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DUTY-FREE ZONES: THE REALITY AND THE PROMISE

by

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A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master of Arts in Geography.

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ABSTRACT

It has been argued that duty-free zones, enclaves outside the Customs territory of a state, should be used as policy tools to encourage exports and economic development. This thesis examines different forms of duty-free zones, especially United States foreign trade zones. An analysis of United States Foreign-Trade Zones Board annual reports was carried out. Survey questionnaires were sent to three groups: (1) users of the Buffalo Foreign-Trade Zone; (2) users of foreign trade subzones where manufacturing occurs; and (3) exporting firms in the southern Niagara Region of Ontario. On the basis of the analyses of the data, the assumptions behind duty-free zones and the success of United States foreign trade zones are questioned. The failure of United States zones in encouraging exports and regional development together with the viable alternatives available to Canadian exporters leads to the recommendation that duty-free zones be rejected as policy tools by the Canadian Government.
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CHAPTER 1

INTRODUCTION TO DUTY-FREE ZONES

1.1 Overlapping Definitions

A confusing number of terms are used to describe duty-free zones: freeports, export processing zones, industrial free zones, free production zones, duty-free zones, foreign trade zones, and, even on occasion, free trade zones. The essential features of all these zones are that:

1) they are out of the Customs territory of the state;
2) they are fenced, set apart from the rest of the state;
3) and they generally have no residents.

Although the terms overlap and sometimes are used interchangeably, it is possible to classify them roughly. 'Free trade zone' is the most general term and simply signifies an area in which there are no internal tariffs. However, there is a problem of scale with this term. It can imply an enclave of a few hectares or a supranational grouping like the European Economic Community. Therefore, the term 'free trade zone' will not be used in this thesis. The term 'freeport' puts the stress on the transshipment of goods through a port. The term 'foreign trade zone' is used in the United States. The emphasis is not only on commerce, but also on the manipulation, processing, and assembly of goods. Terms with export, production, or industrial in them like 'export processing zone', 'free production zone', or 'industrial free zone' imply that the main
emphasis in the zone is assembly or manufacturing for export from duty-free imported components or goods. Export processing zone, as promoted by the United Nations Industrial Development Organization, denotes the marriage of duty-free zones, industrial estates, and incentives to exporting firms. Export processing zones are associated generally with Third World states. Enterprise zones are promoted in the First World. Advocates of the original concept of enterprise zones conceived of them as export processing zones in the blighted urban areas of the United Kingdom. The next section gives an overview of the different types of duty-free zones, their relationships to the changing world economy, and the organization and structure of this thesis.

1.2 An Overview

The world is divided into states each possessing territory, population, sovereignty, and government (Muir, 1975). The state defends itself and, to varying degrees, the economic interests within it at its borders by means of tariffs, quotas, prohibitions, and restrictions on goods produced outside the territory of the state. Duty-free zones seem to be anomalies because they are enclaves outside the Customs territory of the state. These enclaves possess a certain amount of extraterritoriality, at least in terms of tariffs and some non-tariff barriers.

The predominant functions of duty-free zones have changed with the changing world economy. Medieval and early modern freeports were parts of ports where transshipment and ship chandling occurred. By the early Twentieth Century freeports had changed almost imperceptibly into
import facilitating enclaves. With the spread of industrialization to the Third World, duty-free zones were established in the 1960s and 1970s as manufacturing platforms for the export of labour-intensive products to the rich First World. The concept of duty-free manufacturing zones spread to the First World as local capital and labour in the First World became concerned about the profit and employment effects of Third World export processing zones.

A pervasive assumption in industrial location promotion is that duty-free zones should be located at ports or airports to which industries have locational attractions. This assumption lingers from the days when European freeports were important transshipment centres and harbour waterfronts were lined with industries. The assumption may have some validity for the Third World where backward transport linkages are poor. The assumption about port associated manufacturing is exaggerated greatly in the First World (Hoyle and Pinder, 1982). Evidence from Heathrow Airport suggests that location adjacent to an airport may be disadvantageous to many industries (Hoare, 1974).

Critics charge that these Third World factories deprive Canadians of manufacturing jobs. Border foreign trade zones in the United States have the potential of taking warehousing, processing, and manufacturing jobs out of Canada. Multinational vehicle manufacturers have begun to operate in United States zones and export products made in these zones to Canada. Proponents argue that border foreign trade zones might represent an opportunity for Canadian exporters.

Duty-free zones are now on the political agenda in Canada. The Conservative politicians - Sinclair Stevens (Globe and Mail, Apr. 24, 1980) and Peter Focklington (Goar, 1983) - and the Fraser Institute (Grubel, 1983) have advocated the creation of duty-free zones in Canada. The Fraser Institute sees 'free market zones' as a step in the deregulation of society. The Throne Speech of December 7, 1983 made a curious reference to "duty-free export zones" to be established, "under current import duty remission procedures" (Canada House of Commons, 1983, p.2). The Alberta Government is considering the establishment of an inland duty-free container port (Globe and Mail, May 29, 1984). Duty-free zones have been proposed and/or studied for Halifax, Churchill, Manitoba; and Mirabel Airport (Kemp, 1960 and Stevenson and Kellogg, 1978; Manitoba, Dept. Of Industry and Trade, N.d.; and McGowan, 1978 and Commerce, 1981, respectively). Reports have announced erroneously the existence of duty-free zones in Sydney, Nova Scotia and Stephenville, Newfoundland (Globe and Mail, May 27, 1983 for Sydney, and Diamond and Diamond, 1983 for both places).
This pressure in Canada for duty-free zones reflects the arguments of those in the United Kingdom and United States who advocate these zones. Proponents of duty-free zones in the developed world argue for them on the basis of their proliferation in the Third World, concerns about First World deindustrialization, laissez-faire liberal ideology, and assumptions about economic activity. Rarely are duty-free zones placed in their national or regional contexts, the assumptions underpinning their justifications analyzed, or their operations scrutinized.

The aims of this thesis are:

1) to describe the historical development, diffusion, and operations of duty-free zones;

2) to place duty-free zones in their economic and political contexts and to discuss the issues raised by duty-free zones;

3) to evaluate the economic development benefits of duty-free zones, particularly United States foreign trade zones;

4) and to evaluate the desirability of some form of duty-free zones in Canada.

The thesis follows a deductive sequence moving from literature reviews to case studies before conclusions are drawn. Chapter Two is a review of the geographical literature about industrial location, the firm in development, and the role of the state. Chapter Three roams the globe in an examination of freeports, export processing zones,
enterprise zones, foreign trade zones, and alternatives to duty-free zones. Chapter Four is an evaluation of United States foreign trade zones through studies of their 1981 operations, the Buffalo Foreign-Trade Zone, foreign trade subzones, and exporting firms. This chapter is based on an analysis of annual reports of the United States Foreign-Trade Zones Board and survey-questionnaires of (1) users of the Buffalo Foreign-Trade Zone, (2) users of foreign trade subzones, and (3) exporting firms in the southern Niagara Region of Ontario. Chapter Five concludes with a discussion of the issues and the applicability of duty-free zones to Canada.

Survey-questionnaires are used because of a belief in the behavioural approach. This is an appropriate approach for studying the economy because, to a large extent, the complexity of the economy is a result of the myriad of decisions made by economic decision makers. The behavioural approach is discussed more fully in the context of industrial location theory and research in the next chapter.
CHAPTER 2

INDUSTRIAL LOCATION, DEVELOPMENT, AND THE ROLE OF THE STATE

2.1 Industrial Location: Theories and Contemporary Research

Manufacturing firms provide production and employment. They support service industries and are the bases for industrial complexes. Some policy makers consider duty-free zones to be a means of encouraging the location of firms in countries or regions in which they might not be situated otherwise. It is important to examine neoclassical location theory and contemporary research in industrial location before considering the location of firms in duty-free zones.

Neoclassical industrial location theory derives its inspiration from Weber (1909). Weber assumed the existence of an isolated economic system, a homogeneous surface, fixed point raw material sources and markets, transportation costs proportional to distance, perfect competition, and rational economic man -- producers and consumers who have perfect knowledge and act rationally in light of this knowledge. According to Weber the optimal location for a single plant manufacturing firm is at the spot where transport costs of the raw materials and finished products are minimized. Weber differentiated between ubiquitous and localized raw materials. Agglomeration economies could displace the minimum transport cost location. Succeeding location theorists built upon Weber's analysis, but relaxed his assumptions about fixed points, transportation costs, and perfect competition. Hoover
(1937) divided agglomeration economies into several components: (1) large scale economies within a firm, (2) localization economies for all firms in a single industry at a single location, and (3) urbanization economies for all firms in all industries at a single location.

Hoover's inclusion of internal economies of scale in agglomeration economies is questionable. In his 1948 book, Hoover introduced more realistic transport costs, e.g., terminal charges and stepped transport rates. Losch (1954) emphasized the importance of considering market demand and market area, so that the optimum location would be chosen at the point of profit maximization. Isard (1956) ushered in substitution analysis, but used the same variables: markets, materials, and transport costs. Smith (1966) made labour costs more explicit in his discussion of iso-cost lines. The cost surface is central to Smith's theory, as it is to all neoclassical industrial location theory.

Since the 1960s, neoclassical location theory has been besieged by criticism. Smith (1970) made a rearguard plea, "not to throw out Weber with the bathwater". His plea was to little avail; the antithesis had to be developed further. Neoclassical location theory was banished to historical and Third World industrial studies. To be fair to Weber, his analysis describes fairly well material-oriented Nineteenth Century industries dependent on coal as a fuel source. (In his model, Weber considered coal to be a raw material.) In the Twentieth Century, manufacturing industries have become more footloose, as transportation has become relatively cheaper and energy more mobile.
Commentators of all stripes have attacked neoclassical industrial location theory for its assumptions, its simplicity, its deductive derivation, and its lack of proof in studies over a range of industries. In addition, critics argue that theory based on the single plant firm and the single entrepreneur is outdated in an era of multipant, multifunctional, and multinational organization.

Behaviouralist geographers contend that economic and spatial factors are given too much weight in traditional location theory, while the perceptions and behaviour of decision makers in industrial organizations are neglected (Gold, 1980). Many theorists have presented models of industrial location decision making (Lloyd and Dicken, 1972; North, 1974; Rees, 1974; Cooper, 1975). The model of Lloyd and Dickens stresses the socio-political, business, industrial, and plant environments in which businessmen operate. Information from these environments is filtered by the businessman on the basis of his attitudes which are shaped by his socio-economic attributes and by the organizational structure and environment. Businessmen then make decisions, including location decisions, on the basis of this selective information and corporate goals and objectives. This model is supported by studies which show that manufacturers often fall back on personal reasons or chance in their location decisions (Tiebout, 1957; Mueller and Morgan, 1962; North, 1974). Lloyd and Dicken conclude that most businessmen are risk-minimizers, not rational economic men.

The study of the corporation as a major theme for industrial geographers was spurred by two management professors,Cyert and Marsh.

Watts (1974) and North (1974) crystallized the need to separate single plant firms from multiplant firms for descriptive and analytical purposes. This opened the floodgates for the study of transnational firms in the late 1970s. This examination by geographers paralleled a deluge of literature on transnationals in other academic disciplines. In geography, Hamilton and Linge (1981) and Taylor and Thrift (1982) edited collections dealing mainly or completely with transnational firms.

An important reason for the surge in studies of industrial linkages was dissatisfaction with Weber's theory of agglomeration (Wood, 1969).
Behaviouralists who analyzed material linkages included Karaska (1969), Keeble (1969), Streit (1969), Townroe (1970), Taylor and Wood (1973), Lever (1974), Moseley and Townroe (1974), Gilmour (1974), Taylor (1975) and Hoare (1978). Using a survey questionnaire of metropolitan Montreal manufacturers, Gilmour discovered that inputs were sourced from far afield and were not a factor in agglomeration economies. Single suppliers, 'as well as certain attitudes, perceptions and motivations of decision-makers, work against the existence of strong local linkages' (Gilmour, 1974, p. 361). Gilmour established that smaller Montreal manufacturers had relatively more backward and forward linkages with local sellers and buyers than large manufacturers. Tornquist (1968), Wallace (1974), O'Farrell and O'Loughlin (1981) considered non-material linkages. Wallace studied the role of the transport industry in maintaining industrial linkages in the north-west Midlands and found that the preferences of manufacturers were based more on service quality than on cost. Tornquist suggested that information flows are an important factor in agglomeration. Tornquist's hypothesis was pursued by Taylor who, on the basis of five studies, concluded that information flows are more localized than material flows. Taylor surmised that the locational search for new plants is more circumscribed than material flows of the parent plants suggest. Case studies of industrial linkages dethrone economic criteria from their deterministic role in location theory.

Research in the broad theme of innovation, technological change, and economic development was begun by the University of Washington School of behaviouralist location researchers in the early 1970's (Carr,
1983). Later researchers writing in this field include Thwaites (1978), Rees (1979), Norton and Rees (1979), Britton (1980), Malecki (1980), Rothwell and Zegweld (1982), and Steed (1982). The latter two references refer to work linking small and medium sized firms in certain industrial sectors and innovation. In research on innovation and technological change an important consideration is the product cycle theory developed by Schumpeter (1939). In this theory a product goes through three stages: (1) innovation (often production is by small companies using skilled labour), (2) maturing product and (3) standardized product (often production is by transnational corporations using unskilled labour) (Vernon, 1966). Oakley, Thwaites, and Nash (1980) in Britain and Malecki (1980) in the United States give evidence that innovations are introduced into branch plants near research and development centres which are often close to headquarters. Krumme and Hayter (1975) and Norton and Rees (1979) have focused on the product cycle and its implications for the location of manufacturing firms in the First World. On a global basis it is clear that the mass assembly of products in the third phase of the product cycle occurs in Third World branch plants, many of them in export processing zones (see Section 3.2).

Behaviouralist industrial geographers have made a valuable contribution to our understanding of specific industries, corporate structures, and the importance of behavioural factors in industrial location and the sourcing of materials. Because the work has been largely empirical, there is a problem of disaggregation. How do all the individual case studies fit into a whole?
Voices have been raised urging a synthesis of neoclassical location theory and behavioural location theory. Partly, this is a reaction against the disaggregated nature of results of behavioural empirical studies (Walker, 1975). Partly, this is a result of the inevitable stock taking of behavioural manufacturing location theory (Carr, 1983). Carr argues that post-Washington School industrial behaviouralists have ignored the role of the external environment. Gregory (1982) gives a more favourable revisionist view of Weber's location theory. Hayter and Watts (1983) urge dichotomizing the economy into a marketing system (small firms which can be understood by neoclassical location theory) and a planning system (large firms which can be understood by behavioural theory). Such a new categorization is unrealistic considering that smaller firms have more limited information and often fall back on personal factors in their location decisions (Tiebout, 1957; Mueller and Morgan, 1962; North, 1974). Hayter and Watts are right to suggest that most contemporary research in location theory lacks consideration of social values and problems.

Marxist location theory cannot be accused of lacking structure or social concern. Many Marxists call themselves structuralists because of their concern with the structure of the economy. A premise of Marxism is that underlying forces shape the human environment and create a differentiated world (Johnston, 1982).

Structuralist location theory is personified by Massey (1974, 1979, 1981). Massey criticizes neoclassical location theory for its technical deficiencies, internal inconsistencies, and false ideology and
epistemology. The last criticism is specific to the Marxist critique and will be elaborated upon. Neoclassical location theory derives from aspatial neoclassical economics. Neoclassical economics emphasizes free market forces and perfect competition. Yet as soon as the spatial element is introduced, perfect competition ceases to exist. Neoclassical economics looks at the individual firm and, "has difficulty in moving from the individual firm to the structure" (Massey, 1981, p. 200). The structure is a class society organized according to the capitalist mode of production. The structure of the economy may dictate the location decisions of businessmen. For example, the concentration of capital may reinforce tendencies to agglomeration. Massey believes that externalities (including agglomeration economies) should be central to any theory of locational arrangement.

Massey also has criticism of behavioural and Marxist location theories. Behaviouralist theorists are criticized for being time-specific, neglecting aspatial forces in the economy, and failing to construct an ideal-type model. Marxists are criticized for not being able to go from the level of structure of society to the level of the firm or manufacturing sector.

Neoclassical location theorists gave us a simple and simplistic view of the economy driven by deterministic economic forces. Neoclassical location theory was the thesis against which behaviouralists rebelled. The behavioural antithesis offered us a more realistic view of a complex economy. Behaviour theory explains firm behaviour, but is weak in explaining the structure of the economy. The
Marxist perspective, while providing structure and insights, has difficulty in explaining firm behaviour. A search is being made for a synthesis which will give us a comprehensive theory of the economy.

The location of firms in duty-free zones cannot be explained in terms of neoclassical location variables. Factors such as structural changes in the world economy, information flows, perceptions of decision makers, innovation and product cycles, corporate organization and goals, regional development, and the role of the state must be considered. The firm must be put in the context of development in developed states, developing states, and the world.

2.2 The Firm and Development

Development often is considered synonymous with economic growth, i.e., increased output. This may be generally the case in the First World with its welfare states, good infrastructure, and good human resources. Even in the First World increased output in one industry must be judged against its repercussions on other industries and its overall employment effects.

States encourage development by improving infrastructure, social capital, and the number and quality of service, trade, and, especially, manufacturing firms. Often governments target depressed, peripheral areas for regional development aid. In these areas infrastructure is improved, minimal standards of services are maintained, and existing industries are supported by governments. Governments give subsidies for firms to locate or expand in designated areas. Regional development
policy was pioneered in the First World in the 1920's, 30's, and 40's (Freidmann and Weaver, 1979; Hall, 1975). In the United States areas targeted for regional development planning have included the Tennessee Valley Authority Area (set up under the F.D. Roosevelt Administration), and development regions (under the Johnson Administration) (Hall, 1975). In western European countries regional development policy was introduced in the 1950's (Pinder, 1983). Regional industrial development policy in Canada is described by Walker (1980) and Lithwick (1982). Duty-free zones and enterprise zones can be considered tools of regional development. In Britain designated areas for subsidies to manufacturing firms are called development areas (Townroe, 1976).

The manufacturing firm has been a centrepiece of regional industrial policy in Europe since the immediate post-war period. Studies have indicated that European Governments' regional policies have been effective (see Ashcroft, 1982 for a survey). The explanatory value of much of this research is limited due to the macro level techniques used. Sinclair and Walker's (1982) case study of Austrian industrial development strategy and subsidies which encouraged General Motors to establish an engine plant in Vienna in 1979 is a rare example of a study of the role of the firm in government development strategy. Unfortunately, Sinclair and Walker's analysis of costs and benefits of the GM plant for Vienna and Austria is unsophisticated. Sinclair and Walker also neglect to link the role of Austrian politics with social classes. A study of 49 Scottish firms which received regional assistance from the U.K. government indicated that regional policy was an important factor in providing investment and jobs in Scotland (McGreevy and Thomson, 1983).
Governments have given large firms an important position in regional development strategy because of their large employment effects. Attention has shifted somewhat to small and medium sized firms since the late 1970's. Because small firms in electronics and instruments are more innovative than large firms, small firms are important in new employment and output and represent a possible vehicle for regional rejuvenation (Rothwell and Zegveld, 1982).

In the Third World, development is now recognized as multi-dimensional. Sears (1969) incorporated decreased poverty, unemployment, and inequality in his definition of development. Later Sears (1977) made the addition of self-reliance. Mabogunje (1980) considered development to have economic growth, modernization, distributive justice, socio-economic transformation, and spatial reorganization dimensions. In evaluating export processing zones, social as well as economic factors must be considered.

Third World states provide direct and indirect subsidies for firms to locate in their countries. Many firms locate at transport nodes, such as ports, where industrial activity is concentrated. To encourage general development, Third World states provide infrastructure and subsidies for exporting firms in exporting processing zones at these foci. These states occasionally develop export processing zones in depressed areas as part of a strategy of regional development.

On a global basis the peripheral Third World is given developmental assistance by such United Nations agencies as the United Nations.
Industrial Development Organization (UNIDO), the United Nations Conference on Trade and Development (UNCTAD), the Food and Agriculture Organization (FAO), and the World Health Organization (WHO) and by the World Bank. UNIDO and UNCTAD have promoted, to varying degrees, export led industrialization and export processing zones in the Third World.

Two economic development theories explicitly consider the role of manufacturing firms in development: Myrdal's theory of circular and cumulative causation and growth pole theory. Manufacturing firms are not central to the core-periphery model, but the theory has implications for firms. Exporting firms play an essential role in export base theory.

Myrdal (1957) argued that economic growth in an area encourages supporting changes which stimulate further growth. For example, the location of new industry expands local employment and population which increases the local pool of trained industrial labour. New industries are attracted by the trained labour pool. The initial industry will stimulate the development of services and new industry to provide inputs to the initial industry. External economies of scale develop for the initial industry group. Indirect multiplier effects will occur as new industries and services move to the area to exploit the expanding demand. The expansion of the general wealth of the community increases the tax base of the area government. With an enlarged tax base the government can provide better social and physical infrastructure. This better infrastructure is an inducement to more industries to locate in the area. Thus, the economic growth is circular and cumulative.
On a regional or global scale, backwash effects make the rich area richer and the poor area poorer. Flows of young and/or skilled labour, capital, and primary resources drain out of the stagnating region. Goods from the core flood the market in the depressed area, driving local manufacturing out of business. Spread effects occur when demand in the core stimulates the production of commodities in the periphery. According to Myrdal, without government intervention free market forces will lead to concentration of economic activity.

Myrdal's model of circular and cumulative causation can help us to describe the possible multiplier effects of duty-free zones. The model encourages us to look at the material and service linkages between firms.

Myrdal's work has been reformulated by Hirschman (1958). Myrdal's 'backwash effects' were dubbed 'polarization effects', while 'spread effects' were named 'trickling down effects' by Hirschman. Hirschman gave greater weight to the centrifugal forces and felt that, over time and given interregional complementarity, development would become more spatially equal.

