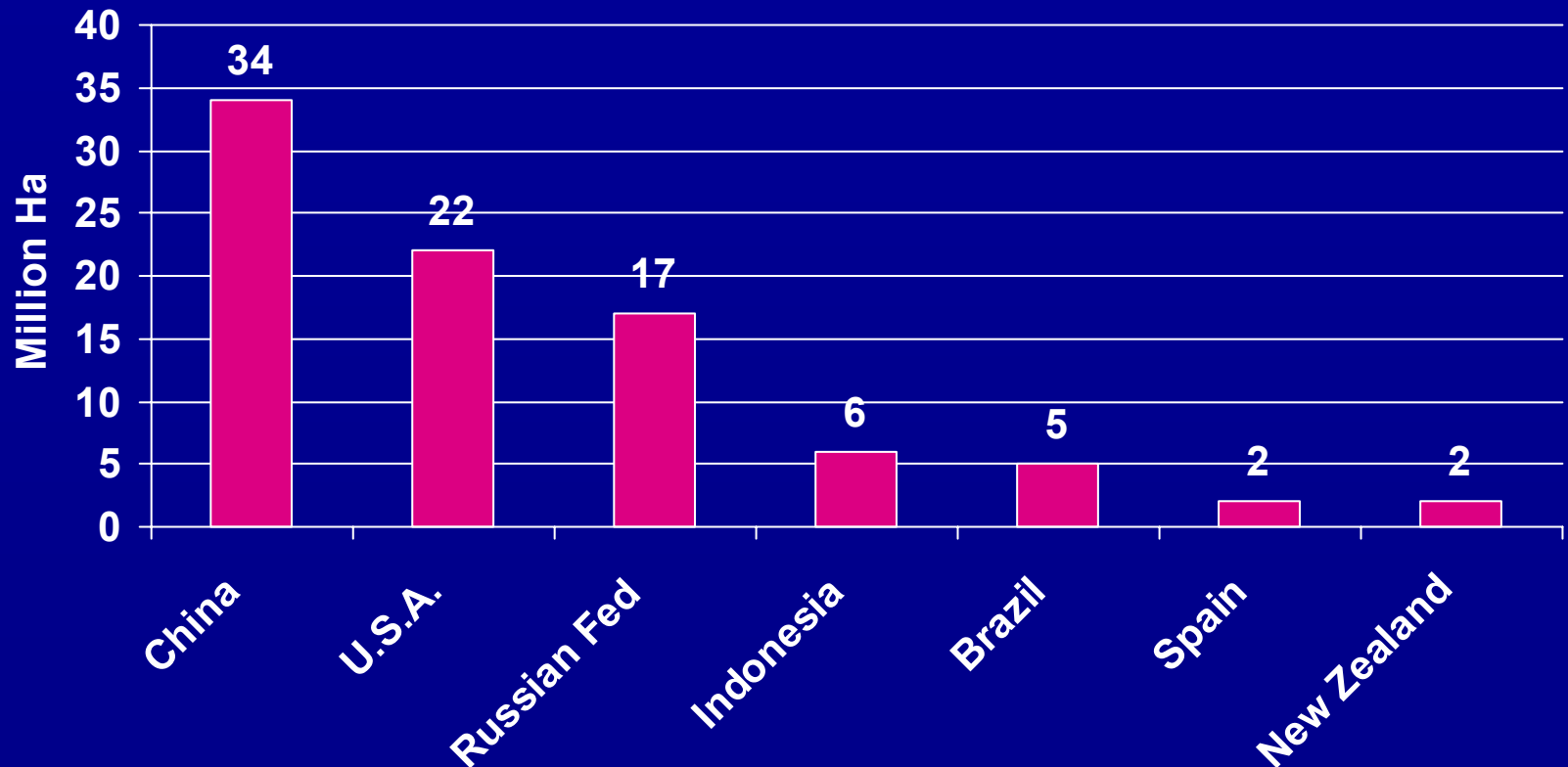
This map was produced from the Global Forest Resources Assessment 2000 (GFRA 2000) provided by information on the state and condition of forest resources for the year 2000 and data changes over the last 20 years. This information has been derived from a number of sources, including forest inventories, national forest inventories, and national forest inventories (NFI) 2000, and other data. This information has been derived from a number of sources, including forest inventories, national forest inventories, and national forest inventories (NFI) 2000, and other data.

Total Forest Area By Major Country, 2000



Source: FAO

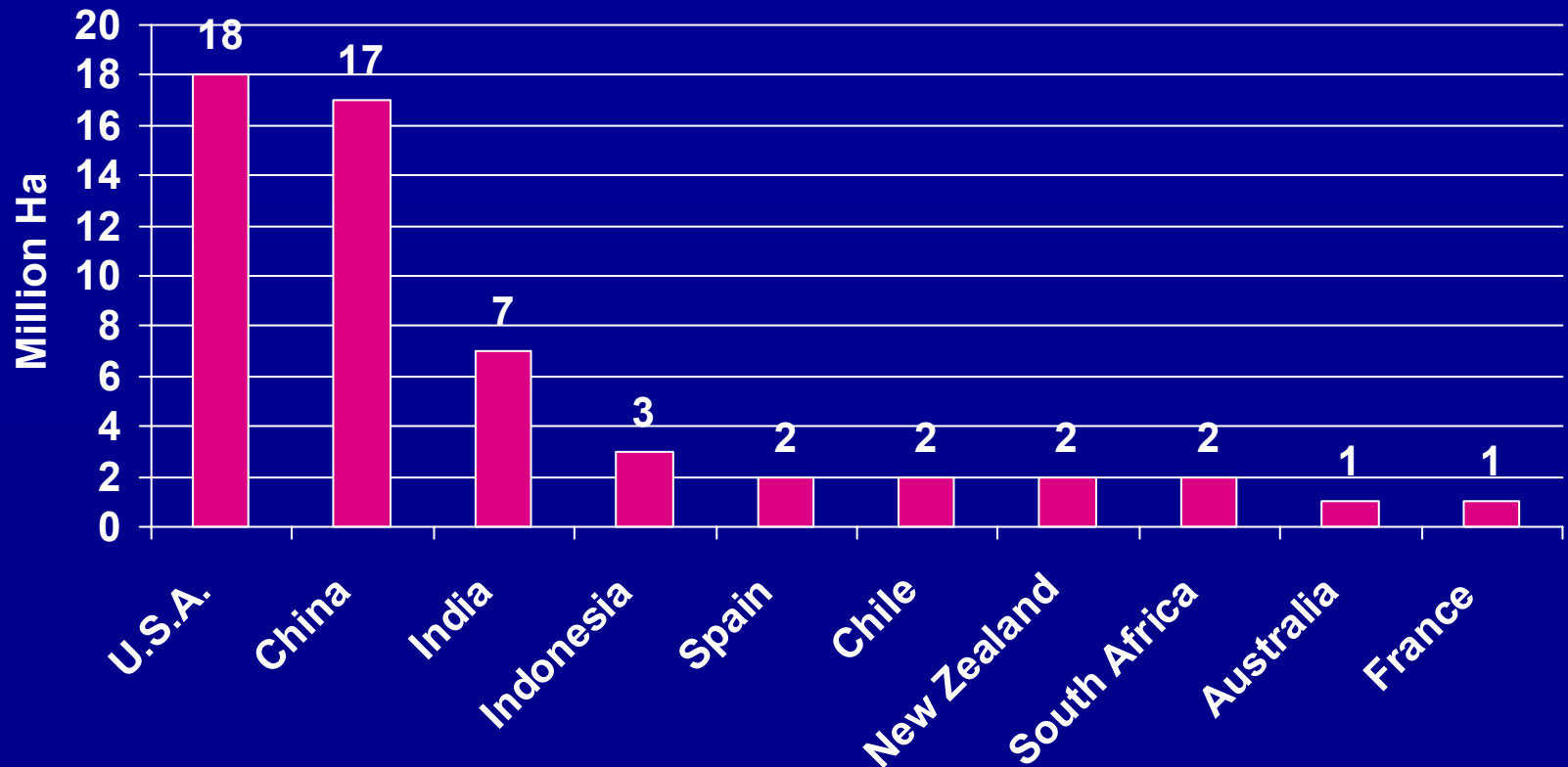
Total Plantation Area By Major Country, 2000



