

FOREIGN-TRADE ZONES: DOES CANADA NEED THEM?*

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Introduction

Even though the worst economic downturn since the 1930s has come to an end, many cities and regions in the industrial heartlands of North America and Western Europe continue to face the twin problems of record high unemployment and continuing employment loss ("job flight") of basic industries and manufacturing to Third World countries. One of many solutions proposed has been the creation of *economic enclaves* within the city or region, where government *interference* is minimized and the importation of raw materials, components and finished goods is at a reduced duty or duty free. Various labels have been given to this concept, including enterprise zones, foreign-trade zones, free market zones, free ports, free production zones and export processing zones.

In the United Kingdom, an economic enclave concept, first advocated by Hall [23] and subsequently adopted by the Thatcher government, led to the creation of enterprise zones in eleven cities and

*The opinions expressed in this paper are solely those of the authors and in no way reflect the views of Statistics Canada.

regions [33]. As manufacturing jobs have disappeared in the industrial heartland of the United States, a renewed interest in the use of foreign-trade zones (FTZs) as a method of saving existing jobs and attracting new jobs has occurred. In 1969, nine FTZs existed. By 1981, sixty-six FTZs had been approved, and the number grew to ninety-eight by July 30, 1984, with many more applications pending [2;3;17].

An economic enclave concept has also been suggested to protect existing jobs and to attract new jobs to Canada [22]. While the British Columbia government has passed the *Special Enterprise Zone and Tax Relief Act* (Bill 49-1985) and the federal government is considering a related but distinct concept, the international financial centre, there has been little experience with economic enclaves in Canadian cities or regions.

This paper examines the impact that FTZs have had in the United States in order to see whether a similar approach would be beneficial in a Canadian context. The United States experience is chosen for two reasons. First, there is already a growing critical literature on United Kingdom enterprise zones [4;7;13;24;25;31;33;34]. A critical literature on the United States experience does not exist to any extent. Second, it is the authors' belief that if an economic enclave concept is adopted in Canada, it is much more likely to resemble the FTZs of the United States than the enterprise zones of the United Kingdom.

The paper first provides an overview of the theoretical issues surrounding the economic enclave concept and then describes the historical development of FTZs and their performance at a macrolevel of analysis. This is followed by a case study of the Buffalo Foreign Trade Zone, in order to illustrate the effects of FTZs at a microlevel of analysis. Based upon the macrolevel and microlevel analyses, the utility of the economic enclave concept in the Canadian context is considered.

Theoretical Issues

Arguments for and against the economic enclave concept can be theoretically linked to theories on transnational capital and the post-industrial city and to their Third World expression in the form of export processing zones. Regardless of ideological orientation, it is generally accepted that as the economic power of transnational corporations has grown since World War II, they have increasingly sought Third World locations as sites for manufacturing plants. This drive reflects an array of changes that have been taking place in the world economy.

Large, cheap supplies of labour, the division of production processes into many simple operations, and improved global transportation and communications have made Third World sites attractive to

transnational corporations [19]. With a desire for export-led development, Third World countries have compounded their attractiveness by creating export processing zones where they are willing to allow transnational corporations to set up manufacturing plants with virtually no government interference of any kind. On the other hand, high labour costs, pollution control costs and aging plants, particularly in the older industrial cities of North America and throughout Western Europe, have led transnational corporations to pull their manufacturing operations out of these places.

Following a conventional mode of analysis, researchers have explained this process on the basis of a combination of product cycle theory and comparative advantage [30]. Marxist researchers see it as part of the crisis of low profits facing developed capitalist countries and as a political necessity to bolster support for non-communist regimes in Third World countries [18].

At the urban level in developed countries, the physical manifestation of this international process of the changing location of basic industries and the manufacturing sector is the post-industrial city: a city where basic industries and the manufacturing sector have all but disappeared, where there is a high level of unemployment of blue collar workers, and where the remainder of the urban economy is disproportionately split between low wage service sector employment and high wage white collar and professional employment [5;27;29].

This has led Hall [23;24] in the United Kingdom, Butler [9] in the United States, and Grubel [22] in Canada to advocate the Third World enterprise zone as a model for solving the blue collar employment problems of the post-industrial city in developed countries. Hall [24] stresses that an implication of maximum freedom in the zones is that they would be "outside the limits of the parent country's legislation." He prescribes his medicine as a "last ditch answer" to the devastation zones of British inner cities where an unskilled, unemployed population resides.