Perroux (1955) also wrote about the concentration of manufacturing at growth centres. According to his growth pole theory, industries or large firms are poles around which other industries cluster. The classic 'industrie motrice' (propellant industry) is the nineteenth century iron and steel industry around whose plants an industrial complex developed. Growth pole theory is not applicable to late
Twentieth Century First World industry. Two examples from France will demonstrate this. The Fos integrated iron and steel complex inflates regional wages and is a depressant on other Marseilles area manufacturing firms. Material inputs are sourced mainly from outside the region (Wolkowitsch, 1982). Industries have not clustered around the Lacq natural gas installation (Lloyd and Dicken, 1977). Growth pole theory is more relevant to the Third World because of poor backward transport linkages there.

The growth pole theory retains a false respectability in the First World among regional planners. The illusion of possible industrial complexes clustering around economic foci has influenced policy makers to use duty-free zones as a tool of development.

Friedmann (1973) emphasized communication flows within hierarchical matrices of cities. Friedmann was a proponent of the core-periphery theory. According to Friedmann,

Core regions are defined as territorially organized subsystems of society which have a high capacity for generating and absorbing innovative change; peripheral regions are subsystems whose development path is determined chiefly by core region institutions with respect to which they stand in a relation of substantial dependency. Core and periphery together constitute a complete spatial system. (Friedmann, 1973, p. 67).

This core-periphery relationship exists on a state scale, sometimes on a continental scale, and on a global scale. Most 'national' companies have their headquarters in the core of a state, while transnational corporations have their headquarters in the First World. Headquarters' locations are associated with financial institutions, service companies, research and development centres, and industries which manufacture non-standardized products.
According to export base theory, exporting firms are important in determining total and per capita incomes in a region. This occurs through direct and indirect multipliers. The income level determines the demand for the products of non-exporting industries (North, 1955). This theory has an obvious relevance for export processing zones. The direct impact of EPZs may be relatively small (because of poor backward linkages), but the indirect impact may be more substantial. The export base theory is used to justify duty-free zones in the First World.

The theory of circular and cumulative causation and the export base theory beg the question of the trigger which sets off the process of cumulative economic expansion. Export processing zones have the potential of being triggers, setting off growth and promoting spread effects. In the circular and cumulative causation, export base, and growth pole theories there is a role for the state to set off the trigger, to encourage certain types of firms, and to intervene to support or discourage spread and backwash effects. The state has an important role to play in development and there is a need to elaborate upon the role of the state.

2.3 The Role of the State

Duty-free zones are creatures of the state. Therefore, an understanding of the role of the state in the economy is essential. According to Dear and Clark (1978) who summarized the political geography literature on the state, the state has four distinct functions:

1) supplier of goods and services (including provision of social capital);
2) manager of the market place;
3) manipulator of the market place;
4) and 'arbiter' among competing social groups.

Structuralist Marxist writers would express the third function more bluntly: they would claim that the state by means of ideology serves to legitimize capitalism to workers (Johnston, 1982).

By means of duty-free zones the state performs, at least, the following functions:
1) supplies infrastructure to capitalists;
2) supplies subsidies to capitalists;
3) and supplies employment to workers. (Instrumentalist Marxist critics would express this as supplying labour for capitalists; however, seen in the context of the legitimizing role of the state, the state must provide jobs for workers.)

These functions may be performed as part of a regional development strategy.

The list of state functions in duty-free zones coincides with laissez-faire liberal views of the function of the state (though defense would be added to the list). Thus, Grubel (1983) can argue for 'free economic zones' where the state performs only the above functions. These zones would be the first step in the deregulation of society. Nomenclature is a problem: Grubel seems to confuse freeports, free trade zones, and free production zones with idealized free enterprise freed from the 'heavy hand' of government. Similarly, enterprise zones have been touted as urban bastions of free enterprise, where the
invisible hand' of the market place prevails, not government (Hall, 1981, 1982; Butler, 1980, 1981a, b). A problem of laissez-faire liberals is a blind adherence to economic theories which make simplistic and false assumptions about the efficiency of the market process. Laissez-faire liberals also make false analogies. States like Singapore and Hong Kong are considered successful because they are considered hotbeds of capitalism where government 'interference' is practically non-existent. In reality, Hong Kong functions as a supplier of land and infrastructure, manager of the market place, and, to a certain extent, arbiter among competing social classes (Richards, 1981; Schiffer, 1983). The role of ideology was blatant in the creation of British enterprise zones by the Conservative Government of Margaret Thatcher in 1980 (Anderson, J., 1983). Economic enclaves, whether duty-free or not, have become part of an ideological debate about the role of the state in the economy.

This list of state functions performed in duty-free zones colours the interpretations of leftist writers who condemn these zones as 'labour havens' of 'superexploitation' of labour by transnational corporations (AMPO, 1977; Utrecht, 1978 and 1981; Frobel, Heinrichs, and Kreye, 1980; Frank, 1981). These writers generally treat duty-free zones as a 'zero-sum game': capitalists win while labour loses and there is no possibility of both winning. This interpretation of industrial location benefits is simplistic and dogmatic. It ignores the Twentieth Century experience in the First World where labour and capital have both gained. Capital benefited from high demand for its products by well paid labour.
Marxist writings on the global economy serve the useful purpose of reminding us of the role of social classes and the dependent nature of Third World development (Amin, 1976, 1977; Frobel, Heinrichs, and Kreye, 1980; Frank, 1981; Amin et. al., 1982). However, these writers exaggerate when they argue or, at least, imply that all Third World states are neocolonial client states, instruments of transnational capitalist domination, and have no independence vis-à-vis the transnational corporations. There are many examples of Third World states expropriating or nationalizing foreign companies. To an extent, these writers are confusing the role of the state with the tremendous bargaining power transnational corporations have as agents of development. Developed and developing countries are scrambling for profits for local capital and employment for their workers. In a world where transport and communications are on the way to creating a 'global village', there are many possible locations for many types of manufacturing industries. The partitioning of the world into different jurisdictions (states at the unitary, federal, and regional levels) means that the state has a role in decision making about industrial location and the types of industries it wants. In its decisions, the state will consider its support from the different social classes. If it supports one social class, it must legitimize its decision to the other classes. This legitimization may take the form of genuine rewards to the other classes, an ideological justification, and/or a nationalist justification. In assessing the role of the state in creating and supporting duty-free zones, it is important to see which social classes benefit and lose (if only relatively). One must cut through ideological or nationalist smokescreens used by states to mask from public view the real economic winners and losers from its policies.
CHAPTER 3

DUTY-FREE ZONES AROUND THE WORLD

3.1 Freeports

Freeports are primarily duty-free transshipment and entrepôt ports. Their origins can be traced to classical Greece and Rome. In the Middle Ages they often were associated with free cities, e.g., the North German Hanseatic cities (Thoman, 1956).

In the era of the modern state, they have been devices to facilitate trade within empires. Gibraltar (established 1705), Singapore (1819), Hong Kong (1842), and Aden (1853) all served as freeports and ship chandling centres of the British Empire (Diamond and Diamond, 1983). In the British West Indies, the United Kingdom Free Port Acts sanctioned many freeports between 1766 and 1822, including Falmouth, Port Maria, Morant Bay, Kingston, Dominica, Grenada, New Providence, Antigua, Caicos, and Barbados (Armytage, 1953).

Freeports also have served as transshipment points for landlocked states. In the inter-war years of this century, Danzig was an autonomous city and the freeport through which Poland's overseas trade was funnelled. Fiume was a freeport from 1919-24 and became the Free Territory of Trieste from 1947 to 1954 (Mihelic, 1969). After 1954 Trieste continued as a freeport (under Italian control with a special Yugoslav free area) (Novak, 1970). The Treaty of Versailles stipulated
that free areas had to be leased in the ports of Hamburg and Stettin (Szczecin) to landlocked Czechoslovakia (Thoman, 1956).

The German North Sea freeports served inland states via canals and railways, but are also relic freeports: remnants of former city-states which had important maritime transshipment roles. The cities negotiated freeport status for part of their ports with Bismarck upon their entry into the German Customs union in 1888. Hamburg, including its outport of Cuxhaven, and Bremen, including its outport of Bremenhaven, have been substantial freeports. Later, less successful additions were Neufahrwasser, an outport of Danzig (1895 - 1918), Stettin (1898 - 1945), Altona (Emden) (1901 - present), Kiel (1922 - present) and Flensburg (1923 - 34) (Thoman, 1956).

Fear of the opening of the Kiel Canal, which started operations in 1895, inspired the establishment of the Copenhagen freeport in 1894. The Swedish freeports were founded after the First World War: Stockholm (1919), Göteborg (1922), and Malmö (1922). Thoman (1956) attributes the creation of Swedish freeports to a coalition between shipping interests, who wanted better port facilities, especially deeper berths, and commercial interests.

Varying freeport forms exist in Italy (including Genoa, Venice, Naples, Messina, and Trieste), Switzerland (including Basel, Geneva, Zurich, and Chiasso), Austria (Graz, Linz, Vienna, and Solbad Hall), Poland (Szczecin, Gdansk, and Gdynia), Spain (including Ceuta, Melilla, Canary Islands, Cadiz, and Vigo), Greece (Thessalonika) (Piraeus), and
Finland (including Hanko, Helsinki, and Turku) (Thoman, 1956; verified and updated with Diamond and Diamond, 1983).

The most successful freeport in Europe is at Hamburg. Thoman (1956) intensively studied the Hamburg freeport. It occupied 21 percent of the area of the port of Hamburg and was controlled by one organization, the Free Port Administration, a branch of the State of Hamburg Ministry of Economy and Traffic. Statistics separating freeport commodity flows from those of the total port of Hamburg were not available, but Thoman found that in 1953 only 4.28 percent of total commerce by volume at the port of Hamburg was accounted for by commodities received into warehouses for re-export or were re-exported from warehouses (mostly in the freeport). Of 'warehouse commerce in foreign merchandise at bonded warehouses' in West Germany (mostly Hamburg and Bremen freeports), only 8.57 percent by value were re-exports; this represented only 1 percent of West Germany's exports. In 1953, 'warehouse commerce' constituted 11 percent of West German imports; 60 percent of this was routed through the Hamburg freeport. The main commodities shipped through the freeport of Hamburg were high tariff (although Thoman did not specify the tariff rates), primarily food and drink products which were warehoused at the freeport before being imported into the Customs territory of Germany. One hundred percent of all German coffee, raw tobacco, and tea imports, 65 percent of tropical fruit imports, 45 percent of raw cacao imports, and 38 percent of raw cotton imports went through the freeport of Hamburg. The same products were important at Bremen freeport.
Hamburg's freeport is exceptional in that manufacturing is allowed. In 1953 there were eight-five manufacturing shipyards, plants, shops, and refineries employing 16,194 people (Thoman, 1956). However, 70 percent of the employment was accounted for by the nine shipbuilding yards, which could have been outside the freeport. During a sample month in 1953 less than 30 percent by value of the finished products made in the Hamburg freeport were exported.

Thoman (1956) concluded that, "the German freeport thus emerges as primarily a means of facilitating imports to the host country" -- a considerable switch from the image of freeports as re-export centres. Thoman also drew the same conclusion about Scandinavian freeports. It seems likely that the primary function of many freeports in large, tariff enclosed states has changed to an import facilitating one. The changing functions of duty-free zones are linked to changes in the world economy.

3.2 Changes in the World Economy

The change in the function of duty-free zones from commercial to manufacturing has resulted because of the change in the global economic structure which has occurred since the 1960s.

The modern international division of labour, initiated by the British Industrial Revolution of the Eighteenth Century, was characterized by manufacturing in the Western core and commodity production in peripheral, colonial regions; trade flows linked the two regions in an expanding international capitalist system. The industrial
core diffused outwards from Britain to Europe and North America in the Nineteenth Century and to the Soviet Union and Japan in the Twentieth Century. Industrial subcentres have developed in other areas, such as, Australasia, the Republic of South Africa, Israel, Bombay and Orissa/Bihar in India, and, more recently, Cuidad Bolivar and Yanbu in petroleum exporting countries. The periphery countries, variously termed underdeveloped, developing, or Third World countries, exported commodities which are subject to extreme price fluctuations, whose nadir spelled economic distress for monoproduction peripheral countries. This core-periphery relationship continues today, although modified by the insertion of an intermediate rung of Newly Industrializing Countries (NICs), which manufacture or assemble labour intensive products for the world market.

Under colonialism and in dependent states today, especially in Latin America and Africa, the raw materials were and are extracted by transnational corporations. With the knowledge gained and a network of supporting services, especially financial institutions, in place, transnational corporations could move into Third World manufacturing. Initially, Third World manufacturing involved the processing of local raw materials for the domestic markets by local or foreign capital as part of the strategy of import substitution by Third World governments. However, import substitution policies resulted in problems of high input costs, diseconomies of scale, industrial inefficiency, and foreign exchange shortages (Lee, 1981). In the late 1960s Third World governments, prompted by the United Nations (resolution of the Economic and Social Council, 1506th plenary meeting, August 4, 1967), began
adopting policies of export-led industrialization. This change in policies coincided with the start of off-shore sourcing by transnational corporations. These corporations, pushed by high exchange rates and labour 'shortages' and pulled by low labour costs, established manufacturing plants in the Third World to export to their branches and/or consumers in the First World. This internationalization of the production system began in the (U.S.) border areas of Mexico, the Far East, Brazil, and the Mediterranean countries.

This new international division of labour is reflected by statistics illustrating changes in the spatial distribution of world manufacturing. Between 1963 and 1977 the percentage of world industrial production (by value added) by developed countries declined from 85.62 percent to 80.90 percent, while NICs * increased their share from 5.40 percent to 9.28 percent. The proportion of manufacturing output by other developing countries expanded more slowly from 8.98 percent to 9.80 percent (Linge and Hamilton, 1981, p. 17).

Preconditions for export-oriented manufacturing in Third World countries were large supplies of labour, the division of production processes into many simple operations, and improved global transport and

* According to Linge and Hamilton (1981) NICs consist of Spain, Portugal, Greece, Yugoslavia, Brazil, Mexico, Hong Kong, South Korea, Taiwan, and Singapore.
communications (Frobel, Heinrichs, and Kreye, 1980). Lower tariffs,
negotiated as part of the General Agreement on Tariffs and Trade (GATT),
have aided international trade. An example of lower tariffs is the
United States tariff schedule. United States tariffs averaged 26
percent in 1946, 8 percent in 1978, and by 1987 are due to average 5
percent (Economist, December 25, 1982). Third World exports have
benefited from preferential tariffs levied by First World governments,
e.g., the Generalized System of Preferences (GSP) (Currie, 1979). The
Lomé Convention is a concessionary trade agreement between the European
Economic Community (EEC) and African, Caribbean, and Pacific (ACP)
states. U.S. tariff schedule items 806.3 and 807.0 allow United States
products to be assembled and processed overseas and returned to the
United States free of duty except for the duty on the value added by
operations overseas.

Linge and Hamilton (1981) explain increased Third World
manufacturing on the basis of a combination of the product cycle theory
under which the production of mass-produced goods made with standardized
technology are diffused to countries with low skilled labour and the
comparative advantage that Third World countries have in cheap and
abundant labour. It may be added that this low wage labour advantage is
not just comparative but is also absolute.

Frank (1981) emphasizes that Third World manufacturing for world
markets was supported by the United States Government which felt the
political necessity to bolster support for non-Communist regimes. Frank
puts initial Asian export-led industrialization in the context of the
Vietnam War. He neglects to mention anti-communism by the elites and middle classes in many Third World countries, e.g., South Korea, Taiwan, the Philippines, Malaysia, and Singapore. Frank also claims that the transfer of production processes to the Third World is a response to a crisis of low profits in First World manufacturing.

All writers (e.g., Frobel, Heinrichs, and Kreye, 1980; UNIDO, 1980; Linge and Hamilton, 1981; Frank, 1981) acknowledge the pivotal role of transnational corporations, primarily Japanese-based in the case of South Korea and Taiwan, American-based in the case of Latin America, and European-based in the case of Africa and the Middle East, in Third World export-oriented manufacturing. Indeed, "world trade is increasingly becoming a flow of commodities between the plants of the same companies spread throughout the world, or at least a flow between companies and their partners in subcontracting agreements" (Frobel, Heinrichs, and Kreye, 1981, p.13). In the late 1960s transnational corporations accounted for some 30 percent of the Third World countries' manufacturing exports, ranging from 10 percent in India and Pakistan to 50 percent in Singapore (Frank, 1981, p. 99). Frank (p. 99-100) found that participation by transnational corporations was (and is), "particularly strong in the new electronics components manufacture in Asia and Mexico and in heavy industrial and manufacturing products". A great deal of the export-oriented Third World manufacturing by transnational corporations is concentrated in export processing zones and in Hong Kong and Singapore, which have EPZs characteristics. Investment by transnational corporations in EPZs is an important factor explaining the diffusion of export processing zones.
3.3 The Diffusion of Export Processing Zones

The model for export processing zones (EPZs) is in Europe, albeit a peripheral part, Ireland. The Shannon Export Free Zone was established in 1959 to maintain employment at a refuelling airport threatened by the development of longer range jets (Currie, 1979). In the late 1970s, about 5,000 people were employed producing goods, many of them electronic, for export. Currie (1979) concludes that the Zone generated satisfactory, if modest, direct returns in terms of employment, net exports, and balance of payments. In addition, Currie credits it with pioneering the development of an export based industrial sector in Ireland.

Hutterman (1979) in a survey-questionnaire found that linkages between firms on the Shannon Industrial Estate were rare and the use of air transport was "lower than expected": 32 percent of goods imported into the Estate were said to have come by air, while 57 percent of exports went by air. Estall and Buchanan (1975) claim that the success of the Shannon Free Trade Zone was helped so much by generous government financial support and an abundant labour supply that it is difficult to disentangle these factors from the duty-free aspects.

To the United Nations Industrial Development Agency (UNIDO), Shannon looked like a success. UNIDO and UNIDO-sponsored Shannon officials began fanning out around the globe to fuel enthusiasm for this hybrid industrial estate-freeport which fit into the new strategy of export-oriented industrialization for the Third World. UNIDO could
point also to the micro-states of Hong Kong and Singapore (after its 1965 break with Malaysia) which were freeports and had industrial estates since the mid-1960s. It is claimed that the South Korean Government’s decision to set up its first EPZ “was prompted by Motorola’s decision to invest in Singapore, since the red tape required in setting up a bonded factory in South Korea was too complicated” (AMPO, 1977, p.61).

Before 1966, apart from Shannon, there were only 2 EPZs: Mayaguez in Puerto Rico and Kandla in India (Currie, 1979). However, both these zones can be excluded from the diffusion process: Mayaguez (founded in 1961) being a United States Foreign Trade Zone and Kandla being too local and small to encourage imitation.

In the 1960s the high value of the American dollar encouraged American transnationals to shift assembly lines to Mexico and the Caribbean. The Mexican Free Perimeter along the U.S. border can be considered one huge export processing zone or many. Mexican towns generally are twinned economically with American border towns. The labour intensive operations are performed in plants on the Mexican side of the border, while more complex processes and managerial functions are conducted in the United States town (House, 1982). La Romana EPZ in the Dominican Republic also caters to American capital, primarily textile firms (Currie, 1979). The Colon zone (primarily commercial) and Manaus in Brazil likewise were established between 1966 and 1970.
In Japan in the 1960s, a labour 'shortage' encouraged Japanese firms to locate in Taiwan where the Kaohsiung EPZ was established in 1966 and South Korea where the Masan EPZ was founded in 1970. The Taiwanese EPZs had more local capital, usually textile firms which sold to American department stores and shirt manufacturers (AMPO, 1977). The Masan EPZ was dominated by small and medium size Japanese firms. Both the Taiwan and South Korean Governments made political decisions to encourage foreign investment to ensure their defence against communist attack; in a sense, Western and Japanese firms were to be hostages.

The real Japanese economic assault on the Far East occurred in the early 1970s after the introduction of new technology and assembly line operations in electronics and the 1971 devaluation of the American dollar which effectively revalued upwards the yen. Between 1971 and 1975 fourteen of the twenty-three new EPZs were established in Asia: nine in Malaysia; two each in Taiwan and South Korea; and one in India (Currie, 1979. Because of definitional problems other authors give slightly different numbers). Table 3.1 lists the dates of establishment of Asian EPZs. Table 3.2 indicates the importance of Japanese investment in Asian EPZs.
TABLE 3.1
DATE OF ESTABLISHMENT OF EAST AND SOUTH ASIAN EXPORT PROCESSING ZONES

<table>
<thead>
<tr>
<th>Location</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kandla, India</td>
<td>1965</td>
</tr>
<tr>
<td>Kaohsiung, Taiwan</td>
<td>1966</td>
</tr>
<tr>
<td>Bataan, Philippines</td>
<td>1969 (1972&lt;sup&gt;a&lt;/sup&gt;)</td>
</tr>
<tr>
<td>Nantze, Taiwan</td>
<td>1970</td>
</tr>
<tr>
<td>Masan, S. Korea</td>
<td>1970</td>
</tr>
<tr>
<td>Taichung, Taiwan</td>
<td>1971</td>
</tr>
<tr>
<td>Sungai Way, Malaysia</td>
<td>1971</td>
</tr>
<tr>
<td>Batu Berendum, Malaysia</td>
<td>1972</td>
</tr>
<tr>
<td>Tanjong Kling, Malaysia</td>
<td>1972&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Bayan Lepas, Malaysia</td>
<td>1972&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Prai, Malaysia</td>
<td>1973</td>
</tr>
<tr>
<td>Prai Wharves, Malaysia</td>
<td>1973</td>
</tr>
<tr>
<td>Santa Cruz, India</td>
<td>1974</td>
</tr>
<tr>
<td>Ampang Ulu Klang, Malaysia</td>
<td>1974</td>
</tr>
<tr>
<td>Iri, S. Korea</td>
<td>1975&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Phividea, Philippines</td>
<td>1975</td>
</tr>
<tr>
<td>Senai, Malaysia</td>
<td>1977</td>
</tr>
<tr>
<td>Katunyake, Sri Lanka</td>
<td>1978</td>
</tr>
<tr>
<td>Batam, Indonesia</td>
<td>1978</td>
</tr>
<tr>
<td>Telok Panglima Garang, Malaysia</td>
<td>1979</td>
</tr>
</tbody>
</table>

<sup>a</sup> Date refers to start of operations, since operations delayed.
<sup>b</sup> Currie (1979) gives 1970 as the establishment date for the Bayan Lepas EPZ.