Source: FAO

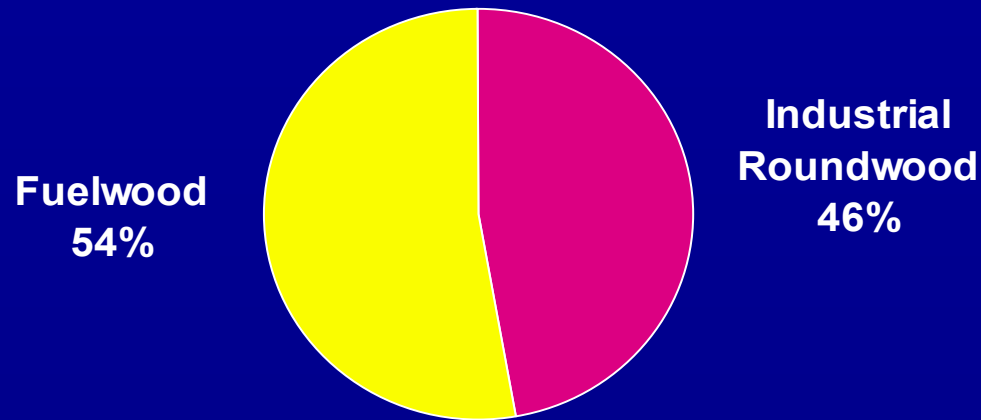
Industrial Plantation Area

By Major Country, 2000



Source: FAO, own estimates

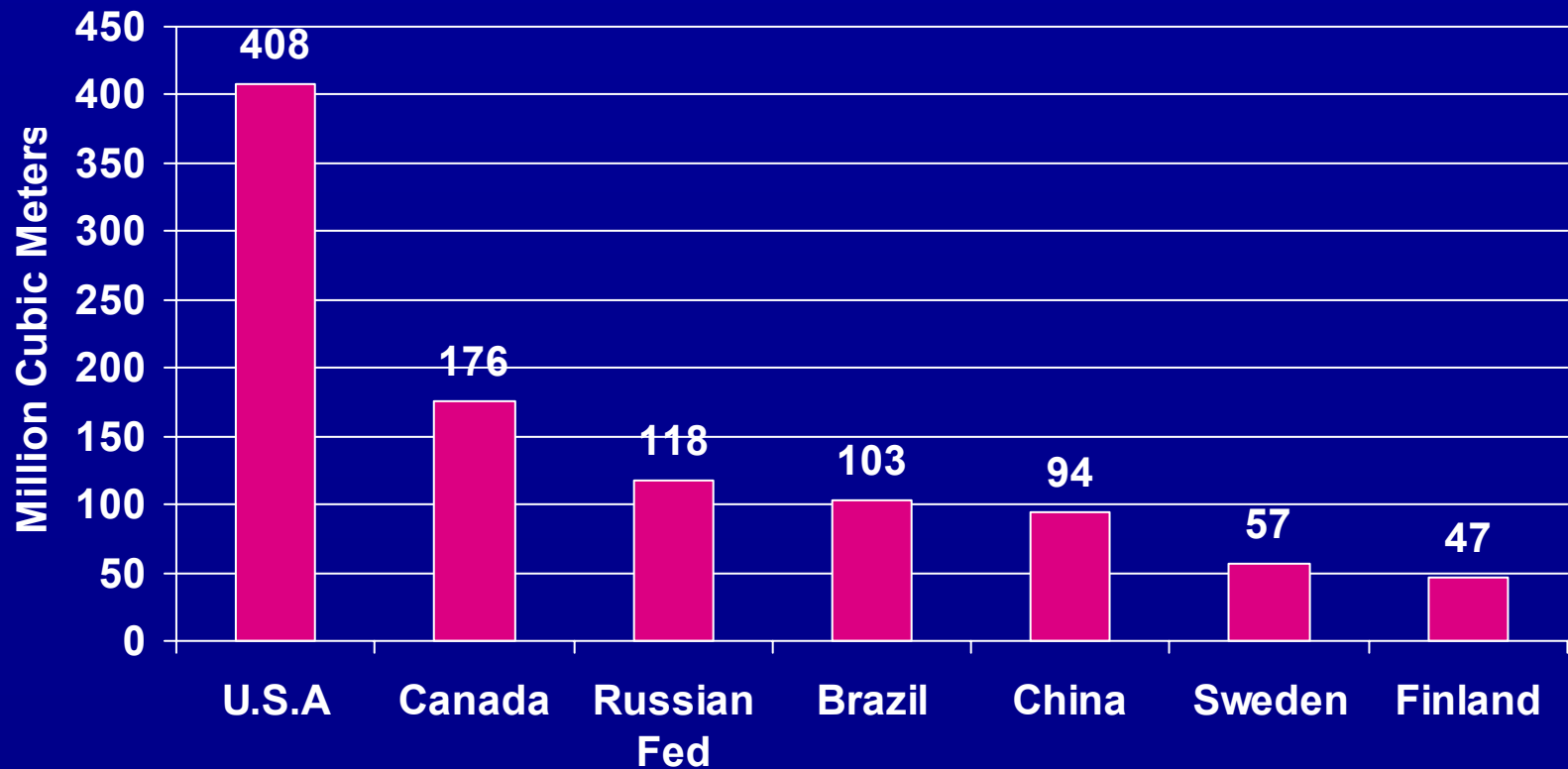
Wood Production, 2001



Fuelwood	1.8 billion cu m
Industrial Roundwood	1.5 billion cu m
Total	3.3 billion cu m

Source: FAO

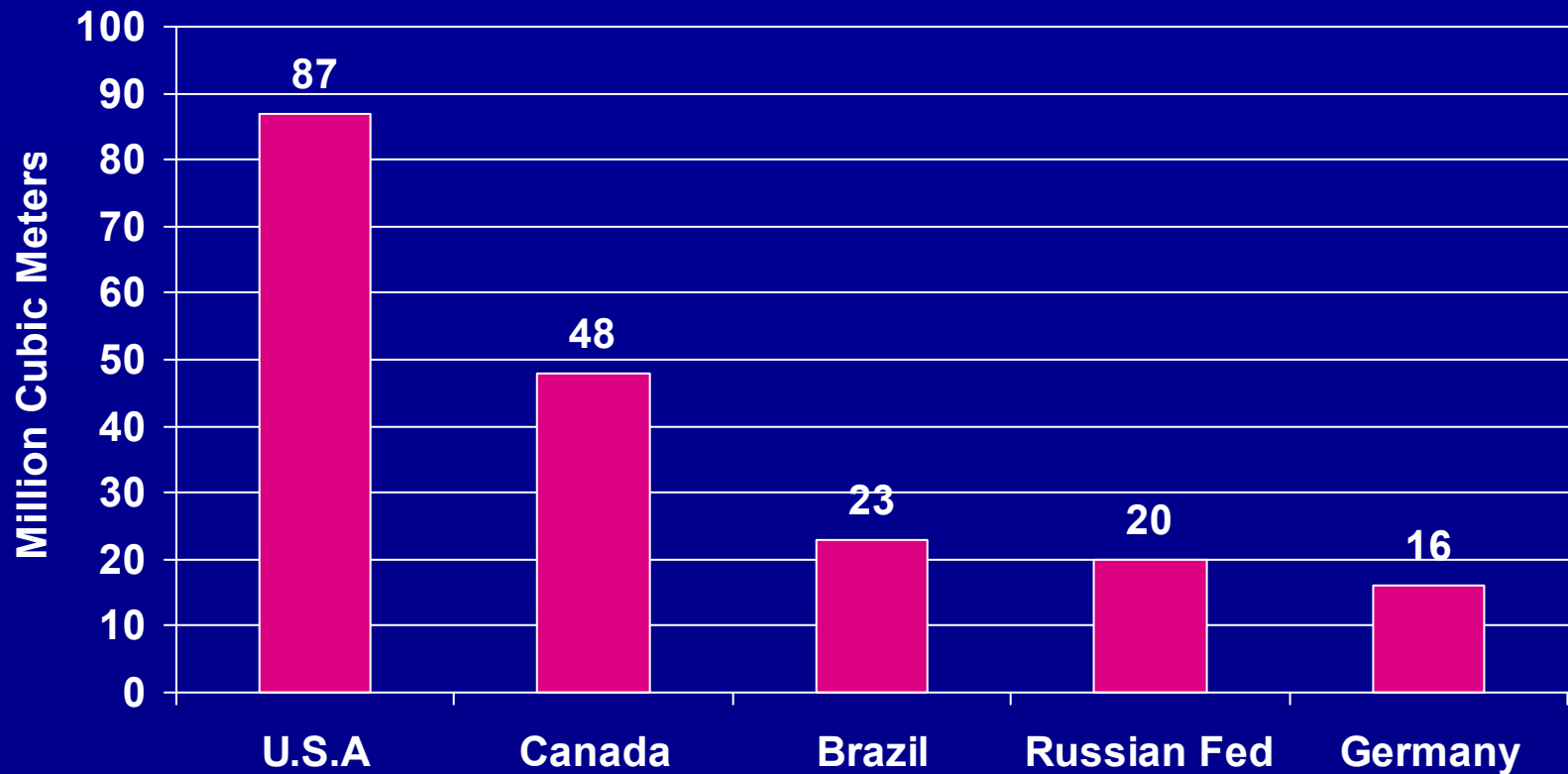
Industrial Roundwood Production By Major Country, 2001