Butler [9] blames government at all levels for the blight of American inner cities. He sees a combination of the enterprise zone concept with the FTZ as a way of revitalizing decaying neighbourhoods and aiding emergent small businessmen in these neighbourhoods. As a result, he puts great stress on the need for abolition of minimum wages in enterprise zones to encourage business.

Grubel [22] sees the economic enclave concept as part of a more general attempt to deregulate Canadian society. Accepting the need for some regulation of society in general, Grubel argues that specific enterprises would flourish in a deregulated environment to the benefit of all. His argument, as well as the arguments of Hall and Butler, is premised on the judgement "that regulation and the weakening of free

market institutions, while producing some benefits has often resulted in costs greater than those benefits" [22:5].

In contradistinction to Hall, Butler, and Grubel, who see urban decay and overregulation by government as the causes of the loss of jobs in inner cities, Massey [31] sees the flight of private capital as the cause of inner city blight. She describes 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" [31:433].

The enterprise zone model is based on the idea of attracting existing firms and encouraging new firms to a designated area where factor costs are relatively and absolutely lower. A major cost to be lowered is labour. Firms, especially manufacturing firms, are supposed to be attracted to the zones in order to employ low wage, unskilled inner city residents. But Anderson [4:318] 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 [referring to Hall] "Hong Kongs" if they had any other means of staying alive?

Anderson also points out that enterprise zones are supposed to be small areas but labour markets are not. This suggests that firms in enterprise zones will have to offer competitive wages to attract labour to the zones.

Harrison [25] sees the concept as part of the more general assault on the social wage being carried out by supply side economic theoreticians. He and other critics of the concept also argue that enterprise zones do not address the major impediments to economic development in inner city areas: high crime rates, poor public services, and a decaying infrastructure [1:25;26].

Goldsmith [21] points out the boundary problem inherent in trying to attract already existing firms into an enterprise zone. He argues that firms near an enterprise zone would close and move into the zone to gain its benefits. This would not create new jobs; it would only lower the wages of employees.

In summary, the proponents of economic enclaves argue that the loss of jobs and factories is the result of higher factor costs, lack of incentives to invest in new plant and equipment, and over-regulation by government. The economic enclave is seen as a device for lowering factor costs and creating a less regulated environment where enterprise can flourish. The enclaves are supposed to act as *magnets* to attract new jobs and factories, particularly in manufacturing and assembly. They are also supposed to act as *havens*, saving existing jobs

in plants that find it difficult to compete with lower cost Third World production and assembly units. Finally, enclaves are supposed to act as *seedbeds* for new small businesses to develop.

The critics argue that the problems that economic enclaves are designed to remedy are part of the more general processes of capitalism. Economic enclaves are a device for lowering wage rates and exploiting a surplus, unemployed labour force in the depressed areas of inner cities. Economic enclaves cannot be a solution to the problems of depressed inner cities, because they do not address the fundamental issues that arise out of the role of transnational corporations and the international circulation of capital.

Based on ideology, there are clear and substantive disagreements between those who have argued for and against economic enclaves in theory. There are also clear and substantive differences between the theory and the practice of setting up economic enclaves.

The Historical Development of Foreign-Trade Zones

In the United States, FTZs were established in 1934 as a New Deal innovation aimed at increasing depressed international trade. The inspirations for FTZs were the Hamburg and Bremen free ports [38].

The legislation governing FTZs is the Foreign-Trade Zones Act of 1934 with amendments to it in 1950 and 1958. Under the legislation, FTZs are outside the customs territory of the United States. The U.S. Customs Service is, however, responsible for controlling admission, inventory control, manipulation, and exit of goods. It is also free to inspect the premises of a FTZ at any time and has strict regulations about FTZ operations, including inventory control and the filing of numerous forms.

FTZs are granted to states, counties, and other public bodies, often port commissions, by the Foreign-Trade Zones Board of the Department of Commerce. All manufacturing operations must be approved by the Board as being in the public interest.

FTZs are subject to all the laws of the federal 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.

Most FTZs are general purpose zones. Special purpose zones, called subzones, may be sponsored by an 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.

In an FTZ, 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 [11:79].