Sources: AMPO (1977)
Currie (1979)
Ping (1979)
### Table 3.2

**Selected East and South Asian Export Processing Zones:**

**Sources of Capital by Country and Number of Firms**

<table>
<thead>
<tr>
<th>Zone (Year of Data)</th>
<th>Japan</th>
<th>U.S. - Can.</th>
<th>Europe</th>
<th>Local</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kandla (1975)</td>
<td>0</td>
<td>.5</td>
<td>0</td>
<td>39.5</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>Kaohsiung (1975)</td>
<td>50.5</td>
<td>11.5</td>
<td>n.d.</td>
<td>52.0</td>
<td>14.0</td>
<td>128</td>
</tr>
<tr>
<td>Bataan (1978)</td>
<td>7.5</td>
<td>2.0</td>
<td>0</td>
<td>21.5</td>
<td>13.0</td>
<td>44</td>
</tr>
<tr>
<td>Masan (1975)</td>
<td>95.0</td>
<td>8.0</td>
<td>0</td>
<td>0</td>
<td>2.0</td>
<td>105</td>
</tr>
<tr>
<td>Batu Berendum (1978)</td>
<td>1.0</td>
<td>1.0</td>
<td>4.0</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Tanjong Kling (1978)</td>
<td>0</td>
<td>0</td>
<td>1.5</td>
<td>1.0</td>
<td>.5</td>
<td>3</td>
</tr>
<tr>
<td>Bayan Lepas (1975)</td>
<td>4.0</td>
<td>10.0</td>
<td>0</td>
<td>0</td>
<td>9.0</td>
<td>23</td>
</tr>
<tr>
<td>Santa Cruz (1978)</td>
<td>1.0</td>
<td>7.0</td>
<td>2.0</td>
<td>21.0</td>
<td>0</td>
<td>31</td>
</tr>
<tr>
<td>Iri (1975)</td>
<td>6.0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2.0</td>
<td>8</td>
</tr>
<tr>
<td>Katunyake (1978)</td>
<td>0</td>
<td>3.5</td>
<td>4.0</td>
<td>27.0</td>
<td>11.5a</td>
<td>46</td>
</tr>
<tr>
<td>Telok Panglima Garang (1978)</td>
<td>3.0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

*a includes 14 firms from Hong Kong in joint ventures.*

**Notes:**

1) A joint venture is calculated as .5 for each participant. In the case of Santa Cruz, joint venture means equity and/or technical collaboration.

2) Joint venture data for South Korea and Malaysia unknown, but local equity is probably small. Japanese and U.S. joint ventures are included in the 'Japan' and 'U.S.' categories.

**Sources:**

AMPQ (1977), p. 41

Currie (1979)

Calculations by author.
In the same period, 1971 to 1975, in Latin America and the Caribbean, three EPZs were opened in Colombia, one each in El Salvador and Guatemala, two in the Dominican Republic, and one in Haiti (Currie, 1979). These zones were (and, presumably, still are) oriented to the United States. For example, the Port-au-Prince Free Trade Zone, founded in 1974, shipped all its exports to the U.S. in 1976. These amounted to U.S. $88 million, $59 million of which were electronic equipment, transformers, and switchgears (Currie, 1979, p. 115).

The Mauritius EPZ, established in 1971, was the first zone to have Europe as its main market. European capital and/or markets were important in the thirteen EPZs opened in the Middle East and Africa from 1976 - 1978. Four EPZs were in Egypt, five in Syria, and one each in Jordan, Liberia, Senegal, and Togo (Currie, 1979).

From 1976 to 1978 Jamaica, Belize, Honduras, Nicaragua, Chile, Western Samoa, Malaysia, Sri Lanka (Currie, 1979) and Indonesia (Ping, 1979) set up one EPZ each. Note that in this period only three zones were set up in Asia.

Ping (1979) describes zones in Indonesia, Bangladesh, and Sri Lanka and the four special economic zones in the People's Republic of China as the second generation of Asian zones. These zones are oriented to the regional metropolitan centres of Singapore or Hong Kong. Two factors are important: 1) higher labour costs in Singapore and Hong Kong and 2) capital surpluses in the city-states. An example is the Katunyake EPZ in Sri Lanka where 40 percent of the firms were from Hong Kong in
1978 (Table 3.2). Sixty-three percent of industries consisted of textiles, clothing, footwear, and leather accessories (Table 3.3). Sri Lanka's relatively generous quota for textile and clothing exports to the E.E.C. (Ponnambalam, 1980) and exemption from the U.S. textile quota (Currie, 1979) explain this. Recently, the Philippines Government has laid out Mactan EPZ to attract Hong Kong capital fleeing Hong Kong's uncertain future (Gonzaga, 1982).
### Table 3.3

**East and South Asian Export Processing Zones:**

**Main Industries and Employment, 1977 or 1978 (1975 Masan)**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Textiles, Clothing, Footwear, and Leather Accessories (%)</th>
<th>Electronics (%)</th>
<th>Total Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kandla</td>
<td>36</td>
<td>--</td>
<td>1 400</td>
</tr>
<tr>
<td>Kaohsiung</td>
<td>28</td>
<td>24</td>
<td>41 885&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Bataan</td>
<td>52</td>
<td>5</td>
<td>17 307&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Nantze</td>
<td>11</td>
<td>37</td>
<td>20 425&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td>Masan</td>
<td>8</td>
<td>25</td>
<td>20 950&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td>Taichung</td>
<td>18</td>
<td>38</td>
<td>15 079&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td>Batu Berendum</td>
<td>0</td>
<td>100</td>
<td>5 600</td>
</tr>
<tr>
<td>Tanjong Klang</td>
<td>100</td>
<td>0</td>
<td>1 000</td>
</tr>
<tr>
<td>Bayan Lepas</td>
<td>15</td>
<td>65</td>
<td>22 700</td>
</tr>
<tr>
<td>Sungai Way</td>
<td>--</td>
<td>58</td>
<td>9 244</td>
</tr>
<tr>
<td>Prai</td>
<td>43</td>
<td>--</td>
<td>30 997</td>
</tr>
<tr>
<td>Prai Wharves&lt;sup&gt;a&lt;/sup&gt;</td>
<td>100</td>
<td>0</td>
<td>2 851</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>0</td>
<td>100</td>
<td>n.a.</td>
</tr>
<tr>
<td>Ampang Ulu Klang</td>
<td>20</td>
<td>89</td>
<td>8 548&lt;sup&gt;e&lt;/sup&gt;</td>
</tr>
<tr>
<td>Iri</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Gumi</td>
<td>n.a.</td>
<td>n.a.</td>
<td>12 000</td>
</tr>
<tr>
<td>Phividea</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Senai</td>
<td>0</td>
<td>100</td>
<td>n.a.</td>
</tr>
<tr>
<td>Katunyake</td>
<td>63</td>
<td>0</td>
<td>5 250</td>
</tr>
<tr>
<td>Batam</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Telok Panglima Garang</td>
<td>0</td>
<td>100</td>
<td>1 581</td>
</tr>
</tbody>
</table>

<sup>a</sup> One company in zone  
<sup>b</sup> 48% of employment in electronics  
<sup>c</sup> 53% of employment in electronics  
<sup>d</sup> 63% of employment in electronics  
<sup>e</sup> 94% of employment in electronics  
<sup>f</sup> Figures for 2 out of 3 firms  

Sources: Currie (1979), Ping (1979)  

Percentages calculated by author
Because of definitional problems, inventories of export processing zones will vary. Frobel, Heinrichs, and Kreye (1980) identify seventy-nine free production zones in operation in 1975 in twenty-five underdeveloped countries, eleven of which were in Asia, five in Africa, and nine in Latin America (including the Caribbean). UNIDO (1980) lists more than fifty operating zones, twenty in Asia, twenty in the Caribbean and Latin America, six in Africa, six in the Middle East, and one in the Pacific. In addition, thirty EPZs and free zones were under development in 1980. Diamond and Diamond (1983) catalogue over four hundred duty-free zones, but many of these are freeports and transit zones. Because of definitional problems, Figures 3.1 - 3.4, showing the spatial diffusion and distribution of EPZs, should not be regarded as definitive.

The pattern of diffusion of export processing zones can be understood in terms of metropolitan dominance of proximate, peripheral areas. Mexican, Central American, and Caribbean EPZs are influenced most strongly by economic conditions in and capital exports from the United States. Far East and Southeast Asian EPZs are related to Japan, while Middle Eastern and African EPZs are associated with Europe. Language, cultural, and political ties are complicating factors. There is a large amount of United States and, to a lesser extent, British capital in EPZs in English-speaking countries like Malaysia, Singapore, Hong Kong, and Sri Lanka.
In 1978 total employment in EPZs was about 474,000, with 59 percent of these workers in Asia, 17 percent in the Caribbean, 7 percent in South America, and 4 percent in the Middle East (Currie, 1979, p. 8). Frobel, Heinrichs, and Kreye (1980, p. 496) estimated that two-thirds of the 750,000 Third World workers in world market factories worked in EPZs. The numbers of people working in EPZs are less impressive when compared to total manufacturing employment. Only in Honduras, El Salvador, Taiwan, South Korea, and Mauritius does employment in EPZs account for more than 2 percent of the labour force in manufacturing and the highest percentage (in South Korea) is only 4.3 (Currie, 1979, pp. 8-9). Often people writing about EPZs focus on their employment effects. The next section discusses the issues raised by export processing zones.

3.4 Issues Raised Concerning Export Processing Zones

Export processing zones are criticized for generous concessions and subsidies to transnational corporations, the exploitation of labour, their incomplete industrial processes which prevent the transfer of technology and skills needed to establish a complete production process, and poor balance of payments effects (AMPO, 1977; Frobel, Heinrichs, and Kreye, 1980; Frank, 1981).

Many of these criticisms are made of and cannot be separated from criticisms of export-led industrialization. Some of the disadvantages of EPZs are not essential to the EPZ concept. For example, subsidies to transnational corporations can be discarded while retaining EPZs. Some
of the criticisms of EPZs degenerate into polemics. A good example is the discussion of employment which writers like Frank (1981) regard as the 'super-exploitation of labour'. The employment conditions of women, who characteristically comprise 75 - 85 percent of the labour force in Asian and Mexican EPZs (Table 3.4 and House, 1982, respectively), are condemned. Yet, nowhere were data found supporting this condemnation. Only one study mentioned "direct investigation" of labour conditions. This study found that Mexican women workers in border duty-free factories (maquiladoras) "are happy to have their work" for the money, consumer lifestyle, and enhanced status (Srinivasam, 1981). Opponents of EPZs must keep their criticisms in the context of the Third World situation of extremely high unemployment and underemployment, low skill levels, and capital shortages. The essential issues boil down to poor balance of payments effects, lack of technology and skill transfer, and, related to the foregoing, the enclave nature of EPZs.
### TABLE 3.4

**SELECTED EAST AND SOUTH ASIAN EXPORT PROCESSING ZONES:**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Total Employment</th>
<th>Female Employment</th>
<th>% Female Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaohsiung</td>
<td>41 885</td>
<td>33 654</td>
<td>80</td>
</tr>
<tr>
<td>Bataan</td>
<td>17 885</td>
<td>15 202</td>
<td>85</td>
</tr>
<tr>
<td>Nantze</td>
<td>20 425</td>
<td>16 534</td>
<td>81</td>
</tr>
<tr>
<td>Masan</td>
<td>20 950</td>
<td>15 340</td>
<td>73</td>
</tr>
<tr>
<td>Taichung</td>
<td>15 079</td>
<td>11 733</td>
<td>78</td>
</tr>
<tr>
<td>Sungai Way</td>
<td>9 244</td>
<td>7 495</td>
<td>81</td>
</tr>
<tr>
<td>Ampang Ulu Klang</td>
<td>8 548</td>
<td>6 411$^a$</td>
<td>75</td>
</tr>
</tbody>
</table>

$^a$ approximate

Source: Currie (1979)

Percentages calculated by author
By definition EPZs should promote a positive balance of payments since exports must equal or exceed imports and workers are paid in the local currency. Frank (1981, p. 103) is scalding in his condemnation of EPZs for promoting foreign debts, "because foreign exchange earnings are limited while import expenditures and indebtedness to finance them seems to grow without limit". Frank is correct that components and raw materials are not the only causes of a hard currency drain. Hard currency outflows pay for patents, trademarks, technology, information, high-salaried expatriates, and new consumer 'needs' and services. Frank's 'conclusive evidence' of the negative balance of payments effects of EPZs is that Brazil, Mexico, and South Korea are heavily in debt. This is a limpid argument since a developing country is almost bound to have a capital shortage and be in debt and it ignores the economies of the foregoing countries outside the EPZs. Marxist critics neglect to mention the demand by Third World people for consumer goods. An overall assessment of EPZ balance of payments effects on all Third World countries is probably impossible. UNCTAD (1983) is sensible to suggest that each Third World government stress that each of its EPZ generate the foreign exchange to pay for significant capital spending in the Customs territory of each state.

EPZ firms have been criticized for transferring techniques of production, not technology (AMPO, 1977). This is a valid complaint, though there may be no easy way of transferring technology because much of it is controlled by transnational corporations. Research and development are concentrated in the First World, and capital shortages and/or legal problems mitigate against Third World firms acquiring licenses.
EPZ firms have poor backward linkages with domestic industries in their host countries (Frobel, Heinrichs, and Kreye, 1980; UNIDO, 1980; Frank, 1981; UNCTAD, 1983). This is not surprising considering that an EPZ is a duty-free zone.

The lack of linkages to the economy of the host country is not simply a function of the duty-free enclave nature of EPZs. This same problem is found in the cases of individual firms in non-EPZ locations in Third World countries, e.g., the Peugeot automobile assembly plant and the Star beer brewery in Nigeria. The dual economy is a pervasive feature of the Third World.

Critics of EPZs underrate the local economic activity generated by EPZ firms. EPZ firms seem to obtain a higher proportion of services locally than goods (UNIDO, 1980). Asian clothing firms have greater capital and input linkages with the local economies and subcontract to Western department stores, fashion houses, and transnational corporations (Steed, 1981). Table 3.2 illustrates that there is considerable local capital invested in firms in Asian EPZs. UNIDO (1980) claims that there is evidence from free production zones in Europe that though particular operations may be footloose, companies may be more permanent. Turner cites examples of economies which have been upgraded:

Japan has certainly managed this feat (upgrading). Other economies like Hong Kong, India, Pakistan, Taiwan, and South Korea are busy improving textiles towards synthetics, while Singapore is using its incentive scheme to attract a more highly skilled kind of investment. (Turner, 1973, p. 191)
In the late 1970s, Singapore gained more value added in manufacturing and other industries by deliberately increasing the wage rates of workers in Singapore (Economist, March 24, 1984). It must be cautioned that conditions in different countries are not exactly comparable. For example, the processes involved in the Japanese economic miracle cannot be replicated. The point is that economies can be upgraded. There is at least one example of economic upgrading in a EPZ. In the late 1960s, all the firms in the Kaoshiung, Taiwan EPZ produced textiles, clothing, or footwear. By the late 1970s (see Table 3.3), about half of the companies on the Kaoshiung industrial estate were producing electronic goods. It has been argued that increased economic activity in Newly Industrializing Countries will benefit NICs leading these countries to an intermediate position in the world economic hierarchy (Linge and Hamilton, 1981). In their overall assessment, critics are correct in asserting the EPZs are unlikely to be growth poles, spawning industrial complexes.

There are advantages to localizing export-oriented manufacturing in enclaves. Infrastructure and administration with minimal red tape can be provided economically. Surveys of companies have shown that they regard the unbureaucratic, centralized public administration of EPZs and the physical infrastructure to be 'essential advantages' (UNIDO, 1980). The concentration of industries in EPZs is facilitated by their need to be near international trade and communication nodes because of poor transport and communications in the interior of many Third World countries. Production and communications are oriented outwards. EPZs are First World enclaves in the Third World.
The creation of EPZs in communist states illustrates the use of enclaves to circumvent the laws and economic system of the host country. For example, capitalist companies operating in Koper Customs-free Zone (effectively an EPZ) in Yugoslavia can own 100 percent of the enterprise, pay no taxes on profits, and can receive subsidies without violating Socialist tenets because they are not considered to be operating in Yugoslavia proper (Diamond and Diamond, 1983). Yugoslav Customs-free zones, the Romanian freeport (which allows some manufacturing), and the special economic zones of the People's Republic of China are First World enclaves in the Second World.

One must examine manufacturing duty-free zones in the context of the countries in which they are located. Taiwan, South Korea, Hong Kong, Singapore, Malaysia, Sri Lanka, Jordan, Senegal, Haiti and many other countries with export processing zones have domestic markets which are too small to enable industrialization based solely on protected domestic markets. Even in India, the total purchasing power is less than in Canada. India's tough import controls and red tape are entrenched by the political philosophy of the country. EPZs are a way to lessen these problems and instill some dynamism into the Indian economy.

Assessments of EPZs must also be made on the basis of diverse social and economic factors. There must be a recognition that modernization entails social change and disruption. These assessments should avoid polemics and narrow benefit-cost analyses. In countries
with successful EPZs, the rest of the economy will develop strong linkages with the EPZs and similar infrastructure to EPZs. The highest accolade for a country’s EPZs will be the elimination of the enclaves. Whether or not EPZs have succeeded, many people in the First World have looked at their growth and concluded that export processing zones deserve emulation.

3.5 Enterprise Zones

Hong Kong provides the model for the idea of enterprise zones in decaying urban centres of industrialized countries. Peter Hall initiated the idea in 1977 when he suggested a 'Crown Colony-Freeport' solution in which:

- Small, selected areas of inner cities would be simply thrown open to all kinds of initiative, with minimal control. In other words, we would aim to recreate the Hong Kong of the 1950s and 1960s inside inner Liverpool or inner Glasgow. (Hall, 1982, p. 417)

Hall (1981) stressed that an implication of maximum freedom in the zones was that they would be "outside the limits of the parent country's legislation". He prescribed his medicine as a "last ditch answer" to the devastation zones of British inner cities where an unskilled, unemployed population resides.

Hall's prescription of free enterprise zones for inner cities (minus the 'Crown Colony-Freeport' suggestion) was taken up by Sir Geoffrey Howe when he was Conservative spokesman on treasury and economic affairs in the U.K. Howe (1978) protested at the over regulation and high taxation of British businesses and at the
combination of widespread public land ownership and public intervention in the inner cities which he felt led to derelict land and the decline in the number of businesses in the inner city.

Stuart Butler of the Washington, D.C. thinktank, the Heritage Foundation, popularized enterprise zones in the United States. Butler (1981) blamed governments at all levels for the blight of American inner cities. He put great stress on the need for the abolition of minimum wages in enterprise zones to encourage business. Despite "the relative prosperity of Canadian cities", Herbert Grubel (1983) of the Vancouver thinktank, the Fraser Institute, suggested Canadian enterprise zones to tackle the problems of urban decay, lack of entrepreneurship, and housing.

It is clear that laissez-faire liberals like the idea of enterprise zones, since the zones fit in with their belief in an unregulated society where free enterprise reigns supreme. Their justifications are theoretical and show faith in neoclassical economics. The ideological fervour of laissez-faire liberals is matched by that of the left. Massey (1982, p. 433) is correct in describing the enterprise zone proposal as part of, "a wider 'free enterprise' ideological onslaught ... in which all restraint on capital by the state is interference with liberty". She blames inner city blight on the flight of private capital from inner cities.
Enterprise zones are designed to attract industry and encourage new industry by lowering costs. A major cost to be lowered is labour. Companies, especially manufacturing, are supposed to be attracted to the enterprise zones to employ low wage, unskilled inner city residents. J. Anderson asks:

But how would they get labour at wage levels even remotely comparable to those on which Hong Kong's type of labour-intensive economy is based, or even at a level substantially reduced below the relatively low British levels? Would even the chronically unemployed of Liverpool and Glasgow want to work in his 'Hong Kongs' if they had any other means of staying alive? (Anderson, J., 1983, p. 318)

Anderson points out that enterprise zones are small areas, but labour markets are not. This suggests that enterprise zones will have to offer competitive wages. Harrison (1982) claims that tax breaks will not help new companies; these companies need venture capital.

Sir Geoffrey Howe, Conservative Chancellor of the Exchequer, introduced enterprise zone legislation in March, 1980. In 1982, eleven zones were operating and the Government announced plans to double the number. Apart from the Isle of Dogs, all operating zones were outside the Southeast and Southwest. These zones are not 'pure' enterprise zones, because health, safety, and employment protection laws apply inside the zones. The retention of national laws illustrates a political problem with 'pure' enterprise zones. How can politicians get away with suspending worker protection laws? The Government offers site developers in enterprise zones complete exemption from Development Land Tax, one hundred percent allowances for capital expenditures on industrial and commercial buildings, and simplified planning procedures.
Operating businesses in enterprise zones are exempt from paying rates on industrial and commercial property (Anderson, J., 1983).

Actual operations of U.K. enterprise zones have raised doubts about their effectiveness. Firms adjacent to the zones have complained of subsidizing firms inside the zones by paying rates and higher taxes. Critics claim that property values inside the Trafford Park zone soared by 30 percent in a year, while those outside have fallen by some 25 percent (Economist, September 19, 1981). A case study of the 197 hectare Swansea enterprise zone gives additional evidence of poor results from an enterprise zone (Economist, November 20, 1982). The local Council spent 1.4 million pounds on roads, sewers, and other infrastructure for the Swansea zone. Of forty-four firms, twenty (46%) were firms relocating from outside the zone to within, almost all were from close by. Only fifteen (34%) were new ventures. Of all the enterprise zone firms, fifty-four percent were in the service sector. Ninety-six jobs were 'new' of two hundred and thirty-eight jobs (in thirty-five firms). Land values of industrial sites near the zone declined by ten percent. (Much of the land inside the zone was held by the Council who froze rents.) The studies raise doubts about real job creation, suggest that rising property values negate, wholly or partially, government subsidies, and indicate negative effects on property values adjacent to enterprise zones. There is no evidence that enterprise zones are incipient Hong Kongs.