Source: FAO

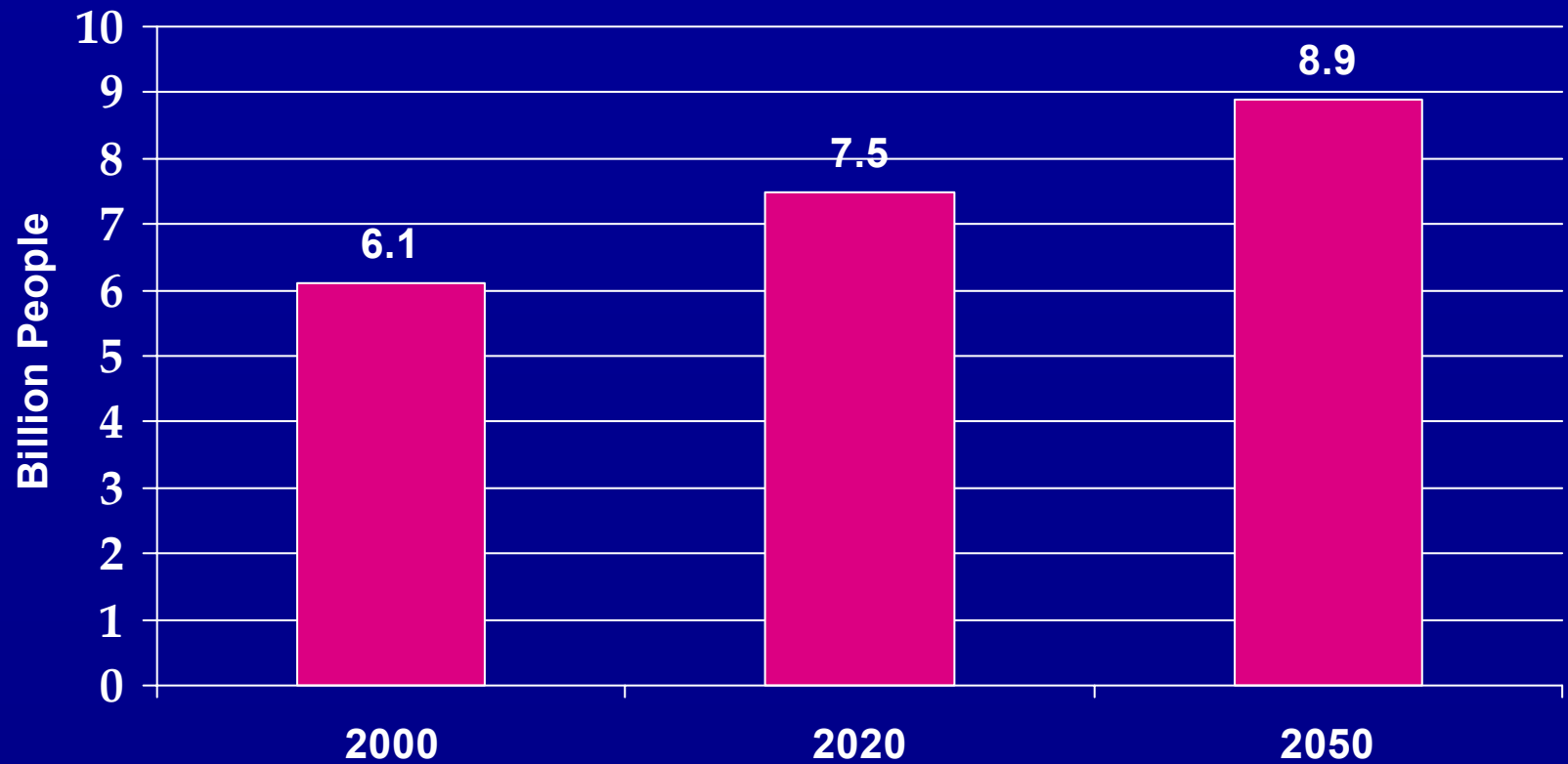
Sawnwood Production

By Major Country, 2001



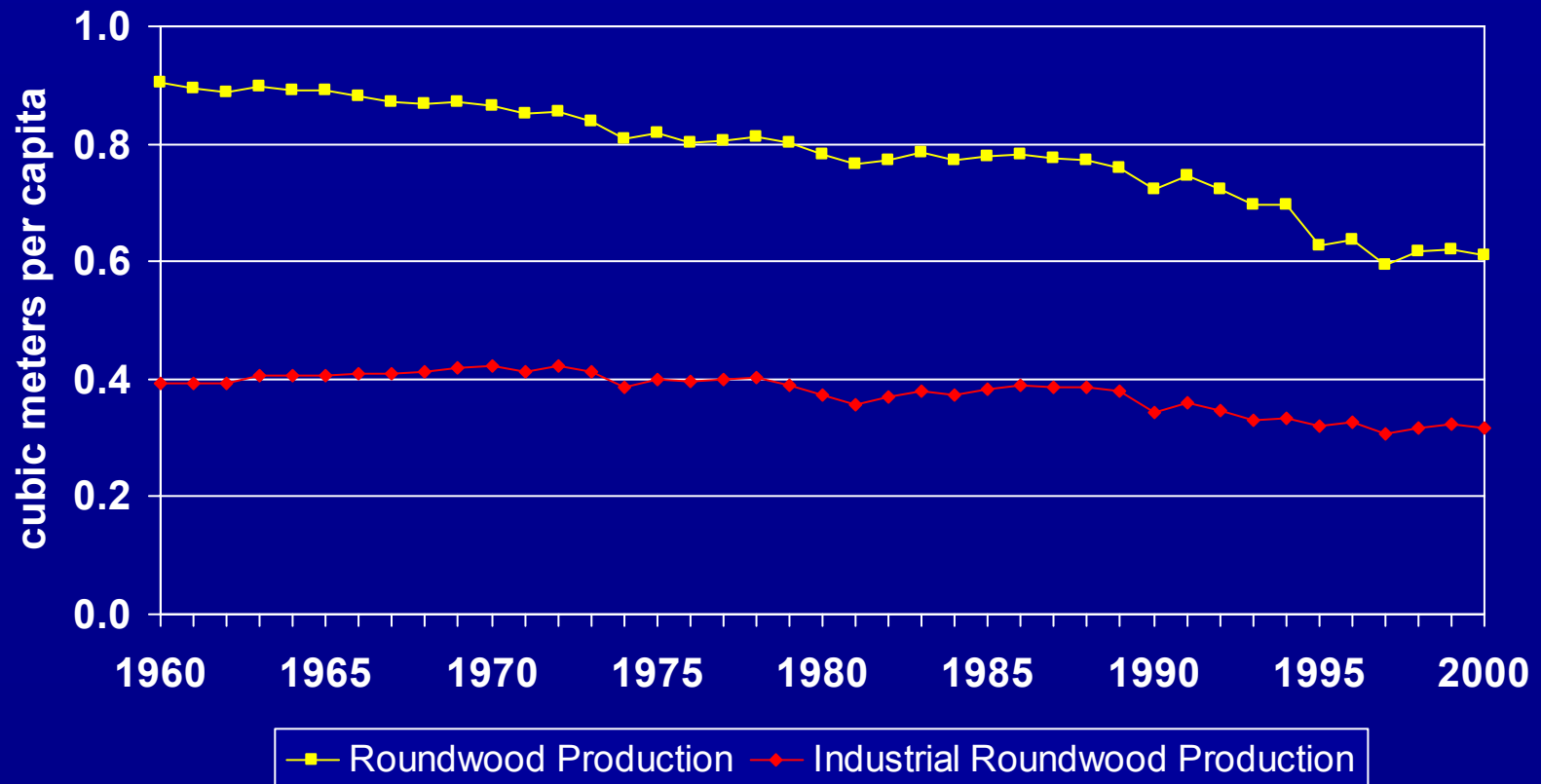
Source: FAO

World Population Projections



Source: UN

Annual Per Capita Roundwood Production

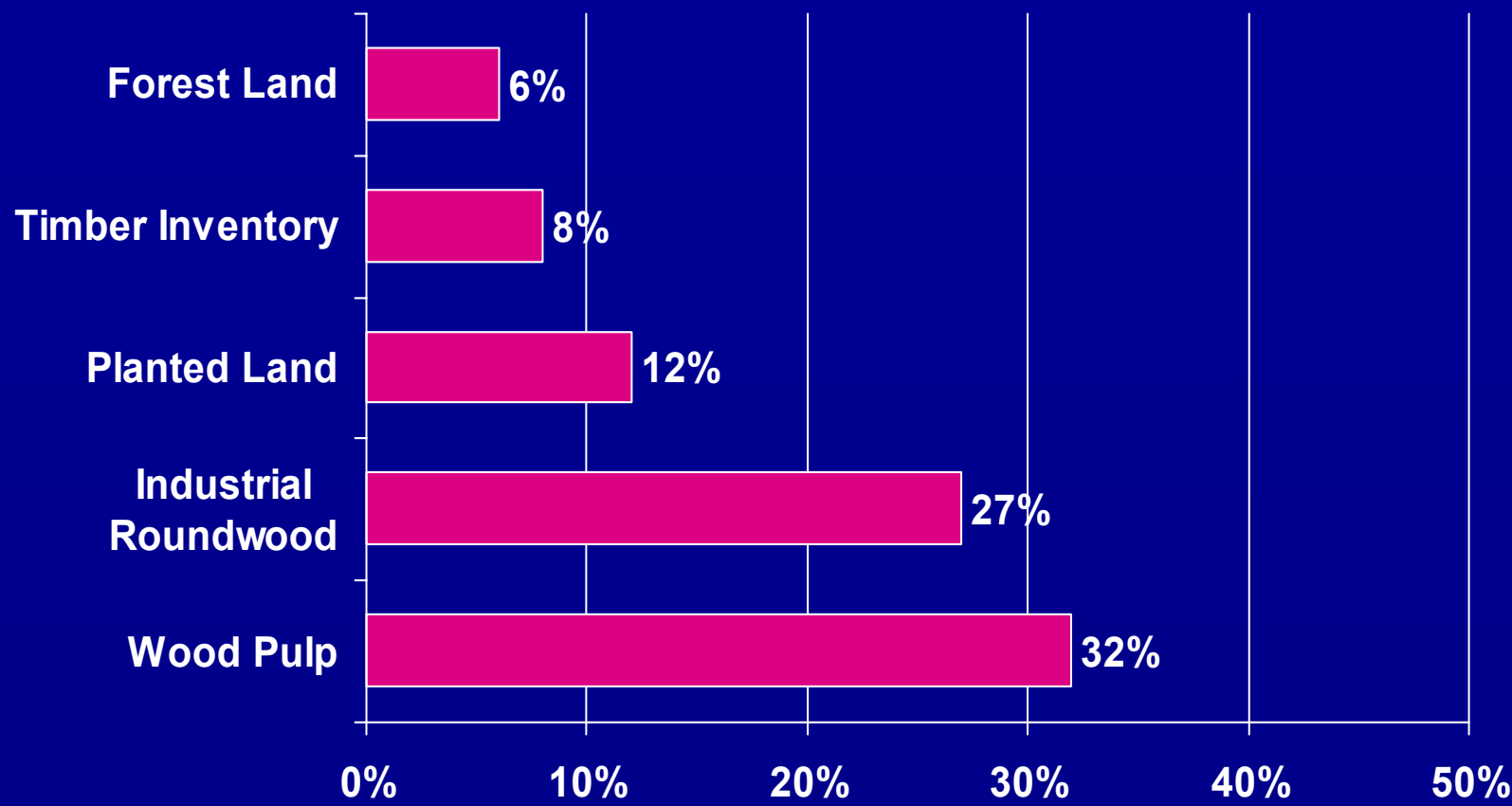


Source: Sewall Associates and UN FAO

World Forests

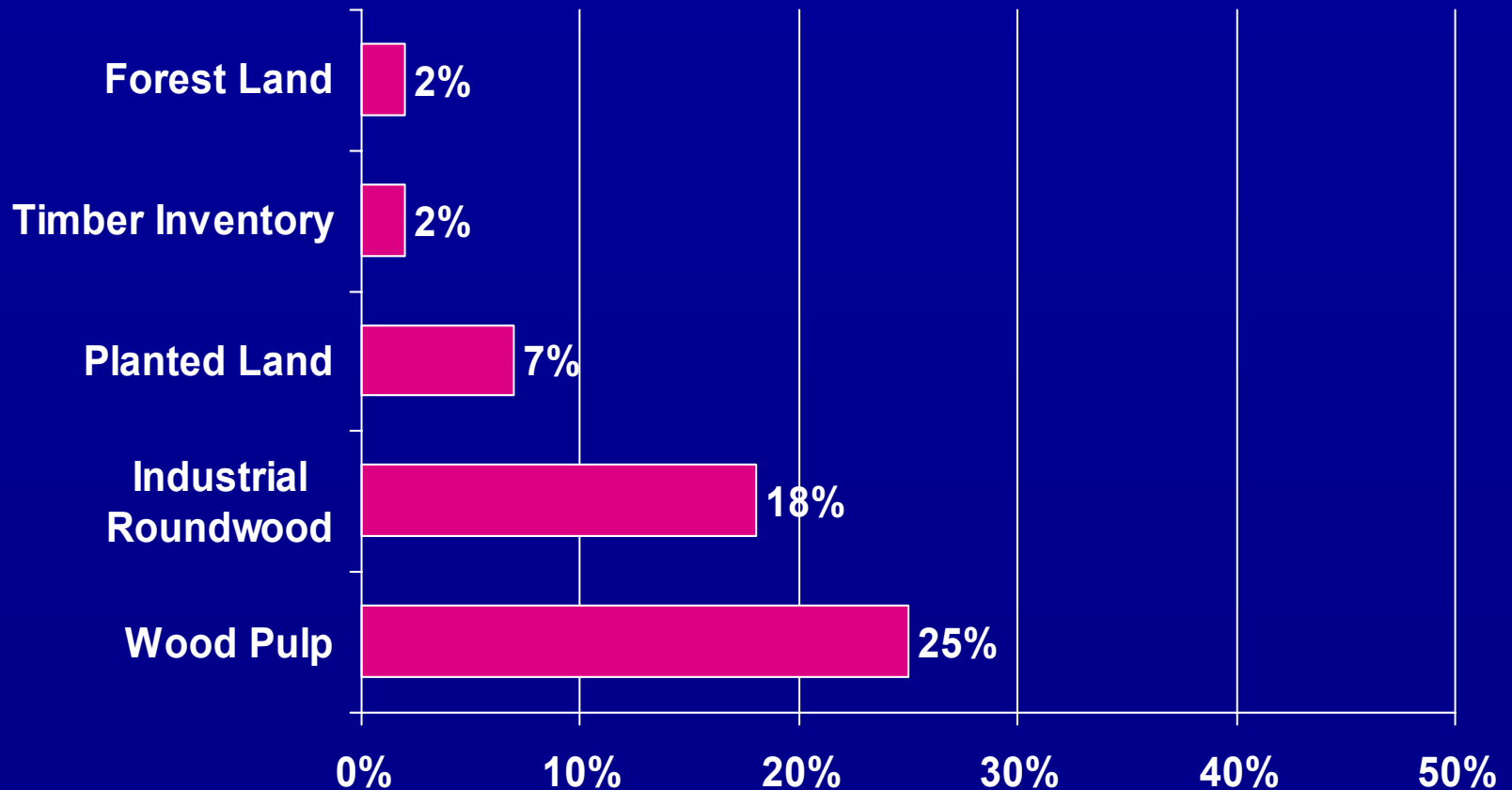
- Population is growing at 1.3% per year
- World forests declining at -0.2%/yr
 - > 9 million ha lost annually
 - > Tropical forests declining (94% of losses)
 - > Temperate & Boreal forests stable to increasing
- Plantation forests increasingly important for industrial roundwood production
 - > 5% of world forest area
 - > Supplying 25% of industrial roundwood

United States in World Context, 2000



Source: Smith et al. 2002, FAO, FRA 2000

U.S. South in World Context, 2000



Source: Smith et al. 2002, FAO, FRA 2000

Globalization

- Global market environment
- Growing Importance of trade
 - > Exports 25% of global GDP
- Trade barriers going down
- Transportation costs going down
- Foreign direct investment increases

Globalization

- Intense competition
 - > High quality
 - > High productivity
 - > Low costs
 - > Environmental quality
- Foreign expansion
 - > Globalization of production
 - > Globalization of markets

Globalization in Forest Products

- Wood products add 2% to global GDP
- Volume exported
 - > Industrial roundwood 8%
 - > Sawnwood & panels 26%
 - > Pulp, paper & board 23%
- Export growth (last 25 years)
 - > 30% increase in volume
 - > 75% increase in value

Globalization in Forest Products

- Consolidation of industry
 - > Is it working?
 - > Disintegration
- Market consolidation (e.g. EU, NAFTA)
- Where to produce?
- Where to sell?