The purpose of storage of goods in an FTZ 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 an FTZ allows entrepreneurs to show their products to potential buyers and at the same time negates the necessity of paying duty or posting a bond. Mixing goods with foreign or domestic merchandise is usually intended to avoid a quota. The object of most remaining operations is to lower the duty by getting the item reclassified into a tariff category bearing a lower rate of duty. Labeling undertaken at FTZs aims to make merchandise conform to American labelling requirements, which is necessary before goods can gain admission to United States customs territory.

The first zone was established in New York City in 1937. The other early FTZs which survive today 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 [38].

In the 1960s, FTZs grew even 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.

By early 1983, the number of FTZs had mushroomed. There were sixty-six operating; ten more had been approved by the Foreign-Trade Zones Board, one had been abolished, and many applications were pending [2]. The number of subzones increased more slowly, from seven (with only three operating) in 1969 to thirteen (all apparently operating) in 1983. Only two of the 1969 subzones still existed in 1983 (2;14).

In FTZs the laws of the land continue to prevail. At the same time, advocates of FTZs see advantages to them that are highly similar to the advantages claimed for economic enclaves in theory and/or see them as the first step in creating such enclaves. The National Association of Foreign-Trade Zones [32] claims that FTZs lead to a more favourable balance of payments, jobs in the United States rather than overseas, foreign investment in the United States, substitution of United States source parts for imported parts, export stimulation, and increased international trade. Politicians who are concerned about urban blight, unemployment, and deindustrialization argue for the creation of FTZs on the basis that they will bring jobs to their constituents, that FTZs can be used as part of a package of incentives to

attract new firms to their communities, and that as a result urban and economic revitalization of the community and the region will occur.

It is beyond the scope of this paper to evaluate all of the claims that are made for and against economic enclaves in theory and FTZs in practice. The major part of the analysis that follows highlights the performance of FTZs in two crucial areas: employment generation, and import and export facilitation.

An Analysis of Foreign-Trade Zones and Subzones

The Foreign-Trade Zones Board publishes annual reports that give aggregate data for the operations of all FTZs and reports on individual zones that are operating. At the time of writing, the latest annual report was for the fiscal year ending September 30, 1981 [17]. Of the sixty-six FTZs that had been approved by 1981, only thirty-two reported any substantive activity.

The volume of merchandise shipped from general purpose FTZs declined from an average of \$15 million in 1969 to \$11 million (in 1969 U.S. dollars) in 1981. Excluding three newer zones, the 1981 average is \$12 million, still less than the 1969 average. The \$12 million average (\$30 million in 1981 U.S. dollars) conceals a skewed distribution. Only seven of the 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 1. Of the seven "above average" general purpose zones, four are linked to busy ports, two owe their success to their special linkages to the regional economy, and one owes its success to the nature of its physical plant.

New York City's FTZ, at the Brooklyn Naval Yard, participates in the trade of North America's busiest harbour. The Miami FTZ takes advantage of Miami's role as a transshipment point 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. The New Orleans FTZ is a conduit for imports into the prosperous South. Ninety-seven percent of goods shipped from the New Orleans FTZ are imported into the United States.

The McAllen FTZ in Texas, five kilometres from the Mexican border, is in the Mexico-United States transborder industrial strip. In 1981, over three-quarters of the goods received at the McAllen FTZ were from the United States customs territory. There is little or no advantage to warehousing goods at the FTZ. More than a quarter of the goods received were television parts, which are assembled into completed sets in Mexican "maquiladoras", in-bond factories on the Mexican side of the United States-Mexico border.

Table 1
 MERCHANDISE FORWARDED FROM SELECTED GENERAL PURPOSE
 FOREIGN-TRADE ZONES, 1980 AND 1981
 (in millions of current year dollars)

FTZ No.	Zone Name	1980	1981	Exports as a percentage of shipments, 1981
1.	New York City	115.8	100.2	71
2.	New Orleans	80.2	76.0	3
12.	McAllen	271.0	308.4	67
15.	Kansas City, Missouri	42.4	63.5	11
18.	San Jose, California	23.9	47.8	45
24.	Wilkes-Barre	145.0	-	-
25.	Port Everglades	37.0	58.1	21
32.	Miami	74.4	159.8	71
	Total	788.7	813.8	

N.B. The R.C.A. plant in FTZ 24, which produced solid state devices, closed in 1980.

