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THE NEWSPRINT INDUSTRY IN CANADA

A thesis submitted in partial
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TABLE OF CONTENTS

PAGE

LIST OF TABLES

LIST OF CHARTS

LIST OF ILLUSTRATIONS

SECTION I

TECHNICAL ASPECTS AND CHARACTERISTICS OF THE INDUSTRY

CHAPTER

I	INTRODUCTION	1
II	THE TECHNIQUE OF MODERN PAPER-MAKING Brief history of paper-making; woods used for paper pulp; pulp; the mechanical pro- cess; groundwood pulp; the chemical pro- cesses; the sulphite process; paper- making.	5
III	GENERAL CHARACTERISTICS OF THE NEWSPRINT INDUSTRY	18

SECTION II

GENERAL CONDITIONS WITHIN THE INDUSTRY

	FORWARD	34
IV	THE UNITED STATES NEWSPRINT PICTURE	37
V	CANADIAN PRODUCTION	53
VI	EXPORTS	62
VII	MILL CAPACITY	73
VIII	NEWSPRINT COSTS	87
IX	NEWSPRINT PRICES	93
X	EFFORTS AT STABILIZATION The Canadian Newsprint Co. (Ltd); Newsprint Institute of Canada; the Bankers' Committee; Nemac and the N.R.A. Code; the Newsprint Association of Canada.	114

TABLE OF CONTENTS (Cont'd)

	PAGE
CHAPTER	
XI THE RELATIONSHIP BETWEEN MANUFACTURERS, PUBLISHERS AND THE GOVERNMENTS The attitude of the Manufacturer; attitude of the Publisher; the attitude of the Government.	140
XII THE THREAT OF SOUTHERN PINE	157
XIII CONCLUSION - NEWSPRINT'S FUTURE	171
APPENDIX	182
BIBLIOGRAPHY	203

LIST OF TABLES

Table		Page
I	Gross Value of Production, capital invested, salaries and wages, employment, and net value of production for leading industrial groups in Canada, 1937.	2
II	Ownership of forest lands in Canada.	35
III	Per Capita consumption of newsprint in the United States, 1924-1938.	39
IV	Monthly percentage change from previous two years in newsprint consumption, 1937-1938.	40
V	Imports of newsprint into the United States, 1913-1938.	43
VI	Cumulative Monthly change in publishers' stocks 1937-1938.	46
VII	Change in United States newsprint consumption and retail advertising lineage 1937-1938.	49
VIII	Production of newsprint in Canada by Provinces 1923-1936.	57
IX	Market Value and Production of Canadian Newsprint 1913-1938.	60
X	Value of Eight Leading Commodities exported from Canada 1936-1938.	62
XI	Review of newsprint paper exportation in Canada 1917-1937.	65
XII	Exports of newsprint paper from the principal paper-producing countries of the world, 1913, 1929, 1935, 1937.	66
XIII	Geographical distribution of Canadian exports of newsprint, 1921-1938.	68
XIV	New Canadian newsprint machines installed 1919 to 1930.	75
XV	Annual and cumulative increase in newsprint capacity 1919-1938.	76
XVI	Estimated rated capacity, production, operating ratio and excess capacity of Canadian newsprint mills 1920 to 1938.	82

LIST OF TABLES (continued)

Table		Page
XVII	Newsprint Costs per ton, 1936 and 1938.	88
XVIII	Costs and Profit Margins of a typical Canadian newsprint mill.	91
XIX	Interest Payments and Dividend Disbursements of Consolidated, Abitibi and Price Brothers 1929, 1934-1938.	92
XX	Manufacturers' F.O.B. mill contract prices of newsprint paper carload shipments, 1921-1923.	95
XXI	Average price of newsprint for the years 1915-1939.	98
XXII	Trend of newsprint and general commodity prices.	103
XXIII	Amount of freight charges absorbed by International Paper Company to selected cities, 1928.	118
XXIV	Rate of Capacity at which newsprint mills in North America operated 1929-1931.	128
XXV	Operating percentage of capacity of newsprint mills in Canada and United States by months 1929-1930.	129
XXVI	Cost per ton of newsprint made from Southern Pine.	165
XXVII	Imports of European newsprint into the United States January 1, 1920 - December 31, 1938.	183
XXVIII	Newsprint available for consumption in the United States 1913-1938.	184
XXIX	Approximate monthly consumption of newsprint in the United States.	185
XXX	Circulation of English Dailies in the United States 1929-1938.	186
XXXI	Newsprint Stocks of United States Publishers at end of each month 1933-1938.	187
XXXII	United States Publishers Stocks in terms of days' supply 1933-1938.	188

LIST OF TABLES (continued)

Table		Page
XXXIII	Newsprint Stocks of North American Manufacturers at end of each month 1933-1938.	189
XXXIV	Annual Production of newsprint in United States and Canada 1913-1918 with percentage of total produced by each country.	190
XXXV	Monthly production of newsprint in Canada, 1929, 1932, 1936-1938.	191
XXXVI	World Production of newsprint 1933-37.	192
XXXVII	Canadian newsprint Exports by countries, 1929, 1932, 1937 and 1938.	194
XXXVIII	Number of Machines in Canada, Size, approximate capacity and date installed.	195
XXXIX	Canadian index numbers of wholesale prices of all commodities and of newsprint, 1913-1938.	202
XXXX	Advertising volume by months, 1929-1938.	202A

LIST OF CHARTS

CHART		PAGE
1.	Annual Production of Newsprint in Canada and the United States 1918-1938.	41
2.	Imports of newsprint into the United States 1918-1938.	44
3.	Publishers' stocks, days' supply and consumption of newsprint in the United States by months 1935-1938.	47
4.	Advertising volume, newspaper circulation and newsprint consumption in the United States, 1928-1938.	51
5.	Newspaper Advertising and department store sales.	52
6.	Monthly Production of newsprint in the United States and Canada 1928-1938.	55
7.	World Production of Newsprint, 1928-1938.	59
8.	Quantity and Value of Newsprint Exports from Canada 1917-1937.	63
9.	Annual Production of Newsprint and Excess Capacity in Canada, 1920-1938.	80
10.	Newsprint Prices Compared with Commodity Prices, 1913-1938.	104
11.	Newsprint Prices, Production and Value, 1913-1938.	113

LIST OF ILLUSTRATIONS

	Page
A Newsprint Machine.	17
Location of Newsprint Mills (map).	32
Zones and price differentials proposed by the N.R.A. (map).	135
Sample of Newsprint made from Southern Pine.	158
Sample of Vacuum Dried Newsprint.	179

SECTION I

TECHNICAL ASPECTS AND CHARACTERISTICS OF THE INDUSTRY

CHAPTER 1

INTRODUCTION

Because of its abundant forest resources, accessible power sites, growing population and availability of investment funds, Canada leads in the output of pulp and paper.

The pulp and paper industry has headed the lists in net value of production, one of the best indicators of the relative importance of a manufacturing industry since 1920, and in wage and salary distribution since 1922. It employs 16.2 per cent of all gainfully employed in Canada as compared to mining's 9 per cent. It was first in gross value of production from 1925, when it replaced the flour mills, until 1935 when it was overtaken by the non-ferrous metal smelting and refining group.¹ In these comparisons, only the manufacturing stages of the pulp and paper industry are referred to, no allowance being made for the capital invested, the men employed, the wages paid nor the products of the operations in the woods. It is an industry where capital invested exceeds \$600,000,000 and where the power bill amounts to \$18,000,000 per annum.² It is most important in the Dominion in its influence on trade; the difference between a favourable and an unfavourable balance at present depends to a large extent upon this industry. Much traffic for the railways and

1. Dominion Bureau of Statistics, The Pulp and Paper Industry in Canada 1937 (Ottawa: The King's Printer, 1938) p.2.

2. The Financial Post, "A Giant Among Giants" (A series about Canada's Pulp and Paper Industry, Toronto: 1938) article no. 8.

other transportation agencies is furnished by this great industry.

The high position held by the pulp and paper industry among the ten leading Canadian industrial groups in 1937 is shown on the following table:

TABLE I *

GROSS VALUE OF PRODUCTION, CAPITAL INVESTED, SALARIES AND WAGES, EMPLOYMENT, AND NET VALUE OF PRODUCTION FOR LEADING INDUSTRIAL GROUPS IN CANADA 1937

Industries	Gross value of production (\$000)	Capital invested (\$000)	Salaries and wages (\$000)	Employ- ment (number)	Net value of production (\$000)
Non-ferrous metal smelting & refin- ing	318,278	162,697	17,991	11,570	101,807
Pulp & paper	226,245	570,352	48,758	33,205	106,002
Slaughtering & meat packing	181,419	65,412	17,085	13,070	31,955
Automobiles	134,810	57,996	22,139	14,946	41,273
Flour & feed mills	133,634	56,280	5,888	5,803	20,854
Butter & cheese	124,935	60,002	15,699	16,583	31,991
Sawmills	104,850	90,405	27,174	33,917	46,727
Electrical appar- atus & supplies	98,842	97,188	26,291	21,706	55,815
Petroleum products	98,454	64,280	8,247	5,137	13,602
Railway rolling stock	93,855	88,426	29,187	21,496	35,573

* Dominion Bureau of Statistics. Preliminary Report on the Pulp and Paper Industry, 1938 (Ottawa: The King's Printer, 1939) p. 1.

The newsprint industry, which in 1937 accounted for 84.5 per cent of the total reported tonnage of paper manufactured in Canada, has experienced phenomenal growth in the last two decades, producing approximately 40 per cent of the world's total, and exporting in 1937, 69per cent of the world's total exports of that commodity.

Yet despite these glowing statistics the entire industry is in a demoralized condition, burdened with overhead costs, financial difficulties and other troubles, such as strained and unfriendly relations between publishers and manufacturers.

Serious mistakes have been made in the past. The speed in which the newsprint industry shifted to new areas in its search for more abundant supplies of raw material led to the duplication and over-extension of production facilities, over-capitalization and inevitably to the financial breakdown of the largest producers. Competition has been reckless, operations have been extravagant and there has been a general lack of co-ordination. Unreplacable forest resources have been depleted without profit. Each and all of these have played their part in the instability of the newsprint industry.

It is the purpose of this study to analyze the industry in its entirety; outlining briefly the manufacture of newsprint paper; setting forth certain characteristics peculiar to this form of business activity; describing the general conditions within the industry over the past

twenty years; outlining the feelings of the manufacturer and publisher towards each other and then concluding with a note on what the future holds for this industry so vital to Canada's economic well-being.

CHAPTER 11

THE TECHNIQUE OF MODERN PAPER MAKING

The magnitude and importance of the newsprint industry in Canada warrants a short historical note of its rise and growth. To understand the industry thoroughly a brief outline of the manufacture of newsprint is also necessary. And so it is the purpose of this chapter to set forth the above, in detail.

Brief history of paper-making

According to ancient Chinese records, paper was first made about the year A.D. 105 and was the invention of Ts'ai Lun.¹ He discovered that, after various vegetable fibres were well macerated by pounding into water, they could be re-formed into a coherent sheet by simply draining off water on a sieve and drying the layer of fibres held back.

The western world learned the art of paper-making through the Arabs who, among western nations, were the people² most advanced in arts and science during the middle ages. The Arabs themselves learned the craft from Chinese paper-makers whom they captured at the fall of the city of Samarkand, A.D. 751. In Europe the art became first established through Southern France and Northern Italy, whence it spread to Germany. Up until the discovery of the modern wood pulps, all paper was made from rags.

1. T.A. McElhanney and Associates, Canadian Woods: their Properties and Uses (Ottawa: The King's Printer, 1935), p. 240.

2. Ibid.

The development of the printer's art, commencing about 1490, led to a great expansion of the paper-making industry, an expansion which has continued to the present day. Aside from improvements in the method of application of power to macerating, or "beating", part of the process, the next great advance was made about the year 1800, when the first paper-making machine was invented by Louis Robert of France and was financed and built by the Fourdriniers in England. This machine has suffered no essential alterations since it was first conceived.

The double pressure of increased demand for paper caused by the printing art and spreading education, together with more rapid process of making paper, made a heavy load on the supply of raw material, which at that time was confined to rags. This shortage of supply led to many efforts to discover substitute materials, and, although many fibrous materials were tried after being treated in various ways, the first of these to meet with any very favourable reception was mechanical wood-pulp, first commercially produced in Germany by Voelter in 1844. The material had been earlier produced in Canada by Charles Fennerty, near Halifax, in 1838 but the invention was not commercially followed up. Spruce, balsam fir and hemlock were found to be the most suitable for the manufacture of paper of the average grades.

In 1854, Watt and Burgess introduced a chemical process of producing a paper-making pulp from wood by cooking it under pressure with a solution of caustic soda. The caustic

dissolved out most of the non-cellulose material of the wood and left a pulp which could be readily bleached to a good white. In 1863, Tilghman invented the sulphite cooking process, by which the wood was cooked with a solution of calcium or magnesium bisulphite and sulphurous acid. On account of the difficulties in handling the acid cooking liquor, this process came into use rather slowly, but the difficulties were gradually overcome.

The first paper-mill established in Canada was that at St. Andrews East, Quebec, in 1803. Groundwood was first made in Canada by Buntin at Valleyfield, Quebec, in 1866. Soda pulp-mills were started at Windsor Mills, Quebec, in 1864 by Angus Logan; this was the second installation of the process in America.

By 1871 there were 21 paper-mills in Canada employing 760 people, distributing \$197,815 in wages and salaries and producing paper valued at \$1,071,651. Ten years later, there were 36 paper and 5 pulp mills in operation with a total of 1,588 employees, a pay-roll of \$460,476, and an output valued at \$2,509,993, consisting of pulp valued at \$63,300 and paper valued at \$2,446,693.

The first sulphite pulp-mill in Canada was established in 1887 by Charles Riordon at Merritton in the Niagara Peninsula. Others were started at Cornwall, Ontario, by the Toronto

Paper Company, and at Hull, Quebec, by Eddy within a few months.

Because of the large supplies of spruce and balsam fir in Canada, together with large supplies of easily developed water-power, Canadian production of wood-pulp has been largely groundwood, but in later years sulphite and kraft pulps have been produced to a rapidly increasing extent.

After the removal in 1913 of the tariff on newsprint going to the United States, the production of such paper in Canada rapidly increased, since the conditions for the manufacture of the principal component, groundwood pulp, were particularly favourable.

Woods used for paper pulp

The woods used for paper pulp may be classified, from the point of view of pulp-making, into three general classes. The first two of these are made up of the softwoods, or conifers, and the third includes hardwoods. The softwoods have comparatively long fibres, which are particularly suitable for paper-making where strength is desired. The fibre of the hardwoods, or broad-leaved species, is relatively short, and tends to make a bulky and weak sheet and is consequently not in such general demand as that from the coniferous species. The three classes above referred to are the following:⁴

- (1) Long fibre, high resin; Pines, Douglas fir.

4. McElhanney and Associates, op cit, p. 241.

(2) Long Fibre, low resin, Spruce, balsam fir, hemlock.

(3) Short fibre: Hardwoods (chiefly aspen poplar).

Some woods are unsuitable because of difficulty in removing such materials as tannins or colouring matter. Sawdust, while of the same composition as the whole wood, is of little or no use for pulping because of the few fibres which are of natural length.

The start of paper making is in the woods. The most economical newsprint mills are those located at natural water-power sites, above which, in the river's drainage basin, pulpwood timber is grown. The actual cutting of the trees starts in the late summer or early autumn. In the spring when thaws break up the ice and furnish plenty of water, the logs are started on their journey to the mill.

Upon reaching their destinations, pulpwood logs are run through the "slasher" mill or "cut-up" plant, where by means of circular saws set parallel 24, 32, or 48 inches apart, they are cut to the desired lengths.

Next the bark must be removed. This is usually done by means of open-ended "tumbling barrels" or "drum barkers", consisting of a cylindrical framework 30 or 40 feet in length and 8 or 10 feet in diameter, with the sides composed of steel slats spaced 2 or 3 inches apart, the whole thing slowly⁵ turned and generally with heavy water sprays inside.

Pulp

With the raw material on hand the paper-making pro-

cesses begin. But first let us understand that paper is chiefly cellulose in some form, the purest and most common natural example of which is cotton. The main constituent of wood is cellulose, and all the complicated processes of modern paper making are for the purpose of changing the form of this cellulose from wood into paper. There are two principal means of doing this; one mechanical, the other chemical.

There are three kinds of chemically manufactured wood pulp ordinarily on the market. These are sulphite pulp, in which the cooking liquor is chiefly bisulphite of lime; soda pulp, an alkaline rather than an acid process, in which the cooking solution is composed of caustic soda; and sulphate or "kraft" pulp, an outgrowth of the soda process, in which the cooking liquor contains sodium sulphite instead of sodium carbonate.

Each process has its own particular merits according to the kind of wood used and the character of the product desired. For our purpose, the mechanical process and the sulphite process only will be considered.

It takes approximately one cord of wood to produce one ton of groundwood or mechanical pulp and two cords to a ton of pulp by the chemical process.

The Mechanical Process: Groundwood pulp

The cheapest of pulping processes is that used in making groundwood, and although the pulp is relatively poor in quality, it is the basic constituent of newsprint. The

barked or cleaned wood is held against the face of a large grindstone which revolves at a high rate of speed within a casing. The casing is provided with pockets into which the wood is inserted and pressed against the revolving stone by hydraulic pressure. The temperature is controlled largely by the amount of cooling water supplied while grinding. The ground mass of wood comes from the grinders in the form of "slush" which goes through a large screen, sometimes called the "bull" screen and then to the "knotters" to remove the coarser particles. The accepted "stock" from the screens is conveyed to a "thickener" where part of the water is removed, the pulp going into stock for newsprint and the white water returning to the bull screen to be used again. This pulp contains practically all the wood constituents, but on account of the large increase of surface and the high temperature produced at the grinding surface, the pulp has much less durability than the wood from which it was produced. The fibres are generally shorter and weaker than in the case of chemical pulp, having been broken in the process of manufacture. Groundwood constitutes approximately 80 per cent of ordinary newsprint.

The woods generally used for ground wood are the low-resin softwoods such as spruce, balsam fir and hemlock.

The Chemical Processes

Wood substance consists of about 55 to 60 per cent of material that can be classed as "cellulose" and about

30 per cent of material classed as "lignine", the remainder⁶ being composed of various carbohydrates, resins and tannins. Removal of the non-cellulose material by chemical action leaves a pulp of much higher grade than groundwood, and makes possible the production of wood-pulp papers of good strength, appearance and durability.

The Sulphite Process

This process is the most important in use in Canada to-day and depends on the action of an acid bisulphite liquor on the non-cellulose wood components. Although the yield of pulp varies somewhat according to the severity of the treatment it is usually slightly below 50 per cent. When the pulp is intended for bleaching, the cooking is carried somewhat further, with a consequently lower yield of pulp, which, however, bleaches easily to a high degree of whiteness. Only coniferous woods such as spruce, balsam, hemlock, etc., are used in Canada.

The liquor is prepared by absorbing sulphur dioxide gas in water flowing over limestone, which dissolves in the acid solution. The gas is produced by burning sulphur in specially constructed ovens with a limited amount of air. The amount of sulphur required may be as high as 270 pounds per ton of pulp, though 200 pounds per ton is possible when good efficiency is attained.

6. McElhanney and Associates, op cit., p. 244.

The previously barked and cleaned pulpwood is chipped into small particles about one inch long by a quarter of an inch thick or smaller. These chips are screened, crushed and fed into heavy steel "digesters" usually cylindrical in shape and tapering at both top and bottom, forming cones. Because of the corrosive qualities of the liquor, these digesters are heavily lined with acid-resisting brick. They are from 28 to 60 feet high, 10 to 18 feet in diameter, and have a capacity of from 3 to 20 tons of pulp. When the digester is filled with chips and the bisulphite liquor, the manhole is closed and steam is inserted at the bottom. Steam pressure sometimes reaches about 80 pounds and the temperature about 365°F. This cooking process lasts for a period of from 7 to 11 hours, after which time all the materials in the wood except cellulose are dissolved out. At the end of the cooking period the charge is blown out of the bottom of the digester into a "blow-pit" where, by means of repeating washings with fresh water, all the cooking liquor is washed away, leaving only the pure sulphite pulp.

The pulp is then passed through the same series of screening operations as is groundwood and eventually lands in a sulphite "slush tank" if intended for immediate use or goes into laps if destined for storage purposes.

The resultant fibre is used in the manufacture of newsprint, mixed with groundwood pulp in the proportion of about twenty per cent sulphite and eighty per cent ground-

wood. Most newsprint mills make their own sulphite as well as groundwood. In fact, nearly 80 per cent of the pulp produced in Canada is made in combined pulp and paper mills for their own use in paper-making. About 17 per cent is made for export and the remainder for sale to other paper mills or factories making other pulp products in Canada.⁷

Paper-Making

And now we come to the actual process of making newsprint in which Canada leads all other countries. This is due to the fact that newsprint is best made to-day of a mixture of groundwood and sulphite pulps. On account of the proximity of cheap power to suitable wood in Canada, the production of groundwood can be carried on at low cost. The large and easily accessible market in the United States furnishes the outlet for the sale of a vast quantity of this class of paper.

"The making of newsprint paper consists of putting water into wood and taking it out again" a veteran paper-maker once declared, and it is true that most of the important improvements in the manufacturing processes during the past hundred years have been for the purpose of more speedily removing the water from paper.⁸

The first essential is to get an even layer of wet

7. The Pulp and Paper Industry 1937, op.cit., p.4.

8. R.S. Kellogg, op.cit., p. 5.

pulp. Groundwood and sulphite pulp are brought together in the proper proportions in the mixer. The proportions are about 80 per cent groundwood and 20 per cent sulphite. After being mixed thoroughly, the pulp is conveyed to the paper machine stock chests from which it is pumped through weight regulators into a mixing box where water is added in the proportion of about 199 parts to 1 part of pulp. It then goes through the paper machine screens into the "flow box", a long narrow box at the head of and extending across the full width of the paper machine.

The usual type of high production machine, known as the Fourdrinier, consists of three parts -- the "Fourdrinier" part, the "press part" and the "drier part".

From the flow box the slushy pulp, similar to thin porridge, is allowed to flow in a carefully regulated stream onto a rapidly moving belt of woven wire screen. This screen, consisting of fine bronze or copper wires woven with about 60 or 70 meshes to the inch, ranges in total length from 70 to 100 feet, in width from 164 to 300 inches and travels at speeds of from 800 to 1,300 feet per minute. It is driven along continuously and may have a lateral horizontal movement or "shake", which assists the fibres to interweave in all directions. Deckle straps are sometimes used at the sides of this screen to keep the stock from running off the edges. As the material travels forward much of the water drains off or is removed by rolls and suction

boxes until a weak wet sheet pulp is formed.

On passing from the "Fourdrinier part" to the "Press part" of the paper machine this sheet of pulp is carried on broad endless blankets of felt through the press rolls where it is further dried and pressed. After leaving the last press, our sheet of paper contains from 60 to 70 per cent of water instead of the $99\frac{1}{2}$ per cent at the beginning.

It now passes to the "dryer part" where steam-heated cylinders evaporate most of the water left after pressing, leaving from 7 to 10 per cent in the finished paper. All the rest has been lost during a journey of some 300 feet in a few seconds. Taking all the mill operations together, as much as 350 tons of water may be put into wood and taken out again for every ton of paper made, while in order to provide also an abundant supply of water as the conveying medium in the mill, a total pumping capacity as high as 2,500 tons of water per ton of paper capacity has been provided in some up-to-date operations.

The sheet now goes through a series of exceedingly heavy polished steel rolls called "calendars" which put a smooth surface upon it. The paper is then run off upon reels, goes through rewinders and is cut to the desired widths, and then on the finishing room where the rolls are carefully wrapped in heavy paper, weighed, marked and are ready for loading on cars or in ships to go to the waiting newspaper presses. A standard roll weighs about 1400 lbs. It contains a sheet of paper approximately 68 inches wide and nearly 6 miles long.

CHAPTER III

GENERAL CHARACTERISTICS OF THE NEWSPRINT INDUSTRY

The newsprint industry--so important to Canada--is facing serious problems. While it has made mistakes, its difficulties are not wholly its own fault - rather they are peculiar to the industry itself. To understand this present ill-health, one must first know what the characteristics of the newsprint industry are. In what respect does this industry differ so from other forms of industrial activity?

The fundamental factors of supply and demand operate in newsprint as in other industries, but the time required for the inevitable adjustment of production and capacity is rather extended. Capital turns over but slowly in the newsprint industry. The sales in a city department store in a year may be equal to three times the investment in the business. In a fully self-contained newsprint manufacturing operation which has its own supply of raw material, it may take five or six years for net sales to reach a total that is equal to the investment in the enterprise.

Price and demand have a queer relationship in the marketing of newsprint. A reduction in price for the industry as a whole will not bring a corresponding increase in demand. No newspaper publisher will print 120,000 copies of his paper if his circulation is but 100,000, simply because his paper cost him less than previously. Conversely,

if prices rose, no newspaper would voluntarily decrease its edition. Undoubtedly he would fuss over increased costs, but as they are only a portion of his total expense, he should absorb them. Hence we have a condition of demand which neither producer nor purchaser can affect, and, strangely enough, the ultimate purchaser of the newspaper himself does not materially affect the demand. The advertiser influences the rate of consumption greatly. It has been found that the number of pages used in a newspaper has a definite ratio to the amount of advertising in a paper, and, as the subscription rate is not likely to vary with the size and thickness of a newspaper, advertising has the major effect in creating variances in the consumption of newsprint.

Few industries possess in their chief productive equipment such a long machine life as that in the paper industry. The principle of the paper machine has not changed materially since the first machine was built. Mechanically, machines have been vastly improved, but the usual obsolescence, brought about by new inventions and improvements has long been postponed in the newsprint industry. Once installed, a paper machine becomes well-nigh a permanent fixture. Hence, the production of paper does not follow demand directly, for a newsprint mill is going to be in use at any price for its product which will cover the cost of materials and labour, and pay any part of its interest charges. Newsprint costs, up to a point, place a premium on volume rather than price. Due to the heavy overhead charges of a newsprint mill, it

is often more profitable to operate at 85 per cent of capacity with a \$50.00 price, than at 60 per cent of capacity with a \$60.00 price. This fact led to a scramble for tonnage which accentuated price decline in past years.

(This was one of the great weaknesses in the industry for a number of years, but has been corrected somewhat as will be shown later.) The result was that all manufacturers lost money, other than a few very efficient mills.

The newsprint industry has a fundamental weakness in its one-price interlocking system of contracts which is peculiar to it alone. An interlocking contract for the sale of newsprint is a contract in which the seller undertakes that his price will be the lowest price named by some other seller or sellers. The other seller may be designated by name or by description. One method has been to promise the lowest price named by any North American mill having a capacity of 100,000 tons or more. A manufacturer entering into such a contract, thus has no ability to determine his own price; his price is such as practically any other seller may choose to accept.

This system started back in 1920, but did not really become general until 1927 or 1928, when over-expansion of Canadian capacity caused increasing competitive pressure. During the subsequent general depression, use of such contracts became so widespread that the action of a single mill could, and did, fix the price for the whole North American industry. Buyers had merely to find one suitable

mill willing, for one reason or another, to name the price they wanted and the rest of the industry was automatically bound to follow.

This weakness prevented a price increase in 1935 and limited the 1936 advance by \$1.00 per ton. Prices are announced for six months or a year ahead of time.

The industry has, for some time, been hindered by excess capacity and uneven distribution of tonnage between companies. Although the industry as a whole may operate at 75 or 80 per cent of capacity during certain periods, a number of companies might remain very short of tonnage, or to put it another way, have large blocks of available capacity. The industry's average is made up of "long" companies, operating at full or nearly full capacity, and "short" companies operating at only 50 or 60 per cent and even less. The excess capacity is concentrated in Abitibi, Consolidated and Price Brothers. This is both bad and good; bad because they are three of the large price-fixing companies; good because the excess capacity is fairly well centralized and capable of being controlled.

A further complication in this weakness is uneven distribution of capacity between provinces, accentuated recently by the completion of a new mill at Comeau, Quebec.

Recent legislation, however, has tended to rectify this excess capacity by having "long" companies purchase newsprint from "short" companies in order to have all companies operating at close to the average for the industry.

The industry has had numerous receiverships, bankruptcies, or companies under default conditions -- large price-fixing companies such as Abitibi, Consolidated and Price Brothers. Security-holders of companies in receivership or bankruptcy have a natural urge to effect reorganization and may be disposed to accept offers or plans involving large amounts of tonnage on terms which would block price improvement and price stability. This weakness, however, is steadily diminishing but in the depressed years of the earlier thirties it was a potent factor.

The unusual dependence of the newsprint industry upon export markets makes it possible for the industry to be severely squeezed in dull times, and to be encouraged to over-expand in good times. There is probably no other industry, even wheat-growing, where production is so far out of balance with domestic consumption. Canadian newsprint requirements are met by about 5 to 7 per cent of the production. The balance of the total is exported mostly to the United States, where, along with that country's own output, which is less than one third that of Canada, and some imports from Scandinavian countries, it supplies the great American market. When demand shrinks, the natural thought is to keep domestic plants operating at full capacity, and throw the loss entirely on the outside manufacturers.

The industry has a condition, not common to other industries, in the presence of large buyers (particularly

one large buyer for a period of years) and in the organization of buyers through the American Newspaper Publishers Association and its Paper Committee. These two factors make possible a collective bargaining power with which other industries are not obliged to cope. This organization of publishers seems determined to prolong low prices as long as possible and holds effective weapons of publicity which it puts to skilful use.

The one large buyer (Hearst - who has now been removed from the picture by bankruptcy) represented about 20 per cent of the entire domestic market. Hearst's ability to switch large amounts of tonnage from one company to another, to put one supplier under pressure or to offer inducements to a prospective supplier has long been a difficulty to the newsprint industry.

To the casual reader this might all seem very fantastic and one-sided. Why, he might say, could the manufacturers not form an equally strong bargaining force and compel the publishers to meet their price? The answer to this question is the lack of any sound form of co-operation between the producers, due in part, to the mushroom growth of the industry and in part to the interlocking contract system. However, the bargaining power of the producers has strengthened greatly during the past two years as a result of better co-operation and government intervention. The industry successfully withstood a reduction in the price of newsprint in 1938, despite the fact that Great Northern, largest of United States producers, undersold the Canadian

manufacturer by \$2.00 per ton.

But it is not the intention of the writer to embark on any type of argument at this point. All these questions will be gone into more fully later on in the study. The purpose of this present section is merely to point out the peculiarities and general characteristics of this industry.

Up to this point, the discussion has been confined to what one might call merchandising or management characteristics of the newsprint industry. Let us now turn to the more technical aspects of construction.

The production of newsprint requires heavy fixed investment represented in mills and machinery designed for heavy duty, high speed and continuous operation and supported by wood reserves adequate for an extended period of time and power sufficient to supply the huge requirements of mechanical and electrical energy. Construction costs of a 100 ton paper mill, equipped with its own sulphite mill, groundwood mill and water power, are approximately \$40,000 per ton of daily capacity.

