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# INDUSTRY, SCIENCE AND TECHNOLOGY CANADA

# REVIEW OF COMPETITIVENESS OF NORTHERN ONTARIO'S TRADITIONAL & SELECTED NON-TRADITIONAL INDUSTRIES

Report IV: Wood Products and Pulp and Paper

March, 1991

The Coopers &Lybrand Consulting Group

# INDUSTRY, SCIENCE AND TECHNOLOGY CANADA

Review of Competitiveness of Northern Ontario's Traditional & Selected Non-Traditional Industries

Report IV: Wood Products and Pulp and Paper

# March, 1991

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# D. WOOD PRODUCTS INDUSTRY IN ONTARIO

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# **II. INDUSTRY PROFILES**

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# D. WOOD PRODUCTS INDUSTRY IN ONTARIO

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#### A. PROFILE OF THE WOOD PRODUCTS INDUSTRY IN ONTARIO

1. Executive Highlights

- Ontario's wood products industry is a traditional source of employment in the north. Competitive challenges and longer term economic trends make it unlikely that the industry will provide growth in the 1990s. However, larger firms are expected to remain as major employers in Northern Communities.
- There are four major economic trends that are affecting the industry. First, the current business cycle has reached a downturn that is reducing profits and preventing new investment. Second, economies of scale are allowing large, integrated firms to acquire or win business from smaller firms. Third, employment reached record levels in 1988 and 1989, largely due to strong housing activity in the province. Finally, new materials are being substituted for wood in traditional construction applications.
- The competitiveness of the industry in Northern Ontario is being challenged in several areas. Productivity improvements have not kept pace with other regions. The province has generally higher roundwood costs than competing regions. Finally, government policies have generally hurt the industry through higher interest rates, the higher Canadian dollar, higher taxes and lower spending in areas that support the industry.



There are opportunities for growth in some specialty areas.
 Government policy must support the restructuring of the industry as it adjusts to these trends and to competitive challenges.

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# 2. <u>Introduction</u>

Forests cover most of Northern Ontario and provide a basic and abundant natural resource for the regional economy. The forest products industry has grown to become a major source of wealth. The industry is one of the oldest and largest employers in the north and it supports both the larger urban centres and many isolated communities. Production of forest products relies on logging operations in local forests and sawmill operations in many small towns. Forest products are divided into two broad categories, paper and wood. This profile deals with wood products and a separate profile covers the pulp and paper industry.

Wood products share all the cyclical and structural challenges described in the introduction to this report, including low productivity, high costs, high interest rates and the high dollar. All these issues are major concerns at the present time and there is evidence that the industry might be losing its competitive advantage because of these factors.

How will the wood products industry help or hinder the development of the Northern Ontario economy during the 1990s? The next two sections will describe two aspects of the industry that are critical in providing the answer to this question:

- Current trends in the industry; and
- The key factors that determine competitiveness.



The material assesses the strengths and weaknesses of the industry in all regions and the specific situation of firms in Northern Ontario. The section immediately below provides background information.

This review concludes that the industry will not provide major growth opportunities in the 1990s. However, with strategic investments and supporting policies, the larger firms should be able to support a steady base of jobs and incomes in many communities. Where jobs are lost to the forces of change, there will be opportunities to fill in with new initiatives in specialty products.

#### 3. <u>Background - Industry Size and Structure</u>

This section provides information on the structure of the industry covering definition, industry size, forest resources, production processes, markets and prices, costs and industry financial status. All of this information supports the analysis of strengths and weakness of the industry in sections 4 and 5.

Exhibit 1 details the number of people employed in major industry groups and specific sectors in Ontario. Wood products rank thirteenth among twenty manufacturing industries, ahead of refined petroleum and slightly smaller than the plastics industry.

#### (a) The industry defined

The wood products industry is defined to include the manufacture of lumber and related products and the further processing of primary wood products into construction materials such as doors, window

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frames and millwork. These latter manufactured products are less concentrated in the north. Major products of Northern Ontario include round logs, sawn lumber and speciality products such as plywood and related structural wood products.

SPF (spruce, pine and fir) sawmills account for 74% of total lumber production and 50% of total lumber value.

(b) The Size of the Industry

Exhibit 1 details the number of people employed in major industry groups in Ontario.

#### Exhibit 1

Monufacturing	Number	Percent	
Industries	Employed	of Total	Rank
Industries	Dilipiored	<u>UT IOIII</u>	
Food	75,304	7.9	4
Beverage	11,782	1.2	18
Rubber Products	13,588	1.4	16
Plastic Products	25,772	. 2.7	14
Leather & Allied Products	12,291	1.3	17
Primary Textile	10,765	1.1	19
Textile Products	14,983	1.6	15
Clothing	33,504	3.5	10
Wood	28,040	2.9	13
Furniture & Fixture	33,336	3.5	11
Paper & Allied Products	42,316	4.4	9
Printing, Publishing & Allied	65,446	6.8	. 5
Primary Metal	62.230	6.5	6
Fabricated Metal	94,119	9.8	2
Machinery	49,473	5.2	8
Transportation Equipment	158,781	16.6	1
Electrical & Electronic Products	91,708	9.6	3
Non-metallic Mineral Products	28,555	3.0	12
Refined Petroleum & Coal Products	7,654	0.8	20
Chemical & Chemical Products	52,411	5.5	7
Total Manufacturing	956,400	100.0	

#### Employment by Major Group in Ontario, 1987

Source: Statistics Canada, Manufacturing Industries of Canada: National and Provincial Areas, 1987, Cat. No. 31-203.



Wood products rank thirteenth among twenty manufacturing industries, ahead of refined petroleum and slightly below the plastics industry.

Industry output is measured in cubic meters of wood processed and the dollar value of sales. Exhibit 2 shows wood production in Ontario, Canada and the World. Ontario is a small but important producer in the global context. Relative to the rest of Canada, Ontario has increased its share of total output. The two other major producing provinces, British Columbia and Quebec, have expanded production and Ontario's share of Canadian production has risen since the 1970s.

The wood products industry is a relatively small part of the Ontario economy but plays a larger role in the north.

#### Exhibit 2

#### Softwood Lumber Production

	<u>1970</u>	(million m <sup>3</sup> )	<u>1988</u>
Ontario	1.5	3.9	5.0
Canada	25.4	43.5	59.6
United States	65.0	66.5	88.3
World	412.6	450.0	378.6
	. (4	% of Total)	
Ontario	0.4	0.9	1.3
Canada	6.6	9.6	15.7
United States	15.7	14.7	23.3
World	100.0	100.0	100.0

Source: FAO, Yearbook of Forestry Products and Forestry Canada, Selected Forestry Statistics, Canada and Selected Forestry Statistics, Ontario.

