

**East Asian Forest Products Trade and
Europe's Trade Relationship with East Asian Countries**

Bruce Michie and Emi Pesonen



**European Forest Institute
Internal Report 8, 2002**

EFI Internal Report 8, 2002
East Asian Forest Products Trade and Europe's Trade Relationship with East Asian Countries
Bruce Michie and Emi Pesonen

Publisher: European Forest Institute
Torikatu 34, FI-80100 Joensuu Finland
Tel. + 358 13 252 020
Fax. + 358 13 124 393
Email. publications@efi.fi
<http://www.efi.fi/>

Editor-in-Chief: Risto Päivinen

The views expressed are those of the authors and do not necessarily represent those of the European Forest Institute.

© European Forest Institute 2002

CONTENTS

INTRODUCTION	5
TRADE TRENDS BY MAIN FOREST PRODUCTS	5
ROUNDWOOD	5
SAWNWOOD	7
PANELS	8
WOODPULP.....	9
PAPER	10
WOOD MANUFACTURES	11
PAPER MANUFACTURES	12
BAMBOO.....	14
CONCLUSION	14
REFERENCES	16

INTRODUCTION

In this paper we look at overall trends in the trade of forest products by East Asian countries in relation to Europe and the world during the past four decades. East Asia consists of seven Asian Tigers - Taiwan Province of China, the Republic of Korea, Hong Kong, Singapore, Indonesia, Malaysia and Thailand - with the addition of China and Japan. The East Asian forest industry has developed very rapidly and East Asia has great potential to increase its importance as a trading partner with European countries. In this paper we are studying forest products that are important in East Asian trade: roundwood, sawnwood, panels, wood manufactures, pulp, paper, paper manufactures and bamboo. We look at: (1) the forest products trade of East Asia and Europe as regions in the context of world trade; (2) East Asian and European regional trade with other regions; and (3) East Asian and European country by country trade with regions or the world. The period for the analysis is 1962-1999 and the graphs found in this paper are constructed using value in current US dollars (US\$) or quantities.

The basis for this study is United Nations Statistical Division COMTRADE data 1962-99, standardized in the forest products trade flow data base of the European Forest Institute and World Forests, Society and Environment Project (Michie et al; 1998, 1999, 1999 and 2000).

TRADE TRENDS BY MAIN FOREST PRODUCTS

ROUNDWOOD

In the context of this study, roundwood consists of fuelwood, charcoal, wood residues, chips + particles, coniferous + nonconiferous industrial roundwood (wood in the rough) and other industrial roundwood. The volume of world roundwood imports has increased rather steadily (Figure 1) from 38 million in 1962 to 170 million m³ in 1999, while the value of roundwood imports has been up and down (Figure 2). In the figures the term 'balance' refers to the remaining countries (or regions) making up the region (or world). The value of roundwood imports hit a peak of US\$12 billion in 1980 and another peak of US\$16 billion in 1995 (a decline of 10% in real terms). This decline reflects a worldwide shift away from trade in high value logs toward manufactured products and the lower valued roundwood components of pulpwood, chips, particles and wood waste.

East Asia is the world's largest roundwood importer accounting for 55%, by value, of world imports in 1999 (43%, by quantity) and the second largest importer is Europe accounting for 34%, by value, and 46%, by quantity (Figures 1 and 2).

Most East Asian roundwood exports went to East Asian countries or the other Asian and Pacific countries (Figure 3). Prior to the late 1970's Indonesia was the major exporter (Figure 4). Since the 1970's Malaysia has gradually become the main exporter (71%, by value, in 1999) with China becoming a significant exporter in recent years (15%, by value, in 1999). Indonesia produced 8% (by value) of East Asian roundwood exports in 1999. The largest portion of roundwood imports (83%, by volume, in 1999) came from outside East Asia (Figure 5), mainly from North America or the balance of Asian and Pacific countries.

Although roundwood trade between East Asia and Europe has been rather small, East Asian imports from Europe have increased from US\$7 million in 1990 to US\$269 million in 1999 (Figure 6). China and Hong Kong have become the main importing countries since 1997. Germany (Figure 7) is the major European exporter to East Asia, in 1999, accounting for 48% followed by France (19%). The main reason for the recent increase in roundwood moving from Europe to East Asia is the lower regional price resulting from large supplies of roundwood in the Former USSR.

