Forest Products Market Interactions

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Major information sources

- UNECE/FAO TIMBER database on forest products
- FAOSTAT database on forest products
- UNECE Timber Committee market forecasts
- UNECE/FAO *Forest products annual market review, 2004-2005*
- *Global Forest Products Model*, by Buongiorno, et al.
- UNECE/FAO *European Forest Sector Outlook Study*
- FAO *State of the World's Forests, 2005*
- UN Comtrade analysis by European Forest Institute

I. Forest products markets

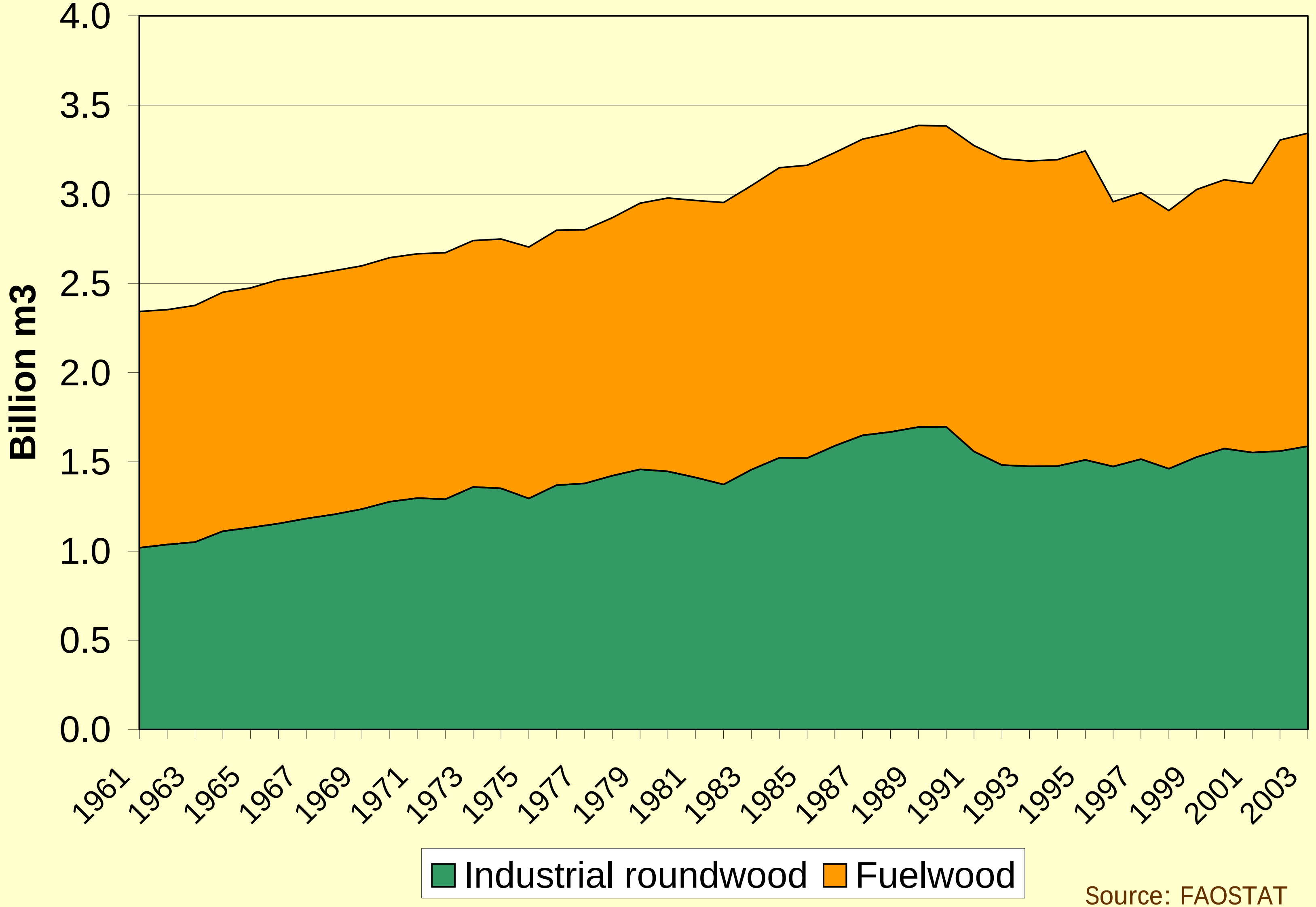
Sectoral analysis: Logs

UNECE/FAO definitions:

• “Roundwood” is industrial roundwood + fuelwood

• “Industrial roundwood” as sawlogs, veneer logs, pulp logs and other industrial roundwood

World production of roundwood, 1961-2003

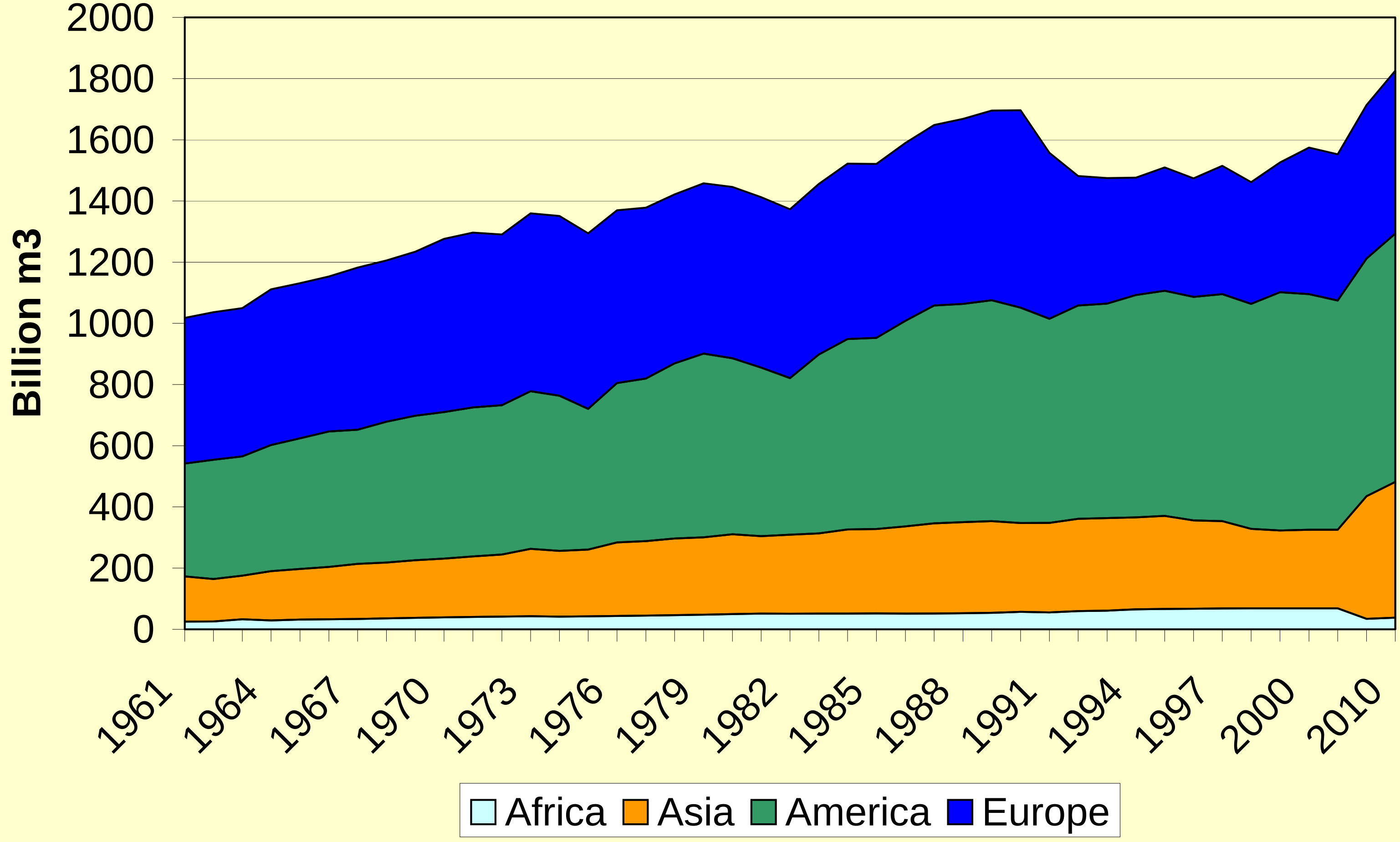


Source: FAOSTAT

World roundwood utilization as fuel

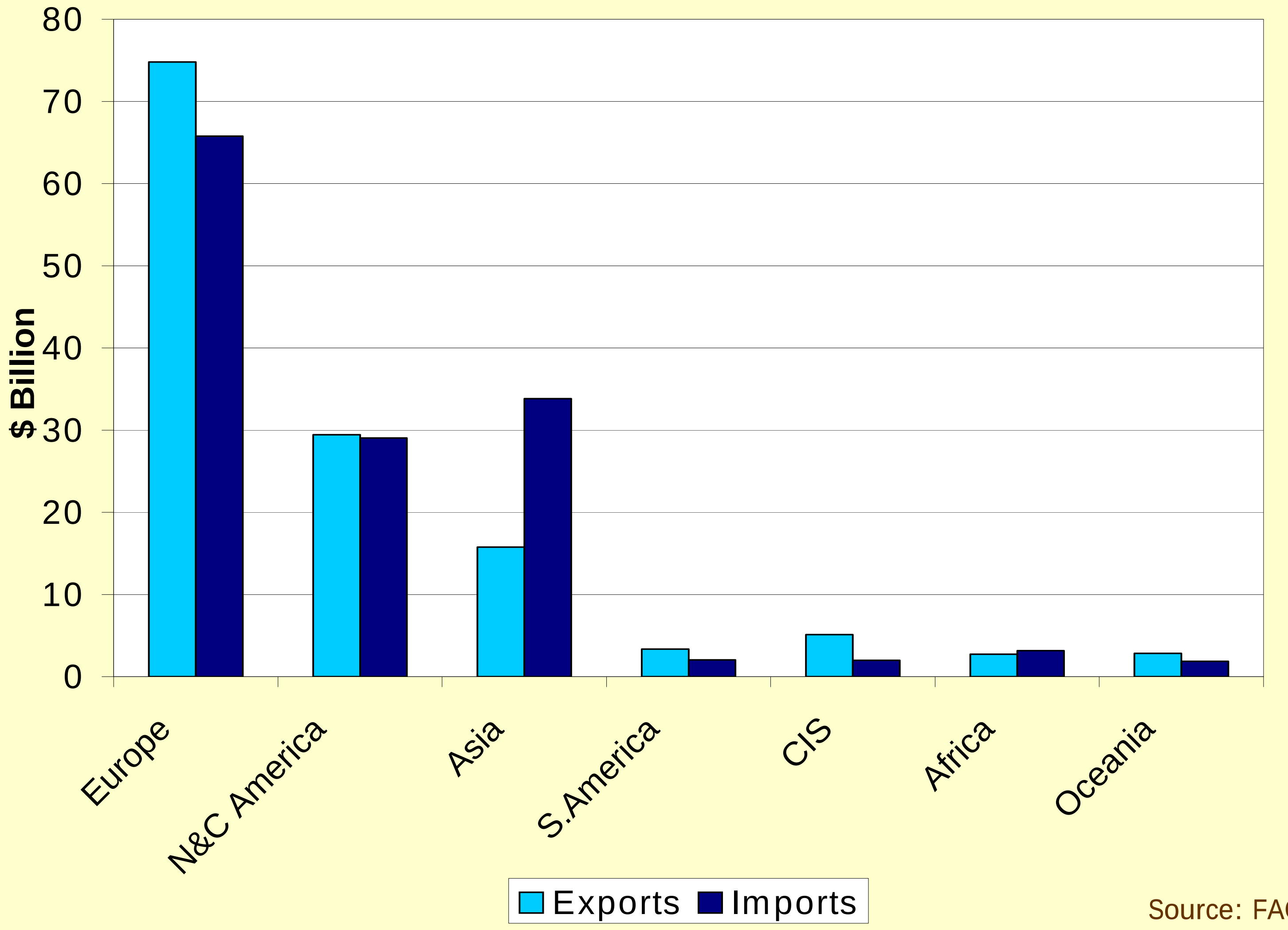
- Over half used as fuel
  - Domestic heating
  - Cooking
- Mostly in developing countries
- Low value
- Modern wood energy
  - Small international trade
  - Growing market
  - Policy push in Europe

Regional production of industrial roundwood, 1961-2010



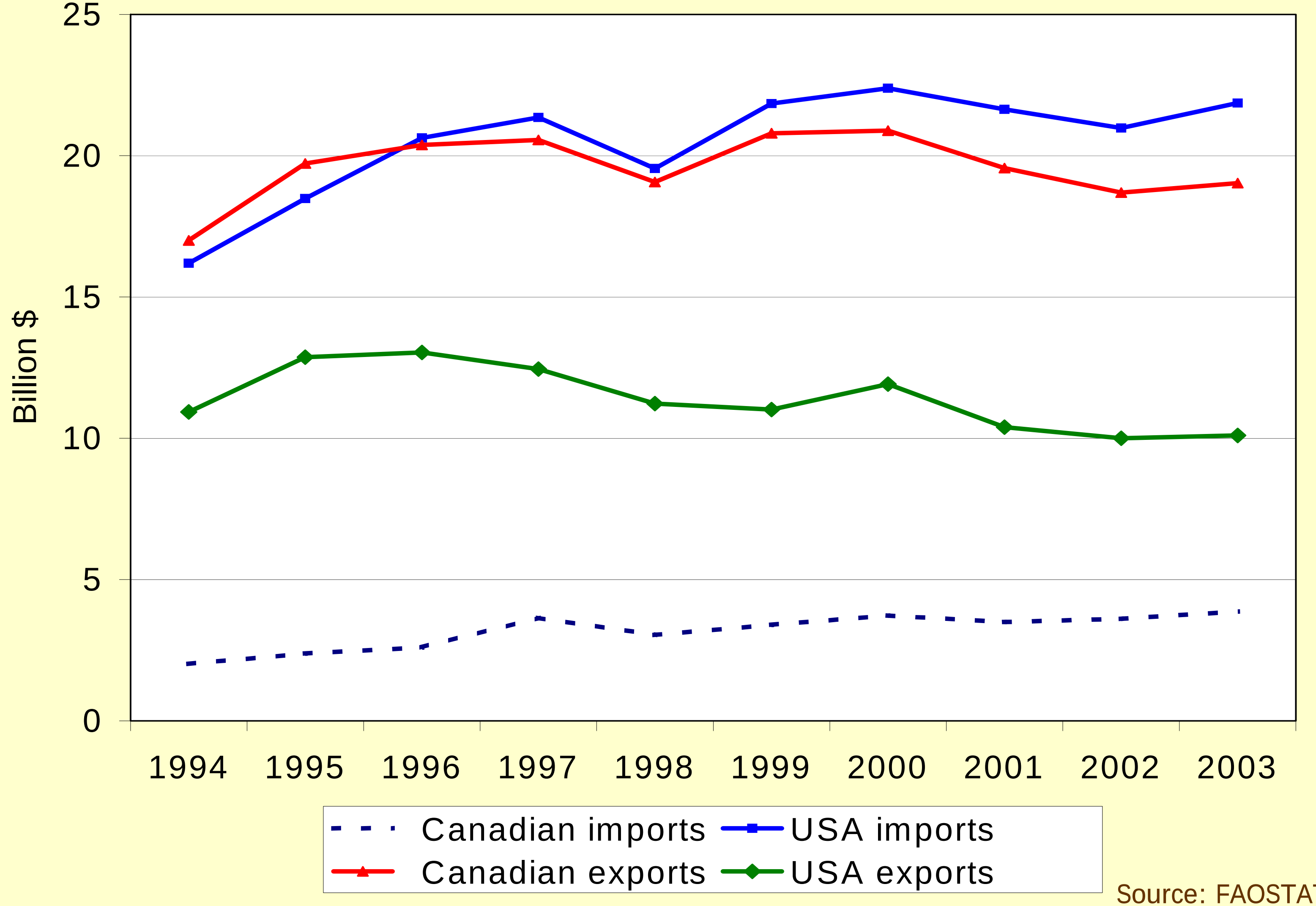
Source: FAOSTAT and FAO Global Forest Products Outlook Study