Wood chips are an important co-product of solid wood processes and are sold to pulp and paper mills or used in the production of electricity.

#### Exhibit 3

#### Value of Manufacturing Shipments in Ontario

	\$'000 <u>1986</u>
Sawmills, Planning and Shingle Mills	878,962
Sash, Door and Millwork	1,043,499
Other Wood Products	496,801
Particleboard	106,588
Waferboard	99,134
Other Wood NES*	75,848
Total Wood Products	2,581,158

 $NES^* = Not$  elsewhere specified.

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Source: Statistics Canada, Manufacturing Industries of Canada: National and Provincial Areas 1986, Cat. No. 31-203.

Exhibit 3 provides a breakdown of the value of production for these major products indicating that softwood lumber products are the most important after the millwork industries. The latter group is less relevant to this study as the major producers are in Southern Ontario. While there has been very little change in the basic lumber products, there are a number of new products such as fibre board that have been developed in recent years.



In 1988, lumber accounted for 42% and 66% of fibre production and revenues, with wood chips accounting for 58% and 34% of fibre production and revenues, respectively.

# (c) Major Products

Wood products are classified by the stages of processing from raw material to finished products. All of the following products are produced by the industry:

- wood chips,
- dimension lumber,
- veneer,
- plywood,
- particleboard,
- fibreboard,
- other composites, and
- building materials.

# (d) Forest Resources

Northern Ontario is covered in forests that produce a wide range of species. Forested regions in the south were logged heavily in the last century and are now largely left to agriculture or industrial/ urban uses.

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Softwood species (spruce, pine and fir) dominate the northern areas with smaller growths of hardwood species (mostly poplar, aspen and birch). The softwood species have the greatest commercial value in lumber and paper production.

Most of the forests are owned by the Crown and are licensed to logging and forest products interests through either long-term Forest Management Agreement (FMA) or shorter-term Order in Council Licences (OCL). Under each of these arrangements, forestry interests are permitted to harvest an allowable annual cut (AAC). The AAC is determined by government regulation based on analysis that sets a long-term target for sustainable yields from the forests.

The harvest of wood taken from Ontario forests in the 1980s was generally below the AAC. In some areas this reflects the low demand for wood and in other areas the harvest was restricted by special regulations. In general, there is a more than sufficient supply of trees for current needs, but there are specific problems in certain areas. For example, Ontario has a shortage of large dimension logs for use in veneer products.

Harvesting Ontario's forests interferes with many aspects of the natural ecological balance. There are longer-term costs associated with the disruption of the natural balance and these costs are being incorporated into the cost of Ontario wood products through the efforts of environmental groups, the industry and the government.



Exhibit 4 shows the annual volumes harvested on Crown Lands in Ontario. The volumes fluctuated across the 1980s with the most recent trends pointing upward. This reflects a balance of the cyclical and structural forces that will be described below.

#### Exhibit 4

#### Annual Volumes of Wood Harvested in Crown Lands in Ontario

Fiscal Year	<u>Hardwood</u> (millio	<u>Softwood</u> n m <sup>3</sup> )
1980/81	2,418	16,319
1981/82	2,896	14,617
1982/83	2,529	12,257
1983/84	3,414	15,299
1984/85	4,310	16,373
1985/86	3,834	15,764
1986/87	4,109	16,730

Source: Forestry Canada, Selected Forestry Statistics, Ontario, 1987.

#### (e) Production Processes

The first step in wood production is the logging operation. This activity cuts and hauls trees from the forest, providing the round wood used in both pulp and paper and wood products production. Heavy, specialized equipment is used to cut, skid, debranch and haul logs from the forest. The mechanized systems are managed by specialized and independent logging businesses. Once the logs are delivered to the mill, they are processed into rough or finished products. This activity is the major source of employment in the industry. Production processes include cutting, planing, drying, storing and shipping lumber. More specialized products such as plywood and particleboard require assembly, pressing and further processing. Storage and transportation are important in the Northern Ontario industry, as products often move through long distribution channels to distant markets.

Logging and milling wood require access to various related services such as specialized trucking, replanting and fire protection.

Most production processes have economies of scale that reduce operating costs in larger firms. These economies can take many forms, depending on the species harvested and products produced. For example, larger mills can combine power generation capabilities and use waste wood on these or other related activities. Also, fully integrated operations use chips and waste wood in the production of pulp and paper and specialty products.

Various specialized processes use certain types of wood to produce veneer products, plywood, particleboard and other products. Ontario is at a disadvantage where these products require large dimension trees, but production of other products from scrap or waste wood has grown in recent years.

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#### (f) Markets

Ontario's wood products are used in building products, furniture and in the construction of single family homes. The hardwood and speciality products needed in furniture production are less readily available in Ontario.

More than half of Ontario's wood products are exported and the United States is the largest foreign customer. However, total lumber exports to the U.S. have declined from 68% of total sales in 1986 to 40% in 1988.

The cyclical nature of the housing market in Ontario and the United States creates volatility in the wood products industry. Housing and related markets are quite volatile, rising and falling in wide fluctuations that last between two and ten years (see Exhibit 5). Housing cycles are tied to interest rate fluctuations and speculative activity by builders and buyers. ¥

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# (g) Prices, Costs and Industry Finances

Wood products companies are caught between volatile cost and price pressures that cause sharp swings in profitability. This feature of the industry adds significant financial risks for businesses.

Prices are sensitive to housing market conditions and the supply of lumber from competing areas like Scandinavia and the U.S. south. There was a dramatic rise in lumber prices in the 1970s, but the trend in the 1980s was to slowly declining prices. In 1988, SPF lumber prices were around \$217 per MFBM compared to \$240 in 1986. The downward trend is due to:

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- declines in residential repair and construction markets,
- increased production capacity and lumber supply in Eastern U.S. markets.
- increased supply relative to demand in Ontario markets as Ontario producers move out of U.S. markets and increased penetration by B.C. SPF lumber producers.

The cost structure of lumber mills is based primarily on wages, wood costs, energy, interest rates and taxes. Studies by Woodbridge Reed and others have reached various conclusions about the cost of forest products in Ontario and competing regions. One consistent conclusion is that roundwood (logging) costs are higher in Ontario. Various wood and paper products have been found to be cost competitive. The quality and cost of the timber supply are the keys to profitability in the industry. Logging and hauling costs are the important cost components and account for 64% of sawmill variable costs.

Wood chip prices are a factor in the financial health of sawmills as wood chips account for 60% and 34% of total fibre production and revenues of sawmills.

