THE CANADIAN FOREST PRODUCTS INDUSTRY

Competitive Challenges in the 1990s

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Forest Industry Lecturer

Forest Industry Lecture Series
Forestry Program
Faculty of Agriculture and Forestry
University of Alberta
Edmonton, Alberta
Canada

10 November 1993

FOREST INDUSTRY LECTURE NO.31

THE FOREST INDUSTRY LECTURERS

The forest industry in western Canada cooperates with Alberta Environmental Protection to provide funds to enrich the Forestry program at the Faculty of Agriculture, Forestry & Home Economics at the University of Alberta through sponsorship of noteworthy speakers.

The Forest Industry Lecture Series was started during the 1976-77 term as a seminar course. The late Desmond I. Crossley and Maxwell T. MacLaggan presented the first series of lecturers. The contribution of these two noted Canadian foresters is greatly appreciated.

Subsequent speakers in the series have visited for periods of up to a week, with all visits highlighted by a major public address. It has indeed been a pleasure to host such individuals as C. Ross Silversides, W. Gerald Burch, Gustaf Siren, K. F. S. King, F. L. C. Reed. Gene Namkoong, Roger Simmons, Kenneth A. Armson, John J. (Jack) Munro, Peder Braathe, K. N. Johnson, V. J. Nordin, J. Paivanen, Conor Boyd, Peter Rennie, John A. Marlow, Gordon W. Gullion, Hugo Von Sydow, Mary Jo Lavin, Harold R. Walt, Adam H. Zimmerman, T. M. (Mike) Apsey. Bjorn Hagglund, Jerry F. Franklin, John Zasada, Clark S. Binkley, J. P. (Hamish) Kimmins, Don G.
Roberts, David L. Wood and David L. McInnes.

This paper contains Patricia M. Mohr's major public address given on 10 November

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PATRICIA M. MOHR

Ms. Mohr is Vice-President. Economics at The Bank of Nova Scotia and is responsible for industry and commodity market analysis at the Bank. She works closely with corporate, commercial and investment banking to assess the outlook for industries key to Scotiabank's loan portfolio. Ms. Mohr developed the Scotiabank Commodity Price Indices and is a columnist for the Canadian Papermaker magazine, under the caption The Bottom Line. She maintains a close interest in national and international economic and financial developments.

Prior to joining Scotiabank, Ms. Mohr spent a number of years as Senior Economist with Alberta Energy Co. Ltd. in Calgary. She served as Corporate Economist for Canadian Pacific in London, England and was heavily involved in the tanker and bulk shipping operations of CP (Bermuda) and CP ships. She began her career as mineral economist with the Department of Energy, Mines and Resources in Ottawa.

Ms. Mohr was born in Vancouver, British Columbia and holds a Master's degree in Economics from the University of British Columbia.

THE CANADIAN FOREST PRODUCTS INDUSTRY

Competitive Challenges in the 1990s

Patricia M. Mohr, Vice-President, Economics

HIGHLIGHTS

Albertans and Canadians have been major "winners" in the global forest products industry and have a large stake in its ongoing success. Canada accounts for 38 per cent of world supplies of bleached softwood kraft pulp and more than 50 per cent of global trade in newsprint and in softwood lumber. The forest products industry is the single biggest contributor to Canada's merchandise trade surplus, with net exports of $21.5 billion annualized so far this year. This surplus roughly matches the combined total from the auto, non-ferrous mining and oil and gas sectors.

However, the industry experienced its worse financial performance in fifty years in 1991-92. While lumber and panelboard producers have returned to solid profitability this year, losses continue to plague newsprint manufacturers — concentrated in Eastern Canada. International pulp prices have also fallen to levels not seen since the mid-1980s (see appendix for further details).