The objectives of enterprise zones have been modified in the U.S. Butler (1981) gives the American objectives as revitalizing decaying or
decayed neighbourhoods and aiding emergent small businessmen in these neighbourhoods. Some states have established enterprise zones where state taxes have been decreased. In 1980, a bill was introduced in the United States Congress by Representatives Jack Kemp, a Republican, and Robert Garcia, a Democrat from the South Bronx, to create federal enterprise zones. This bill specified that enterprise zones could be designated only in areas of "pervasive poverty, unemployment, and general distress" having a population of at least 4,000 people. Principal instruments in the bill are tax shelters and tax credits to people who invest in enterprise zones.

The enterprise zone proposal has been criticized in the United States for not addressing the major impediments to economic development in slums: higher crime rates, poorer public services, and decaying infrastructure (Ahlbrandt, 1982 and Hazlett, 1982). Other criticisms echo British concerns about discriminatory subsidies to industries, real job creation, boundary effects, and capital gains to land owners. It seems that targeting small areas for concentrated economic activity may not be a good idea.

Enterprise zones are not duty-free zones. There have been proposals to combine enterprise zones with foreign trade zones (Butler, 1981) and with freeports (described in Anderson, J., 1983). The United Kingdom freeports announced in February, 1984 (Financial Times, February 4, 1984) are part of the same small area development policy as enterprise zones. The lessons of enterprise zones are applicable to other small area development projects. An important lesson is that
policy conceived by ideologues is fraught with problems in implementation. These problems must not be allowed to be swept under the rug in order to justify preconceived beliefs. It is to another small area development tool, foreign trade zones, which also have been promoted by laissez-faire liberals, to which we turn next.

3.6 The Operations of Foreign Trade Zones

United States foreign trade zones (FTZs) are governed by the Foreign-Trade Zones Act of 1934 which was amended in 1950 to allow manufacturing and in 1958. The aim of the Act is:

To provide for the establishment, operation and maintenance of foreign-trade zones in ports of entry of the United States to expedite and encourage foreign commerce, and other purposes.
(48 Stat. 998 - 100; 19 U.S.C. 81 a-Blu)

Foreign trade zones are outside the Customs territory of the United States. However, the U.S. Customs Service is responsible for controlling admission, inventory control, manipulation, and exit of goods. FTZs are granted to states, countries, and other public bodies, often port commissions, by the Foreign-Trade Zones Board of the U.S. Department of Commerce. The day-to-day operations of the Zones may be contracted out to private companies. Most FTZs are general purpose zones; however, special purpose zones, called subzones, may be sponsored by a FTZ grantee. Subzones are legally a part of a zone, but are geographically separate. Typically, single plant assembly or oil refinery operations occur in a subzone.
It is important to realize that the Foreign-Trade Zone Act does not authorize the existence of autonomous enclaves where businessmen are free to do what they wish. The Act and the regulations of the Foreign-Trade Zones Board (15 C.F.R., Part 400) give the Board control over operations in a foreign trade zone. All goods in a FTZ are classified into one of five categories: privileged foreign status and privileged domestic status (basically for goods to be manipulated or manufactured), zone restricted status (for goods to be exported), articles of mixed status, and nonprivileged status (for other goods). Each category has restrictions on what can be done with the goods. It is difficult to change the status of goods, especially zone restricted goods. All manufacturing operations must be approved by the Board as being in the public interest. This approval is not necessarily automatic and involves hearings. The Board allowed only goods destined for export to be produced at a large diameter pipe plant located in the Panama City, Florida FTZ (U.S. Foreign-Trade Zones Board, 1981). After complaints about their projected operations, two Portland, Oregon FTZ firms which produced products in "the import-sensitive category (steel and textiles)", ... "voluntarily limited the zone portion of their proposed operations to export operations only" (U.S., Foreign-Trade Zones Board, 1980, p.5). In the late 1960s, the Massiasport controversy arose from plans to build a petroleum refinery in a foreign trade subzone. The FTZ status would have allowed the oil company to evade United States oil quotas. The company withdrew its proposal before the Foreign-Trade Zones Board could render a decision (Bradford, 1975).
U.S. Customs is free to inspect the premises of a FTZ at any time and has strict regulations about FTZ operations, including inventory control (19 C.F.R., Part 146). Customs requires the filling out of numerous forms. For example, form 212 is for zone entry, form 215 is for transferral of goods to customs territory, form 216 is for permission to manipulate, manufacture, or exhibit merchandise, form 7512 is for transferral of goods to another zone, form 7519 is for withdrawal of goods from consumption, and form 7505 is for zone withdrawal and consumption of goods at the site.

Foreign trade zones are subject to all laws of the United States Government, the respective states, and the municipalities in which they are located. Firms operating in FTZs must obey federal agriculture, food, and drug laws, state labour and safety laws, and municipal construction and zoning laws. A foreign trade zone is not a haven from government 'interference'.

In a foreign trade zone, merchandise:

... may be stored, sold, exhibited, broken up, repacked, assembled, distributed, sorted, graded, cleaned, mixed with foreign or domestic merchandise, or otherwise manipulated, or be manufactured. (U.S., Department of Treasury, 1982, p. 79).

The purpose of storage of goods in a foreign trade zone is usually to postpone the payment of duty, but can be to wait until a restriction on importation of a product into the Customs territory of the United States is lifted. The exhibition of goods in a FTZ negates the necessity of paying duty or posting a bond. Mixing goods with foreign or domestic merchandise is usually intended to avoid a quota. For example, the
American quota on sucrose is avoided by mixing it with dextrose (Aeppl, 1983). The object of most of the remaining operations is to lower the duty by getting the item reclassified into a tariff category bearing a lower rate of duty. Labelling undertaken at FTZs aims to make merchandise conform to American labelling requirements, necessary before goods can gain admission to United States Customs territory.

The emphasis on the manipulation of products shows the intent for Foreign Trade Zones to have a larger function than that traditionally ascribed to freeports (i.e., the transshipment of goods). Advocates of FTZs attribute to them the following wider benefits: favourable balance of payments for the United States, jobs in the U.S. rather than overseas, foreign investment in the U.S., substitution of U.S. source parts for imported parts, export stimulation, and increased international trade (National Association of Foreign Trade Zones, n.d.).

3.7 The Diffusion of Foreign Trade Zones

Foreign Trade Zones were established in 1934 in the United States as a New Deal innovation aimed at increasing depressed international trade. The inspiration for FTZs was the Hamburg and Bremen freeports (Thoman, 1956). As Thoman (p. 135) ruefully points out, also in 1934, "the freeport in Flensburg, Germany, was closed because of unsatisfactory results".
The first zone was established in New York City in 1937. The other early FTZs which survived were also international seaports: New Orleans, San Francisco, and Seattle. By the mid-1950s only the first zone, part of New York City's booming port, was doing well (Thoman, 1956). However, the New York City FTZ was handling less than one-fifth by value of the goods handled by Hamburg's freeport (calculated from figures provided by Thoman, 1956). As in Hamburg, its chief function was to expedite imports into the United States. In 1955, 71 percent by value and 90 percent by weight of the merchandise shipped from the New York Foreign-Trade Zone was destined to United States Customs territory (Kemp, 1960, p.23).

In the 1960s, foreign trade zones grew more slowly. The promoters of new FTZs at Toledo, Ohio and Bay City, Michigan hoped to exploit international shipping on the St. Lawrence Seaway. Mayaguez, Puerto Rico and Honolulu, Hawaii became the first FTZs outside the continental United States. At the end of the 1960s, there were nine approved zones, of which seven were operating (Figure 3.5). By 1981 the number of FTZs had mushroomed seven-fold to sixty-six (Figure 3.6 and Appendix B). By March 1983, ten more FTZs had been approved by the Foreign-Trade Zones Board, one had been abolished, and many applications were pending (American Import/Export Management, 1983b). The number of subzones increased more slowly from seven (with only three of these then operating) in 1969 to thirteen (all apparently operating) in 1983; only two of the 1969 subzones still existed in 1983 (U.S., Foreign-Trade Zones Board, 1969 and American Import/Export Management, 1983b).
FIGURE 3.5
FOREIGN TRADE ZONES APPROVED AS OF JUNE 30, 1969

N.B.: Alaska, Hawaii, and Puerto Rico are not at the same scale as the continental United States.

Source: U.S., Foreign Trade Zones Board, 1969
Direct employment in FTZs increased from 795 in 1971 to 9,880 in 1980 and dollar volumes of goods shipped through FTZs climbed from $213 million in 1971 to $2,970 million in 1979 (National Association of Foreign-Trade Zones, n.d.). Whether this growth can be attributed to the FTZ device or to diversions from industries outside FTZs is open to question.

Some of the reasons for the tremendous increase in the number of FTZs in the 1970s are:

1) the example of the booming export processing zones in Asia;
2) lower U.S. labour costs after the 1971 devaluation of the United States dollar meant that capital began to look for sites in the United States;
3) concern about employment and the 'deindustrialization of America' during the slow growth 1970s. Local politicians believed that the establishment of a FTZ would bring jobs to their communities; at the very least it was visible action;
4) FTZs were seen as tools of regional development;
5) FTZs could be packaged in a gamut of incentives which communities were offering to companies to locate in their community;
6) the increase in possible FTZ sites due to the proliferation of Customs ports of entry at newly international, often inland, airports. There are now over 300 certified ports of entry throughout the U.S. (Leeper, 1983);
7) more information about zones, e.g., generated by the Massinasport controversy in 1968-69 (Bradford, 1975), and the tremendous number
of articles in the business literature giving favourable reviews to FTZs.

A 1980 change in Customs appraisal procedure to exclude duty on value added in FTZs has helped to encourage new vehicle assembly operations by transnational corporations in subzones. These factors and other aspects of foreign trade zones are discussed by the authors reviewed in the next section.

3.8 A Review of the Literature about Foreign Trade Zones

Much of the literature on foreign trade zones appears in business periodicals and justifies FTZs as a means of industrial development, job creation, and assistance to manufacturers. These articles tend to be anecdotal, superficial, and optimistic. Example of these types of articles abound in Area Development (Major, 1981; Young, 1981; Gallway, 1982; Thomas, 1983) and the American Import/Export Bulletin or Management (Blood, 1980; DaPonte, 1981; Miller, 1981; Turnbull, 1981). Reports can be found in newspapers such as the Financial Post (Marsden, 1979; Gooding, 1983; Johnson, 1983), the Christian Science Monitor (Morehouse, 1980) and the New York Times (De Palma, 1983) and in magazines such as Canadian Transportation and Distribution Management (Hardaker, 1978), Business Week (November 17, 1980), Nation's Business (Turnbull, 1982), and the Boston Business Journal (Zonderman, 1983).

A common problem is an inability by writers to separate foreign trade zone device advantages from other advantages of a site. For
example, FTZ 15 in Kansas City, Missouri, which is a 2.8 million square foot underground warehouse/processing facility, is acclaimed as a great FTZ success (Economist, 1980; Area Development, 1981). However, the chief assets of the facility are its low rental, heating and air conditioning costs which are unrelated to the FTZ device (Economist, 1980; Mouat, 1982). Articles describing individual foreign trade zones often recite the operations performed or projected to be performed in a zone without any indication of their magnitude or employment effects. Optimistic claims made by directors or developers of zones are cited, but unsubstantiated (Hardaker, 1978; O'Hara, 1980; Area Development, 1981; De Palma, 1983; Foley, 1983; Zonderman, 1983).

Many articles are self-serving. Between 1978 and 1983, at least seven articles were attributed to John J. DaPonte Jr. (1978, 1979, 1980a,b,c, 1981, 1983). Mr. DaPonte was the interviewee in another article (American Import/Export Management, 1983a). Mr. DaPonte is the executive secretary of the Foreign-Trade Zones Board. Marshall Miller, Director of the National Association of Foreign-Trade Zones, has written articles promoting FTZs (Marshall, 1981, 1982). Patrick Gallway (1982), Director of Industrial Development, the Port of New Orleans, and Jack Thomas (1983) of the Georgia Department of Industry and Trade have penned articles in which they point out the advantages of the FTZs for which they are responsible. The magazine of the New York and New Jersey Port Authority, Via Port of New York - New Jersey (1982), has an article describing operations and possibilities for business at the Elizabeth/Newark FTZ 49. John Leeper (1983), vice president of a consulting firm which does FTZ feasibility studies, argues that 'do it
yourself' studies lack objectivity and waste money. Articles describing FTZ have been written by authors trying to sell their inventories of duty-free zones (Diamond and Diamond, 1983) and of foreign trade zones (Cooksey-Davis, n.d.).

The Diamond and Diamond inventory is inaccurate and out of date. For example, the 1979 edition of their book, Tax-Free Trade Zones of the World, names five 'major' U.S. and Canadian firms which operated in the Buffalo Foreign Trade Zone. None of the firms seems to be major. A 1980 newspaper article mentions only one of the firms as operating in the Zone (O'Hara, 1980). The 1983 edition repeats the assertion about the five firms using the Buffalo Zone. Other sources (including the Foreign Trade Zone questionnaire sample, see Section 4.2) indicate that only one of the named firms used the Zone in 1983 and this was for January only.

The volume of the above type of articles on foreign trade zones is so overwhelming that there is a danger that readers, including government officials, politicians, voters, and businessmen, might accept without careful examination the claims made for FTZs.

A few articles raise doubts about foreign trade zones. Cooksey-Davis (1982) attempts to dispel some myths about FTZs, while at the same time encouraging readers to buy her source book on FTZs (Cooksey-Davis, n.d.). Leeper (1983) points out that FTZs have had mixed results. An article in Iron Age, the publication of the American metals manufacturing industry, criticizes FTZs for facilitating the import
of metal products (Barks, 1980). The American Federation of Labour and Congress of Industrial Organizations (AFL-CIO) adopted a resolution in 1981 which stated, "its opposition to the creation of foreign-trade zones, because they result in job losses to the United States and have been used to undercut U.S. trade and tax laws" (Anderson, M., 1983). The few vociferous opponents of FTZs have been representatives of special interest groups.

There have been few dispassionate appraisals of foreign trade zones. Thoman (1956) did a critical, but dated, study and comparison of North European freeports and United States foreign trade zones. The U.S. Tariff Commission (1969) issued a report which concluded that the Foreign-Trade Zones Act "has not given rise to the type of commerce for which it was designed" (p. 7) and should be repealed. John Syms of the International Trade Center in Youngstown, New York wrote a private report which, according to Mr. Syms, concluded that FTZs were a failure. Unfortunately, he refuses to release the report. Reports by the U.S. International Trade Commission and the U.S. General Accounting Office, both released in early 1984, reached indecisive conclusions and emphasized the difficulty of quantifying the employment effects of FTZs (Sundstrom, 1984 a,b).

The literature on foreign trade zones in business publications reads like press releases put out by the Foreign-Trade Zones Board, the National Association of Foreign-Trade Zones, and/or individual FTZs. The articles opposing FTZs are written on behalf of protectionist local capital or labour. There is a need for an unbiased evaluation of foreign trade zones. There is a need to consider whether other methods might be viable alternatives to duty-free zones.
3.9 Alternatives to Duty-Free Zones

Duty avoidance for goods transshipped through a country and duty deferral or lowering for imported goods manipulated or manufactured in a country can be achieved in other ways than by duty-free zones. The alternatives to duty-free zones are quayside Customs sheds, bonded warehouses, bonded factories, duty drawbacks, and duty remissions.

Bonded warehouses are the most common and universal of these alternatives. (Canadian bonded warehouses regulations are in Memoranda D20 and D20-3 of the Department of National Revenue.) Bonded warehouses were found in the three non-freeports, Rotterdam, Antwerp, and London, that Thoman (1956) studied. In Rotterdam, an important international transshipment centre, quayside Customs sheds could be used for the storage of goods for up to two weeks before duty was charged. The shipper usually had to make a security deposit. Sorting and repacking were allowed with the permission of Customs officials. There was also a graduated system of bonded warehouses; the category depended on the degree of Customs supervision. The amount of the bond increased as the Customs control decreased. Bonded factories were allowed, but these operated under strict Customs control. Certain port areas were designated as areas of flag conveyance in which sealed boats or trucks, marked by flags, could transport goods from ships or quays to other ships, rail yards, quayside Customs sheds, bonded warehouses, and bonded factories.
Many countries have duty drawbacks. In Canada and the United States, ninety-nine percent of the duty paid on imported components can be repaid to the manufacturer, if the goods are exported. (Canadian drawback regulations are in Memoranda D17-4 and D17-5 of the Department of National Revenue). The delay in paying drawbacks creates cash flow problems and interest expenses. To alleviate these problems for Canadian manufacturers, an Order in Council (The Inward Processing Remission Order) was introduced in March, 1979. This order allows waiver of duty at the time of entry on products destined for export. Remissions also can be used in offset deals. In return for the purchase of Canadian automobile parts, Volkswagen is allowed to import duty-free cars into Canada (Globe and Mail, April 4, 1984). Other corporations which have used the scheme to reduce duty include Bayerische Motoren-Werke AG, Mercedes-Benz, Fiat, and Nissan (Globe and Mail, May 3, 1980). The Department of Finance argues that duty drawbacks and remissions are superior to duty-free zones, because drawbacks and remissions are spatially dispersed and are available to all manufacturers, not just those in duty-free zones (Canada, Dept. of Finance, n.d.; Gore, 1983).

A study of the possibility of a freeport at Churchill, Manitoba concluded that:

the most telling factor working against the use of a free trade zone at Churchill is that all the advantages can be gained-through the much simpler and cheaper bonded warehouse and export drawback techniques. (Manitoba, Department of Industry and Commerce, n.d., p. 76)
Stevenson and Kellogg (1978) arrived at a similar conclusion regarding a freeport in Halifax. Stevenson and Kellogg added that the soon-to-be-introduced duty remission scheme would be an additional technique working against Canadian duty-free zones.

Before judging the validity of the claims made by the Canadian Department of Finance, Manitoba Department of Industry and Commerce, and Stevenson and Kellogg, it is necessary to examine in detail the success of duty-free zones and the Canadian duty drawback and remission schemes. The next chapter presents studies of United States foreign trade zones and southern Niagara Region exporting firms. The latter study included an evaluation of the drawback and remission schemes.
CHAPTER 4

STUDIES OF FOREIGN TRADE ZONES AND EXPORTING FIRMS

4.1 An Analysis of the Foreign-Trade Zones Board Annual Reports

An analysis of the number of active foreign trade zones, merchandise shipments, imports and exports, and the financial situation of zone authorities gives an indication of the success of United States foreign trade zones. In the discussion below, all data, unless otherwise specified, are from the relevant annual report of the United States Foreign-Trade Zones Board. Since fiscal year 1977, the reports have covered year periods ending on September 30. The latest annual report was released in October, 1983 and is for the 1981 fiscal year ending September 30, 1981.

The number of operating zones increased greatly in the 1970s. In 1969 only nine zones (including three subzones) reported. In the one year period, 1978-79, the number of reporting zones increased by fifty percent from 20 to 30. In 1981, forty-five zones (including seven subzones) reported, though three of the general purpose zones were so new that they gave no usable statistics.

The National Association of Foreign-Trade Zones (n.d.) publishes a graph which shows the dollar volume of goods shipped from FTZs soaring upwards to the right. It is true that the volume of merchandise shipped
from the zones increased almost thirty times from $96 million in 1969 to
$2,856 million in 1981. The graph is based on these figures and fails
to consider the effects of inflation. Applying a price deflator
461), one arrives at a 1981 total of $1,151 million. In 1969 dollars,
the volume of merchandise forwarded from FTZs increased by a healthy
twelve times between 1969 and 1981.

When the 1981 total is disaggregated, one sees an uneven picture:
a few booming zones and many general purpose zones with sluggish
shipments. Between 1969 and 1981, shipments forwarded from special
purpose zones increased from $7.5 million to $1,906 million, an increase
in 1969 dollars of just over one hundred times. General purpose zone
shipments forwarded increased from $88.5 million to $950 million in
1981, an increase in 1969 dollars of just four times. In 1981, firms in
special purpose subzones shipped sixty-seven percent of merchandise
forwarded from all zones. Figure 4.1 illustrates the preponderant
weight of subzones 9A (Hawaiian oil refinery and synthetic natural gas
plant) and 33A (New Stanton Volkswagen plant). The Hawaiian oil
refinery shipped $867 million of goods (30% of FTZ shipments) and the
Volkswagen plant forwarded $808 million (28%). Take away these two
subzones and the shine of FTZ success becomes much duller.

Merchandise shipped from general purpose FTZs declined from an
Excluding three newer zones, the 1981 average is $12 million, still les
than the 1969 average. The $12 million average is $30 million in 1981.
FIGURE 4.1

MERCHANDISE FORWARDED FROM FOREIGN TRADE ZONES, 1978-81

$ (in millions)

3,000

2,000

1,000


N.B.: Totals for ‘Other Subzones’ in 1978 and 1979 are too small to be shown

dollars) conceals a skewed distribution. Only seven of thirty-two zones shipped merchandise valued at above the average. These seven zones, with their 1980 and 1981 merchandise forwarded figures, are shown in Table 4.1.
<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>McAllen</td>
<td>271.0</td>
<td>308.4</td>
<td>67</td>
</tr>
<tr>
<td>32</td>
<td>Miami</td>
<td>74.4</td>
<td>159.8</td>
<td>71</td>
</tr>
<tr>
<td>1</td>
<td>New York City</td>
<td>115.8</td>
<td>100.2</td>
<td>71</td>
</tr>
<tr>
<td>2</td>
<td>New Orleans</td>
<td>80.2</td>
<td>76.0</td>
<td>3</td>
</tr>
<tr>
<td>15</td>
<td>Kansas City, Missouri</td>
<td>42.4</td>
<td>63.5</td>
<td>11</td>
</tr>
<tr>
<td>25</td>
<td>Port Everglades</td>
<td>37.0</td>
<td>58.1</td>
<td>21</td>
</tr>
<tr>
<td>18</td>
<td>San José</td>
<td>23.9</td>
<td>47.8</td>
<td>45</td>
</tr>
<tr>
<td>24</td>
<td>Wilkes-Barre&lt;sup&gt;a&lt;/sup&gt;</td>
<td>145.0</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>788.7</td>
<td>813.8</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> The R.C.A. plant in FTZ 24, which produced solid state devices, closed in 1980.