Power is required everywhere, and because paper must be cheap, cheap hydro-electric power is the foundation upon which every modern newsprint mill has been built. Taking all operations together, a newsprint mill must provide upwards of 100 h.p. per ton of daily capacity. If the steam required for cooking sulphite pulp, heating and drying cylinders on the paper machine and heating the plant in cold weather is also generated electrically, a total of 300 h.p. per ton of capacity may be required. Mills are

operated to-day without so much as one fuel burning furnace.

The investment in a paper mill is so large in proportion to the unit value of the product that sufficient wood for long-time operation must be assured. More than a cord of wood is required for every ton of newsprint. A 300 ton mill will use at least 100,000 cords of wood yearly.

To give the layman some idea of the large size and permanency of a modern newsprint mill the following extract¹ is reproduced from a recent publication:

Building a Mill

Figures are tiresome, but sometimes a story cannot be told without them. For this reason we note some of the details of a typical mill whose product is used for the printing of United States newspapers. It was two and a half years from the time the project was only a series of blue prints until the first finished roll of paper was turned out --and many improvements were made thereafter.

At the start, tidewater covered the whole 40-acre area upon which the mill now stands and where pulpwood is piled. First a shipping wharf 1200 feet in length was built upon 1600 wooden piles. Then 500,000 cubic yards of gravel was excavated from an adjacent bank and filled into the mill site and wood storage area, with the foundations of the mill set upon 3,200 concrete piles. Three paper

1. R.S. Kellogg, op. cit., p. 21.

storage sheds, each 135 feet wide and 594 feet long are carried on 11,000 wooden piles. Altogether the mill contains 7,000 tons of structural steel and 35,000 cubic yards of reinforced concrete.

Forty miles distant a dam was built which raised by 30 feet the level of a lake 50 miles long. From this lake 7 miles of canal was dug, involving the moving of 5,000,000 cubic yards of earth. From the forebay at the lower end of the canal 9 great penstocks each 10 feet in diameter carry the water down a 270-foot drop to the power house, 550 feet long and 80 feet wide, where 160,000 hp. is generated. This power is then carried at 70,000 volts for 32 miles over four transmission lines to the paper mill, the wheels in which are driven by electric power and the required steam also generated electrically.

There are nearly 400 electric motors in the mill and over 125 miles of copper wires and cables. There are 30 huge grinders to make the groundwood, 5 "digesters" each 16 feet in diameter and 50 feet high in which sulphite pulp is made, and 4 great paper machines, each of which can make a sheet of paper over 18 feet wide.

Back of all this, there are more than 4,000,000 acres of timberland and other sources of supply for the 250,000 cords of pulpwood which must be annually cut, hauled to rivers and lakes and driven and towed to the mill in order that there may be a constant supply of raw material. Stacked in the usual cord fashion of 4 feet wide and

4 feet high, this yearly woodpile would extend 400 miles. There is also a beautifully landscaped town of 300 attractive houses built for rental at low cost to employes, a fine staff hotel, schools and a hospital with every facility for the latest method of operation and treatment."

Working capital other than for raw materials, is not required in great amount, inasmuch as the product is sold to a relatively few large consumers to whom deliveries are made in carload lots on regular schedules, and the time interval between commencement of production and delivery is relatively short. Working capital, however, to meet all ordinary needs has in some cases been as high as \$10,000 per ton of daily capacity. The most recent competent estimate for this item is not less than \$1,200,000 for a 300-ton mill in a low cost location. Credit risks are generally good.

Inventory is chiefly pulpwood and constitutes the principal item of current assets. Pulpwood is a seasonal raw material, usually cut in the fall and winter months. Deliveries are made in the winter months by rail, truck or team and in the spring and summer months by towing and driving logs down rivers to the mills. In many instances by far the greater proportion of pulpwood is delivered by water and this results in the carrying of large inventories at mill and en route. Even so, considered in comparison with the investment in fixed plant, the investment in inventory is relatively small. There is no finished product inventory comparable to that of many other industries. Newsprint de-

teriorates quite rapidly.

On the basis of a composite balance sheet of five leading Canadian newsprint producers, at the close of 1930 (such date is used in order to obtain figures at a time prior to the difficulties, including receiverships and reorganizations, which have, in some instances, resulted in revaluations and changed investment figures), the average total investment (on the basis of book figures) in the industry was about \$222 per ton of annual capacity, of which \$206 represented fixed assets. At the present price of newsprint (estimated at approximately \$43.50 per ton at mill, after absorbing freight), about 5 years is required for the sales dollar to turn over the investment dollar, or expressed in another way, the investment activity factor is roughly 20 per cent. And in order to earn 6 per cent on invested capital, the industry must realize a net profit of about \$13.50 per ton of newsprint, or 31 per cent of the sales dollar at the present mill prices. In the years 1933-36 inclusive, this figure was almost 38 per cent of the sales dollar. The foregoing figures are based on capacity operation and would be higher under conditions of less than capacity operation, they are also based upon the aforementioned book figures of investment.²

By courtesy of Mr. Charles Vining, President of the

2. W.H. Smith, "The Newsprint Industry" Abitibi Power & Paper Company, Limited, Bondholder's Representative Committee Report (Toronto, July 1937), Exhibit A-1.

Newsprint Association of Canada, the writer reproduces herein extracts from an address by him in February, 1937, which presents a very clear picture of the structure and extent of the industry. Slight changes have been made to bring the statistics up to date.

"There are 24 companies in Canada directly engaged in the making of newsprint. These companies have 41 mills, two or three of which are commonly classed as obsolete for newsprint purposes. Of these mills, 21 are in Quebec, 14 in Ontario, one in Nova Scotia, two in New Brunswick, one in Manitoba and two in British Columbia.

In total effective capacity, the newsprint mills in Canada were rated by competent engineers at about 4,204,200 tons a year, which is between 42 and 45 per cent of total world capacity. The next largest producing country is now England which relies chiefly upon European countries for raw materials. Third in production is the United States, which has steadily declined with depletion of its northern forests, and a close fourth is the Scandinavian group of Finland, Sweden and Norway.

The Canadian mills have an effective capacity considerably greater than that of England, United States and the Scandinavian countries combined. Quebec alone has about double the capacity of England. If our prairie provinces are the granary of the world, Quebec and Ontario are its newsprint mill.

In terms of workers, the Canadian newsprint industry

consists of something like 100,000 men at work in the woods and the mills and some thousands more engaged in supplying transportation and other services. It seems safe to say that at least half a million of Canada's ten million population directly depend upon this industry for livelihood.

Measured in investment, it has been calculated that the industry represents some 600 to 700 million dollars. Certainly, the present replacement value of newsprint mills alone, as going concerns, is at least 400 million dollars without valuation of timber limits or subsidiary power plants. Newsprint is our largest single industrial investment, with the exception of investment in hydro-electric power, and the newsprint industry (with both primary and secondary requirements) accounts for at least two-fifths of Canada's total power development. There are single mills in the industry which use considerably more electrical energy per annum than is used to light the cities of Montreal and Toronto combined.

Measured in terms of national income, the newsprint industry in a year like 1936 means over 100 million dollars a year from foreign customers. During the difficult years, from 1930 to 1935, in spite of its disrupted condition, the newsprint industry brought to Canada from foreign sources a total of 563 million dollars, compared with 475 millions of gold production and 130 millions of nickel exports. And newsprint income is spent in Canada, for nearly all materials

of newsprint production are of Canadian origin."

New money does not go into a long-time undertaking without hopes of dividends. Conditions in recent years have prevented any return upon large investments in the newsprint industry; there have been few plant improvements, there have been inadequate depreciation allowances and little for obsolescence. In other words, the conditions which have prevailed have been the exact opposite of those necessary to attract and hold capital in a basic industry.

SECTION II

GENERAL CONDITIONS WITHIN THE INDUSTRY

FORWARD

In Canada the newsprint industry has experienced phenomenal growth in the last two decades, leading all other countries in production and exports of that commodity.

This growth may undoubtedly be credited to the enormous and readily available timber supply, cheap and abundant hydro-electric power, the proximity of the United States - the world's largest market for paper- and the policy of the provincial authorities in forbidding the export of pulpwood from Crown lands.

Of the total forest area, 91.5 per cent is owned by the Crown in the right either of the Dominion or of the provinces. Rights to cut timber under lease or license have been granted on 13.3 per cent of the total area, and 78.2 per cent has not been alienated in any way.¹ Permanently alienated lands occupy the remaining 8.5 per cent.

The withdrawal of the United States tariff on the importation of newsprint in 1913 also helped, to some extent, to accelerate the rate at which the centre of the newsprint production shifted from the northwestern section of the United States to the eastern provinces of Canada.

1. J.D.B. Harrison, Economic Aspects of the Forests and Forest Industries of Canada (Ottawa: The King's Printer, 1938), p. 9.

The percentages of Crown and private forest lands in each province are as follows:

TABLE II *

OWNERSHIP OF FOREST LANDS IN CANADA

Province	Crown Lands Per cent	Private and Corporation lands Per cent
Prince Edward Island	0.3	99.7
Nova Scotia	12.4	87.6
New Brunswick	49.4	50.6
Quebec	91.7	8.3
Ontario	96.7	3.3
Manitoba	90.9	9.1
Saskatchewan	92.4	7.6
Alberta	92.3	7.7
British Columbia	91.6	8.4

* J.D.B. Harrison, Economic Aspects of the Forest and Forest Industries of Canada, (Ottawa: The King's Printer, 1938) p. 9.

In the year 1917, production of newsprint in the United States was twice as large as the Canadian output. By 1937, Canadian production had grown to a point where it was almost four times as large as that of the United States. This represents an increase of 650 per cent in this country in the past twenty years.

In 1930 newsprint produced in Canada amounted to 2,504,000 tons while the rated capacity of the mills was about 3,600,000 tons per annum. By 1938 Canadian manufacturers had equipped their mills to produce annually about

4,204,200 tons of newsprint, but during that year produced only 2,625,000 tons.

This condition in itself is difficult but it was made considerably more serious by related troubles which have accompanied it; low price, cut-throat competition, market ill-will, political disturbance, personal animosity and public uneasiness. Each of these related troubles is, or has been, a definite factor in the newsprint situation.

The newsprint industry cannot be analyzed on strictly domestic lines. Canada dominates the production picture while the United States, as the world's greatest consumer, supplies the Canadian industry with its principal market. So let us look first at this background in order to appreciate present conditions.

CHAPTER IV

THE UNITED STATES NEWSPRINT PICTURE

The growth of reading habits in the United States probably gave Canada its great opportunity in newsprint. The daily newspaper habit was one of gradual but widespread growth. The introduction of rural mail delivery enabled thousands to add a daily paper to their weekly. And so there followed expansion of newspapers. The financial page became the financial section; the sporting page became the sport section; the "funnies", at first a page, became eight and even sixteen pages. The Sunday newspaper became a tremendous thing. All this created a demand for newsprint. It created a sellers' market and the American publishers perhaps found a tendency on the part of the American newsprint makers to take an independent attitude. In any event, American publishers used their influence to secure the free entry of Canadian newsprint and that became a fact about the end of 1913.

The several markets for newsprint are readily accessible from the Canadian producing areas. The Saguenay and St. Maurice River Valley output is shipped principally to New England and New York markets by water or rail; the Ontario output by the Great Lakes or rail to the Central states; and the British Columbia output by rail or water to the Pacific Coast states.

The United States consumes approximately 45 per

cent of the world's supply of newsprint. Canada is the outstanding producer supplying about 39 per cent of the amount used in the world to-day. Newsprint shipped from Canada to the United States in 1937 represented approximately 68 per cent of the amount available for consumption¹ in the latter country and about 79 per cent of Canadian production. In 1938 percentages dropped 64 and 72 per cent respectively but let us consider the position from earlier years.

In 1918 American consumption of newsprint totalled 1,759,000 tons. (See Table XXVIII) Consumption had been steadily increasing during the war years - from 1,567,000 tons in 1914 - but the output of American mills, which had a fairly constant average of about 1,300,000 tons a year, (see Table XXXIV), was still able to supply most of the United States' demand. Then the gap between American supply and demand began to widen. Increase in consumption of the United States quickened and the output of American mills with their depleted wood reserves could not keep pace.

By 1924 American consumption had climbed to 2,737,000 tons - almost one million more than the amount used in 1918 - and by 1926 to 3,515,000 tons. This latter amount was double the quantity consumed in the last year of the World

1. "Available for consumption" represents production plus imports, less exports; the latter item almost a negligible amount. These figures differ slightly from actual consumption to the extent of changes in stocks. Compare Table III with Table XXVIII.

War. By 1929 newsprint used in the United States had increased to 3,780,000 tons. From this peak, consumption then declined to a low of 2,690,000 tons in 1933, /increased steadily thereafter until 1937 when a new all-time high of 4,246,000 tons was reached. With the United States in the throws of a severe business recession during the first six months of 1938, advertising volume fell off quite sharply, circulation of daily and Sunday newspapers editions declined, and as a result, the amount of paper used by publishers in that dipped to 3,088,000 tons. The following table shows newsprint consumption in the United States together with the per capita consumption of that commodity:

TABLE III *

PER CAPITA CONSUMPTION OF NEWSPRINT IN THE UNITED STATES
1924-1938

Year	Population (ooo omitted)	Newsprint Consumption (ooo omitted)	Per Capita Consumption (lbs)
1924	113,202	2,737	48.4
1925	114,867	2,943	51.2
1926	116,532	3,307	56.8
1927	118,197	3,445	58.2
1928	119,862	3,515	58.7
1929	121,526	3,780	62.2
1930	123,091	3,563	57.9
1931	124,113	3,245	52.3
1932	124,974	2,840	45.4
1933	125,770	2,690	42.8
1934	126,626	3,058	48.3
1935	127,521	3,300	51.7
1936	128,429	3,650	56.8
1937	129,257	3,830	59.3
1938	130,215	3,458	53.1

* News Print Service Bureau, New York.

A comparison of the percentage change in monthly consumption of newsprint in recent years as set out in the table below, clearly portrays the decline in the past year. The drop in 1938 consumption appears even more precipitous when compared with 1937 as will be shown in a later comparison. (See Table VII).

TABLE IV

MONTHLY PERCENTAGE CHANGE FROM PREVIOUS TWO YEARS IN NEWS-
PRINT CONSUMPTION, 1937-38

Month	Average Consumption 1934-36 (tons)	% Change in 1937 Consumption	Consumption 1935-37 (tons)	% Change in 1938 Consumption
January	260,459	20.1	285,999	1.5
February	249,396	19.1	272,822	3.3
March	294,308	16.3	318,890	5.9
April	290,226	17.4	312,559	5.9
May	293,549	17.9	318,298	7.1
June	277,681	15.4	298,170	10.2
July	249,186	14.1	265,289	5.1
August	255,145	12.7	271,328	7.4
September	281,824	12.5	300,317	5.9
October	309,656	13.7	332,927	5.0
November	310,648	1.0	322,171	6.4
December	309,224	2.5	322,322	6.9

Production of newsprint by American mills showed little change from 1918 to 1926 while consumption was increasing very rapidly. Yearly output averaged a little over 1,400,000 tons with a dip in 1921 and a spurt in 1926. (See Chart 1). In the three years 1927 to 1929 inclusive, production dropped to 1,392,000 tons from a high of 1,684,000

CHART 1
ANNUAL PRODUCTION OF NEWSPRINT IN CANADA AND THE UNITED STATES, 1918-1938
(Source: Table XXXIV)



reached in 1926, and continued to slip to a low of 912,000 tons in 1935. With the improvement in business production rallied slightly in 1936 and 1937 only to slip to 820,000 tons in 1938. Had this steady decline in the United States production not occurred the plight of the Canadian industry would be decidedly more serious than it is at the present time. Increased consumption alone, therefore, has not been the only factor which has helped the industry. This is a factor to be considered by those who have advocated a high price for newsprint. A high price would tend to bring back to production some of those American mills shut down by ruinous price levels of recent years.

The competition of Canadian producers, depletion of United States timber resources and diversion of United States power resources to other purposes had a telling effect on its newsprint industry. As a result of this and increasing consumption, American imports of newsprint increased from about 220,000 tons in 1913 to approximately 1,309,000 tons in 1923 and 2,421,000 tons in 1929. Canada, with its extensive timber and water-power resources and its advantageous location with respect to the American consuming markets, naturally supplied by far the greater portion of this increased United States demand. Imports from Canada into the United States increased from 219,000 tons in 1913 to about 2,193,000 tons in 1929, falling off then to 1,533,000 tons in 1932. With the pick-up in business, newsprint imports into the latter country recovered to a

figure of 3,317,000 tons in 1937, only to drop sharply to 2,274,000 tons the following year. Of these amounts, Canada supplied 2,900,000 tons and 1,963,000 tons respectively, as seen in the table below.

TABLE V *

IMPORTS OF NEWSPRINT INTO THE UNITED STATES, 1913-1938
(Tons of 2000 lbs; in round numbers)

Year	From Canada (a)	From Newfoundland	From Others	Total Imports
1913	219,000		1,000	220,000
1914	310,000		5,000	315,000
1915	367,000		1,000	368,000
1916	468,000			468,000
1917	558,000		1,000	559,000
1918	596,000			596,000
1919	625,000		3,000	628,000
1920	679,000	1,000	50,000	730,000
1921	657,000		135,000	792,000
1922	896,000		133,000	1,029,000
1923	1,109,000		200,000	1,309,000
1924	1,197,000	4,000	156,000	1,357,000
1925	1,295,000	20,000	133,000	1,448,000
1926	1,658,000	94,000	100,000	1,852,000
1927	1,773,000	89,000	122,000	1,984,000
1928	1,927,000	114,000	116,000	2,157,000
1929	2,193,000	132,000	96,000	2,421,000
1930	1,989,000	156,000	134,000	2,279,000
1931	1,756,000	160,000	151,000	2,067,000
1932	1,533,000	114,000	145,000	1,792,000
1933	1,546,000	95,000	153,000	1,794,000
1934	1,956,000	107,000	147,000	2,210,000
1935	2,062,000	124,000	197,000	2,383,000
1936	2,422,000	87,000	242,000	2,752,000
1937	2,900,000	123,000	294,000	3,317,000
1938	1,963,000	68,000	243,000	2,274,000

* News Print Service Bureau, New York.

(a) As compiled by the United States Department of Commerce.

CHART 2
IMPORTS OF NEWSPRINT INTO THE UNITED STATES, 1918-1938.
(Source Table V)



FROM
CANADA

FROM
NEWFOUNDLAND

FROM
EUROPE

But it was not only the decline in business activity and economies effected by publishers which caused production and shipments of newsprint to fall off. Publishers drew on warehouse inventories to meet current requirements.

In the early part of 1937 newsprint operators announced that the price of newsprint on 1938 deliveries would be increased \$7.50 a ton. Publishers began preparing for this increase in costs. From May on, they took all the paper they could secure from manufacturers. Stocks increased rapidly. In May the publishers reported an amount of 410,540 tons on hand - a supply of normal proportions. (See Table XXXI). By December 31, stocks were up to 766,758 tons, 382,729 tons more than the four year average for this date, and enough paper to last for 75 days.

Had business not fallen off so badly in the latter part of 1937 and early months of 1938, this excess would have disappeared far more rapidly and would not have had such telling effect on mill operations. On the other hand, had the supply of newsprint on the American continent been of normal proportions at the beginning of 1938, mill operations would have been appreciably better than they were.

The manner in which American publishers piled up stocks and then drew upon this supply to meet their requirements in 1938 is shown in the following tabulation:

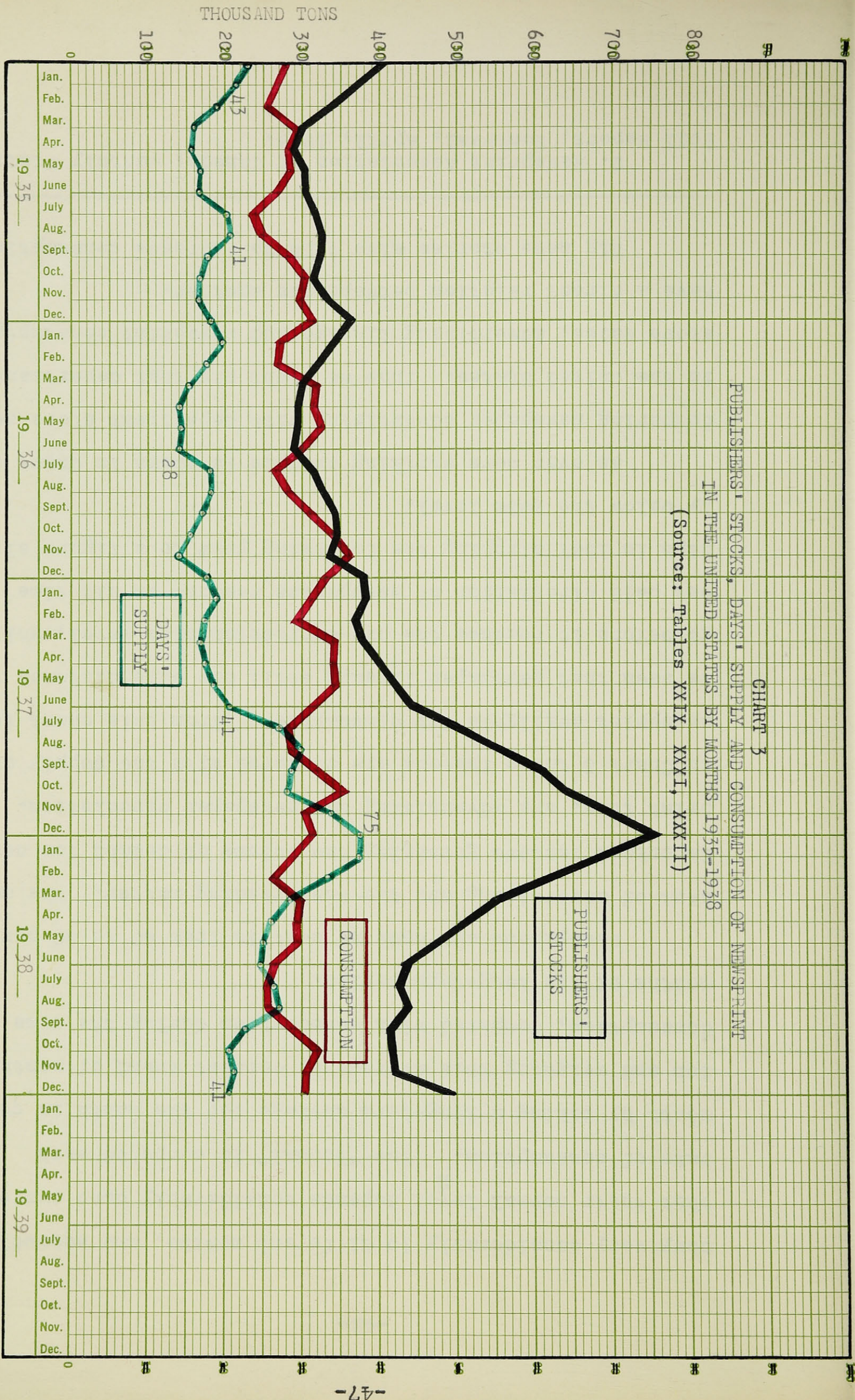
TABLE VI

CUMULATIVE MONTHLY CHANGE IN PUBLISHERS NEWSPRINT STOCKS,
1937-1938
(ooo tons)

Month	1937	1938
January	1.1	315.7
February	- 9.2	247.9
March	- 1.8	167.0
April	16.0	129.3
May	28.8	91.0
June	54.7	55.1
July	114.7	47.5
August	163.1	55.4
September	219.8	37.7
October	253.4	37.7
November	312.0	37.4
December	385.1	11.9

A normal supply of newsprint varies with the time of the year. When consumption is heavy - during the winter months - publishers carry a larger supply. During the off-period, operators build up stocks at the mill and in the warehouse to take care of peak demand. Consumption, too, varies. Consequently, there is no hard and fast rule by which the industry and publishers can say they have a normal supply. But the records of the past do give a close approximation of what available supply should be in relation to a given consumption. Chart 2 shows the trend in recent years of newsprint consumption in the United States and stocks on hand. The inventory "hoarding" in 1937 is clearly depicted.

The Newsprint Association of Canada bases "Normal" supply on two features of newsprint stocks; first, that



they vary considerably in different months, and secondly, that their normal level depends considerably upon current rate of consumption.² The "Normal" is computed each month by taking a long-term average for the month in question and weighing this average by current trend of monthly consumption, compared with consumption during the same months of the long-term period.

Newspapers are made to contain from 40 to 50 per cent of advertising and the rest reading matter. The most important factors governing the volume of demand for newsprint then, are advertising and newspaper circulation. In Chart 3 these factors are compared with the supply of newsprint available for consumption. From this chart it is seen that newspaper lineage still has some distance to go before it reaches the pre-depression high level, while net paid circulation of newspapers reached an all time high in 1937 slipping the following year to a figure slightly below the 1936 level.

An even more striking example is shown in Chart 5 comparing newspaper advertising with department store sales in the United States. Thus we might say that department store sales, advertising lineage and newsprint consumption have a direct relation between one another.

Big news stories also tend to increase consumption

2. Newsprint Association of Canada, Monthly Statistical Report, Montreal, April, 1938.

of newsprint. The European political situation and war scare was "big news" in 1938. Columns and pages of nearly every paper were devoted to covering this feature. All of which meant the using of more newsprint. Undoubtedly, some of the coverage was at the expense of other news, but by no means to the extent of the amount printed during the European crisis.

That retail advertising lineage bears a constant relationship to newsprint consumption is clearly brought out in the tabulation below.

TABLE VII

CHANGE IN UNITED STATES NEWSPRINT CONSUMPTION AND RETAIL ADVERTISING LINEAGE 1937-1938

Month	1937 percentage change from 1936		1938 percentage change from 1937	
	Newsprint Consumption	Advertising Lineage	Newsprint Consumption	Advertising Lineage
January	13.7	5.6	- 7.2	- 4.6
February	10.2	10.1	- 11.3	- 8.3
March	7.0	7.4	- 12.3	- 13.0
April-	8.8	5.3	- 12.9	- 10.4
May	7.3	9.2	- 14.6	- 14.0
June	6.5	3.9	- 16.4	- 15.2
July	5.7	5.5	- 10.9	- 13.6
August	2.8	1.9	- 12.7	- 13.0
September	3.9	1.0	- 10.8	- 11.4
October	2.6	0.5	- 9.2	- 10.7
November	- 14.4	- 4.4	- 1.9	- 6.5
December	- 5.3	- 3.8	- 4.7	- 3.7

Offsetting these factors, however are the economies being effected by publishers at the present time through the use of narrower rolls, etc. Partial statistics on

changes in roll sizes made within the past two years indicate a saving of at least 25,000 tons - by papers making these changes - over the amount of newsprint which they consumed in 1937.

