

THE ROLE OF STAPLE PROCESSING  
AS A  
FACTOR IN THE REGIONAL ECONOMIC GROWTH  
OF THE PRAIRIE PROVINCES

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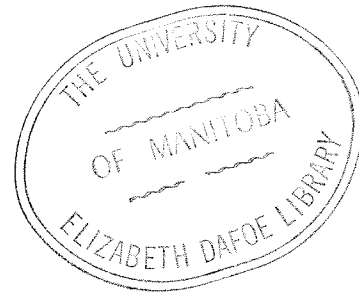
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## ABSTRACT

### THE ROLE OF STAPLE PROCESSING AS A FACTOR IN THE REGIONAL ECONOMIC GROWTH OF THE PRAIRIE PROVINCES

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The exploitation of Canada's vast national resources has long been recognized as a major contributing factor to the economic growth and development of the nation. However, these resources are not spread evenly over the length and breadth of the country, nor do they all require the same effort or amount of activity to convert them into a saleable staple product that can be transported and marketed either in Canada or throughout the world. This study is an examination of the role of staple exploitation in the Prairie Provinces of Canada, and particularly the economic benefits to that region of processing or manufacturing the raw staples locally before they are exported.

The study falls roughly into two broad sections. The first section, consisting of the Introduction and Chapter I and II, contains an examination of the historical importance of the staple wheat in the development of the Prairie Region and compares this with the effects of the exploitation of other more extensively processed resource staples, such as pulp and paper and metallic minerals, on the economy of Central Canada. The second section, consisting of Chapters III and IV, contains an examination of the consequences on the Prairie Region of developing more highly processed agricultural staple products for export. By means of a detailed survey of the specific effects of the raising of livestock and expanding the meat processing industry in Manitoba, some conclusions are drawn about the economic consequences

of the processing of this staple product on the entire Prairie Region.

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## INTRODUCTION

The Regions of Canada

Canada traditionally has been thought of as being comprised of a number of regions which can be differentiated from various points of view such as geography, topography, climate and culture. The number of regions and their boundaries tend to vary depending upon the purpose for which the regions are being delineated and the discipline and experience of the individual making the definition. Within the context of a single discipline, such as economics, the definition of regions in Canada can and does vary from the concept of the nation as a single region to each province or sub-division of a province as a region. From the foregoing it is obvious that, while being based on some clearly defined physical or cultural criteria, the regions of Canada can be defined in different ways depending upon the use which is to be made of the particular regional concept.

In the present analysis we are concerned with economic growth and development based primarily upon the massive exploitation of a relatively few staple raw materials and their exportation, in a more or less refined state, to export markets beyond the national boundaries of the country. It follows then that the division of Canada which is most useful is that which distinguishes regions by the homogeneity of their productive resources. If the productive resources of two adjacent provinces are similar or are such that they have a comparative advantage in the same type of goods, they should be included in the same region. With this as a criterion the country has been divided into five regions.<sup>1</sup> Starting from the east, the first region is comprised of the Maritime

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<sup>1</sup> For a full discussion of the regional breakdown of Canada in this context see Caves and Molton (19, pp. 144-147).



Provinces and Newfoundland (since it came into the Canadian union in 1949) and will be known as the Atlantic Provinces. The second region is designated as Central Canada and consists of the provinces of Quebec and Ontario. The third area, comprised of the provinces of Manitoba, Saskatchewan and Alberta, shall be known as the Prairie Region. The province of British Columbia will comprise a single area which shall be termed the Pacific Region. Finally, the northern area of the Yukon and the Northwest Territories will comprise the fifth or Northern Region.

While it is recognized that within the context of the purposes for which the five regions have been defined here, a case can be made for not having the provincial boundaries delineate the regional boundaries, nevertheless, provincial boundaries have been used. In part this was done because of the difficulty of defining boundaries other than provincial borders which are consistently meaningful from the point of view of economic development. In part the political boundaries are meaningful to a significant degree because of the influence of politics on the course of economic growth. Caves and Holton pointed this out in their study of the Canadian economy, when they noted that the sharpest boundaries are generally those between nations, so it is appropriate to give primary attention to questions raised by national policies and international boundaries. Many of the aspects of international boundaries, however, apply to boundaries between provinces, federal states, or even smaller administrative units such as municipalities. Their difference in significance is largely a matter of degree. (39, p. 216).