The seven 'above average' general purpose zones all are located in regions of economic prosperity. The McAllen FTZ in Texas, five kilometres from the Mexican border, is in the Mexico-United States transborder industrial area. In 1981, over three-quarters of the goods received at the McAllen FTZ were from United States Customs territory. There is little or no advantage to warehousing these goods at a FTZ. More than a quarter of the goods received are television parts which will be assembled into completed sets in Mexican 'maquiladoras'. The Miami FTZ takes advantages of Miami's role as a transshipment centre between the United States, Asia, and Europe on the one hand and Latin America and the Caribbean on the other hand. The Port Everglades FTZ also serves booming Southern Florida. New York City's FTZ, at the Brooklyn naval yard, participates in the trade of North America's busiest harbour. The New Orleans FTZ is a conduit for imports into the prosperous South. Ninety-seven percent of goods shipped from the FTZ are imported into the United States. The port of New Orleans had the third biggest volume by value of dry cargo of ports in the United States in 1981 (U.S., Bureau of the Census, 1982). Kansas City, Missouri has the lowest monthly lease rates of the thirty-two general purpose zones listed by Cooksey-Davis (n.d.). Its heating and air conditioning costs are low. San Jose is in the middle of California's Silicon Valley. In the San Jose FTZ, substandard integrated circuits are destroyed and gold is reclaimed. Merchandise received exceeded merchandise shipped by $19 million in 1980 and by $69 million in 1981. These seven zones are the most successful FTZs. Yet in less that half of them, McAllen, Miami, and New York City, did exports exceed 50 percent of merchandise forwarded in 1981 (Table 4.1). In the Miami FTZ there were no
manipulation or manufacturing operations performed and in the McAllen FTZ there were few.

The National Association of Foreign-Trade Zones (n.d.) claims that foreign trade zones stimulate exports from the United States. Sixty-two percent of merchandise received by value in general purpose FTZs were imports in 1981. Imports received exceeded exports shipped by $226 million in general purpose zones (see Table 4.2). About half of the merchandise forwarded was exported. This is an improvement over 1980 (about 40% exported) and 1979 (about 30%). It must be remembered that over eighty percent of exports are accounted for by the 'big three' FTZs: McAllen, Miami, and New York City. These three zones exported almost eighty percent of the merchandise forwarded from them (see Table 4.1). As a group, the other general purpose zones exported less than a quarter of the merchandise forwarded from them. Apart from the 'big three' FTZs, most general purpose FTZs are import facilitating.

In subzones, sixty-nine percent of the merchandise received were imports in 1981. Imports received exceeded exports forwarded by $833 million (see Table 4.2). Less than a quarter of subzone merchandise forwarded was exported. The bulk of these exports (92%) were petroleum products from the Hawaiian oil refinery. Apart from the Hawaiian oil refinery, foreign trade subzones are import facilitating.
### Table 4.2

**Merchandise Received At And Forwarded From Foreign Trade Zones, 1981**

*(in millions of dollars)*

<table>
<thead>
<tr>
<th></th>
<th>Merchandise Received</th>
<th>Merchandise Forwarded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>From U.S.</td>
<td>From</td>
</tr>
<tr>
<td></td>
<td>Customs Territory</td>
<td>Foreign Countries</td>
</tr>
<tr>
<td>General purpose</td>
<td>431.7</td>
<td>705.0</td>
</tr>
<tr>
<td>Special purpose</td>
<td>584.9</td>
<td>1,274.3</td>
</tr>
<tr>
<td></td>
<td>1,016.6</td>
<td>1,979.3</td>
</tr>
</tbody>
</table>

\(^a\) Does not add up due to discrepancies in New York City and Louisville data.

N.B.: Figures may not add up due to rounding.

It is asserted that 9,880 jobs in 1980 and an estimated 14,000 jobs in 1981 were attributable directly to operations in foreign trade zones (National Association of Foreign-Trade Zones, n.d.). Some 5,700 jobs were at the New Stanton Volkswagen plant in 1981. Another 1,143 full time employees worked in other subzones. By adding up the number of jobs cited for individual general purpose zones, one arrives at a total of 'up to' approximately 3,510 jobs, including about 2,900 full time jobs. The Miami zone had over 1,000 full time jobs in 1981. In the context of United States employment, the employment impact of FTZs is negligible.

The National Association of Foreign-Trade Zones (n.d.) estimates that 1,400 companies used FTZs in 1981. The Association neglects to mention that most of these companies used the zones infrequently. An analysis of individual zone reports reveals that of the approximately 1,460 firms that used general purpose zones in 1981, only 550 firms used the zones on "a continuous basis". Even for the "continuous" firms, operations in FTZs were small: each firm employed an average of 6 employees. Six of the subzone firms were on a much bigger scale. One of these firms ceased its operations in a FTZ in 1981. The seventh subzone firm was operating only on a part time basis.

In assessing the economic impact of foreign trade zones, it is important to gauge the value added. This is difficult to do because the list of manipulations and manufacturing operations given for each zone in the U.S. Foreign-Trade Zones Board annual reports is incomplete. In
some zone reports, warehousing and storage are included as manipulations. It may seem that one could take the amount of 'non-privileged merchandise' as a surrogate for the amount of merchandise not manipulated or manufactured to lower its tariff rate. The status of 'non-privileged merchandise' comprises goods which "are classified and appraised in their condition at the time of their legal transfer to the customs (sic) territory" (U.S., Dept. of the Treasury, 1979). In some general purpose zones, cloth which has been cut in the zones and/or swimwear whose ornamentation has been trimmed are classified as 'non-privileged merchandise'. In some subzones, components, subject to higher duty, are classified as 'non-privileged merchandise', so that lower rates of duty are charged on the finished products when they leave the subzones. The amount of 'non-privileged commodity' cannot help us to determine the extent that manipulation and manufacturing takes place in FTZs. A rough guide to value added is employment. By this guide, little value is added in general purpose zones, but much more is added in special purpose zones.

In 1981, of thirty-nine general purpose zones, sixteen are located at ports. As might be expected, six of the seven earliest FTZs are located at ports. A fair proportion of newer zones also are located at ports. A Port Authority is the FTZ grantee in fourteen cases and is the sponsor in one case. Six of the FTZs are located at or within one kilometre of an airport. Aviation Authorities are grantees in two cases. Why are ports and airports associated with FTZs? Grantees must believe in the existence of port and airport associated industry, including manufacturing. In the case of ports, FTZs may be attempts to
revitalize declining trade. Port Authorities may see FTZs as revenue generators for unused harbour land and warehouses.

Most foreign trade zones are in warehouses at ports, airports, and industrial estates. Unlike export processing zones, few FTZs are industrial estates. Mayaguez (17 hectares) and McAllen (16 hectares) are exceptions. Since 1981, many of the proposed zones and proposed extensions to existing zones incorporate industrial estates (American Import/Export Management, March 1983).

Over half of the reporting zones (14 out of 26) incurred a financial loss in 1981. The average loss was approximately $40,000. Excluding the new Oakland FTZ, whose operators spent heavily on start-up costs, the average loss was $35,000. Of the 'big three' FTZs, McAllen had a profit of $62,000, Miami lost $762,000, and New York was $53,000 in the black. Financially, the zones are not doing well. Proponents argue that small losses are acceptable if FTZ-using businesses start or grow in a FTZ locality.

An analysis of the Foreign-Trade Zones Board annual reports deflates the claims made by boosters of FTZs. Only a few zones are successful in encouraging trade and employment. General purpose zones which are thriving are those located in prosperous regions. FTZs facilitate imports into the United States. Little manipulation or manufacturing appears to be done in general purpose zones.
A case study of a general purpose FTZ might give a better picture of the reasons why businessmen use a foreign trade zone, the types of operations carried out in a FTZ, and the role of a FTZ in economic development. An examination of an individual zone might provide some explanations and insights to add to the description culled from the Foreign-Trade Zones Board annual reports. The next section is a case study of the Buffalo Foreign-Trade Zone.

4.2 A Case Study of the Buffalo Foreign-Trade Zone

The Buffalo Foreign-Trade Zone (No. 23) is situated in upstate New York. The Buffalo FTZ was chosen to study because it is the most active foreign trade zone along the United States - Canada border. Its location in the depressed Niagara Frontier region enables us to examine its utility as a regional development tool. Its site on the St. Lawrence Seaway allows us to look at the feedback between a FTZ and water transport at a declining port.

The sources of information included a visit to the Buffalo FTZ by the author, the reports on the Buffalo FTZ in the annual reports of the United States Foreign-Trade Zones Board, an article in the Buffalo News (O'Hara, 1980), and the author's questionnaire-survey of firms which have used the Buffalo FTZ. All figures in this section are from the Annual Report of the Foreign-Trade Zones Board for the Fiscal Year ending September 30, 1981 (U.S., Foreign-Trade Zones Board, 1981) and the questionnaire survey.
The Buffalo Foreign-Trade Zone was approved by the Foreign-Trade Zones Board in 1976 and started operating in the same year. The grantee was the County of Erie which contracted the management of the zone to a private company, Buffalo Foreign-Trade Zone Operators, Inc. The Buffalo FTZ is located at 901 Fuhrman Boulevard beside the Buffalo harbour on land owned by the Niagara Frontier Transportation Authority. This general purpose zone uses part of a warehouse which was, until 1958, a Ford Motor Company assembly plant. Other sites have been approved, but were not being used as part of the Buffalo FTZ in late 1983. These sites are in Amherst, near the Buffalo International Airport, the Oak-Michigan industrial corridor, and in Buffalo at the former American Standard plant. According to George Keitner, Executive Director of the Buffalo Foreign-Trade Zone, Xerox is planning a foreign trade subzone linked to the Buffalo FTZ.

The aims of the Buffalo Foreign-Trade Zone are to act as:

- a magnet for companies and as a catalyst for neighboring communities' economic development efforts. Companies that are involved in the import/export activities are realizing more and more that the zone's services are essential for their growth. New companies and new jobs help improve the overall economic situation of the county and mean new tax dollars for our local government. (U.S., Foreign-Trade Zones Board, 1981, p. 69)

Companies, local governments, and workers are cited as being beneficiaries of the Buffalo FTZ. The zone is justified as an economic development effort.

The Buffalo FTZ is 6 hectares and includes part of a warehouse building, docks, and some adjacent open space. At the time of the author's visit (October 31, 1983), a small quantity of European specialty steel was on the dock. The shipper of the steel apparently
was caught by the imposition of tariffs on European specialty steel by the United States government in the summer of 1983. No other goods were visible in the open storage area or in the warehouse near the office. According to Mr. Keitner, other goods shipped through the zone include machine tools, swimwear (whose ornamentation is trimmed to change the tariff classification and lower the duty rate), machines, and sugar (which is mixed in the zone, apparently to avoid the United States quota on sucrose). Mr. Keitner mentioned that a Canadian carnival company stored vehicles and equipment in the open space of the zone during the winter period.

Goods which passed through the Buffalo FTZ in 1981 were air chiefs, catalogues, couplings, diapers and bibs, electronic equipment, giftware, household goods, heavy tool machinery, leather, office equipment, oriental carpets, peanuts, sporting goods, watches, and women's shoes (U.S., Foreign-Trade Zones Board, 1981, p. 69). The 1981 annual report includes, rather dubiously, store, inventory, distribute, export, and re-export as manipulations. Inspection and sorting (which can be done in bonded warehouses) are listed also. Other manipulations listed include repacking (5), labelling (4), assembly (2), and cut-to-order (1). The assembly was of air chiefs and machinery.

In 1981, $10,881,255 worth of merchandise was received in the Buffalo FTZ. Ninety-nine percent of the merchandise received was imports. The leading commodities of foreign origin were electronics ($2,888,000), peanuts ($2,240,891), machinery ($1,859,005), upholstery leather ($809,005), and machine parts ($489,061). The leading countries
of origin of commodities were Canada ($3,037,226), the Republic of China
($1,969,510), East Germany (1,385,105), Italy ($842,971) and Japan
($674,449). Much of the machinery came from Eastern Europe and Japan,
and the leather from Italy (O'Hara, 1980). Merchandise forwarded
amounted to $9,121,216 of which fifty-nine percent was exported.
Imports received exceeded exports forwarded by $5,380,070.

In 1981, 28 firms used the Buffalo FTZ, 20 of them "on a continuous
basis". Up to 62 persons "at one time" were employed there, of whom
only 19 persons were full time workers (U.S., Foreign-Trade Zones Board,

The small number of employees of firms using the Buffalo FTZ is
possible partly because Buffalo Foreign-Trade Zone Operators, Inc.
provide services for companies using the zone. These services include
"merchandise distribution, inventory control, secretarial assistance,
telephone/telex answering services, mail distribution, and consultations
on transportation and Customs territory inquiries" (U.S., Foreign-Trade

The information provided in the Foreign-Trade Zones annual reports
is useful, but does not explain why firms decided to locate in the
Buffalo FTZ and their experiences in the zone. Transportation modes
used and a numerical indication of firm activities in FTZs are not given
in the annual reports. Since the last annual report only covers the
period up to September 30, 1981, data may be outdated for drawing
conclusions about more recent operations.
To take account of the above considerations, a questionnaire-survey of firms using the Buffalo FTZ was carried out. The most serious problem was finding the names and addresses of the user firms. The executive secretary of the Buffalo FTZ was asked, but could not or would not provide a list of user firms. The names of the firms were taken from the billboard outside the Buffalo zone, firms discussed in an article about the Buffalo FTZ (O'Hara, 1980), firms mentioned in conversation by Mr. Keitner, firms included in a foreign trade zone inventory (Diamond and Diamond, 1983), and from the exporting questionnaire (see section 4.4). In this way, thirty-eight firms were identified as possible users of the Buffalo FTZ. Through an arduous search of industrial directories, telephone directories, and government companies records, the addresses of thirty-two of these firms were found. Foreign trade zone questionnaires (see Appendix C) were sent to all these firms.

Of the thirty-two firms, fifteen replied, giving a response rate of about half. Three firms said that they did not use the Buffalo FTZ, even though these three firms were listed on the billboard outside the Buffalo FTZ building. Another firm was a supplier firm and one firm, a service company, did not complete the questionnaire because the manager felt that the questionnaire was not targeted at service firms. This firm did provide useful information in a letter. One questionnaire, not enumerated in the fifteen, was returned by the Post Office. Ten usable questionnaires remained.
Of the eleven firms which provided usable replies, four described their main activities as wholesaling, four as manufacturing, one as manufacturing and wholesaling, and two as service (customs brokerage and insurance). Eight of the companies are located in Ontario and three in Buffalo (including the two service firms).

If we include four other firms positively identified as using the Buffalo Foreign Trade Zone, ten firms are located in Canada, three in the United States, one in the United Kingdom, and one in Canada or the United States (a multinational corporation). Of twelve wholesaling or manufacturing firms, half are very small (less than 50 employees), four are presumed small because they are not mentioned in any industrial directory, and two are medium sized (between 100 and 499 employees). Of the eight manufacturing firms, two make instruments (Standard Industrial Classification 38), two make chemicals (SIC 28, though in one case, pharmaceutical drugs would be a better description), two produce machinery (SIC 35, 36), one makes paper products (SIC 26), and one firm is in the primary metal industry (SIC 33). The firms identified as using the Buffalo FTZ, are mainly Canadian, small, diverse in products, and split between wholesalers and manufacturers. Whether the manufacturing firms use the Buffalo FTZ for manufacturing, manipulation, or wholesaling is another question.

Six of the ten sample firms no longer operate in the Buffalo FTZ. The length of time firms used the zone is variable, though half the firms used or have used the zone for less than two years.
The reason the firms gave for locating in the Buffalo FTZ are listed in Table 4.3. Reasons integral to the FTZ device were cited about half of the time, and at least one of these reasons was given by seven firms. These reasons are: ease of customs clearance (cited by 4 firms); postponed duty (2); ease of Customs clearance and postponed duty (2); labelling done by FTZ operator (2); and lower cost of customs clearance by condensing shipments to Canada (1, though this firm indicated that it ships no goods from the FTZ to Canada). It is interesting that less than half of the firms stated that duty deferral was a reason for locating in the Buffalo FTZ. It may be that the firms that cited ease of Customs clearance, but not postponed duty would not have found a FTZ site advantageous if they were larger and had a greater capability for paperwork. Some firms gave reasons not specific to FTZs for locating in the Buffalo FTZ. Four firms perceived that the Buffalo FTZ offered low rental charges. Five firms indicated that proximity to the international border was important, although one of these firms found that Buffalo is a, "poor location for wholesaling and mail order activities". Two small firms used the Buffalo FTZ to test the United States market, but cited no other advantages. These two small firms may have been attracted to the Buffalo FTZ by the promise of one stop international warehousing with the attendant perceived benefit of less paperwork. The firm which mentioned proximity to port facilities admitted that, "nothing ever developed in this area (port-related activity). St. Lawrence Seaway and our shallow port not helpful to our area". It seems that the FTZ device offers real advantages to some firms using the Buffalo FTZ, but other firms derive advantages which could be found in more conventional facilities.
TABLE 4.3

REASONS FIRMS LOCATED IN THE BUFFALO FOREIGN-TRADE ZONE

<table>
<thead>
<tr>
<th>Reason</th>
<th>No. of times cited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of Customs clearance</td>
<td>6</td>
</tr>
<tr>
<td>Proximity to Canadian border</td>
<td>5</td>
</tr>
<tr>
<td>Low rental charges</td>
<td>4</td>
</tr>
<tr>
<td>Services offered by FTZ authority</td>
<td>4</td>
</tr>
<tr>
<td>Postponed duty</td>
<td>4</td>
</tr>
<tr>
<td>Experiment, test U.S. market</td>
<td>2</td>
</tr>
<tr>
<td>Services offered by other firms in area</td>
<td>1</td>
</tr>
<tr>
<td>Outlet for U.S. Sales Corporation</td>
<td>1</td>
</tr>
<tr>
<td>(Lower) costs of Customs clearance by</td>
<td></td>
</tr>
<tr>
<td>condensing shipments to Canada</td>
<td>1</td>
</tr>
<tr>
<td>Proximity to port facilities</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
</tr>
</tbody>
</table>

n=11

Source: Foreign Trade Zone Questionnaire (10 responses)
        Exporting Questionnaire (1 response)
Another way of examining the importance of the FTZ device is to look at activities in the FTZ (see Table 4.4). The predominant activity in the Buffalo FTZ is warehousing, wholesaling, and shipping (cited 15 out of 24 times). These activities are not restricted to a FTZ, though they may benefit from postponed duty and ease of Customs clearance in a FTZ. The only activities that are clearly FTZ-specific are labelling, exhibiting, assembly, manufacturing, and, perhaps, packaging and sorting. These activities make up less than a third of the activities cited. Only one higher value operation, assembly (of machinery), is indicated. This analysis suggests that not all the operations in the Buffalo FTZ are FTZ-specific and most of those that are have low value added.
TABLE 4.4

ACTIVITIES OF FIRMS IN THE BUFFALO FOREIGN-TRADE ZONE

<table>
<thead>
<tr>
<th>Activity</th>
<th>No. of times cited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warehousing</td>
<td>8</td>
</tr>
<tr>
<td>Wholesaling</td>
<td>5</td>
</tr>
<tr>
<td>Packaging</td>
<td>2</td>
</tr>
<tr>
<td>Labelling</td>
<td>2</td>
</tr>
<tr>
<td>Shipping</td>
<td>2</td>
</tr>
<tr>
<td>Sorting</td>
<td>1</td>
</tr>
<tr>
<td>Exhibiting</td>
<td>1</td>
</tr>
<tr>
<td>Assembly</td>
<td>1</td>
</tr>
<tr>
<td>Insurance</td>
<td>1</td>
</tr>
<tr>
<td>Customs Broker</td>
<td>1</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

n=11

Source: Foreign-Trade Zone Questionnaire (10 responses)  
Letter (1)
Most firms used trucks for the transport of goods. The two instrument firms used air for a considerable proportion of their shipments. One firm used water transportation for imports from Latin America, but did not specify the port. As previously mentioned, one firm said that the port was of little benefit to Buffalo.