Figure 1. World Roundwood Imports (Quantity)

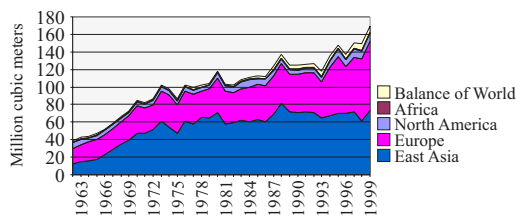


Figure 2. World Roundwood Imports (Value)

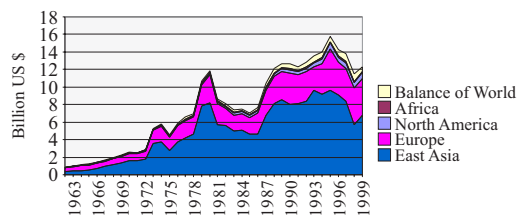


Figure 3. East Asian Roundwood Exports

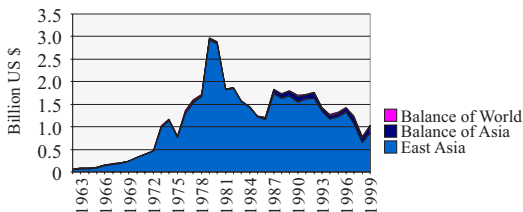


Figure 4. East Asian (by country) Roundwood Exports

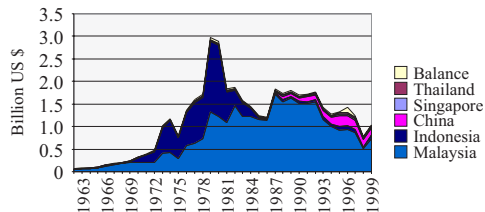


Figure 5. East Asian Roundwood Imports

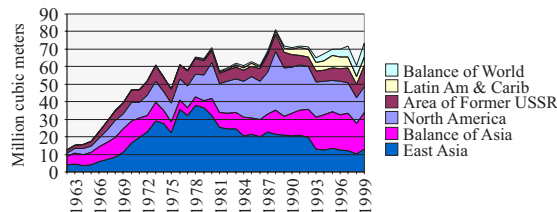


Figure 6. East Asian Roundwood Imports from Europe

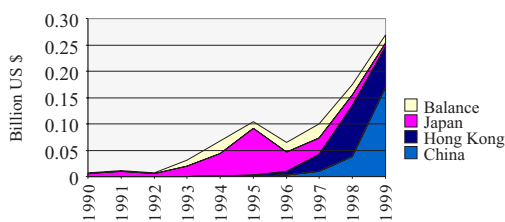
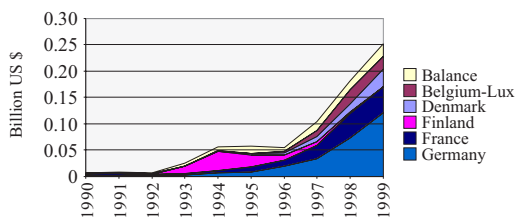


Figure 7. European Roundwood Exports to East Asia



SAWNWOOD

Europe is a large sawnwood trader (Figure 8) accounting for around 37% (by value) of world imports in 1999 (in the context of this study, sawnwood includes coniferous + nonconiferous sawnwood and railway sleepers). East Asia is mainly a sawnwood importer, accounting for around 19% (by value) of world imports. In the 1990s, East Asian sawnwood imports increased rapidly relative to world trends (Figure 9), rising from US\$1 billion to US\$7 billion from 1985 to 1995 a four-fold increase in real terms.

East Asian sawnwood imports from Europe (Figure 10) increased from US\$18 million in 1992 to US\$961 million in 1999 (a 40-fold increase in real terms) mainly due to the increased supply and lower regional price resulting from large imports into Europe from the Former USSR. Japan accounts for the largest portion of East Asian sawnwood imports from Europe followed by Hong Kong and China. European exports to East Asia originate mainly in Finland, Sweden and Austria (Figure 11). East Asian sawnwood exports to Europe (Figure 12) came mainly from Malaysia (71%, by value, in 1999).