The South's Competitive Advantage

- Location
 - > Access to major markets
 - > Access to production resources
 - > Moderate terrain
- Climate
 - > Ample rainfall
 - > Moderate conditions
- Infrastructure
- Government
- Management

Major Technological Changes in Southern Forest Industry

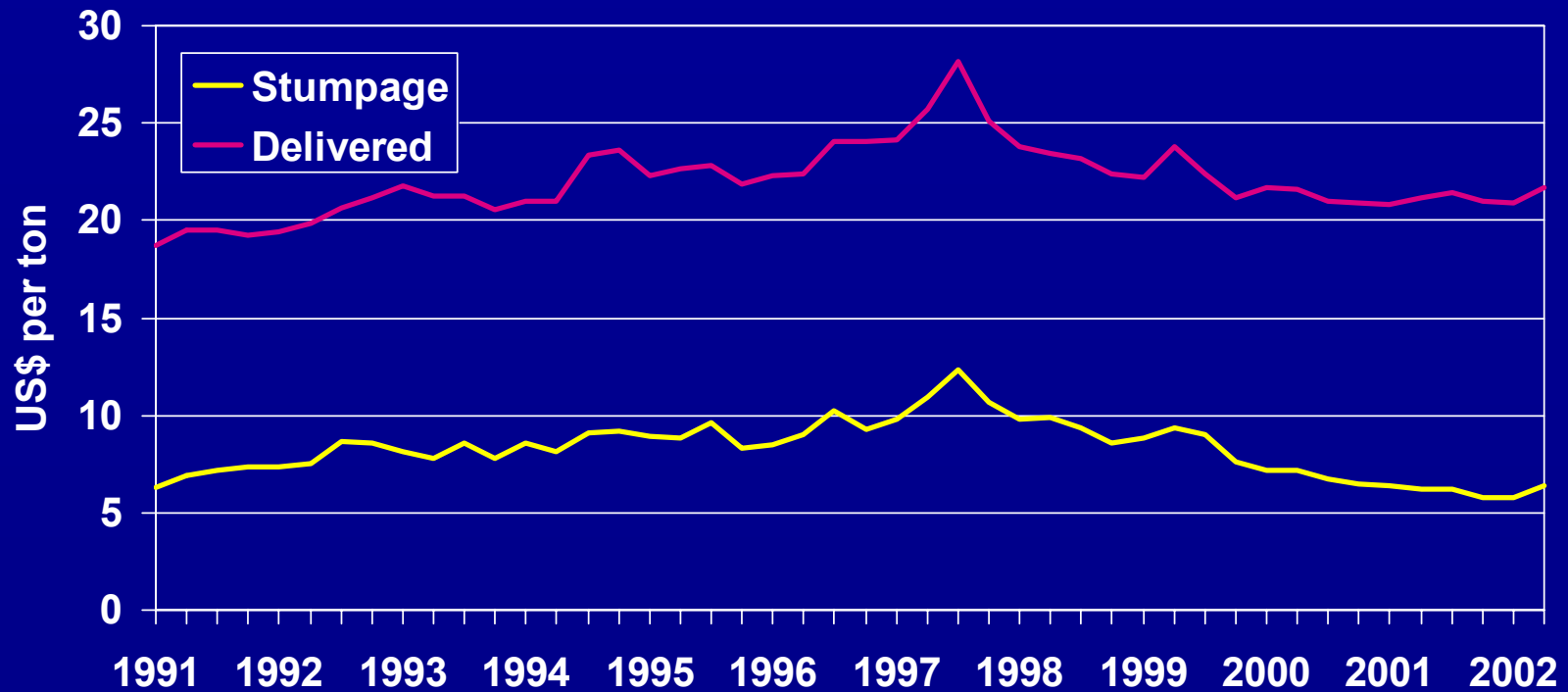
- In-Woods
 - > Mechanized logging
 - > Plantation management
- Pulpmills
 - > Better wood recovery
 - > Increased use of hardwoods & recycled fiber
- Solidwood
 - > Better wood recovery
 - > Introduction of SYP plywood & OSB

Southern Industry & Globalization Headlines

- Fiber prices
- Product prices
- Foreign exchange rate
- Technology
 - > Scale
 - > Age
 - > Efficiency
- What the industry does?
- Where are the opportunities?

South-wide Pine Pulpwood Prices

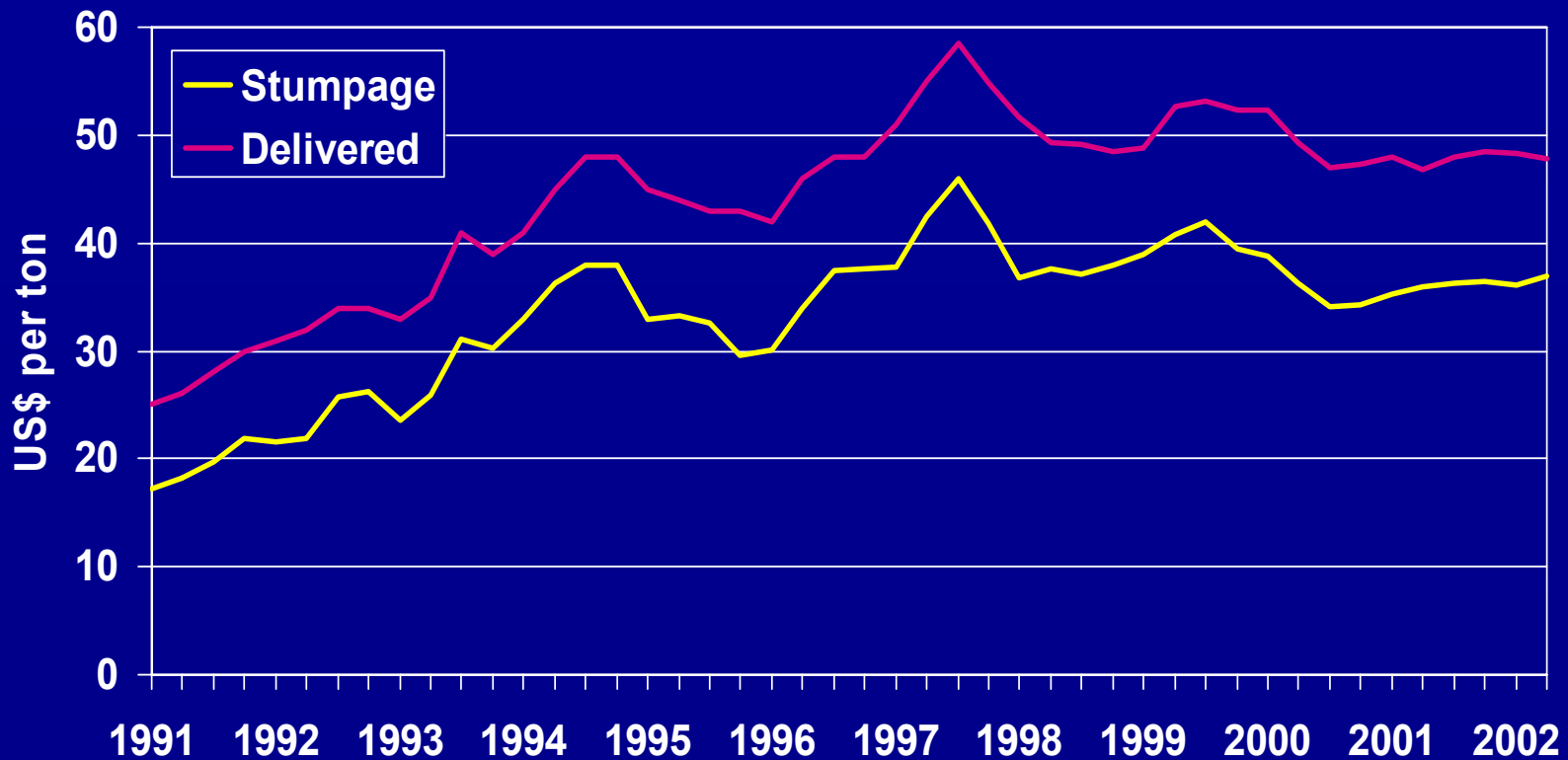
1991(III) to 2002(IV)