This partly reflects recessionary economic conditions in Continental Europe and Japan, but also a number of major challenges facing the Canadian forest products industry in the 1990s:

a mature North American newsprint market and a loss of competitiveness by Eastern Canadian producers to new mills in the Southern United States;

U.S. advertising trends which point to more rapid demand growth for groundwood specialty and coated papers than for newsprint;

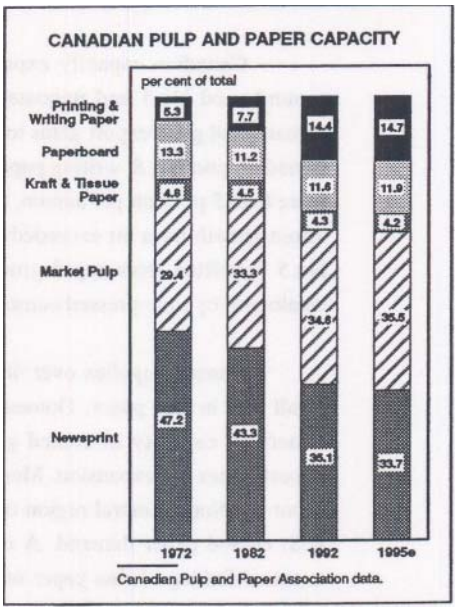
increased competition in global pulp markets from newly emerging manufacturers in Brazil, Chile and Indonesia: and finally

the growing substitution of wastepaper for virgin fibre in newsprint and printing & writing papers, especially in the United States. Electronic media will also pose a challenge by the late I990s.

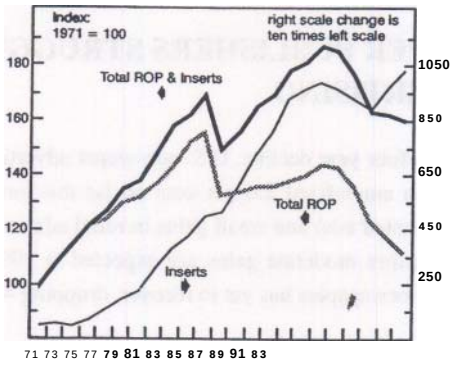
Canadian newsprint producers have already responded by streamlining their operations, shutting down outdated facilities and converting some machines to groundwood papers. Substantial progress has been made in reducing costs close to levels in the Southern United States.

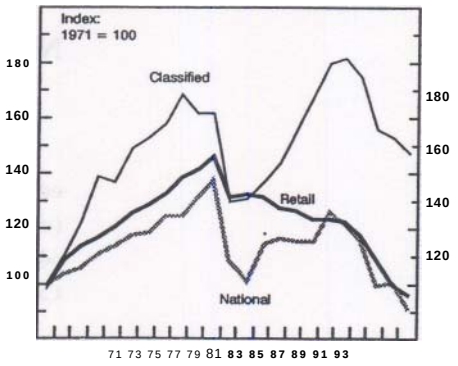
Canadian manufacturers are beginning to re-position their product line to higher growth printing & writing papers where they have a competitive advantage based partly on high-quality pulp.

Alberta producers are particularly well placed to take advantage of opportunities in coated papers in the U.S. Midwest, California and the Far East. A fine paper industry will eventually develop around Alberta's burgeoning pulp production.



NEWSPAPER LINAGE - - CANADA





Source: Canadian Daily Newspaper f4,sociation.
ROP: Run-of-press advertising excluding inserts.

THE SHIFT TO PRINTING & WRITING PAPER

The Canadian Pulp and Paper Association's latest capacity survey reveals that newsprint accounted for just over 35 per cent of Canada's product mix in 1992 — an 8 percentage point drop over the past decade. Since 1989, twenty-six newsprint machines have shut down, cutting capacity by more than 1.4 million tonnes. In contrast, the share of printing & writing paper has almost doubled over the past decade to 14.4 per cent. Market pulp is also growing in importance and now accounts for 35 per cent of capacity (including the recently commissioned Alberta-Pacific mill in Alberta and the Celgar expansion at Castelgar, B.C.).

Canadian capacity expansion since the mid-1980s has been concentrated in coated groundwood No.5 and uncoated freesheet. Expansion was encouraged by strong domestic demand and good export gains to the United States — the destination of more than 70 per cent of Canadian printing & writing papers. U.S. consumption of coated groundwood No.5 advanced by more than 5 per cent per annum, and uncoated freesheet by 4.4 per cent per annum from 1982-92. These growth rates far exceeded the annual 1.7 per cent gain for newsprint. Coated groundwood No.5 benefited from rapid growth in special interest magazines, the growing use of retail catalogues by time-pressed consumers and a strong advertising environment until the late 1980s.