Sources: [16; 17].

In the San Jose FTZ, in the middle of California's Silicon Valley, substandard integrated circuits are destroyed and gold is reclaimed. Merchandise received exceeded merchandise shipped by \$19 million in 1980 and \$69 million in 1981.

The Kansas City FTZ has the lowest monthly lease rates of the thirty-two general purpose zones listed by Cooksey-Davis [10]. The heating and air conditioning costs of its plant (it is actually in a limestone cavern) are low relative to other sites in the region, making it an attractive location notwithstanding its FTZ status.

Advocates for FTZs claim that they stimulate exports from the United States. Yet among the seven most successful FTZs, exports exceeded 50 percent of merchandise forwarded in 1981 at only New York, Miami, and McAllen (see Table 1).

For all general purpose FTZs, 62 percent of merchandise received by value was imported in 1981 and imports received exceeded exports by \$226 million (see Table 2). About half of the merchandise forwarded was exported. This is an improvement over 1980 (about 40 percent exported) and 1979 (30 percent exported). But these data are also highly skewed. The "big three" FTZs accounted for over 80 percent of exports and exported almost 80 percent of the merchandise forwarded from them (see Table 2). As a group, the other general purpose zones exported less than a quarter of the merchandise forwarded from them.

Table 2
 MERCHANDISE RECEIVED AT AND FORWARDED FROM
 FOREIGN-TRADE ZONES, 1981
 (in millions of current year dollars)

	Merchandise Received			Merchandise Forwarded		
	From U.S. Customs Territory	From Foreign Countries	Total	To U.S. Customs Territory	To Foreign Countries	Total
General Purpose	431.7	705.0	1,137.0	471.3	478.7	950.0
Special Purpose	584.9	1,274.3	1,859.1	1,464.2	441.6	1,905.8
Total	1,016.6	1,979.3	2,996.1	1,935.5	920.3	2,855.8

N.B. Under merchandise received, the total for general purpose zones does not equal the sum of columns one and two due to discrepancies in the New York City and Louisville data.

Source: [17].

It is claimed that 9,880 jobs in 1980 and an estimated 14,000 jobs in 1981 were directly attributable to general purpose and special purpose subzones [32]. By adding the number of jobs cited for individual general purpose zones in 1981, one arrives at a total of "up to" approximately 3,510 jobs, including about 2,900 full time jobs. Over 1,000 of the full time jobs were at the Miami FTZ.

The National Association of Foreign-Trade Zones [32] estimates that 1,400 firms used FTZs in 1981. The Association neglects to mention that most of these firms 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 firms that used FTZs on a continuous basis, operations were small. Each firm employed an average of six employees.

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, New York had a profit of \$53,000, Miami lost \$762,000 and McAllen had a profit of \$62,000. Financially, the zones are not doing well. Proponents argue that small losses are acceptable if FTZ-using businesses start or grow in an FTZ locality.

Special purpose subzones also play a part in separating out the skewed performance of FTZs hidden by the aggregate data. Between

1969 and 1981, shipments forwarded from subzones increased from \$7.5 million to \$1,906 million, an increase in 1969 dollars of over one hundred times. General purpose zone shipments forwarded increased from \$88.5 million to \$950 million in 1981, an increase of only four times. Table 2 gives the 1981 merchandise data for general and special purpose zones and indicates that subzones accounted for 67 percent of merchandise forwarded from all zones. Only two subzones accounted for the majority of all shipments. Subzone 9a, a Hawaiian oil refinery and synthetic natural gas plant, was responsible for 30 percent (\$867 million) of all FTZ shipments, and Subzone 33a, the New Stanton, Pennsylvania, Volkswagen plant, was the origin of 28 percent (\$808 million) of the shipments.

In the subzones, 69 percent of the merchandise received was imported in 1981. Imports received exceeded exports forwarded by \$833 million (see Table 2). Less than a quarter of subzone merchandise forwarded was exported. The bulk of these exports (92 percent) was petroleum products from the Hawaiian oil refinery. As a result, only one subzone can be considered export facilitating. The remainder are import facilitating.