Source: TimberMart-South

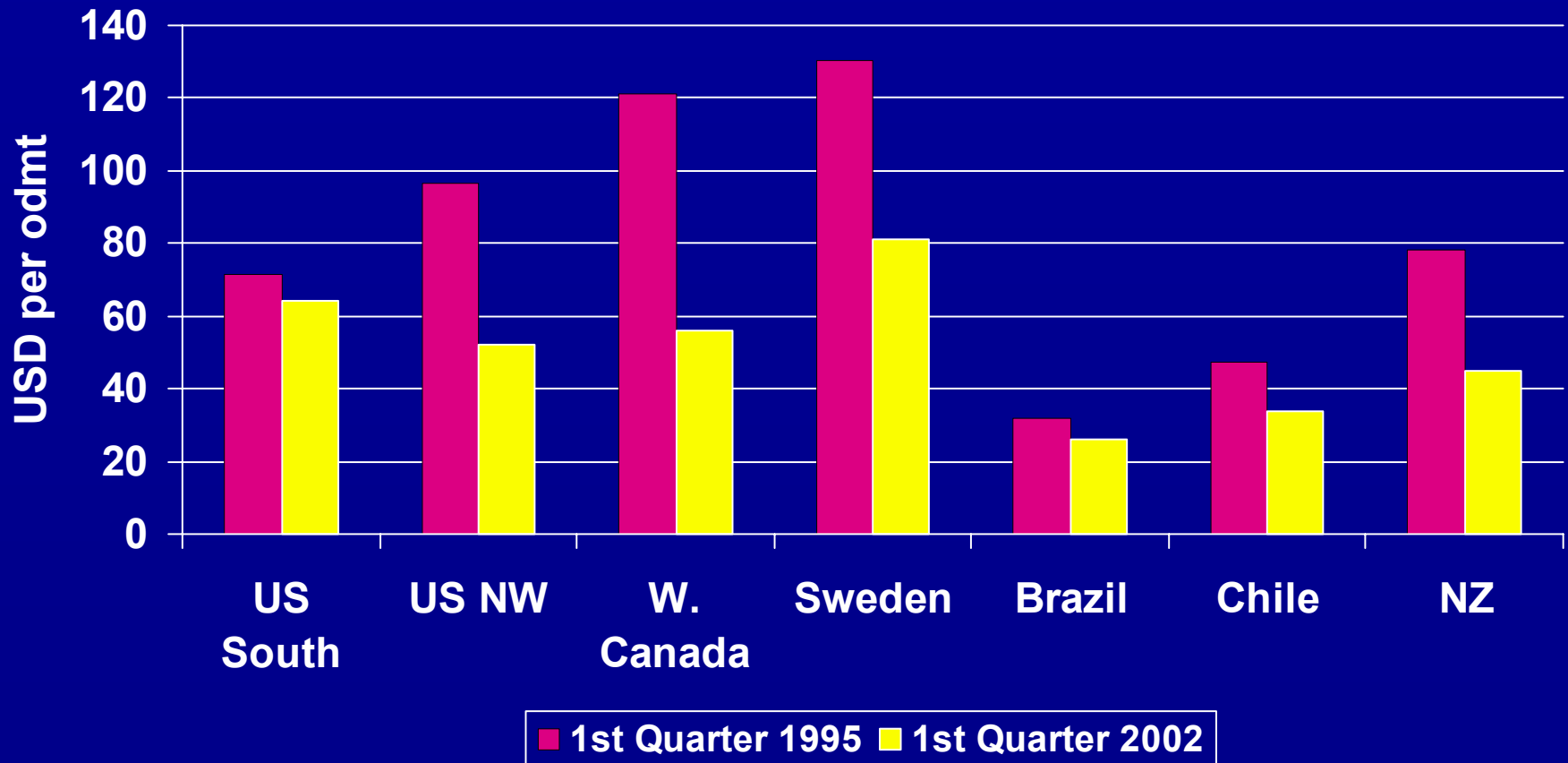
South-wide Pine Sawtimber Prices

1991(III) to 2002(IV)