Canada supplies over 40 per cent of U.S. uncoated groundwood paper, but still has a small role in fine paper. Domestic manufacturers only account for about 11 per cent of North American capacity in coated groundwood No.5 and freesheet grades, but have significant opportunities for expansion. Many producers in Eastern Canada and Alberta are well located to serve the North Central region of the United States — an area accounting for 45-50 per cent of U.S. coated paper demand. A number of Alberta forest management agreements require the eventual linking of fine paper machines to pulp. Canadian producers also have a natural advantage in lightweight coated papers, which require the tensile strength of northern softwood fibre for high-speed printing.

NEWSPAPER PUBLISHERS STRUGGLE TO RE-GAIN ADVERTISING

After a four year decline, U.S. newspaper advertising linage for ten major publishers has edged up by an annualized 2.6 per cent so far this year. A pick-up in classified advertising (mostly help-wanted ads) and small gains in retail ads more than offset a further drop in national advertising. Further moderate gains are expected in 1994-95. However, run-of-press linage in Canadian daily newspapers has yet to recover, dropping 4.6 per cent through August 1993.

Newspaper linage has been hurt by a persistent loss of market share in national advertising. National advertisers find it more cost effective to print large numbers of inserts, which can

easily be enclosed in newspapers across the country. This trend is particularly striking in Canada, where newspaper insert volumes grew by 8.7 per cent in 1992 and 6 per cent so far this year. About 60 per cent of insert volumes in the United States are printed on uncoated or coated groundwood papers and only 40 per cent on newsprint.

The slow recovery of consumer spending in both Canada and the United States following the 1990-91 recession, the development of discount stores with low advertising budgets and consolidation in the retail sector are also taking a toll on linage. Newspapers are the preferred medium for local retailers such as supermarkets and auto dealers. The Metro Toronto market alone has been hit with the acquisition of Towers by Zellers department stores, the purchase of Miracle Mart and Ultra-Mart outlets by A&P and Dominion stores and the demise of Simpsons and Liptons.

Canadian newspaper publishers have faced increased competition from Canada Post's AdMail — delivery of direct mail or fliers to first class mail addresses. Canada Post has made a considerable effort to expand this business to offset a declining volume of first class mail caused by fax machines and has an advantage in delivering fliers to locked apartment and condominium mail boxes. National or regional coverage can be arranged through a single AdMail contact and publishers are attempting to compete by banding together to provide province-wide coverage.

Publishers will probably focus more on circulation gains and higher subscription fees to pay for editorial content in the 1990s. An aging population in both Canada and the United States should increase per capita consumption of newspapers. A 1993 survey by the Newspaper Association of America indicates that readership of daily and Sunday newspapers increases with age. Only about 55 per cent of adults aged 25-34 read a daily newspaper compared with 66 per cent in the 45-54 age group. Readership is almost 70 per cent for adults aged 55-64.

WEAK NATIONAL ADVERTISING TAKES TOLL ON MAGAZINES

Canadian and U.S. magazine publishers have also had to contend with a shift from national advertising to promotion. Magazines are the preferred medium to differentiate a product and describe its qualities. However, in today's tough environment many marketing campaigns are emphasizing direct promotions which yield immediate sales (e.g. coupons in fliers).

U.S. magazine publishers are fighting back by offering more customized and regionalized products. For example, Time Inc. produces a Business and Top Management version to help advertisers target their products with greater accuracy. Publishers are also creating "custom magazines" in the name of the advertiser with editorials focused on their area of interest. Some of these magazines are intended to continue for more than one year, while others are designed to run only one or two editions.

U.S. magazine ad pages are beginning to recover from the plunge of 4 per cent in 1992 and 1.2 per cent so far this year. However, ad pages in Canada show no sign of turnaround.

Canadian publishers are concerned about the potential sale of cut-rate advertising in "split-run editions" of U.S. and other foreign magazines in Canada (e.g. Sports Illustrated). The tariff code prohibits importation of split-run periodicals — for example, a U.S. publication sold in Canada and the United States with the same U.S. editorial content but with different national advertising. However, the development of electronic data transmission now allows a U.S. publisher to beam page proofs across the border to a Canadian printer without passing through Canada Customs. If legislation is not bolstered, foreign publications will be able to offer advertising at about one-fifth the domestic cost, subsidized by large foreign circulations.