Ontario producers act as price takers in this broad continental market and they must manage costs to find a profitable segment. The province's wood products have been sold in most U.S. markets Ĵ

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and in some foreign countries. In general, the isolated location of Ontario's producers restricts their markets more than producers in Quebec and British Columbia which are closer to shipping systems and foreign buyers.

4. <u>Key Trends in the 1980s</u>

This section now turns to the trends that are strengthening or weakening the wood products industry in all regions.

(a) The Current Cycle

The Ontario economy expanded rapidly in the mid-1980s with major strength concentrated in housing. This cyclical boom added significant new demand for lumber. By mid-1989, the cycle had peaked and a major recession began.

Ontario's wood products industry has fallen into a severe cyclical downturn in the early 1990s. This recession has reduced employment and profits, and caused mill closures. These cyclical problems are due to high interest rates in both Canada and the United States, which have caused a reduction in housing starts.

The current recession is weakening the industry at a time when resources are urgently needed to invest in many areas to increase efficiency.



The recession will end as interest rates decline and housing activity improves. Production of wood products will increase as the housing market improves. The current cycle is a significant, but temporary source of weakness for the industry.

Projections for the 1990s show renewed growth in housing markets and an associated increase in the demand for lumber. Population trends are expected to restrict market growth. Peak levels of demand in the 1990s will be below the peaks of the 1980s.

(b) Structure and Concentration

The structure of the industry is changing as larger more integrated firms replace smaller businesses. Economies of scale in production make it attractive for larger firms to either buy smaller competitors or to win over their customers. Firms are being rationalized in this manner on a national scale. One aspect of this is foreign producers successfully selling into traditional Ontario markets in the United States.

Concentration of assets and market share in large corporations has continued throughout the 1980s and this has reduced the number of companies active in Ontario. The long-term result will be beneficial for Ontario as larger, more efficient businesses should emerge.

In the short run, smaller firms face tough competition and are forced to make large and risky investments in new equipment to

reduce costs. The result is dislocation and economic hardship in small communities that rely on smaller lumber mills or logging operations.

Several large integrated firms are major producers and these firms set the industry standards in many operating areas. The largest players include Noranda Forest Products, MacMillan Bloedel, C.P. Forests and Normick Perron Inc.

The rationalization of the industry described above is changing the decision-making process. For example, Ontario operations in the largest firms are now managed by a local division that must report to a national or a global head office. Plans for investments or improvements in Ontario must now compete with other provincial divisions or operations in other countries for corporate investment funds.

In this situation, the province's approach to environmental policy, labour market restrictions, taxation, support for company programs and improvements, etc. will play a key role in corporate decisions.

#### (c) Employment Trends

Exhibit 6 shows that employment in the Ontario industry has been on an upward trend since the 1970s, with logging related employment down and other sectors up. This trend reflects two separate factors. First, more wood was produced in the late 1980s

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as the demand for products has been growing slowly, and this has created new jobs. Second, there has been a steady improvement in labour productivity and this means that less labour is required for each unit of wood product output.

#### <u>Exhibit 6</u>

#### Employment Trends in the Wood Products Industry 1970-1987

	Logging	Sawmills and <u>Planing Mills</u> (# 0	Other Wood <u>Industries</u> of people employ	Total Wood <u>Industries</u> yed)
1970	9,567	5,361	11,303	16,664
1975	8,028	5,444	13,840	19,284
<b>19</b> 80	9,578	6,967	14,381	21,348
1985	8,482	7,686	15,521	23,207
1986	8,527	7,685	18,167	25,852
1987	7,244	7,785	20,255	28,040

Source: Statistics Canada, Canadian Forestry Statistics, Cat. No. 25-202 and Wood Industries, Cat. No. 25-250B.

In 1986-87, approximately 14,000 people were directly employed in some facet of the Northern Ontario lumber industry.

The job requirements of the industry are also changing as the production processes become mechanized. In this environment workers need more specialized skills and generally higher levels of education. This trend is most apparent in the logging segment where unskilled labour is being replaced by sophisticated machine operators.

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Rising productivity is a key source of strength for the industry because it allows for a permanent reduction in costs and a long-term improvement in competitiveness. These gains are crucial even if they mean the loss of jobs in the short term.

(d) Material Substitution

Wood products have been replaced by new materials in building materials, construction, and packaging applications in the last twenty years. This has reduced demand for wood products. Plastics have often replaced wood due to lower costs and superior features. This substitution is expected to continue in the 1990s as recycled plastics and other products find new applications in areas traditionally using wood. This trend is a fundamental source of weakness for the industry.

A variation on this theme is found in the growing popularity of composite materials that combine wood products (often waste) with adhesives and specialized plastics products.

Longer-term job losses in this area may be offset by the development of new wood related businesses that exploit the market for these new composite products.

This section of the report has reviewed four major trends in the wood products industry and found that they are all contributing fewer jobs and lower demand, not just in Northern Ontario, but in other North American

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locations as well. Adapting to these trends is a major challenge for the region. Improving productivity and serving new markets for wood composite products are areas of potential strength.

# 5. <u>Competitiveness in the Wood Products Sector</u>

The competitiveness of Ontario's wood products industry depends on several factors and these are assessed in this section.

(a) **Productivity** 

Productivity is a key determinant of competitiveness. Ontario's industry is lagging in this crucial area and new equipment and techniques are required to correct the situation. A major responsibility of management is to increase productivity by reducing labour or other inputs.

(i) Labour Productivity

Labour productivity can be increased by a wide range of initiatives including training, scheduling, plant layout, new compensation schemes and investing in new machinery. Ontario wood products producers are lagging behind in most of these areas.

To a certain degree, factors beyond the control of management make it difficult to improve productivity. For example, the industry has access to relatively small dimension 5

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trees. This feature reduces the amount of wood that can be processed.

Longer-term investment in reforestation, new equipment and new management techniques are required to improve the situation.

(ii) Materials and Energy

Productivity can also be improved by the more efficient use of non-labour inputs. Both management techniques and new machinery and processes are available to economise on the use of energy, wood and other materials in the mills. These techniques are critical for the Ontario industry where the costs and the quality of wood harvested is an issue.

Energy costs can also be reduced through volume discounts or co-generation arrangements with local utilities. Ontario producers are behind American and Quebec firms in exploiting this area of increased productivity.

(b) Technology, Research and Development

Ontario has lost the international initiative that it once had in developing new products and processes for forestry. The province's producers are now hard pressed to make the needed investment to keep up with technology created in other areas. Capital costs are

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now viewed as the major obstacle to using new technology in Ontario.