Figure 8. World Sawnwood Imports

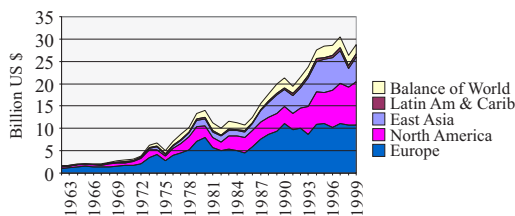


Figure 9. East Asian Sawnwood Imports

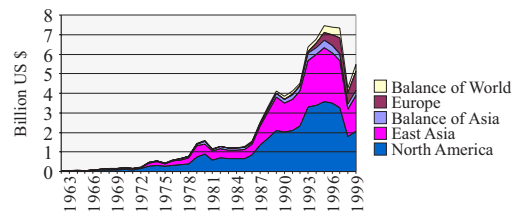


Figure 10. East Asian Sawnwood Imports from Europe

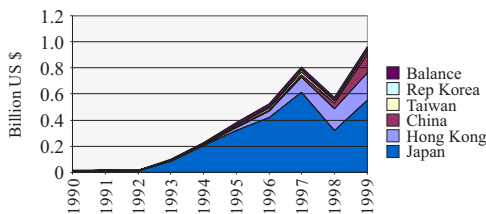


Figure 11. European Sawnwood Exports to East Asia

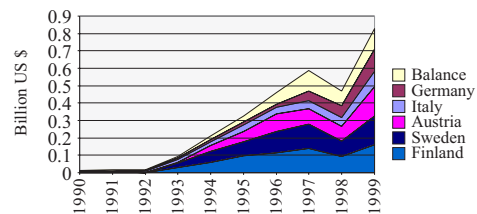
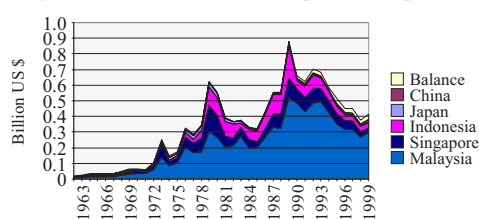


Figure 12. East Asian Sawnwood Exports to Europe



PANELS

Panels, in this study, refer to veneer sheets, plywood, particleboard, fibreboard (both compressed and uncompressed). World panels trade grew constantly in the past four decades (Figure 13). Exports grew from 4 million m³ to 51 million m³ over the 1962-99 period. The exports of East Asian countries contributed 37% of world exports in 1990, declining to 30% by volume in recent years. East Asian panel trade started about 20 years later than that of the other countries. Imports (Figure 14) started to grow in the late 1980s, growing from US\$0.5 billion (1985) to US\$6 billion in 1997. East Asian countries were heavily dependent on East Asian trading partners for panel trade. The share of imports coming from within the region was 80% in 1999 and this dependence has been increasing as a result of the growth of the panel industry in East Asia.

The volume of East Asian panel exports has grown rapidly since the late 1980s, mainly contributed by Indonesia, but Malaysia has increased exports in recent years (Figure 15). Indonesia accounted for around 75% of East Asian exports in 1990 and 54% in 1999. Malaysia contributed 11% in 1990 and 34% in 1999. Exports of panels from Europe to East Asia, while rather small relative to world levels, have increased dramatically since 1994 due to high levels of construction in East Asia (Figure 16).

Figure 13. World Panel Exports (Quantity)

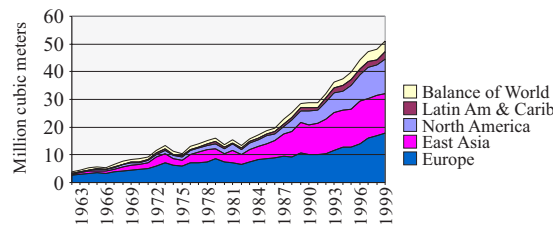


Figure 14. East Asian Panel Imports

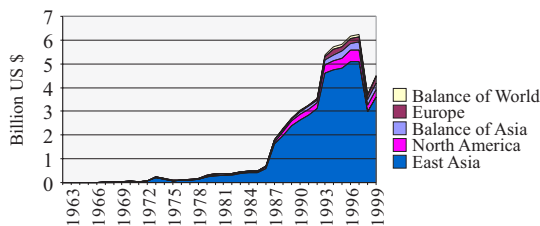


Figure 15. East Asian (by country) Panel Exports

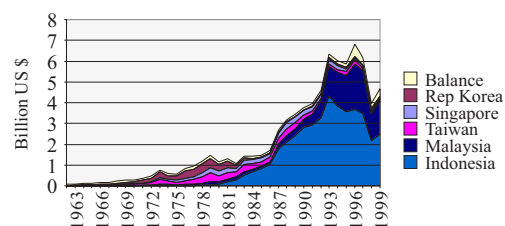
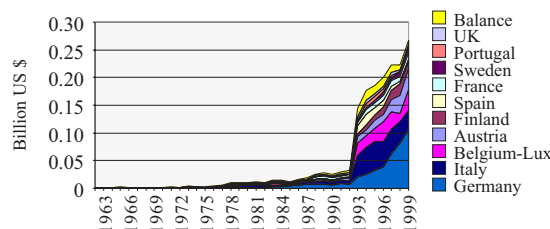


Figure 16. European (by country) Panel Exports to East Asia



WOODPULP

Woodpulp, in this study, refers to mechanical, semi-chemical, dissolving, sulphate (bleached and unbleached) and sulphite (bleached and unbleached) pulp. Europe is the largest importer of woodpulp (45% of world imports, by value, in 1999) and East Asia (29% in 1999) is second largest importer (Figure 17). The volume of world exports has increased steadily from 9 million tonnes in 1962 to 39 million tonnes in 1999 (Figure 18); however, the value of woodpulp trade declined from US\$25 billion at the peak of 1995 to US\$17 billion in 1999 (Figure 17).