There are few linkages with local firms and even fewer with firms in the Buffalo FTZ (see Table 4.5). The majority of linkages are necessitated by the export procedure and are with freight forwarders, customs brokers, banks, and insurance companies. The lack of other linkages diminishes the possibility of the Buffalo FTZ being 'a magnet for companies' and a strong positive force in the economic development of the Niagara Frontier.
<table>
<thead>
<tr>
<th>Service Type</th>
<th>Within Local Area</th>
<th>Inside FTZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freight Forwarders</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Customs Brokers</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Banks</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Insurance Companies</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Trading Houses</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Manufacturing Firms</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Transport Firms</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>21</strong></td>
<td><strong>7</strong></td>
</tr>
</tbody>
</table>

n=9

Source: Foreign Trade Zone Questionnaire
Most firms bring imported goods into the Buffalo Foreign-Trade Zone and ship these goods to the United States (see Table 4.6). Two firms import all their goods from Canada and ship them to the United States. A pharmaceutical firm re-exports to Canada three-quarters of its shipments originating in Canada. An instrument firm receives its goods from the United States, returns most to the United States, but ships ten percent to Canada. A chemical firm seems to have overemphasized the importance of the FTZ device to it: it claims that the re-export of goods is a Customs advantage to it, yet it re-exports only twenty percent of goods it imports into the Buffalo FTZ. The shipments split between the United States and other countries brings to the surface a fact obscured by aggregate data: a firm may gain FTZ device advantages for only a portion of its shipments, yet perceive and report greater benefits. Table 4.6 shows clearly that the Buffalo FTZ is import facilitating. This indication seems stronger than that obtained from an analysis of figures from the 1981 annual report (U.S., Foreign-Trade Zones Board, 1981).
<table>
<thead>
<tr>
<th>Origins</th>
<th>Destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>No. of times</td>
</tr>
<tr>
<td></td>
<td>No. of times</td>
</tr>
<tr>
<td>Canada</td>
<td>5</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>4</td>
</tr>
<tr>
<td>Europe</td>
<td>3</td>
</tr>
<tr>
<td>Asia</td>
<td>1</td>
</tr>
<tr>
<td>Australasia</td>
<td>0</td>
</tr>
<tr>
<td>Africa</td>
<td>0</td>
</tr>
<tr>
<td>Caribbean</td>
<td>0</td>
</tr>
<tr>
<td>Latin America</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
</tr>
</tbody>
</table>

n=8 for columns A,B,C; n=7 for column D

Source: Foreign Trade Zone Questionnaire
Firms show a dependence on services offered by the Buffalo Foreign-Trade Zone Operators, Inc. This dependence is understandable considering that most of the firms are small and ten firms indicated that they employed a total of only three full-time employees. Table 4.7 enumerates the services used. In their comments, three firms criticized the operators, two for excessive charges and one of these for incorrectly prepared bills and another for slowness in getting material stored in the zone.
### TABLE 4.7

ZONE OPERATORS SERVICES USED BY FIRMS IN THE
BUFFALO FOREIGN-TRADE ZONE

<table>
<thead>
<tr>
<th>Service</th>
<th>No. of times cited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo Handling</td>
<td>7</td>
</tr>
<tr>
<td>Office Help</td>
<td>6</td>
</tr>
<tr>
<td>Customs Clearance</td>
<td>5</td>
</tr>
<tr>
<td>Inventory Control</td>
<td>3</td>
</tr>
<tr>
<td>Labelling</td>
<td>2</td>
</tr>
<tr>
<td>Blue Collar Help</td>
<td>1</td>
</tr>
<tr>
<td>Shipping</td>
<td>1</td>
</tr>
</tbody>
</table>

Total: 25

n=9

Source: Foreign Trade Zone Questionnaire
Results from the Foreign Trade Zone Questionnaire are suggestive only and must be considered in conjunction with the latest annual report of the Buffalo FTZ (U.S., Foreign-Trade Zones Board, 1981). The small sample size together with the low volume of goods forwarded in 1981, about $9 million, suggests that the Buffalo zone is not very successful. There seem to be advantages for some firms from the FTZ device, e.g., postponed duty. Other firms used the zone for other reasons, e.g., low rent or lack of knowledge of alternatives. Some firms derive FTZ device advantages and other advantages from using the zone. Some firms gain FTZ device advantages for only a portion of the goods that they ship through the Buffalo FTZ. The Buffalo FTZ is mainly a warehousing facility for small firms. There is little value added, few people are employed in the zone, and there seem to be few non-export related linkages between FTZ firms and Buffalo area firms. Because of these factors, the multiplier effect of the Buffalo FTZ is low. The Buffalo FTZ encourages imports more than exports. It has not revived waterborne traffic through the port of Buffalo. The Buffalo Foreign-Trade Zone can be considered neither an important tool of economic development nor a means of stopping the industrial decline of Buffalo. The Buffalo FTZ is probably typical of general purpose foreign trade zones in depressed regions. It is necessary to examine foreign trade subzones to see if they are more successful and can be used as tools of regional economic development.

4.3 A Study of Foreign Trade Subzones

United States foreign trade subzones were discussed in Section 4.1. In 1981 there were seven operating subzone firms, each in its own
subzone: Over half of the $2,856 million of merchandise forwarded from FTZs in 1981 was shipped by two subzone firms: HIRI and ERNECO (Hawaiian Oil Refinery) and Volkswagen (New Stanton, Pennsylvania automobile assembly plant). The subzones were import facilitating. Excluding the Hawaiian Oil Refinery, exports constituted less than 2 percent of the merchandise forwarded. The Volkswagen plant's approximately 5,700 employees made up over 80 percent of workers employed in foreign trade subzones.

By early 1983, there were thirteen operating subzones (see Table 4.8), two newly approved non-operating subzones, and seven applications for subzones pending (American Import/Export Management, 1983b). Most of the subzones are occupied by plants of transnational corporations, although the two oil refineries are independent. Seven of the transnational corporations are vehicle manufacturers. Five transnational vehicle manufacturers have applied for subzone status and were awaiting approval in early 1983.
### TABLE 4.8
FOREIGN TRADE SUBZONES OPERATING AS OF MARCH, 1983

<table>
<thead>
<tr>
<th>Subzone No.</th>
<th>Location</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>3a</td>
<td>San Francisco, Ca.</td>
<td>Lilli-Ann Corp. (woolen fabrics)</td>
</tr>
<tr>
<td>7b</td>
<td>Penuelas, Puerto Rico</td>
<td>Commonwealth Oil Refinery Co. Ltd.</td>
</tr>
<tr>
<td>9a</td>
<td>Ewa, Oahu, Hawaii</td>
<td>HIRI and ERNECO (Pacific Resources) (Petroleum and natural gas products)</td>
</tr>
<tr>
<td>14a</td>
<td>Forest City, Ark.</td>
<td>Sanyo Manufacturing Corp. (television and microwave ovens)</td>
</tr>
<tr>
<td>33a</td>
<td>New Stanton, Pa.</td>
<td>Volkswagen Manufacturing Corp. of America (automobiles)</td>
</tr>
<tr>
<td>41a</td>
<td>Kenosha, Wisc.</td>
<td>American Motors Corp. (automobiles)</td>
</tr>
<tr>
<td>41b</td>
<td>Manitowoc, Wisc.</td>
<td>Muskegon Piston and Ring Co.</td>
</tr>
<tr>
<td>45a</td>
<td>Portland, Ore.</td>
<td>Northwest Pipe and Casing Co. (Beale)</td>
</tr>
<tr>
<td>46b</td>
<td>Marysville, Ohio</td>
<td>Honda (motorcycles and automobiles)</td>
</tr>
<tr>
<td>70a</td>
<td>Romeo, Mich.</td>
<td>Ford Tractor and Equipment Plant</td>
</tr>
<tr>
<td>70b</td>
<td>Detroit, Mich.</td>
<td>Chrysler (automobiles)</td>
</tr>
<tr>
<td>78a</td>
<td>Smyrna, Tenn.</td>
<td>Nissan Manufacturing Corp., U.S.A. (trucks and parts)</td>
</tr>
</tbody>
</table>

The argument that FTZs generate exports is not used to justify subzones. The Foreign-Trade Zones Board claims that:

Manufacturing operations in subzones continue to involve value added activities that have a positive impact even for products sold in the domestic market because of 'import-substitution' effect. (U.S., Foreign-Trade Zones Board, 1980, p.4)

In other words, the assembly or manufacturing done in subzones would be done overseas if United States foreign trade subzones did not exist. It is argued that the assembly or manufacturing can be done in the United States subzones because the finished products of the subzones enter United States Customs territory at lower tariff rates than imported components. Foreign trade subzones are a means of circumventing the United States 'inverted' tariff schedule, i.e., components are charged a higher tariff than finished products.

To provide more recent information on the importance of the FTZ device to subzone firms, linkages they have with the local economy, material flows, and problems with subzone operations, the foreign trade zone questionnaire (see Appendix C) was sent to firms operating in subzones in March, 1983 (see Table 4.8). No attempt was made to contact firms which had ceased operations in subzones because subzone advantages have improved since a 1980 Customs Service regulation deleted domestic processing costs and profits from inclusion in the dutiable value of merchandise manufactured in foreign trade zones (U.S., Foreign Trade Zones Board, 1981, p.7).
Questionnaires were sent to thirteen firms. Six questionnaires were returned, giving a response rate of about half. In addition to the six, two questionnaires were returned by the United States Postal Service as undeliverable. The two firms in question, Commonwealth Oil Refining and Northwest Pipe and Casing Company, probably have ceased operations in subzones.

The six sample firms gave the number of employees at their subzone addresses as 10,436. Three firms are medium sized (100-499 employees) and three are large (500 and more employees). Surprisingly, five firms gave the number of full time employees in their FTZs at a much lower 3,413. One firm (which answered 2 employees) may have mistaken the question to have meant the number of employees dealing with FTZ business. If we add the address employment totals for the 'mistaken' and the missing firms to the FTZ total given by the four other firms, we get the total number of employees as 3,986. This figure is considerably lower than the employment total generally used for the same firms. The lower number suggests that the subzones do not cover all of the plant sites and employment estimates of subzones may be exaggerated.

Table 4.9 shows that the sample firms consider that FTZ device advantages are important to their operations in subzones. Postponed duty, lower duty, ease of Customs clearance, and avoidance of drawback procedure for exported vehicles were cited as important reasons that the firms located in subzones sixteen times out of twenty. The last reason was given by a firm which exported only ten percent of its production.
### TABLE 4.9
REASONS FIRMS LOCATED IN FOREIGN TRADE SUBZONES

<table>
<thead>
<tr>
<th>Reason</th>
<th>No. of times cited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postponed duty</td>
<td>6</td>
</tr>
<tr>
<td>Lower duty</td>
<td>5</td>
</tr>
<tr>
<td>Ease of Customs clearance</td>
<td>4</td>
</tr>
<tr>
<td>Improved transport</td>
<td>2</td>
</tr>
<tr>
<td>Avoidance of drawback procedures for exported vehicles</td>
<td>1</td>
</tr>
<tr>
<td>Taxes</td>
<td>1</td>
</tr>
<tr>
<td>Services offered by FTZ authority</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total** 20  

**n=6**

Source: Foreign Trade Zone Questionnaire of Subzone Firms
Subzone firms do not use the services of many local firms (see Table 4.10), but they use them frequently. Despite the fact that most subzone firms perform assembly and/or manufacturing operations in the subzones, only one linkage is cited with local manufacturing firms. The material linkages of the subzone firms girdle the globe. An examination of individual questionnaires suggests that the procurement of parts is closely linked with the corporate and geographical organization of each transnational corporation. Table 4.11 shows that the subzone firms procure their supplies from around the globe and sell the subzone products predominantly to the United States market.
<table>
<thead>
<tr>
<th>Service Type</th>
<th>No. of Times Cited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport firms</td>
<td>4</td>
</tr>
<tr>
<td>Customs brokers</td>
<td>3</td>
</tr>
<tr>
<td>Freight forwarders</td>
<td>2</td>
</tr>
<tr>
<td>Banks</td>
<td>2</td>
</tr>
<tr>
<td>Insurance companies</td>
<td>1</td>
</tr>
<tr>
<td>Manufacturing firms</td>
<td>1</td>
</tr>
<tr>
<td>Construction firms</td>
<td>1</td>
</tr>
<tr>
<td>Maintenance firms</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

n=6

Source: Foreign Trade Zone Questionnaire of Subzone Firms
TABLE 4.11
ORIGINS AND DESTINATIONS OF GOODS SHIPPED THROUGH
FOREIGN TRADE SUBZONES BY TRANSNATIONAL CORPORATIONS

<table>
<thead>
<tr>
<th>Origins</th>
<th>Destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>No. of times</td>
</tr>
<tr>
<td></td>
<td>75% or more</td>
</tr>
<tr>
<td>cited by</td>
<td>firms</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>2</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>5</td>
</tr>
<tr>
<td>Europe</td>
<td>3</td>
</tr>
<tr>
<td>Asia</td>
<td>4</td>
</tr>
<tr>
<td>Australasia</td>
<td>0</td>
</tr>
<tr>
<td>Africa</td>
<td>0</td>
</tr>
<tr>
<td>Caribbean</td>
<td>0</td>
</tr>
<tr>
<td>Latin America</td>
<td>2</td>
</tr>
</tbody>
</table>

n=5

Source: Foreign Trade Zone Questionnaire of Subzone Firms
One firm indicated that it received an exemption or discount from State excise tax. One firm mentioned the possibility of no inventory tax at the State and County levels (depending on the judgement in the Harris County vs. Xerox court case). It is probable that other firms have received government grants, exemptions, or discounts, but were reluctant to mention them. A $600,000 grant from the Appalachian Regional Commission was given for a site clearance project at FTZ 24 (Wilkes-Barre, Pennsylvania), where a RCA solid state plant was built (U.S., Foreign-Trade Zones Board, 1979, p. 75).

There was dissatisfaction with government regulation of the subzones. Four of the six firms wrote that United States Customs Service inventory control procedures and/or Foreign-Trade Zones Board reporting requirements were disadvantages to location in a foreign trade subzone.

The questionnaire results do not allow us to judge whether foreign trade subzones fulfill their aim of import-substitution. The lack of local linkages shown suggests that subzones cannot be conceived of as potential growth poles. The subzones used by transnational corporation are points in international productions systems. A question arises whether the United States has a trade balance in these international production systems. It is clear that the answer to this is no. Would the United States have a bigger trade deficit without assembly and/or manufacturing operations in subzones? The indications are mixed about whether transnational corporations would have located in the United States without the subzones. Production at the New Stanton Volkswagen
plant began in April, 1978, nine months before the subzone began operations. Japanese firms are under considerable political and economic (e.g., import quotas on cars) pressure to produce goods in the United States. One respondent, representing a transnational corporation, wrote that advantages of subzone operations are "lower duty rates, postponed duty payments, cash flow savings. Able to effectively compete with foreign manufacturers who presently import ... vehicles duty free".

The quote emphasized the importance of tariffs to that subzone firm. Supporters of duty-free zones assume that tariffs are a prime deterrent to international trade. It is important to consider the importance of tariffs to a cross section of exporting firms. It is also necessary to consider the Canada Customs duty drawback and remission schemes which benefit some firms paying duty on imports. The Canadian Government claims that the schemes are better than duty-free zones. The next section examines the importance of tariffs and the effectiveness of the Canada Customs duty drawback and remission schemes for exporting firms in the southern Niagara Region of Ontario.

4.4 A Study of the Southern Niagara Region Exporting Firms

A questionnaire about exporting (see Appendix D) was sent to southern Niagara Region, Ontario exporting firms. The questionnaire was designed to determine the pattern of their exports, the problems faced by exporters, their opinions of Canada Customs' duty drawback and remission schemes, their knowledge and opinions about duty-free zones. The questionnaire was sent to exporting firms in Fort-Erie,
Niagara Falls, and Port Colborne because it was hypothesized that many of these firms used or have considered using the Buffalo Foreign-Trade Zone. A financial constraint limited the number of questionnaires which could be sent to one hundred and twenty-eight. Twenty-nine usable questionnaires resulted. Other surveys in economic geography have employed small usable samples including Lever (1974; 24 firms), Gysberts (cited by Taylor, 1975; 27 firms), and Steed (1982; 15, 24, 36, and 45 firms).

Exporting firms in the southern Niagara Region were identified by using Scott's Industrial Directory of Ontario, 1983-84. Of the one hundred and twenty-eight questionnaires sent, thirty-eight responses were received. The response rate of thirty percent is acceptable for a mail survey. Six small firms said that they did not export, one firm refused to reply, and two questionnaires were not usable. Twenty-nine usable questionnaires remained. In addition to the responses, four questionnaires were returned by the Post Office as undeliverable.

The problem of defining 'firm' was highlighted by one of the non-usable questionnaires. Questionnaires were sent to two divisions of one company. Both divisions are located in the same municipality. The firm replied that the answers for the second plant were essentially the same as for the first plant. It was decided that the two proximate plants, both producing metal products, were one production unit and, thus one questionnaire was appropriate for the two plants. The definition of a firm used in this analysis is a production unit where decisions about day to day operations are taken. McDermott and Taylor's
(1982) definitions of a 'firm' as the legal entity called a company or subsidiary and an 'organization' or 'enterprise' as a relatively autonomous decision making unit are not followed. The identification of the level at which important decisions about purchasing, marketing, exporting, and goals and objectives are made is beyond the scope of this study. Two questionnaire responses illustrate the difficulties. One firm replied that its parent company was in Calgary and in turn the Calgary company's parent was in Los Angeles. (For purposes of analysis this company was classified as American). Another company gave its parent company's location as a city in Ontario, yet a majority of its shares is held in the United States. Even if a firm located in Canada is a subsidiary of a United States company, the firm may have virtual autonomy in decision-making.

Small firms are slightly underrepresented in the sample (see Table 4.12). This may be due to a few small non-exporting firms not replying to the questionnaire and/or a greater reluctance on the part of small firms to fill out questionnaires. Canadian firms are slightly underrepresented in the sample (see Table 4.13). This may be because there is a greater proportion of Canadian firms which are smaller than United States firms.
<table>
<thead>
<tr>
<th></th>
<th>Population</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Firms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(less than 100 employees)</td>
<td>83 (74.1%)</td>
<td>18 (62.1%)</td>
</tr>
<tr>
<td>Medium and Large Firms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(100 and more employees)</td>
<td>29 (25.9%)</td>
<td>11 (37.9%)</td>
</tr>
<tr>
<td>Total</td>
<td>112</td>
<td>29</td>
</tr>
</tbody>
</table>

Source: Population: Scott's (1983)  
Sample: Exporting Questionnaire
TABLE 4.13

REPRESENTATION OF UNITED STATES AND OTHER COMPANIES IN THE
POPULATION AND SAMPLE OF SOUTHERN NIAGARA REGION EXPORTING FIRMS

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firms with parent companies in the United States</td>
<td>30 (26.8%)</td>
<td>10 (34.5%)</td>
</tr>
<tr>
<td>Other firms</td>
<td>82 (73.2%)</td>
<td>19 (65.5%)</td>
</tr>
<tr>
<td>Total</td>
<td>112</td>
<td>29</td>
</tr>
</tbody>
</table>

Source: Population: Scott's (1983)
Sample: Exporting Questionnaire

Note: Where Scott's and the questionnaire replies conflicted, the questionnaire replies were accepted.
All but one of the firms are manufacturing firms. The other firm is a wholesaling firm. Table 4.14 indicated that the Fort Erie, Niagara Falls, and Port Colborne region is a mature industrial area with a concentration of metal and machinery, chemical, and petrochemical industries. Six extractive and/or building materials firms serve the Golden Horseshoe region of Southern Ontario.
<table>
<thead>
<tr>
<th>Product Category</th>
<th>No. of firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemicals and Allied Products (SIC 28)</td>
<td>7</td>
</tr>
<tr>
<td>Stone, Clay, Glass, and Concrete Products (SIC 32)</td>
<td>6</td>
</tr>
<tr>
<td>Petroleum Refining and Related Industries (SIC 33)</td>
<td>4</td>
</tr>
<tr>
<td>Fabricated Metal Products Machinery (SIC 34)</td>
<td>3</td>
</tr>
<tr>
<td>Machinery (SIC 35)</td>
<td>3</td>
</tr>
<tr>
<td>Food and Kindred Products (SIC 20)</td>
<td>2</td>
</tr>
<tr>
<td>Apparel (SIC 23)</td>
<td>1</td>
</tr>
<tr>
<td>Lumber and Wood Products, Except Furniture (SIC 24)</td>
<td>1</td>
</tr>
<tr>
<td>Electrical and Electronic Machinery (SIC 36)</td>
<td>1</td>
</tr>
<tr>
<td>Instruments (SIC 38)</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Exporting Questionnaire and Scott's (1983)
The southern Niagara Region firms reported complex exporting linkages. Table 4.15 reveals that the firms export products to all regions of the United States and to all regions of the world except Eastern Europe and the Soviet Union. Three Union States subsidiaries shipped more than ninety percent of their exports overseas. One of these companies seemed to have been set up solely to export to Cuba. Two subsidiaries commented that, as a matter of corporate policy, they do not normally ship products to the United States. Five subsidiaries exported over ninety percent of their exports to the United States. The only discernable pattern appeared among small Canadian firms. All of the eleven firms which exported exclusively to the United States are Canadian firms and ten of them are small. Of these ten firms, five answered that they have insufficient export volumes and four said that they lacked knowledge about foreign markets or export procedures. One can hypothesize that when small Canadian firms begin exporting, they lack the knowledge, marketing organization, and/or contacts to export anywhere except the United States.
<table>
<thead>
<tr>
<th>Destination</th>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of times cited by firms</td>
<td>No. of times 75% or more of a firm's exports</td>
<td></td>
</tr>
<tr>
<td>New York State</td>
<td>19</td>
<td>8</td>
</tr>
<tr>
<td>New England</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Mid-Atlantic</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Mid-West</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>South U.S.A.</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>West U.S.A.</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Western Europe</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>E. Europe and U.S.S.R.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Caribbean</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Latin America</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Asia</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Africa</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Australasia</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>122</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Column A: n=29; Column B: n=20

Source: Exporting Questionnaire
Over ninety percent of the firms used trucks for three-quarters or more of their exports. The mobility of trucks allows economic activity to be dispersed.

The exporting firms used customs brokers (18 exporting firms), transport firms (9), freight forwarders (6), agents (6), and banks (4) in the foreign country near the port of entry. No manufacturing firms were used. Whether the exporting firms were selling to manufacturers, wholesalers, or retailers was not disclosed. The port of entry used sometimes is not the nearest Customs entry point; three of the firms indicated that they used New York City as a port of entry.