Regional trade, all primary forest products, 2003



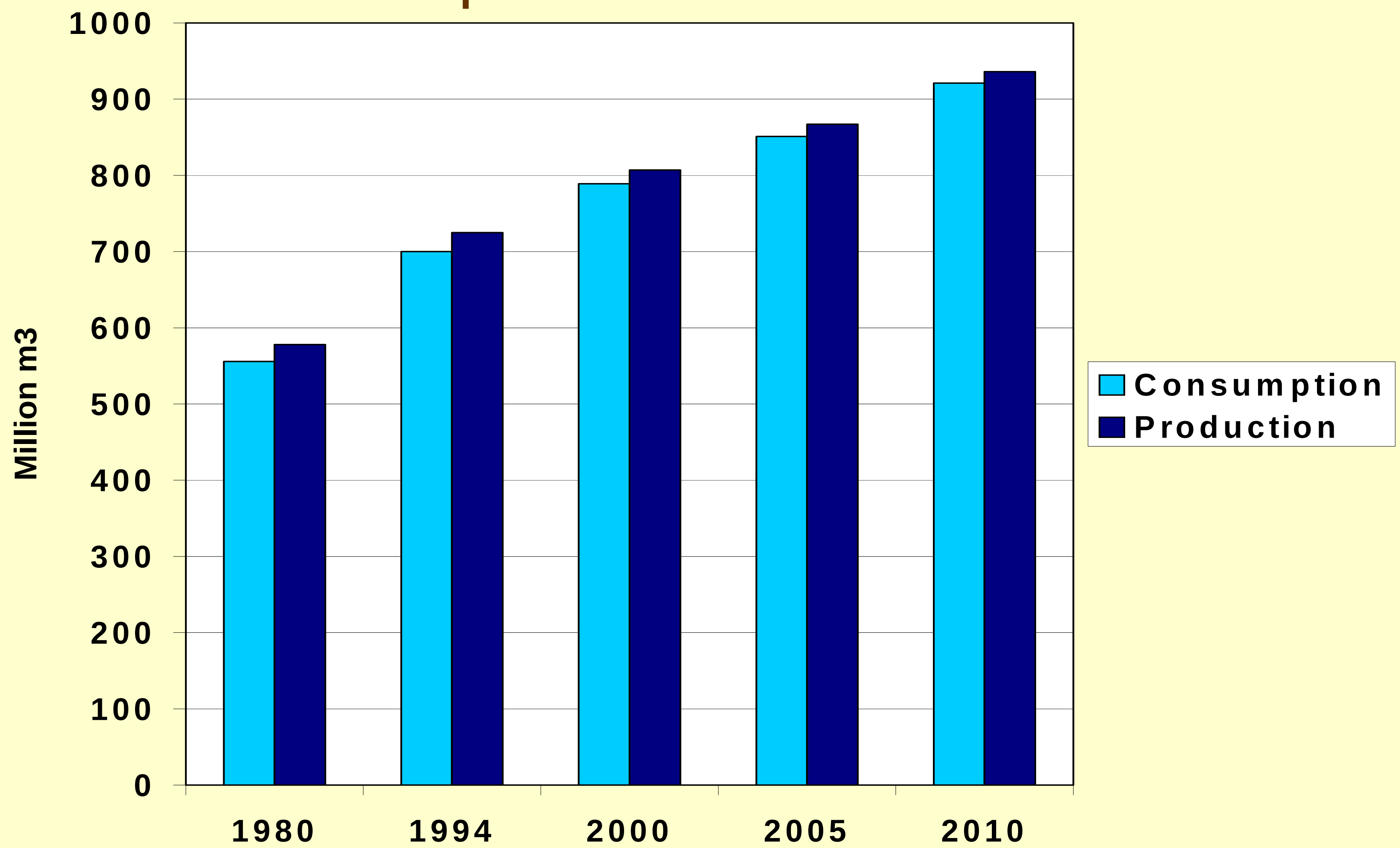
Source: FAOSTAT

North American trade, all primary forest products, 1994-2003



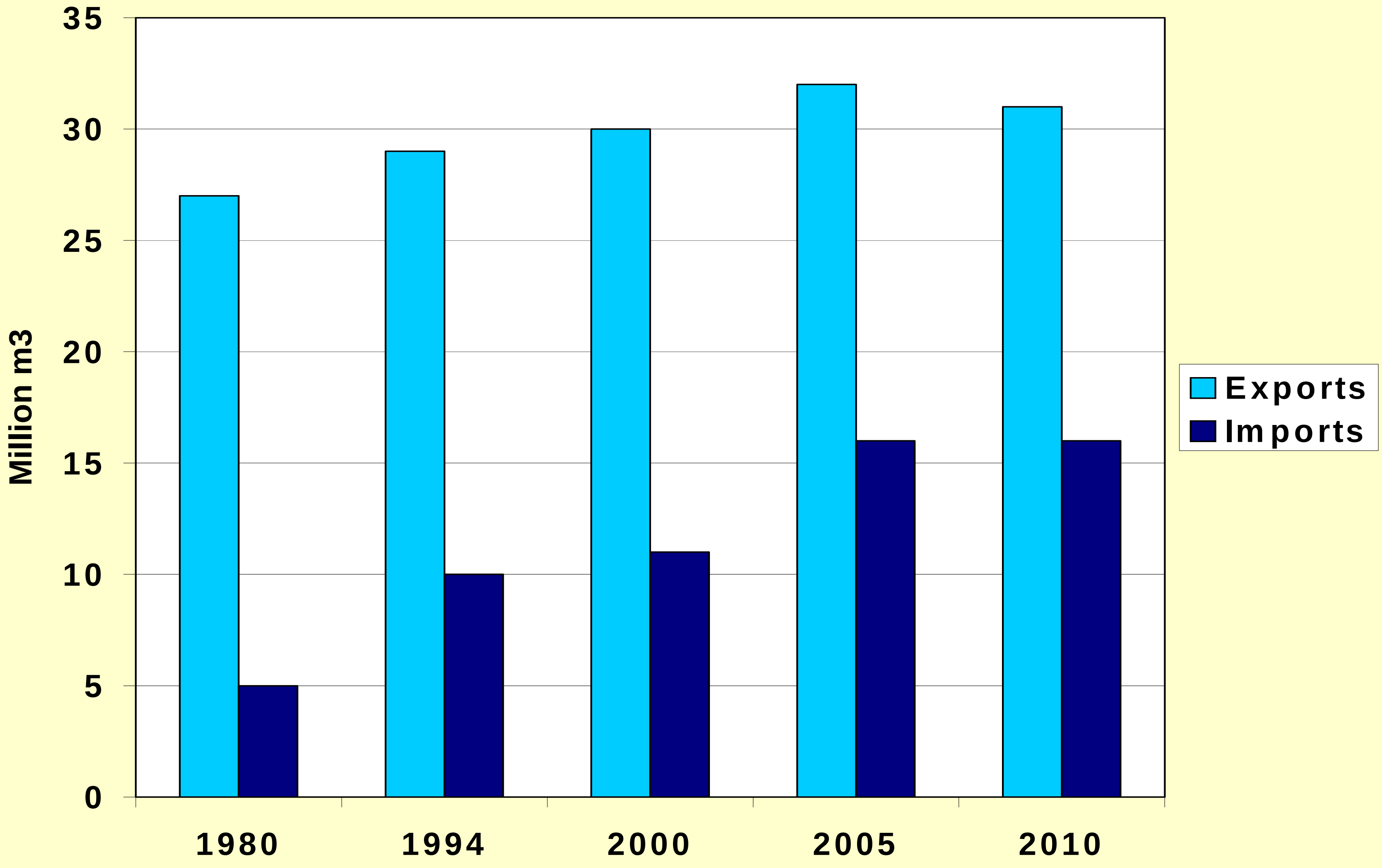
Source: FAOSTAT

American industrial roundwood consumption and production to 2010



Source: *Global Forest Products Model, 2003*

American industrial roundwood trade to 2010



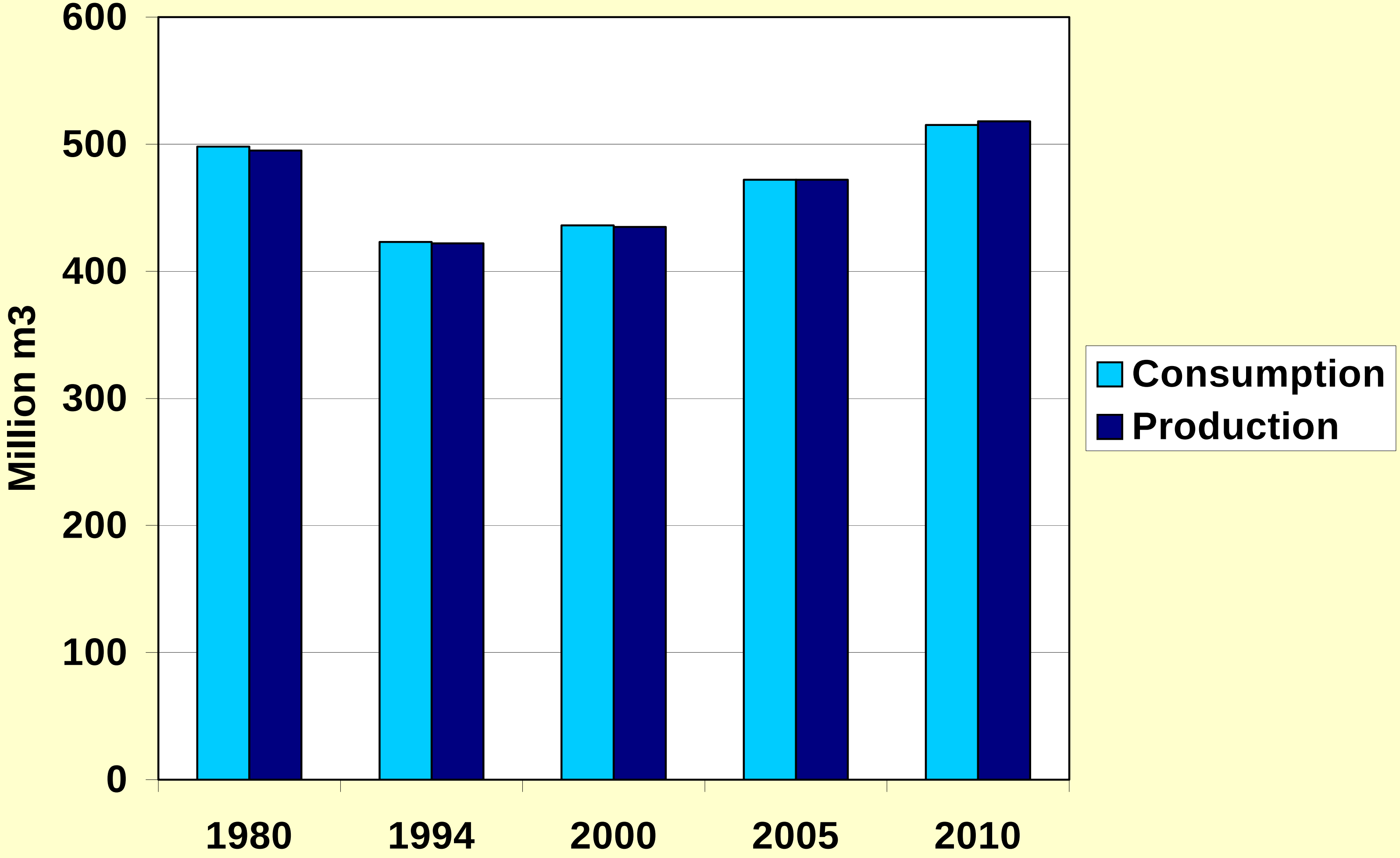
Source: *Global Forest Products Model, 2003*

Factors affecting models *and markets*

- Gross domestic product (GDP)
- Population
- Costs and prices (labor, raw material, etc.)
- Technological change
- Government policies
- Socio-economic trends

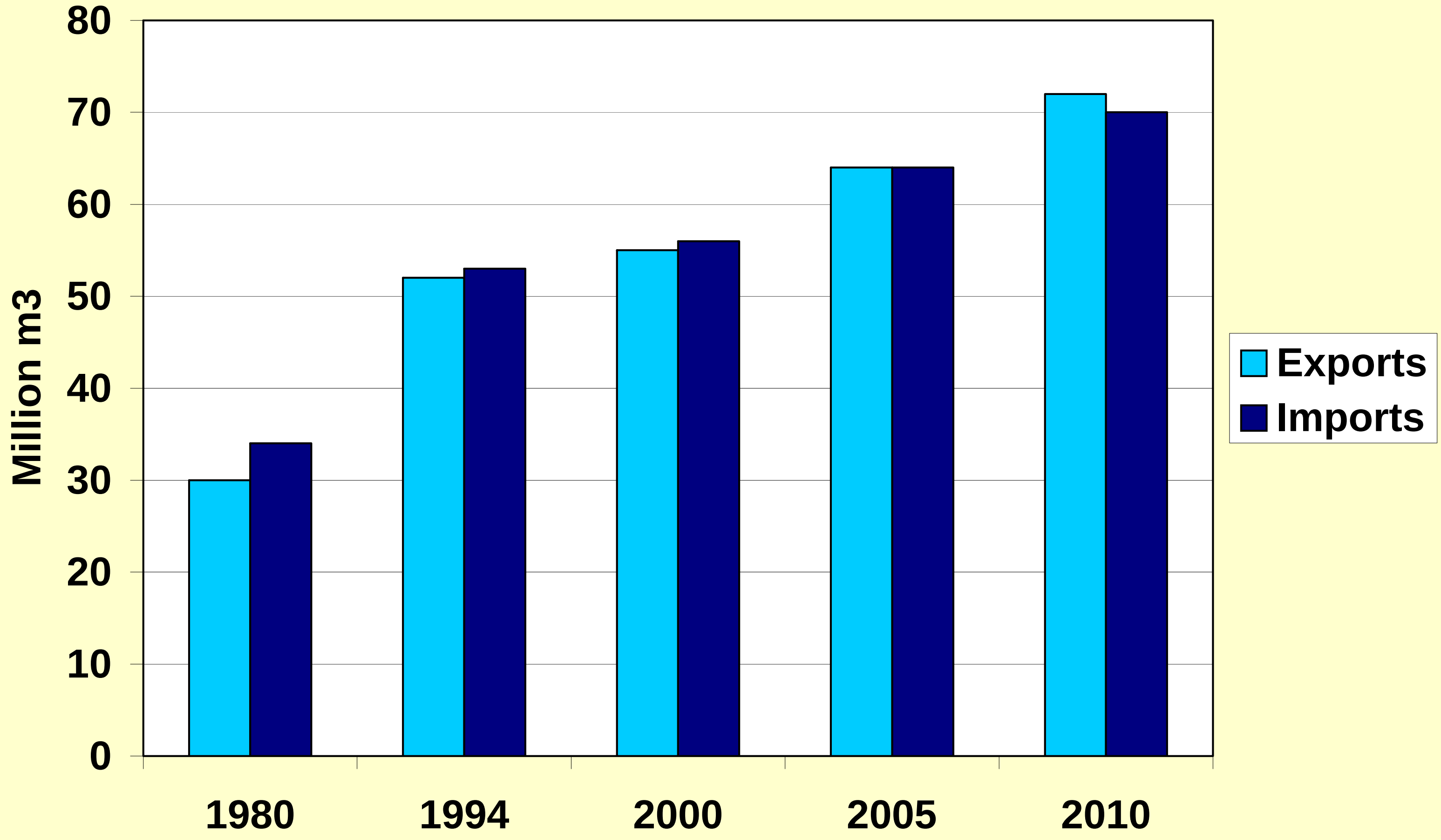
Source: FAO *Global Forest Products Consumption, Production, Trade and Prices: Global Forest Products Model Projections to 2010.* By Zhu, S; Tomberlin, D; Buongiorno, J., 1998

European industrial roundwood consumption and production to 2010



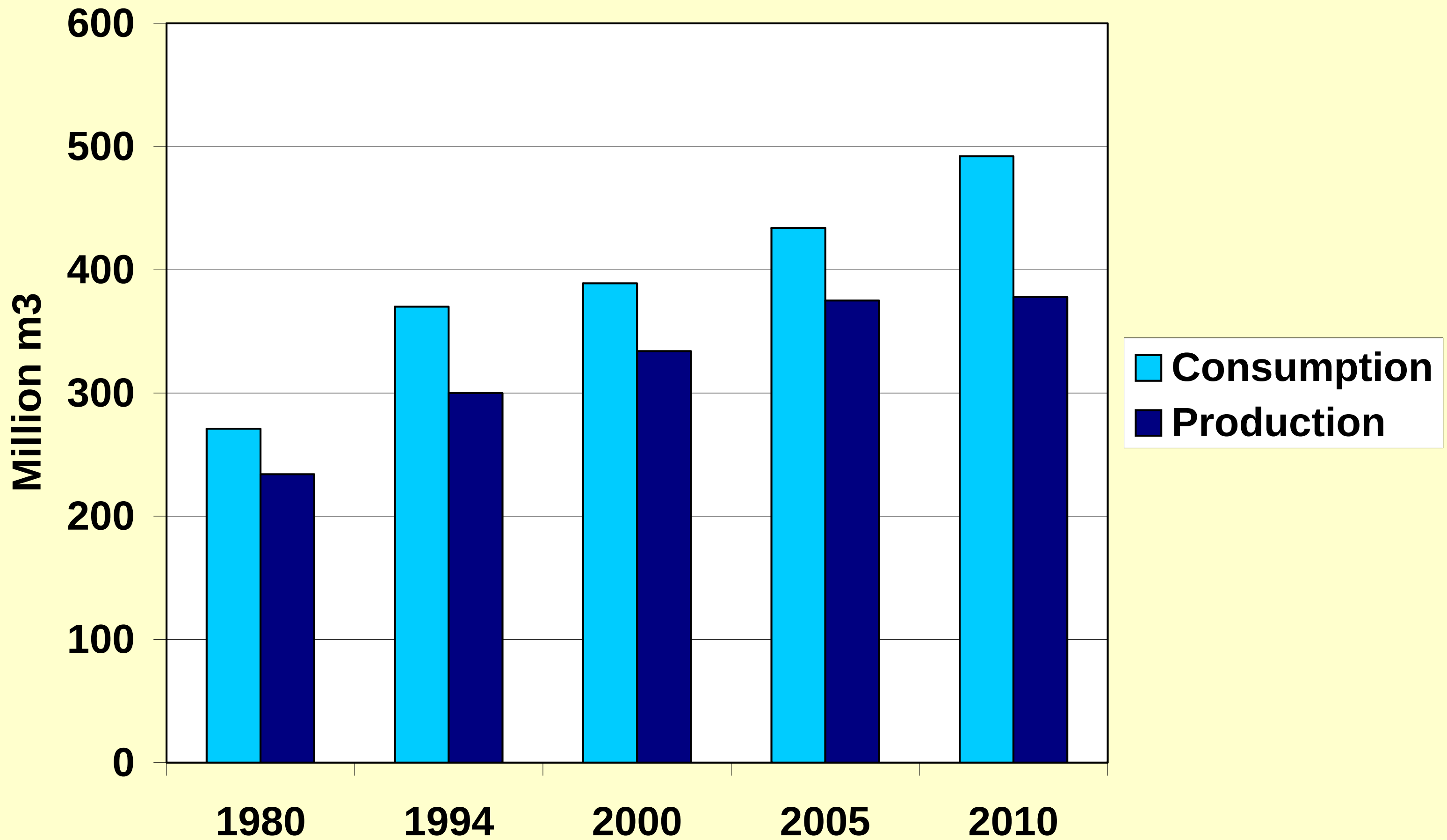
Source: *Global Forest Products Model, 2003*

European industrial roundwood trade to 2010



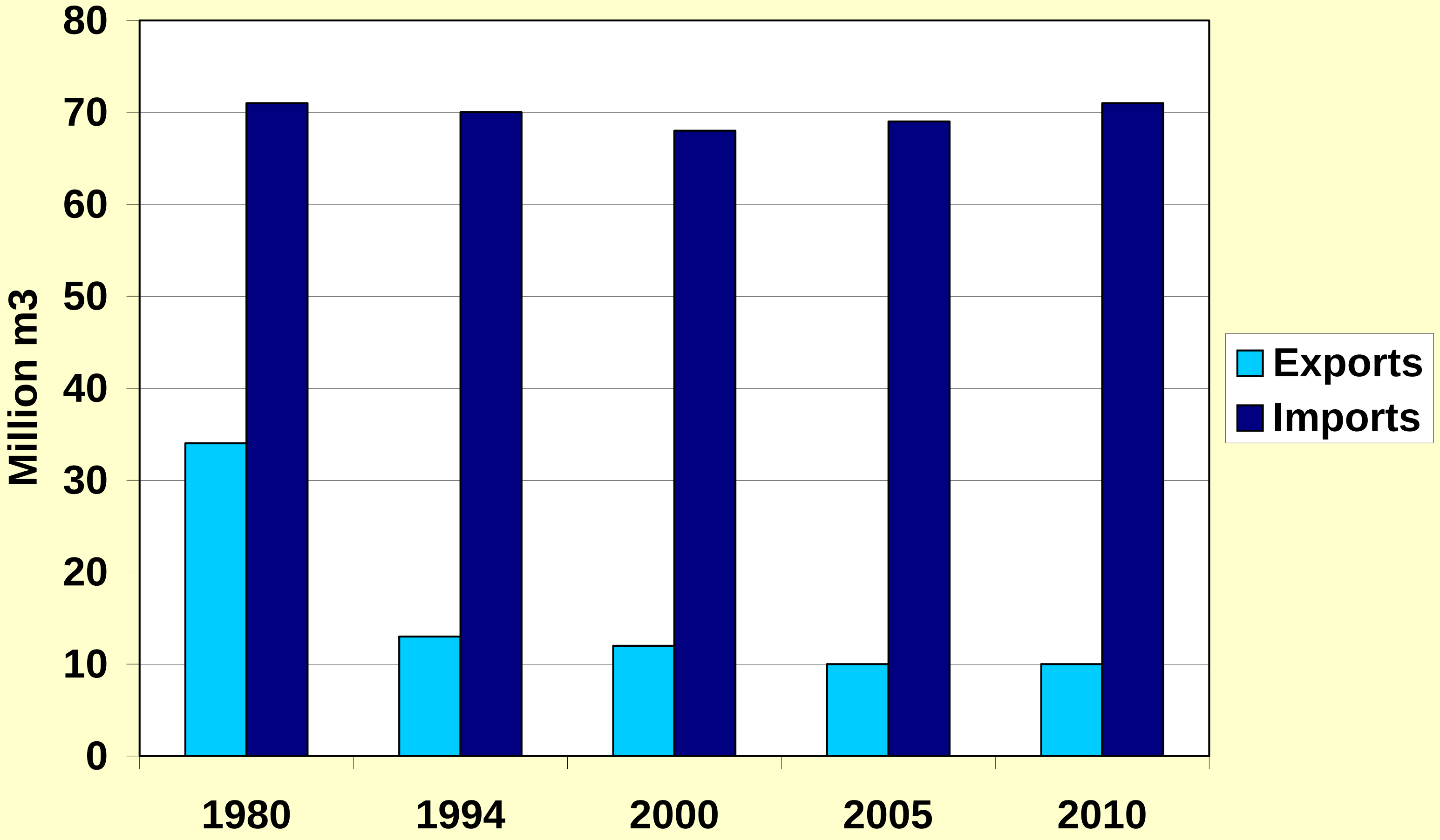
Source: *Global Forest Products Model, 2003*

Asian industrial roundwood consumption & production to 2010



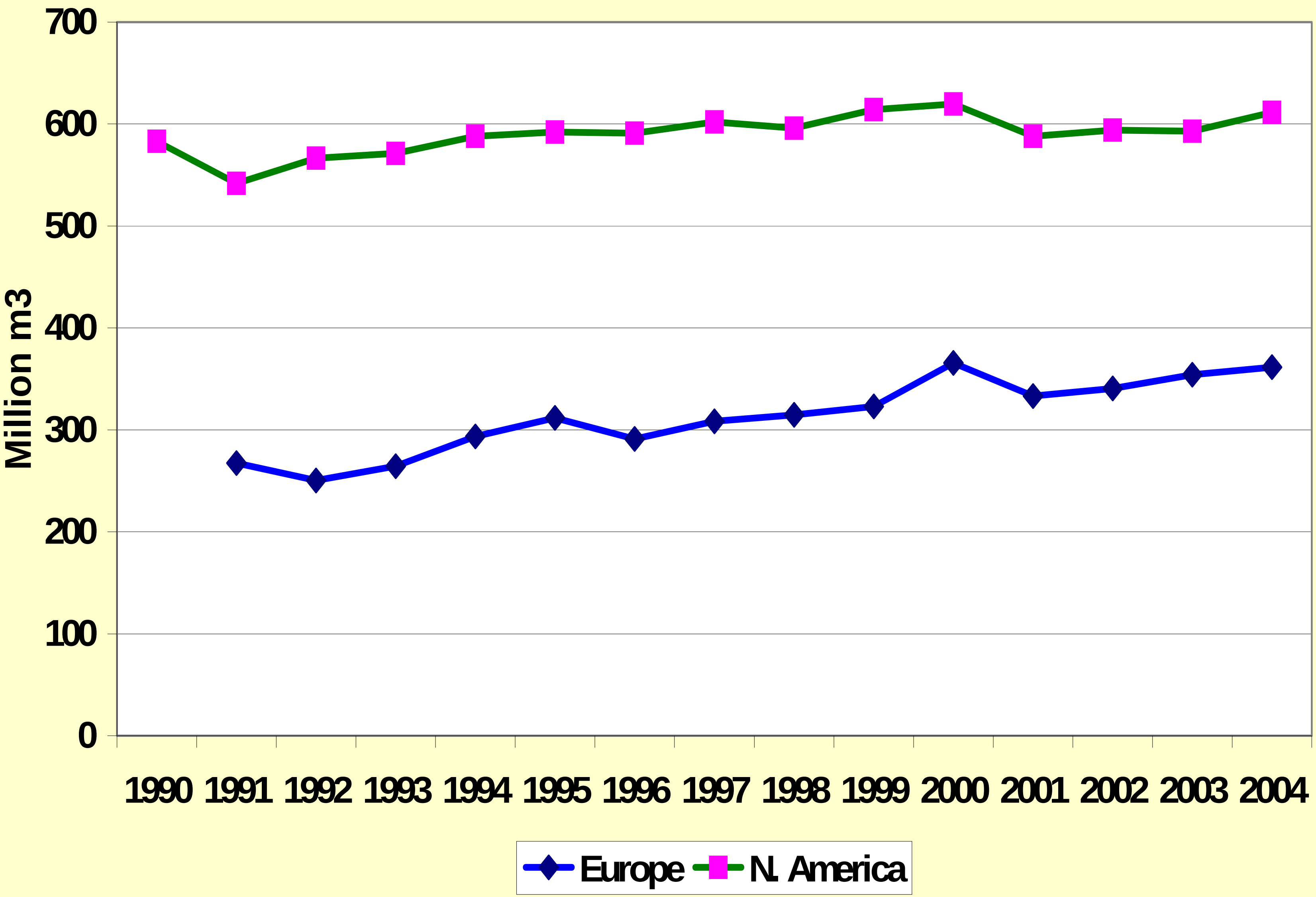
Source: *Global Forest Products Model, 2003*