CHART 4
 ADVERTISING VOLUME, NEWSPAPER CIRCULATION AND NEWSPRINT CONSUMPTION
 IN THE UNITED STATES, 1928-1938

(Source: Tables III, XXX, XXXX)

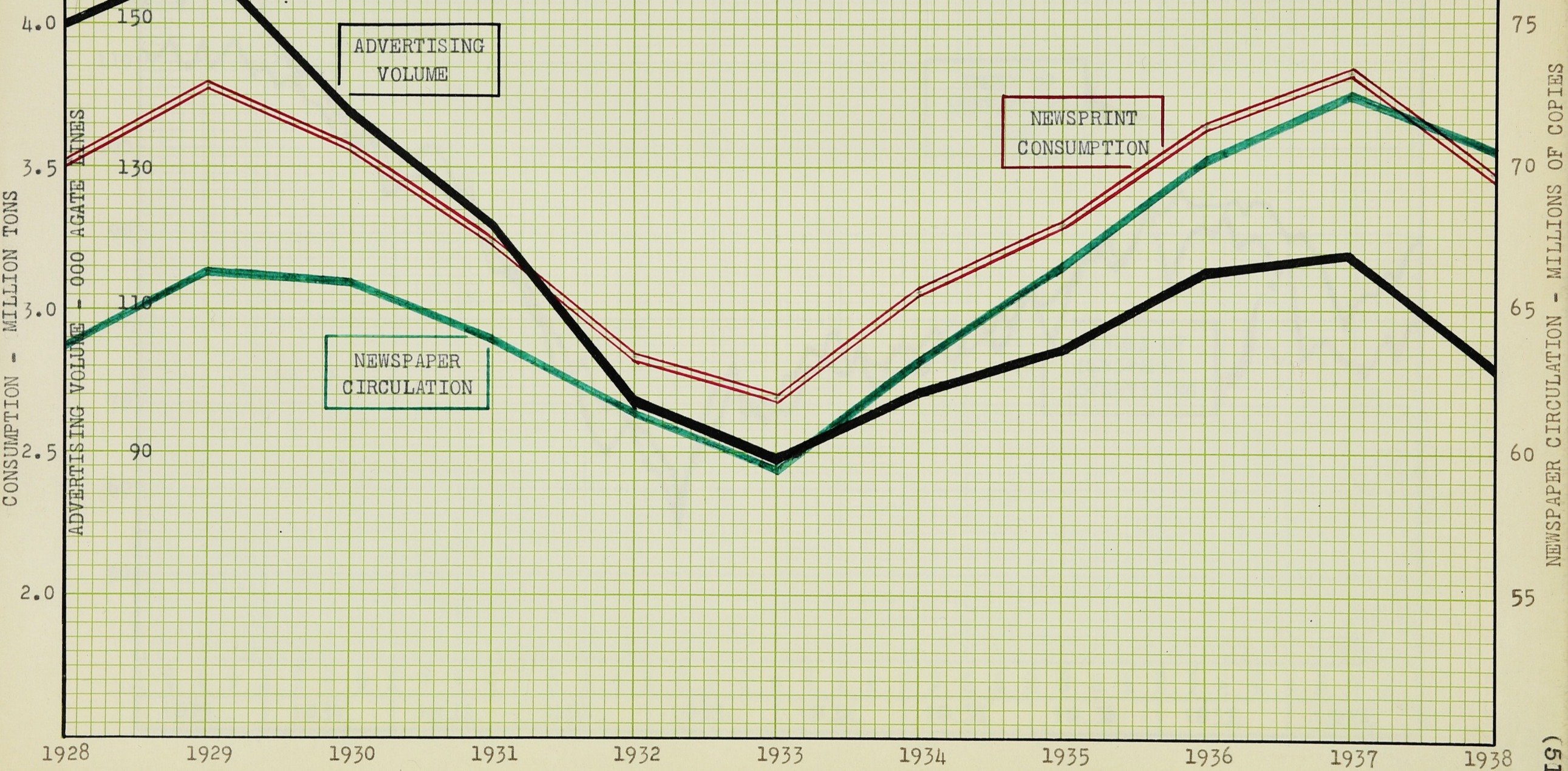
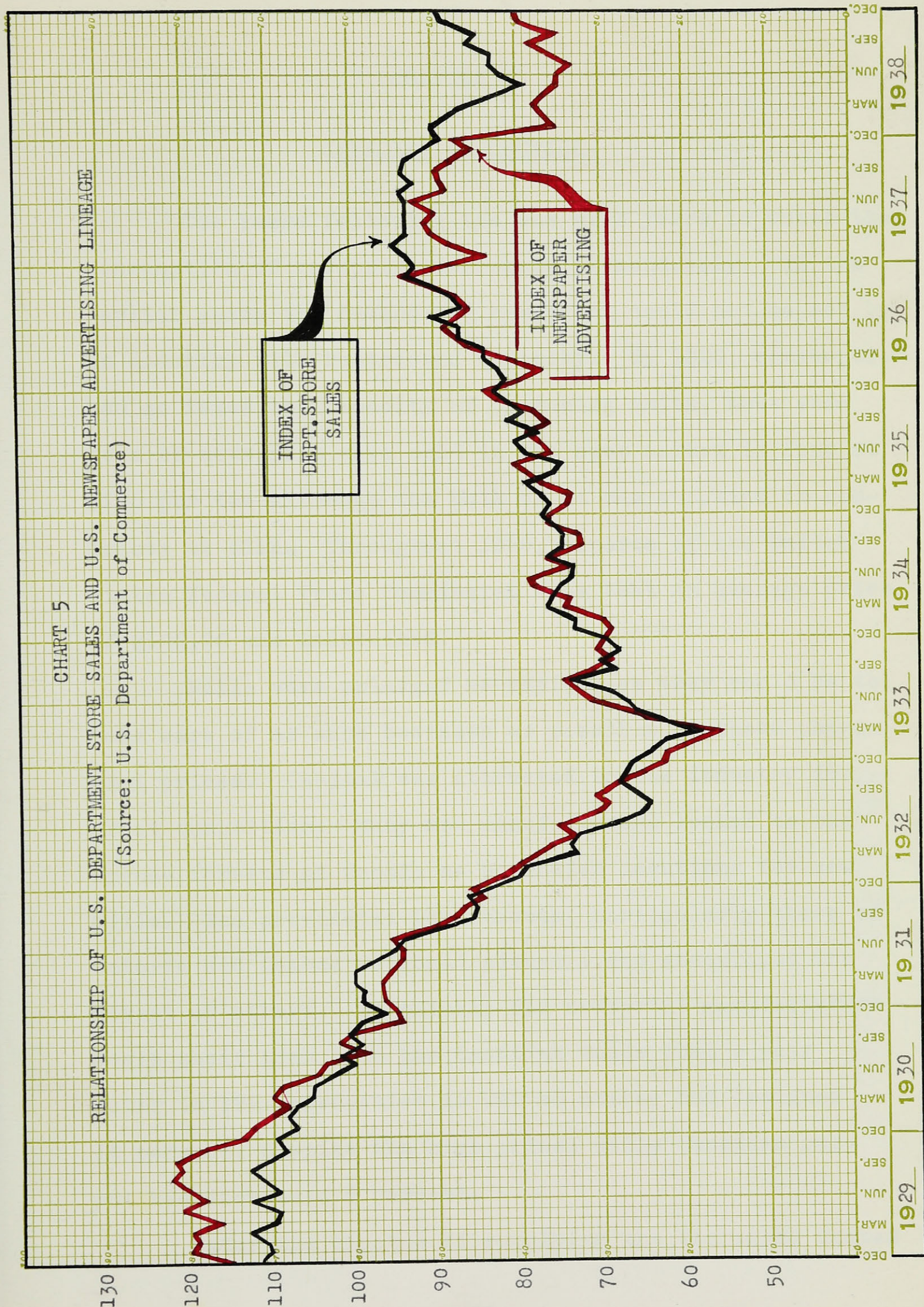


CHART 5
RELATIONSHIP OF U.S. DEPARTMENT STORE SALES AND U.S. NEWSPAPER ADVERTISING LINEAGE
(Source: U.S. Department of Commerce)



CHAPTER V

CANADIAN PRODUCTION

The years following the war were years in which the consumption of newsprint increased tremendously. In the earlier years the demand for newsprint could not be met by an industry with restricted capacity. By 1920, consumption had so taxed the capacity of producing units, that some lots of newsprint were sold in the open market in June at \$270 per ton although the bulk of it was supplied on contracts at \$112. Throughout 1920, reports of the United States Federal Trade Commission show that an average price of \$102.76 was maintained.

Mills were enlarged as rapidly as they could be to take care of as much business as possible at these phenomenal prices. Capital was attracted to the industry in great quantities. Many new manufacturers looked to the spruce forests of Canada as potential locations for new mills. The provincial governments, particularly those of Ontario and Quebec welcomed pioneers and encouraged the advent of others. So quickly did newsprint manufacturers begin their trek into the Canadian woods that a year later in 1921 production in United States had declined 15 percent, despite the high price, while Canadian output had increased 9 percent.

Under the impetus of supplying the increased United

States demand, Canadian production which was only 350,000 tons in 1913, advanced to 876,000 tons in 1920. By 1926 the output had reached 1,882,000 tons and for the first time was greater than the production from American mills. By 1929 newsprint manufactured in Canada amounted to 2,729,00 tons. (See Table XXXIV).

As a result of the subsequent decrease in consumption, Canadian production declined to a low point of 1,914,000 tons in 1932. With the recovery in business, which was particularly marked in 1934 and which showed further improvement in 1935 and 1936, Canadian production increased to 3,648,000 tons in 1937 which, it is to be noted, was 916,000 tons in excess of the 1929 production, and the highest ever reported for the industry. But this tremendous increase in 1937 was to a great extent at the expense of 1938 production when output was only 2,625,000 tons.

Let us look more fully into the production of 3,645,000 tons of newsprint in 1937. For several years the newsprint manufacturer had been endeavouring to secure a better price for his product. In 1936 and 1937 plans were upset by a lack of unified action, though a small increase was secured. In the early part of 1937 it was announced that the price of newsprint for 1938 would be \$50.00 per ton.

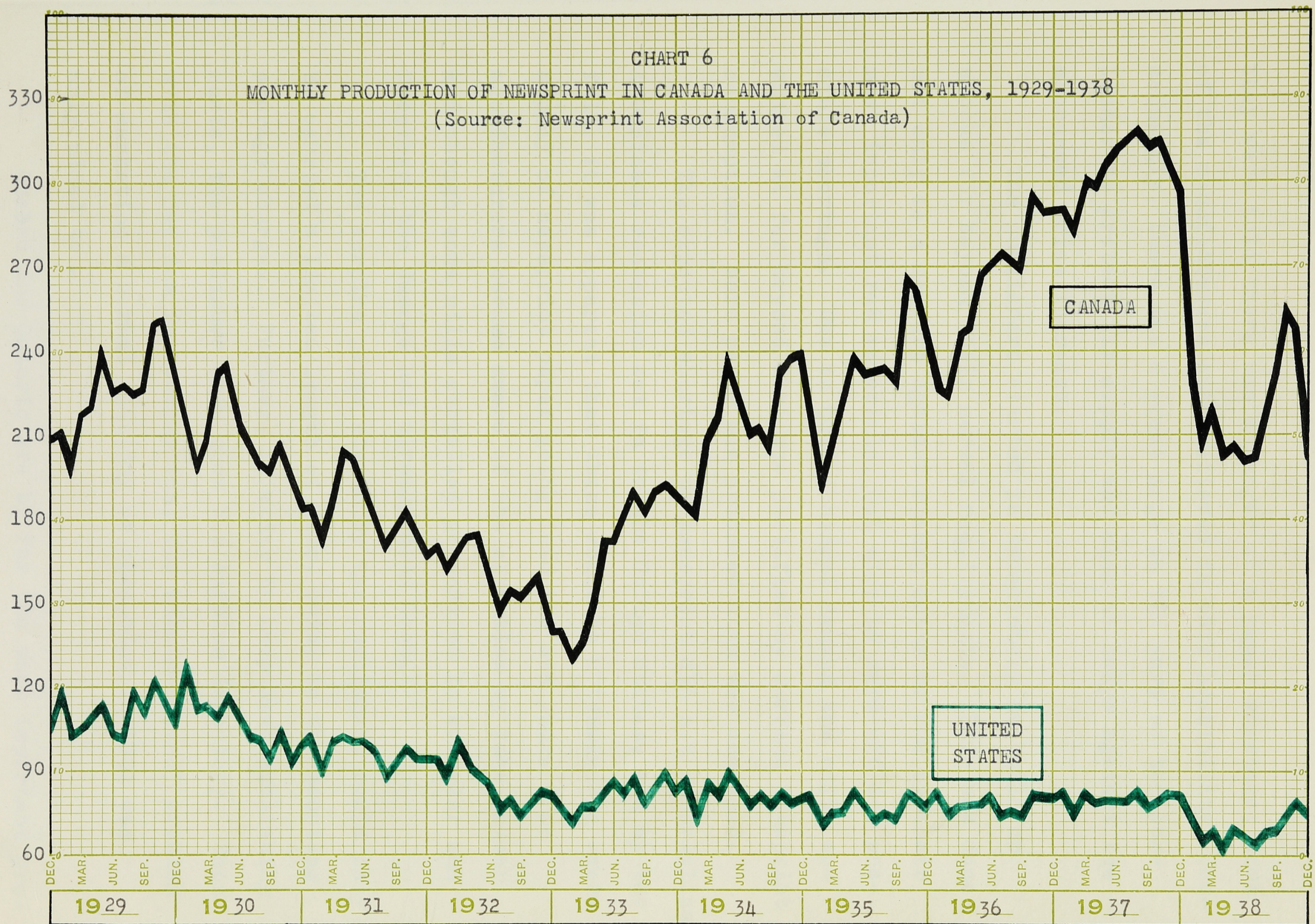
By the end of the first quarter of 1937 the American publishers were reporting exceptionally heavy consumption of newsprint and were faced with the prospect of a \$7.50 a ton price increase at the beginning of 1938. Then, too,

CHART 6

MONTHLY PRODUCTION OF NEWSPRINT IN CANADA AND THE UNITED STATES, 1929-1938

(Source: Newsprint Association of Canada)

THOUSANDS OF TONS



they were told there was a danger of a paper shortage; some of the manufacturers even believed in this possibility. Consequently, there was a great urge on the part of the publisher to protect his supply and also to hedge against the announced price increase.

The publishers started in immediately to build up stocks for beyond their normal requirements. This was done not only as a measure against rising costs of one of their most important raw materials, but also to ward-off any possible shortage. Due to this abnormal demand the mills operated at far beyond what was justified by current newsprint consumption. More paper was produced than was consumed.

The expected shortage of newsprint did not materialize. A business recession set in in the United States, and by the fall, it was apparent that there would be a tremendous oversupply of newsprint paper going into the new year. The manufacturers became aware of the situation by late summer and though some mills curtailed production in November and December, the damage had already been done.

The surplus paper stored by the publishers could only be carried a limited length of time, owing to the mounting storage charges. Further, in order to keep down publishing costs, the publisher drew upon his surplus inventory. Then with the decline in consumption, the manufacturers' problem of marketing a normal quantity of newsprint in 1938 was only added to .

Quebec and Ontario are by far the most important pro-

vinces in Canada in the manufacture of newsprint. Individually, Quebec ranks highest, producing over half of the total manufactured, while Ontario turns out close to 30 per cent of the total. The following table shows how production is distributed among the provinces. The total figures here differ somewhat from figures used elsewhere in this chapter since they are from two different sources.

TABLE VIII *

PRODUCTION OF NEWSPRINT IN CANADA BY PROVINCES 1923-36
(tons)

Year	Quebec	Ontario	Other Provinces	Total
1923	565,297	543,316	142,928	1,251,541
1924	658,628	593,191	136,262	1,388,081
1925	786,692	601,630	148,201	1,536,523
1926	1,005,379	707,041	186,788	1,899,208
1927	1,167,701	670,313	244,816	2,082,830
1928	1,429,013	681,622	303,758	2,414,393
1929	1,575,385	856,484	293,462	2,725,331
1930	1,346,622	709,993	441,337	2,497,952
1931	1,113,293	606,548	507,211	2,227,052
1932	912,867	579,078	427,260	1,919,205
1933	989,687	599,638	432,640	2,021,965
1934	1,382,744	718,044	504,185	2,604,973
1935	1,449,042	789,506	526,896	2,765,444
1936	1,729,846	911,429	584,111	3,225,386
1937	1,966,430	1,065,233	771,202	3,673,886

* Compiled from annual publications of Pulp and Paper in Canada (Ottawa: The King's Printer).

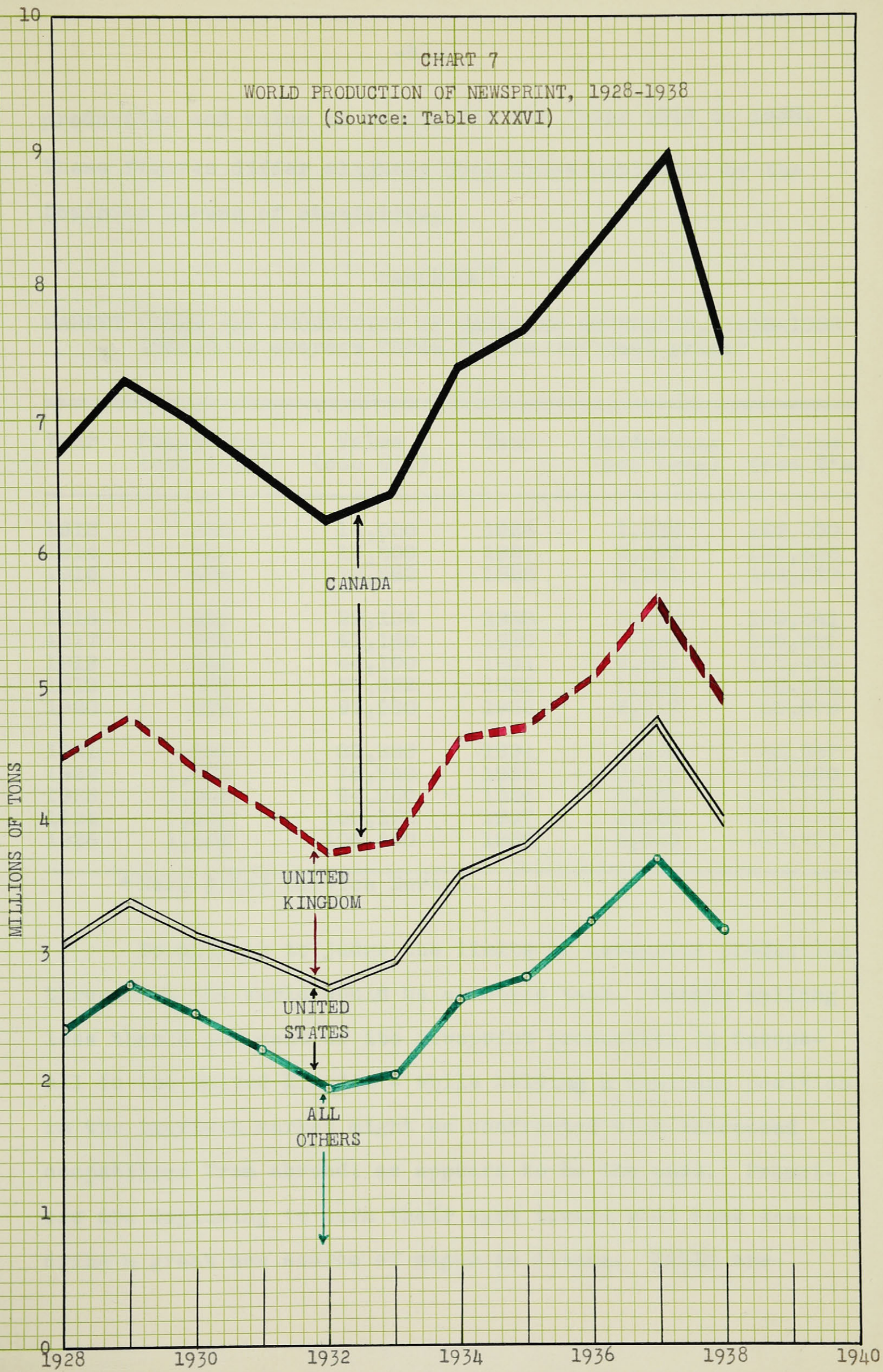
Unfortunately due to unfavourable marketing developments within the industry, the wide expansion in production in this country has not meant so much, either to the Canadian operators in the way of profits on their investments, or to the country in value of export trade, as might be ex-

pected. During the fifteen-year period of 1923 to 1937, for instance, Canadian production of newsprint has increased almost three-fold, from 1,266,000 tons in 1923 to 3,648,000 tons in 1937. The average selling price of newsprint during 1923, however, was \$81.80 a ton while in 1937 it sold at an average of \$42.50; hence while the volume of production increased by nearly 200 per cent during the fifteen-year period, value of production increased by only 50 per cent. Comparing 1937 production with that for 1930, it is seen that, although volume was 1,150,000 tons, or nearly 50 per cent greater, value of output was approximately the same.

But how does Canadian output of newsprint compare with other countries? World production of newsprint in 1937 was approximately 8,971,000 tons, an increase of 9 per cent from the 8,215,000 tons produced in 1936 and 43 per cent or 2,695,000 tons from the low position of 6,276,000 tons in the depression year of 1932. The average annual world output of newsprint for the past ten years has been close to $7\frac{1}{4}$ million tons. (See Table XXXVI).

It will be noted that of the 8,971,000 tons of newsprint produced in 1937, Canada supplied 41 per cent, Great Britain 12 per cent, United States 11 per cent, Germany 6 per cent and France, Finland and Japan about 5 per cent. Unfortunately, figures for 1938 are not available at this time.

The following table shows the trend of newsprint



production and value in Canada for the years 1913 to 1938. These figures differ slightly from those published by the Dominion Bureau of Statistics.

TABLE IX *

MARKET VALUE AND PRODUCTION OF CANADIAN NEWSPRINT, 1913-1938
(Based on average Three Rivers contract price)

Year	Production (ooo tons)	Value (ooo \$'s)	Year	Production (ooo tons)	Value (ooo \$'s)
1913	350	14,000	1926	1,882	122,330
1914	415	16,600	1927	2,087	135,655
1915	489	18,582	1928	2,381	144,527
1916	608	29,184	1929	2,729	150,641
1917	686	41,160	1930	2,504	138,221
1918	735	44,100	1931	2,221	111,494
1919	803	59,422	1932	1,914	78,723
1920	876	91,980	1933	2,017	68,679
1921	808	83,830	1934	2,599	86,287
1922	1,082	75,740	1935	2,753	91,400
1923	1,266	94,950	1936	3,191	109,132
1924	1,353	100,122	1937	3,648	130,234
1925	1,522	106,540	1938	2,625	113,400

* News Print Service Bureau.

To attempt to judge the limits of newsprint production throughout the world would be a futile task. Canada selling less than 5 per cent of its newsprint production in Europe - all in the United Kingdom - while holding a dominant position in the American market might be confronted with increased competition from abroad, as appears to be the case. Promoters are beginning to turn their eyes toward what some describe a great new source of paper in Alaska. Mills are

being built in southern states - Texas and Georgia - for the manufacture of newsprint from Southern pine. Finland claims it can double its production, Sweden can provide 10 per cent more than now. Norway is probably at its limit in production now and research men are trying out a vast number of materials.

CHAPTER VI

EXPORTS

The newsprint industry is essentially an export one. The domestic demand is so small that any one of the major operators would have no difficulty in filling. Newsprint must therefore be classed, not as a domestic but as an export product, an international commodity.

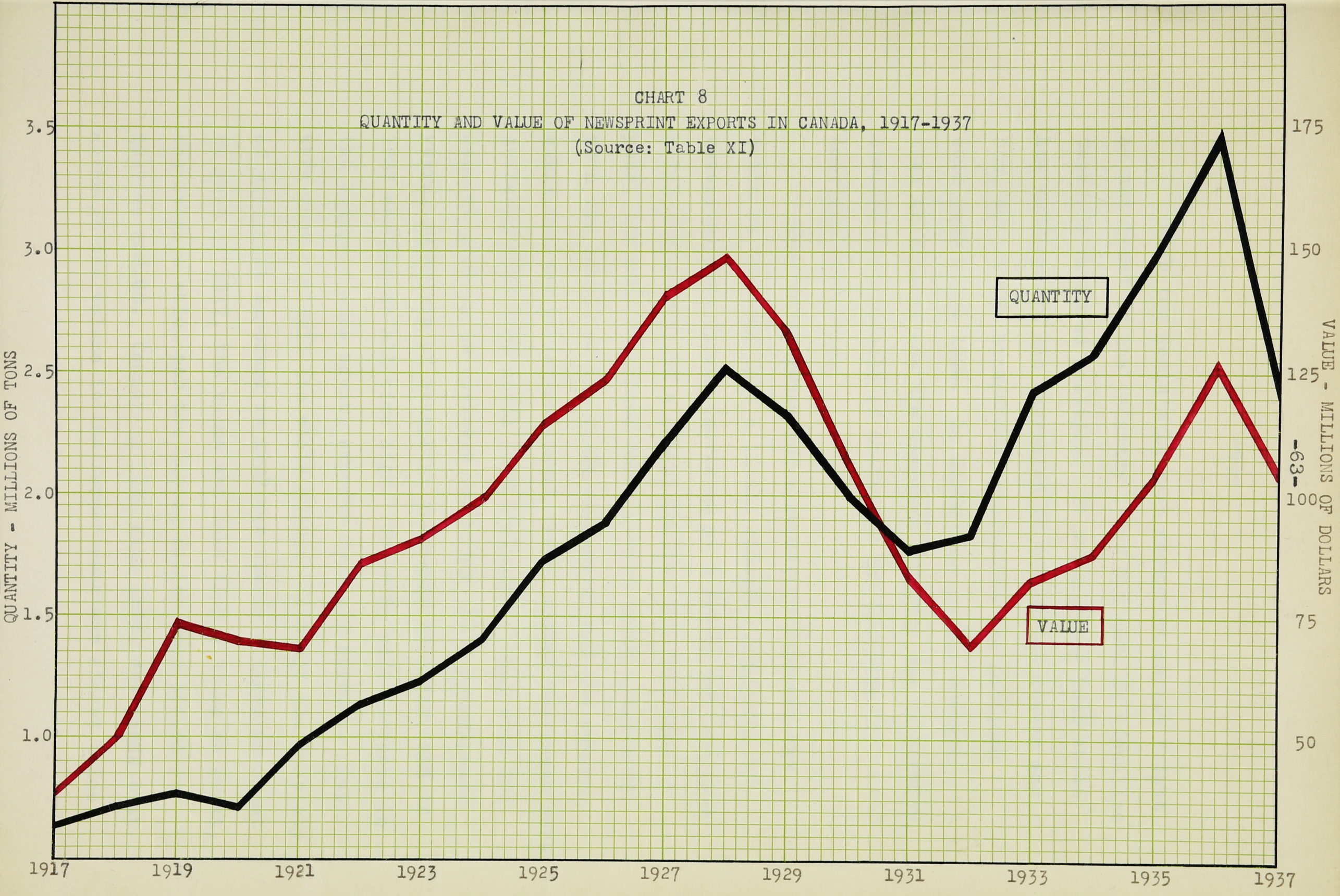
For the past two years, newsprint has headed the list in dollar value of Canadian commodities shipped abroad, ranking ahead of such national products as wheat, gold bullion, nickel, copper, planks and boards, meats and wood pulp. The following tabulation of eight of the more important single items of exportation brings this out very clearly:

TABLE X *

VALUE OF EIGHT LEADING COMMODITIES EXPORTED FROM CANADA
1936-1938
(thousands of dollars)

Rank			Commodity	Year Ending December 31		
36	37	38		1936	1937	1938
2	1	1	Newsprint	\$103,639	\$126,466	\$104,615
1	2	2	Wheat	226,913	124,493	89,393
3	3	3	Gold Bullion, non monetary	71,488	105,724	67,659
4	4	4	Nickel	44,594	58,913	52,496
7	5	5	Copper bars, rods, etc.	32,230	46,015	41,625
6	7	6	Meats	32,505	42,161	36,308
5	6	7	Planks and boards	36,858	45,499	35,887
8	8	8	Wood Pulp	31,246	4k,815	27,730

* Computed from Trade of Canada (Ottawa: The King's Printer).



With the world's largest newsprint market "right at the door" of the industry it is not hard to visualize Canada's favoured position. It has already been shown how consumption has increased in the United States and how, with a few exceptions, production has declined each year since 1926. It would need little thought then to realize how the Canadian industry was to benefit, through the channels of trade, by the decrease in American production.

But let us pause for a moment to consider the table on the next page a little closer. Shipments of newsprint from Canada increased at a fairly uniform rate until 1920, suffered a slight decline the following year, and then continued their upward trend until 1929. With the advent of the world depression and the subsequent decline in international trade, annual decreases were suffered from 1930 until 1932 inclusive. Then with the general pick-up in business following those cataclysmic years, shipments of newsprint increased steadily, and in 1937 reached an all time high. In 1938, with business in the doldrums once again, exports fell off sharply. But this does not tell the whole story. Although the quantity of newsprint exported in 1937 was nearly 6 times as great as that of 1917, the value was less than 4 times as great, the average value per ton having fallen from \$54.62 in 1917 to \$36.60. Comparing 1938 with 1924, one finds that although the volume in the former year was almost twice

as large, the dollar value was only 1.15 times greater than in 1924. The following table shows the growth of Canada's exports in newsprint since 1917, when comparable production figures were first collected:

TABLE XI *

REVIEW OF NEWSPRINT PAPER EXPORTATION IN CANADA 1917-1938

Year	Quantity (tons)	Total value \$	Average value \$	Per cent of total production
1917	596,187	32,561,020	54.62	86.4
1918	636,533	37,301,269	58.60	86.6
1919	708,429	49,811,362	70.31	89.2
1920	761,944	72,920,225	95.70	87.0
1921	709,241	69,786,317	98.40	88.1
1922	959,514	68,362,817	71.25	88.7
1923	1,137,962	85,611,258	75.23	91.0
1924	1,219,384	90,990,711	74.62	87.8
1925	1,401,655	98,945,337	70.59	91.2
1926	1,731,986	114,090,595	65.87	91.7
1927	1,881,865	123,222,094	65.48	90.4
1928	2,206,588	141,103,527	63.95	91.4
1929	2,515,495	148,865,648	59.18	92.3
1930	2,332,510	133,370,932	57.18	93.4
1931	2,008,240	107,233,112	53.40	90.2
1932	1,776,764	82,966,169	46.70	92.6
1933	1,838,105	69,200,515	37.65	90.9
1934	2,414,274	82,503,659	34.17	92.7
1935	2,574,987	87,924,251	34.15	93.1
1936	2,993,089	103,639,634	34.63	92.8
1937	3,455,240	126,466,412	36.60	94.8
1938	2,424,654	104,615,042	43.15	92.3

* Compiled from annual publications of Pulp and Paper in Canada (Ottawa: The King's Printer).

As early as 1913 Canada led the world in exports of this commodity and at the present time accounts for approxi-

mately two-thirds of the total trade shipments. Exports from this country are almost 8 times as great as those from Finland, the Dominion's nearest competitor. In times of stress, however, export shipments naturally tend to be affected by tariffs, fluctuating exchange rates, quotas, etc. The following table shows the newsprint exports from the principal paper-producing countries of the world. At the time of writing, statistics for 1938 were not available.

TABLE XII *

EXPORTS OF NEWSPRINT PAPER FROM THE PRINCIPAL PAPER-PRODUCING COUNTRIES OF THE WORLD, 1913, 1929, 1935, 1937
(tons)

Countries	1913	1929	1935	1937	Percent of 1937 total
Total	802,426	3,895,192	3,883,678	5,017,194	100.0
Canada	256,661	2,515,495	2,574,987	3,455,239	68.8
Finland	77,213	191,395	309,066	421,503	8.4
Newfoundland	49,755	243,923	276,036	298,406	6.0
Sweden	67,938	217,682	228,422	222,850	4.5
Germany	75,761	254,336	129,107	217,951	4.3
Norway	108,507	189,210	164,239	195,403	3.9
United Kingdom	105,152	107,673	78,884	63,471	1.3
Austria	14,855	54,000	44,708	61,991	1.3
Japan	3,270	57,658	40,845	40,811	0.8
United States	43,301	18,696	22,523	17,044	0.3
Netherlands	--	32,019	11,005	11,928	0.2
Czechoslovakia	--	13,105	3,752	10,597	0.2

* Computed from Annual reports of Trade of Canada.

The Canadian industry was built chiefly to supply the United States market. In Table XIII the volume of newsprint exports to the United States and the proportion there-

of to the total Canadian outward movement, along with the geographic distribution of all Canadian exports, is set forth.

Exports to the United States rose steadily and rapidly until 1929 when, with the ensuing depression, a decline in both volume and value was experienced. In 1934, exports once again began their upward climb, culminating in the record breaking achievement of 1937. With the sharp recession in the United States during the latter part of 1937 and the first half of 1938, volume of exports dropped off sharply.

But let us examine the geographic distribution of Canadian exports, since 1920. The vast importance of the United States market has already been revealed and this is born out more strikingly if looked at percentagewise. From 1920 until the end of 1927 approximately 96 per cent of all newsprint exports went to the United States, with the balance distributed rather unevenly among Great Britain, Australia, New Zealand, Argentina, Japan, China and others. In 1923, the United States absorbed 98 per cent of all exports from Canada, but from that year until 1937, with the exception of 1931 when there was a slight rise, a steadily declining proportion of our foreign shipments going to that country has been witnessed, notwithstanding enormous increases that took place with respect to actual tonnage. The percentage increase of newsprint exports to the United States in 1937 lasted only that one year and in 1938 the largest percentage decline on record was experienced.