Although all five regions have and will continue to contribute

in varying degree to the economic growth of the nation, this analysis is particularly concerned with the contribution, development and inter-relationships of Central Canada and the Prairie Region. For this reason the factors underlying the choice of these two areas as regions will be elaborated. The Prairie Provinces are a well defined region geographically with the Pre-Cambrian Shield on the east and north; the Rocky Mountains on the west and the international border on the south. The entire area was opened for settlement and exploitation in a relatively short period of time following the completion of the Canadian Pacific Railway in 1885. The relatively homogeneous physical and climatic character of the region allowed for the early and continuous concentration on the raising of wheat for export. This in turn has meant that the economy of the region to a considerable degree has been dependent on demand for this major staple in distant urban export markets. It must be noted, however, that there are differences in the economic characteristics of the three provinces making up the Prairie Region which have tended to make Saskatchewan the predominant wheat area, Alberta a more diversified economy because of coal, oil and gas, and Manitoba the manufacturing and commercial centre of the prairie market. On the basis of such evidence one might consider that the area is not one region but three or perhaps more. However, the differences tend to complement each other drawing the three provinces together into an economic whole. For example, Veyret has characterized the Prairie Provinces economically as a "true family" with Manitoba the elder and more sedate son and Saskatchewan and Alberta being twins, Saskatchewan impetuous and rough, Alberta slower but more solid (68, p. 31).

In the case of Central Canada, if the non-economic characteristics of Ontario and Quebec are set aside the similarity of the two provinces becomes readily evident. In both provinces the early economic activity consisted of the exploitation of furs and later timber. Agriculture followed the same pattern throughout the region, starting with subsistence farming, then concentrating on supplying the needs of the timber camps, followed by the production of wheat and dairy products for export, and finally as urban centres developed, the pattern of agriculture shifted to supply their needs, particularly for the less transportable more perishable foods. As the other parts of Canada developed, both provinces began to concentrate on providing the materials and goods and materials required in these newly settled areas of the country, rather than concentrating exclusively on products for export markets. Subsequently, the region has become the industrial heartland of the country wherein hydro-electric power, pulp and paper and mineral exploitations are important.

The relative merits of considering the Prairie Provinces and Central Canada as two separate economic regions has been evaluated more fully by other writers on Canadian economic development.<sup>2</sup> However, it is believed that sufficient evidence has been shown here to indicate that they are areas which from the viewpoint of the economic growth and development of Canada can be considered as separate and distinct regions.

#### An Appropriate Theory of Canadian Regional Growth

The concept of regional economics and the analysis of local economies has attracted a good deal of attention since World War II,

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2 For example see: W.A. Mackintosh (52) and R.D. Howland (40).

particularly in the United States, although little has been written or said about the determinants of regional growth. This is understandable when it is considered that the growth of a regional economy in some manner is a function of the growth of larger national and international economies (of which it is a part) which are also imperfectly understood. Although there are a number of theories which explain particular aspects of economic growth, or economic growth under particular circumstances, there is no widely accepted general growth theory.<sup>3</sup> In this respect the statement Simon Kuznets made on this subject nearly a decade ago is still relevant:

We do not have a tested theory of the economic growth of nations which demonstrates that long term changes in national product invariably follow a specific pattern expressible by a given curve; that this pattern is securely founded upon a causal explanation that traces it to underlying factors that in turn display persistent patterns of change -- say trends as clear-cut and as invariant as in the growing processes of a biological species (47).

In the absence of a general growth theory, attention has been devoted to the causes and determinants of regional economic growth. This work has tended to crystallize into two major schools or groups of theories which can be referred to as a "stages theory" and a "staple theory".

Edgar M. Hoover, one of the chief proponents of the stages theory of regional growth, has summarized that theory in the following manner. As a rule, regions are initially self sufficient because of high transport costs. Higher living standards are brought about only

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<sup>3</sup> For a current general discussion of one aspect of economic growth and development see Colin Clark (20).

when trade develops, and trade must await "reduction of transfer costs and increasing specialization of production, involving shifts of resources to new uses" (39, p. 189). Since agricultural output in a given geographical area has a limit even if more intensive methods are used, the argument runs, incomes cannot rise indefinitely without turning to industries other than agriculture. Similarly limitations apply to forestry and fishing but not to manufacturing nor to mining which exploits ground resources in all dimensions (40, pp. 181-182). It follows from the foregoing that if a region is to show a continual increase in per capita income over time with a rising population it must eventually industrialize. This would imply that even countries such as Denmark and New Zealand, which have engaged in highly specialized agricultural production for export, must eventually industrialize if growth is to continue (19, p. 142ff.)

Although the concept of economic growth through staple exploitation was conceived and fully developed by H. A. Innis, the relative merits of the staple theory versus the stages theory as an explanation for regional growth particularly in North America were explored by A.F.W. Plumptre and Douglas C. North. These writers noted that the stages theory does not fit the facts in many areas of Canada and the United States. Many regions in these countries never went through a self sufficient stage but were opened originally to exploit some basic staple product for export which was exchanged for imported goods to support those engaged in the basic staple industry (59, pp.389-507). For example, the Pacific Northwest was initially exploited by exporting furs, then wheat and then lumber (58, pp. 243-258). Corbett cited the

prairie region of North America where favourable factors of technology, resources and markets made possible the inflow of population directly into primary production for export. It was the export of primary staples which made possible the importation of capital and other goods which in turn were the basis for further agricultural expansion and any industrialization which finally took place (21, pp. 360-368).