Table 4.16 shows that shipping costs, selling prices, and documentation are more important than tariffs for many exporting firms. The wide variety of problems cited illustrates the complexity of and the many steps involved in exporting. Almost half of the firms found high freight charges to be a main problem when exporting. Documentation was cited sixteen times. United States and overseas Customs Services are not solely responsible for this paperwork. Canada Customs requires export entry and identification forms and export permits for many goods, not all of them strategic. It is no wonder that twenty-three of the firms use local customs brokers and sixteen use freight forwarders. Twelve firms wrote in that competition, market conditions, or high costs in Canada were main problems they faced when exporting. All of these factors are linked to the value of the Canadian dollar. Nine firms claimed that they have lack of knowledge. Eight smaller firms found that an insufficient volume of exports was a problem. Seven firms
experienced difficulties with letters of credit obtained at banks. About one quarter (7) of the firms checked that tariff charges were a main problem. Problems with foreign exchange controls and foreign contract terms show the additional problems of dealing with Third World importers.
<table>
<thead>
<tr>
<th>Problem</th>
<th>No. of times cited</th>
</tr>
</thead>
<tbody>
<tr>
<td>High freight costs</td>
<td>13</td>
</tr>
<tr>
<td>Competition, market</td>
<td>9</td>
</tr>
<tr>
<td>Insufficient volume of exports</td>
<td>8</td>
</tr>
<tr>
<td>Letters of credit</td>
<td>7</td>
</tr>
<tr>
<td>High tariff charges</td>
<td>7</td>
</tr>
<tr>
<td>Lack of knowledge about foreign market</td>
<td>6</td>
</tr>
<tr>
<td>U.S. Customs documentation</td>
<td>6</td>
</tr>
<tr>
<td>Lack of Knowledge about export procedure</td>
<td>4</td>
</tr>
<tr>
<td>Export entry and identification forms</td>
<td>4</td>
</tr>
<tr>
<td>High Customs brokerage charges</td>
<td>4</td>
</tr>
<tr>
<td>High freight handling costs</td>
<td>4</td>
</tr>
<tr>
<td>Export permits</td>
<td>3</td>
</tr>
<tr>
<td>Canadian Customs remission documentation</td>
<td>3</td>
</tr>
<tr>
<td>High cost of Canadian manufacturing, labour, dollar</td>
<td>3</td>
</tr>
<tr>
<td>High insurance costs</td>
<td>2</td>
</tr>
<tr>
<td>High cost of foreign facilities</td>
<td>1</td>
</tr>
<tr>
<td>Foreign exchange controls</td>
<td>1</td>
</tr>
<tr>
<td>Foreign contract terms (own flag carrier)</td>
<td>1</td>
</tr>
<tr>
<td>Long distance communications</td>
<td>1</td>
</tr>
</tbody>
</table>

Total                                               87

n=29

Source: Exporting Questionnaire
Insights into the role of information can be gleaned from the questionnaire results. The incomplete information of the exporting firms is indicated by their lack of knowledge of the Buffalo Foreign Trade Zone. The fact that four of the six firms which had considered locating in the Buffalo FTZ are in Fort Erie evokes Taylor's (1975) finding that information fields of manufacturers are much more limited than material flows would suggest. By contrast, the widespread knowledge about duty drawbacks/remissions indicates a wide dispersion of information. The dispersion probably occurs through the contacts of export managers with other exporters, customs brokers, freight forwarders, and banks.

The long material flows of southern Niagara region exporting firms together with their reliance on trucks, gives evidence of dispersed economic activities. There seems little reason for policy makers to encourage concentrated economic activity at nodal points as part of a growth centre or growth pole strategy of economic development.

Widespread use was found of the Canada Customs duty drawback and remission schemes. The question did not differentiate between the two schemes. Almost sixty percent of the respondents had used one or both of the schemes. Of the fifteen who rated the schemes on a scale of 1 (excellent) to 5 (poor), six gave the schemes 2 points and five gave the schemes 3 points. The average was 2.7 (s.d.=1.03). Exporters in the southern Niagara Region who have used the Canada Customs duty drawback and/or remission schemes expressed mild satisfaction with them. Three
firms found the scheme(s) slow. Other comments (complexity, time consuming, routine, etc.) were unique to individual firms.

The firms were asked about a strategy for dealing with tariffs when exporting. Over two-thirds of the respondents (thirteen of nineteen firms) felt that tariffs should be paid immediately. One firm which did not answer this question noted that the importer paid the applicable duty on goods it exported.

This study diminishes the importance of tariffs. Economic decision makers in the southern Niagara Region give less weight to the importance of postponing or lowering foreign tariff rates than is often suggested. Duty drawback and remission schemes, which diminish the importance of Canadian tariffs to Canadian exporting firms, are seen to be viable alternatives to duty-free zones. The results of this study and the studies of foreign trade zones in this chapter must be integrated with a consideration of the assumptions underlying duty-free zones, industrial location, and government economic policy. Only then can conclusions be drawn about the applicability of duty-free zones to Canada.
CHAPTER 5

CONCLUSIONS

An examination of duty-free zones reveals strong interdependencies in the world. The changing global economy has influenced the form that duty-free zones have taken. This form has varied from freeports to export processing zones to foreign trade zones. The present emphasis on manufacturing in duty-free zones is related to world sourcing of components and off-shore assembly of products, predominantly by transnational corporations. Some writers have dubbed this as the 'new international division of labour'. Ideas also cross political boundaries. United States politicians adopted the idea of freeports from Northern Europe. The politicians in Congress passed 'The Foreign-Trade Zones Act' in 1934. The United Nations Industrial Development Organization and others carried the idea of export processing zones from a peripheral area of Europe, Ireland, to the world's economic periphery, the Third World, in the 1960s and 1970s. The example of manufacturing in duty-free zones was emulated in United States foreign trade zones, beginning on a large scale in the late 1970s. The growth in numbers of manufacturing duty-free zones influenced British policy makers to introduce enterprise zones and freeports. Canadian laissez-faire liberals saw the rapid spread of duty-free zones worldwide and concluded that Canada should copy the rest of the world. Duty-free zones are on the political agenda in Canada, so
it is important to draw conclusions about the assumptions behind and operations of duty-free zones elsewhere before discussing the applicability of duty-free zones to Canada.

5.1 Assumptions Behind Duty-Free Zones

Proponents of duty-free zones make a number of assumptions about the zones. The most basic assumption they make is that the zones are enclaves where governments have ceded a great deal of power. Proponents then argue that there is less government intervention into the economy in duty-free enclaves. As has been shown in the cases of the Hamburg freeport and United States foreign trade zones, duty-free zones are overseen by government agencies and Customs Services have ready access to the zones. In questionnaire responses, firms in foreign trade subzones complained of stringent reporting requirements of the Foreign-Trade Zones Board and strict inventory control procedures of the Customs Service. States have not relinquished control over the territory of duty-free zones. Duty-free zones may appear to be anomalies in a world divided into sovereign states, but they are not. Duty-free zones are creatures of sovereign states which can change the rules governing the zones and even abolish them at will.

Proponents of duty-free zones and enterprise zones assume that it is possible to separate small areas from the larger economy. There are ways to separate small area real estate markets from larger property markets, but methods which are anathema to laissez-faire liberals, the main supporters of these zones, would have to be used. Many First World proponents of these zones advocate lower wages and minimal worker
protection laws in these zones. These proponents fail to explain how First World workers could be persuaded to accept a large reduction in their standard of living. These enclaves would remain parts of larger labour markets and wages offered in the zones would have to be competitive. Proponents also neglect to consider the political weight of voters working in or near these zones. The example of United Kingdom enterprise zones shows the political need to maintain 'national' standards. The earliest proponents of enterprise zones envisaged them as exempt from the parent country's legislation. The enterprise zones adopted by the United Kingdom Conservative Government in 1980 allowed health, safety, employment protection, and other 'national' laws to apply inside the zones.

Often advocates of duty-free zones fail to consider the context in which these zones exist. Third World export zones operate in the context of low wages, export-led industrialization, inefficient bureaucracies, and poor land transport. These conditions are not comparable to those in the First World. The national context must be considered also. Many Third World states have small domestic markets. The People's Republic of China and Yugoslavia have political philosophies which are opposed to capitalism, so transnational corporations operating in these countries are contained in enclaves. Even in the First World, differences are evident from country to country. An important example is the absence of a duty remission program in the United States and its presence in Canada.
Another assumption of proponents of duty-free zones is that tariffs are the major deterrent to international trade. Tariff rates have been decreasing steadily due to agreements at the Kennedy Round (1968) and the Tokyo Round (1979) of the General Agreement on Tariffs and Trade (GATT). In 1981, two-thirds of Canada's imports (Statistics Canada, 65-203) and nearly one-third of United States imports (U.S., Bureau of the Census, p. 833) entered the respective countries duty-free.

Duty-free status is not reserved solely for raw materials. In the 1970s, the Government of Canada allowed over half of manufactured imports to enter Canada duty-free (Science Council of Canada, 1979). Tariff rates are meant to decline further as part of the Tokyo GATT agreement. It is estimated that by 1987, about eighty percent of exports by Canadians to the United States are due to enter the United States duty-free and about two-thirds of United States exports to Canada will enter Canada duty-free; the tariff rate on most of the remainder of the goods will be five percent or less (Williams, 1983). It is true that a few industries, e.g., textiles and flour, find high tariffs to be a major problem. But many industries find other problems like non-tariff barriers, excessive documentation, complicated export procedures, lack of knowledge of foreign markets, and high transport costs to be as important as or more important than high tariffs. The extent and importance of non-tariff barriers has been discussed by several authors (Stegemann, 1973; Hillman, 1978; Yeats, 1979; Quinn and Slayton, 1982; the Economist, Dec. 25, 1982). The Exporting Questionnaire responses show the importance of non-tariff factors to southern Niagara Region exporting firms.
Proponents of duty-free zones argue that duty-free zones will become growth centres or poles. This argument is based on the assumption that much manufacturing is associated with locations at ports and airports. This belief is outmoded and is no longer true. The argument in favour of growth poles is based also on an incorrect belief in concentrated industrial activity including short material linkages. Contemporary economic geography research, reviewed in Chapter 2, shows that material linkages of manufacturing firms are long and casts doubt on the effectiveness of growth pole strategies in the First World. Results from the questionnaire sent to the firms operating in United States foreign trade subzones suggest that the backward linkages of transnational corporations are long and local industrial complexes are unlikely to develop around plants in subzones.

Many of the assumptions made by advocates of duty-free zones are unproven. A central consideration is that many of the proponents of duty-free zones seem to believe, on the basis of ideological faith, rather than a careful examination of existing zones, that duty-free zones are successful. It is necessary to evaluate the success of duty-free zones. To be relevant to Canada, this evaluation must be of duty-free zones in the First World. The next section will review the conclusions reached in Chapter 4 about the success of United States foreign trade zones.

5.2 The Success of United States Foreign Trade Zones

United States foreign trade zones must be judged against the aims set for them. The main aims are to encourage international trade, to
stimulate United States exports, to create jobs, and to spur more
assembly and manufacturing production in the United States. Because of
the differences between them, it is necessary to evaluate general
purpose zones separately from special purpose zones.

A lot of international trade passes through general purpose foreign
trade zones*. It seems that a large proportion of the goods handled at
general purpose zones are shipped through the zones for reasons
unrelated to tariffs or labelling. This suggests that these goods are
diverted from other import/export channels and would continue to be
shipped if foreign trade zones did not exist. General purpose zones
encourage international commerce, but to a very small extent.

In Chapter 4, it was shown that general purpose trade zones are
import facilitating. Even when a zone has a large export trade, the
merchandise received from foreign countries almost always exceeds the
merchandise forwarded to foreign countries. This is true even for New
York City's foreign trade zone which often is presented as a model for
export promotion. In 1981, only two of thirty-two general purpose zones
had a trade surplus in international commerce.

Less than 3,000 full-time jobs were created in general purpose
foreign trade zones in 1981. In the context of United States
employment, foreign trade zones have a negligible impact.

Since the early 1950s, manipulation and manufacturing have been
allowed in foreign trade zones. Most of the general purpose zones are

* However, general purpose zone exports are small in relative terms; they amounted to about 0.2 percent of United States exports in 1981.
warehousing facilities as evidenced by comments in annual reports, the large amount of non-privileged merchandise, and the small employment in zones. The questionnaire responses from user firms suggest that this is also the case with the Buffalo Foreign-Trade Zone. Little manipulation, assembly, and manufacturing is carried on in general purpose zones.

Economic activity at general purpose zones is often a reflection of the economic prosperity of regions. Foreign trade zones in depressed regions handle small volumes of merchandise. The Buffalo Foreign-Trade Zone has failed to promote the development of a depressed region.

General purpose foreign trade zones are economic failures. Why have they proliferated? In Section 3.7, some of the reasons for their proliferation are presented. These reasons can be summarized as misplaced hopes based on misinformation. The importance of Port Authorities in promoting the zones indicated that local authorities may have been grasping for straws when they promoted the zones for their localities. Local authorities may have been anxious to find uses for derelict land and to find ways to reverse regional economic decline. There is another element which may help to explain the adoption of foreign trade zones. This element is politics. At the local level, politicians promoting foreign trade zones can promise jobs and be seen to take action on the job issue. There is some evidence to support this interpretation. Mr. Rutkowski, the Republican-Conservative Erie County Executive, in the course of a local election campaign, announced the approval of a foreign trade zone on Grand Island near Buffalo, which he claimed would employ 200 to 400 people (Borrelli, 1983). In a
conversation with the author, John Sym of the International Trade Centre in Lewiston, New York emphasized the influence of local politicians in the planning of the County of Niagara Foreign-Trade Zone. At the national level, an agency set up to regulate foreign trade zones, the Foreign-Trade Zones Board, actively promotes them. There is clear evidence of the role of politics at the local and national levels in the creation of United Kingdom enterprise zones (Anderson, J., 1983) and freeports (Guardian and Financial Times, Feb. 3, 1984).

About the only justification left for general purpose foreign trade zones is one not usually given: aid to small businesses. It appears that general purpose zones are used mainly by small businesses, some of them first time participants in import/export trade. A development strategy based on small businesses should not be adopted because it is a strategy built on sand because of the high failure rate among small companies and their lack of resources.

In making recommendations about general purpose foreign trade zones, there are three options. First, all general purpose zones could be retained. Second, successful general purpose zones could be retained, but others eliminated. Third, all general zones could be abolished. Considering the economic failure of general purpose zones, all of these zones should not be retained, nor should new zones be encouraged. In the absence of politics, the second option would be achieved de facto as unprofitable zones failed. Some proponents argue for a limited number of zones at major ports of entry. Such a proposal cannot be defended on regional development grounds. This proposal is
also unrealistic politically. The United Kingdom experience with enterprise zones (Anderson, J., 1983) and freeports (Financial Times, Feb. 3, 1984) illustrates that powerful pressure by local councils, interest groups in constituencies, and Members of Parliament to have zones in many localities. The freeport example shows how this pressure can overcome efforts at curtailing the number of zones by a Ministry, in this case the Treasury. The second option of a limited number of foreign trade zones is not viable and should not be taken up. The third option, the abolition of general purpose zones, would hurt only a relatively small number of companies shipping high value and/or high tariff products or goods needing labelling. The abolition of the zones would hardly affect United States international commerce. Given their economic failure, general purpose foreign trade zones should be abolished.

In assessing foreign trade subzones, it is necessary to separate the two subzones containing the oil refineries from the other subzones occupied, in most cases, by transnational vehicle or vehicle parts manufacturers. Because of the insular location of Hawaii and Puerto Rico, separate from the continental United States' oil supplies and markets, there is a case for treating these localities (including the oil refinery subzones) differently from the continental United States in oil tariff and quota policy. The discussion below about the success of foreign trade subzones considers only the non-oil refinery subzones.

Foreign trade subzones encourage the import of components made outside the United States, do not stimulate exports, and encourage
assembly and manufacturing jobs in the United States. Of the 7,000 or so jobs in foreign trade zones in 1981, over four-fifths were in one subzone, at the Volkswagen vehicle plant in New Stanton, Pennsylvania. The main issue is the extent of import substitution encouraged by foreign trade subzones. Proponents argue that vehicle assembly firms located in the United States are more likely to obtain components in the United States rather than import the finished cars. The question of import substitution is difficult to resolve because it is hard to guess what might have happened without subzones. There is some evidence to suggest that Japanese vehicle manufacturers would have responded to political and economic pressure to produce vehicles in the United States. For example, Nissan is establishing an assembly plant in Britain outside any freeport. Would United States based transnational corporations have stopped producing certain vehicles if they were not allowed to import overseas components more cheaply through foreign trade subzones?

Controversy about the role of subzones in attracting transnational corporations to the United States may divert attention from a more important issue. In a vehicle industry where global sourcing of components is becoming standard, it is probably essential for all vehicle manufacturers to obtain components worldwide. The important issue is a country's share in the production of worldwide components. This is important because the greatest value added is, and will increasingly be, obtained by making components for the global markets of transnational vehicle manufacturers. The publicity about jobs and production at vehicle assembly plants obscures the more important issue
of where the components are manufactured. The additional publicity attached to location in a foreign trade zone may suit the interests of the transnational vehicle manufacturers.

The complexity of the value added issue can be illustrated by the electronics industry. Most of the value added in the production of electronic goods is at the assembly stage due to the low cost of components. The biggest profits may lie in the wholesaling and retailing of electronic products.

It is questionable whether the demands in the First World for the transfer of assembly operations to the First World is an appropriate response to Third World industrialization. There is the ethical question of economic justice for the Third World. It may be that the First World would be better off to forsake production and assembly of standardized products. Structural adjustments in the First World should raise the skill levels in the First World economies. The demand in the First World for assembly and/or manufacturing of electronics, vehicles, steel, and other products may be a response to yesterday's problems. New capital intensive moulding technologies and the introduction of robots may lead to First World comparative advantages in mass production. The issues are difficult to resolve, but First World assembly of labour intensive products is highly questionable. In so much as foreign trade subzones are touted as a way to encourage assembly operations to be established in the United States, subzones are questionable.
A more general question about tariffs which is applicable to
general and special purpose foreign trade zones must be addressed.
Duty-free zones enable shippers and manufacturers to avoid the
rigidities of tariff schedules and quotas. Is the small area an
appropriate scale to redress problems imposed at the national scale?
Tariffs and quotas are matters of national policy. Foreign trade zones
may be means for federal politicians to avoid the need to make hard
decisions about tariff adjustments. Justifications for special tariff
rules for small areas are regional economic development and isolated
location. Regional economic development policy is most pressing for
depressed regions. Foreign trade zones in depressed regions are not
successful. Regional development cannot be used to justify foreign
trade zones. An example of an isolated region is Hawaii. Special cases
like Hawaii could be accounted for by the tariff schedule. This would
effectively make all of Hawaii a foreign trade zone. Alternatively, the
present smaller foreign trade zone might serve Hawaii's special needs.
In this case no areas of the continental United States should be granted
foreign trade zone status. Political difficulties then arise in
preventing these areas from agitating successfully for foreign trade
zones. It is preferable that tariffs and quotas be decided on a
national level.

General purpose foreign trade zones are based on unproven
assumptions, generally are not successful, and should be abolished.
Foreign trade subzones are a more difficult issue. They are based on
unproven assumptions (although tariffs may be more important for subzone
firms) and divert attention from other issues. They may encourage
transnational vehicle manufacturers to locate in the United States who would not do so otherwise. The evidence is unclear and merits deeper consideration by other researchers. Since the United States has no remission program, foreign trade subzones may be necessary to encourage United States production by transnational vehicle manufacturers. The next section examines the necessity of duty-free zones in Canada to stimulate manufacturing and exports.

5.3 The Applicability of Duty-Free Zones to Canada

The lack of success of United States general purpose foreign trade zones is not a good recommendation for the establishment of duty-free zones in Canada. A factor mitigating against the success of exporting duty-free zones in Canada is foreign domination of the manufacturing sector. This leads to truncated functions and responsibilities for Canadian subsidiaries (Science Council of Canada, 1979). Some subsidiaries are not allowed to export, except to make up parent companies' shortages, others are assigned overseas markets, and some benefit from the foreign contacts of their parent companies. These relationships were hinted at by the Exporting Questionnaire responses (Section 4.4). In Canada, businesses can take advantage of alternative arrangements to duty-free zones like bonded warehouses, duty drawbacks, and duty remissions. Studies have indicated that these arrangements are less costly to the Federal Government and provide essentially the same advantages as duty-free zones (Kemp, 1960; Manitoba, Dept. of Industry and Commerce, n.d.; Stevenson and Kellogg, 1978). The responses from the southern Niagara Region exporting firms indicate that those who used duty drawback/remission schemes were moderately satisfied with the
schemes. Bonded warehouses or quayside Customs shed like in Rotterdam could be used in Halifax should that port ever become an important international transshipment centre on the Round-the-World (RTW) container vessel route. Alternative measures to duty-free zones would avoid the hoopla, misinformation, and the creation of vested interest groups associated with duty-free zones.

It is illustrative to see who supports and who does not support duty-free zones in Canada. The Canadian Importers Association supports the zones, while the Canadian Manufacturers Association and the Canadian Export Association are opposed (Lukasiewicz, 1983a). Special interest groups have a clear perception of who would reap the benefits of duty-free zones.

United States foreign trade subzone operations present questions to Canadians because the transnational vehicle manufacturers who operate in the subzones operate or propose to operate in Canada, subzones may take away possible manufacturing jobs and production from Canada, and Canada and the United States have a free trade pact in automobiles. Volkswagen, which is investing $40 million in a parts plant in Barrie, Ontario (Globe and Mail, May 11, 1984), operates in a foreign trade subzone in New Stanton, Pennsylvania. Honda, which has announced the construction of a $100 million car assembly plant in Alliston, Ontario (Clifford, 1984), operates car and motorcycle plants in the foreign trade subzone in Marysville, Ohio. The Canadian Department of Finance's reply to those who argue for manufacturing duty-free zones in Canada is two-fold: first, Canada's tariff schedule is generally not 'inverted'
as in the United States (i.e., in Canada duty rates on components are lower than on final products) and second, Canada's remission scheme is better than duty-free zones (Canada, Dept. of Finance, n.d.; Gore, 1983). The Department argues that the remission scheme does not discriminate geographically against firms outside duty-free zones. Foreign automobile manufacturers secure a reduction on the 14.3 percent duty on cars if they purchase Canadian automobile parts. In 1980, the average duty on cars for BMW, Fiat, Mercedes-Benz, and Datsun combined was reduced to 13.7 percent as a result of the remissions scheme (Cheveldayoff, 1980). Volkswagen has gained a reduction in duty for its imported cars proportional to the value of Canadian parts in Volkswagen vehicles. Volkswagen agreed with the Canadian Government to buy or make automobile parts in Canada with a value equal to 64 percent of its total Canadian sales and to increase the Canadian content to 85 percent by 1987 (Steward-Patterson, 1984). Honda may decide to construct a Canadian parts plant to supply their Marysville, Ohio assembly plant because of the Canadian remissions scheme (English, 1984); this could take the form of expansion at their Alliston, Ontario site (English and Gherson, 1984). The remission scheme tackles the important issue of automobile parts manufacture. The results of the remissions scheme (vehicle parts manufacture) seem to be superior to the results of foreign trade subzones (assembly of vehicles). Given the viable alternatives offered in Canada, there is no need for duty-free zones to encourage manufacturing in Canada.