ADVERTISERS FAVOUR CIRCULARS & INSERTS

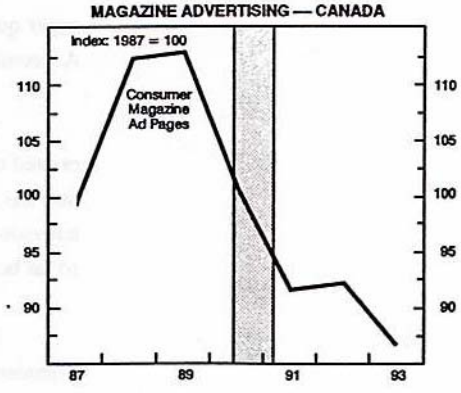
In contrast to newspaper and magazine advertising, circulars and inserts with coupons have shown solid growth. U.S. spending on circulars has been largely recession-resistant, increasing at a 4 per cent annual rate over the past three years. These figures include the impact of lower printing fees and therefore understate volume growth. One large printer has recorded annual volume gains of 7 per cent since 1989.

U.S. PAPER CONSUMPTION IN INSERTS AND DIRECT MAIL

	(millon tons)	(% of total)
TOTAL	**2-9**	**100**
Uncoated Groundwood	1.5	52
Supercalendered Paper	1.1	38
Other Grades*	0.4	14
Coated Papers	1.4	48
Coated Groundwood No.5	1.1	38
Freesheet Grades	0.3	10

* improved newsprint

Shaded areas indicate U.S. recession periods.



Canadian expenditures on direct mail (including some catalogues) also rose by 11 per cent last year and evidence points to rapid growth in 1993. Most advertising circulars can be delivered via competing systems (newspapers or direct mail) —

helping to contain distribution costs.

A recent U.S. study titled "Print Advertising and Its Impact on Consumer Shopping Behaviour" conducted by the Gallup Organization found that advertising circulars are the medium with the highest recall. More than 80 per cent of all consumers surveyed recalled reading or seeing particular advertising fliers within the past 30 days, while 75 per cent recalled seeing television advertisements. Run-of-press advertising had a 52 per cent recall.

Consumer complaints on the volume of advertising in mail boxes pose the greatest risk to direct mail. While complaints could eventually encourage more run-of-press advertising, many newspaper publishers will have to upgrade the quality of paper used to allow more vivid colour and finer printing for advertisers.

IMPLICATIONS FOR PAPER MANUFACTURERS

Advertising trends point to relatively higher demand growth for uncoated groundwood papers (especially supercalendered A) and coated papers than for newsprint. U.S. newsprint consumption is expected to rise by 2 - 2.5 per cent per annum in 1994-95, up from less than one per cent this year. Uncoated groundwoods will advance by about 3.5 per cent in 1994-95 and coated paper by 4.5 per cent. U.S. fine paper demand has already picked up.

Advertising circulars and inserts are printed on a variety of papers depending on price. A decade ago retailers were content with a reproduction quality that matched standard newsprint. However, since the mid-1980s advertisers have put more emphasis on colour and graphics and paper quality has become an increasing priority. Preferred paper grades include supercalendered A, premium heat groundwood (ideal for four-colour heatset printing) and coated papers.

Upscale retail catalogues — another solid growth area in the United States — are usually printed on high quality coated freesheet or coated groundwood No. 5. Catalogue paper consumption has increased at an 8 per cent annual rate from 1980 to 1992. Home shopping via interactive television systems will probably slow catalogue growth in the late 1990s, though the impact has so far been limited.

Supercalendered A has shown explosive growth. North American consumption of supercalendered A and B (highly and lightly clay filled) paper has increased by 14 per cent per annum from 1980 to 1992 (from 277,000 to 1.1 million tonnes). Demand has climbed another 21 per cent so far this year, with 16 per cent attributable to supercalendered A. Canada supplies about 15.5 per cent of the U.S. market compared with 41.5 per cent by U.S. producers and 43 per cent by Scandinavian manufacturers.

Catalogues and inserts are the two most important markets for supercalendered paper. In the 1980s, these grades gained share in the insert market at the expense of rotonews and lower-quality groundwoods. The New York Times Magazine — the U.S. Sunday supplement with the most advertising — is printed on this paper, partly because of its good colour reproduction.