In 1999, most East Asian woodpulp imports (Figure 19) came from outside East Asia. Japan, Korea and China were the main importers of woodpulp with 28%, 20% and 29% of total imports, respectively, in 1999 (Figure 20). East Asian exports of woodpulp (Figure 21) have grown dramatically since 1994 due to increasing pulp mill capacity. The value of exports has increased from \$190 million to \$900 million in the past 5 years. This increase is partly due to the Asian economic crisis and the competitive advantage of exports resulting from weak Asian currencies. Around 70% of exports went to other East Asian countries, and 23% to Asian and Pacific countries outside East Asia. East Asian exports of woodpulp come mainly from Indonesia (Figure 22).

Figure 17. World Woodpulp Imports (Value)

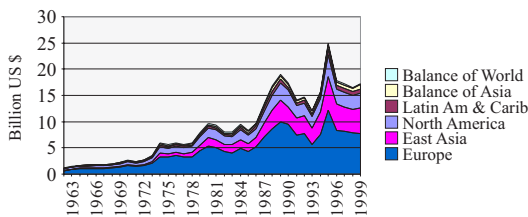


Figure 18. World Woodpulp Exports (Quantity)

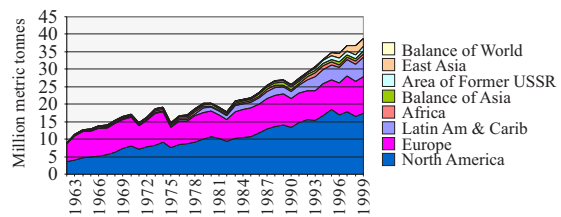


Figure 19. East Asian Woodpulp Imports

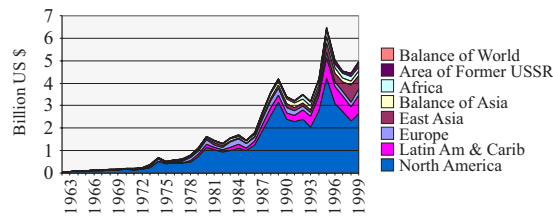


Figure 20. East Asian (by country) Woodpulp Imports

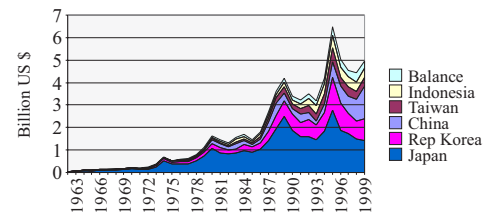


Figure 21. East Asian Woodpulp Exports

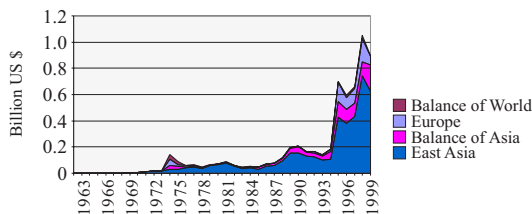
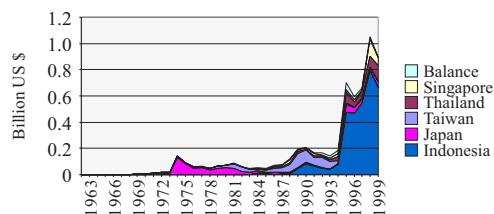


Figure 22. East Asian (by country) Woodpulp Exports



PAPER

Paper, in this study, refers to newsprint, printing + writing paper and other paper + paperboard. Europe is the world's largest exporter of paper products (62%, by value, in 1999) (Figure 23) while East Asian exports represented about 10%. East Asia is heavily dependent on other regions for their imports of paper products (Figure 24). Paper from other regions accounted for 48% of imports in 1999, 18% of came from Europe. China, Hong Kong and Japan (Figure 25) were the largest importers (36%, 20% and 13%, respectively, by value, in 1999). Approximately 65% of East Asian exports of paper products went to other East Asian countries, and 17% went to other Asian and Pacific countries (Figure 26). Japan, Korea and Indonesia were the main exporters representing 27%, 24% and 25% of exports, respectively, in 1999 (Figure 27).