Asian industrial roundwood trade to 2010

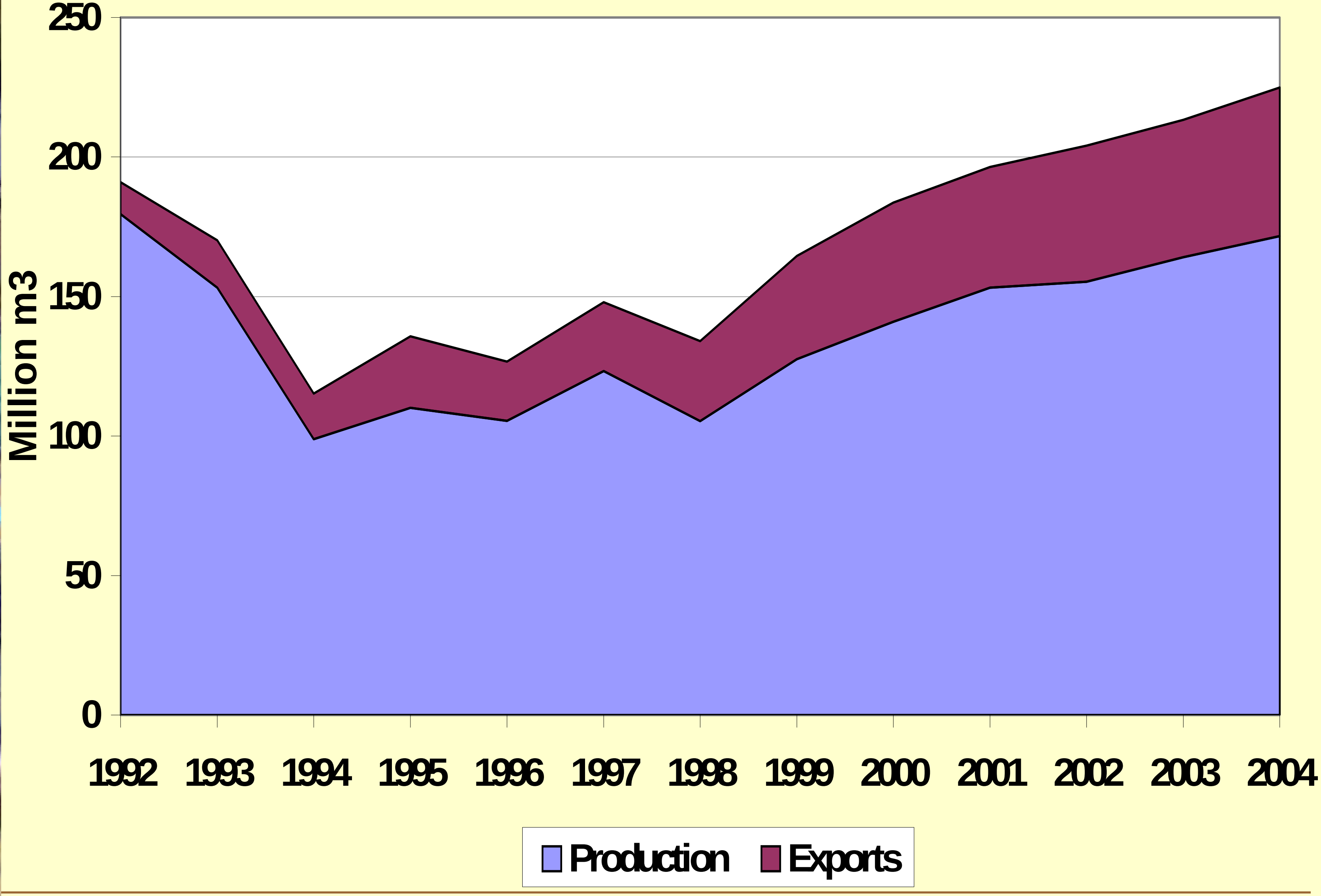


Source: *Global Forest Products Model, 2003*

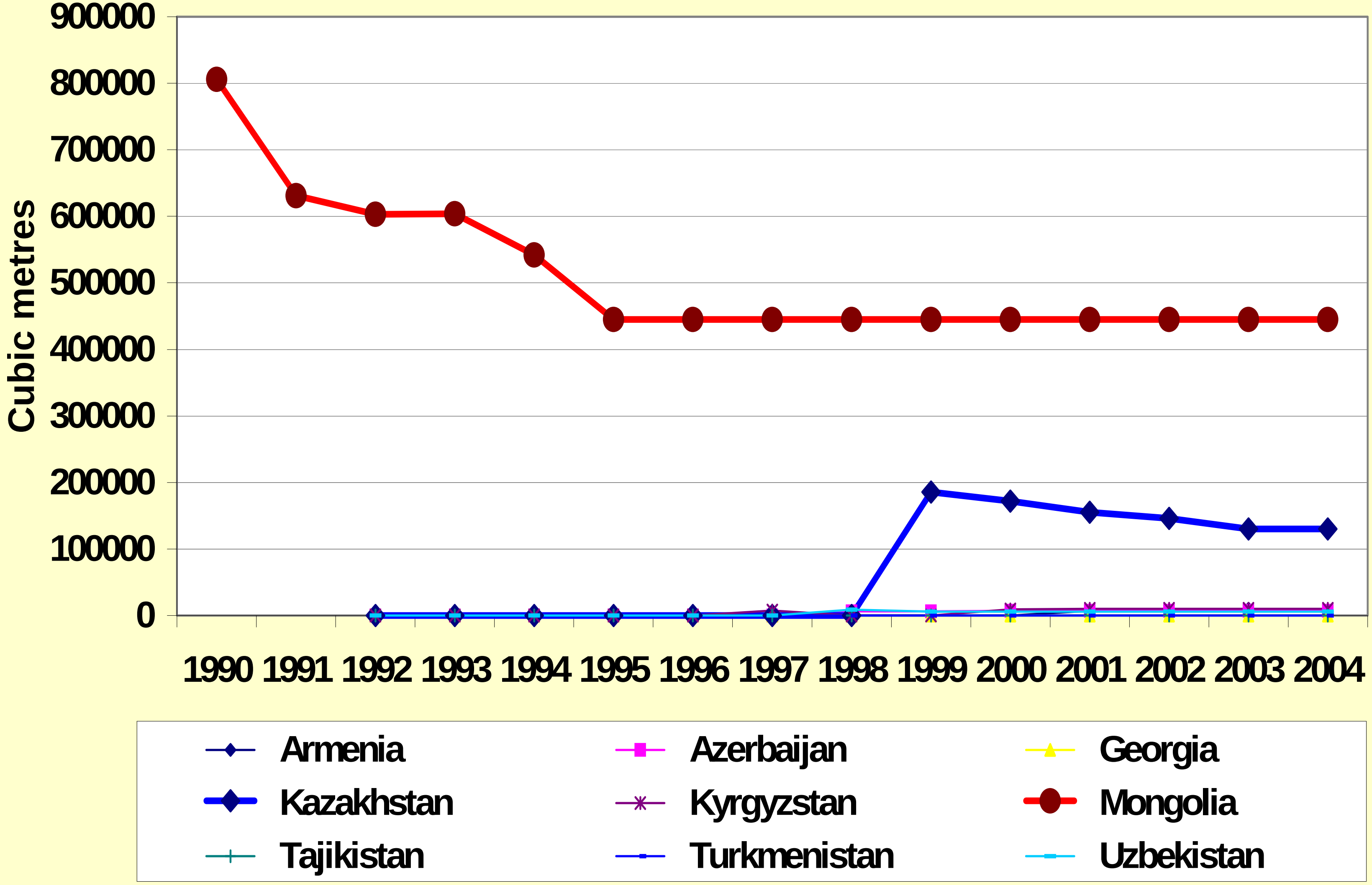
Industrial Roundwood Production, 1990-2004

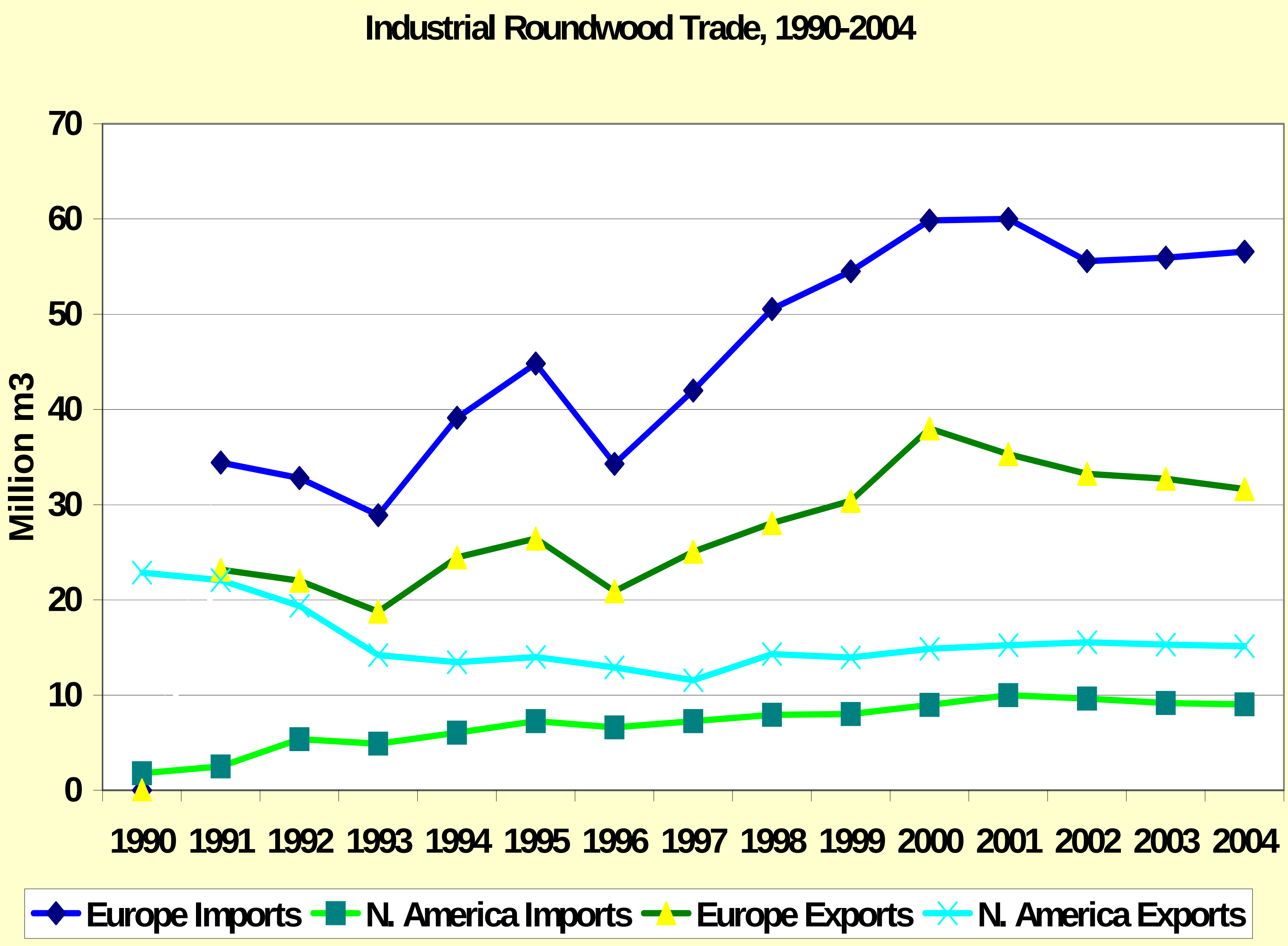


Industrial Roundwood Production and Exports from Former USSR, 1992-2004

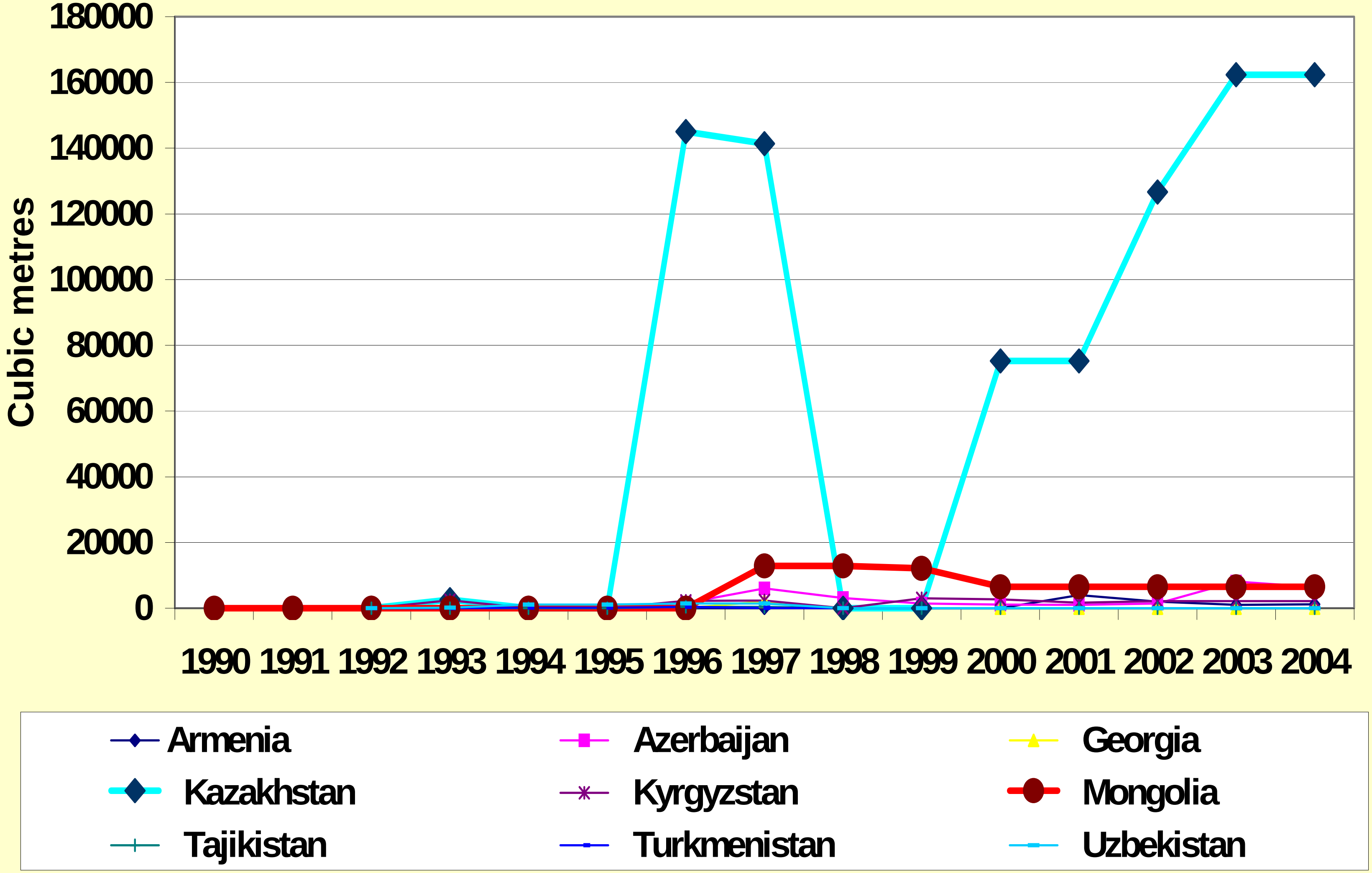


Industrial Roundwood Production, 1990-2004

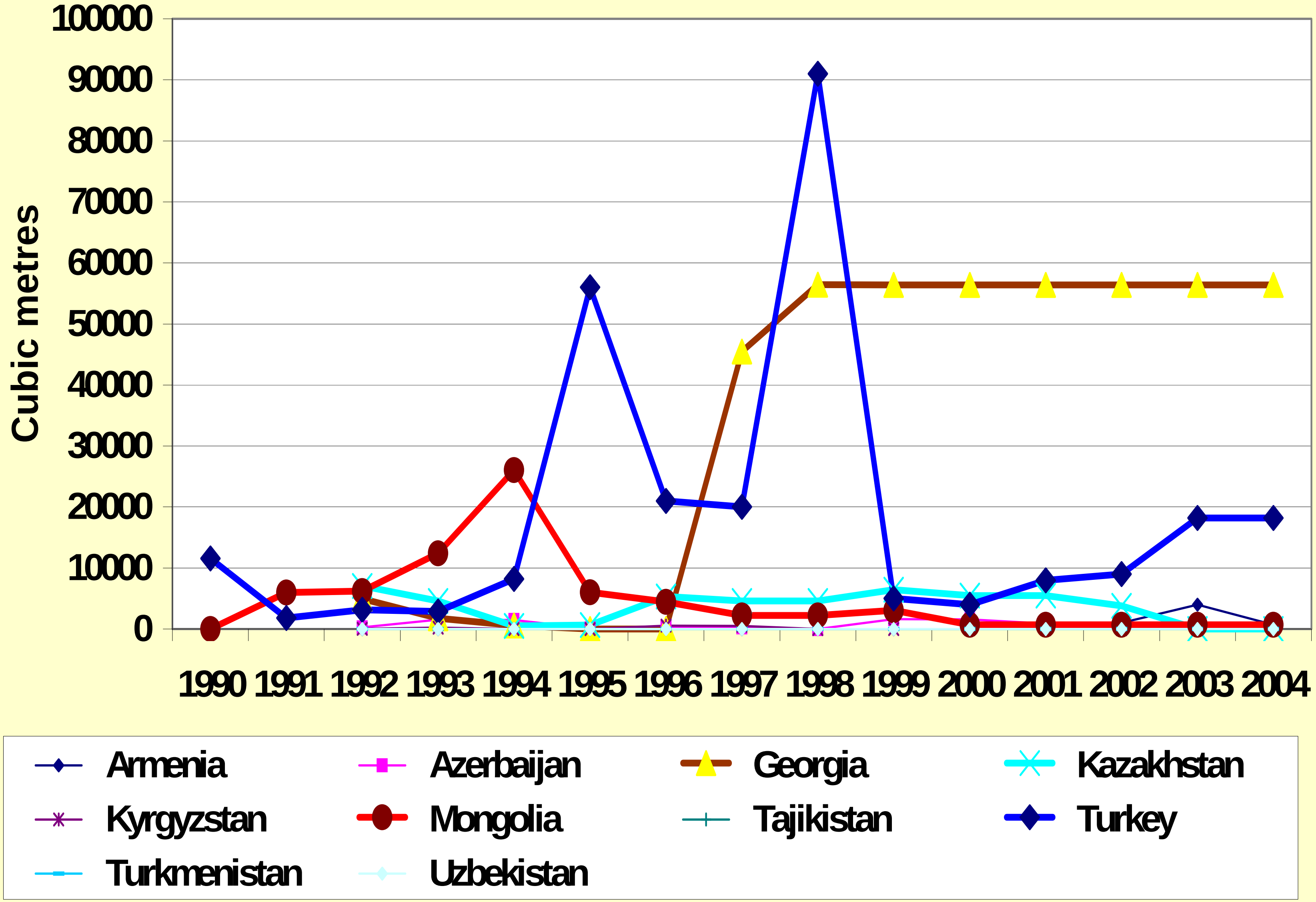



Industrial Roundwood Trade, 1990-2004
Million m3
70
60
50
40
30
20
10
0
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004
Europe Imports
N. America Imports
Europe Exports
N. America Exports

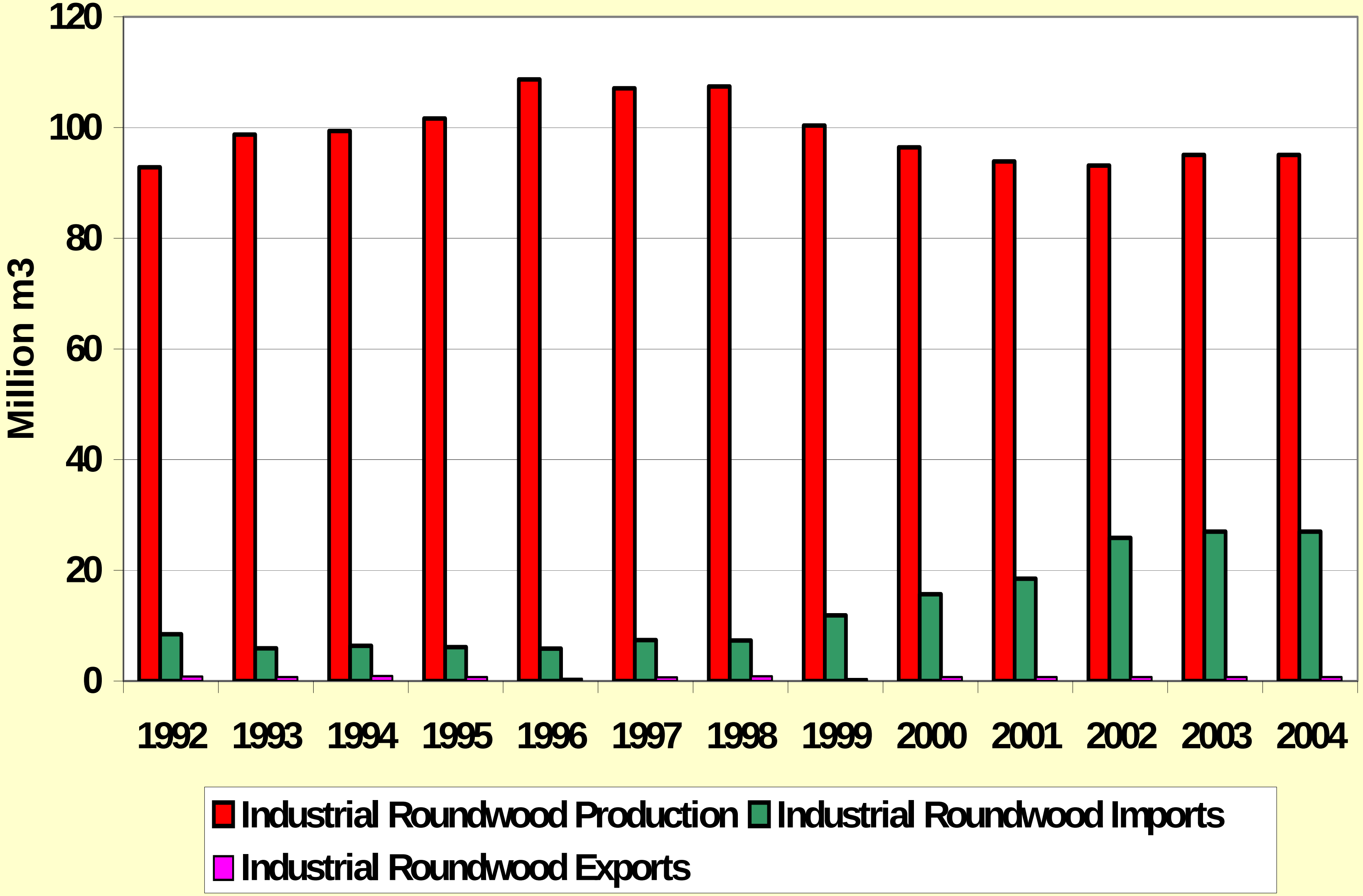
Industrial Roundwood Imports (without Turkey), 1990-2004



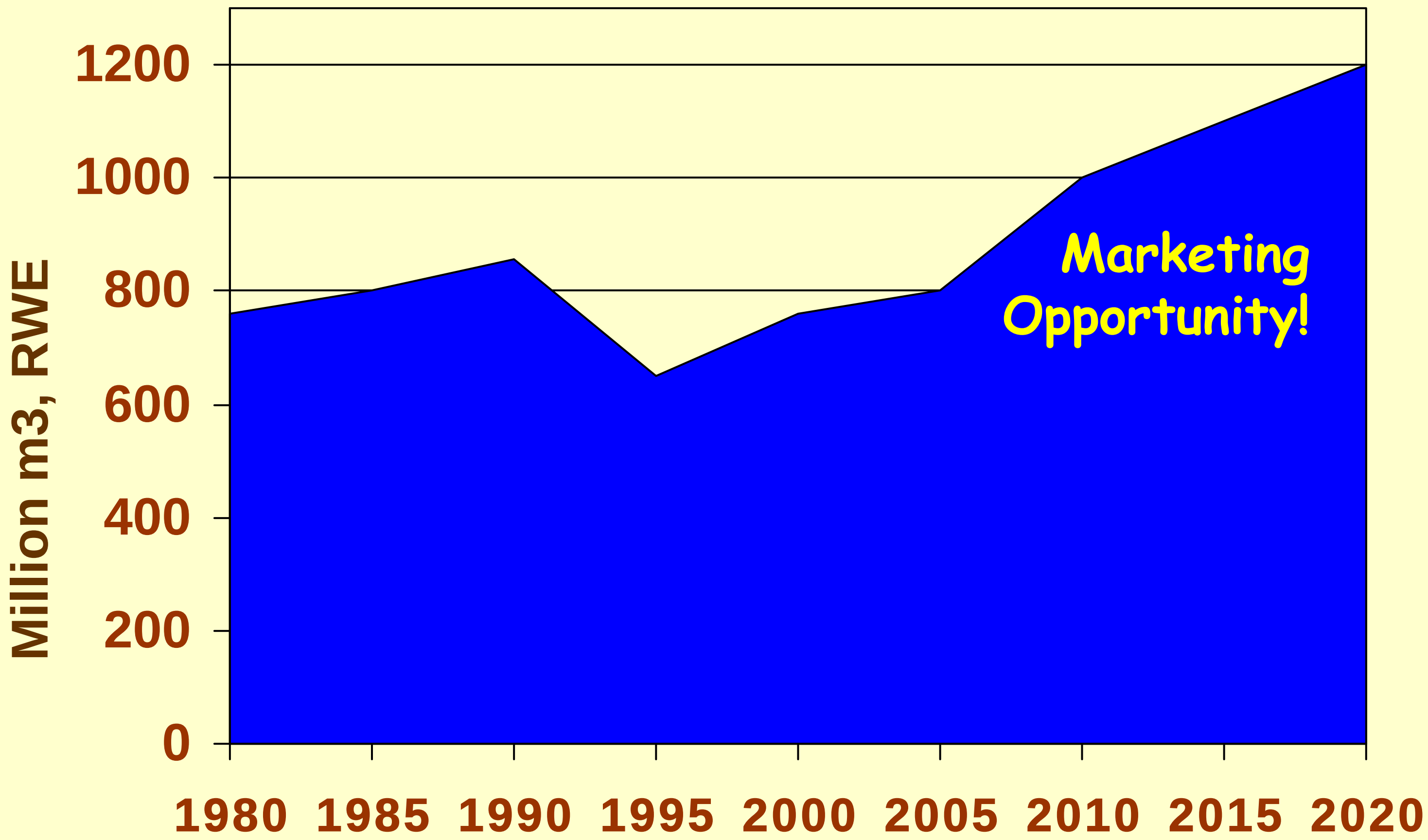
Industrial Roundwood Exports, 1990-2004



China's Industrial Roundwood Market, 1992-2004



European primary wood products demand, 1980-2020



RWE=RoundWood Equivalent.
Source: European Forest Sector Outlook Study, 2005.