Of the 6,843 full time jobs existing in subzones in 1981, 5,700 jobs were at the New Stanton Volkswagen plant and the remainder were spread around the other subzones. In the subzones, six of the firms operated on a much larger scale when compared to firms in the general purpose zones. One of these firms, however, ceased its operations in an FTZ in 1981, and the seventh subzone firm was operating only on a part time basis.

By early 1983, thirteen firms were reported to be operating in foreign-trade subzones (see Table 3). Two of these firms were independent oil refiners operating in insular locations, Hawaii and Puerto Rico. Nine of the other firms were transnational corporations, and eight of these were vehicle or vehicle parts manufacturers.

All subzone firms were sent a questionnaire concerning their activities and the advantages and disadvantages derived from operating out of a subzone. Six firms responded, five chose not to respond, and two questionnaires were returned by the Post Office, indicating that the firms were no longer operating out of a subzone.

Respondent firms considered that the FTZ device advantages are important to their operations in subzones. Of the six respondent firms, six cited postponed duty, five cited lower duty, and four cited ease of customs clearance as advantages of operating out of a subzone. However, four of the six firms wrote that the United States Customs Service inventory control procedures and/or Foreign-Trade Zones Board reporting procedures were disadvantages to locating in a subzone.

Table 3
FOREIGN-TRADE SUBZONES OPERATING AS OF MARCH, 1983

Subzone Number	Location	Company
3a	San Francisco, California	Lilli-Ann Corp. (woollen fabrics)
7b	Penuelas, Puerto Rico	Commonwealth Oil Refinery Co. Ltd.
9a	Ewa, Oahu, Hawaii	HIRI and ERNECO (Pacific resources, petroleum and natural gas products)
14a	Forest City, Arkansas	Sanyo Manufacturing Corp. (television and microwave ovens)
33a	New Stanton, Pennsylvania	Volkswagen Manufacturing Corp. of America (automobiles)
41a	Kenosha, Wisconsin	American Motors Corp. (automobiles)
41b	Manitowoc, Wisconsin	Muskegon Piston and Ring Co. (autoparts)
45a	Portland, Oregon	Northwest Pipe and Casing Co. (pipes)
46b	Marysville, Ohio	Honda (automobiles and motorcycles)
59a	Lincoln, Nebraska	Kawasaki Motor Corp., U.S.A. (motorcycles)
70a	Romeo, Michigan	Ford Tractor and Equipment Plant (tractors)
70b	Detroit, Michigan	Chrysler (automobiles)
78a	Smyrna, Tennessee	Nissan Manufacturing Corp. U.S.A. (trucks and parts)

Source: [2:25-36].

Subzone firms indicated that they did not use many local firms, and the ones that they did use were mainly connected to the import, export and transport of goods. Only one local manufacturing firm was used by a subzone firm. The reason for this apparent lack of local linkages becomes clear when Table 4 is examined.

The material linkages of subzone transnational corporations are long. These linkages reflect the global sourcing of components for the vehicle industry. Table 4 also indicates that the subzones are import facilitating, since components are bought worldwide and the products are sold predominantly in the United States. The long backward linkages and the finished nature of the products of transnational corporations in subzones raises doubts about the spawning of industrial complexes around subzones.

An analysis of FTZs at the macrolevel suggests that they are having trouble fulfilling goals such as facilitating exports and generating employment. Only a few zones are successful in encouraging trade (mainly imports) and employment. These zones are associated with major ports or have special linkages with their respective regional economies. Little manipulation or manufacturing appears to be done in general purpose zones.

Table 4
ORIGINS AND DESTINATIONS OF GOODS SHIPPED
THROUGH FOREIGN-TRADE SUBZONES
BY TRANSNATIONAL CORPORATIONS

	Origins		Destinations	
	No. of times cited by firms (A)	No. of times 75% or more of a firm's shipments (B)	No. of times cited by firms (C)	No. of times 75% or more of a firm's shipments (D)
Canada	2	0	3	0
U.S.A.	5	0	5	5
Europe	3	0	0	0
Asia	4	0	0	0
Latin America	2	0	3	0
Australasia	0	0	1	0

Number of Respondents for Columns A, B, C, D = 5.

Source: [39].