Figure 23. World Paper Exports

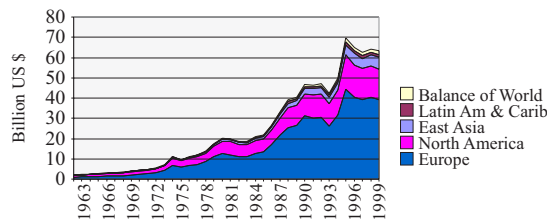


Figure 24. East Asian Paper Imports

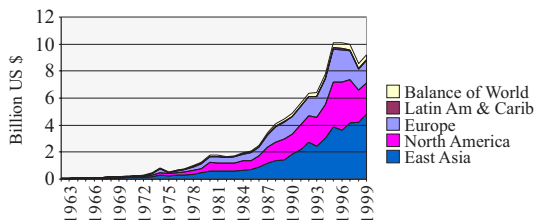


Figure 25. East Asian (by country) Paper Imports

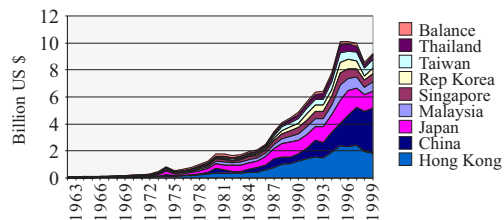


Figure 26. East Asian Paper Exports

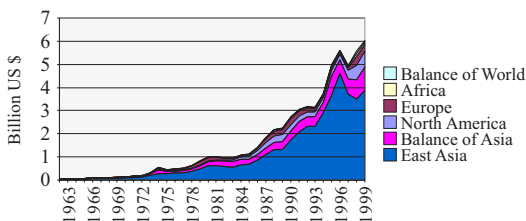
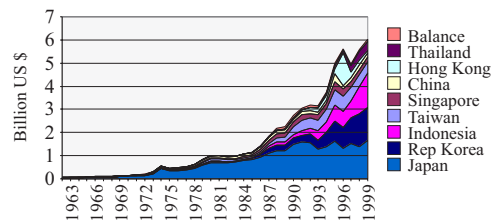


Figure 27. East Asian (by country) Paper Exports



WOOD MANUFACTURES

Wood manufactures, in this study, refer to improved wood, wood simply shaped, packing cases, casks + cooperage, builders carpentry, decorative wood and tools + turned wood. Europe, East Asia and North America were the largest exporters of wood manufactures with 48%, 22% and 19%, by value, of world exports (Figure 28). More than half of East Asian exports of wood manufactures went to other regions in 1999 (Figure 29). North America (26%, by value) and Europe (25%, by value) were the main destinations for those exports with 42%, by value, going to other East Asian countries. Taiwan was the major exporter until 1990 (Figure 30). China, Indonesia, Malaysia, Thailand and Taiwan were the largest exporters in 1999 with 37%, 33%, 9%, 9% and 8% of exports, respectively, by value, in 1999.

Most of Europe's exports of wood manufactures (Figure 31) went to other European countries (86%, by value, in 1999). North America (5%) and East Asia (3%) were other destinations. Many European countries contributed to the export of wood manufactures (Figure 32) indicating that wood manufacture production is not as concentrated as is the production of other forest products such as woodpulp, sawnwood or panels.