This thesis has looked at freeports, export processing zones in the Third World, United States foreign trade zones, the enterprise zone
concept, and alternatives to duty-free zones. On the basis of an examination of the reality of zone operations, particularly the lack of success of foreign trade zones, and research in economic geography, it is concluded that duty-free zones hold no promise for Canada.

There remains only the need for future research deriving from this thesis.

5.4 Suggestions for Further Research

This thesis was written as a work in economic geography, but the interaction between economics and politics became apparent. Because this thesis did not focus on the political decision makers, the role of politics, particularly at the local level, in the creation and sustaining of United States foreign trade zones was not scrutinized in depth. The measures taken by local politicians to justify failing or failed foreign trade zones would make a fascinating study.

An important research challenge would be to quantify the import substitution effects of United States foreign trade subzones. This would be difficult, but would provide policy makers with useful information which would enable a more definite judgement on the value of assembly and manufacturing operations in subzones.

The Export Questionnaire results opened a window on much possible research. A particularly interesting study would be of the effects of ownership of firms on exporting. A follow-up of Safarian's (1973) study, based on a survey-questionnaire of 1,500 foreign-owned firms, would be
illuminating. Such a study must have a control group of Canadian owned firms. The complex linkages of firms should be revealed by such a study.

This thesis has reached an important, if negative, conclusion: duty-free zones are unnecessary in Canada. This thesis should be a counterweight to the mass of literature in newspapers and magazines advocating these zones on the basis of questionable assumptions. In addition, this thesis has pointed out areas of further enquiry which could be pursued.
APPENDIX A

A Glossary of Terms

Enterprise Zone (EZ): EZs are, "small, selected areas of inner cities (which) would be simply thrown open to all kinds of initiative, with minimal control. In other words, we would aim to recreate the Hong Kong of the 1950s and 1960s inside inner Liverpool or inner Glasgow" (Hall, 1982, p. 417).

N.B.: It is important to distinguish Peter Hall's proposal from the EZs implemented, beginning in 1981, by the Thatcher Government, which are basically semi-regulated Development Areas. Similarly, the American version of Enterprise Zone does not have a free trade aspect.

Export Processing Zone (EPZ): An EPZ is, "a relatively small, geographically separated area within a country, the purpose of which is to attract export-oriented industries, by offering them especially favourable investment and trade conditions as compared with the remainder of the host country. In particular, the EPZs provide for the importation of goods to be used in the production of exports on a bonded duty free basis" (UNIDO, 1980, p. 6).

Foreign Trade Zone (FTZ): FTZs are "secured areas legally outside a nation's customs territory. Their purpose is to attract and promote international trade and commerce ... Foreign-trade zones usually are located in or near customs ports of entry at industrial parks or terminal warehouse facilities" (U.S. Customs Service, 1981, p. 79). In practice, the term is reserved for the duty-free zones in the United States.

Foreign Trade Subzone: "Subzones are special purpose facilities for companies unable to operate effectively at public (foreign trade) zone sites ... Subzones are located in the zone user's private facility." (U.S. Customs Service, 1981, p. 79) Foreign trade subzones exist only in the United States.

Freeport: A freeport is, "a legal haven beyond tariff walls for dutiable merchandise (which) enables the re-export of such merchandise with a minimum of customs procedure." (Thoman, 1956, pp. 8-9).

Free Production Zone (FPZ): FPZs are, "industrial areas which are separated off from the rest of the country, located at places where labour is cheap and designated at sites for world market-oriented industry" (Frobel, Heinrichs, and Kreye, 1980, p. 22). Also, as with EPZs, raw materials can be imported free of duty, if the finished products are exported.
### United States Foreign Trade Zones

<table>
<thead>
<tr>
<th>Zone No.</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>New York (Brooklyn)</td>
</tr>
<tr>
<td>3,3a.</td>
<td>San Francisco, Ca.</td>
</tr>
<tr>
<td>4.</td>
<td>Seattle, Washington</td>
</tr>
<tr>
<td>7,7b.</td>
<td>Mayaguez, Puerto Rico</td>
</tr>
<tr>
<td>8.</td>
<td>Toledo, Ohio</td>
</tr>
<tr>
<td>9,9a.</td>
<td>Honolulu, Hawaii</td>
</tr>
<tr>
<td>12.</td>
<td>McAllen, Texas</td>
</tr>
<tr>
<td>14,14a.</td>
<td>Little Rock, Arkansas</td>
</tr>
<tr>
<td>15.</td>
<td>Kansas City, Missouri</td>
</tr>
<tr>
<td>17.</td>
<td>Kansas City, Kansas</td>
</tr>
<tr>
<td>18.</td>
<td>San Jose, California</td>
</tr>
<tr>
<td>19.</td>
<td>Omaha, Nebraska</td>
</tr>
<tr>
<td>20.</td>
<td>Suffolk, Virginia</td>
</tr>
<tr>
<td>21.</td>
<td>Dorchester Co., S.C.</td>
</tr>
<tr>
<td>22.</td>
<td>Chicago, Illinois</td>
</tr>
<tr>
<td>23.</td>
<td>Buffalo, N.Y.</td>
</tr>
<tr>
<td>25.</td>
<td>Port Everglades, Broward Co., Fla.</td>
</tr>
<tr>
<td>26.</td>
<td>Shenandoah, Coweta Co., Georgia</td>
</tr>
<tr>
<td>29.</td>
<td>Louisville, Kentucky</td>
</tr>
<tr>
<td>30.</td>
<td>Salt Lake City, Utah</td>
</tr>
<tr>
<td>31.</td>
<td>Granite City, Illinois</td>
</tr>
<tr>
<td>32.</td>
<td>Miami, Fla.</td>
</tr>
<tr>
<td>33,33a.</td>
<td>Pittsburgh, Pa.</td>
</tr>
<tr>
<td>34.</td>
<td>Niagara Co., N.Y.</td>
</tr>
<tr>
<td>36.</td>
<td>Galveston, Texas</td>
</tr>
<tr>
<td>37.</td>
<td>Orange Co., N.Y.</td>
</tr>
<tr>
<td>38.</td>
<td>Spartanburg Co., S.C.</td>
</tr>
<tr>
<td>39.</td>
<td>Dallas-Fort Worth (Airport)</td>
</tr>
<tr>
<td>40.</td>
<td>Cleveland, Ohio</td>
</tr>
<tr>
<td>41,41a,41b.</td>
<td>Milwaukee, Wisc.</td>
</tr>
<tr>
<td>42.</td>
<td>Orlando, Fla.</td>
</tr>
<tr>
<td>43.</td>
<td>Battle Creek, Mich.</td>
</tr>
<tr>
<td>44,44a.</td>
<td>Morris Co., N.J.</td>
</tr>
<tr>
<td>45,45a.</td>
<td>Portland, Oregon</td>
</tr>
<tr>
<td>46,46a,46b.</td>
<td>Cincinnati, Ohio</td>
</tr>
<tr>
<td>47.</td>
<td>Campbell Co., Kentucky</td>
</tr>
<tr>
<td>48.</td>
<td>Tucson, Arizona</td>
</tr>
<tr>
<td>49.</td>
<td>Newark-Elizabeth, N.J.</td>
</tr>
<tr>
<td>50.</td>
<td>Long Beach, Ca.</td>
</tr>
<tr>
<td>51.</td>
<td>Duluth, Minnesota</td>
</tr>
<tr>
<td>52.</td>
<td>Suffolk Co., N.Y.</td>
</tr>
<tr>
<td>53.</td>
<td>Rogers Co. (Tulsa), Okla.</td>
</tr>
</tbody>
</table>
54. Clinton Co. (Plattsburgh), N.Y.
55. Burlington, Vermont
56. Oakland, California
57. Mecklenburg Co., N.C.
58. Bangor, Maine
59,59a. Lincoln, Nebraska
60. Nogales, Arizona
61. San Juan, Puerto Rico
62. Brownsville, Texas
63. Prince Georges Co., Md.
64. Jacksonville, Fla.
65. Panama City, Fla.
66. Wilmington, N.C.
67. Morehead City, N.C.
68. El Paso, Texas
70,70a,70b. Detroit, Mich.
71. Windsor Locks, Conn.
72. Indianapolis, Indiana

Notes: 1) The above zones were approved as of 30 Sept., 1981.

2) The following zones reported little or no activity in 1981:
7b, 14a, 16, 19, 24, 24a, 27a, 34, 35, 40, 41a, 41b, 44, 46,
46a, 48, 50, 51, 52, 53, 54, 58, 59, 60, 61, 63, 64, 65, 66,
67, 68, 70, 70a, 70b, 71, and 72

APPENDIX C

Survey Questionnaire - Foreign Trade Zones

N.B.: ALL COMPLETED QUESTIONNAIRES ARE STRICTLY CONFIDENTIAL.

1. Name of firm

2. Number of full-time employees

3. Main firm activities (check those that are applicable)
   i.) transport
   ii.) wholesaling
   iii.) assembly
   iv.) manufacturing
   Please specify type
   Please specify type

4. Name of parent company (if applicable)

5. Location of parent company (if applicable)

6. Date you entered Foreign Trade Zone (FTZ)
   (YR) (MTH)

7. a.) Are you currently located in a FTZ?
   b.) If no, date you left FTZ
   (YR) (MTH)
   (If no, answer questions below as if you were still operating in the FTZ.)

8. Reasons you located in a FTZ (check as many as apply)
   i.) improved transport
   ii.) proximity to a major airport
   iii.) proximity to port facilities
   iv.) proximity to the Canadian border
   v.) improved physical plant
   vi.) low land costs
   vii.) low rental charges
   viii.) proximity to a low cost labor force
   ix.) services offered by FTZ authority
   x.) services offered by other firms in FTZ
   xi.) services offered by other firms in area
   xii.) lower duty
   xiii.) postponed duty
   xiv.) ease of custom clearance
   xv.) other
   please specify

144
9. What transport mode(s) do you use for receiving raw materials/parts/semi-finished goods/finished goods at the FTZ? (check as many as apply)

<table>
<thead>
<tr>
<th>Mode</th>
<th>% Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.) truck</td>
<td></td>
</tr>
<tr>
<td>ii.) rail</td>
<td></td>
</tr>
<tr>
<td>iii.) air</td>
<td></td>
</tr>
<tr>
<td>iv.) water</td>
<td></td>
</tr>
</tbody>
</table>

10. What transport mode(s) do you use for shipping products out of the FTZ? (check as many as apply)

<table>
<thead>
<tr>
<th>Mode</th>
<th>% Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.) truck</td>
<td></td>
</tr>
<tr>
<td>ii.) rail</td>
<td></td>
</tr>
<tr>
<td>iii.) air</td>
<td></td>
</tr>
<tr>
<td>iv.) water</td>
<td></td>
</tr>
</tbody>
</table>

11. Firm activities in FTZ (check those that are applicable)

| i.) warehousing |       |
| ii.) wholesaling |       |
| iii.) assembly |       |
| iv.) manufacturing | Please specify type |

12. Number of full-time employees in FTZ

13. What services offered by FTZ authority do you use? (check as many as applicable and write in other services if used)

<table>
<thead>
<tr>
<th>Services</th>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.) customs clearance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii.) cargo handling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii.) stevedoring</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv.) packaging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v.) labelling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi.) office help</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii.) blue collar help</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>viii.) inventory control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ix.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x.)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
14. What services offered by other firms in the FTZ do you use? (check as many as applicable and write in other services if used)

<table>
<thead>
<tr>
<th>Services</th>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.) freight forwarders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii.) customs brokers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii.) banks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv.) insurance companies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v.) trading houses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi.) manufacturing firms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii.) transport firms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>viii.)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ix.)</td>
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<td></td>
<td></td>
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<tr>
<td>x.)</td>
<td></td>
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</tr>
</tbody>
</table>

15. What services offered by firms in the local area (within a radius of 30 miles of the FTZ) do you use? (check as many as applicable and write in other services if used)

<table>
<thead>
<tr>
<th>Services</th>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.) freight forwarders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii.) customs brokers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii.) banks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv.) insurance companies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v.) trading houses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi.) manufacturing firms</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>vii.) transport firms</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>viii.)</td>
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<td>ix.)</td>
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<td></td>
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<tr>
<td>x.)</td>
<td></td>
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</tr>
</tbody>
</table>

16. Please list the customs advantages you receive from operating in a FTZ.

____________________________________________________________________
____________________________________________________________________

17. Please list any government grants (and the granting agencies) that you received when you located in the FTZ?

<table>
<thead>
<tr>
<th>Type of Grant</th>
<th>Granting Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
18. Please list any type of exemptions or discounts (legal, tax, rent, mortgage, etc.) that you received when you located in the FTZ.

<table>
<thead>
<tr>
<th>Type</th>
<th>Granting Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
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<tr>
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</tbody>
</table>

19. Please list new or additional grants, exemptions, or discounts that you have received since locating in the FTZ.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td></td>
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</tbody>
</table>

20. Are there any disadvantages to locating in a FTZ? Please list and comment.

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you very much for your co-operation in filling out and returning this questionnaire.
Foreign Trade Zone (FTZ) Questionnaire -- Addendum

1. From what region do you receive your raw materials/parts/semi-finished goods/finished goods at the FTZ? (check as many as apply)

<table>
<thead>
<tr>
<th>Region</th>
<th>% Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Canada</td>
<td></td>
</tr>
<tr>
<td>ii. U.S.A.</td>
<td></td>
</tr>
<tr>
<td>iii. Europe</td>
<td></td>
</tr>
<tr>
<td>iv. Asia</td>
<td></td>
</tr>
<tr>
<td>v. Australasia</td>
<td></td>
</tr>
<tr>
<td>vi. Africa</td>
<td></td>
</tr>
<tr>
<td>vii. Caribbean</td>
<td></td>
</tr>
<tr>
<td>viii. Latin America</td>
<td></td>
</tr>
</tbody>
</table>

2. To what region do you send your raw materials/parts/semi-finished goods/finished goods from the FTZ? (check as many as apply)

<table>
<thead>
<tr>
<th>Region</th>
<th>% Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Canada</td>
<td></td>
</tr>
<tr>
<td>ii. U.S.A.</td>
<td></td>
</tr>
<tr>
<td>iii. Europe</td>
<td></td>
</tr>
<tr>
<td>iv. Asia</td>
<td></td>
</tr>
<tr>
<td>v. Australasia</td>
<td></td>
</tr>
<tr>
<td>vi. Africa</td>
<td></td>
</tr>
<tr>
<td>vii. Caribbean</td>
<td></td>
</tr>
<tr>
<td>viii. Latin America</td>
<td></td>
</tr>
</tbody>
</table>

3. Firm activities in FTZ. (check those that are applicable)

<table>
<thead>
<tr>
<th>Activity</th>
<th>% Amount</th>
<th>Please specify type</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. warehousing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. wholesaling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. assembly</td>
<td>Please specify type</td>
<td></td>
</tr>
<tr>
<td>iv. manufacturing</td>
<td>Please specify type</td>
<td></td>
</tr>
<tr>
<td>v. packaging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi. labelling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii. sorting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>viii. grading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ix. cleaning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x. mixing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>xi. exhibiting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>xii. other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you again for your co-operation in filling out and returning this questionnaire.
APPENDIX D

Survey Questionnaire -- Exporting

N.B.: ALL COMPLETED QUESTIONNAIRES ARE STRICTLY CONFIDENTIAL

1. Name of firm ________________________________

2. Location of firm ________________________________

3. Number of full-time employees ________________________________

4. Main firm activities (check those that are applicable)
   i.) transport ___________________{__} ____________________________
   ii.) wholesaling ___________________{__} ____________________________
   iii.) assembly ___________________{__} Please specify type
   iv.) manufacturing ___________________{__} Please specify type
   v.) other ___________________{__} Please specify type

5. Name of parent company (if different from above) ________________________________

6. Location of parent company (if different from above) ________________________________

7. To what regions of the U.S.A. do you export? (check as many as applicable)
   % of exports
   i.) New York State ________________________________
   ii.) New England ________________________________
   iii.) Mid-Atlantic (Pa., N.J., Md., Del., D.C.) ________________________________
   iv.) Mid-West ________________________________
   v.) South ________________________________
   vi.) West ________________________________

8. To what other regions do you export? (check as many as applicable)
   % of exports
   i.) W. Europe ________________________________
   ii.) E. Europe & U.S.S.R. ________________________________
   iii.) Caribbean ________________________________
   iv.) Latin America ________________________________
   v.) Asia ________________________________
   vi.) Africa ________________________________
   vii.) Australasia ________________________________

9. What foreign port(s) of entry do you use for your exports? ________________________________

10. Please list the product(s) you export? ________________________________
11. What facilities does your company own or rent in the foreign country to which you export (check as many as applicable)

i.) non-bonded warehouse 
ii.) bonded warehouse 
iii.) factory 
iv.) office 
v.) other 

Please specify

12. What mode(s) of transport do you use for shipping exports? (check as many as applicable)

<table>
<thead>
<tr>
<th>Mode</th>
<th>% Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.) truck</td>
<td></td>
</tr>
<tr>
<td>ii.) rail</td>
<td></td>
</tr>
<tr>
<td>iii.) air</td>
<td></td>
</tr>
<tr>
<td>iv.) water</td>
<td></td>
</tr>
</tbody>
</table>

13. What services offered by other firms in the local area in Canada do you use for exporting? (check as many as applicable and write in others if used)

<table>
<thead>
<tr>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.) freight forwarders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii.) customs brokers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii.) banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv.) insurance companies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v.) trading houses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi.) transport firms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>viii.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. What services offered by other firms in the foreign country near the port of entry do you use? (check as many as applicable and write in others if used)

<table>
<thead>
<tr>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.) freight forwarders</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>vi.) transport firms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii.) manufacturing firms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>viii.) agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ix.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
15. What are the main problems you encounter when you export? (check as many as applicable and write in other problems encountered)

i.) lack of knowledge about foreign market

ii.) lack of knowledge about export procedure

iii.) labelling requirements

iv.) packing requirements

v.) export entry and identification forms

vi.) export permits

vii.) Canadian Customs remission documentation

viii.) American Customs documentation

ix.) letters of credit

x.) high tariff charges

xi.) insufficient volume of exports

xii.) high freight costs

xiii.) high insurance costs

xiv.) high customs brokerage costs

xv.) high freight handling costs

xvi.) high cost of foreign facilities

xvii.)

xviii.)

16. Please list the chief obstacle(s) to your firm increasing your export sales.


17. Have you made use of the Canada Customs remission (duty drawback) scheme?

Yes ___  No ___  Unaware ___

18. Please rate the Canada Customs remission scheme on a scale of 1 (excellent) to 5 (poor). (check one only)

1 ___  2 ___  3 ___  4 ___  5 ___

19. Please comment on the Canada Customs remission scheme.


20. The best strategy for dealing with tariffs when exporting is to (check one only):

i.) pay them right away and get it over with

ii.) postpone their payment by storing goods in bonded warehouses or foreign trade zones

iii.) postpone and lower their payment by using exports as inputs in assembly or manufacturing operations in foreign trade zones
21. Have you considered using Buffalo's Foreign Trade Zone for exports to the U.S.?

Yes ____  No ____  Unaware ____

22. If you have considered the possibility of using Buffalo's Foreign Trade Zone, have you ever used the Zone?

Yes ____  No ____  Unaware ____

23. Check the advantages of using Buffalo's Foreign Trade Zone (FTZ).

i.) improved transport
ii.) proximity to major airport
iii.) proximity to port facilities
iv.) proximity to Canadian border
v.) improved physical plant
vi.) low land costs
vii.) low rental charges
viii.) proximity to a low cost labour force
ix.) services offered by FTZ authority
x.) services offered by other firms in FTZ
xi.) services offered by other firms in area
xii.) lower duty
xiii.) postponed duty
xiv.) ease of Customs clearance
xv.) other

please specify _______________________

24. What are the problems with using the Buffalo Foreign Trade Zone (FTZ). (check as many as applicable)

i.) poor transportation
ii.) poor location
iii.) distance from main markets
iv.) poor physical plant
v.) high land costs
vi.) high rental charges
vii.) high cost labour force
viii.) inadequate services offered by FTZ authority
ix.) high cost of services offered by FTZ authority
x.) inadequate services offered by other firms in FTZ
xi.) inadequate services offered by other firms in area
xii.) problems with duty
xiii.) excessive Customs documentation
xiv.) excessive inventory control documentation
xv.) other

please specify _______________________

25. If the Canadian Government were to adopt free trade zones, in what ways should they differ from American foreign trade zones?

________________________________________________________________________

________________________________________________________________________
BIBLIOGRAPHY

Abel, Allen (1984) 'China out to trap cubs in capitalist tiger's lair', Globe and Mail, Apr. 9, p. 1


_____________ (1983). 'The 'four dragons' lose their fire'. March 28, pp. 64, 68.


-------- (1982c). 'Is Free Trade Dead', December 25, pp. 75-93 (17 pages)

-------- (1983). 'Freeports, The treasury agrees to a test', February 26, p. 64.


Gazette (1980). 'Mitel moves into duty-free zone', June 18, p.61.


Mielecki, E.J. (1980). 'Corporate Organization of R and D and the Location of Technological Activities', Regional Studies, 14, pp. 219-234.

Manitoba, Department of Industry and Commerce (n.d.). A Study of the Proposal to Create a Free Port at Churchill. Winnipeg.


Mihelic, Dusan (1969). The Political Element in the Port Geography of Trieste. Research Paper No. 120, Department of Geography, University of Chicago.


UNCTAD (1973). The Use of Free Zones as a Means of Expanding of Manufacturers from the Developing Countries. TD/B/C.2/125, June 18.


UNIDO (n.d.). Industrial Free Zones as Incentives to Promote Export Oriented Industries. mimeographed.


U.S., Foreign-Trade Zones Board. Annual Report of the Foreign-Trade Zones Board to Congress for the Fiscal Year Ending 19XX. Washington, D.C. (Until June 30, 1976, the fiscal year ended on June 30. Thereafter, the fiscal year has ended on September 30.)


END

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