NEWSPRINT PRODUCERS CUT COSTS AND CONVERT MACHINES

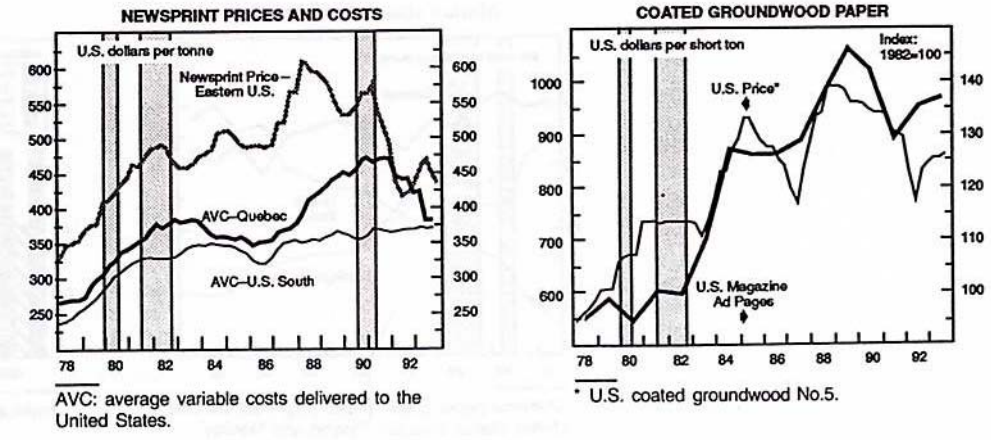
Canadian newsprint manufacturers have responded to the late 1980s downturn in prices by severely cutting costs. Recognizing a mature North American market for newsprint, they have shut-down outdated machines, converted others to groundwood papers and diversified markets overseas. Three manufacturers have converted some machines to telephone directory grade^{x}s, while one producer has shifted to machine finished coated groundwood paper.

With the Canadian dollar around 75-77 cents(US), Quebec and Ontario newsprint manufacturers have average variable costs including transportation to market just US$10-20 per tonne higher than in the U.S. South. This compares favourably with

a US$100 gap several years ago. However, total costs including overheads, depreciation and interest of US$500-510 in Eastern Canada and US$490 in the U.S. South are well above current prices of US$435-450 in the Eastern United States.

Falling mill costs also reflect the phase-in of new capacity commissioned in the late 1980s, modernization and lower pulp prices. Productivity will improve further in 1994-95 along-side two developments — more flexible work practices, recently negotiated in collective bargaining agreements in Eastern Canada, and rising mill operating rates as North American demand recovers. However, lower Canadian shipments to Continental Europe may dampen the improvement in domestic operating rates over the next twelve months. The recession-gripped European economies are only expected to recover very gradually in 1994 and recycled newsprint capacity is being expanded in Germany.

Over the longer term, the Far East may offer the greatest opportunity for newsprint manufacturers. Asian newsprint consumption has grown by 5.5 per cent per annum from 1988 to 1992 and will continue to expand rapidly with industrialization and the spread of democracy.



PULP PRODUCERS FACE INCREASED COMPETITION

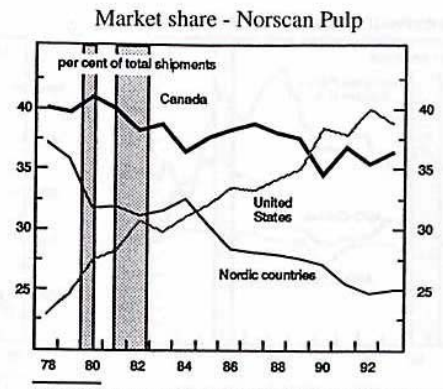
The cyclical correction in pulp prices since mid-1990 has been unusually sharp. Northern bleached softwood kraft pulp at US$390 per tonne in Northern Europe is at a record low in real terms. Weak prices reflect a further inventory reduction by European papermakers, the renewed competitiveness of Nordic producers and increased low-cost supplies from Brazil and Chile.