#### (i) Technology and the Work Force

New technology is reducing the labour content of most wood products by reducing waste and speeding processing times. These techniques are costly to implement and the relatively slow pace of innovation in Ontario is largely a reflection of the low profits available to firms to finance the new investment.

The result is a vicious cycle of low profits and underinvestment in new technology to reduce costs. While larger Ontario firms are able to escape this trap and establish more efficient operations, there are many smaller firms that are caught in the trap.

#### (ii) Research and Development

In the past, Ontario firms played a leading role in the development of new techniques and products for the wood industry. This initiative has been lost to Scandinavian producers who have recently pioneered new products that meet specialty needs in furniture and housing applications. What was once a significant strength to the industry is now a weakness. Indeed, the evidence suggests that the weakness has spread beyond investment in research and development and that Ontario is now unable to adopt existing technology that would build competitiveness to global standards.

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#### (c) Government Policy

This section of the report turns to the matter of government policy. The previous section outlined a series of problems that threaten the long-term viability of the industry. This section argues that these challenges are complicated by most government policies. Rather than supporting the industry in the restructuring that must take place, these policies are frustrating the needed adjustments. Four broad areas of policy are covered - macroeconomic, environmental, trade and industrial.

#### (i) Macroeconomic Policies

This area covers interest rates, exchange rates and taxes. The federal government has set out restrictive policies, raising costs for the industry. Interest rates are a particular irritant as they raise capital costs and make it difficult to purchase needed equipment. The high exchange rate is a major obstacle for the industry as it reduces Canadian dollar revenues related to sales in the United States. Canada's high government debt and the associated annual deficits are the root cause of the high interest rates. This same debt adds to tax pressures at all levels of government. Fiscal restraint is also restricting the extent to which the government can fund critical forest related initiatives in areas like reforestation, fire control and improved transportation systems.

#### (ii) Environmental Policies

All levels of government have begun to apply pressure on the forestry industry to cover the many environmental costs related to wood products. Most of these added costs are in forest operations. The Ontario industry is vulnerable to these measures because wood costs are high in comparison to competing provinces and states.

Wood products used by consumers are generally received more favourably than other materials (notably plastics) in terms of environmental impacts. On balance, the weight of new environmental initiatives threatens to further undermine the long-run security of the Ontario wood products industry.

#### (iii) Trade Policy

Many trade barriers are now being removed. These have traditionally protected domestic markets and hindered access ÷

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to foreign sales. Specific examples include tariffs, subsidies, product standards, building codes, safety standards and environmental regulations.

Many of the competitive challenges facing the wood products industry are related to international trade. Ontario producers now face new international competition in the United States as trade liberalization allows more competing products to enter the market.

Canada's wood products became a high profile casualty of the trade process when U.S. complaints led to the application of a punitive export tax in 1987. This tax is a major threat to the Ontario industry. Since the tax was introduced the exchange rate has risen dramatically, and the combined effect is to undermine the competitive position of Ontario producers in the U.S. market.

(iv) Industrial Policy

Governments encouraged the creation of Ontario's wood industry through a series of industrial policies. This included the creation of road and rail networks in the north that reduced delivered costs for producers. More recently, the province has supported training and community development in the north. Trucking deregulation has helped to reduce transportation costs. Energy policy also helped keep costs



down by reducing power costs to mills. These policies are now under attack and/or review as new priorities appear. Trade liberalization and environmental concerns are both acting to undermine the long-term position of many industrial policy objectives.

The prospects of long-term employment in Northern Ontario will be reduced if governments remove the support of industrial policies at the same time as other policies and market trends weaken the industry.

# 6. Conclusions and Recommendations

Northern Ontario's wood products industry will not be able to provide longterm growth in production or jobs. Industry-wide trends and region-specific competitive disadvantages will restrict growth potential. However, larger and more efficient firms will continue production in many communities. These firms will likely be integrated producers of a wide range of forest products or smaller businesses that are firmly established in a niche market.

Growth opportunities will be limited to developing new structural construction products made from composite materials.

Government policies will play a major role in determining the success of the firms in the industry. If the current restrictive stance of fiscal and monetary policy is not changed, the industry will face an uphill struggle to survive. Industry-specific policies in areas like skills development, training, plant closure, pay equity, environmental regulations and transportation could be used to help the industry's restructuring and to offset the worst aspects of the current macroeconomic policies.

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# E. THE PULP AND PAPER INDUSTRY IN ONTARIO

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# E. PROFILE OF THE PULP AND PAPER INDUSTRY IN ONTARIO

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#### E. THE PULP AND PAPER INDUSTRY IN ONTARIO

#### 1. <u>Executive Highlights</u>

- Ontario's pulp and paper industry is a major employer in the north, drawing on the extensive forests of the region. Long-term trends and competitive challenges make it likely that the industry will provide only moderate growth in output and few new jobs in the 1990s.
- Four major trends are affecting the industry. First, the industry's traditional cycle of overexpansion is now forcing prices and profits down and limiting investment in plant and equipment. Second, smaller firms are closing or being absorbed by larger firms because of international competition and the high costs of new machines. Third, employment is declining as a result of improving productivity and increased mechanization. Fourth, environmental pressures are reducing the demand for paper made from new wood pulp.
- The competitive position of Northern Ontario producers is being eroded by several factors. Productivity is not keeping pace with the rest of the industry as firms face higher costs. The implementation of needed new technologies is being delayed by poor financial results and high capital costs. Finally, government policies are generally hurting the industry through high interest rates, the high Canadian dollar, high taxes and low spending in critical areas.

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- There are specific areas where the industry's competitiveness might be improved. The industry could increase the emphasis on pulp and paper products made from hardwood species. Supportive government policies in areas like environmental standards, training programs and transportation systems would also assist the industry.
- Growth in tax revenues and demand for government services will be slow in paper related communities.

# 2. <u>Introduction</u>

Forests cover most of Northern Ontario and provide the most basic and abundant natural resource for the regional economy. The forest products industry is a major source of employment in many Northern Ontario communities. The industry relies on logging operations and sawmill operations in many small towns for raw materials. There are over fifteen pulp and paper mills located throughout the north.

There are two broad types of forest products: solid wood and pulp and paper. This industry profile describes paper related products, while wood products are described in a separate profile.

Pulp and paper products share all the cyclical and structural challenges described in the introduction to this report, including low productivity, high costs, high interest rates and the high dollar. All these issues are major concerns at the present time. The paper industry has a long tradition of business cycles related to periods of over-expansion followed by weakness in demand and prices. This cyclical pattern is now apparent in North America as capacity exceeds demand and prices are being forced down.