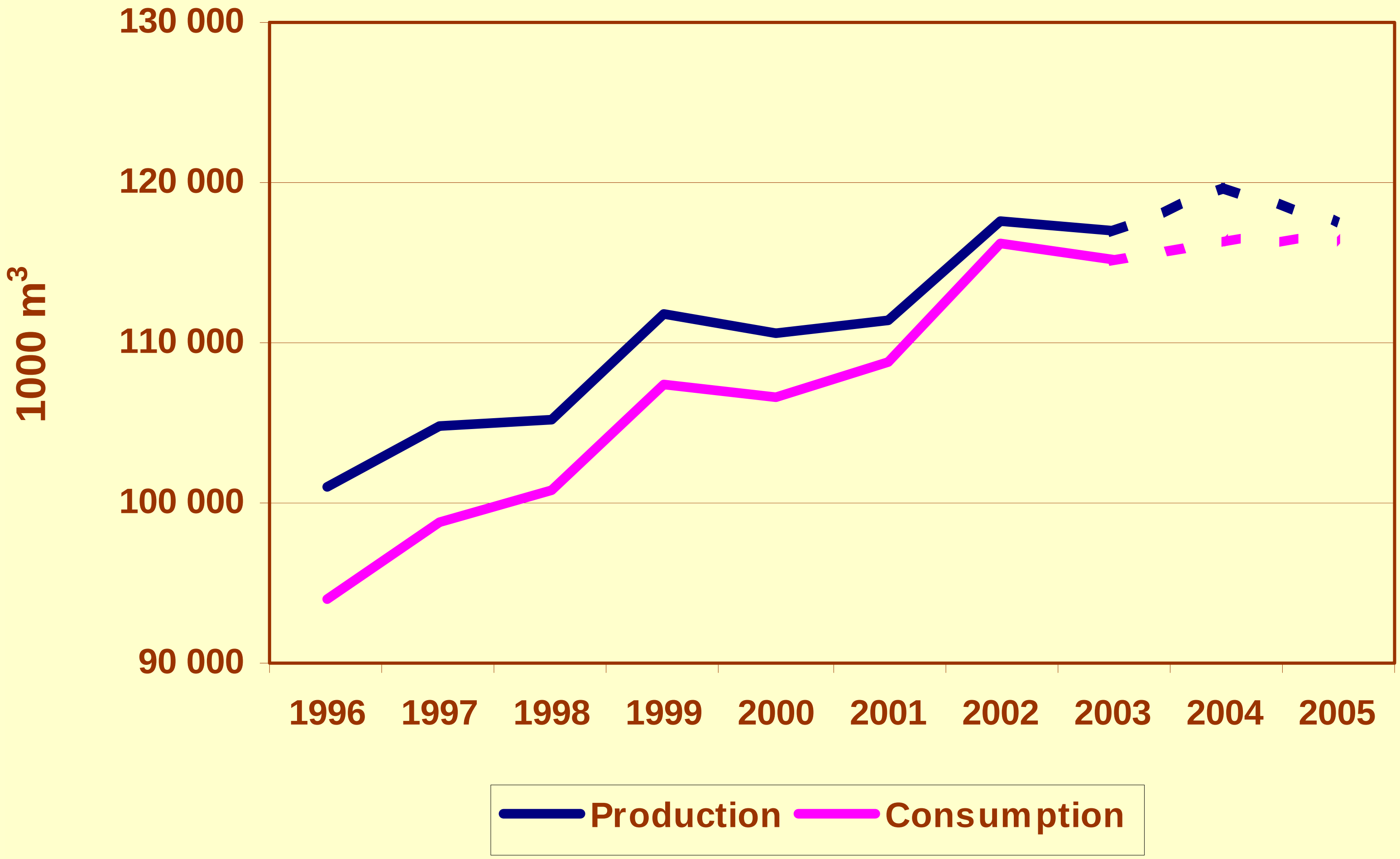
Major influences on current European forest sector

- Expanding markets, but resources outgrowing markets
- Intensifying trade
- Recovery from transition to market economies
- Non-wood forest products increasing demand, value
- Renewable energy policy of EU and member countries
- Globalization of forest products trade
- Innovation of products and processing
- Recycling of paper, use of byproducts

Source: UNECE/FAO *European Forest Sector Outlook Study,* 2005

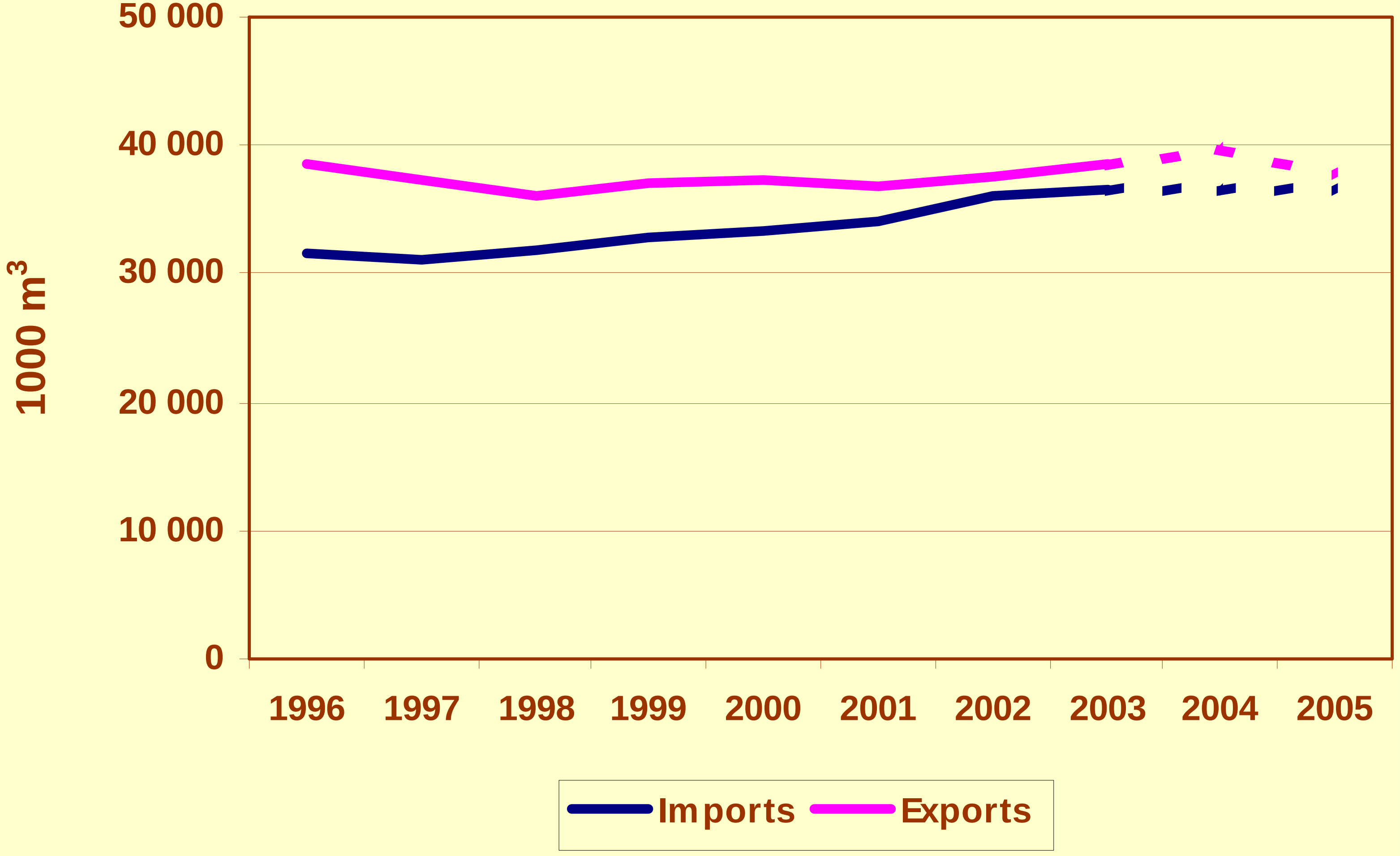
Sectoral analysis: Sawnwood

N. American sawn softwood market, 1996-2005



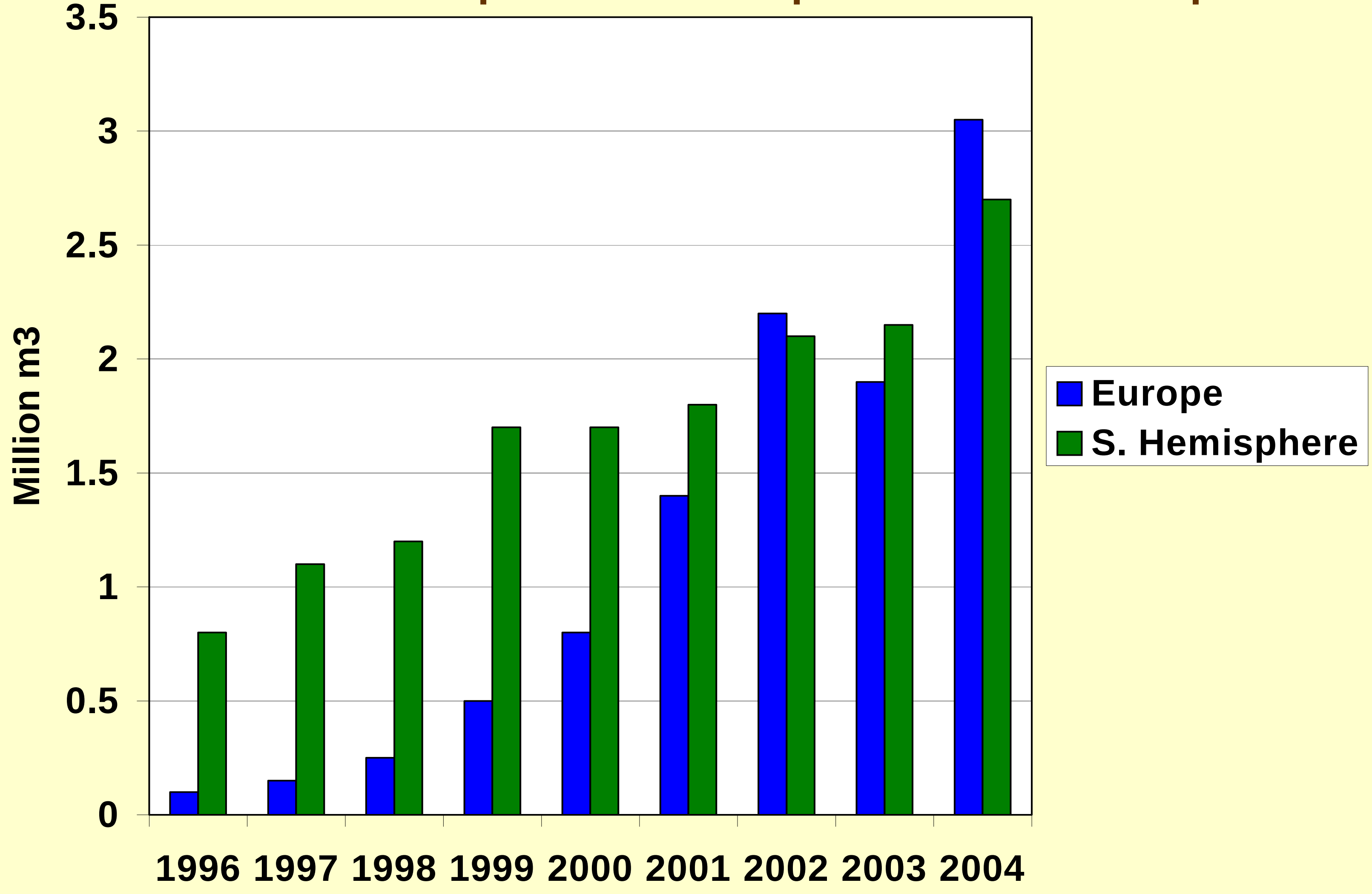
Source: UNECE Timber Committee forecasts, 10.2004

N. American sawn softwood trade, 1996-2005



Source: UNECE Timber Committee forecasts, 10.2004

US sawnwood imports: Europe & S. Hemisphere



Sources: USDA-Foreign Ag. Svc. and *Wood Markets Monthly*, 2005

US sawnwood imports: Europe & S. Hemisphere

- Excludes Canadian imports
  - 98% of US imports in ’96, but 87% 2004
  - Canadian-sourced imports up 8% 2004
- Offshore exporters aided by Softwood Lumber Agreement duties
- Imports of dimension softwood, some EWPs
- European-sourced imports
  - Increased 52% in 2004
  - Despite 45% rise in euro value vs. $
  - “Semi-natural forests” vs. plantation

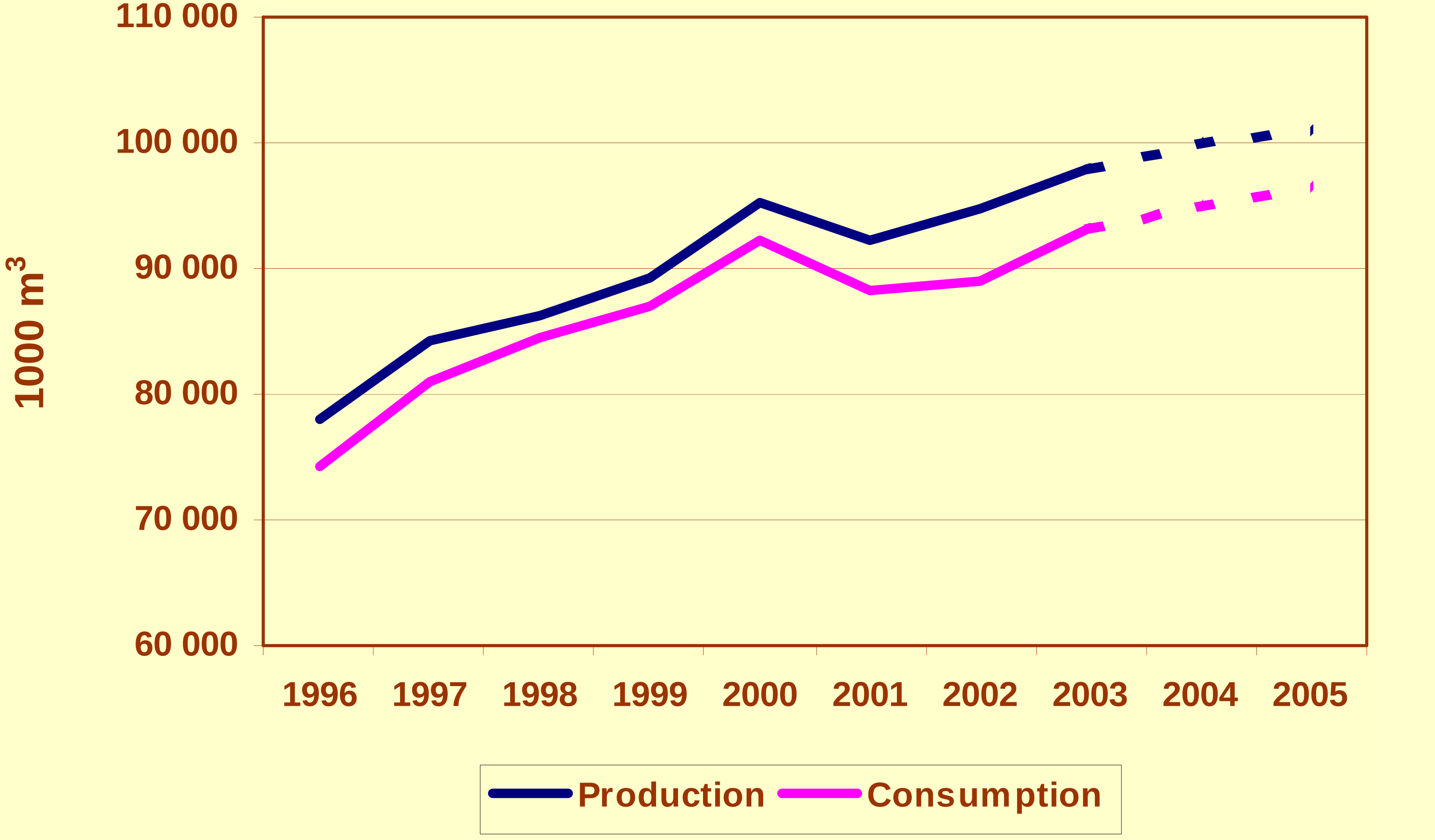
Sources: USDA-Foreign Ag. Svc. and *Wood Markets Monthly*, 2005

US sawnwood imports: Europe & S. Hemisphere

- Northern hemisphere sources in 2004
  1. Germany (up 73%)
  2. Austria (up 75%)
  3. Sweden (down 2%)
  4. Czech Rep., Lithuania, Russia, Finland, Estonia
- Southern hemisphere sources in 2004
  1. Brazil (up 37%)
  2. Chile (up 35%)
  3. New Zealand (down 3%)
  4. Argentina, Mexico, other

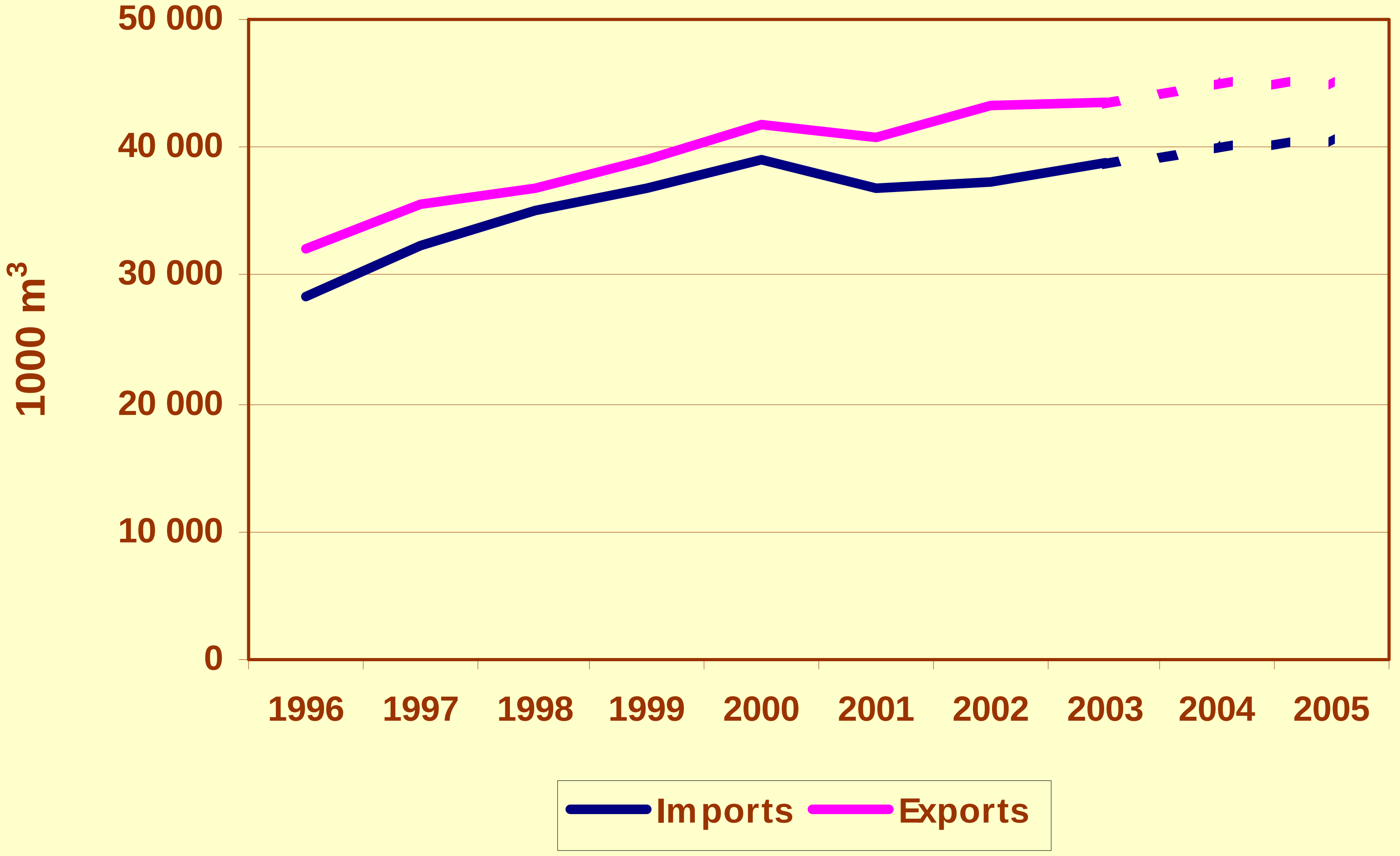
Sources: USDA-Foreign Ag. Svc. and *Wood Markets Monthly*, 2005