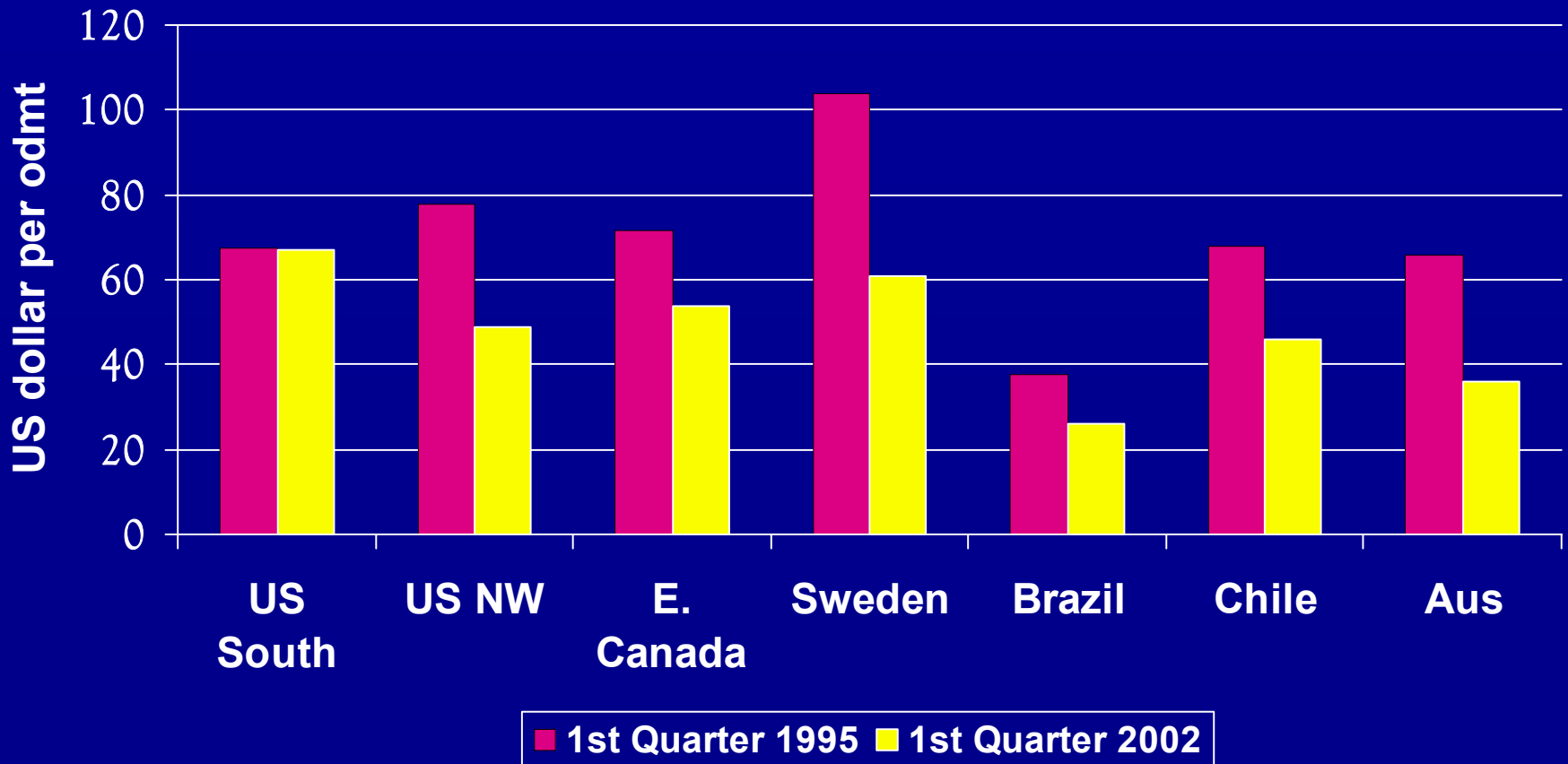
Source: TimberMart-South

Conifer Pulpwood Delivered Prices



Source: Wood Resources International

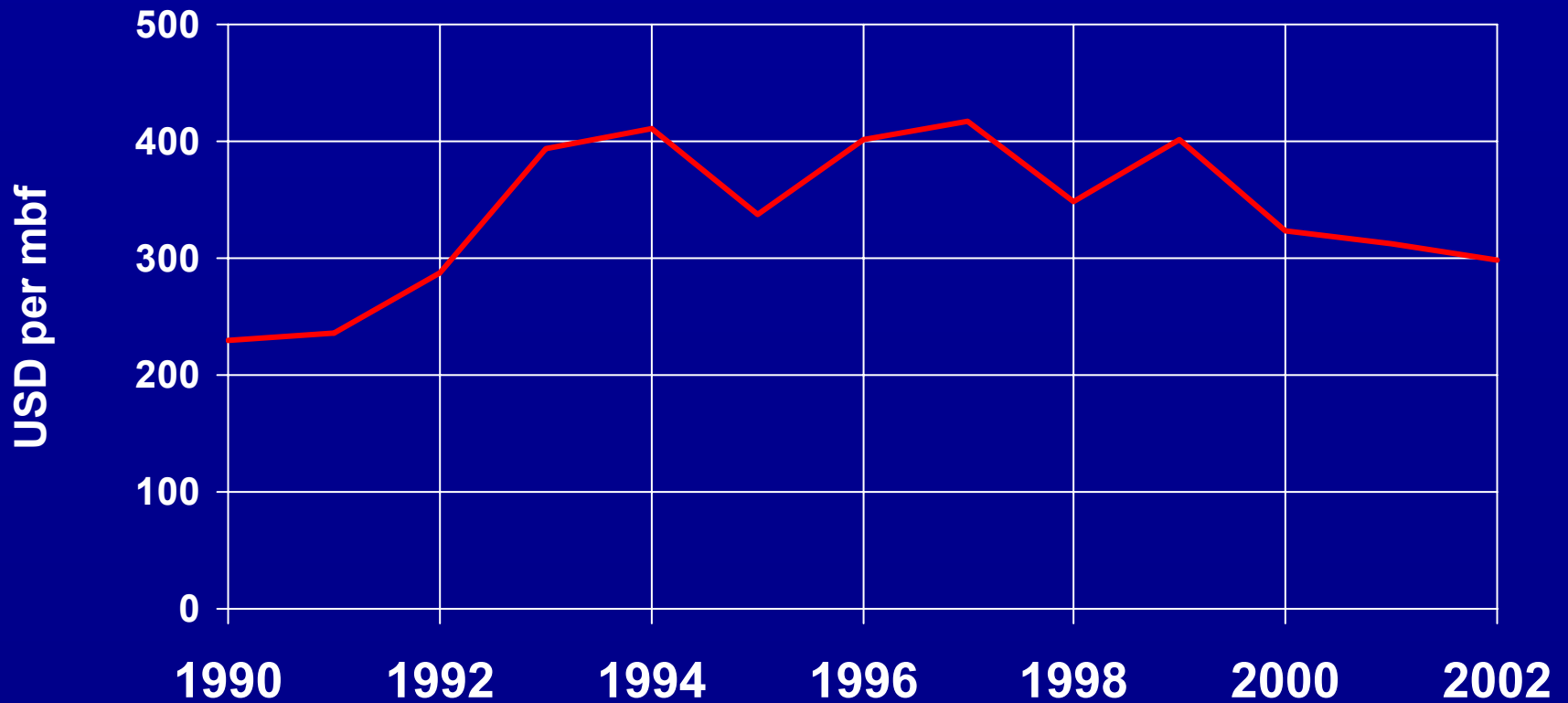
Non-Conifer Pulpwood Delivered Prices



Source: Wood Resources International

Annual SYP Lumber Prices

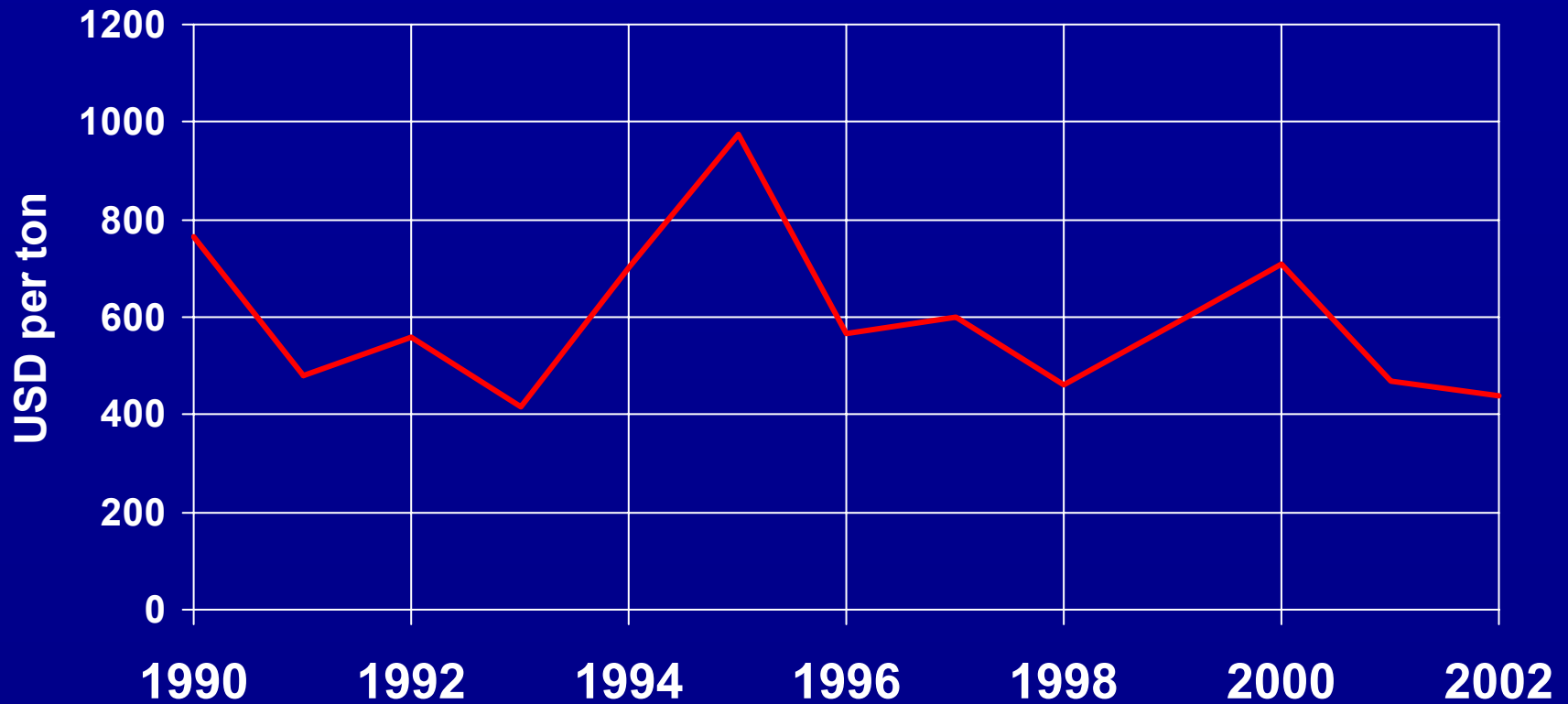
1990 through 2002



Source: Random Lengths

Annual NBSK Pulp Prices

1990 through 2002



Sources: 1990-2000 year end Pulp & Paper North American Factbook, 2001 & 2002 FOEX Ltd

Dollar Exchange Rate

- Competitors' currency inflation against the USD
 - > Brazil, Canada, Sweden
- Buyers' currency inflation against the USD
 - > Japan
- Good news: USD is finally down
- Bad news: US wood cost still high

Exchange Rates

Brazil to US



Source: U.S Federal Reserve Board

Exchange Rates

Canada to US



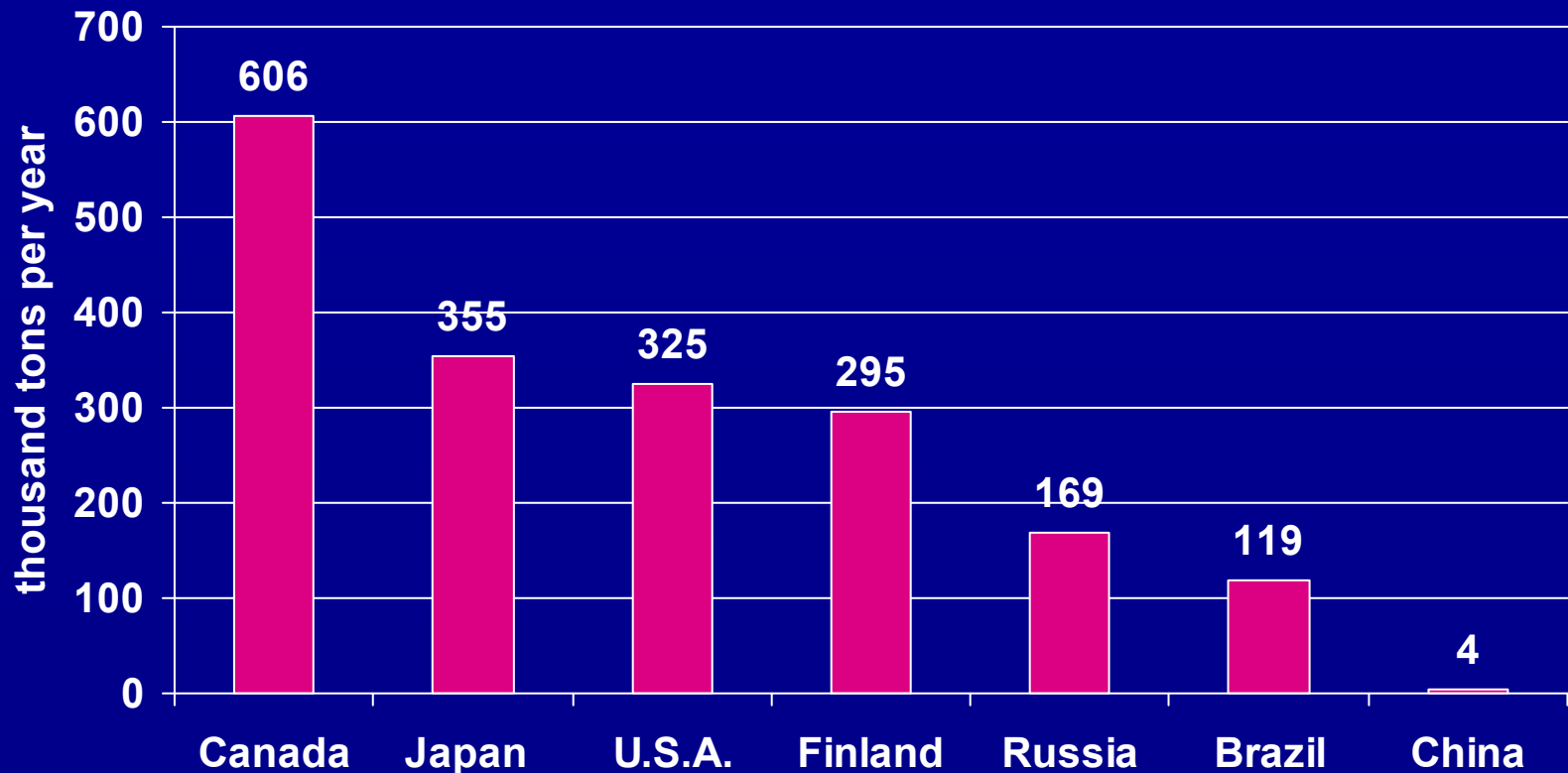
Source: U.S Federal Reserve Board

Southern Industry Responses

- Consolidation/Restructuring
 - > Timberland
 - > Mills
- Pulp and paper companies take downtime
 - > Over 30% of mills announced downtime
 - > 2 permanent mill closures
- Softwood sawmills take downtime
 - > 25% of mills announced downtime
 - > 12 permanent closures