During the last ten or eleven years, however, Canada

TABLE XIII *

GEOGRAPHICAL DISTRIBUTION OF CANADIAN EXPORTS OF NEWSPRINT, 1921-1938
(tons)

Year	Total	To United States	Per Cent	To United Kingdom	Per Cent	To Austral.& New Zeal	Per Cent	To Argen- tina	Per Cent	To Japan & China	Per Cent	To Athens	Per Cent
1921	709,241	654,849	92.3	286	.04	37,234	5.25	-	-	-	-	16,872	2.41
1922	959,514	887,831	92.5	13,821	1.44	45,423	4.73	-	-	-	-	12,439	1.33
1923	1,137,962	1,115,355	98.0	59	.01	16,895	1.48	-	-	-	-	5,653	0.51
1924	1,219,384	1,192,649	97.8	5,794	.48	11,132	.90	1,921	.16	-	-	7,888	0.66
1925	1,401,655	1,320,600	94.2	19,830	1.41	22,015	1.57	24,896	1.78	-	-	14,314	1.04
1926	1,731,986	1,627,856	94.0	15,123	.87	44,862	2.59	22,799	1.32	-	-	21,348	1.22
1927	1,881,865	1,748,405	92.9	41,601	2.21	62,473	3.32	13,269	.70	-	-	16,117	0.87
1928	2,206,588	1,934,889	87.7	130,700	5.92	66,074	2.99	48,027	2.18	-	-	26,898	1.21
1929	2,515,495	2,173,087	86.4	178,416	7.09	86,186	3.42	44,223	1.76	941	.04	32,642	1.29
1930	2,332,510	2,007,510	86.1	134,439	5.76	66,766	2.86	82,284	3.52	1,196	.15	40,315	1.61
1931	2,008,237	1,753,414	87.3	104,027	5.19	44,175	2.22	44,295	2.21	17,478	.87	44,848	2.21
1932	1,776,764	1,520,293	85.6	82,219	4.63	51,706	2.92	47,689	2.68	40,848	2.30	34,009	1.87
1933	1,838,105	1,519,681	82.7	107,041	5.84	74,322	4.04	38,830	2.11	56,577	3.12	41,654	2.19
1934	2,414,274	1,960,145	81.2	84,337	3.49	125,423	5.19	77,146	3.20	96,843	4.01	70,380	2.91
1935	2,574,987	2,051,935	79.7	115,288	4.47	140,827	5.47	58,376	2.26	107,724	4.17	100,837	3.93
1936	2,993,089	2,398,674	80.1	94,442	3.16	221,442	7.40	60,311	2.01	95,061	3.18	123,159	4.15
1937	3,455,240	2,899,022	83.9	147,997	4.17	144,392	4.18	76,234	2.21	44,569	1.28	143,026	4.26
1938	2,424,654	1,938,297	79.3	172,096	7.73	208,146	8.58	30,689	1.27	2,050	.08	73,657	3.04

* Computed from Trade of Canada (Ottawa: The King's Printer)

has become increasingly interested in other markets. Because of this, the percentage of Canadian shipments going to overseas countries rose from 7 per cent in 1927 to 20 per cent in 1936, while exports to the United States dropped from 93 per cent to 80 per cent. In 1937 the United States percentage increased to 84, due to a great extent to "hoarding" of stocks by publishers, only to drop in 1938 to slightly over 79 per cent when these stocks were drawn upon to fill current demands.

The sharp increase in Canadian newsprint shipments overseas in the past ten years has not been due, to any marked extent, to the superiority of the Canadian product, but to the marketing methods adopted by manufacturers here in order to replace the business shrinkage in the United States through reason of the depression and as will be explained later, the strained relations between the publishers and manufacturers.

Formerly, Canadian companies paid only limited attention to the South American, Australasian and the British market in the United Kingdom. In order to secure tonnage in the depression years, a number of Canadian mills invaded the overseas market and sold newsprint at distress prices. In some cases, the newsprint was actually delivered at less than the cost of production. However, a few years ago a concerted effort was made to advance the price of overseas shipments to a level in line with that prevailing in the United States. This effort was successful.

Toward the end of 1937 a contract was entered into be-

tween the Australian-New Zealand press and a group of seven Canadian companies, by which the manufacturers agreed to deliver upwards of 175,000 tons of newsprint yearly at a cost based on the New York price from January 1, 1938 to 1945.

At present Australian and New Zealand publishers consume about 200,000 short tons of newsprint annually, of which the former takes around 175,000 tons. The tonnage is being prorated among the seven Canadian producers on the basis of the amount of tonnage each operator shipped to the Australian market in the last five years. The group of publishers has guaranteed to take at least 75 per cent of requirements from Canadian mills.

Despite the increase in the overseas market for newsprint from 1927 to 1937, the future is not as optimistic as it might on the surface appear. Exports to the far East - Japan and China - have dropped precipitously in the last few years from a high of 107,724 tons in 1935 to the amazingly low figure of 1,769 tons in 1938. This would look ridiculous if compared percentagewise. In 1936 the exports to these two countries were 95,061 tons and in 1937, 44,569 tons.

Then too, the Argentine market, formerly a Canadian one, is gradually becoming monopolized by German newsprint. In 1937, our exports of newsprint to that South American country amounted to 76,234 tons or 2.21 per cent of the Canadian total; in 1938, Argentine bought but 30,689 tons of the Canadian product, or 1.27 per cent of total shipments from

the Dominion.

On top of all this, it has been reported in the Press and by the Canadian Department of Trade and Commerce, that the Australian Tariff Board has recommended that an import duty be imposed on Canadian newsprint paper. The Board recommended that this duty, with a portion of the duty collected under the general tariff, be used to provide for a bounty fund for the assistance of Australian newsprint paper production.

This action will not, in all probability, have any effect on the near term prospect of Canadian newsprint shipments to the Australian market, but may have adverse significance when present contracts expire and when the proposed newsprint mill in Tasmania has been completed sometime in 1940.

It is not the purpose of the writer to attempt to outline at this time the probable future trend of Canadian newsprint exports, since a chapter is devoted later on in this study, to the outlook for the industry as a whole. It is thought, however, that the following passage bears directly on the prospects of American publishers placing contracts with Canadian operators:

"It was definitely established in New York newsprint quarters, that domestic publishers are placing as much of their newsprint contracts elsewhere as they can before contracting for Canadian newsprint at a premium of \$2 per ton. It is probable that 150,000 more tons of newsprint than ever used before, will be imported from overseas, for consumption east of the Mississippi. This is expected to bring consumption of foreign newsprint to around 400,000

tons for next year, (1939) a new high."¹

It might be worth noting at this point that although European exports of newsprint to the United States last year (1938) were approximately at the 1936 level, Canadian shipments to that country were almost 19 per cent below the level reached two years ago. This would seem to indicate that the policy mentioned in the above quotation has already effected Canadian shipments.

The above quotation might be the cause of mild surprise to the reader, but it is hoped that it will not be regarded too pessimistically at this point. The relations between publisher and manufacturer will be discussed fully in a subsequent section.

1. "\$2 Newsprint Differential Means \$5,200,000 Premium" (New York: Editor & Publisher), November 19, 1938, p.3.

CHAPTER VII

MILL CAPACITY

Up to this point, the great increase in the consumption of newsprint and the resulting increase in production have been outlined. But how was this expansion effected? How was the industry able to turn out such large amounts of paper with the existing productive equipment? The answer to these questions lies below.

As the gap between American demand and American supply widened, Canadian newsprint manufacturers and bankers promoted expansion with great zest. New capital, attracted by the possibility of big profits, came readily. The provincial governments vied with each other in their generosity in handing out timber limits to promoters. Existing mills were extended and new mills were built. Mergers were effected, some of them economic, some of them chiefly to create new securities to be sold, and most of them accompanied by top-heavy administrative staffs in the senior executives who were retained.

In order to increase production capacity, new, larger and higher speed paper machines were installed, while additional equipment and improvements, made possible greater production of older machines.

In the twelve years, 1919 to 1930 inclusive, 91 new machines were added to the Canadian industry with a total initial capacity of 8,360 tons daily; and this was, in al-

most every case, exceeded when these machines had the opportunity of running full.

Additional machines up to and including 1926 may be considered to have come in as a result of prospects for substantial and sustained demand for their product. Canadian mills were operating at about 97 per cent of capacity in that year and earnings were satisfactory. Had there been a pause for breath in 1926 all would perhaps be well to-day, or at least not as serious as it is. The mills operating in 1926 plus those under construction and completed by the middle of 1927, had sufficient productive capacity to supply almost the total Canadian output up until 1935.

But there was no pause. Plans for continual mill expansion had been made and they were carried out. Money market conditions lent themselves to the promotion of new ventures and there was apparently no anticipation that the climbing American demand for newsprint might slow down. In the three years 1926, 1927 and 1928, forty new machines of approximately 4,100 tons daily capacity were installed. In 1929, nine more machines were added with a capacity of 895 tons per day, and in 1930, new machines installed had a daily capacity of 840 tons. A total of 56 new machines capable of producing 5,860 tons of newsprint per day were added to the productive capacity of the nation in five years.

The yearly increase in new machines is shown in the

table below:

TABLE XIV*

NEW CANADIAN NEWSPRINT MACHINES INSTALLED 1919 TO 1930

Year	Number	Initial daily Capacity (tons)
1919	3	150
1920	2	105
1921	7	435
1922	4	240
1923	6	415
1924	7	615
1925	6	565
1926	13	1,215
1927	13	1,400
1928	14	1,485
1929	9	895
1930	<u>7</u>	<u>840</u>
	91	8,360

* The News Print Service Bureau

Installations of new machines from 1930 to 1938 have been practically negligible. In the latter year, however, the Ontario Paper Company, Ltd., opened a new mill at Comeau Bay, Quebec, with 2 machines and a daily rated capacity of 230 tons. (Later in the year the Quebec North Shore Paper Company was formed to take over all the holdings of the Ontario Paper Company in Quebec.) This was the first important addition to Canadian newsprint capacity since the expansion of the late twenties.

The following table shows the approximate annual and cumulative increase from 1919 to 1938 in newsprint capacity

in Canada through installation of new machines, but does not reflect increases in capacity of installed machinery resulting from increases in speeds, improvements in equipment etc:

TABLE XV *

ANNUAL AND CUMULATIVE INCREASE IN NEWSPRINT CAPACITY
1919-1938

Year	Increase in Capacity	Cumulative Increase
1919	46,350	46,350
20	32,445	78,795
21	134,415	213,210
22	74,160	287,370
23	128,235	415,605
1924	190,035	605,640
25	174,585	780,225
26	375,435	1,155,660
27	432,600	1,588,260
28	458,865	2,047,125
1929	276,555	2,323,680
30	259,560	2,583,240
31		2,583,240
32		2,583,240
33		2,583,240
1934		2,583,240
35		2,583,240
36		2,583,240
37		2,682,440
38	99,200	

* Abitibi Power & Paper Company, Limited, Bondholders' Representative Committee, op. cit., Exhibit A-6.

By the end of 1932, 58.3 per cent of the total Canadian capacity was in bankruptcy or receivership. The follow-

ing page, although veering on a financial analysis, brings^{1.} the forementioned statement out very clearly:

1,988,500 tons -- 53.70 per cent of the whole was in the hands of mortgagees who were not receiving any return on an investment of more than \$170,000,000. According to estimates of 1929, tonnage capacity at the end of 1932 was worth in excess of \$950,000,000, yet 53.70 per cent of the whole was in the bondholders' hands, whose securities were worth less than \$50,000,000.

197,000 tons -- 5.32 per cent had not paid dividends for over two years, and in 1933 lost \$934,977 before taxes and depreciation.

201,450 tons -- 5.44 per cent was owned by a financially strong company in which there were but few shareholders.

77,400 tons -- 2.09 per cent was owned by a company whose interest in the newsprint business was minor to other interests.

609,150 tons -- 16.45 per cent was divided as follows: 24.42 per cent by Lord Rothesmere interests with a mortgage of \$15,500,000 guaranteed by several English newspapers; 30.80 per cent by private interests who do not publish statements; 20.36 per cent by the Chicago

1. The Canadian Economy and its Problems (Toronto: Canadian Institute of International Affairs, 1934), p. 51.

tribune; 24.42 per cent by Kimberly-Clark and New York Times which tonnage in 1933 produced a loss of \$454,354 after dividends.

629,500 tons -- 17 per cent was divided as follows: 88.12 per cent by Canadian International Paper Company who do not publish a statement; 11.88 per cent by Mersey Paper Company which at December 31, 1932, had a working capital deficit of \$3,203,490.

There is much misconception about the capacity of newsprint mills. Considerable variation has been found in the reported capacity of certain mills and even of individual machines. These variations create a constant possibility of inaccuracies in related calculations. Rated capacity reports are, however, usually less than actual or available capacity. Allowance is made for shut-down on fifty-five days a year but many mills at times run 7 days a week. Economically, it is advisable to operate 24 hours a day.

The rated capacity of the Canadian industry during 1938 was 4,204,200 tons. With the total production of 2,625,000 tons for that year, the industry had an excess capacity of 1,579,200 tons. As has been stated, one must allow for a large factor of error and dispute in the capacity ratings, the excess capacity figures being merely the arithmetical difference between rated capacity and production.

There is a great difference, too, between potential capacity and capacity which is actually available for use. In the past, and to some extent at the present time, figures

of rated capacity included mills and machines which were obsolete or not likely to produce newsprint again. On the other hand, ratings were too low in a number of cases of mills which never had sufficient volume of business to demonstrate their real capacities. Rated capacity is based on the highest production attained by a mill over a certain period. In the first half of the thirties many mills never had the necessary volume on which to base their real capacities.

In 1934 the mills at Murray Bay, Quebec, and Bathurst, New Brunswick, were closed. In the next year operations of the Abitibi mills at Fort William, Espanola, Sturgeon Falls and St. Anne, the Brompton mill at East Angus, and the Consolidated mill at St. Maurice ceased. These mills, with the exception of Espanola and Sturgeon Falls, have since been opened and are presently in operation.

Yet the 1935 ratings by the News Print Service Bureau included certain of these shut mills of doubtful future efficiency and a number of machines converted from newsprint to other products. The total rated capacity at that time, according to the above organization, was 4,048,518 tons, (including the mill at Cornerbrook, Newfoundland) but actually available capacity was probably not more than
2
3,750,000 tons.

2. Charles Vining, Newsprint Outlook 1936-1937, (Montreal, 1936) p. 46.

CHART 9

ANNUAL PRODUCTION OF NEWSPRINT AND EXCESS CAPACITY IN CANADA, 1920-1938

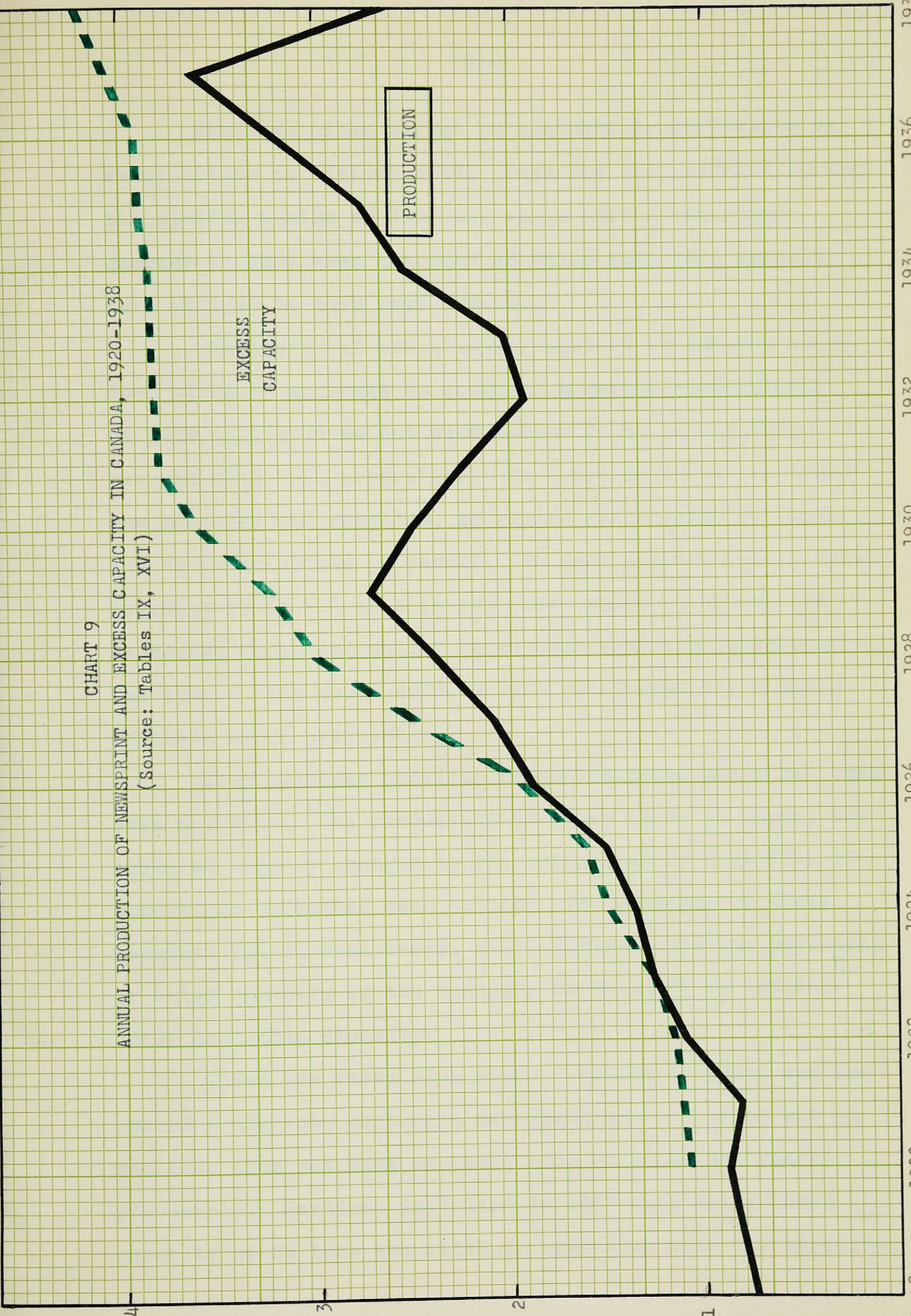
(Source: Tables IX, XVI)

EXCESS
CAPACITY

PRODUCTION

MILLIONS OF TONS

1918 1920 1922 1924 1926 1928 1930 1932 1934 1936 1938



Shutdown mills cannot be restored to production on short notice or without cost. This was demonstrated during the closing months of 1934 and again during the final quarter of 1935 when a number of mills with idle capacity were obliged to turn down orders.

The amount of preparation required to restore shutdown mills or machines to production varies considerably. An idle mill with no cut wood behind it is not quickly brought into full production. It takes months to assemble raw material and supplies, to repair and replace equipment, and to reconstitute personnel. In some cases a fairly small expenditure is all that is required, while in others the necessary financial outlay is so high that only a substantial rise in the price of newsprint would make the opening of these mills profitable.

Many machines previously manufacturing newsprint have been shifted to the production of other lines of paper, but could be readily changed to the production of newsprint if conditions warranted such action. The capacity of these machines is, in some cases, still figured into the potential or rated capacity of the industry although it is not actually available capacity.

There are cases also where, because of added and improved equipment, much more newsprint can be turned out on machines than was made on these same machines ten years previously. Machines installed in 1907 with daily rated capacity of 25 tons are still in operation with the capacity,

in some cases, raised to 50 tons. A paper machine can be run at different speeds and for variable periods of time, thus adding to the difficulty of estimating capacity.

TABLE XVI *

ESTIMATED RATED CAPACITY, PRODUCTION, OPERATING RATIO AND EXCESS CAPACITY OF CANADIAN NEWSPRINT MILLS 1920 TO 1938

Year	Total rated capacity	Production	Operating ratio	Rated excess capacity
1920	917	876	95.5	41
1921	1,097	808	73.5	289
1922	1,134	1,082	95.2	52
1923	1,266	1,266	100.0	--
1924	1,474	1,353	91.8	121
1925	1,610	1,522	94.5	88
1926	1,931	1,882	97.4	49
1927	2,475	2,087	84.4	388
1928	2,993	2,381	79.7	612
1929	3,225	2,729	84.5	496
1930	3,600	2,504	69.5	1,096
1931	3,825	2,221	58.0	1,604
1932	3,840	1,914	49.7	1,926
1933	3,847	2,017	52.0	1,830
1934	3,861	2,599	67.3	1,262
1935	3,914	2,753	70.2	1,161
1936	3,921	3,191	81.4	730
1937	4,050	3,645	90.0	405
1938	4,204	2,625	62.4	1,579

* Newsprint Association of Canada.

Throughout the years 1920 to 1926, Canadian producers operated at from 73 per cent to full capacity. From 1927 to 1930 the aggregate capacity had been increased to a point far exceeding current consumption. With the exception of 1929, when operations in Canadian mills were 84.4 per

cent of capacity, the rate of production (expressed as a percentage of capacity) declined steadily until the depression low of 49.7 was reached in 1932. Gradually, operations at the mills increased with the general increase in business, reaching a post-depression high of 90.0 per cent^{of}/rated capacity in 1937.

The Canadian newsprint industry, however, entered 1938 faced with the unpleasant task of having its operations sharply limited, while publishers used up their surplus stocks, accumulated in 1937. Even as early as October of 1937 manufacturers, seeing danger ahead with rising stocks of newsprint in the hands of publishers, started curtailing operations. Canadian International Paper Company closed down its newsprint mills at Three Rivers, Gatineau, Dalhousie and Cornerbrook on October 11. Operations were suspended only for the day. They then started operating on a five-day working week instead of the six-day week in force more than a year. Other companies adopted this same policy - some operating on as low as three and four-day weeks.

The situation in 1938 was further provoked by the sharp business recession which engulfed the United States and Canada, with the result that the industry operated at only 62.4 per cent of rated capacity.

There is no doubt that statistically the industry might look very sound when operating at around 75 to 80 per cent of rated capacity. There are few industries indeed, to-day, which have operating ratios of over 75 per

cent. To most people such a survey of the industry's position must create perplexity as to why it should be in difficulties. The difficulties, however, are real enough. The explanation of them lies, first, in certain factors relating to excess capacity, secondly, the distribution of excess capacity within the industry, and thirdly, in the industry's one-price contract system. This last point will be explained in the next chapter dealing with the price of newsprint; the other two are explained in the following paragraphs.

There are several factors in the industry's excess capacity situation which are not disclosed by statistics but which must be appreciated when dealing with realities. These are: (a) shifting from overseas markets, (b) fear of new capacity, (c) overhanging capacity. It will suffice to say but a word about each of these.

The industry has quite a substantial overseas' market, and in 1938, 486,361 tons of newsprint were shipped to markets other than the United States. Overseas' business, however, is generally regarded as less desirable than domestic business. Because of this, there is usually an inclination to search for domestic buyers and leave the European markets to other producers. This has tended in the past to make the main domestic situation insecure.

There is always the fear, also, that when production is increasing and the industry is beginning to prosper, new capacity will be installed. As example of this is the recent construction by the Quebec North Shore Paper Company, owned by the Chicago Tribune, at Comeau Bay. The capacity

of this new, 2 machine mill is 320 tons per day, and the excess capacity weakness has been accentuated to that degree. Other companies are believed to have ambitions in the direction of new machines and although no other new Canadian capacity seems possible for the time being, the fear of it is something which manufacturers have in mind as an added reason for securing future tonnage.

The additional potential capacity, those machines which have been shifted to the production of other lines of paper, or which are shut-down and generally recognized as not being available at present prices, act as an overhanging threat and must be looked upon as an unstable influence.

These influences alone would not have such a telling effect upon the industry were it not for uneven distribution of capacity. The industry's average in the past has been made up of "long" companies operating at full or nearly full capacity, and "short" companies operating at only 50 to 60 per cent or even less.

This excess capacity and unbalanced tonnage distribution, with the consequent grouping of "long" and "short" companies has been one of the industry's most serious weaknesses. This weakness is all the more significant when we note that three of the industry's four largest companies are in this group. They are Abitibi, Consolidated and Price Brothers. These companies have been regarded as the "dang-

er spots" in the industry, since they are in the "price-fixing" group, mentioned in another chapter and explained more fully in a succeeding one. They were also in the group of receiverships and reorganizations which weakened their bargaining power.³ These three large companies have the bulk of the industry's excess capacity.

This situation has changed somewhat in 1938. The governments of Ontario and Quebec have been attempting to spread production among the various newsprint manufacturers-- to prorate production.

They have asked the different companies to operate at the average of the industry or as close to the average as possible; the "long" companies to buy some of their needed tonnage from the less efficient or "short" companies in order that the latter group might operate at a rate close to the average for the industry. This has become more of an order of the provincial governments than a request. The full extent of the interference by the governments in an effort to stabilize the industry is discussed later.

The other disturbing element regarding the excess capacity in the newsprint industry is the uneven distribution of tonnage between provinces. This presents strangely enough much the same difficulties as do "long" and "short" companies.

3. Consolidated and Price Bros., have come through the process of reorganization. Abitibi is still in receivership.

CHAPTER VIII

NEWSPRINT COSTS

In the making of newsprint paper there are three main classes of cost items. These are materials, conversion and overhead. Wood is the most important single item on the list. Approximately one and one quarter cords of rough wood are needed for every ton of paper made. Purchased materials include sulphur, limestone, colour, alum and clay.

The biggest items in conversion costs are labour, electric power and fuel for producing steam. Other large items of expense are fourdrinier wires, canvas and felts for paper machines, and repairs. Unescapable overhead occurs in administrative charges, taxes, insurance, depreciation and depletion. These two latter items should amount to at least \$3.00 per ton of capacity if proper provision is made.

But there is a lot more to the story. There is the cost of capital to be considered and in the case of the newsprint industry investment has received little or no return in the past seven years. A return of only 6 per cent on the investment means a charge of \$7 ¹ per ton, based upon the estimates of responsible engineers. Then, to add to all these costs, come delivery charges which vary with location, but taking all producing regions together, average around \$6 per ton.

1. R.S. Kellogg, op.cit., p.65.

Over the past few years costs per ton have risen considerably. The main increases, as will be seen from the following table, have occurred in wood cost, labour cost and the cost of electric power. The fact that power contracts are usually made on the basis of nearly 100 per cent capacity may account partly for the increase in the latter item. When operating percentage of capacity dwindles, as in 1938, overhead charges per ton mount very rapidly. In the tabulation below a comparison is made of the main cost items in the years 1936 and 1938. From this the reader may gather some idea of how much of the recent \$7.50 per ton increase in the price of newsprint is taken up by increased costs.

TABLE XVII

NEWSPRINT COSTS PER TON, 1936 AND 1938

Item	Cost per ton in \$s	
	1936	1938
Wood	9.44	11.43
Sulphur	.37	.41
Limestone	.06	.07
Wrappers	.08	.11
Filters (Clay and alum)	.37	.42
Colour, Size	<u>.07</u>	<u>.09</u>
Total	10.39	12.53
Manufacturing Labour	3.15	3.85
Pulpstones	.11	.12
Felts	.57	.61
Wires	<u>.49</u>	<u>.53</u>
Total	4.32	5.11

NEWSPRINT COSTS PER TON, 1936 AND 1938
(Continued)

Item	Cost per ton in \$s	
	1936	1938
	10.39	12.53
Brought forward	4.32	5.11
Steam	2.62	2.79
Finishing	.51	.52
Electric Power	4.08	5.58
Repairs	2.15	2.43
Miscellaneous	<u>.69</u>	<u>.74</u>
Total Conversion	14.37	17.17
Insurance	.10	.10
Taxes	.89	.91
Administration	.96	1.08
Depreciation & Depletion	<u>3.07</u>	<u>3.12</u>
Total	5.02	5.21
Interest on Capital, based on 80% capacity and \$25,000 per daily ton of capacity	6.06	6.06
Freight from Three Rivers to New York	<u>6.80</u>	<u>6.80</u>
Cost f. o. b. New York	42.64	47.77

The above costs are those of a relatively efficient newsprint mill operating at approximately 80 per cent capacity in 1936 and 63 per cent of capacity in 1938.

To measure industry costs by the performance of an individual mill operating under special circumstances, or by an individual mill which may be operating at a higher rate of capacity than the remainder (under existing circumstances this latter condition is improbable) would be absurd. It is vital, therefore, to a complete understanding of this

subject to keep in mind the fact that no two newsprint mills are alike. One of the biggest variables in newsprint mills is the cost of transporting wood from the stump to the mill. Newsprint mills vary according to the relation in the case of each between the mill site and the location and quality of its timber stand and the character of the river drive or other means of transportation available to bring the wood from the stump to the mill.

An old mill that has been modernized might very possibly have slightly higher operating costs within its plant than a new mill, but such a variation as this might easily be offset by a lower wood cost or a lower power cost, or a lower freight rate on the finished newsprint.

It must be borne in mind, too, that the difference in costs between two different mills is not a fixed amount or a fixed ratio. The supply of labour in various districts may vary from year to year. The cost of contracting to have pulpwood cut from timberlands owned by the mill may also vary from year to year.

Costs vary greatly with a change in the operation of a mill. The following tabulation gives the costs for an average mill in the relatively low cost group with production at 100 per cent, 85, 75 and 60 per cent. The last being close to the industry's rate for 1938.

Some light on actual costs (and earnings) is provided by the record of large Canadian producers. The three largest manufacturers (excluding Canadian International, because

of its substantial operations in products other than newsprint) are Consolidated Paper, Abitibi and Price Brothers. These three companies have a total capacity of approximately 1,600,000 tons a year, or about 40 per cent of the Canadian industry.

TABLE XVIII*

COSTS AND PROFIT MARGINS OF A TYPICAL CANADIAN NEWSPRINT MILL
(Basis 300 tons per day, 310 days per year)

Item of Cost	Per Ton of Newsprint Produced			
	100% 93,000 tons	35% 70,050 tons	75% 69,750 tons	60% 55,800 tons
Raw materials, fuel & power	15.00	15.05	15.41	15.93
Manufacturing & shipping expense	8.21	8.82	9.25	9.84
Shut-down expenses		<u>.04</u>	<u>.08</u>	<u>.11</u>
Total Manufacturing expense	23.21	23.91	24.74	25.88
Administration and fixed charges	<u>1.17</u>	<u>1.38</u>	<u>1.56</u>	<u>1.95</u>
Mill cost before dep. & int.	24.38	25.29	26.30	27.83
Del. charges, drawbacks and depreciation	<u>12.00</u>	<u>12.00</u>	<u>12.00</u>	<u>12.00</u>
Del. cost before int. or div.	36.38	37.29	38.30	39.83
Allowance for bond and for del. int.	<u>5.26</u>	<u>6.19</u>	<u>7.01</u>	<u>8.67</u>
	+ 41.64	43.48	45.31	48.50
Net earnings available for dividends basis of \$50 per ton	8.36	6.52	4.69	1.50

* "Looking Over the Newsprints", The Monetary Times, vol. 101, (Toronto: 1938), p. 302.

† Although this total charge is fairly constant for all mills, the breakdown of the charges varies considerably.

Disbursements by these three leading companies to their bondholders and shareholders during the past five

years, compared with 1929, have been as shown below:

TABLE XIX^{*}

INTEREST PAYMENTS AND DIVIDEND DISBURSEMENTS OF CONSOLIDATED,
ABITIBI AND PRICE BROTHERS 1929, 1934-1938

Name of Company	1929	1934	1935	1936	1937	1938
Consolidated	5,957,000	53,000	45,000	27,000	29,000	20,382
Abitibi	4,715,000	Nil	Nil	Nil	Nil	Nil
Price Brothers	2,021,000	Nil	Nil	Nil	859,000	959,209

* Compiled from company balance sheets.

It may be that newsprint manufacturers must resign themselves to doing business without profit. But the industry can go only so far. It is impossible for the industry to regulate all factors bearing upon its welfare. There are outside influences which must be brought into harmony with the general picture if the industry is to achieve a greater degree of stability and a fair return on the investment.