European sawn softwood market, 1996-2005



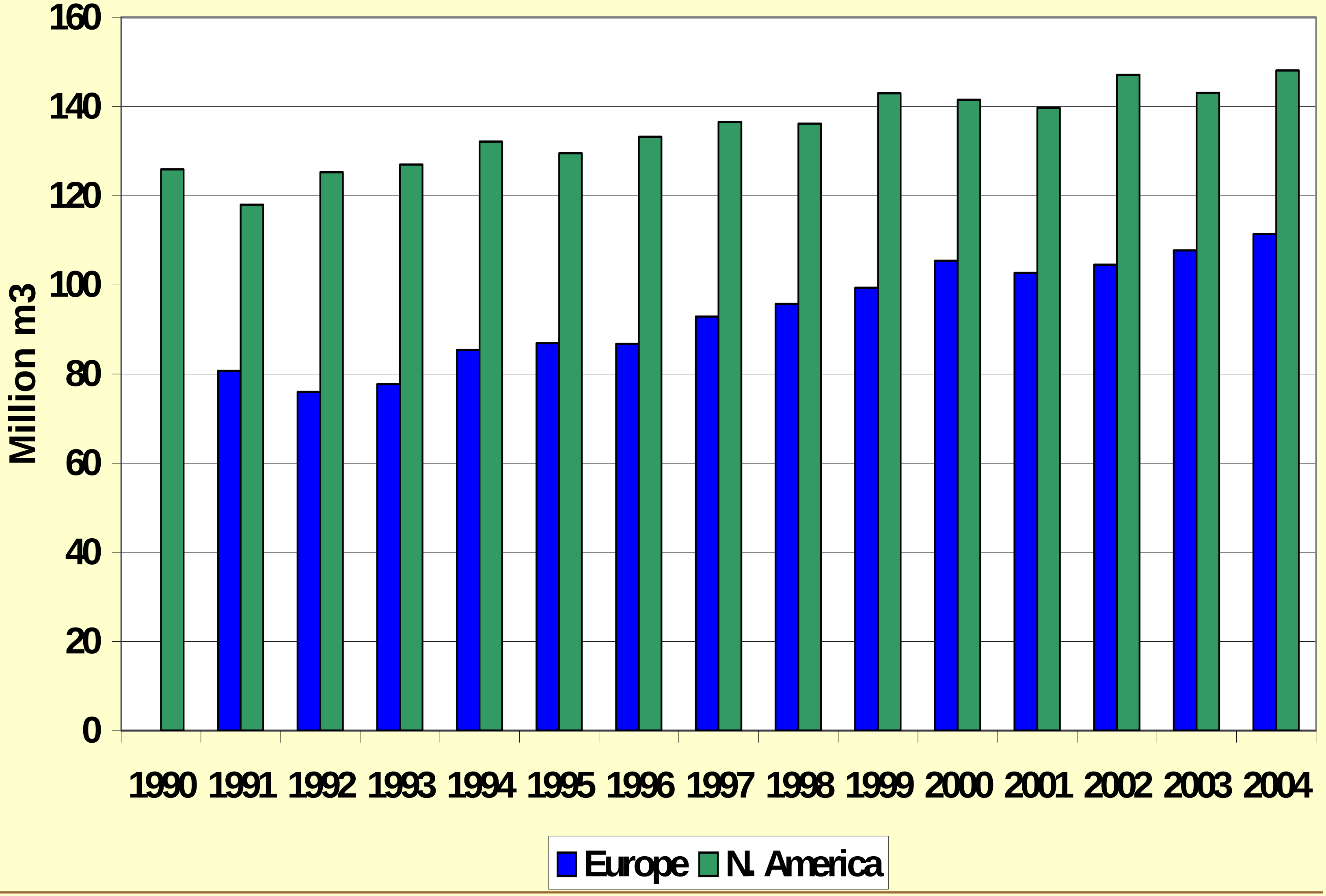
Source: UNECE Timber Committee forecasts, 10.2004

European sawn softwood trade, 1996-2005

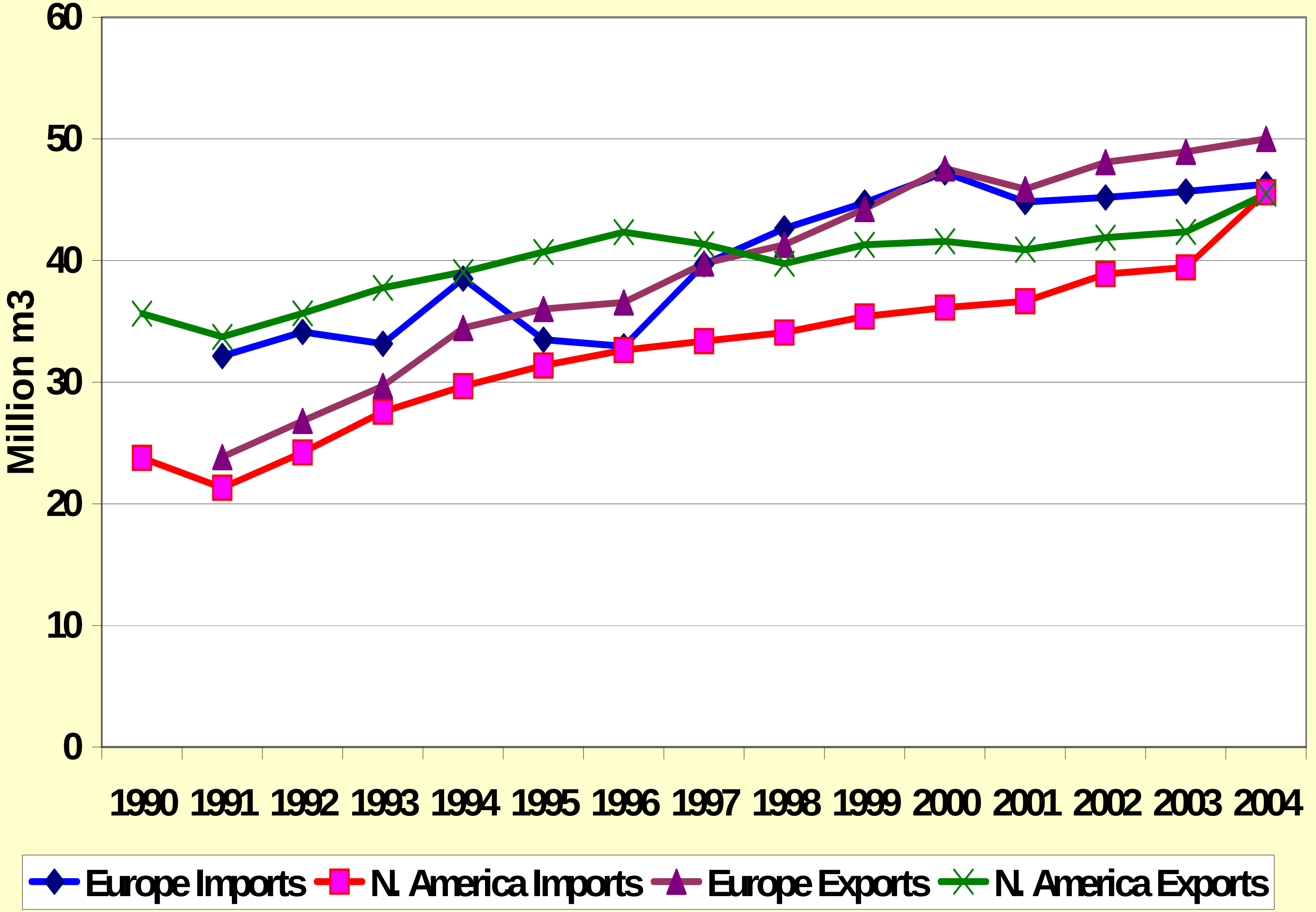


Source: UNECE Timber Committee forecasts, 10.2004

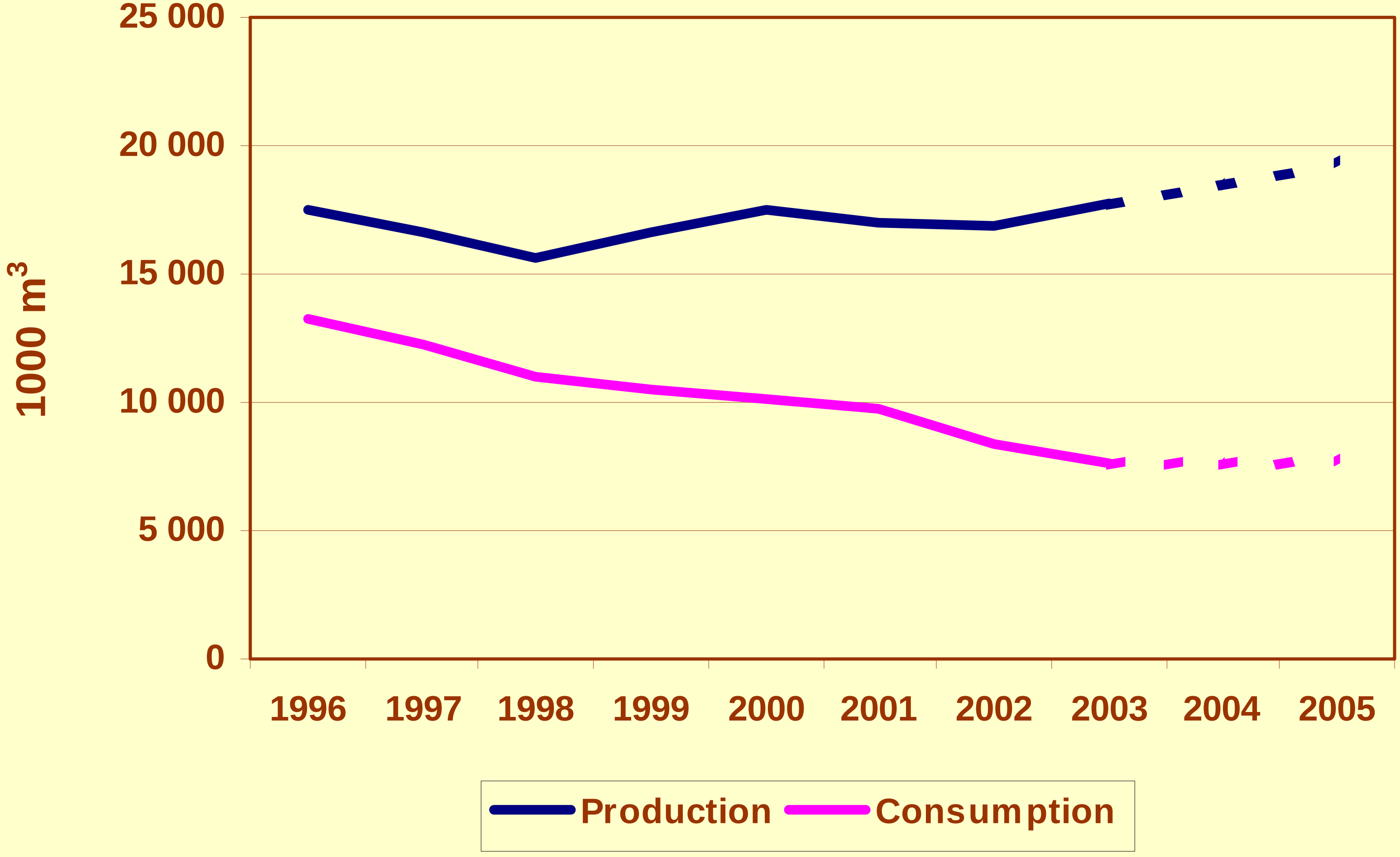
Sawnwood Production, 1990-2004



Sawnwood Trade, 1990-2004

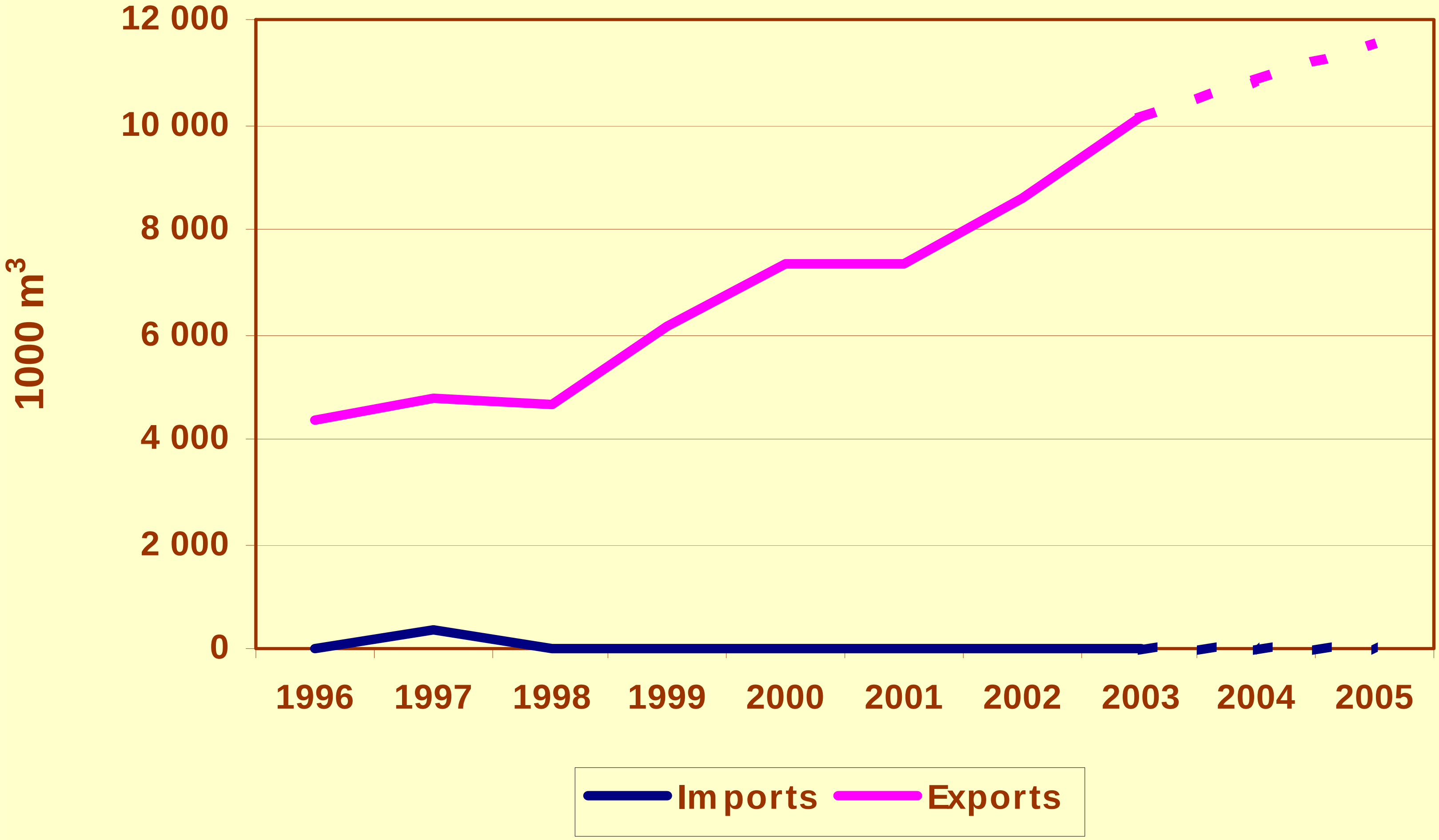


Russian sawn softwood market, 1996-2005



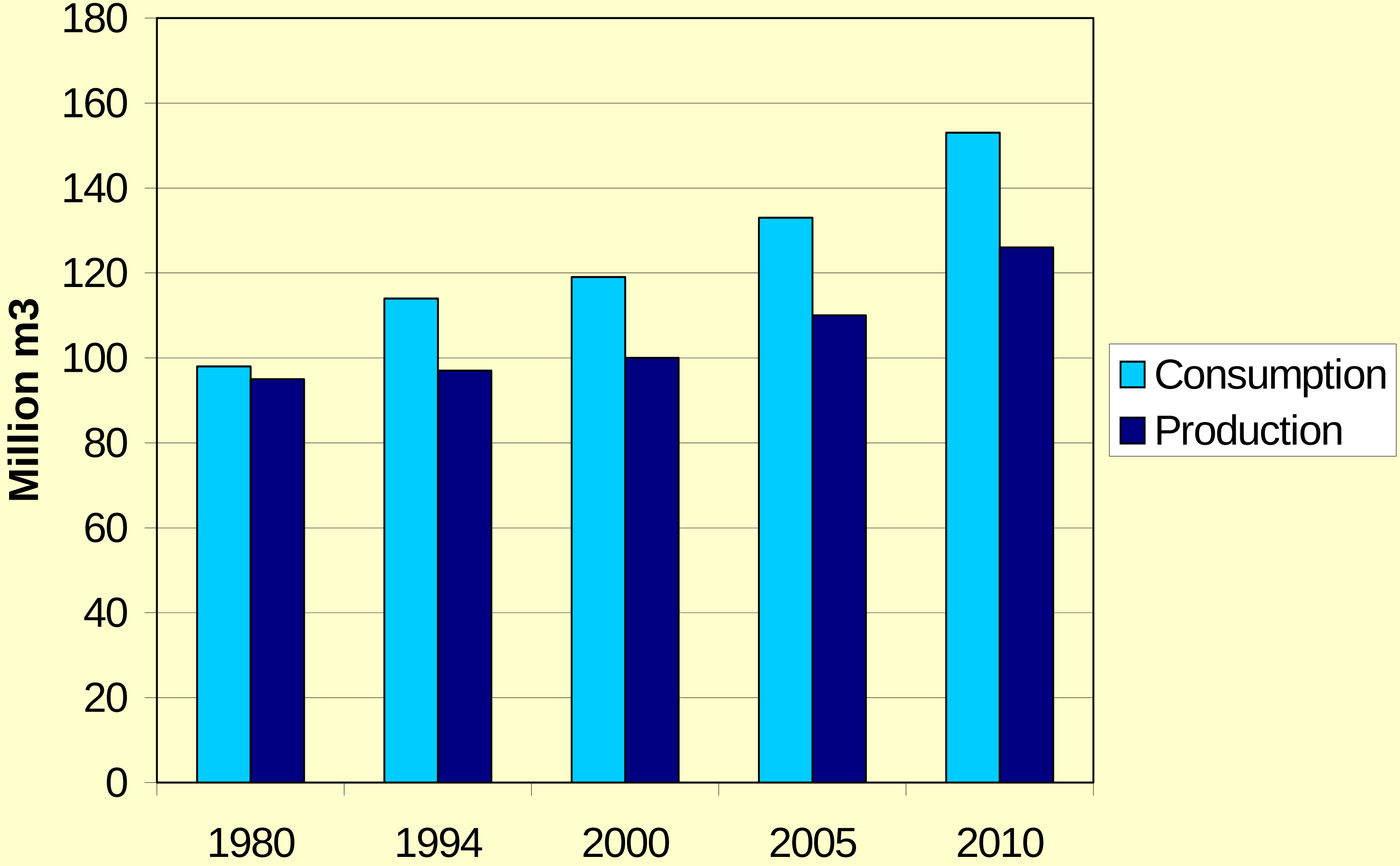
Source: UNECE Timber Committee forecasts, 10.2004

Russian sawn softwood trade, 1996-2005



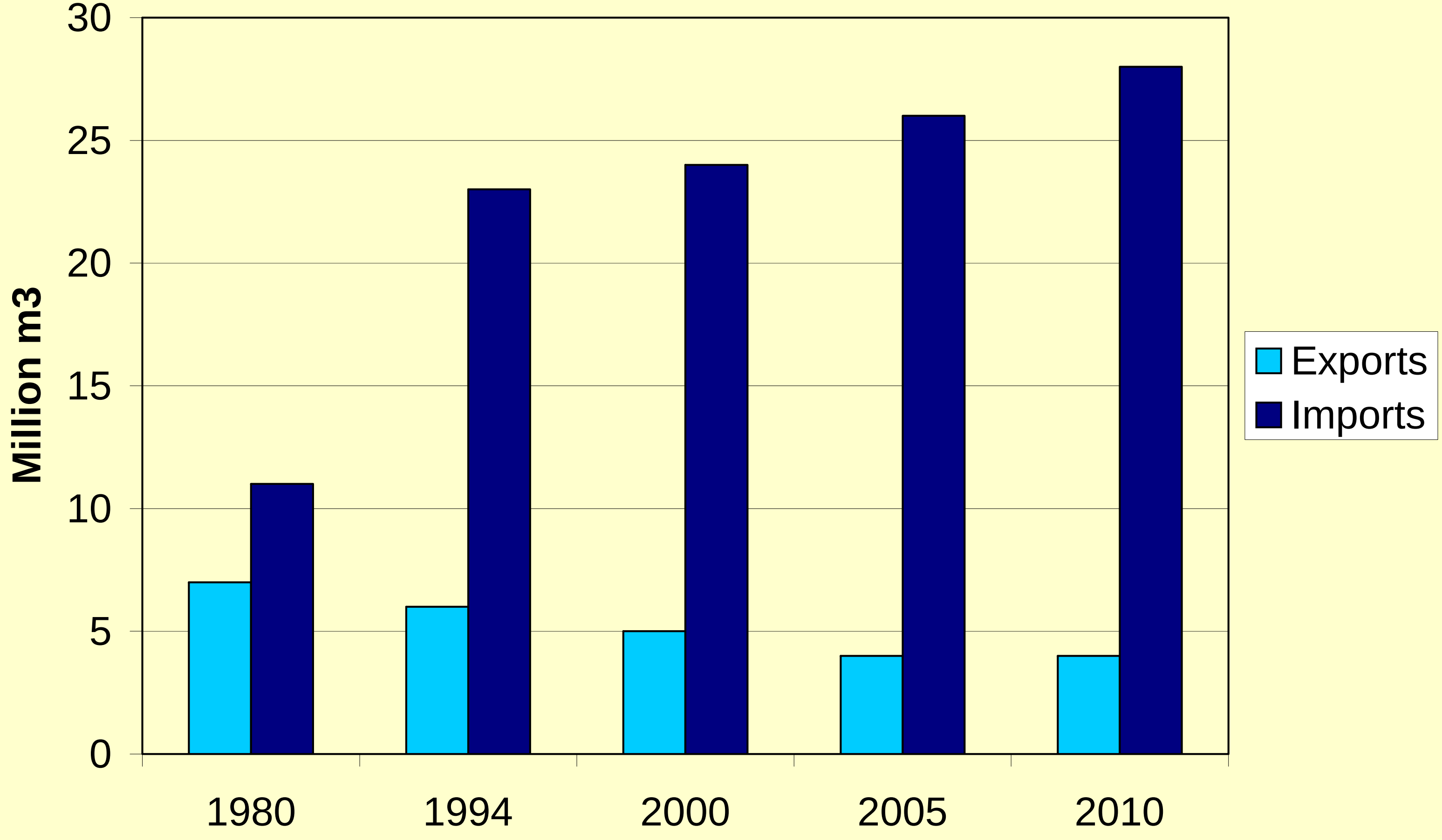
Source: UNECE Timber Committee forecasts, 10.2004