Currency depreciation against the U.S. dollar by Finland, Sweden, Portugal and Canada has substantially shifted down and flattened the global cost curve. The Finnish Markka has dropped by 31 per cent from August 1992 to November 1993, the Swedish krona by 35 per cent and the Portuguese escudo by 28 per cent. This has allowed producers to offer dramatically lower prices in Europe.

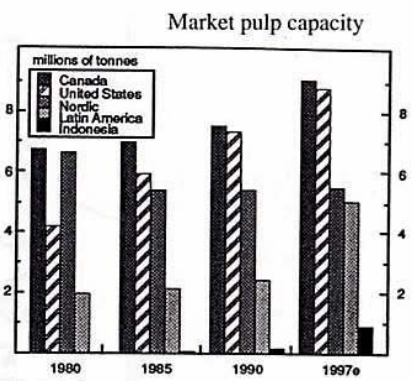
Nordic producers were at the top of the world cost curve in mid-1992, but are now closer to the bottom. This reflects a marked reduction in wood costs as well as currency depreciation.

Timber prices paid to private woodlot owners have been reduced by 24-30 per cent since 1990-91 and harvesting costs have been lowered through greater mechanization. Average variable costs for Swedish pulp mills have dropped by almost US$200 per tonne or 37 per cent.

A flatter world cost curve has triggered an unusually steep drop in prices in 1993. The number of clearly identifiable high-cost producers, who normally cut output to stabilize market conditions, has declined. The U.S. Pacific Northwest is now at the top of the world cost curve, but is a small producer. Downtime in this area has not been sufficient to bring world supplies in line with demand.



Chemical paper grade market pulp from Canada, United States, Sweden, Finland and Norway.



Chemical paper grade pulp.

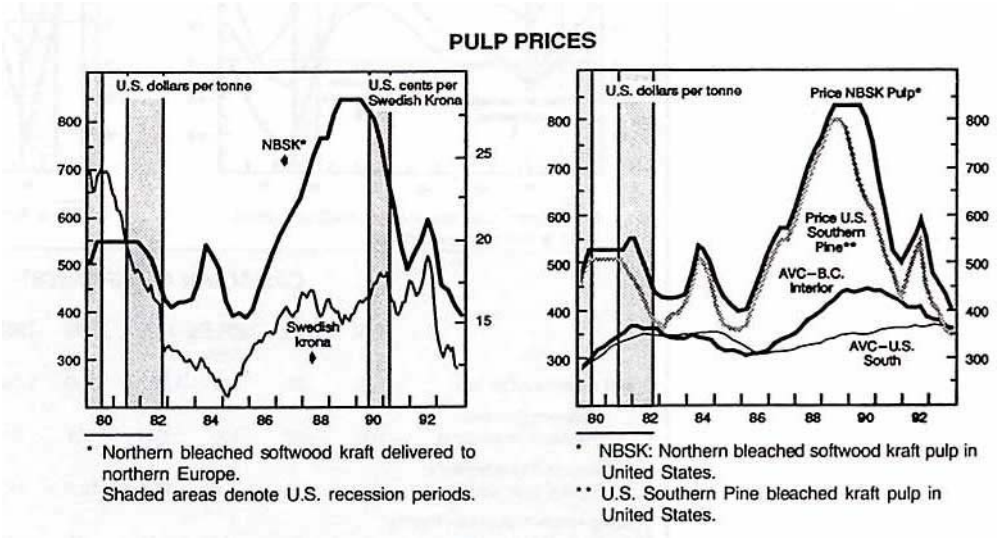
After losing competitive position to the Southern United States in the second half of the 1980s, average variable costs in the B.0 Interior have again slipped below those of the U.S. South. B.C. has regained its position as the lowest-cost softwood producing region in North America. However, competition from new hardwood and softwood producers in Latin America is intensifying and Indonesia will become a significant player by the late 1990s.

Market pulp capacity in Brazil and Chile — based on low-cost plantation wood — has roughly doubled since 1980 and today represents 12 per cent of the Western World total. Indonesia is currently a small producer with about 235,000 tonnes of non-integrated pulp. However, two greenfield mills with a combined capacity of 650,000 tonnes will be added by 1996/97 and possibly more by the end of the decade.

Indonesian mills will use low-cost, clear-cut plantation acacia with a seven-year growing cycle, though electricity costs will be considerably higher than in Canada. Pilot tests indicate that bleached kraft pulp made from acacia will be suitable for uncoated freesheet paper and will be similar in quality to eucalyptus pulp from Latin America and Canadian aspen.