Figure 28. World Wood Manufactures Exports

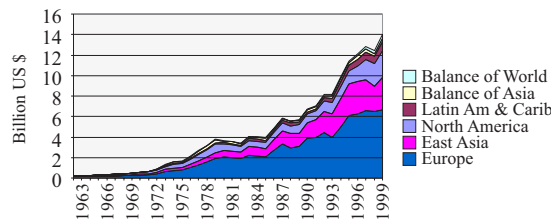


Figure 29. East Asian Wood Manufactures Exports

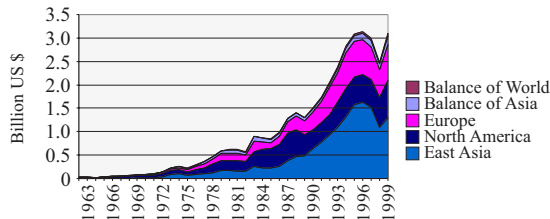


Figure 30. East Asian (by country) Wood Manufactures Exports

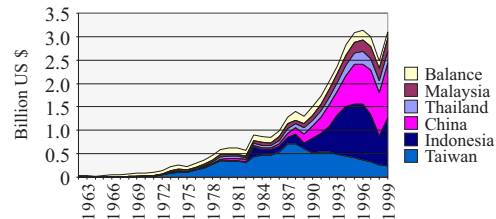


Figure 31. European Wood Manufactures Exports

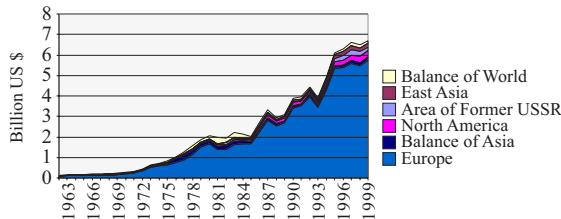
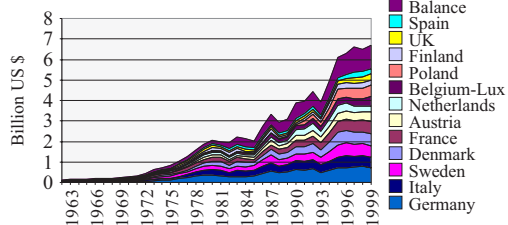


Figure 32. European (by country) Wood Manufactures Exports



PAPER MANUFACTURES

Paper manufactures, in this study, refer to filter blocks, cigarette paper, wallpaper, copying paper, envelopes + postcards, sanitary paper, containers, account books + forms, bobbins, articles of paper and laminated + composite paper. The paper manufactures database, to date, only contains data for years 1993-1999. Europe, North America, East Asia and Latin America were the largest exporters of paper manufactures with (61%, 19%, 11% and 6%, respectively, by value) of exports in 1999 (Figure 33). Roughly, half of East Asian exports of paper manufactures went to other regions (Figure 34). Other East Asian countries received 53% (by value) of East Asian exports. North America (18%), Asian countries outside East Asia (13%) and Europe (12%) were other destinations for East Asian paper manufactures exports. All East Asian countries contributed significant exports of paper manufactures (Figure 35). The largest exporters in 1999 were China (22%) and Japan (20%) while the smallest were Hong Kong (3%) and Thailand (5%).

The largest portion (85%) of European paper manufacture exports went to other European countries (Figure 36). Former USSR (4%), Asian countries outside East Asia (3%), East Asia (2%), North America (3%) and Africa (2%) were other destinations for European exports of paper manufactures. The largest European exporters (Figure 37) were Germany (22%, by value), France (12%), the Netherlands (9%), Italy (9%), UK (8%) and Belgium (8%). Many other European countries contributed significant exports of paper manufactures.