Will the pulp and paper industry help or hinder the development of Northern Ontario during the 1990s? The next two sections will describe two aspects of the industry that are critical in providing the answer to this question:

- Current trends in the industry; and
- The key factors that determine competitiveness.



Also described are the strengths and weaknesses of the industry in all regions and the specific situation of firms in Northern Ontario. The section immediately below provides background information.

This review concludes that the industry will provide only limited growth opportunities in the 1990s. However, with strategic investments and supportive government policies, the larger firms should be able to support a steady base of jobs and incomes in many communities.

#### 3. <u>Background - Industry Size and Structure</u>

This section provides information on the structure and size of the industry to support the analysis of strengths and weaknesses in later sections. Specific areas to be discussed include an industry definition, measures of industry size, products, forest resources, production processes, markets and prices, costs and industry finances.

#### (a) The Industry Defined

The paper and allied products industry is defined here to include the manufacturing of several grades of wood pulp and paper and related products such as roofing materials and paper board used in construction. Primary paper products include wood pulp and all grades of paper. There are a large number of paper related products used in packaging and construction that are also considered part of the broad paper and allied products industry. These latter businesses are concentrated in Southern Ontario and are not emphasized in this report.

# (b) The Size of the Industry

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Exhibit 1 details the number of people employed in major industry groups in Ontario, indicating that paper and related products rank ninth overall, slightly larger than the clothing industry and smaller than the machinery industry.

#### Exhibit 1

# Employment by Major Group in Ontario, 1987

Manufacturing	Number	Percent	
Industries	<b>Employed</b>	<u>of Total</u>	<u>Rank</u>
Food	75,304	7.9	4
Beverage	11,782	1.2	18
Rubber Products	13,588	1.4	16
Plastic Products	25,772	2.7	14
Leather & Allied Products	12,291	1.3	17
Primary Textile	10,765	1.1	19
Textile Products	14,983	1.6	15
Clothing	33,504	3.5	10
Wood	28,040	2.9	13
Furniture & Fixture	33,336	3.5	11
Paper & Allied Products	42,316	4.4	9
Printing, Publishing & Allied	65,446	6.8	5
Primary Metal	62,230	6.5	6
Fabricated Metal	94,119	9.8	2
Machinery	49,473	5.2	8
Transportation Equipment	158,781	16.6	1
Electrical & Electronic Products	91,708	9.6	3
Non-metallic Mineral Products	28,555	3.0	12
Refined Petroleum & Coal Products	7,654	0.8	20
Chemical & Chemical Products	52,411	5.5	7
Total Manufacturing	956,400	100.0	

Source: Statistics Canada, Manufacturing Industries of Canada: National and Provincial Areas, 1987, Cat. No. 31-203.



Ontario has the largest paper and allied products industry among all the provinces. This is because of this province's extensive production of boxes, bags and other converted paper products. Ontario ranks lower in the production of basic pulp.

For example, Exhibit 2 shows wood pulp production in Ontario and Canada. Ontario produces about one-fifth of Canada's paper production, ranking behind British Columbia and Quebec in overall importance.

#### Exhibit 2

#### **Wood Pulp Production**

	<u>1970</u>	<u>1980</u>	<u>1988</u>
	(000's	tonnes)	
Ontario	3,601	4,368	4,182
Canada	16,609	20,687	20,317
	(Ontario as	a % of Total)	
	21.7	21.1	20.6

Source: Statistics Canada, Paper and Allied Products Industries, Cat. No. 36-250.

As Exhibit 3 indicates, both pulp production and export levels in Ontario have remained fairly stable since 1980. Over 3/4's of pulp produced in Ontario is also consumed in Ontario. The percent of production consumed on site has declined from 69% to 62% since 1980 suggesting a possible decline in the number of integrated pulp and paper mills. ĸ

# Exhibit 3

Year	Production (M ton)	Shipments	Production Consumed <u>on Site</u> (%)	Production Consumed in Ontario	
	(111 1011	100)	(10)	(in tonnes)	(10)
1980	4,368	1,360	68.9	1,002	77.1
1981	4,394	1,417	67.8	1,020	76.8
1982	4,753	1,167	68.9	892	76.2
1983	4,217	1,430	66.1	1,091	74.1
1984	4,366	1,578	63.9	1,050	76.0
1985	4,383	1,530	65.1	928	78.8
1986	4,259	1,608	62.3	995	76.6

# Ontario Wood Pulp Production, Shipments, and Exports

Source: The Ontario Pulp and Paper Industry: A Profile Report.

Exhibit 4 provides a breakdown of the value of shipments for these major products indicating that kraft pulp and newsprint are the most important products by a wide margin. Specialty papers including writing and packaging products are next in overall importance.

# Exhibit 4

# Value of Shipments and Other Revenue in Ontario

		<u>1987</u>
Pulp	944,065	
Paper Newsprint Other	1,808,450 1,545,493	
Total Pulp and Paper		4,298,008
Asphalt Roofing Paper Box and Bag Other Converted Paper Products		252,917 1,409,693 <u>1,518,218</u>
Total Paper and Allied Products		7,478,836

Source: Statistics Canada, Manufacturing Industries of Canada: National and Provincial Areas 1987, Cat. No. 31-203.

In Ontario, 22 firms produced pulp and paper products at 36 mills in 1989:

- 10 paperboard mills;
- 9 fire paper mills;
- 8 newsprint mills; and
- 9 other paper products.

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Collectively, sawmill operators supply 50% of the virgin fibre needs to Ontario's pulp and paper industry in the form of roundwood and chips.

The production capacity of Ontario's primary paper products are detailed in Exhibit 5.

# Exhibit 5

# **Ontario's Main Paper Products**

	Tonnes	<u>% of Total</u>
Newsprint	1,900,000	46.8
Kraft paper and containerboard	656,000	16.2
Boxboard	240,000	5.9
Tissue	160,000	3.9
Other printing and writing	1,100,000	<u>27.1</u>
1 0 0	4,056,000	$1\overline{00.0}$

(based on 1988 capacity)

Exhibit 6 shows the distribution of capacity among major firms.