Asia sawnwood production and consumption to 2010



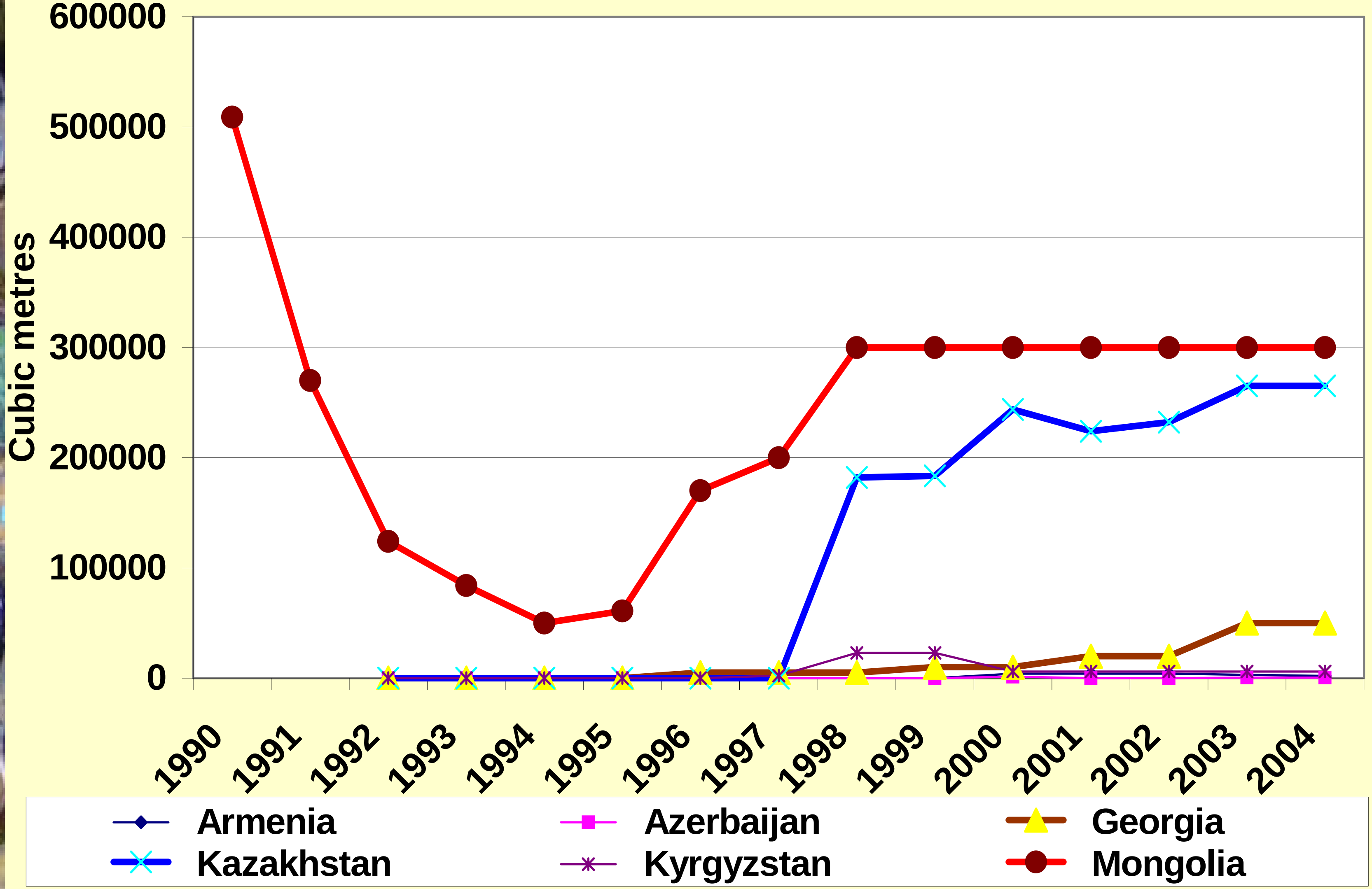
Source: *Global Forest Products Model, 2003*

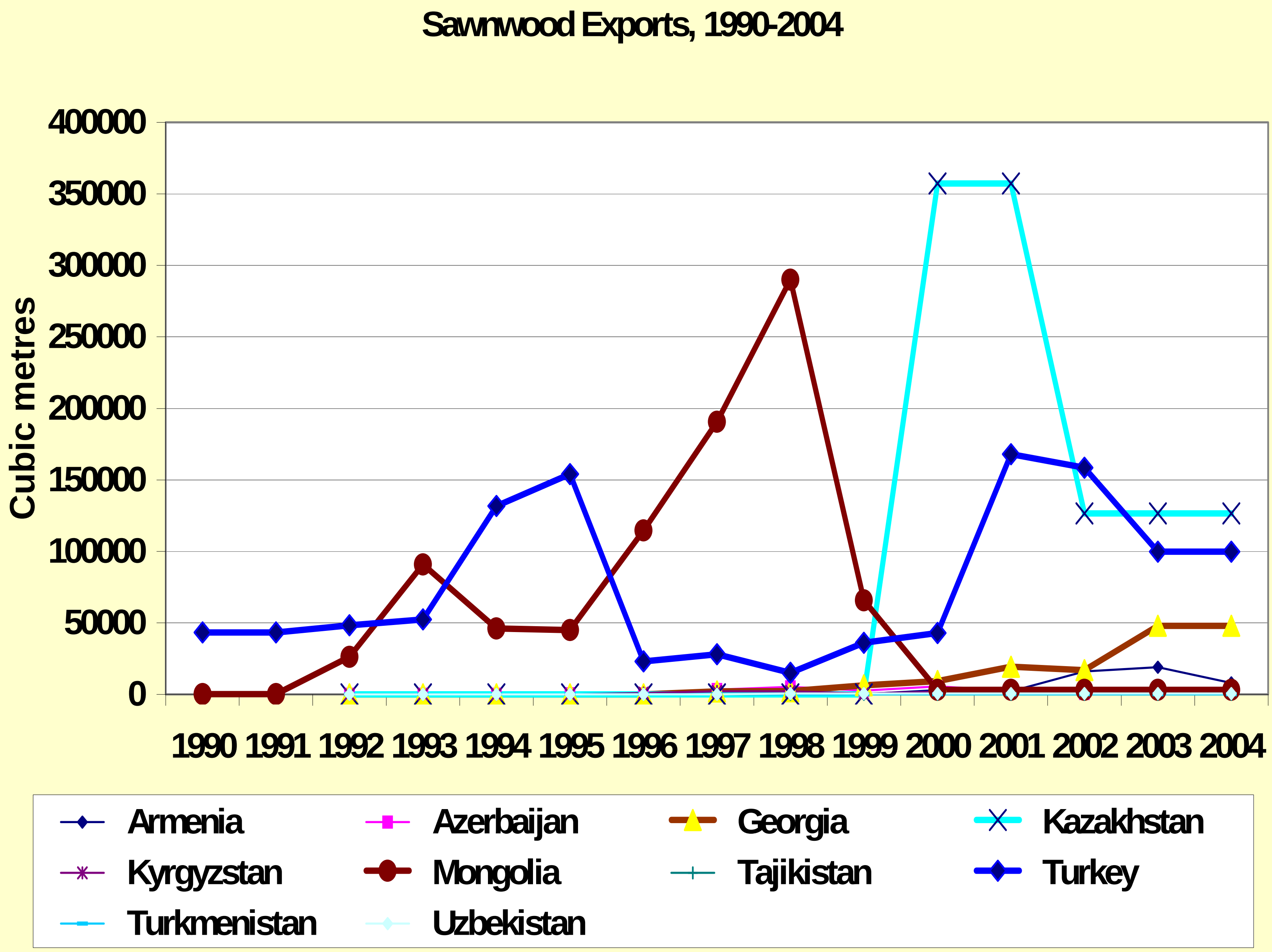
Asia sawnwood trade to 2010



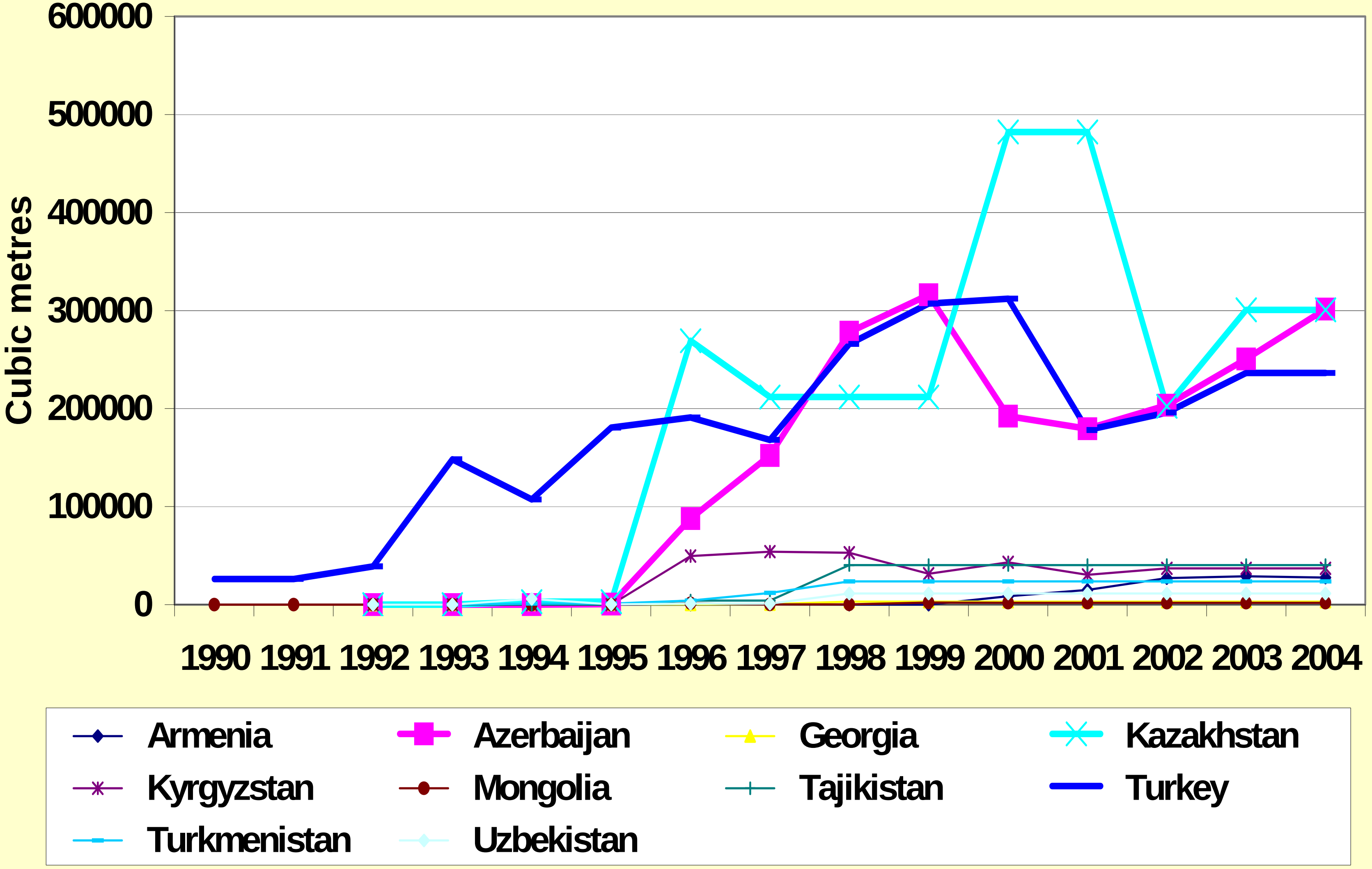
Source: *Global Forest Products Model, 2003*

Sawnwood Production, 1990-2004



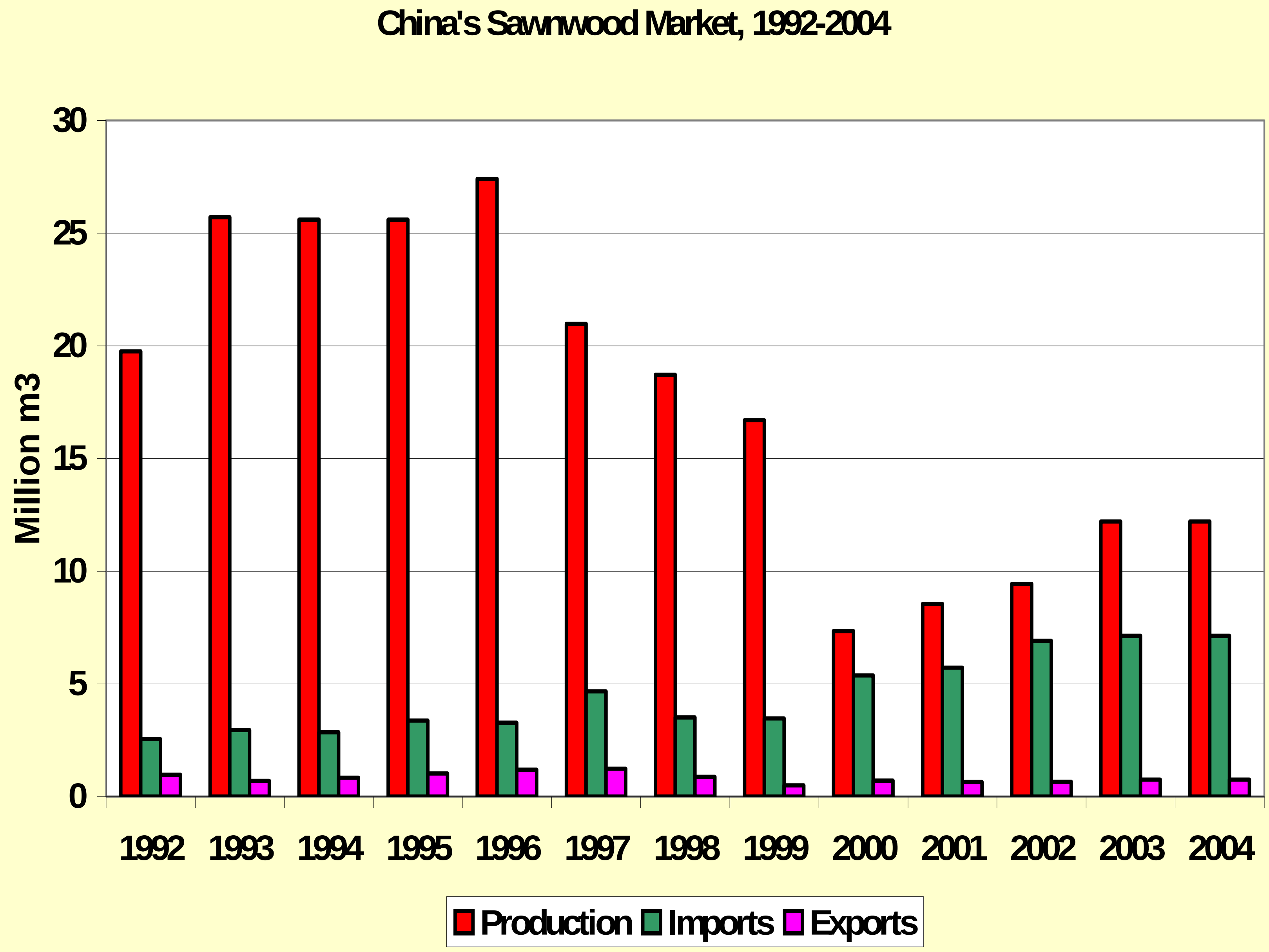

Sawnwood Exports, 1990-2004
Cubic metres
400000
350000
300000
250000
200000
150000
100000
50000
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
Armenia
Azerbaijan
Georgia
Kazakhstan
Kyrgyzstan
Mongolia
Tajikistan
Turkey
Turkmenistan
Uzbekistan

Sawnwood Imports, 1990-2004



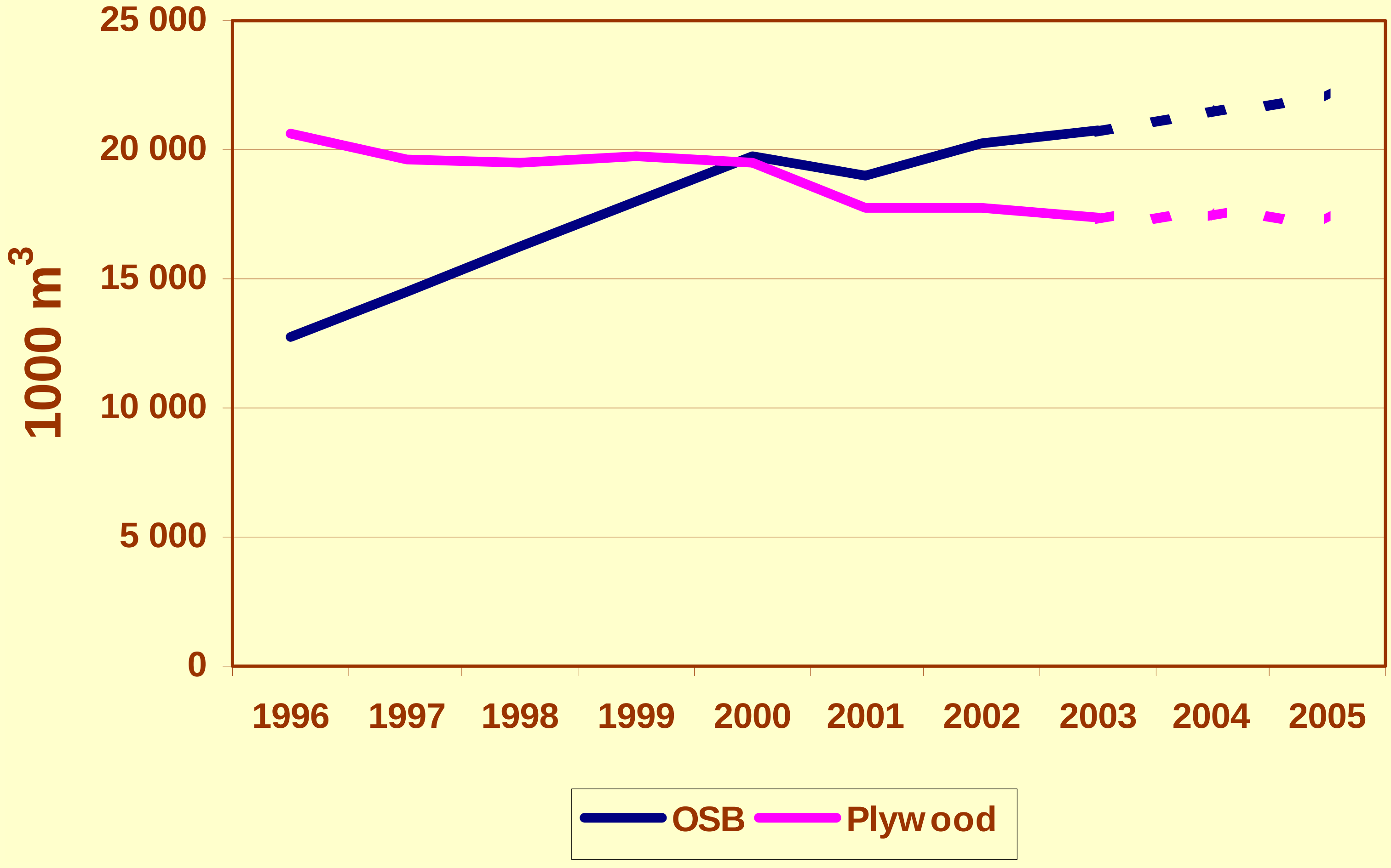
Sawnwood Exports from Central Asia, 2003

Source: UN Comtrade/European Forest Institute


China's Sawnwood Market, 1992-2004
Million m3
30
25
20
15
10
5
0
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
Production
Imports
Exports

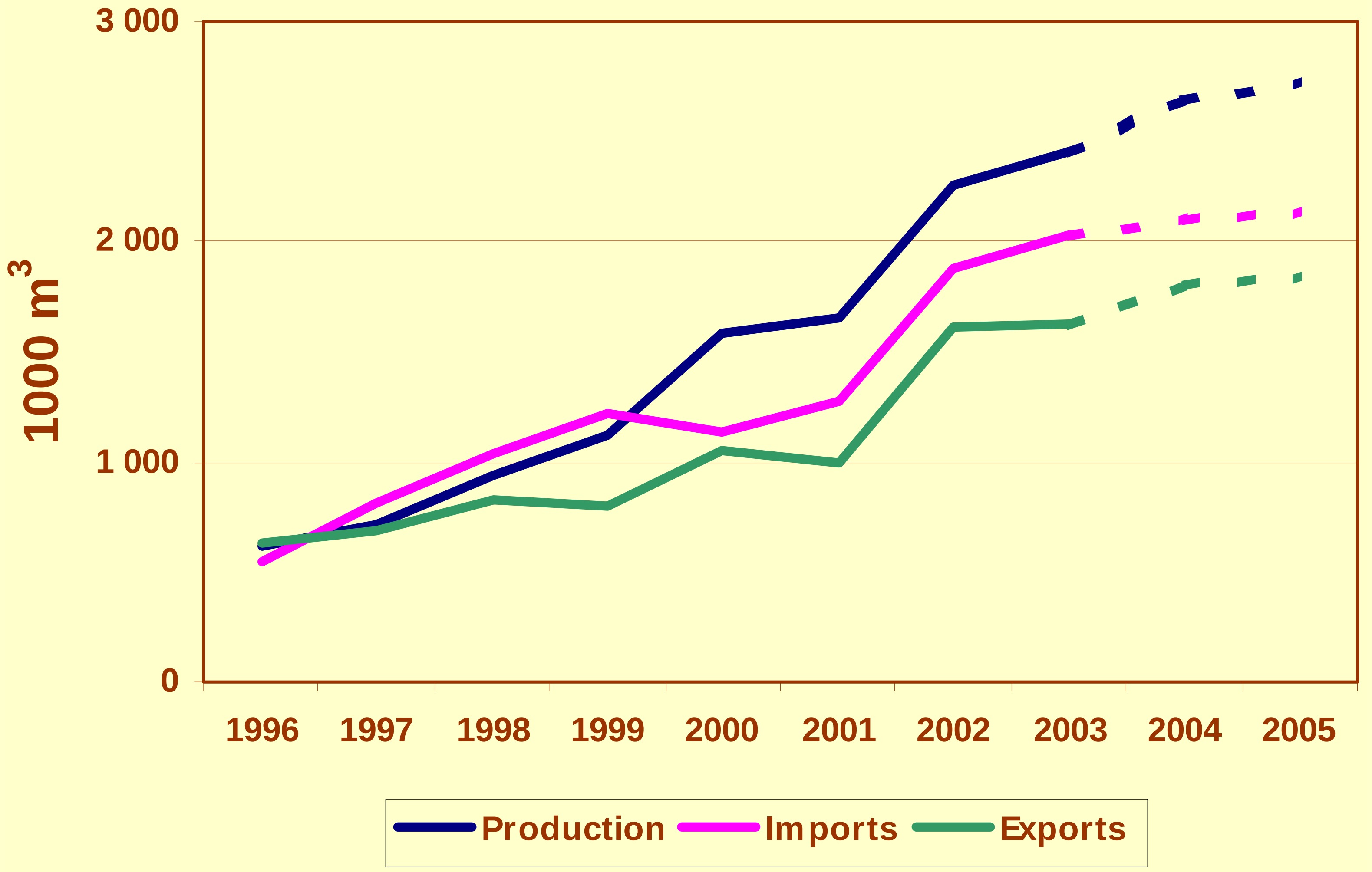
Sectoral analysis: Panels

North America structural panel production, 1996-2005



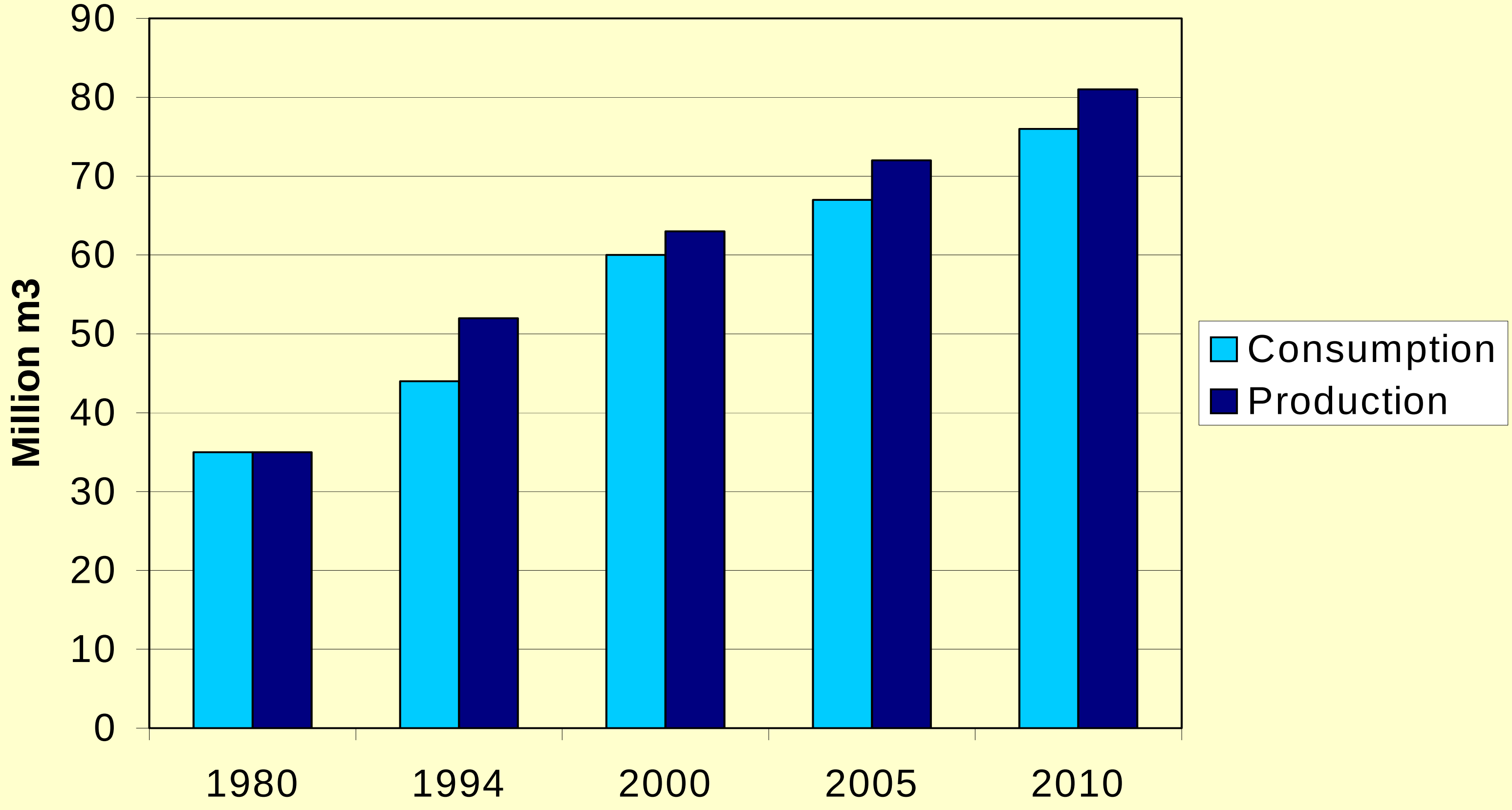
Source: UNECE Timber Committee forecasts, 10.2004