Figure 33. World Paper Manufactures Exports

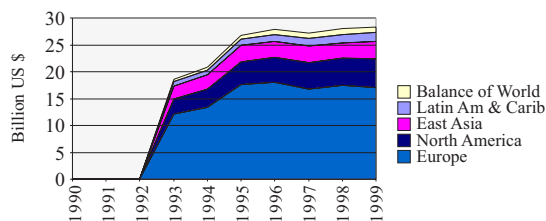


Figure 34. East Asian Paper Manufactures Exports

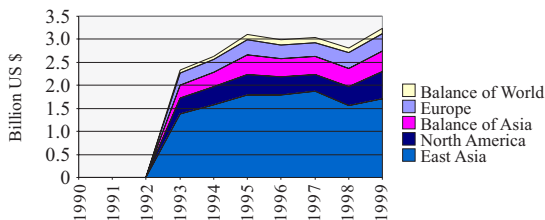


Figure 35. East Asian (by country) Paper Manufactures Exports

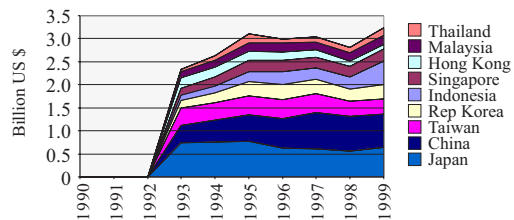


Figure 36. European Paper Manufactures Exports

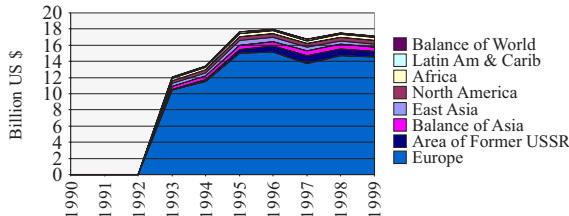


Figure 37. European (by country) Paper Manufactures Exports

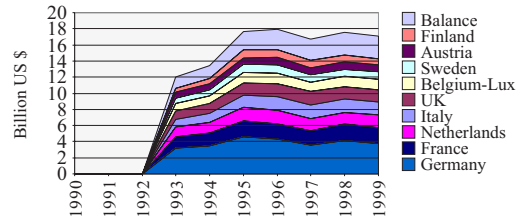


Figure 38. World Bamboo and Rattan Exports

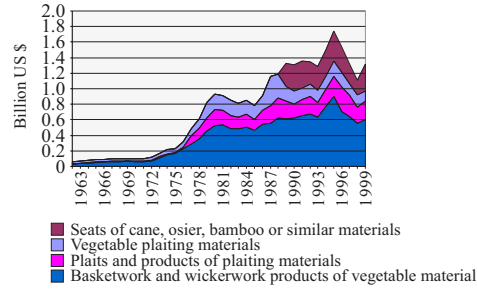


Figure 39. East Asian (by country) Bamboo and Rattan Exports

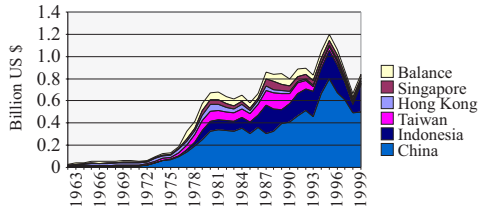


Figure 40. East Asian Bamboo and Rattan Exports

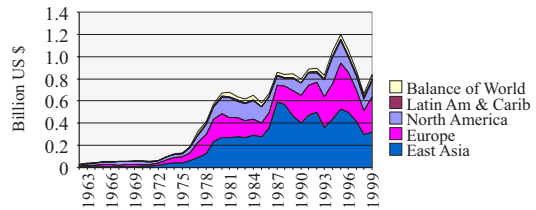


Figure 41. European Bamboo and Rattan Exports

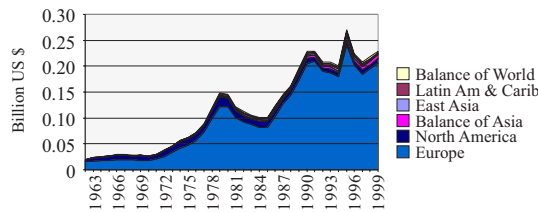


Figure 42. European (by country) Bamboo and Rattan Exports

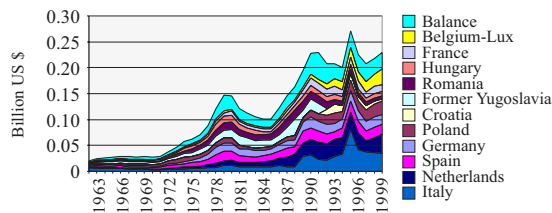
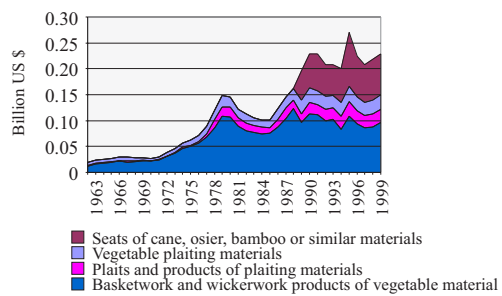


Figure 43. European Bamboo and Rattan Exports



BAMBOO

Vegetable plaiting material, in this study, refers to straw, willow (or osier), bamboo, rattan, rushes, reeds, strips of wood, strips of other vegetable materials (bark, leaves and raffin). The Bamboo Database consists of vegetable plaiting materials, plaits + plaited products, basketwork and seats of cane + bamboo (Figure 38). Exports of bamboo (and related products) grew from US\$56 million in 1962 to US\$1.7 billion in 1995 (US\$240 million to US\$1.5 billion in real 1990 dollars). Bamboo exports are very important forest products for East Asian countries, especially China and Indonesia (Figure 39). East Asia has dominated world trade of bamboo for over 40 years, and accounted for 64% of world exports in 1999. About 70% of exports go to countries outside the East Asian region, 38% to Europe (Figure 40).

European exports of bamboo (and related products) go mainly to other European countries, 90% in 1999 (Figure 41). Many countries contribute to European exports of bamboo (Figure 42). The composition of European exports differs from world exports (Figures 38 and 43). European exports consist of less basketwork (42% vs 46%), less plaits (11% vs 18%), slightly more vegetable plaiting materials (12% vs 10%) and more seats of cane and bamboo (35% vs 26%).