# <u>Exhibit 6</u>

#### Ontario Newsprint Production Capacity 1989

	Annual Capacity (000 tonnes)
Abitibi-Price • Fort William • Iroquois Falls • Thunder Bay	141 255 165
Boise Cascade • Kenora	227
Canadian Pacific Forest Products <ul> <li>Thunder Bay</li> </ul>	405
Domtar • Red Rock	70
Quebec and Ontario Paper • Thorold	310
Spruce Falls Power and Paper • Kapuskasing	343

Source: CPPA

# (c) Major Products

The primary paper-related products fall into the two broad categories of pulp and paper. Within each of these there are several product subgroups. Pulp products include:

- Mechanical
- Chemical

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- Bleached Sulphate
- Semi-bleached sulphate
- Unbleached sulphate
- Bleached sulphite
- Unbleached sulphite
- Thermomechanical
- Chemi-thermomechanical

Paper and paperboard products include:

- Newsprint
- Other paper and paperboard
  - Groundwood printing and specialty
  - Printing and writing, including uncoated and coated

# (d) Forest Resources

Northern Ontario is covered in forests that produce a wide range of species. Forested regions in the south were logged heavily in the last century and are now largely left to agriculture or industrial/ urban uses.

Softwood species (spruce, pine and fir) are the major growth in the northern areas and there is also significant growth of hardwood



species (mostly poplar, aspen and birch). The softwood species have the greatest commercial value in lumber and paper production.

Most of the forests are owned by the Crown and are licensed to logging and forest products interests through either long-term Forest Management Agreement (FMA) or shorter-term Order in Council Licences (OCL). Under each of these arrangements, forestry interests are permitted to harvest an allowable annual cut (AAC). The AAC is determined by government regulation based on analysis that sets a long-term target for sustainable yields from the forests.

The harvest of wood taken from Ontario forests in the 1980s was generally below the AAC. In some situations this reflects the lack of utilization by firms and in others the harvest was restricted by special regulations. In general, there is a sufficient supply of trees for current needs and Ontario has an abundance of hardwood species such as poplar that are not currently used in paper products.

#### Exhibit 7

#### Annual Volumes of Wood Harvested in Crown Lands in Ontario (million m<sup>3</sup>)

Fiscal Year	Hard Wood	Soft Wood
1980/81	2,418	16,319
1981/82	2,896	14,617
1982/83	2,529	12,257
1983/84	3,414	15,299
1984/85	4,310	16,373
1985/86	3,834	15,764
1986/87	4,109	16,730

Source: Forestry Canada, Selected Forestry Statistics, Ontario, 1987.

Exhibit 7 shows the annual volumes harvested on Crown Lands in Ontario. The volumes fluctuated across the 1980s, declining dramatically in the 1981-1982 recession and recovering to higher levels by 1987. This reflects the cyclical and structural forces that will be described below.

#### (e) Production Processes

The first step in paper production is the logging operation. This activity cuts and hauls trees from the forest providing the round wood used in pulp, paper and solid wood production. Heavy, specialized equipment is used to cut, skid, debranch and haul logs from the forest. The mechanized systems are managed by independent logging businesses.



Logs are delivered directly to pulp and paper mills or to sawmills. Sawing lumber produces waste wood chips that also provide fibre for paper production. Chips and roundwood are processed into pulp through one of a number of processes. Mechanical pulping is the oldest technology and it remains the domestic source for newsprint. Chemical, thermomechanical and chemi-mechanical processes produce higher grade pulp. Primary pulp and paper products are then processed into fine papers and related products by a bleaching procedure that uses one of several chemicals.

Logging and milling paper and wood require access to various related goods and services. For example, specialized chemicals are a major input and specialized trucking firms carry logs from the forest to the mill and carry finished products to markets. Replanting and fire protection are other examples of supporting services.

Pulp and paper production efficiency depends on the type of machines used and the extent of plant integration and layout. The latest generation of pulp and paper technology generally relies on capital intensive and larger scale production processes. New machines are expensive, but are necessary to keep costs down. Plant layout can be a crucial factor in cost reduction. Fully integrated forest products operations take advantage of wood processing to use chips and waste wood in the production of pulp and paper and specialty products. P

Cost advantages are related to mechanized production, low labour and energy costs and access to low cost wood. The exchange rate is an important competitive factor as Ontario producers face foreign firms in all markets.

#### (f) Markets

Ontario's is a major producer of kraft pulp and newsprint. These products are sold primarily to other paper businesses and the printing and publishing industry. Other specialty paper products like paperboard and roofing materials are sold to the construction industry.

Ontario is a major exporter of paper products and the United States is the largest single market. Newsprint is Canada's leading paper export to the U.S. The U.S. consumed 7.08 million tonnes of Canadian newsprint in 1988 which represents 57% of the U.S. market and 70% of Canadian production. However, the Canadian share of the U.S. newsprint market has been declining over the past 10 years as the U.S. becomes more self-sufficient in newsprint production.

Most paper products are used in publishing newspapers, magazines and business forms. These businesses are sensitive to cycles in consumer and business spending. In particular, the volume of paper consumed is sensitive to the amount of advertising in newspapers and magazines.



The demand for paper in publishing has shifted to higher grades of paper that are better suited to colour printing. One of the fastest growing segments of the market is super-calendered paper used in advertising supplements.

Environmental issues are another major factor in the longer-term demand for paper. The biggest concern is the volume of paper waste going into urban disposal systems. New government regulations are aimed at forcing consumers to use recycled paper to reduce waste. This trend will likely continue and it will reduce the demand for wood pulp and paper made from logs.

(g) Prices, Costs and Industry Finances

Most paper prices are set in an international market. These markets are relatively volatile, creating risks for both the suppliers and purchasers.

The volatility is related to periodic oversupply as new paper mills tend to come onstream at the same time creating a glut in the market. Demand is relatively sensitive to the business cycle. Prices are sensitive to market conditions and the availability of pulp and paper from competing areas like Scandinavia and the U.S. south. There was a rise in pulp and paper prices in the 1970s and the 1980s. However, the North American newsprint prices softened as increases in capacity came onstream in the late 1980s.

Costs are based primarily on labour, wood costs, energy, interest rates and taxes. According to a Woodbridge Reed and Associates study, Ontario's wood costs are higher than British Columbia's and the U.S., but lower than wood costs of Quebec and Scandinavia (based on 1987 softwood costs). The Woodbridge Reed and Associates study also states that Ontario's most cost competitive paper sectors are newsprint and printing and writing paper, with linerboard and corrugated paper products being the least cost competitive. Ontario's cost competitiveness in newsprint and printing paper, despite higher wood costs than the U.S. and B.C., suggests that Ontario may enjoy non-material cost advantages.

Ontario producers act as price takers in this broad continental market and they must manage costs to find a profitable segment. The province's pulp and paper products have been successful in most U.S. markets and in some foreign countries. High transportation costs and the isolated location of Ontario's producers restrict their markets more than Quebec and British Columbia producers who are closer to shipping systems and foreign buyers.