European OSB market, 1996-2005



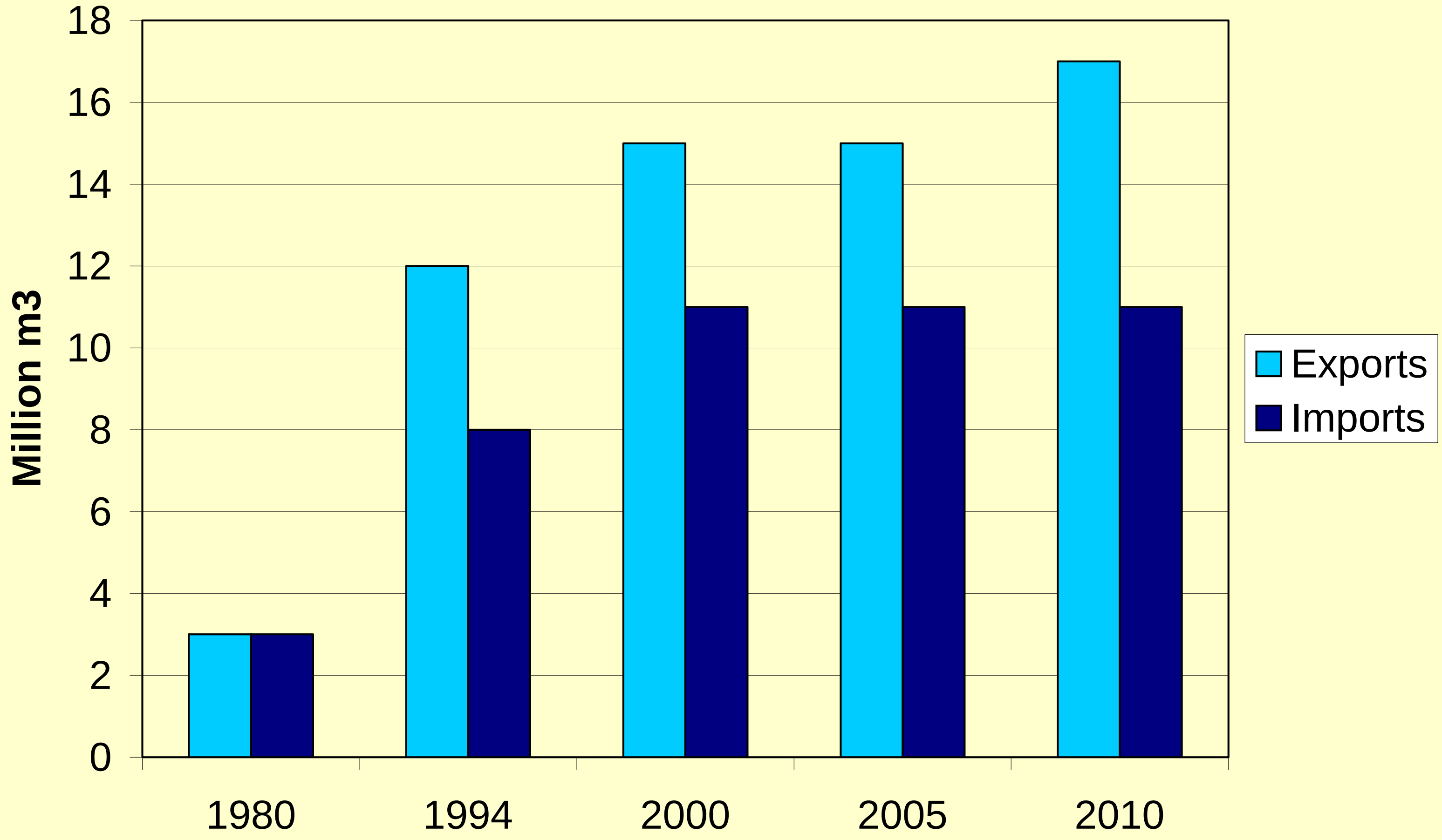
Source: UNECE Timber Committee forecasts, 10.2004

America panel consumption & production to 2010



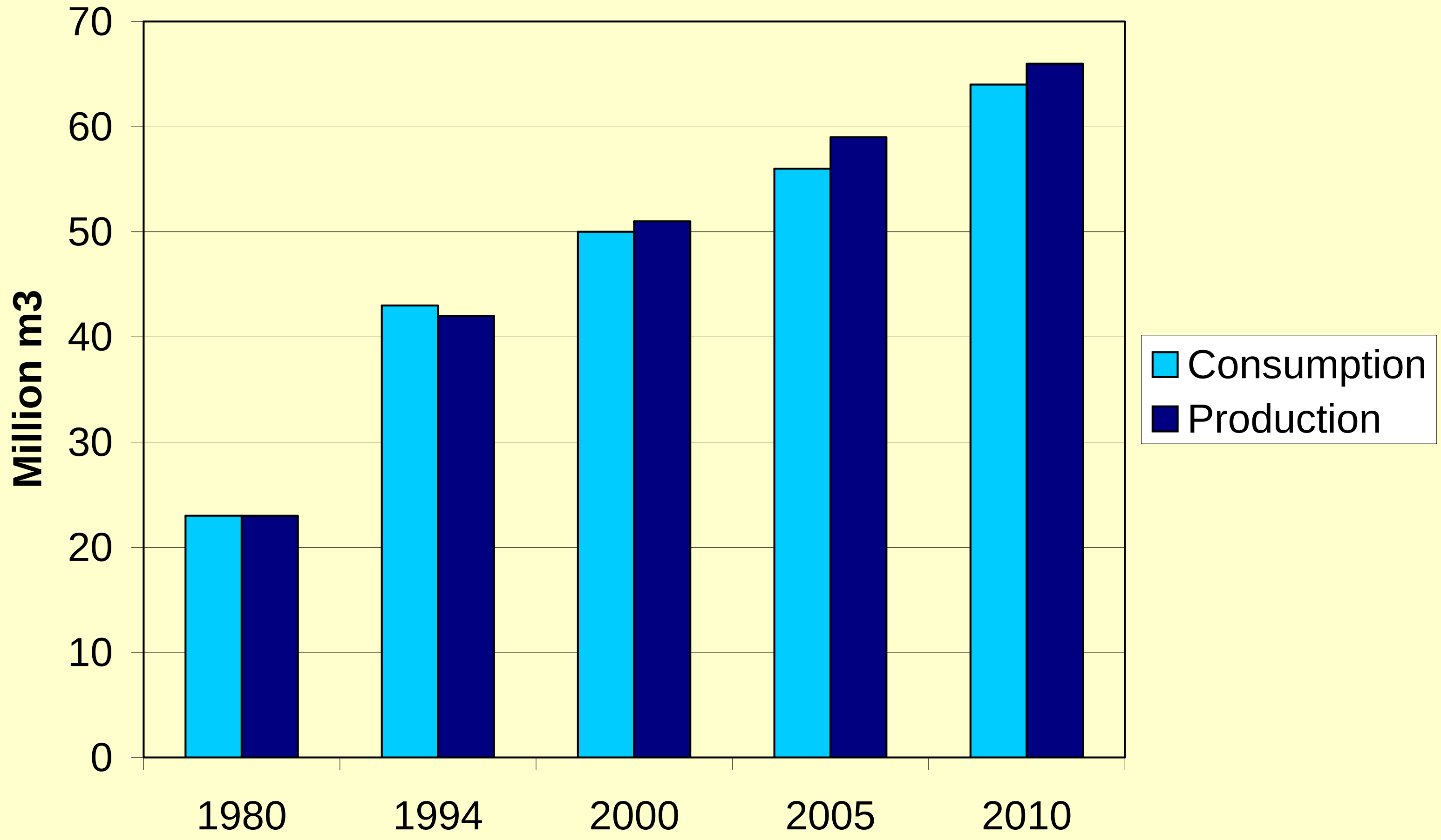
Source: *Global Forest Products Model, 2003*

America panel trade to 2010



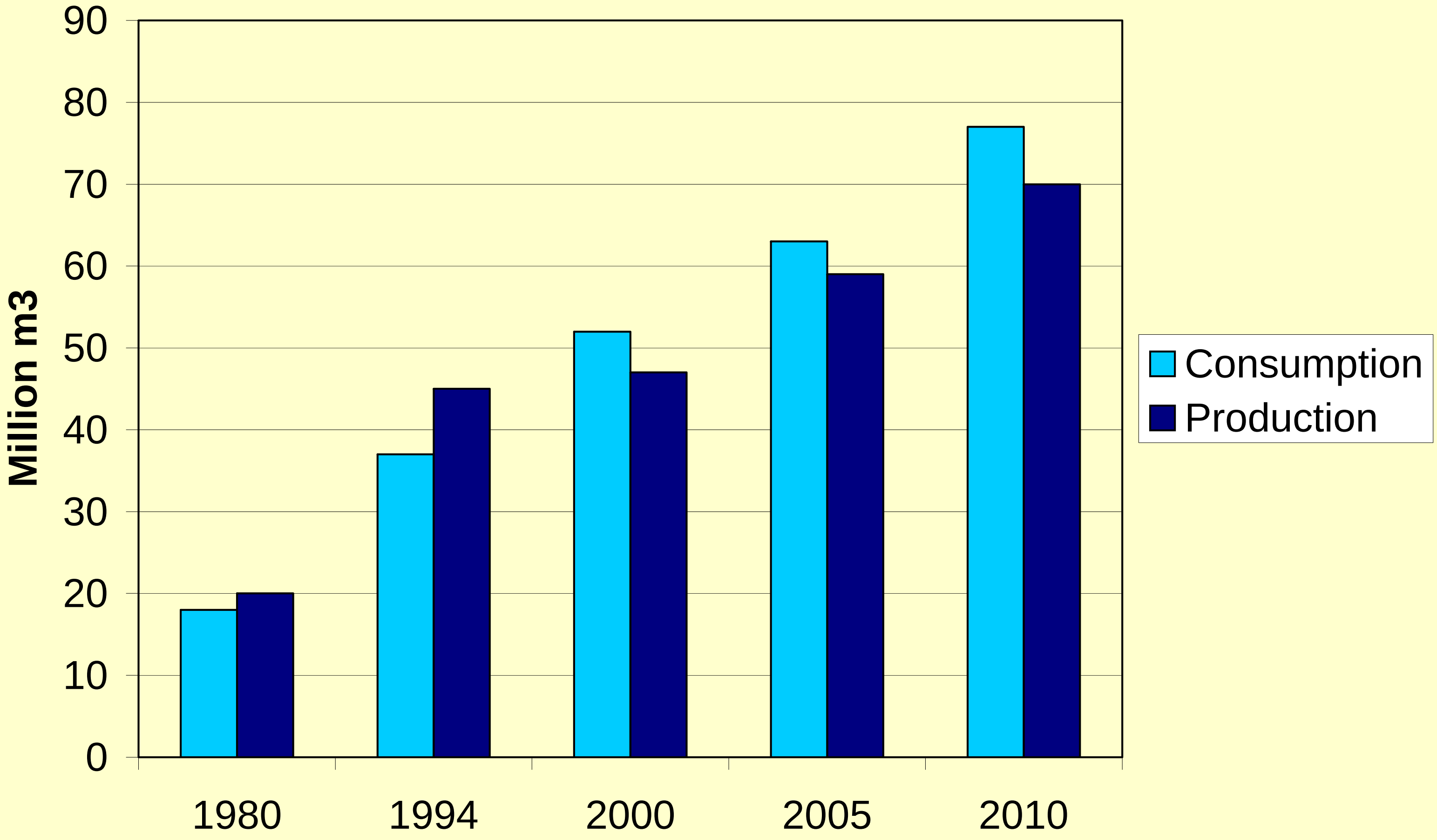
Source: *Global Forest Products Model, 2003*

Europe panel consumption & production to 2010



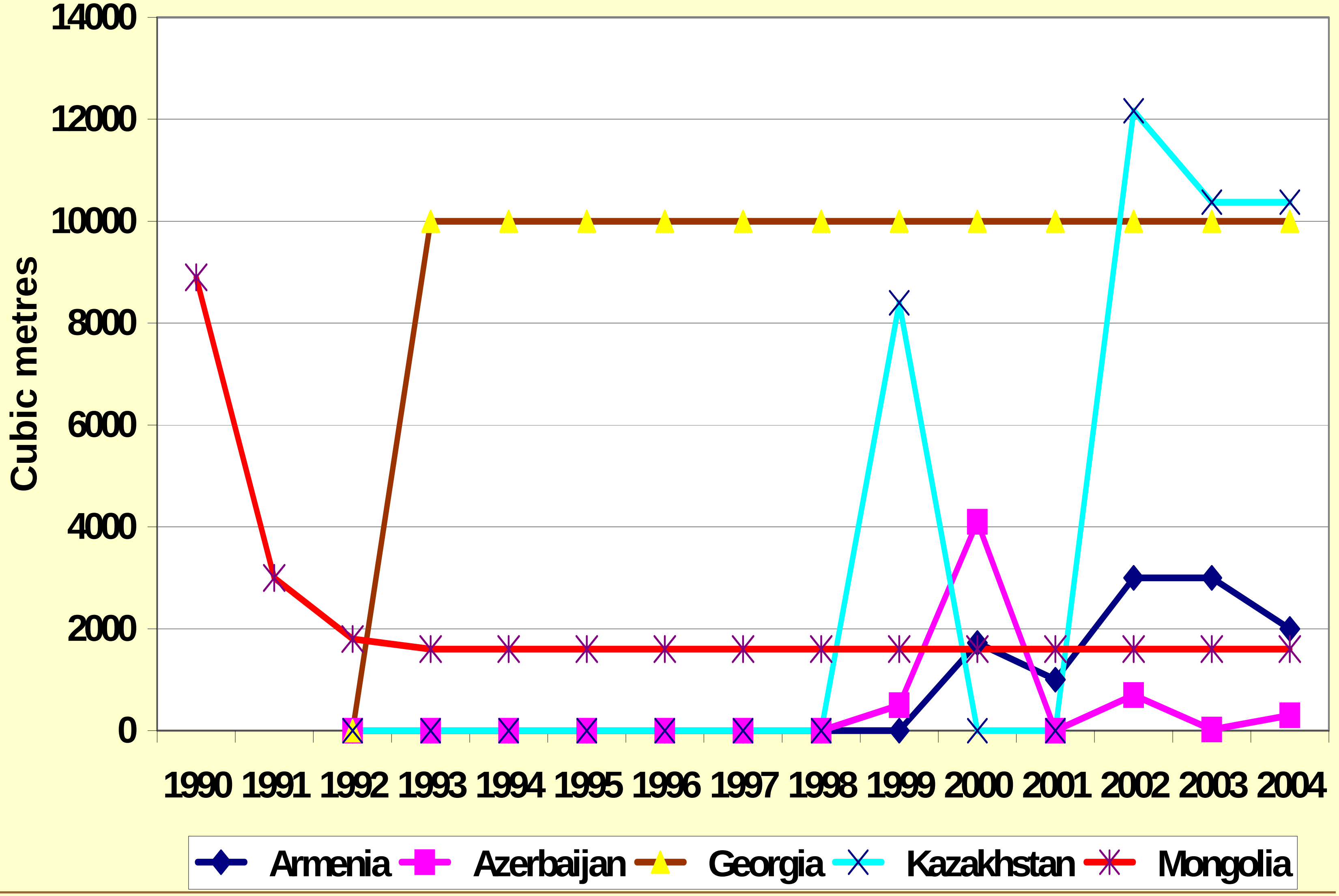
Source: *Global Forest Products Model, 2003*

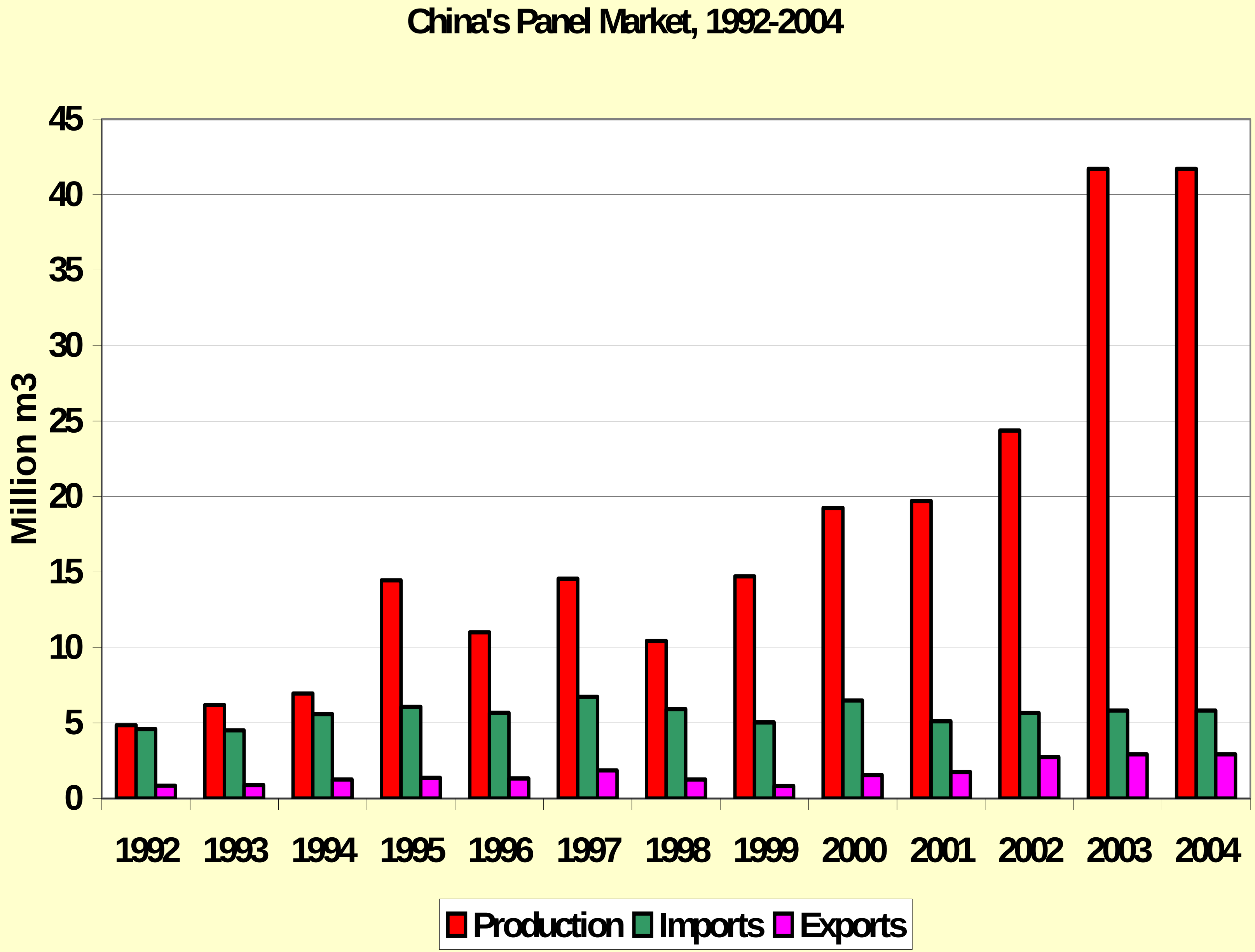
Asia panel consumption & production to 2010