It is even more difficult to assess whether subzones fulfil their stated aims. Would the transnational corporations in the subzones have started assembly and/or manufacturing operations in the United States without the existence of subzones? On the one hand, foreign based transnational corporations may be willing to locate in the United States for other reasons. Japanese vehicle manufacturers are under considerable political pressure to assemble cars in the United States. Subzones may have an advantage over non-subzone locations, but the overall strategy remains the same: to locate in the United States to avoid growing protectionist moves by Congress.

On the other hand, subzones may be the only way of keeping assembly jobs in the United States. One respondent representing a United States based transnational corporation thought that subzones are essential for vehicle production in the United States. He wrote that the advantages of subzone operations are:

lower duty rates, postponed duty payments, cash flow savings. Able to compete effectively with foreign manufacturers who presently import vehicles duty free.

Even if FTZs are having difficulty meeting their potential at the macrolevel, there remains the possibility that, at the microlevel, zones may be a useful tool for encouraging urban and regional revitalization.

To delve deeper into this issue, results of a case study of the Buffalo general purpose FTZ are provided in the next section.

The Buffalo Foreign-Trade Zone

The Buffalo FTZ was chosen for several reasons. Using the macrolevel indicators discussed in the previous section, the Buffalo FTZ was below average in merchandise received compared to all thirty-two general purpose zones, but would be above average compared to other FTZs if the seven "successful" FTZs are treated as a separate group. Even with its mixed performance on the macrolevel indicators, it is the most active FTZ along the United States-Canada border.

The FTZ is located at a port that has seen declining traffic and in a city and region that have lost a significant number of basic industries and manufacturing jobs in the past several years. The conditions and trends occurring in Buffalo are similar to what is happening or may happen to Canadian cities, particularly in the Windsor-Quebec corridor, heavily dependent on "sunset" industries for their economic livelihood. In this respect, the Buffalo FTZ is an excellent example to show whether FTZs are a viable tool for regional economic development in a Canadian context.

The Buffalo FTZ 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 firm, Buffalo Foreign-Trade Zone Operators, Inc.

The FTZ is located near the harbour on six hectares of land owned by the Niagara Frontier Transportation Authority. Its aims are to act:

... as a magnet for companies and as a catalyst for neighbouring communities' economic development efforts. Companies that are involved in import/export activities are realizing more and more that the zone's activities are essential for their growth. New companies and new jobs help to improve the overall economic situation of the county and mean new tax dollars for our local government [17: 69].

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

In 1981, \$10,881,255 worth of merchandise was received in the Buffalo FTZ. 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). Imports received exceeded exports by \$5,380,070. Twenty-eight firms used the zone and employed "up to" 62 persons, only 19 of whom were full time employees [17].

The information provided in the Foreign-Trade Zones Annual Report is useful but does not report 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 report.

To take account of the above considerations, a questionnaire survey for firms using the Buffalo FTZ was carried out during the fall of 1983 by Vincent [39]. The most serious problem was finding the names and addresses of the user firms. The executive director of the FTZ was asked, but could not or would not provide a list of user firms. The names were taken from firms listed on the billboard near the entrance of the zone, firms discussed in an article about the Buffalo FTZ [35], and firms included in a foreign trade zone inventory [12]. In this way, thirty-eight firms were identified as possible users of the FTZ. Through an arduous search of industrial directories, telephone directories, and government records of companies, the addresses of thirty-two firms were found.

Of the thirty-two firms, fifteen replied. Three firms said that they did not use the FTZ even though they were identified as users on the billboard. Another firm was a supplier firm, and one firm, a service company, did not complete the questionnaire because the manager felt that the questions were not targeted at it.

Identified user firms were primarily very small (10 of 12 firms had fewer than 50 employees), Canadian-based (10 of 15), and shipped or produced diverse products. Of eleven firms, four described their main activities as wholesaling, four as manufacturing and wholesaling, and two as service (customs brokerage and insurance).

The reasons firms gave for locating in the Buffalo FTZ were: ease of customs clearance (cited by 6 firms); postponed duty (4), services offered by FTZ authority (4); and lower cost of customs clearance by condensing shipments to Canada (1), although this respondent indicated that the firm shipped no merchandise to Canada. These reasons are integral to the FTZ device and were cited nearly half the time.

The remainder of the reasons given for locating in the FTZ were not specific to the FTZ device. The list included: proximity to the international border (cited by 5 firms); low rental charges (4); to test the United States market (2); and proximity to port facilities (1). It seems that the FTZ device offers real advantages to some firms, but for others it was merely a place to locate that met their needs, which had nothing to do with the advantages of the FTZ device.