CHAPTER IX

NEWSPRINT PRICES

The course of newsprint prices during the past 20 years has been erratic and, for the greater part, unsatisfactory to the industry. Price, ordinarily, is only the current reflection of the supply-demand situation. In a competitive world market, increase in demand, unless there is a corresponding increase in supply makes buyers bid prices up and, conversely, decrease in demand, without diminution of supply, makes sellers bid prices down. Thus there are alternations of what is known commonly as a seller's market and a buyer's market. They are correctives automatically generated in the give and take of trade, but at times it appears that they are unnecessarily severe. Prices excessively high or low bring economic disaster in their train. And economic disaster may mean loss of jobs, the wiping out of capital-invested savings - and the disruption of communities.

Up to 1918, newsprint prices closely paralleled general commodity price curves. Production and consumption were both growing in healthy fashion. Demand and increasing costs fully justified the moderate price rise. Then with the end of the war consumption of newsprint increased greatly - demand became frantic. Contract prices rose much above the general price level and spot prices rose to

phenomenal heights. Every newsprint machine on the continent had the opportunity to run full. Thousands of tons of newsprint were made on machines which normally ran other grades.

The price of newsprint paper reached the highest point in January, 1921, when the f.o.b. mill contract price was \$130.00 per ton.¹ At that time it was the policy of (the) manufacturers to make prices effective for three months only. The increased prices which had been mounting since 1917 had stimulated production and led to construction of new mills as well as increased capacity of existing mills. On the other hand, consumption of newsprint dropped sharply forcing mills to curtail production. Both United States and Canada produced less paper in 1921 than they had produced in 1920. As a result the mill contract price began to decline. Each subsequent three months' period saw a decided drop until on January 1, 1922, the mill price was \$70.00 per ton.

There was an upswing of over 20 per cent in consumption of newsprint in 1922 from the depression of 1921. In the latter part of 1922 and the first part of 1923, the price rose from \$70.00 to \$75.00 per ton, which was the prevailing price until June 30, 1924. This was the last rise in newsprint prices for 12 years. In only two of these years were

1. United States Federal Trade Commission, Newsprint Paper Industry, United States Congress, Special Senate Document no. 214, 1930, p. 30.

prices stationary - in all others they were successively lower.

The following figures furnished by the Canadian newsprint manufacturers as their f.o.b. mill contract price to United States publishers, indicate the prices in effect from January 1, 1921, to December 31, 1923:

TABLE XX *

MANUFACTURERS' F.O.B. MILL CONTRACT PRICES OF NEWSPRINT PAPER
CARLOAD SHIPMENTS, 1921-1923

Dates	Price	Dates	Price
Jan. 1, 1921	\$130.00	Jan. 1, 1922	\$70.00
Apr. 1, 1921	110.00	Oct. 1, 1922	70.00
July 1, 1921	95.00	Jan. 1, 1923	75.00
Oct. 1, 1921	80.00	Jan. 1, 1924	73.00

* U.S. Federal Trade Commission, op. cit., p. 31.

The mill price was reduced from \$75.00 to \$73.00 per ton on July 1, 1924, and on January 1, 1925, a general reduction of \$3.00 a ton took effect.

For some years the practice had been to quote prices on an f.o.b. mill basis, but 1925 was the last in which this method was in general use. This price of \$70.00 in 1925 was the same as that set by the United States Federal Trade Commission late in 1918, as a result of their exhaustive study of the cost of production and distribution of newsprint in both Canadian and United States mills.

Beginning about 1925 the conservative policy of expansion which had maintained a fair balance between consumption and potential production, was abandoned. The programme of building expansion which had started during the high price period was now rapidly increased. Production of newsprint in the United States reached its highest peak during 1926 and in that year Canadian production surpassed that of its neighbour to the south. These conditions brought about a price reduction as of January 1, 1926, of \$5.00 a ton reducing the mill contract price at Three Rivers to \$65.00 a ton or to \$71.80 a ton delivered in New York. The price of newsprint^{then} remained stable until 1928.

In the years to follow, manufacturers eager to get rid of their tonnage, resorted to cut-throat competition. A change from a seller's to a buyer's market had been taking place since 1924 and by 1926 this change had been completed. Because of this change in the nature of the market, a change followed in the method of quoting prices. Prices had been quoted on the basis of delivery at publisher's pressroom and f.o.b. mill up to this time. In 1926 the mills were forced to pay part of the freight charge in the form of a freight equalization. This practice was continued over the next two years with the amount of freight allowance increasing, and finally, commencing in 1929, the present Zone System of f.o.b. mill with full freight allowed to destination but not to pressroom was instituted. (See Map p. 135).

The table on the next page shows the approximate prices per ton of newsprint. With a varying scale of prices to different destinations, it is obviously impractical to cover more than a limited number of points. At times during the years under review the prices were changed more than once in the calendar year, and in such cases the average for the year has been taken.

A word or two might be necessary to clarify this table. The Three Rivers price is the net price obtained by a mill in the Three Rivers area. In the next column "average freight rate" means the average rate per ton of newsprint from Three Rivers to New York. The columns bearing the captions f.o.b. New York and f.o.b. Chicago contain the resulting price for delivery in those cities. The column headed f.o.b. Iroquois represents the price received by Abitibi for newsprint shipped from the mill at Iroquois Falls. The next column -- "average freight rate" denotes the cost of shipping a ton of newsprint from Iroquois to Chicago.

Conditions in 1927 were far from favourable, and in May of that year the Canadian Newsprint Company was formed for the purpose of providing one organization to market the output of the principal newsprint manufacturers in Eastern Canada. Early in 1928 this company agreed to sell newsprint to the Hearst organization - the newsprint industry's largest buyer - at a price reported to have been five dollars under the market, which at that time was \$65.00 per ton.

TABLE XXI *

AVERAGE PRICE OF NEWSPRINT FOR THE YEARS 1915-1939

Year	F.o.b. Three Rivers	Average freight rate	F.o.b. New York	F.o.b. Iroquois	Average freight rate	F.o.b. Chicago
1915	\$ 38.00	\$3.78	\$ 41.78	\$ 37.00	\$4.21	\$ 41.21
16	48.00	3.78	51.78	37.00	4.10	41.10
17	60.00	3.78	63.78	65.00	4.37	69.37
18	60.00	4.30	64.30	70.50	5.29	75.79
19	74.75	5.40	80.15	75.00	6.10	81.10
1920	105.00	7.60	112.60	95.00	6.20	101.20
21	103.75	7.60	111.35	103.50	8.10	111.60
22	70.00	6.80	76.80	70.00	8.35	78.35
23	75.00	6.80	81.80	75.00	7.90	82.90
24	74.00	6.80	80.80	74.00	7.90	81.90
1925	70.00	6.80	76.30	70.00	7.90	77.90
26	65.00	6.80	71.80	65.00	7.90	72.90
27	65.00	6.80	71.80	65.00	7.90	72.90
28	60.70	6.80	67.50	58.15	7.70	65.85
29	55.20	6.80	62.00	54.30	7.70	62.00
1930	55.20	6.80	62.00	54.30	7.70	62.00
31	50.20	6.80	57.00	49.30	7.70	57.00
32	41.13	7.20	48.33	40.81	8.10	48.91
33	34.05	7.10	41.15	32.00	8.00	40.00
34	33.20	6.80	40.00	32.21	7.79	40.00
1935	33.20	6.80	40.00	31.37	8.63	40.00
36	34.20	6.80	41.00	32.86	8.14	41.00
37	35.70	6.80	42.50	34.54	7.96	42.50
38	43.20	6.80	50.00	42.04	7.96	50.00
39			50.00			50.00

* First three columns - News Print Service Bureau, New York.

Last three columns - Abitibi Power & Paper Company, Limited, Bondholder's Representative Committee, op. cit., Exhibit A-8.

Complications set in, however, and after four months this contract was broken. Shortly afterwards contracts were made with other parties at approximately the same price. The Canadian Newsprint Company broke up a few months later due to internal difficulties and the pressure of large contracts offered at reduced prices by the publishers. This development left the industry in a worse position than before. The pressure on individual mills to get tonnage at any price became more pronounced and the inevitable result of price-cutting followed.

The Newsprint Institute of Canada was formed late in 1928 in an effort to stabilize prices. Through a series of conferences and adjustments the price was stabilized early in 1929 at \$55.20 f.o.b. Three Rivers. This was approximately \$62.00 per ton delivered in New York, at which figure newsprint remained until 1931. Internal difficulties and the ever-pressing need for more tonnage soon brought about the downfall of this better effort to adjust prices. The question of stabilization of prices is gone into more fully in a later section of this study and will not be discussed here.

To the end of 1929 the continually increasing consumption of newsprint had helped to alienate the bad situation. But after 1929, with consumption falling lower year by year, the effects of over-capacity were magnified. It has already been pointed out how, from 1929 to the end of 1933, United States consumption of newsprint declined 28 per

cent. Over the same period Canadian capacity, already large, increased by a further 20 per cent. Is it any wonder then that newsprint prices "toboganned" to disastrous levels?

The delivered New York price fell from \$62.00 a ton in 1930 to \$57.00 in 1931, to \$53.00 for the first five months of 1932, to \$45.00 in the latter part of 1932, and to \$40.00 on April 1, 1933, where it remained until 1936. This price of \$40.00 per ton was even less than the selling price of 1915 and less than a third of the high levels of 1920. Even before prices reached these low levels, many of the largest producers of newsprint paper had suffered loss of capital and credit. Fifty-eight per cent of Canadian capacity was in bankruptcy or in financial reorganization. (See page 77).

With substantial recovery in general business and newsprint demand during 1934, most newsprint manufacturers and consumers expected a price advance for 1935. But this advance did not come until 1936 - the reason for which will be explained later - when the price increased \$1.00 to \$41.00 per ton which was largely offset by increased costs. In 1937 the advance amounted to \$1.50 a ton. By this time, newsprint production costs had increased to a degree which made a \$42.50 price, for most manufacturers, even less adequate than \$40.00 in 1934 and 1935. With business progressing favourably upward in the latter part of 1936 and the early part of 1937, Canadian newsprint manufacturers announced in March 1937, a price of \$50.00 a ton for the first

six months of 1938. Great Northern, the largest United States producer, announced a price of \$48.00 a ton for the first six months of 1938, but Canadian manufacturers stuck resolutely to their price. The outcome of this was the announcement that the prevailing price in the first six months of 1938 would be continued for the full year. In November, 1938, both the Great Northern and the Canadian group announced that there would be no change in their price policies for 1939. Thus we see that the course of newsprint prices since 1915 has been an erratic one and for the greater part a "bearish" one. Low price levels, of course, aggravate the weaknesses of uneven tonnage distribution and excess capacity. They accentuate a producer's fear of losing tonnage and his desire to obtain new tonnage. The industry has a vicious circle of uneven tonnage distribution (which has already been explained) impeding price improvement. This lack of price improvement so prevalent up to 1937 has impeded more equitable tonnage distribution. Of late, however, a "pooling" agreement, sponsored by the Premiers of Ontario and Quebec, has tended to correct this maladjustment.

The effect of low newsprint prices may be gathered from the fact that while 1937 was 1.34 per cent of 1929 in tons produced, it was only 86 per cent of 1929 in dollar value. In 1937 the Canadian industry produced 916,000 tons more than in 1929 but obtained only \$130,000,000 compared with \$151,000,000 in 1929. In 1929, when only 876,000 tons

of newsprint were produced in Canada, 2,769,000 tons less than in 1937, the sales value was \$92,000,000, or 61 per cent of the 1937 value when production amounted to only 24 per cent of tannage in that year. Chart 11 on page 115 shows the trend of newsprint production and market value very clearly.

But how does the price of newsprint compare with the prices of other commodities? Have they followed the same course? The accompanying chart presents a very clear picture of this situation. The average price of newsprint f.o.b. Three Rivers in 1915 was \$38.00 per ton (See Table XI). It rose 177 per cent to an average of \$105.00 per ton in 1920 and \$103.75 in 1921. From that high level it dropped 31 per cent by the beginning of 1921. General commodity prices varied to much the same degree. From 1922 to 1929 commodity prices varied little. During these seven years of remarkable stability in commodities newsprint prices fell 16 per cent. Then came the break in the market towards the end of 1929. Commodity prices tumbled and newsprint prices followed suit. Commodity prices hit bottom in 1932 and then turned upward. Newsprint prices kept "tobogganing" and hit their low in 1934, at which level they remained for two years. With the increase of \$1.00 per ton in 1936 the newsprint price index finally turned up and increased to its present level.

But let us look at the "recovery" years of 1933 to 1937 more closely. Newsprint enjoyed virtually no price

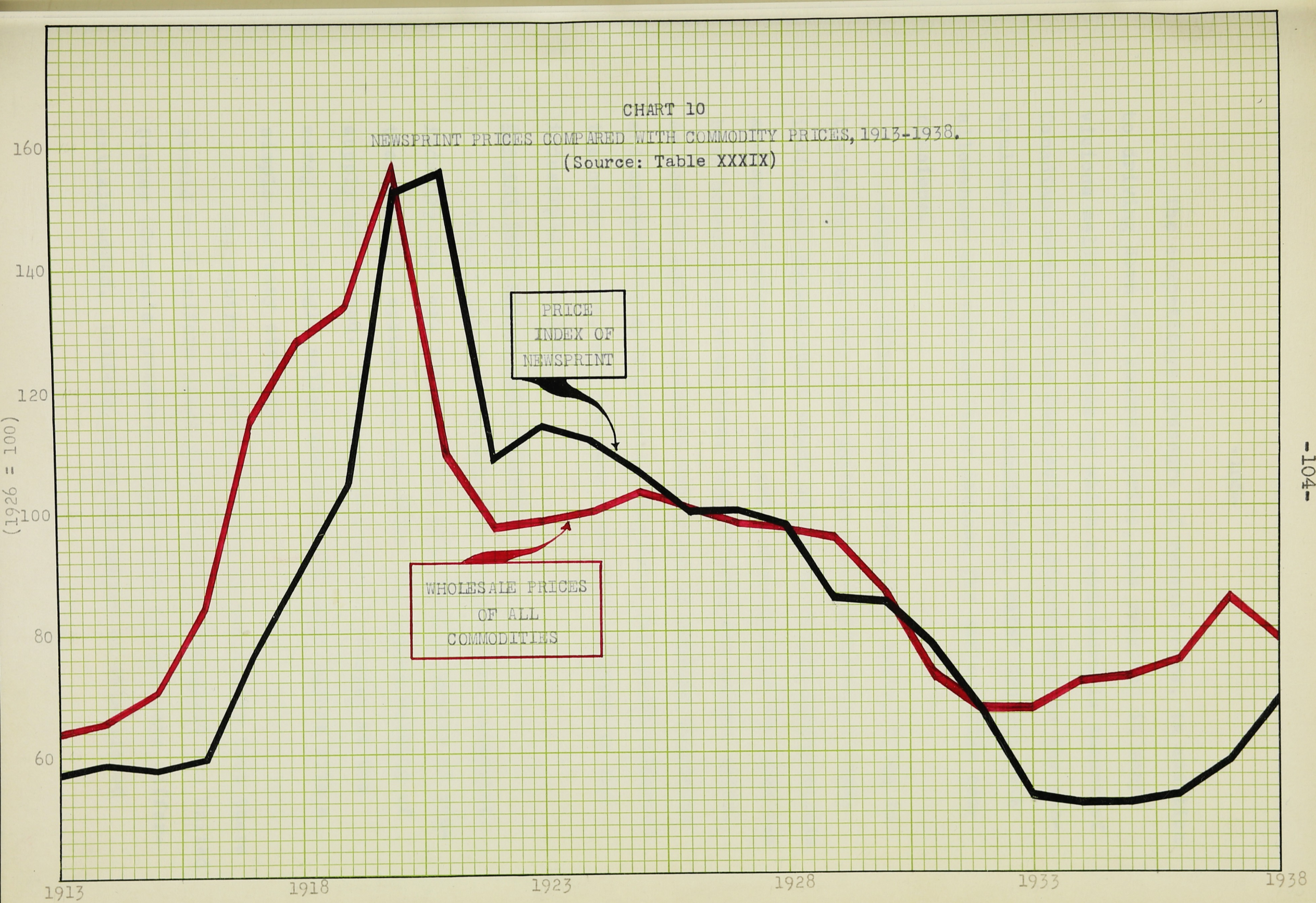
improvement during this period while other commodity prices were advancing. Due to artificial restraints of the interlocking contract system, which will be explained shortly, newsprint prices did not emerge from the 1929-1932 depression until the price advance for 1938.

This may be clearly seen by comparing the newsprint price index with the United States Department of Labor index of general commodity prices and the Dominion Bureau of Statistics commodity price index since the depression bottom in 1932. Other commodity prices moved upward each year whereas the newsprint price remained below the 1932 level, until 1938. The following figures take 1932 as a base to show where newsprint stands in relation to recovery of commodity prices:

TABLE XXII

TREND OF NEWSPRINT AND GENERAL COMMODITY PRICES

Year	Canadian Newsprint at New York	U.S. Dept., of Labour index of general commodities	Dominion Bureau of Statistics index of all commodities
1932	100.0	100.0	100.0
1933	85.3	101.7	100.6
1934	82.7	115.6	107.3
1935	82.7	123.5	108.1
1936	84.8	124.7	111.8
1937	87.9	133.2	126.8
1938	103.4	121.3	117.8



The competitive pressure of recent years, in addition to driving down the contract price, has resulted in many vicious selling practices by which a considerable amount of Canadian newsprint has been sold at discounts from the general market price through commissions, water freight rate allowances and various other devices for making price concessions.

Although United States buyers, as a whole, cling to the theory that they wish uniform price above all things, individual buyers exert every effort to obtain differentials and special advantages. The price structure in the past has been honeycombed with these "edges" from the market price. As most of such concessions are given by smaller companies and are private arrangements, they have not openly affected the market price, but they are a decided weakness in the industry's position.

Present Base Prices and Contracts

One of the fundamental weaknesses of the newsprint industry has been the one-price interlocking system of contracts. This system does not allow the normal working of supply and demand. It leaves the whole industry at the mercy of a single seller and provides large buyers with a simple and easy strategy.

The contract system is based on the theory that there should be a uniform price for newsprint throughout the United States (Canada's greatest market) with freight rate differentials added. Uniform price has become an established

principle of the industry, yet large buyers exert pressure to obtain price concessions to which they claim their volume of purchase entitles them.

In a general sense, the industry's various types of contracts may be described in three groups as follows:

(a) The average contract undertakes to sell newsprint "at the market price" and proceeds to define market price as the price of certain major producers: International paper, Consolidated, Abitibi, Price Brothers, Great Northern. (Great Northern is the largest U.S. producer, about the same size as Price Brothers). These are usually regarded as the "price-fixing companies". Sometimes three of these companies are named in a contract, sometimes four, sometimes all five. Sometimes it is the lowest price of any of these companies which is stipulated; sometimes it is the average of the group.

(b) Other contracts have a different definition of the market price. In effect, they describe the market price, as the lowest price at which newsprint is sold by any mill producing 100,000 tons or more and they undertake to meet this price.

(c) Other contracts are still worse. One company may have contracts or commitments by which it promises a customer in city A that it will meet the lowest price at which

1. Charles Vining, Newsprint Outlook 1936-1937, (Montreal, 1936) p. 23.

newsprint is sold in that city by any seller, large or small. The same company may promise customers in city B and city C that it will not charge them more than it charges any of its customers. Thus, if the company is forced to reduce its price in city A to meet local competition of some small cut-price mill or broker, customers in city B and city C may feel able to claim the same reduction and the whole market price eventually might be at this reduced level. (There is, of course, no rhyme or reason to arrangements of that kind. City B and city C publishers are not affected by a local bargain which city A publisher must get.)

To the layman outside the industry, these contracts must seem unbelievably absurd and devoid of all business prudence. Nevertheless, they are an actuality with which the industry has had to contend, although recently it has disappeared considerably. Publishers have come to regard the market price as the lowest price of any mill with 100,000 tons capacity. A manufacturer entering into such an interlocking contract has no ability to determine his own price; his price is such a price as another seller may choose to accept.

Introduction of this system in 1927 or 1928 resulted from the increasing competition pressure which accompanied the over-expansion of Canadian capacity during the financial promoters' period of 1925 to 1930. During the subsequent depression the use of such contracts became widespread. Buy-

ers had merely to find one suitable mill willing, for one reason or another, or put sufficient pressure on such a mill, to make a contract at the price they wanted and the rest of the industry was automatically bound to follow.

The weakness and painful reality of the one-price interlocking contract system may quickly be seen from a few concrete examples relating to the market price of 1935 and 1936.

With substantial recovery in general business and newsprint demand during 1934, most newsprint manufacturers expected a price advance in 1935. In the fall of 1934, St. Lawrence Paper Mills was in need of tonnage and could obtain some 20,000 tons from Hearst and additional tonnage from Scripps-Howard, if it would agree to continue the 1934 price through 1935. These two large buyers succeeded in inducing the St. Lawrence company to accept contracts at the then ruling price of \$40.00 per ton, f.o.b. New York. Since St. Lawrence's rated capacity was about 142,000 tons, and by the 100,000 ton mill price clause, the price was fixed for the entire industry.²

This prospect of another year with no price improvement and continued distress within the industry aroused considerable agitation. Conferences were held between representatives of the Canadian industry and the two large

2. Vining, op. cit., p. 25.

United States buyers, in which the manufacturers endeavoured to persuade Hearst and the Scripps-Howard people to amend their \$40.00 per ton contracts and permit a price advance of \$2.50 a ton. These representatives were unsuccessful. The industry had exerted every effort to find a way out. Repudiation of contracts was not entertained by the Canadian manufacturers.

A similar effort was made to use a contract by one seller as a means of blocking any price increase for the year 1936. In the middle of 1935 it seemed probable that there would be a price increase for the next year. Price Brothers, one of the price-fixing group, was in bankruptcy and very short of tonnage. In July, Hearst offered Price Brothers a contract for 60,000 tons, if that company would peg the price again at \$40.00 and allow Hearst a discount from that price. Under the circumstances - Price Brothers in bankruptcy - it was a tempting offer and there was an inclination to accept it. The offer, however, was declined, but only after great pressure had been brought to bear on Price Brothers.

When this offer was refused, most manufacturers believed that the delayed price improvement could now be expected. Most expectations ranged from \$2.50 to \$4.00 a ton. In October, 1935, however, Great Northern Paper Company announced that its price for all of 1936 would be \$41.00, an advance of only \$1.00 a ton and proceeded to make contracts at this price. Under the interlocking contract

system the \$1.00 advance became the maximum market price for the industry. It was clear then, that attempts to persuade buyers to accept any higher price would be futile.

Virtually the same thing occurred with respect to the 1937 price, except that Great Northern announced its 1937 price in July, 1936, and this time made the advance of \$1.50 a ton. Contracts interlocked with Great Northern were so numerous that this action automatically fixed the price at \$42.50 for the year 1937.

Thus, in the opinion of most newsprint manufacturers, normal price improvement has been artificially blocked through three consecutive years of business recovery. With increased demand for newsprint no higher price was paid. Moreover, they found they obtained no goodwill for these low prices because United States publishers, no doubt still thinking of the siege in 1929-1931 and the government intervention during that time, maintained an attitude of extreme hostility through the Paper Committee of the American Newspaper Publishers' Association.

Most Canadian manufacturers apparently were forced to the conclusion that the interlocking contract system was a one-sided game in which they had nothing to win and everything to lose. They believed, and I think rightly so, that the elimination of this system was fundamental to the proper conduct of their business. With continued improvement of business during 1936 and 1937 manufacturers were gradually able to rid themselves of this type of contract until

relatively little Canadian tonnage remained tied to Great Northern or other individual sellers.

The current price conditions are complicated at the present time by the fact that there are now two base prices instead of the single base price which has prevailed in recent years. The single base price was due partly to trade custom - the publishers, as a whole, thinking a uniform price was essential to the industry - and partly to the system of interlocking sales contracts.

The two current base prices result in a division of³ sellers approximately as follows:

(1) At \$50.00 base price delivered at New York:

This classification includes nearly all tonnage sold by United States mills, chiefly in the mid-west and west of the Rocky Mountains.

Principal sellers in this class are the four largest Canadian producers and the second largest United States producer, the combined capacity of the five producers being over 2,600,000 tons a year. Total capacity of all sellers in this class amounts to about 4,500,000 tons a year.

(2) At \$48.00 base price delivered at New York.

In this classification are most of the eastern United States mills, plus certain Canadian contracts still

3. "Newsprint Prices in 1938", (Montreal: Cockfield, Brown & Company, Limited, 1937), p. 3.

interlocked with Great Northern Paper Company's contract price, Great Northern being the largest United States producer. These Canadian contracts apparently total about 125,000 tons in 1938.

Principal seller in this group is Great Northern with about 300,000 tons a year. Total capacity of all United States sellers in this group amounts to about 600,000 tons a year.

Within the above classifications, there are variations by both United States and Canadian sellers and, as for some years past, European newsprint is being sold at differentials below one or the other of the above base prices. European newsprint sold in United States in 1937 amounted to 294,000 tons. In the main, however, newsprint prices fall into the two classes shown above.

CHAPTER X

EFFORTS AT STABILIZATION

Canadian manufacturers, confronted with the problem of marketing their ever-increasing output of paper, began to perceive their perils of over-capacity and to discuss possible methods of regulating distribution. As a result, on May 1, 1927, a group of the largest Canadian mills combined in a joint sales company known as the Canadian Newsprint Co. (Ltd.). The purpose of this company was to make all sales contracts for the mills concerned and to pro-rate sales among them on an equitable basis. The constituent companies¹ were:

Laurentide Co.
Price Bros. & Co.
Port Alfred Pulp & Paper Corporation
St. Maurice Valley Corporation
Canada Paper Co.
St. Anne Paper Co.
Spanish River Pulp & Paper Mills
Fort William Paper Co.
Abitibi Power & Paper Co.
Brompton Pulp & Paper Co.
Belgo-Canadian Paper Co.
Murray Bay Paper Co.
Manitoba Paper Co.
Anglo-Canadian Pulp & Paper Mills

The avowed purpose of the Canadian Newsprint Co. (Ltd) was to stabilize the Canadian newsprint manufacturers market. In this connection, it controlled production, allocated the

1. American Newspaper Publishers Association, Bulletin, Feb. 9-1928

tonnage sold, and determined the prices for the constituent companies. The weakness of this organization lay in the fact that, outside of this group, there were other mills which had no plans for dividing tonnage but were after full capacity business. If they succeeded there would be proportionately lower volume for the Canadian Newsprint Co.(Ltd) mills to divide among themselves. (During the period of operation of this company, Abitibi Power & Paper Co., lost specific contracts aggregating approximately 125,000 tons of newsprint per annum.²) This was the beginning of cut-throat competition on an extensive scale.

The Canadian newsprint Co.(Ltd), aware of the fact that it must secure new business or allow the mills to lose ground, approached the Newspaper & Magazine Paper Corporation early in 1928. This latter company was the purchasing agent for the so-called Hearst newspapers. A tentative agreement was reached covering the sale of 250,000 tons per year over a period of 10 years at a special price.

The price fixed in the agreement was \$65 per ton plus a base rate per ton in lieu of freight charges. For shipments to Boston, Mass., the rate was \$3 per ton, making the delivered price \$68 per ton. For shipments to New York, Chicago, Baltimore the rate was \$4 per ton, while for still other cities, Kansas City for instance, the base rate was

2. Abitibi Power & Paper Company, Limited, Bondholders' Representative Committee, op. cit., Exhibit A-9.

\$5 per ton making the delivered price \$70 per ton. In addition to this "special price", however, Hearst received \$3 per ton in consideration of certain guaranties, options, and other considerations that he gave the seller, while the Newspaper & Magazine Paper Corporation received a commission of 3 per cent.³ This brought the net price of newsprint down close to \$60 per ton.

Deliveries were made on this contract for four months, (January-April) 1928, but then complications set in. The Canadian Newsprint Company's own mills had contracts with other customers stipulating a price as low as that paid by Hearst or any other purchaser. The contracts made by most mills in the industry were, as will be shown later, interdependent and a reduction in price for one large customer automatically brought a similar reduction for all. Hearst was getting his paper at approximately \$60 a ton while other publishers were paying the official price in ignorance of the special consideration given to their competitor.

It was not long before the terms of this contract became known. Other publishers began either cancelling their contracts with the Canadian Newsprint Company mills or demanding reductions and rebates. During March, 1928, the personnel of the Canadian Newsprint Co., (Ltd.) changed and the newly

3. U.S. Federal Trade Commission, op. cit., P. 37.

elected officers refused to execute the contract, and so notified the Newspaper & Magazine Paper Corporation on April 21, 1928.⁴ Hearst promptly brought suit for large damages against the Canadian organization. A number of the Canadian Newsprint Company mills withdrew from the group and began negotiating with the Hearst corporation. Shortly thereafter contracts were made with the Anglo-Canadian Pulp & Paper Mills and the Brompton Pulp & Paper Company for the purchase of newsprint paper at "a price approximately the same as the one named in the unexecuted" contract with⁵ the Canadian cartel.

Finally in December of 1928, the Canadian Newsprint Company ceased to exist. But much ill-will had been engendered. The cancellation of the contract had antagonized Hearst and a feeling of distrust had been instilled in the other publishers which was not counterbalanced by lower newsprint prices. The Canadian Newsprint Company's action made every publisher resentful and suspicious.

International Paper Company announced its price for the latter half of 1928 as \$62 per ton. Other companies generally followed this "lead". The price for 1929 had been announced at \$62 per ton f.o.b. mill with freight allowed in excess of \$2, \$3, \$4 and \$5 a ton depending upon the customer's location. The following table gives a

4. U.S. Federal Trade Commission, op. cit., p. 37.
5. Ibid.

clearer picture of how this zoning system worked:

TABLE XXIII*

AMOUNT OF FREIGHT CHARGES ABSORBED BY INTERNATIONAL PAPER COMPANY TO SELECTED CITIES, 1928

Zone	Destination	Freight rates per ton	Paid by purchaser	Absorbed by company
1	Boston, Mass.	\$ 4.10-\$ 6.80	\$3.00	\$1.10-\$3.80
2	Hartford, Conn.	4.60- 6.80	4.00	.60- 2.80
	New York, N.Y.	4.60- 6.80	4.00	.60- 2.80
	Detroit, Mich.	6.40	4.00	2.40
	Chicago, Ill.	7.70	4.00	3.70
3	St. Louis, Mo.	9.10	5.00	4.10
4	Atlanta, Ga.	11.10- 12.70	6.00	5.10- 6.70
	New Orleans, La.	9.60- 10.40	6.00	3.60- 4.40

* U.S. Federal Trade Commission, op. cit., p. 38.

The Newsprint Institute of Canada

The collapse of the Canadian Newsprint Company at the end of 1928 meant that the effort of this group of Canadian mills to meet the over-capacity by regulation of distribution had completely failed and, more than ever, the necessity was to get business. There was imminent danger of a further break in the price of newsprint under pressure of extreme competition. The necessity of this danger came to a head close to the end of 1928. The Hearst group, following the withdrawal of the Canadian Newsprint Company, had proceeded to make contracts with individual companies but still had some 140,000 tons a year to purchase, and therefore request-

ed manufacturers to submit written bids for a five year contract beginning with 1929.