#### 4. <u>Key Trends in the 1980s</u>

This section now turns to the recent trends that are strengthening or weakening the paper products industry in all regions.



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#### (a) The Current Cycle

North America's paper products industry has fallen into a severe downturn in the early 1990s. Lower employment, poor profits and mill closures are related to the current recession. These cyclical problems are due to high interest rates and weak consumer demand in both Canada and the United States. This reduction in demand has combined with increased production capacity to reduce list prices and encourage price discounting.

The current recession is weakening the industry at a time when businesses urgently need to buy new equipment to increase efficiency.

The recession will end as interest rates decline and household spending improves. Production of newsprint and pulp will increase as advertising increases. The current cycle is a significant but temporary source of weakness for the industry.

#### (b) Structure and Concentration

The structure of the industry is changing as larger, more integrated firms replace smaller businesses. The major advantage for larger firms in pulp and paper production is access to larger markets and lower capital costs. The industry is becoming more international and capital intensive, making it imperative for firms to purchase the latest technology and to have access to foreign markets. Firms are

being rationalized in this manner on a global scale. Foreign producers are successfully selling into traditional Ontario markets in the United States, creating a new competitive challenge.

The number of companies active in Ontario has been declining throughout the 1980s as mergers and acquisitions have concentrated ownership in the industry. In the long run, this trend should be beneficial as larger, more efficient businesses emerge.

In the short run, smaller firms are forced to make large and risky investments in new equipment to reduce costs or lose out to competition from larger firms. An alternative strategy is to seek out new products and niche markets. The result is dislocation and potential economic hardship in small communities that rely on the operations of smaller paper mills or logging operations.

Several large integrated firms are major producers and these firms set the industry standards. The largest players include E.B. Eddy, C.P. Forest Products, Kimberley-Clark, Abitibi-Price and Boise Cascade.

The rationalization of the industry described above is changing the decision-making process. For example, Ontario operations are often managed by a local division that must report to a national or a global head office.



Ontario management must now compete with other provinces or countries for new investments or improvements.

In this situation, the provinces' approach to environmental policy, labour market restrictions, taxation, support for company programs and improvements, etc. will play a key role in corporate decisions.

#### Exhibit 8

#### Employment Trends in the Pulp, Paper and Allied Industries 1970-1987

	_		Ontario's
	<u>Ontario</u>	<u>Canada</u>	<u>Share</u>
	(# of peop	le employed)	(%)
1 <b>97</b> 0	44,894	121,080	37.1
1975	45,178	127,342	35.5
1980	47,861	130,310	36.7
1985	40,990	114,187	35.9
1986	41,429	117,063	35.4
1987	42,316	119,346	35,5
	•	•	

Source: Statistics Canada, Paper and Allied Products Industries, Cat. No. 36-250 and Census of Manufacturers, Cat. No. 25-202.

# (c) Employment Trends

Exhibit 8 shows that employment in the Canadian and Ontario industry has been on a declining trend since the 1970s. This trend reflects both cyclical fluctuations and a steady improvement in labour productivity. 2

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The job requirements of the industry are also changing as the production processes become mechanized. In this environment workers need more specialized skills and generally higher levels of education. This trend is most apparent in the logging segment where unskilled labour is being replaced by sophisticated machine operators.

The cyclical component is reflected in a rise in employment to a peak in 1980-1981 and then a decline in 1982-1983. The recovery lasted until 1989, but employment did not reach the previous peak. Rising labour productivity throughout the period implies that less labour is required for each unit of pulp and paper output.

Rising productivity is a key source of strength for the industry because it allows for a permanent reduction in costs and a long-term improvement in competitiveness. These gains are crucial if they mean the loss of jobs in the short term.

#### (d) Material Substitution and Recycling

New technology and shifting consumer preferences have changed the mix of basic materials used in many products. These trends threaten to reduce the long-term demand for paper products.

New technologies in areas like computers, telecommunications and information storage and retrieval have shifted office procedures from paper to electronic modes. This pattern was expected to reduce the



demand for paper. However, the demand for paper continues to grow. This may be due to either the continued use of paper for reporting and storing or to expanding demand for all types of information.

Paper has been replaced in many packaging applications by plastics and composite materials with superior features. This trend was most pronounced in the 1980s and the rate of substitution has slowed in recent years. Consumer attitudes and environmental regulations will determine the relative importance of paper and plastics in packaging in the 1990s. One likely outcome is that all forms of packaging will be reduced.

Recycling will be a key issue in determining demand for Ontario newsprint given that newsprint is the primary target of recycling legislation in the U.S., Ontario's main newsprint export market.

Specifically, in the short term, the increased use of recycled fibre will likely displace demand for virgin fibre leading to potential employment declines in the woodlands operations of paper mills and reduced chip sales by sawmills. However, in the long term, this displaced fibre will find new markets through the production of other higher value-added paper products.

Ironically, greater use of recycled fibre may be necessary to ease a wood shortage that Abitibi-Price has identified as a possibility in the medium term. This shortage will be due to expected increases in

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both world and North American demand in newsprint, printing and writing grade paper, as well as other paper and paperboard products.

This section of the report has reviewed four major trends in the paper products industry and found that they are all reducing the number of jobs and mills across North America. Adapting to these trends is a major challenge for the region.

<u>Competitiveness of the Paper Products Sector</u> The competitiveness of Ontario's paper products industry depends on several factors that are assessed in this section.

(a) **Productivity** 

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Productivity is a key determinant of competitiveness. Ontario's industry is lagging behind other areas and investment in new equipment and techniques are required to improve the province's productivity.

Management face the critical challenge of raising productivity by increasing output while using less energy, wood or other materials.

i) Labour Productivity

Labour productivity can be increased by a wide range of initiatives including training, scheduling, plant layout, new



compensation schemes and investing in new machinery. Ontario paper products producers are lagging behind in most of these areas.

The most important source of improved labour productivity is through the installation of new paper machines. Another area of potential improvement is through expanding and reconfiguring plant layout.

Longer-term investment in reforestation, new equipment and new management techniques are required to improve the situation. Lagging productivity is a major weakness for the industry.

#### ii) Materials and Energy

Productivity can also be improved by the more efficient use of non-labour inputs. Both management techniques and new machinery and processes are available to economise on the use of energy, wood and other materials in the mills. One opportunity is to reduce costs by making better use of hardwood (especially poplar) forests available throughout the north. This is a relatively new opportunity as the production of paper from hardwood trees involves using a relatively new technology.

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Energy costs can also be reduced through volume discounts or co-generation arrangements with local utilities. Ontario producers are behind American and Quebec firms in exploiting this area.