Source: *Global Forest Products Model, 2003*

Panels Production, 1990-2004



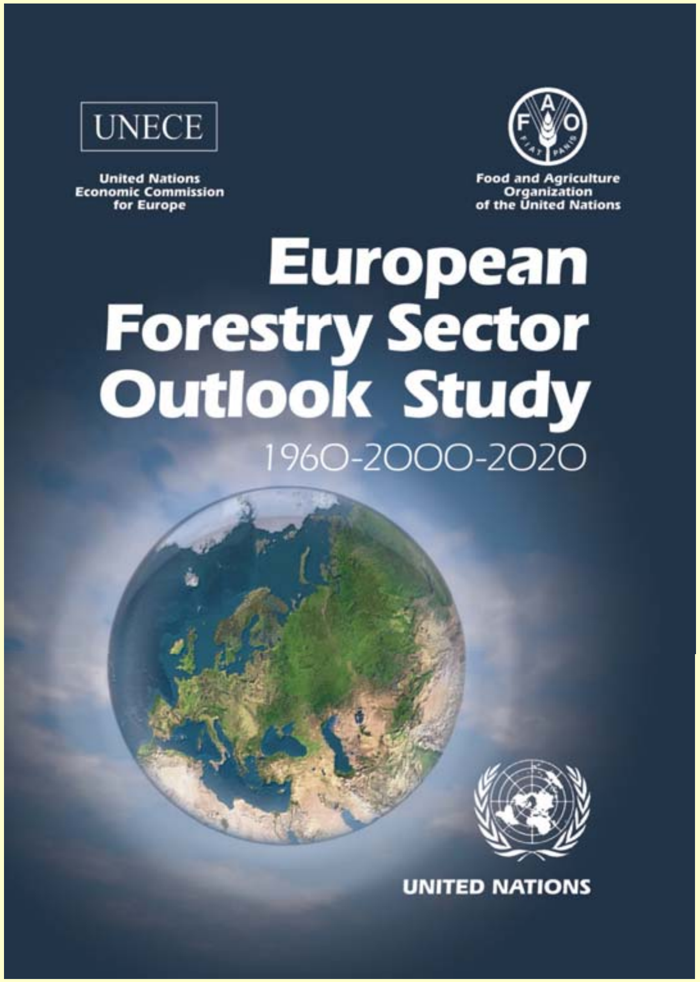

China's Panel Market, 1992-2004
Million m3
0
5
10
15
20
25
30
35
40
45
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
Production
Imports
Exports

China's booming timber imports

- Housing construction
  - Only minority wood-based
  - Green and healthy communities
  - Affordable
- Renovation market for houses and municipal
- Infrastructure development
- Interior woodwork and furnishings
- Olympic-related construction (2008 Beijing)

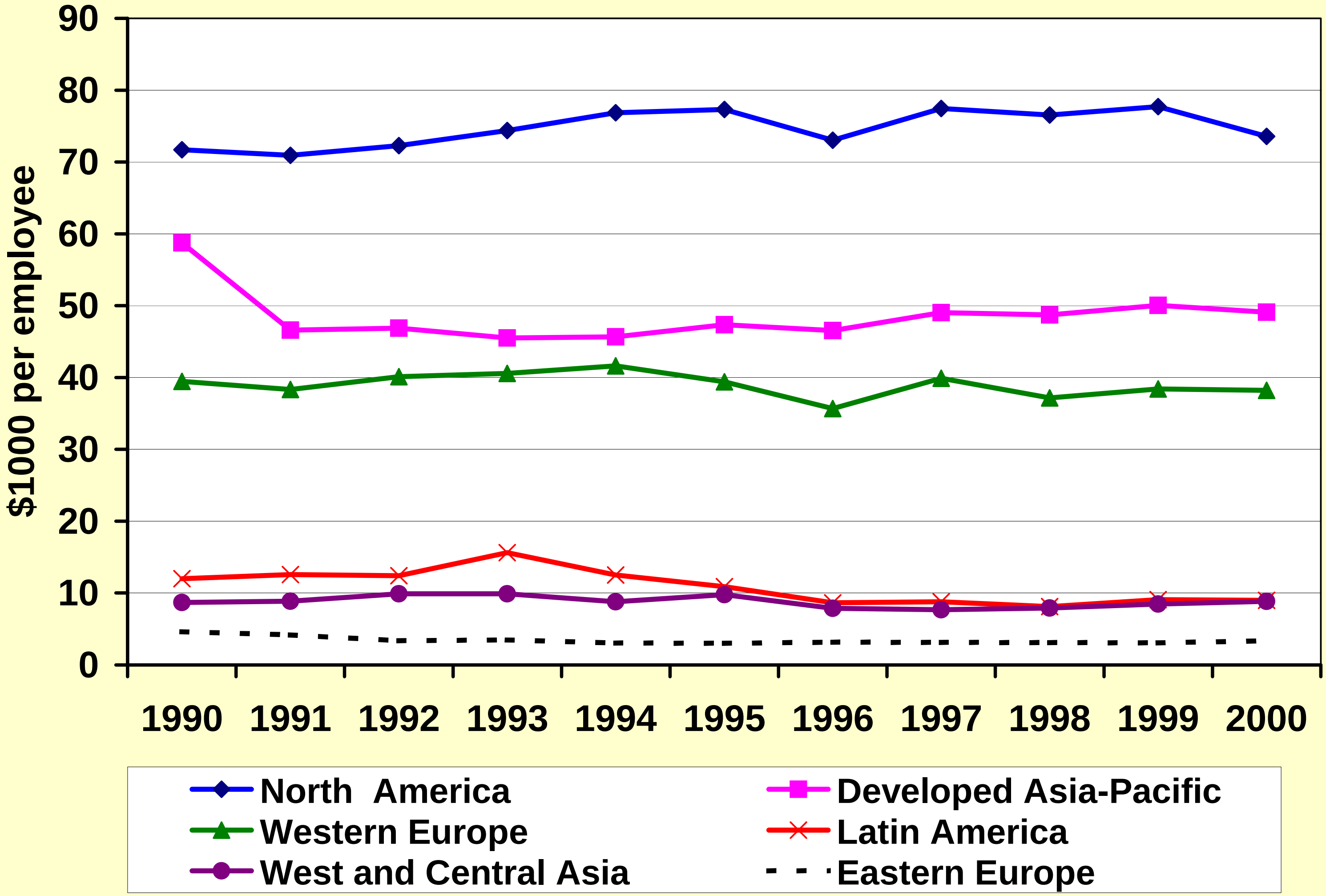
Source: "China Forest Products Market Information", 2003

New EFSOS market conclusions



- Collapse in CIS and eastern Europe, 1990s
- Partial recovery
- Increased small log demand
- Increased recovered materials
- Intensifying trade
- Declining log prices
- Renewable energy

Productivity in wood industry by region



Source: *FAO Trends and current status of the contribution of the forestry sector to national economies*, 2004

Summary: Key market issues

- Forest law enforcement, governance and trade (illegal logging and trade of illegally sourced products)
- Forest sector development policies
- Policies for promoting use of sustainably produced products
- Climate change policies
- Wood energy policy
- Trade policy, tariff and non-tariff barriers

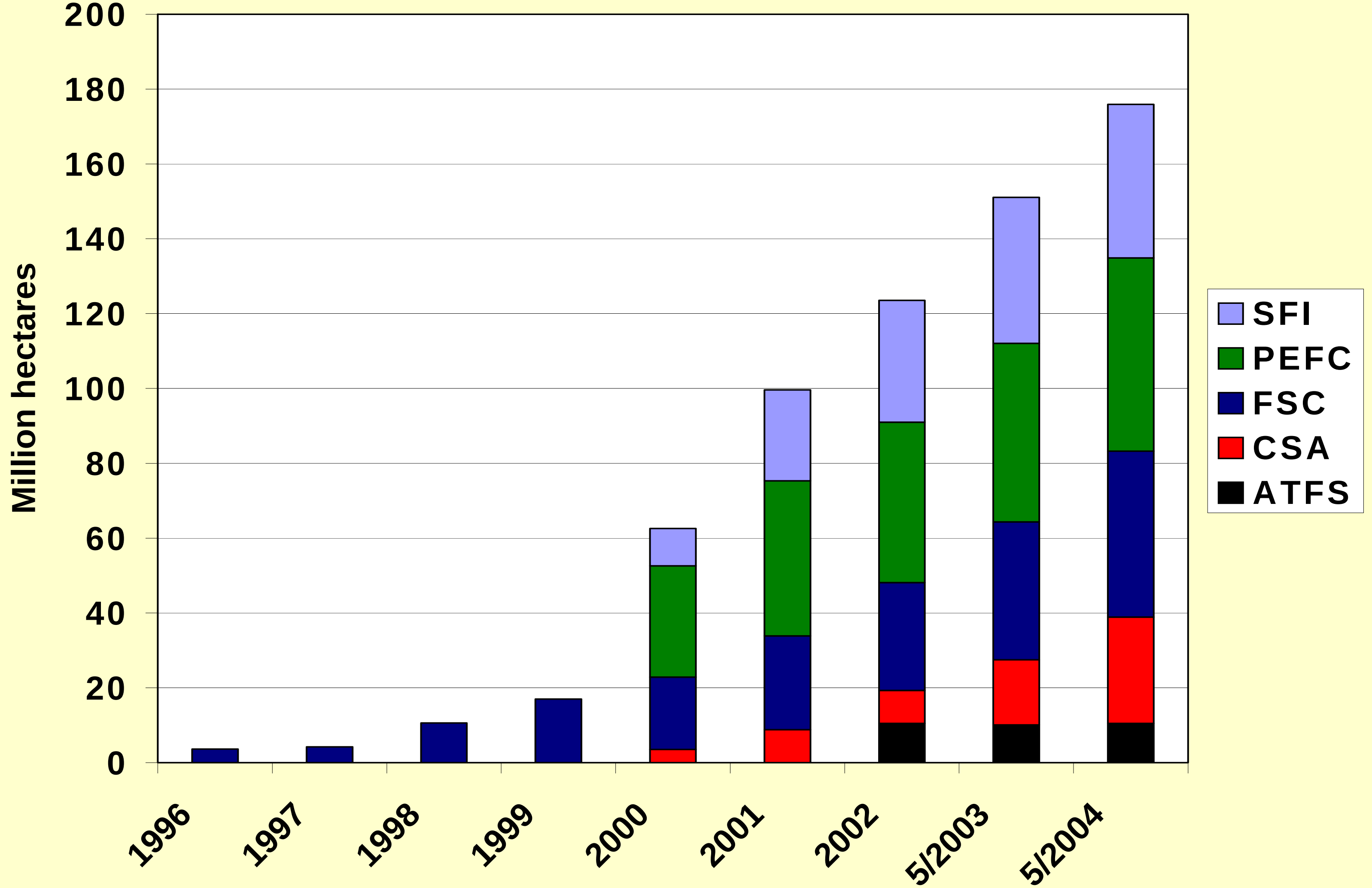
Source: *Forest Products Annual Market Review, 2004-2005*

II. Certified forest products markets

Certification of sustainable forest management

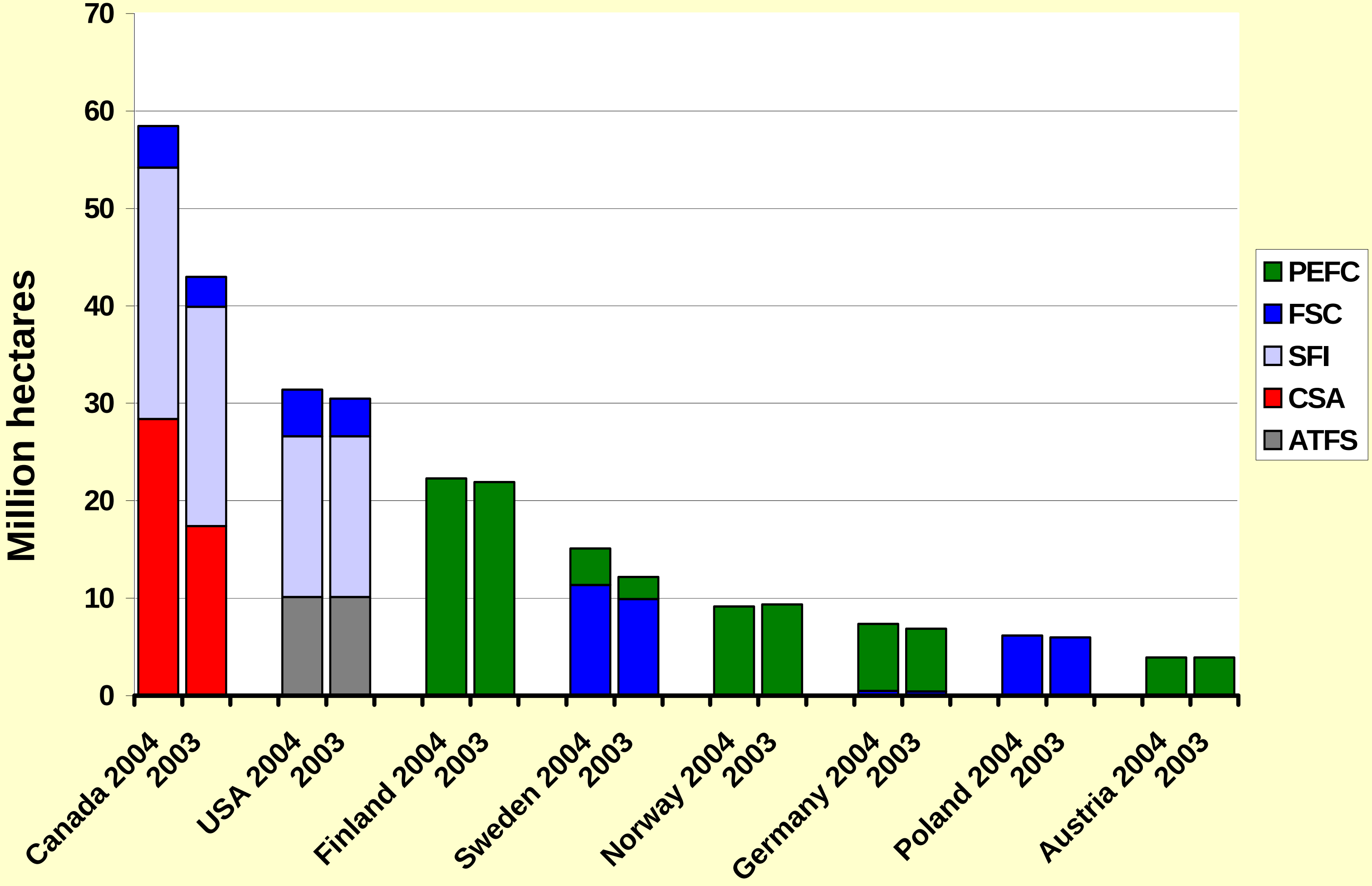
- Over 250 million hectares worldwide (6%)
- Over half of world's certified area in N. America
- Another 40% in Europe
- Only 1% in tropical forests

Area of certified forests, 1996-2004



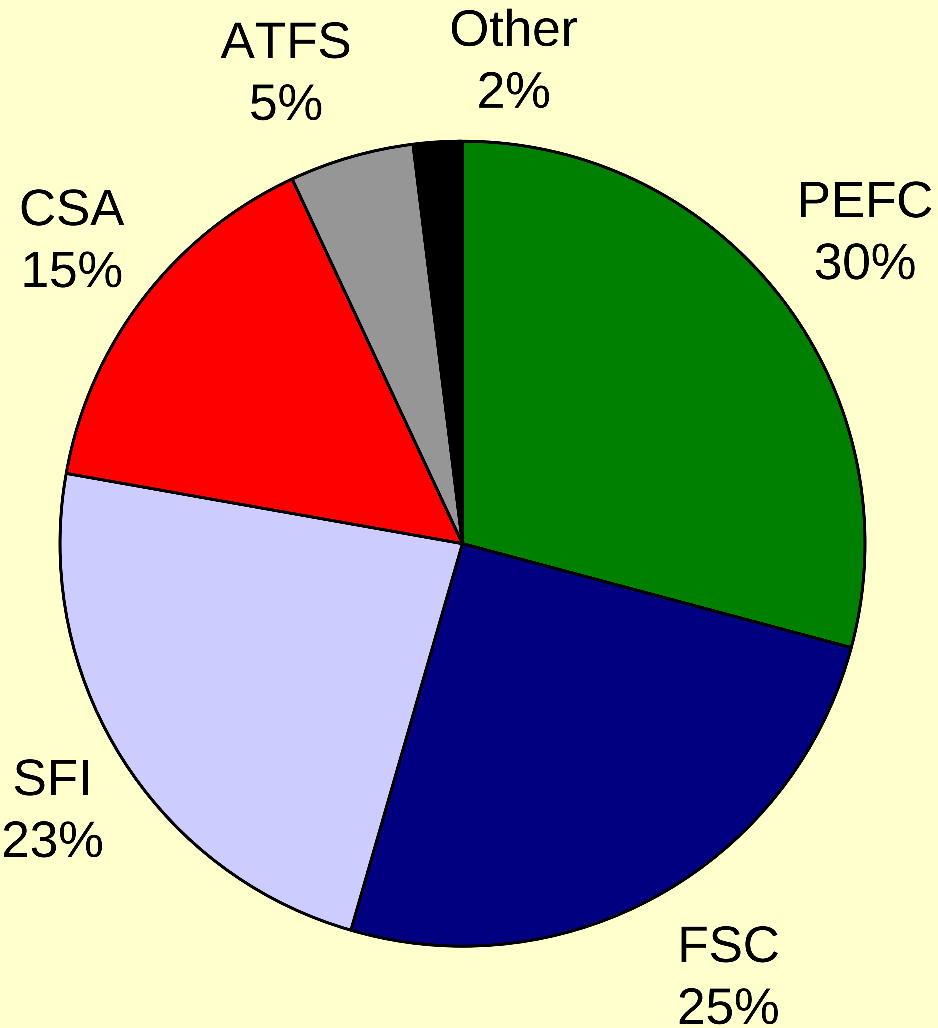
Source: *Forest Products Annual Market Review, 2003-2004*

Top 8 countries certified forest area, 2003 and 2004



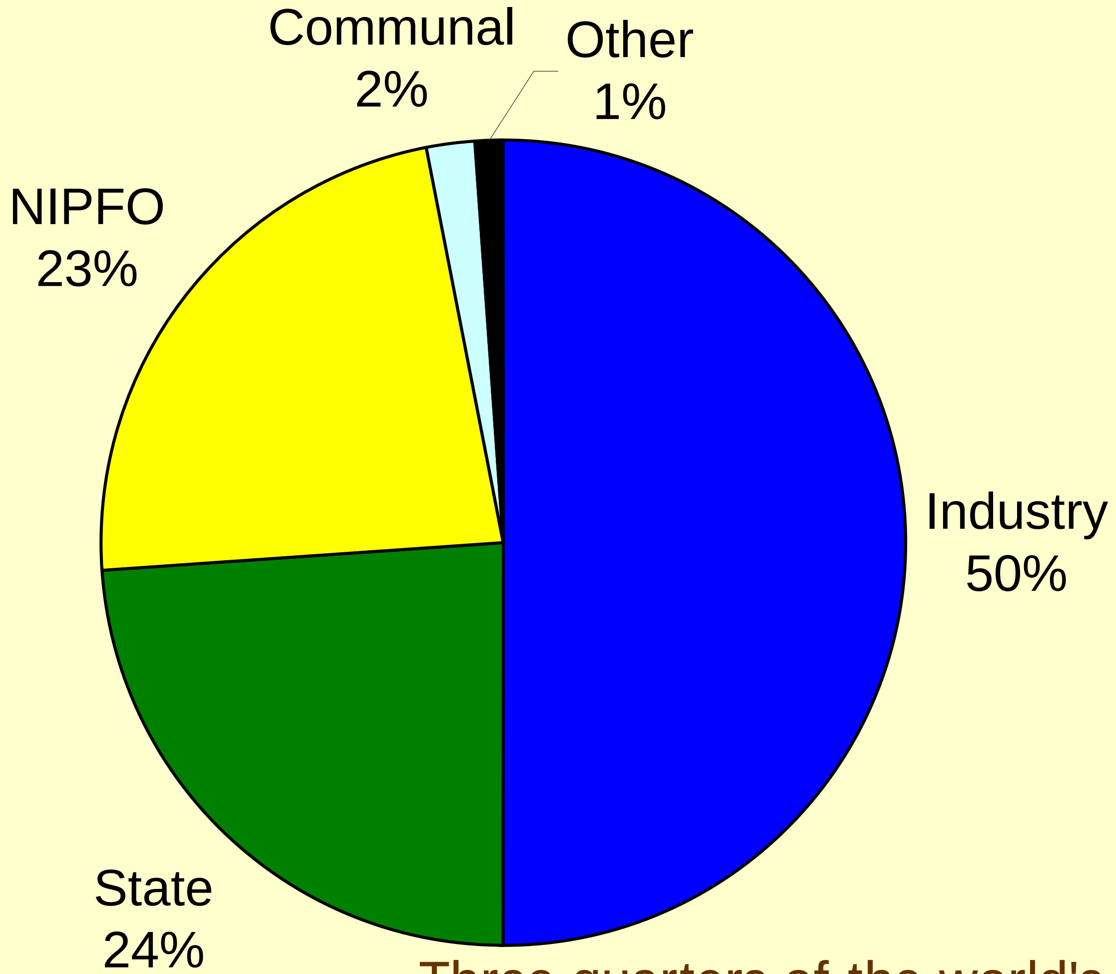
Source: *Forest Products Annual Market Review, 2003-2004*

Certification schemes' market share



Source: *Forest Products Annual Market Review, 2003-2004*

Certified forests by ownership type



Three quarters of the world's certified forests are privately owned or managed

Source: Savcore Indufor, 2005

Certified forest products markets

- Growing demand via wholesalers & retailers
- Demand boost by government procurement
- Private consumer demand remains minor
- Chain-of-custody key current development
- Most certified timber sold without label
  - Potential over 300 million m^3 (20% world roundwood production)
  - Lost opportunities for market promotion and PR

Source: *Forest Products Annual Market Review, 2003-2004*

Certified forest products markets

- Certification system conflicts discredit forest products in the marketplace
- Variety of schemes necessary for different stakeholders' interests
- Impacts of forest certification locally significant
- Difficulties in certifying natural tropical forests, but less so for tropical plantations
- Markets developing slower than forest certification

Source: Savcor Indufor, 2005

Certification

- Introduced to combat deforestation in tropics
- Most certified forests are temperate & boreal
- Therefore, not an instrument to combat deforestation, but to promote sustainable forest management
- Mutual recognition between schemes an issue
- Potential additional roles
  - Verification mechanism in Kyoto Protocol
  - Indication of source, but not proof of legality

Sources: Savcor Indufor, and UNECE/FAO, 2005

III. Need for international forest products market information

Capitalizing on market opportunities

- Domestic market
  - Current needs
  - Developing demand for wood products
  - Or in low-forest countries, for non-wood goods and services
  - Information for government, trade associations, forestland owner associations, industry
- Export markets
  - Increasing imports in developed countries (example: USA)
  - Increasing imports in China, next India
  - Usually higher profitability than domestic, CIS market
  - Attracting foreign investment

Policy interactions

- Developing new policies to support forest sector
  - Forestland management
  - Infrastructure and institutions
  - Restitution of private land, and new private forestland owners and their associations
  - Market development (domestic and export)
- Monitoring policy effectiveness
- Trade association policies too

Forest resource interactions

- Country's current forest
  - What is its market potential
  - Wood products
  - Non-wood products
  - Services (watershed protection, recreation, eco-tourism, hunting & fishing)
- Planning forest management for future markets
  - What species are needed?
  - For fibre, pulpwood or logs?
- Resource is global, transportable

Discussion and Questions

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