Abitibi, Canada Power and International Paper, the three largest companies at the time, all sought the contract to supply this newsprint to the so-called Hearst syndicate. International Paper Company was successful. The contract provided for f.o.b. mill prices with full freight allowed the purchaser to destination. The prices named in the contract were as follows:

Fifty-seven dollars per ton on shipments to New York, Boston, Baltimore, Washington, Detroit, Milwaukee, Chicago.

Fifty-eight dollars per ton to Omaha, Kansas City.

Sixty dollars per ton to Atlanta, Ga.

Sixty-five dollars and fifty cents per ton to San Antonio, Tex.

The prices which this contract would have established were from \$7 to \$10 per ton lower than the prices previously announeced and was in effect approximately \$50 per ton f.o.b. at the mill. International Paper Company had secured a volume of business which would permit its mills to operate at capacity, while the other companies were left with reduced volume, increased over-capacity and a ruinous price. Rumours that a \$50 mill price had been established were circulated extensively. Canadian Newsprint manufacturers, realizing that they would have to meet the price establish-

ed by the International Paper Company, protested vigorously against the Hearst contract being used as a basis for prices to other publishers. The matter was taken up by the Ontario and Quebec governments. Premier Ferguson and Premier Maschereau conferred with a number of the Canadian manufacturers and bankers, the immediate result being the organization of the Newsprint Institute of Canada in December, 1928.

The Newsprint Institute was, practically speaking, another selling pool but on a large scale. Every important newsprint company in Ontario and Quebec, with the exception of Canadian International Paper, was a member of it, some voluntarily and some through government persuasion. International Paper refrained from membership on the ground that the operations of the Institute were contrary to the Sherman Act. Total orders for tonnage were divided among the mills in proportion to production capacity. Its members were bound to each other by elaborate legal agreements which provided penalties for any infraction of the agreement clauses.

The first task which the Institute undertook was an adjustment of the International Paper contract with Hearst. Conferences were hurriedly called between officials of the International Paper Company, the Canadian Newsprint Institute and the Premiers of Ontario and Quebec. Considerable pressure was brought to bear upon Mr. A.R. Graustein, pres-

ident of the International Paper Company. The latter stated in his testimony before the United States Federal Trade Commission that "Mr. Taschereau told us in vigorous language that the price which was specified in that October contract with Hearst must be raised. He spoke of penalties and pressure, and he was insistent in his attitude". Prior to this, (Nov. 23, 1928, to be exact) Mr. Graustein had been summoned to Montreal by Mr. Taschereau. The president of the International Paper Company was told that all the Canadian manufacturers had signed an agreement and that it was the desire of the Premier (of Quebec) that the Canadian International Paper Company, a subsidiary of the International Paper Company, also subscribe to this agreement.⁷ The agreement referred to was that of the Canadian Newsprint Institute. Mr. Graustein declined to take part in such an agreement on the grounds that to do so would constitute a violation of the Sherman Act by attempting to fix a price. The Hon. Howard Ferguson, the then Premier of Ontario, also wrote to the International Paper Company outlining the efforts of the Government of Ontario to build up the paper industry and calling attention to the chaotic condition of the newsprint industry. He concluded by saying that "unless the people interested in the operation of the industry take some immediate steps to put the industry on a more satis-

7. Op. cit., p. 42.

factory basis and improve the present situation the Government will be compelled to give serious and immediate consideration to what action it should take under existing contracts to protect the interests of this Province, its industries, its settlers, its wage-earners and its people generally⁸.

During this time publishers were receiving their paper, not knowing what price they would be required to pay for it. Finally, on February 26, 1929, a new five-year contract was executed between the International Paper Company and the Newspaper & Magazine Paper Corporation embodying the revised⁹ prices which were as follows:

\$61.50 f.o.b. mill freight allowed to Boston, Albany, Rochester, Syracuse.

\$62 f.o.b. mill freight allowed to New York, Baltimore, Washington, Detroit, Chicago, Pittsburgh.

\$61 f.o.b. mill freight allowed to Milwaukee.

\$63 f.o.b. mill freight allowed to Omaha, Kansas City.

\$65 f.o.b. mill freight allowed to Atlanta.

\$67.70 f.o.b. mill freight allowed to San Antonio, Tex.

These prices were not actually written into the contract but it was therein stated that the paper was to be sold at \$65 per ton f.o.b. mill with the seller paying all freight to destination. In essence this amounted to a price of \$55.20 per ton at the mill for newsprint. This was accomplished by reducing the price which certain of the Institute companies were receiving from Hearst from a reported figure

8. Op. cit., p. 42

9. Ibid, p. 44

of about \$58 a ton to \$55.20. The effect of this was that Hearst's total cost remained approximately the same; International Paper received the benefit of a \$5.20 per ton increase; the Institute companies bore the cost of the contract adjustment but were able to secure a general price of \$55.20 from their customers instead of being obliged to conform to the original Hearst contract of \$50 a ton.

The question of price continued to be the uppermost thought in the minds of producers. For so many years in its earlier life had the newsprint industry been comparatively free from inadequate prices that it could not adjust itself to, or capitalizations would not permit, a price which would force the elimination of old mills and compel rigid economies. Other factors, such as the protection of labour, also exerted a definite influence.

The revised contract between the International Paper Company and the Hearst organization fixed the price of newsprint for all manufacturers of the United States and Canada east of the Rocky Mountains for 1929. The seller was to give the buyer a written notice of standard contract price for any subsequent year. However, bitterness was breeding rapidly throughout the industry.

Late in 1929, the Canadian manufacturers, through the Premiers of Ontario and Quebec, endeavoured to have higher prices for 1930. Increased price announcements were sent out. Premier Taschereau again summoned Mr. Graustein

to Montreal for the purpose of having the International Paper Company advance its price for 1930 to \$60 a ton. A negative answer was given to this request but Mr. Taschereau insisted. Publishers spoke of Scandinavian sources of supply. The potential supply of newsprint on this continent was substantial. It was definitely a buyers market. No satisfactory agreement was reached between the Canadian Newsprint Institute and the publishers. An example of the announcement of the price increase for 1930 is the following article which appeared in the press,¹⁰ Thursday, December 5.

"The Abitibi Power and Paper Company, Limited, has announced an increase in the price of newsprint to the extent of \$5 per ton, offering to anyone electing to close for three years at this price a rebate of \$5 per ton for the first six months of 1930."

A special convention of the American Newspaper Publishers Association, with its collective ill-feeling against the Institute companies, strengthened the attitude of the publishers and they refused to sign contracts at the increased price.

Shortly afterwards, International Paper Company announced to its customers that its price for the first six months of 1930 would remain unchanged at \$55.20 a ton and the Institute companies were obliged to retreat from their announced position and continue the \$55.20 rate.

10. Op. cit., p. 46.

During 1930 a determined effort was made by representatives of the Newsprint Institute to compose their differences with the American Newspaper Publishers Association. Several conferences were held. The Canadian organization submitted a report outlining a program contemplating a gradual advance in newsprint prices. The essence of this program was to raise the price of newsprint \$2 per ton in 1931, \$2 more in 1932 and \$1 more in 1933. The American Newspaper Publishers, while approving in general with this principle of broad economic stabilization of production and distribution of newsprint over a period of years, side-stepped the issue of an agreement with the mills by stating that "the price to be paid for newsprint at any time is a matter to be determined by each publisher in the exercise of his own independent judgment".

The Canadian Newsprint Institute wanted to do two things. First, they wanted to have the price of newsprint restored to its 1928 level of \$62 a ton or at least to \$60 a ton; second, they wanted International Paper, if it could not join the Institute, at least to conform to the Institute's pro-rating procedure. Both of these objects centered on the International Paper Company and they indicate immediately what the years 1929-1931 were for the newsprint industry: a prolonged controversy, increasing bitterness, between the International Paper Company on one hand and, on the other hand, the Institute companies and the

Premiers of Ontario and Quebec, for Mr. Ferguson and Mr. Taschereau having become involved in the situation in establishing the Institute at the end of 1928, became much further involved in trying to assist the Institute's objects in 1929 and 1930.

Neither of the Institute's two objects were secured. The price remained at \$55.20 a ton in 1929 and 1930, and even dropped to \$50.20 in 1931; the International Paper Company did not pro-rate to the satisfaction of the Institute companies or to the two Premiers.

Mr. Taschereau and Mr. Ferguson, in undertaking to bring the International Paper Company into confirmation with the Institute's objectives, found themselves in a position which was both humiliating and embarrassing. That was particularly true of the Quebec Premier who was more directly involved than his political colleague. At Three Rivers, the International Paper mill was working at near capacity while an Institute mill (Wayagamack) as well as other mills in the vicinity such as Belgo, Laurentide and St. Maurice was operating only part time, with consequent protests from employees of the Canadian firm and Mr. Taschereau's political opponents. As a result, Mr. Taschereau felt obliged to demonstrate his authority and followed his disciplinary action against International Paper with regard to stumpage rates, calculated to handicap the latter company's operations. Publishers and Inter-

national Paper acquired a persecution complex.

The career of the Canadian Newsprint Company and its end in 1928 formed an unfortunate background for the Institute, which the publishers regarded as simply a continuation of the discredited Newsprint Company, having practically the same members, the same purpose and the same activities. In the series of conferences late in 1929, the Institute made their premature^{and}/futile price increase announcement, which they were subsequently obliged to withdraw. This only weakened their bargaining position, strengthened that of the publishers, aggravated the feeling of the publishers against the Institute companies and the Premiers and strengthened the goodwill of International Paper Company with its customers. In addition to all this the antagonism between the Institute companies and the International Paper Company, as a result of the five-year Hearst contract, the Canadian companies distrusted each other, were mutually suspicious of breaches of their agreement and were disturbed by personal jealousies and ill-will.

With the stock market collapse and the dislocation of business which followed, general conditions were reflected in a distinct drop in American advertising lineage (See Table XXXX) and consequently decreased newsprint consumption. The Institute companies were forced to produce less paper. The efforts of the members of the Newsprint

Institute to bring about stabilization in the industry were hampered by the fact that while many large companies were members of the organization a number of companies capable of producing substantial tonnages continued to act independently. This was the same general weakness that its predecessor had experienced. Combined with this was the fact that the Institute companies had the distinct ill-will of their customers. This is clearly shown by looking at the rate of capacity at which Institute mills and non-Institute mills were operating at that time. Although the official average for all Canadian mills in 1930 was 70.1 per cent of capacity, Institute mills averaged only 59.3 per cent, with many months more considerably below that, while International Paper ran their mills at close to capacity. The tonnage of Institute members declined more in proportion to capacity than did that of competitive mills which were not members of the organization. The following tabulation presents this very clearly:

TABLE XXIV*

RATE OF CAPACITY AT WHICH NEWSPRINT MILLS IN NORTH AMERICA OPERATED 1929-1931

Year	Canadian Institute Mills	Canadian Non-Institute Mills	Total Canadian Mills	Newfoundland Mills	United States Mills
1929	81.0%	98.0%	86.4%	104.5%	80.0%
1930	59.3%	93.0%	70.1%	101.1%	76.0%
1931	45.4%	90.8%	58.0%	98.0%	65.4%

* News Print Service Bureau.

This same weakness is illustrated to some degree by

the increased rate of operations of United States mills in the early months of 1930, despite the decrease in newsprint consumption. Canadian operations declined in these months even with the Three Rivers and Gatineau mills of International Paper Company operating at near capacity, as shown in the table below:

TABLE XXV *

OPERATING PERCENTAGE OF CAPACITY OF NEWSPRINT MILLS IN CANADA AND UNITED STATES BY MONTHS 1929-1930

Month	1929		1930	
	Canada	United States	Canada	United States
January	81.9	81.8	71.4	85.3
February	77.9	77.0	69.0	86.2
March	83.8	78.6	68.4	80.3
April	95.1	81.4	75.0	77.7
May	87.6	81.5	75.2	80.4
June	86.7	80.8	73.0	79.9
July	84.8	76.5	71.3	72.8
August	80.5	79.8	66.4	72.0
September	91.3	80.3	66.8	70.2
October	88.8	80.4	67.0	71.9
November	91.2	77.6		
December	85.6	79.9		

*Computed from monthly production figures and rated capacity.

It was a time of anxiety for newsprint men. The Newsprint Institute of Canada in effect controlled the production of each company within the organization. The strictest integrity was imperative on the part of individual companies. The occurrences of the previous few years, however, had badly shaken the idea of confident co-operation within the

industry.

Early in 1931, Price Brothers claimed unfair practice on the part of certain Institute companies, withdrew from the organization and entered legal action. Being one of the soundest and most conservative of the Canadian companies at that time, Price Brothers accusations were given attention. Whether or not, as a result of this disagreement, newsprint prices were reduced to \$50.20 retroactive to the first part of 1931. The ever-pressing need for more tonnage and the inability of the Newsprint Institute to procure new business led some of the members to conclude that they would be better off outside the Institute than in it. Consequently, the Institute slowly petered out and ceased to be a factor in the situation early in 1931.

Probably the greatest weakness of the Institute lay in the mutual distrust and ill-will of its members and in their unwillingness to face economic facts. The Institute's record was one of bad faith and bad judgment.

The Bankers' Committee

In the latter part of 1931, after the Institute had ceased to be a factor in the situation, a Bankers' Committee was organized to assist the industry towards price stabilization, and to bring about corporate consolidation of the industry. On its Board were five leading Canadians - E.W. Beatty, K.C., (now Sir Edward) chairman; Sir Charles Gordon; Morris W. Wilson and Sir Joseph Flavelle, who was

later replaced by George Cottrelle.

The Committee proposed to maintain the market price while consolidation plans were being studied, and in order to maintain prices, it soon found itself obliged to deal with the old problem of tonnage division. It endeavoured to meet this not by a pro-rating plan but by a series of bargains between "long" and "short" companies. This Committee collected a great deal of information in regard to the various companies and probably had the effect of postponing, for a time at least, the decline in newsprint prices which subsequently occurred.

The Bankers' Committee was an ambitious and earnest attempt to solve the newsprint problem and in its early stages it appeared to offer every prospect of success. But the Committee lasted little more than a year and had ceased to function as such by the end of 1932. The companies in the industry were not uniformly willing to enter into consolidation and were still less willing to carry out tonnage agreements. There was no practical way to enforce the Committee's wishes. It failed because there were no means of arriving at a definite plan and compelling its acceptance.

Nemac and the N.R.A. Code

Shortly after the abandonment of the Bankers' Committee, the National Recovery Act was introduced in the United States. The next attempt to settle newsprint difficulties was based on this.

The formation of the newsprint Export Manufacturers Association of Canada (Nemac - now Newsprint Association of Canada) in November, 1933, followed a conference with the chief N.R.A. administrator in Washington. Its purpose was to act with a similar association of United States companies in carrying out a Code for the industry which, it was hoped, would be made effective under the N.R.A. Much time and effort was devoted by members of the industry to the preparation of this material. Recommendations covering trade practices to be observed were drawn up as a Supplement to the newsprint paper Code in the United States, also an agreement between Nemac and the Association of Newsprint Manufacturers of the United States relative to observance of such recommendations, by the members of the respective associations. Such recommendations and the agreement were approved by the Canadian and American Associations. The Code submitted to the Administrator of the N.R.A. was not acted upon by the latter prior to the time that the N.R.A. was declared unconstitutional by the Supreme Court of the United States.

This Code, known as a Code of Fair Competition for the Newsprint Industry of the United States, covered practically all sections of the industry including hours of labour, wages, general labour provisions, accounting-selling, statistics, etc. Since we are mainly concerned with price stability, only the accounting-selling section, under which article this topic is covered, will be dealt with.

It was hoped that the Code would stop the vicious spiral of price cutting and in substance it proposed to meet this evil of destructive and unfair price cutting as follows:

First: By requiring the members of the industry to file with the Executive Authority all "prices and terms and conditions of sale (including all differentials, discounts, trade allowances and special charges) -- and to so file all subsequent changes therein or revisions thereof at least twenty four hours prior to the effective¹¹ date of any such changes or revisions".

Second: By requiring that prices filed by any member to not be below the individual cost of that member, except where necessary to meet the competition of some other member having lower cost. All prices were to be calculated on a delivered basis, and the cost of delivery considered part of the cost of the product.

The Code also provided for a supplement to be added to establish a time limit for contracts for future delivery at the prices existing at the time of the contract. This was to prevent manufacturers and publishers from entering into long term speculative contracts for large quantities of newsprint at prices based upon current levels. Such contracts being exceedingly harmful in the event of rising costs, it was necessary for the industry to be in a position to prevent

11. Proposed Code of Fair Competition for the Newsprint Industry - American Pulp and Paper Association, September 14, 1933. Article VII (2) p. 7.

abuses of this kind. Contracts in existence on the effective date of the Code were not to be affected.

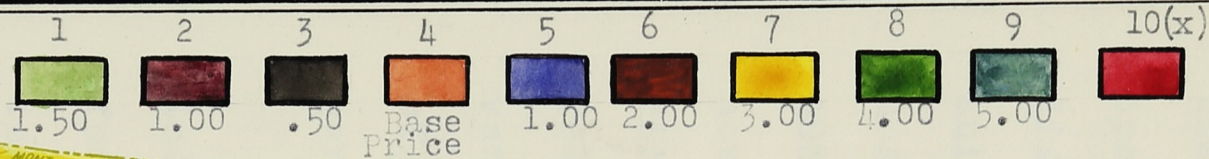
In order to make effective provisions against unfair competition through cut prices, power was to be given to the Paper Industry Authority to determine whether there had been any violation of the clauses, and if so, to declare the prices and any contracts based thereon void.

The Paper Industry Authority could only find the existing price unfair. It could not name a new price to be substituted for the unfair price previously named. Thus the Code could prevent violations but could not fix the prices to be charged by the members.

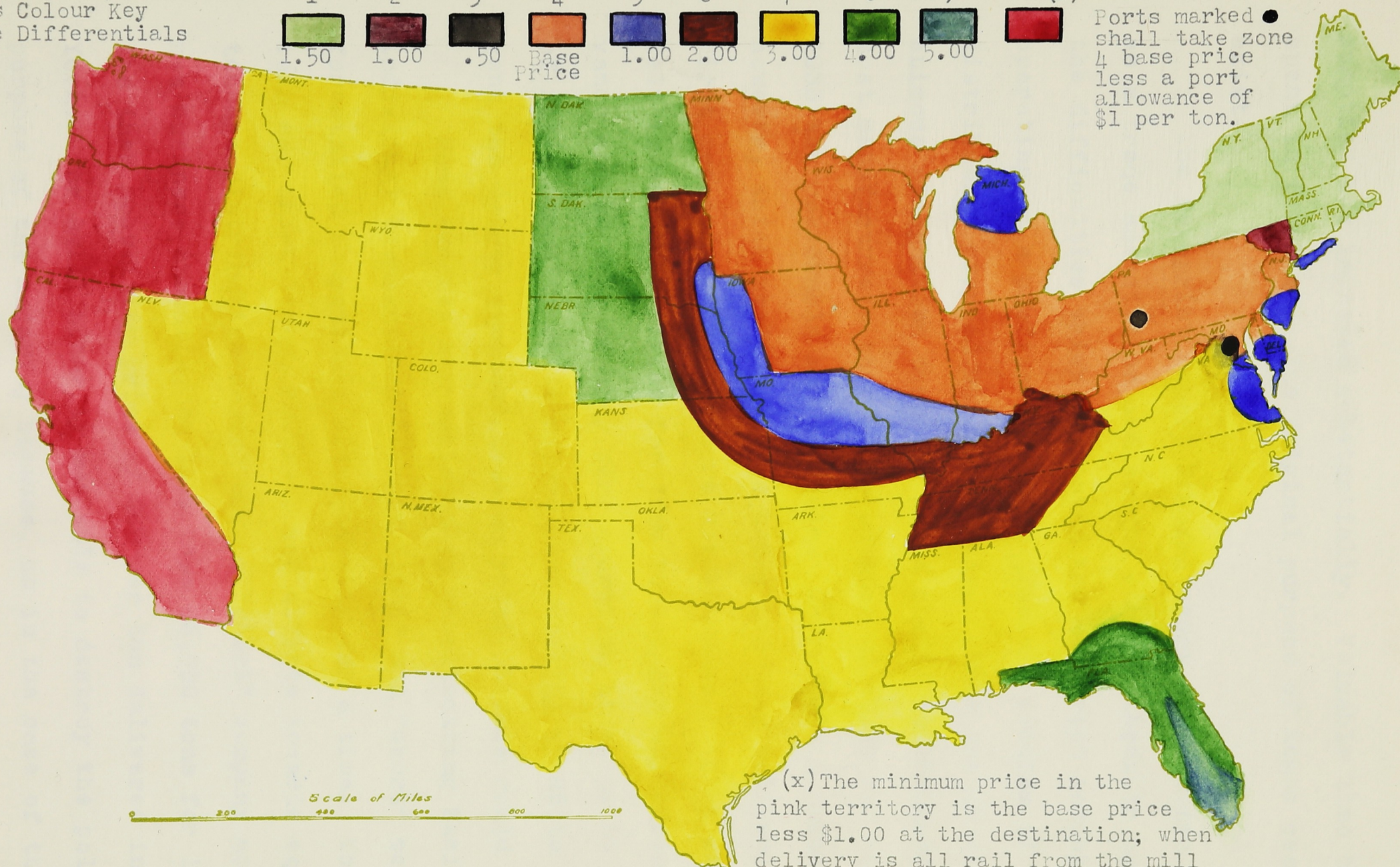
To avoid price discrimination between publishers in the same localities, and to effect uniform prices with said districts, a system of zones was to be established under which newsprint prices varied with the locality to which the newsprint was shipped. The price at certain destinations was referred to as the base price. The prices for all other destinations were to be computed by added or subtracting from the base price the differentials established for each destination. The accompanying map shows how the zoning and price differentials were to operate.

However, despite the efforts of Nemas the Code was never enacted and in September of 1934 was put aside by most of the members of the industry. Little or nothing had been accomplished and the industry found itself back where it had been at the end of the Bankers' Committee, except that con-

Zones Colour Key
Price Differentials



Ports marked ● shall take zone 4 base price less a port allowance of \$1 per ton.



(x) The minimum price in the pink territory is the base price less \$1.00 at the destination; when delivery is all rail from the mill and the rail freight exceeds \$5.00 per ton the price is base price less \$6.00 a ton f.o.b. mill plus actual rail freight.

sumption had improved substantially. Valuable time had been spent in futility. The original purpose of Nemas ceased to exist.

The Newsprint Export Manufacturers Association continued as a trade association and sought other methods to untangle the difficulties which prevented the newsprint industry from operating on a profitable basis. The old problem of tonnage distribution cropped up immediately. There was an almost unanimous recognition that the price should be advanced and most manufacturers thought an advance of \$5.00 per ton for 1935 was reasonable and feasible. There were a number of mills, however, which needed tonnage badly and they believed their first necessity was to secure new business. These companies felt it would be unwise for them to support any price advance and as long as they were operating at 40 to 50 per cent of rated capacity while others were working at 85 to 100 per cent the danger remained that no price advance could hold.

Some success was achieved in re-allocating business. Individual transactions between "long" and "short" companies forestalled competitive price-cutting for a time. This success was short-lived, however, and efforts towards equalizing tonnage distribution ceased when a "short" company accepted new business amounting to less than 45,000 tons for 1935 at the then prevailing price of \$40 per ton delivered in New York. The small minority was able to destroy the policy and purpose of the majority because, as in the case of the Bankers'

Committee, no method of compulsion was available.

The Newsprint Association of Canada

Over the past three years a better spirit of co-operation within the industry has developed, the relationship between "long" and "short" mills has improved. Late in 1934, the Newsprint Export Manufacturers Association changed its name to newsprint Association of Canada. Practically all the companies in Eastern Canada are members of this organization, with the exception of a few smaller mills, and are co-operating with the Association in its prorationing program. This prorationing scheme takes in the entire industry from coast to coast and has the strong support of the Ontario and Quebec Governments. The basic principle, as has already been explained, in another chapter, is that no mill is supposed to operate at a percentage greater than the average for the industry as a whole. A mill that gets ahead is expected to transfer tonnage to one that is running behind. The scheme is supported by many of the mills themselves, especially those short of orders by Ontario and Quebec Governments and by investors and banks. The provincial governments of British Columbia, New Brunswick, Nova Scotia and Manitoba have taken no active part but mills in these provinces have been party to the scheme. That the Ontario and Quebec Governments mean to take action against any company not conforming to the prorationing regulations is affirmed by the measures enforced against the Great Lakes Paper Company recently.

When Great Lakes was re-organized, in 1936, under control of a group of 24 publishers, agreements were involved whereby the publishers were allotted preferred stock in return for certain firm contracts for the purchase of newsprint. The contracts were approved by the Ontario government and the new charter of the company taken out under Ontario laws.

Since then, it was claimed, Great Lakes went beyond the 1936 agreements and sold newsprint in competition with other producers, under arrangements which the Ontario government did not anticipate at the time the reorganization was approved. Adding to the dissatisfaction of members of the Newsprint Association was the fact that Great Lakes was consistently able to maintain a higher operating ratio than the industry as a whole, and was able to escape the production limitations imposed under the Association's output prorationing agreement.

The dispute was climaxed early in November, 1938, when the Great Lakes Paper Company was served notice by the Ontario Government requiring the company to abide by the prorationing agreements in effect in the Canadian newsprint industry. To this, Great Lakes replied that to prorate would involve violation of contracts with its customers.

The ultimatum delivered by Ontario to the company hinted that penalties for non-compliance might be severe. The province has the power to raise stumpage dues as much as five

times current rates, regulate cutting of timber and impose a fine of \$1,000 a day on a company which fails to follow regulations. Imposition of any of these penalties would have made it impossible for a newsprint company to carry on successfully.

The outcome of the negotiations between Great Lakes Paper Company and the Ontario Government was that C.H. Carlisle resigned as president and the company agreed to the industry's prorationing system. And so it would seem, for a time at least, the industry will be successful in stabilizing production and the price of newsprint, since the objective of prorationing is to preserve a balance in operating ratio among the producers so that "short" mills will not be tempted to offer price concessions in order to build up tonnage.

CHAPTER XI

THE RELATIONSHIP BETWEEN MANUFACTURERS, PUBLISHERS AND THE GOVERNMENTS

The almost continual strife between manufacturers and publishers, between manufacturers themselves, the governments and the publishers, since 1928, has been brought out in the preceding chapter. This lack of friendly relations is a fundamental weakness in the newsprint industry. This weakness is all the more bewildering when it is considered that American publishers depend upon Canada for the larger share of their paper requirements while the Canadian operators market around 80 per cent of their output in the United States.

The continued bickering is slowly but surely driving the American publishers to seek newsprint elsewhere. This is evidenced by the move to manufacture newsprint from Southern pine, the favouring of Scandinavian manufacturers, the operation of domestic mills at a higher level than the Canadian mills and other signs of dissatisfaction.

In this constant "warfare" both sides seem to make advances but no one ever wins. It is hoped to present in the following pages an unbiased picture of the present feelings of these three factions.

The Attitude of the Manufacturer

Although over-expansion and excess capacity have probably been the cause of most of the disturbance within the

industry, the contention has centred around the price of the finished product. The present newsprint price-situation in the United States market cannot be explained as an ordinary question of how many dollars sellers want to charge or buyers want to pay. The underlying question is whether large buyers can preserve the interlocking contract system of fixing prices through a single mill, or whether sellers can overcome what they think has been artificial interference with supply and demand.

The manufacturer feels that it is fantastic to expect the world's largest newsprint producers to have no power of decision as to sales policy but to be in the hands of a single seller, particularly if that seller happens to be located in another country and in different circumstances.

The interlocking contract system, in his opinion, is a vicious and unsound method of doing business. By guaranteeing some single seller full operations, by which such seller could afford to sell at a lower price than a manufacturer with normal operations, one or two large buyers would be in a position year after year to keep the Canadian industry at an unfair and inadequate price level.

The manufacturer believes also that if the interlocking contract system continued on the basis of the past three years, it would be impossible for him to establish goodwill with his customers because they would give him no credit for pursuing fair and moderate policies. They would attribute his moderation to compulsion and the result would be disre-

spect rather than goodwill.

For these reasons, the average Canadian manufacturer seems determined not to revert to contracts interlocked with any single seller. This is a primary factor in the unusual situation which exists to-day.

The manufacturers feel that the present price of \$50.00 a ton is not an unfair one. Although the \$7.50 increase is a $17\frac{1}{2}$ per cent jump, it should be appreciated that this percentage is from an abnormally low starting point, almost the lowest level in thirty years, and merely comes up to a figure which is still 29 per cent below the 1926-1927 level. They argue that publishers have increased their advertising and subscription rates to meet the cost. The fact that publishing costs, as a whole, have risen, is not unknown to the producer, but he points out that newsprint has not followed the general trend of costs, and now probably represents 20 per cent or less of the total.

He does not believe that by not meeting the lower prices of Great Northern and other competitors, Canadian mills are losing a great deal of tonnage, and thus are confronted with higher operating costs. Selling at the same price, he says, Canadian mills could not expect to take tonnage away from United States mills since the latter are given a natural preference.

The Canadian manufacturer feels that the price differential is not a case of his going out to effect a higher price, but rather it is a case of other mills choosing to

undersell prices which the Canadian industry has established. If Canadian mills prefer to take tonnage losses, he argues, rather than attempt to meet these price reductions, there is no good business reason why they should not do so. The feeling of unfairness which some customers have is a natural relic of the interlocking contract system.

A representative Canadian manufacturer was asked for comment on the above criticism and in reply expressed himself substantially as follows:¹

"I hear this complaint from our own company's customers and I realize that it is natural enough; if I were a buyer I would probably feel the same way. As a seller I don't like the situation we have to-day. I don't like our customers to feel at a disadvantage through buying from our mill and I wouldn't have them in that position if it weren't for the fact that our company has reached a point where it simply must take a stand against the iniquitous way of selling our product which we've had for the last few years.

"Our company isn't going on any longer being tied hand and foot to a price that some individual wants to name. Even if we could afford to give a lower price--which we can't with the heavy losses we're taking at present--we couldn't afford to do anything which would look as though we were going back to that old system. Nobody with any sense or self-respect can do business that way; it's been all wrong and unfair and, in their hearts, I believe our customers must recognize it.

"I don't like this situation, but we'll just have to hope that our customers will come to understand the phase we're going through. This phase will pass and I think our customers will respect us and trust us when it's over. They need have no fear of the future. We're going to be in business a long time and they can count on us to treat them fairly but we want to be treated fairly too.

"Apart from all that, if our company had any lower price with our present volume of business I believe we'd be in a receiver's hands before this year is over."

1. "Newsprint Prices in 1938", op. cit., p. 20.

The manufacturers do not feel that they could obtain goodwill by reducing their prices in present circumstances, but are of the opinion that a price reduction would be misinterpreted to their disparagement. This is chiefly due to a condition which has been built up by a group of publishers who seem to dominate the A.N.P.A.² newsprint policy through their Paper Committee. The policy of this group, as will be shown later, is evidently to keep newsprint manufacturers in a state of subjection and to maintain hostility toward the Canadian industry regardless of current prices or conditions. They wage perennial warfare against the Canadian mill.