Canadian bleached softwood kraft producers are already responding by developing niche markets which require the tensile strength of northern fibre. They are tailor-making pulp to meet the requirements of particular papermakers.

Alberta mills will compete effectively in this environment with low-cost energy and fibre and a favourable labour-management climate. Variable costs for the province's large-scale bleached hardwood (aspen) kraft pulp mills are comparable to those in Brazil and Chile and lower than in the U.S. South.



SUBSTITUTION OF WASTEPAPER FOR VIRGIN FIBRE

President Clinton has recently announced policy guidelines for recycled content in printing and writing papers bought by U.S. federal agencies. Though government only accounts for 2 per cent of the U.S. paper market, these guidelines may set a precedent for other buyers.

The executive order requires federal agencies to purchase printing and writing paper containing at least 20 per cent post-consumer material by the end of 1994 and 30 per cent by the end of 1998 (if available). Paper brightness specifications will also be revised if they prevent the purchase of paper made from processes minimizing emissions, such as chlorinated compounds.

While greater use of wastepaper will probably slow growth for virgin fibre pulp in the I990s, Canadian softwood producers may well benefit. The fibres in deinked pulp are broken down during recycling and northern bleached softwood kraft will increasingly be needed to provide strength to recycled paper.

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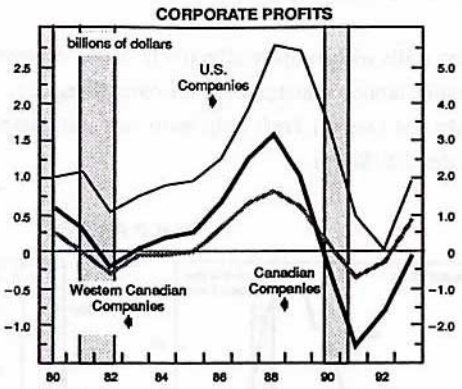
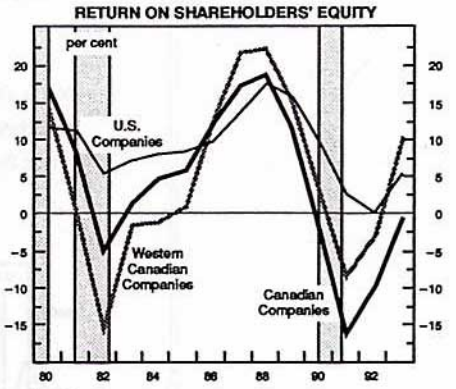
STATISTICAL APPENDIX

Financial Performance — Forest Products Industry

FINANCIAL PERFORMANCE--FOREST PRODUCTS INDUSTRY



Net income after tax and extraordinary items. 1993 is first half annualized.



1993 is first half annualized.

CANADIAN COMPANIES[1]

	1982	1983	1984-86 Avg.	1987	1988	1989	1990	1991	1992	1993* First Half
Net Income After Tax	−170	59	387	1,257	1,599	1,023	−146	−1,213	−773	−43
Western Canada (millions of dollars)	−265	−27	109	664	831	617	133	−315	−120	437
Return on Shareholders' Equity, (per cent)	−4.5	1.5	7.6	17.2	18.8	11.4	−1.7	−15.5	−9.6	−0.5
Long−term Debt−to−Equity Ratio, (per cent)	81	74	62	45	37	52	63	87	91	n.a.

U.S. COMPANIES[2]

Net Income After Tax (millions of dollars)	1,076	1,491	2,062	3,804	5,548	5,384	3,420	946	82	1,884
Return on Shareholders' Equity, (per cent)	5.4	7.1	8.6	13.4	17.4	15.6	9.5	2.6	0.2	5.4
Long−term Debt−to−Equity Ratio, (per cent)	47	46	53	56	54	62	82	83	84	90