#### (b) Technology, Research and Development

Technology is playing an important role, but it is more an issue of implementation than designing new technology. Research and development to develop new techniques and products is being held back by finance costs.

#### i) Technology and the Work Force

New technology is reducing the labour content of most paper products by reducing waste and speeding processing times. These techniques are costly to implement and the relatively slow pace of innovation in Ontario is largely a reflection of the low profits available to firms to finance the new investment.

The result is a vicious cycle of low profits and under investment in new technology to reduce costs. While larger Ontario firms are able escape this trap and establish new efficient operations, there are many smaller firms that are caught.



#### ii) Research and Development

In the past, Ontario firms played a leading role in the development of new techniques and products for the paper industry. This leading role has been lost at a critical time. New technologies and environmental regulations are rapidly changing the industry.

Pulp production is being improved by the introduction of new chemical processes and more efficient energy co-generation. New paper making techniques are being combined with computerized manufacturing to increase the efficiency of a new paper making facility. Improving competitiveness through the means described above requires expensive investments, usually in existing sites. The introduction of these improvements in Ontario mills is being delayed by low profitability and high capital costs. Capital spending increased substantially in Ontario in the mid-1980s, but has declined in the early 1990s due to the recession.

Indeed, the evidence suggests that the weakness has spread beyond investment in research and development and Ontario plants are now unable to adopt existing technology that would build competitiveness to global standards. e.

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# (c) Recycling

Canadian newsprint producers are behind the U.S. in using recycled newsprint. U.S. use of recycled fibre in paper averaged 24% compared to 2% in Canada in 1989. Limited investment in de-inking processes has been the reason for the lower use of recycled newsprint.

Canadian and Ontario producers have been hesitant in making investments in de-inking capacity for many reasons, including:

- Many producers have just brought new virgin fibre capacity onstream and de-inking facilities would displace this.
- The majority of Ontario newsprint mills are located in the North, close to sources of virgin fibre supply. The cost of shipping old newspapers to these mills is high.
- The availability and abundancy of high quality virgin wood fibre discourages investment in recycling processes.
- Soft prices coupled with a high Canadian dollar depress revenues.
- The cost of a de-ink plant is \$60-\$100 million.



However, pressure from the public, customers and the legislators for greater use of recycled fibre has led Canadian producers to increase or, at the very least, reexamine their capacity to use recycled fibre. Specific examples include:

- Canadian Pacific Forest Products plans to add de-inking capacity to its Thunder Bay mill.
- Noranda Forests Inc. plans to install a \$100 million de-inking plant at its fine paper mill in Thorold which is expected to be in operation by 1993.
- E.G. Eddy plans to produce a fine paper that will meet ecological standards. This is expected to increase the paper output at the Espanola mill.
- Boise-Cascade is currently considering production of RF content newsprint at its Kenora mill.
- Spruce Falls Power and Paper is also currently assessing the economics of RF newsprint production at its mill in Kapuskasing.
- (d) Government Policy

This section of the report turns to the matter of government policy. The previous section outlined a series of problems that threaten the 2

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long-term viability of the industry. This section argues that these challenges are complicated by government policies. Rather than supporting the industry in the restructuring that must take place, policies are frustrating the needed adjustments. Four broad areas of policy are covered - macroeconomic, environmental, trade and industrial.

i) Macroeconomic Policies

This area covers interest rates, exchange rates and taxes. The federal government has set out restrictive policies in these areas, raising costs for the industry. Interest rates are a particular irritant as they raise capital costs and make it difficult to purchase needed equipment. The high exchange rate is a major obstacle because it reduces Canadian dollar revenues from sales in the United States.

Canada's high government debt is the root cause of the high interest rates. This same debt adds to tax pressures at all levels of government. Fiscal restraint is also restricting the extent to which the government can fund critical forestrelated initiatives in areas like reforestation, fire control and improved transportation systems.

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## ii) Environmental Policies

All levels of government have begun to apply pressure on the forestry industry to cover the many environmental costs related to paper products. Most of these added costs are in the forest operations related to clear cutting, environmental assessments and production techniques. This area is the most vulnerable for the Ontario industry as costs are highest in this area in comparison to competing provinces and states.

Paper products used by consumers are generally receiving more favourable treatment than other materials (notably plastics) in terms of environmental impacts. On balance, the weight of new environmental initiatives threatens to further undermine the long-term security of the Ontario paper industry.

#### iii) Trade Policy

Until recently, trade policies have had relatively little impact on the paper industry in North America. A series of new issues, however, will likely make trade policy a crucial determinant of the competitiveness of the industry in the 1990s. Two crucial areas will soon be changing: subsidies and product standards.

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The next round of North American trade talks will deal with subsidies. Trade in pulp and paper will be a major focus as American concerns will try to define several Canadian practices (including medicare and unemployment insurance) as unfair export subsidies. For its part, Canada will argue that U.S. subsidies are offered through systems like electricity co-generation.

Product standards will also be discussed in the next round. While current standards are not an issue, it is likely that new environmental standards will be discussed. In particular, the application of different definitions and content rules for using recycled paper in different jurisdictions will be used as a barrier to Canadian paper exports.

Ontario pulp and paper producers have a large stake in these U.S.-Canada talks as this province has the largest share of the U.S. market of all the Canadian provinces.

#### iv) Industrial Policy

Governments encouraged the creation of Ontario's paper industry through a series of industrial policies. This included the creation of road and rail networks in the North that reduced delivered costs for producers. More recently, the province has supported training and community development in the North. Trucking deregulation has helped to reduce

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transportation costs. Energy policy also helped keep costs down by reducing power costs to mills. These policies are now under attack and/or review as new priorities appear. Trade liberalization and environmental concerns are both acting to undermine the long-term position of many industrial policy objectives.

The prospects of long-term employment in Northern Ontario will be reduced if governments remove the support of industrial policies at the same time as other policies and market trends weaken the industry.

#### 6. <u>Conclusions and Recommendations</u>

Ontario's pulp and paper industry will provide only moderate long-term growth in production and few new jobs during the 1990s. Industry wide trends and region specific competitive disadvantages will restrict growth potential. More efficient firms will be able to sustain production and employment levels in many communities if they can take advantage of more efficient pulp and paper machines and access lower cost wood. These firms will likely be the large integrated producers that can afford the large investment required.

Government policies will play a major role in determining the success of the firms in the industry. If the current restrictive stance of fiscal and monetary policy is not changed, the industry will face an uphill struggle to survive. Industry specific policies in areas like skills development, training, plant closure, pay equity, environmental regulations and transportation could be used to help the industry's restructuring and to offset the worst aspects of the current macroeconomic policies.

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