Most firms brought imported goods into the Buffalo FTZ and shipped these goods into the United States. Two firms imported all their goods from Canada and shipped them to the United States. One firm re-exported to Canada 75 percent of its shipments originating in

Canada. Another firm received its goods from the United States, forwarded 90 percent of the merchandise to other parts of the United States and shipped 10 percent of the merchandise to Canada. A fifth firm claimed that the re-export of goods is a customs advantage to it, but it re-exported only 20 percent of the goods it imported into the FTZ.

The split of shipments between the United States and other countries brings to the surface a fact obscured by the aggregate data. A firm may gain FTZ device advantages for only a portion of its shipments, yet perceive and report greater benefits. Table 5 is a stronger indication than the 1981 annual report [17] that the Buffalo FTZ is import facilitating rather than export facilitating.

Table 5
ORIGINS AND DESTINATIONS OF GOODS SHIPPED
THROUGH THE BUFFALO FOREIGN-TRADE ZONE

	Origins		Destinations	
	No. of times cited by firms (A)	No. of times 75% or more of a firm's shipments (B)	No. of times cited by firms (C)	No. of times 75% or more of a firm's shipments (D)
Canada	5	3	5	1
U.S.A.	4	1	8	6
Europe	3	2	1	0
Asia	1	0	1	0
Australasia	0	0	1	0
Caribbean	0	0	1	0
Latin America	1	1	1	0

Number of Respondents for Columns A, B, C, = 8.

Number of Respondents for Column D = 7.

Source: [39].

The activities of firms in the Buffalo FTZ also suggest that little value addition occurs to goods passing through the zone. No manufacturing was carried out by the sample firms. The predominant activities were warehousing and wholesaling and the firms reported that they employed only 3 full time employees in the zone.

In 1981, firms in the zone shipped only \$9,121,216 worth of goods. Not all of the firms located in the FTZ are there because of the FTZ device. The FTZ is import facilitating. Few firms use the Buffalo zone, and firms which use it engage mainly in warehousing and wholesaling activities. They employ only a small number of people. Given

the lack of manufacturing activity and the few people employed, the multiplier effects of the zone are very small. The zone has not had any appreciable effect on reviving waterborne traffic through the port. Most firms use truck transport, with one exception where air transport is also used.

In terms of the criteria for evaluation set out previously, employment generation and export facilitation, the Buffalo FTZ does not appear to be a success. Nor can the Buffalo FTZ be considered either a means for stopping the industrial decline of Buffalo or an important tool for revitalization of the decaying areas of the city and county.

On the other hand, the Buffalo FTZ does provide locational advantages for the few individual firms that have chosen to operate there. Warehousing and wholesaling are important economic activities in their own right and cannot be discounted as sources of income generation in the post-industrial city. What cannot be answered, however, is whether it is necessary to invest public money to attract these activities to post-industrial cities, since these activities are not being lost to Third World countries in the same manner that basic industries and manufacturing jobs are being lost.

Discussion

Proponents of economic enclaves assume that there is minimal government interference in FTZs; that the zones are successful because their numbers have increased greatly; that zones are an effective mechanism for circumventing tariffs, which are a major deterrent to international trade; and that zones generate domestic employment. The results are supposed to be a revitalization of the city and region where FTZs are located. The reality is something quite different.

In FTZs, the "heavy hand" of government is present everywhere. The zones are administered by local public authorities, regulated by the Foreign-Trade Zones Board of the Department of Commerce, and scrutinized almost daily by the Customs Service of the Treasury Department.

Approval of new manufacturing operations in the FTZs is not automatic and may involve hearings. Foreign-Trade Zones Board disapproval or public opposition expressed at hearings scuttled plans for a meat packing operation in the New Orleans FTZ; production of steel pipes for the domestic market in an Oregon FTZ and the Panama City, Florida, FTZ; textiles in a Massachusetts FTZ; and an oil refinery in a subzone in Maine [6;15;16;17].

The proliferation of FTZs does not necessarily signify that they are successful. For an FTZ to gain legal approval, it must be near a customs port of entry. In the last twenty years, as the number of

customs ports of entry has increased, the number of FTZs has increased in step with them. Other factors, such as the need by local politicians to take action on unemployment and derelict inner city lands, may be important in the growth in the number of FTZs.