1. **Sample of Western Canadian companies:** Canfor Corporation, Crestbrook Forest Industries Ltd., Doman Industries Ltd., Fletcher Challenge Canada Inc., International Forest Products Inc., MacMillan Bloedel Ltd., Primex Forest Products Ltd., Scott Canada, Weldwood Inc. **Eastern Canadian companies:** Abitibi−Price Inc., Canadian Pacific Forest Products Limited, Cascades Inc., Domtar Inc., Donohue Inc., Rolland Inc., Tembec Inc.
2. **U.S. sample:** Boise Cascade Corp., Champion International Corporation, Consolidated Papers Inc., Federal Paper Board Company Inc., Georgia−Pacific Corp., International Paper Co., James River Corporation of Virginia, Kimberly−Clark Corp., Louisiana−Pacific Corp., Mead Corp., Scott Paper Co., Stone Container Corp., Temple−Inland Inc., Union Camp Corporation, Westvaco Corp. and Weyerhaeuser Co.

* Annualized Net Income after tax for first half 1993.

FOREST INDUSTRY LECTURE SERIES

1. Industrial Forestry in a Changing Canada, by C. Ross Silversides. 17 November, 1977.
2. The Role of Integrated Forest Companies in Western Canada, by W. Gerald Burch. 15 March, 1978.
3. Premises of Energy Forestry in Sweden, by Gustaf Siren. 7 March, 1979.
4. Agro-forestry - Prospects and Problems, by K.F.S. King. 27 September, 1979.
5. The Role of the Federal Government in Forestry, by F.L.C. Reed. 5 March, 1980.
6. Breeding for Variable Environments, by Gene Namkoong. 14 August, 1980.
7. Federal Forestry Commitments in the 1980's, by Roger Simmons. 5 December, 1980.
8. Space, Time, and Perspectives in Forestry, by Kenneth A. Armson. 26 November, 1981.
9. Labour's Role in Forest Resource Management, by John J. (lack) Munro. 25 March, 1982.
10. Stocking Control and Its Effect on Yields, by Dr. Peder Braathe. 4 November, 1982.
11. Timber Management Scheduling on Public Lands - Why the Future is Not Like the Past. Dr. K.N. Johnson.
1. March 29, 1983. Talk only, paper not available.
12. The Canadian Schools of Forestry - Retrospect and Prospect. Dr. V.J. Nordin. January 19, 1984.
13. Increasing the Land Base and Yield Through Drainage. Dr. J. Paivanen. March 15, 1984.
14. Forestry Productivity Limits: Real, Imagined and Potential. Dr. Conor Boyd. January 24, 1985.
15. Air Pollution and Forest Resources - The Nature of the Threat. Dr. Peter Rennie. March 28, 1985. Paper not
2. yet available.
16. Land Use Planning for Forest Harvesting and Environmental Concerns. John A. Marlow. November 28, 1985.
17. Northern Forest Management for Wildlife. Gordon W. Gullion. October 16, 1986.
18. From NSR to Intensive Forest Management. Hugo Von Sydow. 12 March 1987.
19. People - Managing Trees: Understanding Today's Environment for Natural Resource Management. Mary Jo
3. Lavin. 19 November 1987.
20. The Social Renewability of Forestry. Harold R. Walt. 30 March 1988.
21. Forest Policies: Public Duty and Private Action. Adam H. Zimmerman. 1 November 1988.
22. New Dimensions in the Development of Forest Policy: A View From the Trenches. T.M. (Mike) Apsey. 16
4. March 1989.
23. Vision and Reality - The View From Sweden. Bjorn Hagglund. 17 October 1989.
24. The Contribution of Old Growth to the New Forestry. Jerry F. Franklin. 4 April 1990.
25. Developing Silvicultural Alternatives for the Boreal Forests: An Alaskan Perspective on Regeneration of
5. White spruce. John Zasada. 7 November 1990.
26. Forestry After the End of Nature. Clark S. Binkley. 20 March 1991.
27. Sustainable Forestry: Can We Use and Sustain Our Forests? J.P. Kimmins. 21 November 1991.
28. Environmental Regulations and the Implications for Canadian Export. Don G. Roberts. 18 March 1992.
29. Forest Health Issues: An Entomologist's Perspective. David L. Wood. 18 November 1992.
30. Unconventional Wisdom: Reflections on Polarization, Politics, Prosperity and the Future of the Canadian Forest Industry. David L. McInnes. 9 March 1993.
31. The Canadian Forest Products Industry. Competitive Challenges in the 1990s. Patricia M. Mohr. 10 November 1993.