The staple theory then is more appropriate for regions which were virtually uninhabited prior to the development of an export staple, as were many of the regions of North America. But it is broader than this in concept, for even a region which is originally self sufficient may shift to production for export as transfer costs fall and so become dependent on an export staple for further growth. Of the two theories, the staple theory really puts more emphasis on the development of a major export staple as the underlying dynamic cause of growth. Also, the two theories conceive of a mature economy in a different manner. North argues that a region may remain dependent on exports indefinitely with per capita income rising secularly. On the other hand, the stages theory implies a trend towards a regionally self sufficient economy and that regions which are not nearly self sufficient are in a kind of disequilibrium.

Within the context of the past regional economic growth of Canada, the staple theory appears to fit the pattern of development much more closely than the stages theory. As Caves and Holton noted, the staple theory presupposes that transportation costs are lowered enough to permit trade among regions and between regions and foreign countries.

The regions of Canada were opened up by means of new transportation routes and techniques which lowered transportation costs. Thus it has often been said that the history of Canada is the history of transportation. This common observation strongly implies that the staple theory is the more important vehicle for the analysis of Canada's regional growth.<sup>4</sup>

The staple theory appears to be equally if not more applicable to any speculation about the future economic growth of the regions of Canada. The stages theory, on the other hand, contains certain theses which are not compatible with current and probably future levels of technology, production and trade. For example, the closed economy assumptions are not realistic for most nations at present. They may have been realistic in the past when transportation was primitive and costly but they cannot be used to explain the growth of Canada or any of the young nations of the world now or in the future when the technology of transportation and communication almost precludes isolated development. Furthermore, the application of modern technology to production can lead to more intense specialization among nations and even regions than in the past.<sup>5</sup> Such specialization implies trade, hence isolated development may be less likely now simply because of production techniques. For all these reasons, the staple theory of regional growth is considered to provide a logical basic theory for understanding both the history of the regional economic growth of Canada and the implications for the future trends of development.

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4 Much of the following description of the relative merits of the staple theory as an explanation for regional development is based on the findings of Caves and Holton (19, p. 144 and following).

5 It is noted that under certain conditions, the application of new technologies can reduce a nation's existing comparative advantage in a specific field of activity.

Within the context of this view of the forces making for regional growth, one factor stands out as being perhaps most important and that is trade. The importance of this was stressed by Hoover when he stated that an advance to higher living standards requires more trade. Such trade permits each locality to share, to some extent, the production advantages of other localities and to attain a better consumption standard by concentrating on the lines of production in which it has the greatest relative advantage. The essentials for increasing trade are reduction of transfer costs and increased specialization of production, involving shifts of resources to new uses (39, p. 188). Similarly, Walter Isard recognizes the importance of trade to regional growth, although somewhat less emphatically, when he noted that, within the limits imposed by transportation costs, political and cultural barriers, etc., individual regions of a system can draw freely on the resources, products and skills of other regions in their efforts to develop their industries and raise their own incomes. The goods and services a region imports must be paid for in the long run by exports or by transfer of assets, including bank reserves. Viewed from the other side of the coin, a region's exports provide the wherewithall for its imports and accumulation of assets (46, p. 122).

It is within the above described theoretical framework of economic growth that the regional development of Canada and the particular place of staple processing in that regional development will be examined. The starting point for this examination will be the period immediately after Confederation and the acquisition and opening by Canada of the Prairie Region. For as W.A. Mackintosh pointed out, prior to the latter



part of the nineteenth century, all the regions of Canada shared in both the export and home markets. It was the development of the export oriented Prairie Region and the greater development of manufacturing in Central Canada that started the trend to economic regionalism in Canada (53, p. 36).

#### Foundation of the Prairie Economy

In a new and virtually undeveloped nation, such as Canada was at Confederation, rapid economic progress depends upon two basic factors. Firstly, the discovery and development of cheap supplies of raw materials for export and in return the importation of materials and manufactures which could not be produced economically at that stage of production. Secondly, the ability to import capital requirements, technical knowledge and equipment from older more highly developed countries. In addition the rate of expansion can be profoundly affected by major improvements in productive equipment, practices and organization, as such improvements can serve to make hitherto useless resources highly valuable, or by reducing the costs of transportation make new previously unattainable markets profitable (53, p. 11).

Through the annexation of the Prairie Region and the subsequent development of wheat for export the economic expansion of Canada for about five decades after Confederation was accelerated in much the manner described above. All the factors described were present. For example, the export market was primarily in Europe, the source of capital primarily Europe and of technical knowledge and equipment in part Europe and to an increasing degree The United States. However, the development of