Tariffs have decreased due to the Kennedy Round (1968) and the Tokyo Round (1979) of the General Agreement on Tariffs and Trade (GATT). United States tariffs averaged 26 percent in 1946, 8 percent in 1978, and are expected to average 5 percent in 1987 [37]. In 1981, nearly one-third of United States imports entered the United States duty free [8]. Considering that postponed or lower duty is the biggest attraction of FTZs, there is less rationale for FTZs now than in the past.

Most general purpose FTZs are import facilitating, warehousing operations, employing few people, and are small volume shippers of goods, mainly for domestic consumption. As such, they cannot be considered viable tools for urban and regional revitalization efforts.

Subzones are also import facilitating, but they employ substantial labour forces and are typically assembly operations and large volume shippers of components and end market products for domestic consumption. Subzones are unlikely to spawn industrial complexes because of the preponderance of transnational ownership of the plants within them and their use of world wide sourcing of parts.

Controversy centres on whether subzones have a positive import substitution effect. Does the increased number of assembled vehicles in the United States outweigh the increased use of overseas vehicle components? How much of the increased United States assembly of vehicles and importation of vehicle parts can be attributed to the advantages of FTZs, and how much can be attributed to other pressures being exerted on foreign owned transnational vehicle producers?

These questions are difficult to answer, but it is known that, in the case of automobile production, savings due to lower and postponed duties in subzones are small, about twenty dollars per car [36]. The small size of the savings suggests that operations in subzones are to the advantage of the transnational corporations, but locating in an FTZ is not a determining factor in the decision to locate a facility in the United States.

Subzones *may* have positive employment and import substitution effects. Two recent government investigations of FTZs and their constituent subzones reached indecisive conclusions on these issues [20; 28]. The debates over these two issues, however, may obscure an even more important issue: the need to encourage the domestic production of components. Increasingly, the highest multiplier effects will accrue from the production of components for "world products". Subzones,

as they currently operate, encourage the import of components, not their domestic production.

Finally, any economic enclave concept raises the question of geographical discrimination. Why should domestic firms outside FTZs be at a disadvantage vis-à-vis competing firms inside FTZs? A national tariff policy that is not geographically discriminating may be preferable. For example, the Canadian government operates a duty remission scheme that encourages domestic component production. The program reduces the duty on goods entering Canada in return for guarantees of export performance by the goods importer. This program is open to any firm located anywhere in Canada.

The evidence presented here and in the case studies carried out in the United Kingdom demonstrates that service sector firms are more inclined to locate in economic enclaves; that employment growth has been small; that local linkage development is weak; and that enclaves are geographically discriminating. With a duty remissions scheme already in place, Japanese vehicle manufacturers planning to build major assembly plants in Ontario and Quebec, and the federal government pursuing its free trade and deregulation initiatives, it is difficult to see a strong rationale for pursuing an economic enclave strategy in Canada if the goals are to save existing manufacturing jobs, encourage the creation of new manufacturing jobs, or facilitate exports. There may be a case, however, if the goal is to encourage the development of other economic sectors that are wealth generating but have little direct employment effects.

Conclusions

This paper has attempted to bring more information to the debate on the role and value of economic enclaves in saving existing manufacturing jobs, creating new ones, and helping to facilitate exports. The popularity of the United States variant, the foreign-trade zone, as a tool for urban and regional development has grown remarkably since the beginning of the 1970s. Yet analyses at the macrolevel of general purpose zones and subzones, and at the microlevel of the individual case study, suggest that their performance in generating new manufacturing jobs and facilitating export activities is mixed at best. They seem to be more successful in encouraging warehouse and wholesale activities, an important source of income generation in the post-industrial city.

The loss of basic industries and manufacturing jobs to less developed countries is a problem that Canadians and their governments cannot ignore. Given the evidence on the United Kingdom and the United States variants of the economic enclave, and the initiatives already being taken in Canada, however, the rationale for introducing

economic enclaves to save existing manufacturing jobs and to encourage new ones does not seem to be justified. This leaves unanswered the question of the value of economic enclaves in generating new jobs and wealth in other economic sectors of the post-industrial city.

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