CONCLUSION

East Asian forest product exports (Figure 44) have developed at almost the same rate as world exports (Figure 45). Over the past four decades East Asia was a net importer of forest products with imports maintaining a level about twice that of exports. The product composition of East Asian exports in 1999 is somewhat different from that of world exports. The proportions of East Asian exports differ from world exports for several products, paper (28%, for East Asian exports vs 35%, for world exports), sawnwood (8% vs 15%), panels (22% vs 10%), wood manufactures (14% vs 8%) and bamboo (4% vs 1%). These differences of product composition are due to the development of the forest industry in East Asia which has stressed production of panels, paper manufactures and wood manufactures. The value of East Asian imports (Figure 46) show less paper, less paper manufactures and more roundwood imports than one would expect from world exports.

The product composition of European imports from East Asia, in 1999, (Figure 47) was quite different from European exports to East Asian countries (Figure 48), paper (9% vs 37%), paper manufactures (19% vs 10%), wood manufactures (28% vs 5%) and bamboo (11% vs 0%). Additionally, European sawnwood and panel imports from East Asia have been consistently important. The ratio of European imports from East Asia with European exports to East Asia was almost three in 1980. By 1999, that ratio had dropped to one indicating that Europe can expect to become a net exporter of forest products to East Asia in the near future. This trend might be threatened by recent efforts of European companies to get more direct access to East Asian markets by making large forest industry and reforestation investments in Indonesia, Thailand and Malaysia. Nevertheless, with East Asia's large population and expected economic growth, European countries have a great opportunity to provide a large portion of the forest products that will be necessary to meet the expected demand increases in East Asia.

Figure 45. World Forest Products Exports

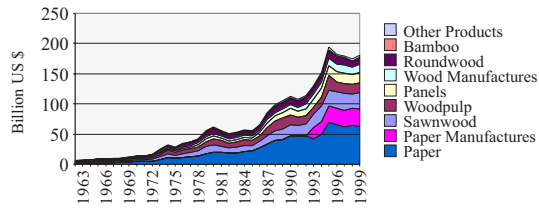


Figure 44. East Asian Forest Products Exports

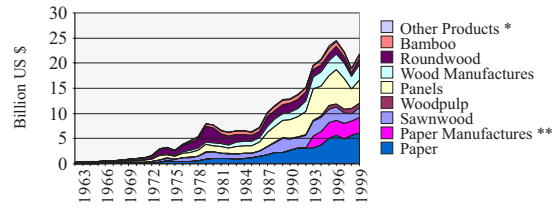


Figure 46. East Asian Forest Products Imports

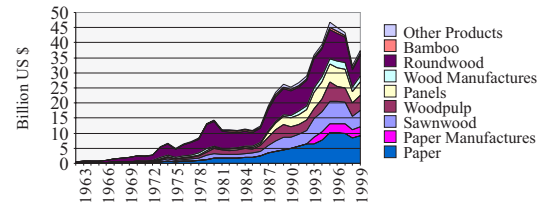


Figure 47. European Forest Products Imports from East Asia

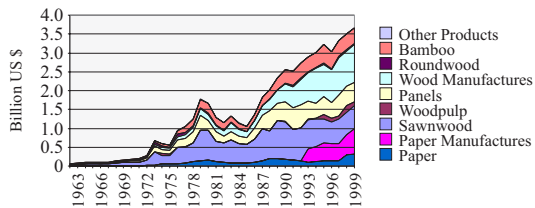
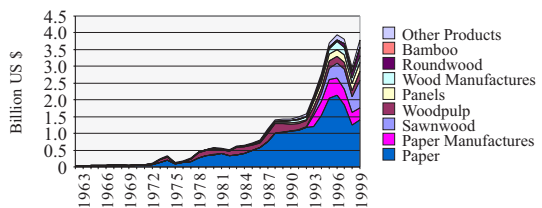


Figure 48. European Forest Products Exports to East Asia



* Other products includes recovered paper, other fibre pulp and cork products

** Paper manufactures data is available only for the 1993-1999 period

REFERENCES

Michie B and Wardle P. 1998. UNSTAT Trade Data as Basis for Analysis and Projection of Forest Products Trade Flows. EFI Working Paper No17, Joensuu Finland. ISBN 952-9844-59-X.

Michie B, Chandrasekharan C and Wardle P. 1999. Production and Trade in Forest Goods: In: Palo M and Uusivuori J (eds.). *World Forests, Society & Environment*. Volume I. Kluwer Academic Publishing, Amsterdam and New York. ISBN 0-7923-5321-8.

Michie B and Kin S. 1999. A Global Study of Regional Trade Flows of Five Groups of Forest Products. *World Forests, Society and Environment Research Program*, Helsinki. ISBN 951-40-1674-2.

Michie B and Niskanen A. June 2000. A Unified Database on Forest Products Trade Flow. *EFI News* 8.2000, Joensuu, Finland.