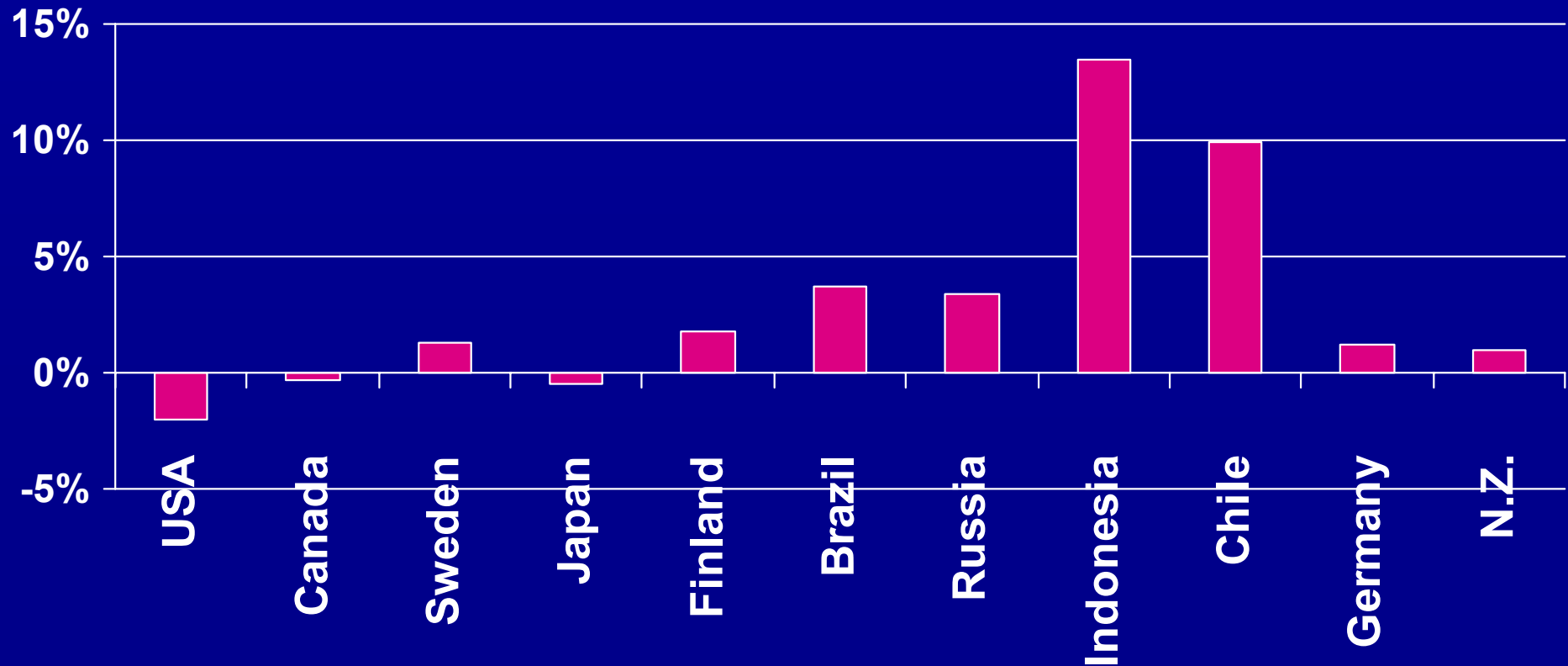
Average Pulpmill Capacity

By Major Country, 2001



Source: Pulp & Paper International

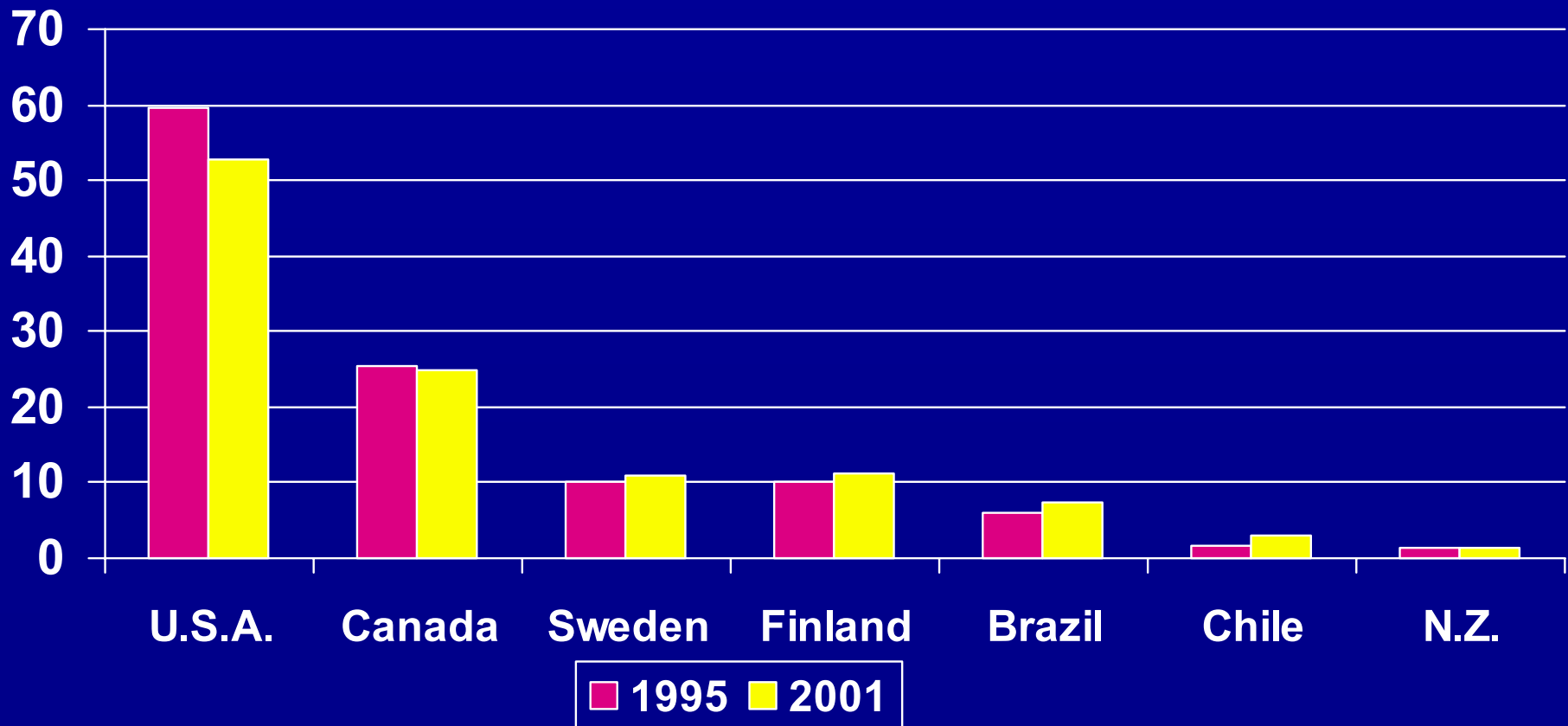
Annual Percent Change in World Pulp Production, 1995-2001