Because of this, Canadian manufacturers feel that even if they could afford to take further losses in order to build goodwill, any attempt at such friendly action would be futile and dangerous because of the manner in which it might be misinterpreted. They are of the opinion that the Paper Committee would promptly publicize the manufacturers as a defeated enemy and take credit to itself for the success of coercive tactics. The net result for manufacturers would be sacrifice of revenues, which they cannot afford, with no gain in goodwill.

Many newsprint manufacturers, however, feel that there are a good many publishers not in sympathy with the Paper Committee's attitude and methods, but these publish-

ers are not heard.

True, this hostility originated a number of years ago when manufacturers were chiefly responsible for the unhealthy relations which existed. To-day, however, the manufacturers say they have no desire for anything but friendly and decent relations with the United States publishers. The industry's personnel has changed materially in recent years and there are few, if any, Canadian manufacturers who do not appreciate that their business depends upon their customers' willingness to buy and ability to pay.

The manufacturers feel that the health of the industry should be as much the concern of the publishers as anyone else and that the publishers are being selfish, unfair and short-sighted when they are unwilling to assist the industry through a difficult period.

In presenting these feelings to the publishers, the manufacturers have not adopted a diplomatic policy. The manufacturers have made demands rather than requests, have attempted to force rather than persuade and, worst of all, have allowed the publishers to become alarmed and to take defensive measures over the shadow of government action.

The producers have failed, in their conferences with the publishers, to present an explanation of their needs and difficulties sufficient to satisfy the A.N.P.A.

The newsprint manufacturers have recently mapped out a program for further control of production. Due to the

firm attitude of the provincial governments of Quebec and Ontario, the lessons of various operators from past experience, closer unity and better spirit of co-operation has been achieved within the industry.

But while these better relations have been established among the manufacturers themselves, and while there is individual cordiality between publishers and manufacturers, the relation between the two groups is strained and unfriendly.

Attitude of the Publisher

The attitude of the publishers toward the Newsprint Association is one of resentment and hostility. The effect of this is the present inclination of the American publishers to buy as little newsprint as possible from the Association and companies and to purchase from other sources, even though this may entail the use of admittedly inferior paper.

This attitude of the publisher developed chiefly during the 1928-1931 siege, which has already been explained, and is as strong or stronger than it ever was at the present time.

The publishers feel that the manufacturers have never been interested in newspaper publishing difficulties. The former still recollect the difficult publishing years of 1919-1921 during periods of which there was such acute newsprint shortage that their newspapers were seriously handicapped. During those years the Canadian manufacturers made no gesture of goodwill. They took advantage of the

situation to charge the highest prices they could get. The publishers took their medicine but still remember it quite vividly.

Some idea of the publisher's attitude may be obtained
3
from the following editorial published in 1934:

"The present sad plight of a large section of the Canadian newsprint industry is directly chargeable to the underhand methods which certain companies, dominated by financiers who did not understand the business, employed alike towards their competitors and the publishers. It is on the record that ever since the industry got into difficulties the publishers of the United States and Canada have shown a willingness to discuss the question of price increase on its merits. The manufacturers have recognized and admitted that the fall in price between 1930 and 1933 was not due to pressure by the publishers, but to internal discord among themselves, and until the prospect loomed up of a big increase in price being brought about through the operation of the N.R.A. newsprint code authority, quite cordial relations existed between the newsprint committees of the Canadian and United States publishers' associations and the representatives of the manufacturers. As chances looked good for an increase under the N.R.A., the manufacturers dropped friendly negotiation, presumably not wishing to be hypocrites, and got solidly in behind the newsprint code authority's attempts to enforce an increase which would have made profitable the operation of even obsolete United States mills. There was talk of a \$12 and even \$15 increase, but it was politically and economically impossible for the United States government to penalize the publishing industry, employing hundreds of thousands of people, for the benefit of the United States newsprint industry, employing something over 5,000 people, particularly as the greater part of the benefit was going to accrue to foreign manufacturers. When this scheme fell through the Canadian manufacturers made the mistake of trying to enforce the arbitrary increase, which is the cause of the present controversy. It is unfortunate that Premier Taschereau, who is a very conservative, level-headed statesman and a gentleman of the old school, instead of endorsing NEMAC's high-handed action, did not send the manufacturers back to make their peace with the publishers, as he did in 1930 so successfully by bringing about the

3. American Newspaper Publishers Association, "On Shoals of Ill Will" (New York), Bulletin no. 206, Dec., 1934.

appointment of Col. Jack Price and the late Percy Wilson as negotiators on behalf of the newsprint Institute. The upshot of these developments has been that the United States publishers have lost faith in the good will and integrity of the powers that be in the Canadian newsprint industry and in the sanctity of contracts made with Quebec mills, and their sense of having been outraged is manifesting itself in a movement to expand production in the United States to a point where dependence to such a large extent on the Canadian supply will not be necessary."

Publishers feel that the \$50.00 per ton price for newsprint is unfair and at variance with the interlocking contract system when Great Northern is only charging \$48.00 per ton. It is not contended that the Canadians should meet the price at which the Scandinavians are selling newsprint, (around \$45.00 a ton), but simply that charged by the major American producers.

In this regard the publishers feel that the manner in which the \$7.50 price increase was announced early in 1937 was further evidence of the lack of willingness on the part of the Canadian operator to co-operate with the publishers. This is brought out very clearly in one of the Paper Committee reports under the caption "Did Canadian Manufacturers Treat Customers Fairly in Getting Contract Renewals for 1938"⁴ from which the following is taken:

"Letters from many publishers indicate that they were hastened into signing contracts for 1938 deliveries, early in the year, by statements of representative Canadian mills that there was an impending shortage of newsprint; and that if they did not sign, that they might be unable to buy any tonnage later for delivery in 1938."

The same bulletin prints the monthly figures pub-

4. Ibid., no. 279, October 29, 1937.

lished by the News Print Service Bureau, and which show an accumulation of stocks of newsprint. Commenting on this, the report continues:

"After reading the following article pertaining to conditions in the newsprint market you can determine whether the haste of Canadian manufacturer was in the interest of their customers or in their own interests in scaring publishers into signing contracts at fixed prices which they would later try to use as an excuse to break the long established one-price policy of newsprint. It is now clear that these stories of impending shortage of newsprint were more of a threat to get signatures on contracts that otherwise would not have been signed, than they were factual."

Another bulletin brings forth the following comment:

"Established trade practice, founded on common sense and experience, calls for price equality for newsprint as in labor, by the publishers in competing territory. The Canadian newsprint manufacturers functioning through their Newsprint Association of Canada, have long attempted to disregard such realities as supply and demand, and the customers' ability to pay.....

"The only possible inference in the published statements of three great Canadian newsprint manufacturers is that they propose to penalize their customers, who have failed to protect themselves with contract clauses guaranteeing price parity with competitors or from major sources of supply.

"The only possible interpretation of the announced program by Canadian manufacturer members of the Newsprint Association of Canada is to collect many millions of dollars from United States publishers in order to put substance back of phantom securities.

"This announced program of Canadian manufacturers provides the final and clinching reason, if it were needed, to convince United States publishers of the vital importance of placing a major proportion of their newsprint purchases with mills operating with the United States from overseas mills not bound by cartel agreements with Canadian manufacturers and substantial support to the early development of newsprint manufacture from Southern pine."

The publishers feel that Canadian mills are losing a great deal of tonnage by not meeting the lower prices of

Great Northern and other competitors. The consequent loss of volume, they say, means increased operating costs which offset the price advance. In their opinion it would pay Canadian mills to take lower prices and get their full share of the market.

Because of the sizeable increase in the price of newsprint publishers have resorted to methods of reducing operating costs not heretofore in general use. In order to reduce consumption, publishers are adopting the use of narrower margins, thinner column rules, smaller headings and shorter pages.

That publishers feel that there should still be a "prevailing" or general price for newsprint throughout North America instead of the two predominating at the present time, and that the interlocking contract system should still be in force, is brought out in the following comment^{5.} to the A.N.P.A. members:

"Your committee again emphasizes the importance of your getting a guarantee in your contract that your price will be no higher than that charged by any other large producer preferably with an annual capacity in excess of 100,000 tons. Most United States and Overseas mills give this guarantee."

The American Newspaper Publishers Association is bitterly opposed to any interference on the part of the provincial governments in the matters of price fixing or pro-rationing. The publishers feel that the prices being

5. Op. cit., no. 303, November 4, 1938.

charged by Canadian mills are not natural competitive prices and that the law of supply and demand is not allowed to function properly.

Commenting on the effect of prorating newsprint production the above organization in one of its bulletins

6
says: "It means that the Provincial Governments, backing the Canadian newsprint manufacturers forbid a Canadian manufacturer to carry out contracts made in good faith - contracts that probably mean the difference between profit and loss to a newsprint manufacturer who has given evidence of efficiency in operation and success in selling the output of his mill.

"It means that customers of Canadian mills are expected to pay a large enough price to support the inefficient mills".

The publishers argue that if Canadian manufacturers are forced by governments and banking pressure to bring about conditions as set forth above, the newsprint industry will be faced again with the possibility of decreased consumption.

Against such governmental action the publishers are resolved "to place commitments as far as possible with United States mills, or with mills operating in foreign countries whose governments have not threatened to interpose themselves into the newsprint market."⁷

It is not the intention of the writer to prolong this particular topic, but it is felt necessary to include the above comments from the publishers' official

6. Op. cit., no. 304, November 14, 1938.

7. Ibid.

bulletins in order that a clear picture might be presented. And in concluding let us take one more passage from a report dated July 8, 1938, as a means of summing up:

"The attitude of the Paper Committee toward the Newsprint Institute and its successors has consistently reflected the dissatisfaction of the A.N.P.A. membership with the arbitrary attempts that have been made to establish newsprint prices without regard for the law of supply and demand at levels necessary to sustain an overexpanded industry on a part-time basis.

"It is believed by the publishers that this situation is due to the passing of the control of the industry from bona fide newsprint manufacturers to financial interests, which were directly or indirectly implicated in the overexpansion and overcapitalization of the industry; and these powerful interests have subjected themselves to the pressure of provincial governments which through pro-ration of tonnage, have sought to provide more employment in various communities than would have been available if the more efficient mills had been allowed to run to capacity."

The Attitude of the Government

The governments referred to here are the provincial governments of Quebec and Ontario. The federal government or other provincial governments play very little part in influencing the newsprint manufacturers under their jurisdiction and so are not considered in this study.

The provinces originally became concerned in the newsprint situation back in 1929-1930 on the following grounds:

(a) because they felt that sufficient provincial revenues were not being obtained from pulpwood resources and the reduced price of newsprint precluded the possibility of increased license fees or stumpage rates,

(b) because the reduced price of newsprint and accompanying difficulties meant a tendency on the part of pulp and paper companies to use their easiest wood supplies and did not permit the reforestation and protective measures necessary to conserve an important natural resource,

(c) because the condition of the industry meant part time operations for many mills with consequent unemployment and danger of further unemployment,

(d) because the earnings of the industry were not sufficient to provide investors with a return on their money and the only persons benefitting by conditions appeared to be American publishers,

(e) because they were appealed to for assistance.

These considerations of public duty are still the basis of the attitude of the provincial governments. The premiers of Quebec and Ontario feel that the newsprint industry is a major factor in public welfare. A large part of the population of these two Provinces depends directly upon newsprint for livelihood; whole communities have no other economic life. From a social aspect alone, the state of the newsprint industry is thus a matter which no provincial government can ignore. In addition to the social aspect, the provincial governments have a direct responsibility as administrators of the forest areas which the industry is consuming. This second responsibility arises from the fact that very little of the forest

used by the industry in Ontario and Quebec is privately owned; the great part is public property. (See Table II)

As far as I was able to determine, the provincial governments have nothing to do with determining a price for newsprint. But, when a general market price becomes recognized between buyers and sellers in the usual way, the governments will not tolerate price-cutting by individual manufacturers and as far as they are enabled by legislative authority, they will prevent competitive practices such as might cause disruption of the industry.

The Toronto Financial Post in an article dated June 4, 1938, represents Premier Duplessis of Quebec as stating the following opinion: "I am against every form of cut-throat competition, and we will do everything in our power, while respecting the rights of others, to safeguard the interests of the province."

Premier Hepburn of Ontario was quoted by The Montreal Gazette of August 11, 1936, as saying "Provinces of Ontario and Quebec have been working together on the problem of stabilizing the industry..... We are not going to allow a repetition of the price-cutting that occurred a year or two ago. The newsprint industry won't be able to stand another war of that kind. We do not intend to step in and set prices for newsprint, though we have the power to intervene whenever we see fit".

The provincial governments endeavour to prorate production, so that mill operations are balanced between

communities so that employment and relief are evenly distributed. They try to see that no mill operates at a rate of capacity greater than the average for the whole industry. Thus an efficient mill must buy some of its tonnage from a "short" mill in order to even the operating capacities of the two. That the governments are determined in carrying out this procedure is brought out by the recent Great Lakes Paper Company case.

The provinces are determined that the form of a contract for the sale of newsprint cannot interfere with prorating of output. Ontario, according to Hon. Peter Heenan, Minister of Lands and Forests, is not concerned with where newsprint contracts are obtained nor with the form of them, but does insist that actual production be evenly divided.

"Under no circumstances will the present government endure repetition of the errors of the former regime, in the matter of overproduction of newsprint", Premier Duplessis⁸ has declared. The governments take this attitude to prevent ruination of "the industry itself, the employers and workmen since over-production generally does great harm to the province and country".

In the same article, Premier Duplessis said: "This government possessed the legitimate means of direct and

8. The Montreal Gazette, October 26, 1937.

effective action which it would put into application without fear or hesitation if need be. The industry, a national one, was too important to permit ruinous policies which would cause widespread harm and loss of revenue to the government".

Despite this shadow of government legislative hanging over the industry, Premier Duplessis in addressing members of the Canadian Pulp and Paper Association at a luncheon on January 28, 1937, said: "We should see to it not to antagonize the United States".

CHAPTER XII

THE THREAT OF SOUTHERN PINE

So much has been heard recently of the competition which newsprint made from slash or loblolly pine might offer the Canadian product, that the inclusion of such a discussion in this study seems well warranted.

Conflicting opinions have been expressed as to the extent to which newsprint made from Southern wood is likely to displace Canadian newsprint in the United States. Attempts have been made from time to time to find suitable materials, other than coniferous firs grown north of the fortieth parallel, to make newsprint. Experiments have been made with straw, corn-stalks, sugar cane, tropical and semi-tropical woods and other plant growths, but none has yet proved a commercial success.

Experimental work carried on at the laboratory of the Industrial Committee of Savannah, at Savannah, Georgia, guided by Dr. Charles Herty, appears to indicate that the undisputed position which Northern woods have held in the newsprint field may soon be seriously challenged. Dr. Herty has produced pulps at Savannah on a semi-commercial scale, and it has been definitely proven that both mechanical pulp and sulphite pulp can be made from Southern pine. The pulp is not too yellow for the production of newsprint and sulphite papers, and the wood is not too resinous. Thus pulps can be readily made into newsprint at normal paper speeds,

although the paper is of lower grade than that made from Canadian spruce.¹ A sample of newsprint made from Southern pine appears below.

Southern Pine Newsprint

This sheet of newsprint was made in the Pulp and Paper
Laboratory of the Industrial Committee
of Savannah, Inc.

and printed by the

SAVANNAH EVENING PRESS

It is sent you to illustrate the fact that either semi-bleached Sulphate or unbleached Sulphite may be used in the manufacture of pine newsprint.

The sheet of August 3rd, 1937, consisted of 20% semi-bleached SULPHATE pulp and 80% groundwood.

This sheet consists of:

20% unbleached SULPHITE pulp

80% groundwood

Several publishers in Georgia seemed to have no difficulty in using it to run off a regular edition and the

1. L.C. Anderson, "Manufacture of Newsprint from Southern Pine Under Commercial Operating Conditions" - Paper Trade Journal, March 1, 1934, p. 31.

printed sheets appear to be of good quality. With continued study and development, it seems probable that newsprint made from Southern pine will be of competitive quality to that from the northern product.

Up to the present the paper mills in the South have confined their activities almost entirely to the manufacture of kraft pulp and paper. The principal reason for this limitation seems to have been established from the idea that the various species of pines contained too much gum and resin to be manufactured into either sulphite or mechanical pulp and, further, that the fibre would not yield a uniformly white pulp without the expense of bleaching. Consequently, it was not economically suitable for a product such as newsprint. This idea was entirely sound on the assumption that no distinction was made between young and old trees, or between those containing only sapwood and those also having heartwood, this latter being comparatively dark in colour and commonly known to contain a high percentage of hard resin.²

Heartwood does not commence to form in Southern pines until the trees are about 20 years old. A preliminary experi-

2. A.A. MacDiarmid, "Southern Pine Newsprint Competition" Annual Meeting of the Canadian Pulp and Paper Association, Montreal, January 24-25, 1934.

ment showed that pulp made from young trees in their so-called sapwood stage was light in colour and easily bleached. Another rough preliminary experiment indicated that this wood readily adapted itself to the manufacture of groundwood.

The four most important species of pine trees native to the Southern States are known as slash, long-leaf, loblolly and short-leaf. The principal regions over which these grow include the States of North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and a portion of Texas.

The growing season in each year for trees in these areas is from nine to ten months, and owing to the favourable climatic conditions, the above varieties of pine rank among the most rapidly growing commercial trees in North America. Of these four, slash pine reproduces faster than any of the other species.

The Ontario Research Foundation in a special study of the work done by Dr. Herty of the Chemical Foundation comments as follows: "Samples of six-year old pine have been shown to be larger than 50-year old spruce from Nova Scotia, and 11-year old pine larger than 138-year old spruce from Maine.

In the case of a warm fall, a pine tree will often exhibit three distinct growths in one year."

It has been estimated that for a 500 ton newsprint mill, if the quantity of wood required is, say, 1 1/5 cords per ton, or a total of 180,000 cords a year, the area of timber land necessary to maintain a perpetual supply, if the minimum growth per acre per year is assumed, (Government records show growth per acre per year for slash pine varying from one cord on poor lands to 2 $\frac{1}{4}$ cords on so-called good lands), would be about 300 square miles as compared with about 2,000 square miles in Canada.³

There are enormous areas of timber in the Southern States available for pulp manufacture, were the industry in a position to use it. G.D. Cook, chief of the Private Forestry Division of the United States, commenting on this new activity in the South, states: "In the South as a whole some 140 million out of a total of 200 million acres of forest land is classified as pine land."⁴ Although much of this pine is undoubtedly old and contains heartwood, yet owing to the rapid growth there is a large potential supply of sapwood pine and vast areas on which it may be grown. Seven-year old sapwoods have given excellent results in the production of newsprint, lighter in weight but stronger than regular newsprint. Information gathered from various reliable sources indicates

3. Ibid.

4. "Pulp and Paper" The Toronto Saturday Night (Special Section, November 27, 1937).

that trees from 10 to 15 years old, grown on average lands and in reasonably open stands, are sufficiently large to provide suitable and economical wood for paper making.

Slash pine reseeds itself very rapidly. Reforestation in young pine is going forward at a tremendous rate in Georgia. Many miles of fire-strips are being cleared, and lookout towers erected which communicate by recently constructed⁵ telephone lines. Billions and billions of young pines are springing up under stimulating conditions. In Canada, on the other hand, conservation and reforestation are sadly lacking. In this country it is the custom to strip the land of all available timber, crushing down the younger growth and leaving brush pile which is a fire hazard and a menace to one of our greatest industries. In consequence, natural growth has not kept our supply of wood up-to-date, and destruction from fire and disease has taken its toll. Over the past ten years, for example, the forest loss in Canada has averaged more than four and one half million dollars per year.

There are numerous advantages to paper makers operating in the South. Northern mills do not feel safe without a year's supply of wood on hand. Interest on money thus tied up is one of the heavy operating costs. Southern kraft mills, however, customarily work with only four to ten days supply of wood on hand. The trees are easily accessible, men can

5. Charles H. Herty, "Southern Pine for White Paper" The Scientific American (New York: Munn & Company Inc., May 1934), p. 236.

work in the woods all year, and there are no difficult mountains over which the wood must be hauled. Working capital for entire pulpwood operations would thus tend to be much less than in the North.

Southern pine is much heavier than most competing woods, its specific gravity being 17 per cent greater than spruce. This means that a cord of pine will produce 17 per cent more groundwood, or 8 per cent more chemical pulp than is obtained from a cord of spruce.⁶ Since the paper maker purchases by volume (cord) and sells by weight, he thus receives an extra dividend by using pine. Reliable information indicates that under present conditions total cost of wood per ton of newsprint in a Southern mill would be \$3.00 to \$4.00 less than in the average of our lowest cost Canadian newsprint mills.⁷ Reforestation should enable such costs to remain comparatively constant. But in Canada cutting operations are being extended continually to more and more distant regions with corresponding increases in the expenses of getting out the logs and in transporting them down to the mill.

Labour is plentiful and wages are traditionally lower in the South, partly because of lower living costs, and partly because of the Southern workman's eagerness for steady employment. In time, as the Southern worker becomes more skilled wages may increase. This has happened in the textile

6. A.A. MacDiarmid, op. cit.

7. Ibid.

industry, but for the time being at least, Southern mills will have an advantage over their Northern competitors.

The sulphur requirements for Southern mills would ordinarily be filled from Texas and Louisiana fields, which are also the sources of supply for our Canadian industry. Consequently the cost of this commodity should be less owing to the much shorter transportation distances. Limestone is also found in various Southern localities and the price to mills would be about the same as in Canada.

There are no rivers in the coastal plain with any important hydro electric possibilities, nor are there any industrial centres from which a large quantity of electrical energy might be purchased. For that reason, the necessary motive power and steam for a Southern mill would probably be obtained from a steam turbine generating plant.

This method of developing the required motive energy would not, however, be a serious handicap. In fact, power generated in modern high efficiency steam plants is to-day successfully competing in different parts of the country with hydro electric energy, and with the prevailing price of oil and coal in the South, power can be generated from fuel at costs surprisingly low.

Steam-generated power, exclusive of interest charges, would cost about \$1.00 per ton of paper more than in a typical Canadian mill using purchased power, whereas steam would cost about \$1.00 per ton of paper less. Consequently,

8. Ibid.

9. Ibid.

the cost of power plus steam for a Southern mill would just about equal the cost of these products in the average Canadian plant.

The industry would probably be established in the eastern coastal region, and in this way advantage could be taken of shipping by water rather than by rail. Water rates on newsprint from the South to main centres, such as Washington, Philadelphia, New York and Boston, indicate a difference in transportation costs in favour of the Southern mills of about \$4.00 a ton over rail rates from mills in Ontario, Quebec and New Brunswick to similar delivery points.¹⁰

An estimate of the cost per ton of newsprint, based on a unit of 150 tons daily capacity, was published by Dr. Charles Herty in 1933 and appears below.¹¹ Considerable scepticism, however, has been voiced over the accuracy of these figures.

TABLE XXVI

COST PER TON OF NEWSPRINT MADE FROM SOUTHERN PINE

Wood (1.15 cords rough at \$4.00).....	\$4.60
Colour.....	0.06
Wrapper.....	0.30
Sulphur.....	0.60
Limestone.....	0.10
Clay.....	0.04
Alum.....	0.10
	\$ 5.80

10. Ibid

11. Macon Telegraph, November 20, 1933.

TABLE XXVI (Cont'd)

		\$ 5.80
Labour, including administration.....	\$ 5.08	
Pulpstones.....	0.20	
Felts.....	0.60	
Wires.....	0.25	
Belting.....	0.10	
Lubricants.....	0.08	
Steam.....	1.50	
Electric Power.....	4.00	
Finishing.....	0.50	
Liability Insurance.....	0.15	
Teaming.....	0.15	
Miscellaneous materials.....	0.15	
Repair materials.....	0.50	<u>\$13.26</u>
Total Conversion Cost.....		\$19.06
Capital Charges (based on a total investment of \$4,027,500)		
Interest @ 6%.....	5.37	
Sinking Fund @ 2%.....	1.79	
Depreciation @ 5%.....	4.48	
Taxes and Insurance.....	0.25	
Selling Expenses.....	0.75	<u>\$12.64</u>
Total Cost Per Ton.....		\$31.70

In the March, 1933, issue of Pulp and Paper Canada, Mr. John Stadler, a distinguished paper mill engineer, published an estimate on conversion costs of newsprint in Canada in 1933 amounting to \$27.90. This is in striking contrast with the foregoing estimate of \$19.06 in the South.

The Ontario Research Foundation states, in a recent report, that: "According to one of the leading paper engineers in the world, who has built some 40 plants during his career, the factory cost, including manufacturing, depreciation, overhead and taxes, will be under \$30.00 per ton. To this must be added profit and delivery cost."

12

It has also been stated that a basic price of \$45.00 per ton c.i.f. New York, (as against \$50.00 prevailing at present) will make Southern pine newsprint profitable. This price level would tend to encourage the construction of newsprint mills in the south unless the cost of construction or the cost of timber lands or leases increased considerably. It is difficult to predict though, just how soon production of newsprint in the Southern States will seriously affect Canadian exports of that commodity. So long as advertisers demand a high grade of newsprint, however, the market for the Canadian product in the United States will probably never be entirely destroyed. But the production in any quantity of newsprint in the United States cannot but have a serious adverse effect on the Canadian industry. It would, therefore, seem that Canadian capital should be cautious of fresh commitments in newsprint, and that timber cutting rights for new pulping and paper mills should be considered with care.

Of real significance is the proposed six million dollar newsprint mill at Lufkin, Texas, the construction of which will start early in 1939 and will be known as the Southland Paper Company. The company has already acquired 108,000 acres of timberland and purchased a half-interest in a 30-mile long railroad. To help finance this project

13

12. Paper Committee, American Newsprint Publishers Association, Paper Mills v.60 No. 17, (April 24, 1937).

13. Pulp and Paper Magazine of Canada (Gardenvale, Que: National Business Publications, Ltd. December 1938) p. 911.

the Reconstruction Finance Corporation has advanced \$3,425,000 to the Southland Paper Company. That might be only the beginning of what the United States Government could do to develop the newsprint industry in the South. Another paper mill project at Port St. Joe, Florida, is also in the course of development. It is estimated that about eight million dollars will be spent on this enterprise while between twelve millions and fifteen millions will be required for the town-site and mill development. It is further reported that the new interests have acquired title to more than 500,000 acres of land in Florida, most of which is located in the Port St. Joe area. This land is to be used to supply Southern pine pulpwood for the paper mill.

The probable effect on the industry of an additional hundred tons or so a day can only be a matter of conjecture, because the market situation is likely to change materially by the time the production of this new mill is available. No new mill has been much help to others in the business but the industry has assimilated new production in the course of time, though sometimes the congestion has caused a lot of discomfort. Industrial development in the "Sunny South" has been going on for a number of years and now there is a definite paper consciousness in that section of the United States. This new activity has been brought to the South primarily by the prospects of plentiful raw material, lower wages than exist in the north, and economical water routes

from mills to markets. It has come to a time when the industry generally is just beginning to pull out of a bad hole. There are still many problems to be overcome, but the problem that lies ahead can only be solved by a mill-scale attack. The Southern Newspaper Publishers Association has faith in the idea and has pledged to take the total output of the Lufkin plant. Obviously, however, the future cannot be foretold until newsprint from Southern pine becomes a commercial fact, its costs known and its place in the market developed. The least it can do for consumption is to serve as a threat to prevent a runaway market for newsprint, and if this were its only function it would perform a valuable service. The hopes of its promoters, however, are much beyond this. The vision is of a great paper industry in the South, providing for the United States a greater degree of self-sufficiency in this important item, and ultimately bringing into service the many millions of acres of forest land for the double purpose of conservation and utilization of its forest resources, and providing a stable industry to give permanent year-round employment to the workers of the region.

In a discussion of this sort, however, one must always bear in mind the exceptional advantage for pulp production in Canada, with such tremendous timber reserves, water transportation and power facilities, but it is just as necessary to maintain these as it is for any young flourish-

ing business to set aside a sinking fund for replacing obsolete equipment.

Apart from natural advantages, there are many other factors which would tend to maintain Canada's newsprint industry, in spite of competition from Southern pine. Where quality is of importance, Canadian spruce may have a distinct advantage. Southern pine has longer fibres and is much coarser than northern wood. The advantage which the South has in lower wood costs may be partially offset by the generally lower capitalization of Canadian mills, based on production units. This lower capitalization caused by reorganization of financial structures during depression years could not be duplicated under existing conditions, and tends towards a lower net pulp cost in many Canadian mills.

however, it is probably safe to predict that the Southern pine newsprint development may cause Canadian producers uncertainty and inconvenience. Canada can no longer afford to jeopardize one of her greatest industries and her position as the world's leading newsprint producer.

CHAPTER XIII

CONCLUSION -- NEWSPRINT'S FUTURE

In the body of this study the characteristics of the newsprint industry have been portrayed -- the present conditions set forth. But what does the future hold for this industry, the efficient operation of which is so important to the well-being of many Canadian communities? Despite progress made in the past six years the industry is still in a dilemma.

In the last eight years a large expansion has occurred in countries competing with Canada. The Scandinavian countries (Norway, Sweden and Finland) have increased their capacity about 400,000 tons. Two great consuming countries, the British Isles and France, have added over 600,000 tons in the same period. On the other hand, however, United States has decreased its capacity about 575,000 tons, Russia and Japan have also been building up their respective productive capacities. In Mexico, Australia and in the southern United States the construction of new mills is contemplated. As has been previously mentioned, the development in Australia may eventually supplant a goodly part of the Canadian exports to that market.

The chief danger to the Canadian output will come from Scandinavia and mills developed to manufacture newsprint from southern pine. Although this latter threat may not

have an immediate bearing on the Canadian industry it is definitely to be considered when taking a longer term point of view.

The outlook, from the standpoint of the Canadian exporter, cannot be termed optimistic. Although Norway is probably at its limit in production, Sweden and Finland can supply considerably more tonnage.

The Scandinavian group has forged ahead steadily in the world's export market and in late years has sold tonnage at \$7 under the Canadian price or, on the present basis, at \$43 per ton. Canadian exporters have lost most of the South American market and shipments to Japan are now negligible.

The market for newsprint in Europe is presently at extraordinarily low levels. The dictators have wrecked the publishing business east of the Rhine. As soon as the German press came under the tutelage of Herr Goebbels the circulation of all the best newspapers zoomed downward in a nasty curve. In the Orient, consumption has dropped due to the ambitions of the Japanese. There is little hope, in the near future at least, of the overseas market improving.

In the United States, Scandinavian competition is becoming increasingly acute, and in 1939 imports from that source might take much of the "cream" from Canadian operations.

In Scandinavian countries wage rates for pulp-wood

cutters are far lower than in this country and the total wood costs per cord are sometimes one-third of the Canadian equivalent. In addition the average hourly wage paid in the newsprint mills is less than half that paid in Canada. It is not hard to see then how Scandinavian producers are able to undersell Canadians and still make money. Then, too, the mills of the former group normally operate at a greater percentage of capacity than the Canadian industry, which tends to produce lower operating costs. If Canadian newsprint is to compete with the Scandinavian product, even allowing for the superior quality of the former, it can only do so if the differential is much less than \$7 per ton.