Source: Pulp & Paper International, Paperloop.com

World Pulp Production

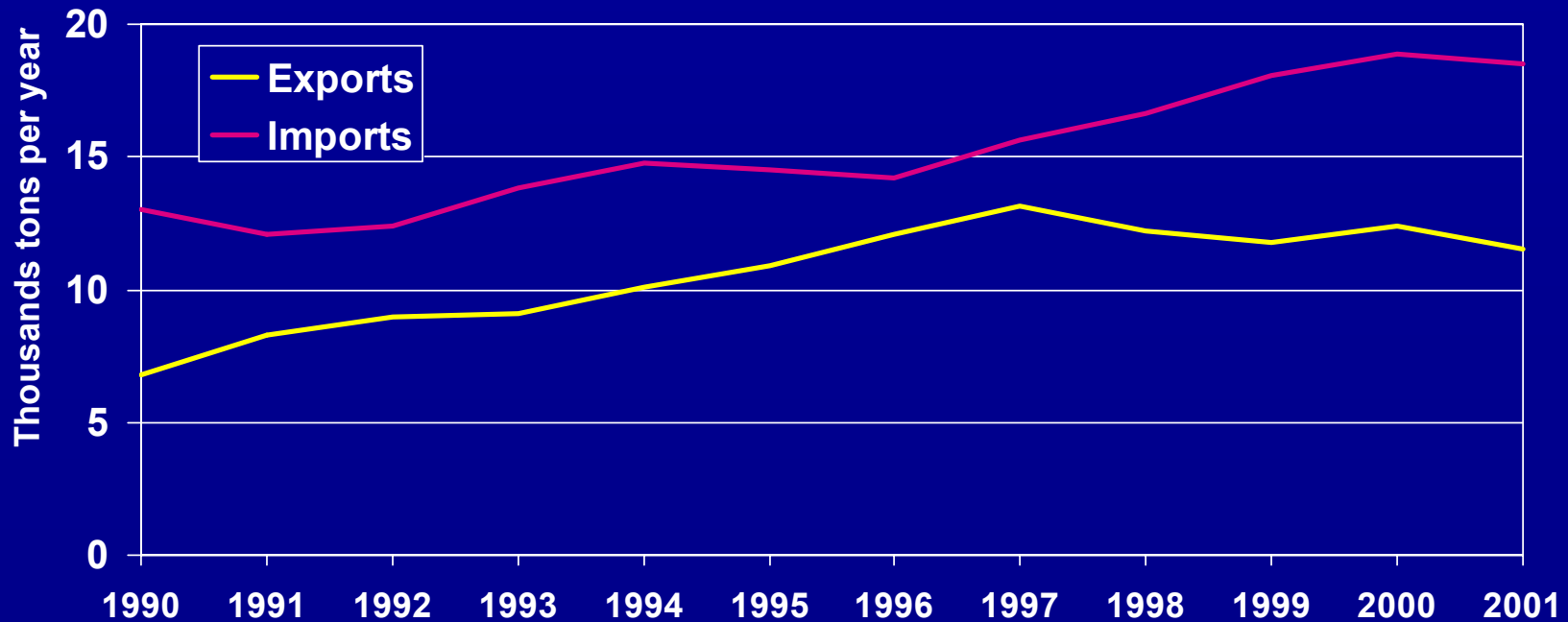
Million metric tons



Source: Pulp & Paper International, Paperloop.com

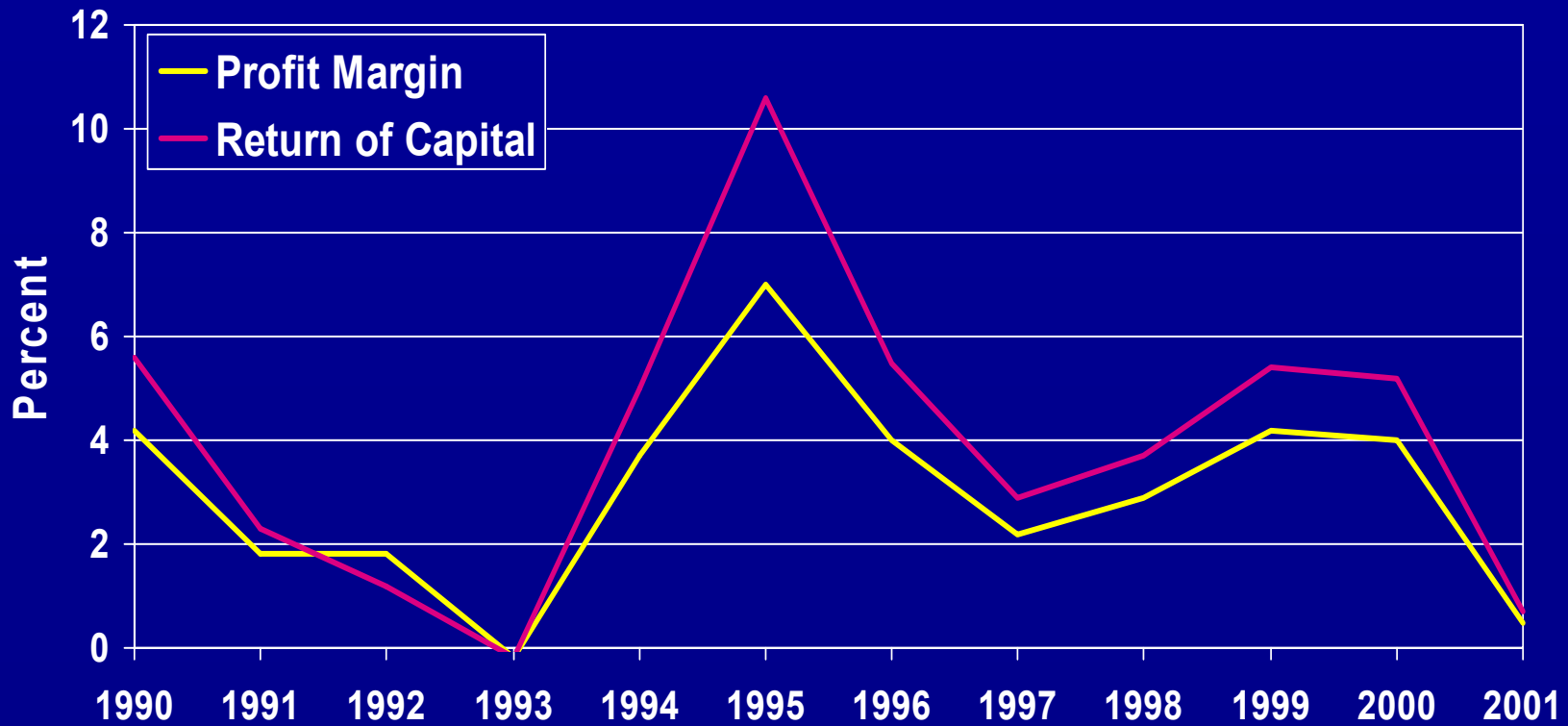
U.S. Paper & Board Exports & Imports

1990 to 2001



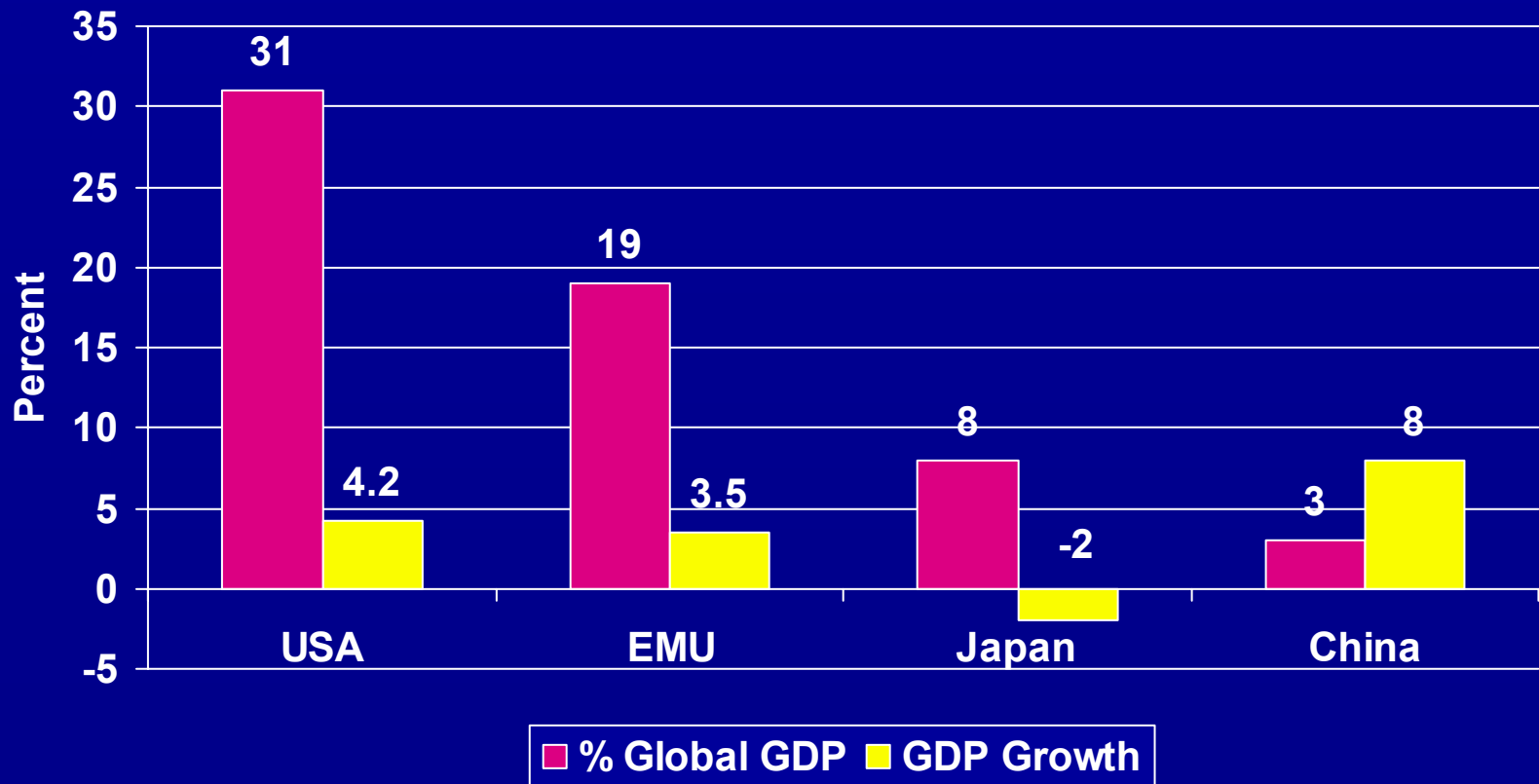
Source: Pulp & Paper NA Factbook

U.S. Paper Industry Financial Performance, 1990 to 2001



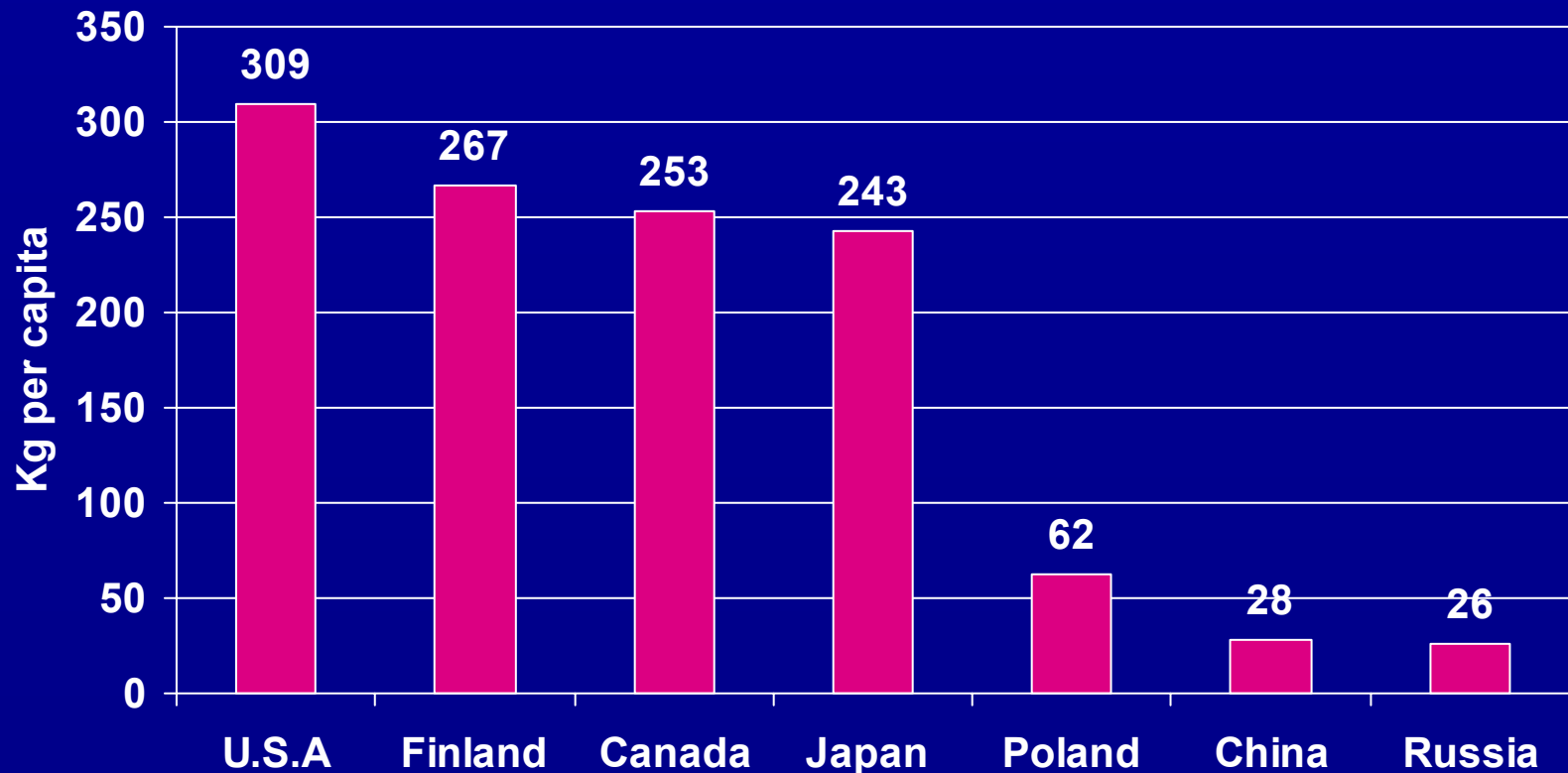
Source: Pulp & Paper NA Factbook

Global GDP, 2000



Source: World Bank

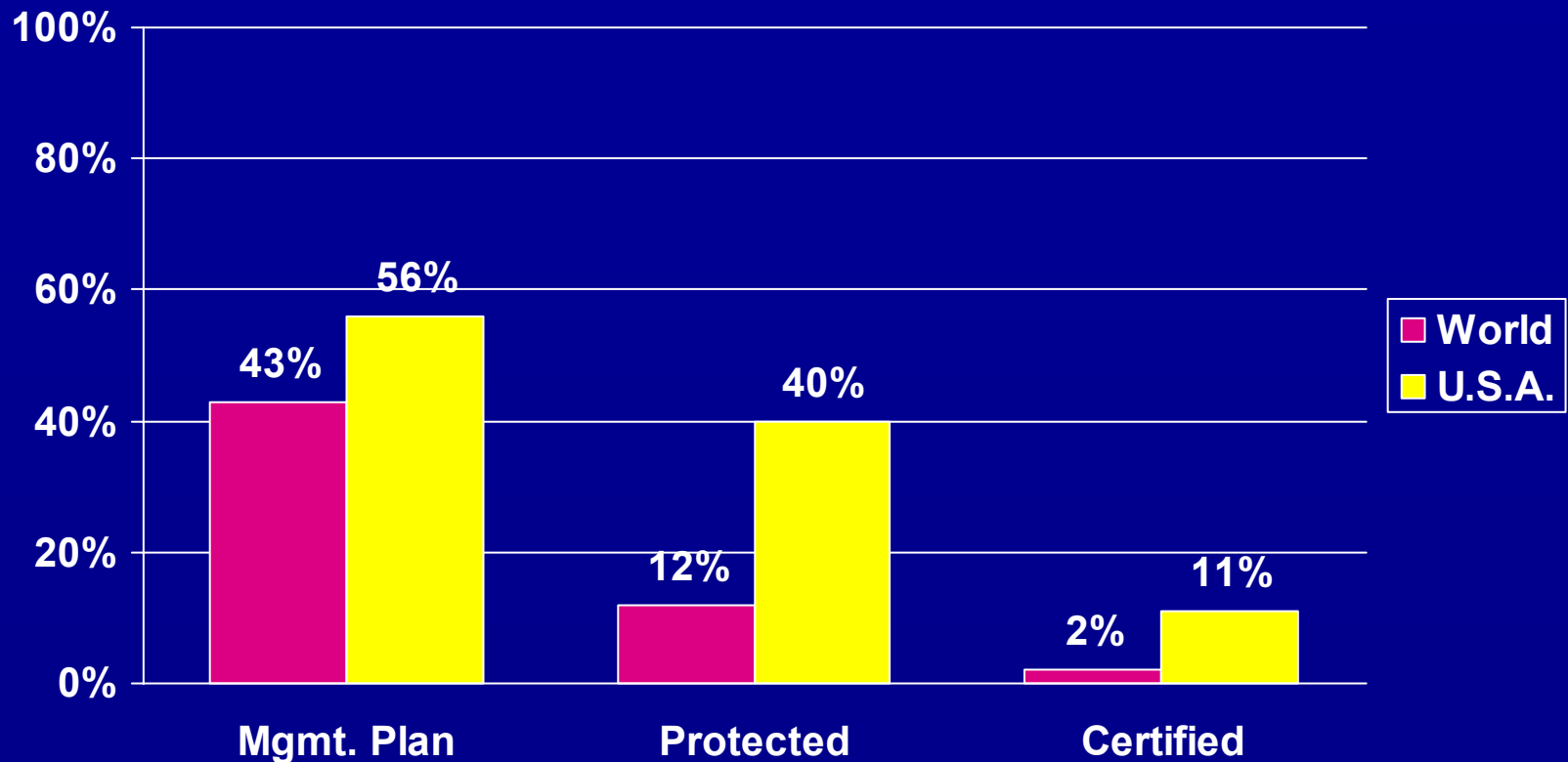
Paper and Paperboard Consumption 2001



Source: Pulp & Paper International

Environmental Issues

Forest Management Indicators U.S.A. vs. World



Source: Smith et al. 2002, FAO, FRA 2000

Environmental Spending

Pulp & Paper Industry, 2001

- Capital expenses \$612 million
 - > Water quality protection 32%
 - > Air quality protection 54%
 - > Solid waste management 14%
- Capital spending for environmental protection 12% of the industry's expenditures

Conclusion

- The U.S. South continues to be a strong wood fiber and processing region
 - > Good competitive position
 - > Sufficient fiber supply
- Fiber and processing costs under pressure
- Good environmental standards--some priced in
- Exchange rates will continue to fluctuate
- Global competition will intensify
- Future looks promising if
 - > Productivity increased
 - > Costs reduced