Although United States manufacturers have consistently given up their position to the Canadian exporter in their own country, this trend was reversed in 1938. There is nothing to lead one to believe that this same situation will not occur in 1939. It is only natural that American publishers would buy newsprint from United States producers before placing orders with Canadian mills. Thus in times of stress the Canadian producer suffers more than his competitor in the country to the south.

Probably the most important single threat to the Canadian industry is the manufacture of newsprint from southern pine. This has already been gone into fully in a preceding chapter and need only be mentioned here. Just as kraft paper from the above mentioned species was a content-

ious issue ten years ago, southern newsprint is to-day. However, the Canadian manufacturers do not seem to fear the competition of this product and have practically ignored the construction of newsprint mills in the southern United States. Granted, the product may not at first be of as fine a quality as Canadian newsprint, but the fact remains, that southern publishers have contracted to take the output, and by this amount (approximately 150,000 tons) the Canadian industry will suffer. The difference in quality will not be so great that it will have much adverse effect upon their advertising volume of circulation, especially when all southern publishers will be using the same paper.

It is the opinion of many that consumption of newsprint in the United States has become stabilized at around 56 pounds per capita per year, and that consumption will increase only with the increase in population. Hence Canada has little hope of being able to use her idle newsprint capacity.

The inroads of radio have made the use of newspaper advertising less attractive. Until some 15 years ago the newspaper had almost no competition. It was practically alone in the field. With the arrival of the radio, the high speed weekly magazine and picture publications all this changed. To-day, the daily newspaper is forced with a serious decline in advertising lineage and revenue. The seriousness of this situation is evident from the fact that while general business in 1937 had recovered to within 8 per cent of the 1929 level, newspaper advertising lineage was

only 74 per cent of the pre-depression figure. In 1929 radio obtained approximately 3 per cent of the American advertiser's dollar whilst in 1937 it obtained 13 per cent. Over this same period the share spent on newspaper advertising declined from 69 per cent to 60 per cent. Magazines' share remained almost stationary. Radio's gain was thus almost entirely at the expense of the newspapers, and represented for the latter, a loss of no less than \$87,000,000 in advertising revenues on the basis of the 1929 percentage division of expenditures.

There are other reasons also why the outlook for the newsprint industry does not appear to be any too bright at the present time.

Proration of mill operations throughout the industry as a whole appears to put a premium on inefficiency. Does it not seem odd that efficient mills must buy tonnage from weaker units in order that all mills might operate at the same rate? True, numerous communities would suffer if certain mills were unable to operate, but should the industry as a whole suffer because zealous promoters and bankers desired to float new securities which led to a general over-expansion of the industry? In the economy in which we live, should not only the fittest survive and where capital is not profitably productive should it not be shifted to other used? There would, of course, be temporary unemployment but the population would soon move to a section where their services could be used more profitably.

Efforts of the industry to rehabilitate itself are

handicapped by government policies which compel part-time operation of all mills. On a 60 per cent of capacity operation in effect five units are kept going to do the work that could be done by three. Does this not appear economically unsound? Profits in many cases could be doubled by concentration in full time operations in the most efficient units. Government policies of this nature slow down the recovery of an industry which, if it were stronger financially, could probably add much to its already large contribution to Canadian prosperity. Proration is no remedy for overcapitalization, high costs, ill-located plants, inefficient management or obsolete plants wherever one or the other occurs. The efficient and well-located units in the Canadian industry should not require aid if it is allowed to function freely. How can one expect capital to be invested, if it is a certainty that the Government will limit production or that it may penalize efficiency at any time by multiplying stumpage rates or withdrawing limits.

I do not wish to infer, however, that the provinces should have nothing whatever to do with the industry. They have responsibilities. They should and do regulate the hours of work and wages of the workers; limit the size of tree that can be cut; impose a stumpage fee and ground rent for the use of timber limits.

By far the most important policy they can adopt is to see that no more mills are built until existing mills can develop to such a position that they are able to protect

their present investment.

Another aspect of the industry which does not make the future look hopeful is the \$2 differential between the Canadian and the United States producers' price. This has all been explained quite fully and it will suffice merely to refresh the reader's memory on this subject. The publishers can see only ill-will in such action, and are placing as much tonnage as possible with companies who are not conforming with the price set by the Newsprint Association of Canada -- mainly United States and Scandinavian producers. Surely there must be some way of creating better feelings between the Canadian manufacturers and the publishers in the United States. Should it not be possible to establish better relations between business men with the backgrounds which these two groups undoubtedly possess; where no racial differences exist; where no radical social barriers have to be broken down, and when each is dependent upon the other for a livelihood?

Hard-headedness has been all too prominent in the past. In the troubled world in which we live, with ever-mounting trade walls hampering export markets and trends towards self-sufficiency and totalitarianism so prevalent, how can progress be made in any industry, let alone newsprint upon which sections of Canada are so dependent, if so much ill-will exists between producer and consumer.

In the case of newsprint there are really no international issues - no tariff restrictions in the United

States on Canada's leading manufactured export. It is merely a situation where both the seller and the buyer wish to snap the whip on the other's tottering frame. It is my firm belief that this situation could be corrected.

The time to counter this condition is now. The manufacturers, through the Newsprint Association of Canada, should make the first move. They have a product to sell, a buyer to find. A representative of the manufacturers should call on the various publishers, place his cards upon the table and have a straightforward and honest discussion of the problems that exist to-day. Diplomacy must be used at all times. Constant study of the customer's requirements and point of view should be maintained. This would take time but results would come.

Another way in which the Canadian newsprint might keep its position in the world markets would be to produce a superior product at a lower cost. In this field the industry could do worse than follow the lead of Price Brothers in producing what they call Vacuum Dried Newsprint, a sample of which appears on the following page. In order to describe this paper it might be well to quote two short paragraphs from a recent publication of Price Brothers, Ltd.

"Brightness without glare, opacity without stiffness, absorbency with ink economy, surface softness without tearing strength, deeper tones, clearer contrasts true colour--

"The price differential of Vacuum Dried above open-drier newsprint is trifling; the differential below a correspondingly satisfactory sheet is substantial."



It is such a product that the Canadian industry should produce in order to keep its place in world markets and to stimulate consumption of newsprint. When tremendous growth in the use of colour, rotogravure and photographs in the United States papers (the latter's increase was 16 per cent in 1938 over 1937) is considered, the importance of manufacturing a higher grade of newsprint can be estimated.

The advertising dollar goes where it will receive the greatest return in its appeal to the prospective purchaser, and appeal to-day means vividness, beauty, colour. The sombre black and white of the daily newspaper has no longer the appeal of the radio. Only by introducing colour into the regular editions of the newspapers will advertising increase and with it newsprint consumption.

Now let us turn to Canada's pulpwood resources. The supply of pulpwood in the Dominion is sufficient to last more than a century at the present rate of cutting. But this wood is spread right across the country and a goodly proportion is economically inaccessible.

While the existing mills do not face any immediate shortage of wood, still the time is not far distant when serious consideration must be given to future supplies. Every day the Canadian mills reap some four or five square miles of our spruce land, and fire burns up another two square miles. As the cutting goes on, the woods operations draw farther away from the mill and the cost of transportation and other factors make for more expensive wood, all of which

tend to increase the cost of production of newsprint.

The increasing remoteness of supplies for industry and the local shortages of wood for domestic use that now exist require the institution of remedial measures. According to the Dominion Forest Service, these measures are of three kinds:

- (1) Reduction of losses from fire and pests through improved forest production and salvage of damaged material;
- (2) Increase of the rate of growth on the most accessible forest lands by application of the principles of silviculture;
- (3) Development of means of transportation which will facilitate the tapping of areas now inaccessible to the industry.

Thus the long-term outlook for newsprint can not, in my opinion, be termed optimistic, although several events might take place in a shorter space of time which would greatly alter the situation.

Higher demand can come only as a result of a business advance in the United States. At the present time, industry lacks the confidence needed for new investment, and until the political tension in Europe eases, this condition is unlikely to change. If war were to come, the greater part of the Scandinavian exports to the United States would be cut off. Canada would naturally benefit from such a situation.

A P P E N D I X

TABLE XXVII *

IMPORTS OF EUROPEAN NEWSPRINT INTO THE UNITED STATES
January 1, 1920 - December 31, 1938
(tons)

Year	Sweden	Germany	Finland	Norway	Other	Total
1920	18,875	21,066	3,244	5,916	1,337	50,438
1921	43,932	38,938	22,661	20,193	4,613	135,337
1922	51,812	32,838	26,205	17,292	4,741	132,888
1923	64,570	52,290	41,782	33,829	7,798	200,269
1924	60,827	38,840	35,639	17,259	3,238	155,803
1925	65,518	25,862	21,683	17,030	2,421	132,514
1926	46,020	12,884	34,292	6,176	554	99,926
1927	66,920	7,096	29,330	16,796	1,919	122,061
1928	55,718	9,170	40,237	10,864	418	116,407
1929	50,717	9,741	32,293	3,498	124	96,373
1930	69,268	13,788	41,913	9,326	---	134,295
1931	66,688	21,910	47,992	14,444	35	151,069
1932	61,079	14,323	46,663	22,692	194	144,921
1933	68,062	12,058	56,577	16,591	15	153,303
1934	68,090	5,740	56,813	16,417	---	147,060
1935	93,428	7,156	73,928	22,571	2	197,085
1936	87,488	9,772	122,972	22,110	10	242,352
1937	101,631	13,023	154,646	24,653	---	293,853
1938	71,553	9,556	151,134	10,822	---	243,065
Total 19yrs	1,217,196	356,051	1,039,974	308,479	27,419	2,949,119
Per cent	41.3	12.1	35.3	10.4	0.9	100.0

* News Print Service Bureau, New York.

TABLE XXVIII*

NEWSPRINT AVAILABLE FOR CONSUMPTION IN THE UNITED STATES
1913-1938
(ooo tons)

Year	Thousand tons	Year	Thousand tons
1913	1,482	1926	3,517
1914	1,576	1927	3,458
1915	1,552	1928	3,564
1916	1,707	1929	3,794
1917	1,824	1930	3,551
1918	1,759	1931	3,214
1919	1,892	1932	2,793
1920	2,193	1933	2,728
1921	2,000	1934	3,148
1922	2,451	1935	3,272
1923	2,778	1936	3,658
1924	2,821	1937	4,246
1925	2,955	1938	3,088

*Computed from reports published by The News
Print Service Bureau, New York.

"Available for consumption" represents product-
ion plus imports, less exports. Changes in mill stocks
which are usually minor are not considered.

TABLE XXIX *

APPROXIMATE MONTHLY CONSUMPTION OF NEWSPRINT IN THE UNITED STATES
(ooo tons)

Months	1929	1932	1933	1934	1935	1936	1937	1938
Jan.	298.9	255.7	215.3	238.1	268.2	275.0	312.7	290.2
Feb.	279.8	241.3	196.4	226.8	251.9	269.5	297.1	263.7
Mar.	327.7	266.7	211.2	268.4	294.8	319.7	342.2	300.2
Apr.	312.1	252.3	244.4	273.8	283.6	313.3	340.8	296.6
May	322.9	253.4	226.4	271.9	286.1	322.6	346.2	295.9
June	313.7	231.7	219.6	258.9	273.3	300.9	320.4	267.8
July	267.3	207.6	208.1	235.9	242.9	268.9	284.2	253.6
Aug.	275.0	204.3	210.5	238.9	246.9	279.6	287.5	250.9
Sept.	321.0	221.2	231.1	261.6	278.8	305.1	317.1	282.7
Oct.	336.7	243.4	254.9	282.4	303.4	343.1	352.2	318.9
Nov.	315.3	231.5	245.7	272.9	299.6	359.5	307.5	301.7
Dec.	316.4	223.3	249.0	277.6	315.3	334.8	316.9	300.1

* Computed from reports of the American Newspaper Publishers' Association covering a group of 430 newspapers which consumes approximately 80 per cent of the total. Figures above are those published by A.N.P.A. extended to 100 per cent.

TABLE XXX*

CIRCULATION OF ENGLISH DAILIES IN THE UNITED STATES
1929-1938
(ooo omitted)

Year	Morning	Evening	Total Daily	Sunday	Total
1928	13,3	22,7	36,0	24,4	60,4
1929	14,449	24,976	39,425	26,880	66,305
1930	14,434	25,155	39,589	26,413	66,002
1931	14,343	24,418	38,761	25,702	64,463
1932	13,711	22,696	36,407	24,590	61,297
1933	13,207	21,969	35,176	24,041	59,217
1934	13,944	22,765	36,709	26,545	63,254
1935	14,434	23,721	38,155	28,147	66,302
1936	15,326	24,966	40,292	29,962	70,254
1937	15,877	25,542	41,419	30,957	72,376
1938	15,108	24,464	39,572	30,481	70,053

* Computed from figures published in the Editor & Publisher, New York.

TABLE XXXI *

NEWSPRINT STOCKS OF UNITED STATES PUBLISHERS AT END OF EACH
MONTH, 1933-1938
(tons)

Month	1933	1934	1935	1936	1937	1938
January	239,465	305,009	374,785	342,035	382,855	699,856
February	231,316	290,918	342,894	324,005	372,528	629,506
March	217,151	296,870	303,289	304,703	379,943	548,646
April	208,491	307,488	295,840	297,146	397,709	510,806
May	202,200	327,880	301,483	296,288	410,540	472,271
June	199,208	337,671	302,885	292,893	436,434	437,158
July	228,005	352,579	315,514	312,288	496,414	429,548
August	251,843	373,550	322,794	328,068	544,799	437,580
September	264,845	357,420	322,094	341,356	601,534	419,841
October	268,568	338,324	319,251	348,561	635,145	419,854
November	282,338	349,830	329,600	338,739	693,753	419,785
December	296,754	404,316	368,118	381,731	766,758	393,784

* Computed from reports of the American Newspaper Publishers' Association, New York. These reports cover about 430 publishers, estimated by the A.N.P.A., to constitute 80 per cent of total. The figures above have been extended to 100 per cent on this assumption.

TABLE XXXII*

UNITED STATES PUBLISHERS STOCKS IN TERMS OF DAYS SUPPLY
1933-1938

Month	1933	1934	1935	1936	1937	1938
January	34	40	43	39	38	75
February	33	36	38	35	35	67
March	32	34	32	30	34	57
April	28	34	31	28	35	52
May	28	37	33	28	37	50
June	27	39	33	28	41	49
July	34	46	40	36	54	52
August	37	48	41	36	59	54
September	34	41	35	34	57	45
October	33	37	33	31	56	41
November	34	38	33	30	68	42
December	37	45	36	35	75	41

* American Newspaper Publishers' Association,
New York.

TABLE XXXIII *

NEWSPRINT STOCKS OF NORTH AMERICAN MANUFACTURERS AT END OF
EACH MONTH 1933-1938
(tons)

Month	1933	1934	1935	1936	1937	1938
January	223,588	188,073	199,893	244,513	189,502	185,181
February	229,494	211,395	225,894	250,863	246,786	232,220
March	222,719	220,466	246,842	253,722	267,830	285,004
April	210,092	217,105	264,100	262,704	252,134	279,325
May	238,098	232,388	280,601	246,603	275,458	294,949
June	223,234	244,472	279,729	277,069	278,400	287,443
July	218,392	255,398	292,771	280,827	299,172	272,580
August	216,709	265,928	311,053	282,141	299,525	281,809
September	205,967	266,158	300,515	273,162	313,795	271,892
October	198,253	260,766	286,800	246,538	285,545	268,910
November	191,656	234,720	262,088	226,181	208,128	245,415
December	173,516	166,360	194,770	143,456	110,626	226,764

* News Print Service Bureau, New York.

TABLE XXXIV *

ANNUAL PRODUCTION OF NEWSPRINT IN UNITED STATES AND CANADA
1913-1918 WITH PERCENTAGE OF TOTAL PRODUCED BY EACH COUNTRY

Year	United States		Canada		Aggregate
	Tons	Per cent of total	Tons	Per cent of total	Tons
1913	1,305,000	79%	350,000	21%	1,655,000
1914	1,313,000	76%	415,000	24%	1,728,000
1915	1,239,000	72%	489,000	28%	1,728,000
1916	1,315,000	68%	608,000	32%	1,923,000
1917	1,359,000	66%	686,000	34%	2,045,000
1918	1,260,000	63%	735,000	37%	1,995,000
1919	1,375,000	63%	803,000	37%	2,178,000
1920	1,512,000	63%	876,000	37%	2,388,000
1921	1,225,000	60%	808,000	40%	2,033,000
1922	1,448,000	57%	1,082,000	43%	2,530,000
1923	1,485,000	54%	1,266,000	46%	2,751,000
1924	1,481,000	52%	1,353,000	48%	2,834,000
1925	1,530,000	50%	1,522,000	50%	3,052,000
1926	1,684,000	47%	1,882,000	53%	3,566,000
1927	1,486,000	42%	2,087,000	58%	3,573,000
1928	1,418,000	37%	2,381,000	63%	3,799,000
1929	1,392,000	34%	2,729,000	66%	4,121,000
1930	1,282,000	34%	2,504,000	66%	3,786,000
1931	1,157,000	34%	2,221,000	66%	3,378,000
1932	1,009,000	35%	1,914,000	65%	2,923,000
1933	946,000	32%	2,017,000	68%	2,963,000
1934	961,000	27%	2,599,000	73%	3,560,000
1935	912,000	25%	2,753,000	75%	3,665,000
1936	921,000	22%	3,191,000	78%	4,112,000
1937	946,000	21%	3,645,000	79%	4,585,000
1938	820,000	24%	2,625,000	76%	3,445,000

*Computed from reports published by The News Print
Service Bureau, New York.

TABLE XXXV *

MONTHLY PRODUCTION OF NEWSPRINT IN CANADA, 1929, 1932,
1936-1938

Month	1929	1932	1936	1937	1938
January	214,443	171,327	288,350	289,634	222,500
February	187,429	158,543	222,330	276,419	202,601
March	217,021	166,761	245,699	302,268	224,604
April	221,672	176,669	260,453	296,624	200,794
May	245,854	175,894	270,273	310,650	207,678
June	224,903	161,394	272,735	312,165	201,694
July	229,021	142,491	275,183	316,194	202,564
August	225,873	157,925	272,851	319,876	220,303
September	227,665	150,693	272,830	312,220	231,940
October	249,701	157,518	304,604	315,477	254,872
November	252,046	161,334	289,031	302,878	245,295
December	233,199	138,682	294,677	293,395	209,753

* Computed from monthly reports of the Newsprint Association of Canada.

TABLE XXXVI *

WORLD PRODUCTION OF NEWSPRINT 1933-37
(Thousand Short Tons)

Country	1937	1936	1935	1934	1933
Canada	3,645	3,190	2,753	2,599	2,017
Great Britain	1,033	1,004	970	940	830
United States	946	921	912	957	946
Germany	521	525	464	446	412
Finland	459	402	329	316	285
France	424	331	358	353	335
Japan	413	384	368	344	304
Newfoundland	353	328	336	316	271
Sweden	303	282	298	272	266
Norway	212	200	182	155	167
Russia	192	217	193	190	135 ?
Netherlands	97	91	92	92	87
Italy	66	69	76	68	72
Austria	62	57	50	50	50
Belgium	57	53	48	51	39
Czechoslovakia	54	46	41	37	38
Switzerland	50	44	45	39	45 ?
Poland	44	32	34	32	23
Spain	18 ?	18 ?	42	42	65 ?
Latvia	8	7	6	5	5
Estonia	7	7	4	6	6
Hungary	4	-	-	-	-
Chile	2	7	6	6	-
Bulgaria	1	-	-	-	-
Mexico	-	-	20	20	16
Denmark	-	-	1	6	7
	8,971	8,215	7,628	7,342	6,421

*News Print Service Bureau, New York.

TABLE XXXVI* (CONTD)

WORLD PRODUCTION OF NEWSPRINT 1928-1932
(Thousand Short Tons)

Country	1932	1931	1930	1929	1928	10 yr Average
Canada	1,914	2,221	2,504	2,729	2,381	2,595
Great Britain	790	719	608	637	646	818
United States	1,009	1,157	1,282	1,392	1,418	1,094
Germany	450	540	590	623	600	517
Finland	254	241	223	217	214	294
France	275	243	240	210	136	291
Japan	272	258	285	286	267	318
Newfoundland	272	295	287	256	231	295
Sweden	257	265	240	275	234	269
Norway	200	104	202	189	198	181
Russia	125 ?	100 ?	90 ?	48 ?	7 ?	130 ?
Netherlands	85	79	84	77	76	86
Italy	74	69	69	52	45	66
Austria	53	62	64	62	57	57
Belgium	40	44	50	57	50	49
Czechoslovakia	40	42	44	47	45	43
Switzerland	45	49	47	48	40	45
Poland	23	27	27	23	20	29
Spain	65	62	32	30	26	40
Latvia	5	3	4	4	3	5
Estonia	6	17	29	27	20	13
Hungary	-	-	-	-	-	-
Chile	-	-	-	-	-	2
Bulgaria	-	-	-	-	-	-
Mexico	13	15	14	19	17	13
Denmark	9	10	10	11	11	7
	6,276	6,622	7,025	7,319	6,744	7,257

* News Print Service Bureau, New York.

TABLE XXXVII^{*}

CANADIAN NEWSPRINT EXPORTS BY COUNTRIES, 1929, 1932,
1937 and 1938
(tons)

Country	1929	1932	1937	1938
United States	2,173,087	1,520,293	2,899,022	1,938,297
United Kingdom	178,416	82,218	147,997	172,097
Australia	63,135	39,293	118,015	178,120
New Zealand	23,051	12,412	26,377	35,027
Argentina	44,223	47,684	76,234	30,688
Br. South Africa	14,452	9,922	28,546	20,587
Irish Free State	1,525	6,224	15,733	18,950
Cuba	8,212	5,570	18,085	7,917
Japan	-----	27,354	34,007	1,769
China	946	13,494	15,568	281
Nest Indies	972	1,291	5,435	4,877
Philippines	-----	328	5,138	2,456
Venezuela	-----	451	3,729	1,749
Uruguay	3,078	705	4,748	1,331
Chile	-----	2,085	9,086	1,053
Brazil	-----	-----	7,332	23
Peru	-----	2,803	4,126	434
Other South America	1,707	982	2,941	211
East Indies	-----	-----	2,262	1,675
Br. India & Burma	-----	-----	5,710	1,212
Mexico	-----	-----	19,285	94
Central America	-----	239	1,368	866
All others	2,691	3,416	4,496	4,940
Total	2,515,495	1,776,764	3,455,240	2,424,654

* Computed from Trade of Canada (Ottawa: The King's Printer).

TABLE XXXVIII

NUMBER OF MACHINES IN CANADA, SIZE, APPROXIMATE CAPACITY AND DATE INSTALLED

Name of Company	No. of Machines	Size	Daily Ton Capacity	Daily Ton Total	Date Installed
<u>ABITIBI POWER & PAPER COMPANY</u>					
Sault Ste. Marie	1	154"	54		1910
	1	154"	54		1910
	1	196"	72		1912
	1	184"	70	250	1912
Sturgeon Falls (Shut-down)	2	120"	75		1901
	1	152"	75	150	1920
Espanola (Shut-down)	2	118"	80		1913
	2	164"	120		1911
	2	162"	135	335	1919
Manitoba Paper (Pine Falls)	2	226"	250	250	1927
Ste. Anne Paper (Beaupre)	2	234"	275	275	1927
Thunder Bay Paper (Port Arthur)	1	234"	140	250	1927
	1	246"	145		1928
Iroquois Falls	1	202"	91		1915
	1	186"	84		1915
	2	158"	138		1915
	2	232"	77		1921
	1	158"	210	600	1921
Fort William Paper	2	194"	170	170	1922
				2280	

TABLE XXXVIII (Cont'd - 2)

Name of Company	No. of Machines	Size	Daily Ton Capacity	Daily Ton Total	Date Installed
<u>ANGLO-CANADIAN PULP AND PAPER</u>					
Limolou	4	234"	125	500	1927
<u>BATHURST POWER AND PAPER</u>					
Bathurst, N.B.	1	160"	70		1923
	1	160"	70	140	1928
<u>BEAVER WOOD FIBRE CO.</u>					
	1	166"	70	77	1925
<u>J. R. BOOTH & CO.</u>					
Hull, Quebec	1	124 ¹ / ₂ "	53		--
	2	142"	121	158	--
<u>CANADIAN INTERNATIONAL PAPER</u>					
Gatineau	4	262"	150		1927
	1	123"	80	683	
Three Rivers	4	152"	85		1926
	4	152"	85	735	1927
Dalhousie, N.B.	2	216"	275		1929
	2	216"	275	550	1930
				1817	

TABLE XXXVIII (Cont'd - 3)

Name of Company	No. of Machines	Size	Daily Ton Capacity	Daily Ton Total	Date Installed
<u>CONSOLIDATED PAPER CORP.</u>					
Belgo Canadian, Que.	2	127"	110		--
	1	152"	22		1904
	1	202"	87		1908
	1	230"	100		1923
	1	230"	65		1924
	2	232"	240	642	1927
St. Maurice Valley	2	166"	140		1917
	2	166"	140	280	1924
Laurentide	1	80"	34		1898
	1	90"	39		--
	1	102"	44		--
	1	111"	47		--
	2	115"	98		--
	2	166"	?		1920
	1	111"	--	389	--
Port Alfred	1	234"	125		1927
	3	234"	125	500	1926
Wayagamack	2	-	200	200	1924
				1944	

TABLE XXXVIII (Cont'd - 4)

Name of Company	No. of Machines	Size	Daily Ton Capacity	Daily Ton Total	Date Installed
<u>DONNACONA PAPER CO.</u>					
Donnacona	2	160"	137		1923
	1	234"	100	240	1924
<u>DONOHUE BROS.</u>					
Murray Bay	2	153"	120	120	1927
<u>E. B. EDDY & CO.</u>					
Hull	1	234"	--		1925
	1	120"	--		1907
	3	100"	--	127	1901
<u>FORT FRANCIS POWER & PAPER</u>					
Fort William	2	186"	160		1914
	1	226"	150	283	1926
<u>GREAT LAKES PAPER</u>					
Fort William	1	264"	125		1928
	1	304"	150	314	1929

TABLE XXXVIII (Cont'd-5)

Name of Company	No. of Machines	Size	Daily Ton Capacity	Daily Ton Total	Date Installed
<u>KENORA PAPER MILLS</u>					
Kenora	1	234"	125		1924
	1	234"	125	252	1926
<u>MERSEY PAPER COMPANY</u>					
Liverpool, N.S.	2	226"	250	275	1930
<u>JAMES MACLAREN CO.</u>					
Masson, P.Q.	1	234"	120		1931
	1	234"	120	240	1931
<u>NEWS PULP AND PAPER</u>					
St. Raymond, Que.	1	118"	37	37	1910
<u>ONTARIO PAPER CO.</u>					
Thorold, Ont.	2	202"	172		1913
	1	162"	69		1917
	1	162"	69		1919
	1	164"	70	273	1921
Baie Comeau, Que.	2		230		1938

TABLE XXXVIII (Cont'd - 6)

Name of Company	No. of Machines	Size	Daily Ton Capacity	Daily Ton Total	Date Installed
<u>PACIFIC MILLS LTD.</u>					
Ocean Falls, B. C.	2	204"	175		1918
	1	174"	75	256	1917
<u>POWELL RIVER CO.</u>					
Powell River, B.C.	1	150"	64		--
	1	156"	67		--
	2	186"	160		--
	2	232"	200		1926
	1	226"	120	650	1930
<u>PRICE BROS. & CO.</u>					
Kenogami	3	146"	150		1912
	1	146"	50		1917
	1	146"	50		1920
	2	219"	200	535	1924
Riverbend	1	234"	120		1925
	1	234"	120		1926
	2	234"	240	480	1929
Jonquiere	1	110"	94	35	1902
				1020	

TABLE XXXVIII (Cont'd - 7)

Name of Company	No. of Machines	Size	Daily Ton Capacity	Daily Ton Total	Date Installed
<u>ST. LAWRENCE CORP.</u>					
St. Lawrence Paper	2	160"	80		1922
	2	160"	80		1926
	2	160"	80	460	1928
Brompton	1	150"	110		1926
	1	150"	120	239	--
<u>LAKE ST. JOHN POWER & PAPER CO.</u>					
Dolbeau	2	245"	275	275	1926
<u>SPRUCE FALLS POWER & PAPER</u>					
Kapuskasing	4	234"	137	480	1928

TABLE XXXIX *

CANADIAN INDEX NUMBERS OF WHOLESALE PRICES OF
ALL COMMODITIES AND OF NEWSPRINT, 1913-1938
(1926=100)

Year	All Commodities	Newsprint
1913	64.0	56.9
14	65.5	58.5
15	70.4	57.9
16	84.3	59.2
17	114.3	76.4
18	127.4	90.2
19	134.0	104.8
20	155.9	151.9
21	110.0	155.1
22	97.3	108.1
23	98.0	113.9
24	99.4	111.5
25	102.6	106.3
26	100.0	100.0
27	97.7	100.0
28	96.4	97.7
29	95.6	84.9
30	86.6	84.9
31	72.1	77.2
32	66.7	66.8
33	67.1	52.6
34	71.6	51.1
35	72.1	51.1
36	74.6	52.6
37	84.6	58.1
38	78.6	68.0 (a)

* Dominion Bureau of Statistics, Prices and Price Indices, (Ottawa: The King's Printer).
(a) Preliminary

TABLE XXXX *

ADVERTISING VOLUME IN THE UNITED STATES, BY MONTHS, 1929-1938
(000 Agate lines - 52 Cities)

Months	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
January	144.3	134.6	115.5	100.0	78.0	82.5	88.1	94.8	99.6	90.6
February	138.8	128.2	112.8	97.6	72.5	80.8	85.4	91.3	103.1	88.5
March	171.7	152.4	138.5	109.8	76.4	103.6	110.1	116.4	126.1	108.9
April	165.9	158.2	136.4	108.7	91.1	107.5	112.8	121.9	131.1	109.9
May	175.6	157.6	138.2	106.0	94.6	112.1	115.9	127.2	130.8	109.9
June	157.5	139.2	123.9	100.2	93.2	103.6	102.2	117.0	121.8	98.5
July	135.0	116.8	108.6	80.9	78.3	83.2	87.4	98.5	99.2	83.7
August	139.6	113.8	106.0	78.8	86.3	87.7	90.0	99.2	103.7	86.1
September	161.6	135.1	114.9	93.0	92.6	96.4	101.3	114.4	117.3	103.9
October	182.5	151.9	130.9	103.3	106.0	108.8	117.4	136.6	135.0	113.6
November	167.0	136.6	122.1	95.0	99.8	107.0	117.7	132.0	119.8	113.5
December	157.7	129.8	117.0	91.5	96.7	105.7	118.7	130.8	122.3	118.1

* U.S. Media Records.

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