FREE INDUSTRIAL ZONES: LAW AND INDUSTRIAL DEVELOPMENT IN THE NEW INTERNATIONAL DIVISION OF LABOR*

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SUMMARY

1. INTRODUCTION

The ideal of a new international economic order, as a more favorable framework for the development of third world nations, is closely intertwined with the quest for industrialization. As Raymond Vernon suggested some years ago, given the heterogeneity among developing countries, what binds them together is what they are not, and they are not industrialized.[1] While the lack of industrialization is char-

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[1] *See* R. VERNON, STORM OVER THE MULTINATIONALS 139 (1977).

acteristic of third world countries, industrialization is a common objective among them. During the last two decades they have implemented two broad models of industrial development, known as import-substitution and export-oriented strategies.[2] Although very few developing nations have adopted either one of these models exclusively, most have opted to encourage one or the other.

There are several instruments of industrial policy that developing countries may utilize when implementing an industrialization strategy. Ordinarily, policy instruments are selected depending on whether the country intends to foster an export-oriented or an import-substitution strategy. There are, nevertheless, a number of policy instruments which, if adequately structured, are flexible enough to fit well into either scheme. Among the latter type of "neutral" industrial policy instruments, Free Industrial Zones (FIZs), a concept usually identified with export-orientated strategies, is one of the most common, as well as one of the most debated.

A study by the Organization for Economic Cooperation and Development (OECD) defines an FIZ as an administratively and sometimes geographically designated area enjoying special status allowing for the free import of equipment and other materials to be used in the manufacture of goods earmarked for export; the special status generally involves favorable legal provisions and regulations creating incentives for foreign investments.[3] By 1988, there were some 107 FIZs operating in fifty-one developing countries.[4] Since 1962, when the first FIZ was established in Mayaguez, Puerto Rico, the expansion of FIZs in the third world has continued at a remarkable rate. This rapid expansion is probably related to early support from U.N. organs[5] and to a widespread belief in the certain success of FIZs in attracting foreign investment, contributing to an export drive, and stimulating employment.

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[2] Import-substitution generally consists of the protection of local industries supplying the local market with manufactured goods which in the past were imported. Export-oriented strategies focus on the promotion of industries that orient a substantial part of their production to foreign markets.

[3] A. BASILE & D. GERMIDIS, INVESTING IN FREE EXPORT PROCESSING ZONES 20 (1984).

[4] Worldwide figures offered by Dorothy and Walter Diamond are even more impressive, reporting some 518 free trade zones in 86 countries. However, these include free ports and zones not intended for manufacturing and FIZs located in industrial nations. *See* D. DIAMOND & W. DIAMOND, 1 TAX-FREE TRADE ZONES OF THE WORLD xvii (1989).

[5] *See, e.g.*, U.N. CONF. ON TRADE AND DEV., THE USE OF FREE ZONES AS A MEANS FOR EXPANDING AND DIVERSIFYING EXPORTS OF MANUFACTURES FROM THE DEVELOPING COUNTRIES, U.N. Doc. TD/B/C.2/125, (1973); U.N. INDUS. DEV. ORG., HANDBOOK FOR THE ESTABLISHMENT OF FREE EXPORTS PROCESSING ZONES IN DEVELOPING COUNTRIES, U.N. Doc. UNIDO/IOD.31 (1976).

This article presents a legal and developmental approach to the FIZ concept as it has been adopted by developing nations. An inquiry into its historical and economic foundations, and a reconsideration of its performance in the third world, indicates that certain law and policy measures might contribute to the adaptation of FIZs to the developmental goals of third world countries. The present study intends to demonstrate that although FIZs are far from being a panacea, they are neutral and flexible instruments of industrial policy. The article also intends to show that FIZs, when designed in accordance with the needs and potentials of a given country, have proven to be valuable means for achieving developmental goals usually attributed to industrialization. Moreover, the study seeks to emphasize that legal analysis may be very worthwhile when structuring, implementing or evaluating FIZs in developing countries.[6]

The legal and developmental perspective of this study may well be summarized in a single question: How can law contribute to the achievement of developmental goals? Applying such an approach to the study of FIZs, the question becomes: What can legal concepts, institutions and processes do to make the implementation of FIZs more consistent with the developmental goals that third world countries attribute to them? Accordingly, this study begins with a general evaluation of FIZs, then moves to concrete legal and policy recommendations aimed at making their operation more consistent with the developmental objectives of third world nations. For such purposes, the article relies on previous analyses, field studies, information, and data available in both legal and non-legal literature on the subject.[7] As a consequence of the present developmental perspective, a considerable part of this study is devoted to non-legal issues, in an effort to build a more realistic

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[6] In a 1974 report to the Agency for International Development (AID), David Smith and Robert Meagher wrote that an understanding of the role of law in society is of fundamental importance in undertaking development studies, as the implementation of development policies is effected through law and the legal processes of society. *See* R. Meagher & D. Smith, Law and the Development Practitioner, Final Report to the Agency for International Development on Contract No. AID/CSD-3977 (December 31, 1974) (unpublished manuscript).

[7] There is no one comprehensive legal essay on FIZs in developing countries. The sole studies written from a legal viewpoint are a short article by Jayawardena, *Free Trade Zones*, 17 J. WORLD TRADE L. 427 (1983); and a recent note on Latin American FIZs: Note, *Foreign Trade Zones in Latin America: A Spectrum of Possible Uses*, 23 TEX. INT'L L.J. 117 (1988). There are also three case studies on the Panamanian, Mexican and Chinese FIZs. *See* S. Salcedo, An Evaluation of the Panamanian Free Trade Zone (May 6, 1988) (LL.M. thesis, available at Harvard Law School Library); Bettwy, *Mexico's Development: Foreign Trade Zones and Direct Foreign Investment,* 22 COMP. JURID. REV. 49 (1985); Klitgaard, *Preferential Treatment for Foreign Investment in the People's Republic of China: Special Economic Zones and Industrial Development Districts*, 7 HASTINGS INT'L & COMP. L. REV. 377 (1984).

framework for the theory and *praxis* of FIZs and to address certain developmental policy considerations about which all social scientists, legal scholars among them, must have something to say.

It is important to emphasize that this study was not created under the influence of the school of legal thinking known as "law and development," in vogue in the United States during the late 1960s and the early 1970s.[8] However, the article shares the general pattern of approaching developmental issues from a legal point of view, and although it would probably fit well among "those works [that] are substance-specific, dealing with particular aspects of [the] law in relation to particular development objectives,"[9] it does not espouse any general theory on law and development.

2. FREE INDUSTRIAL ZONES IN THE QUEST FOR DEVELOPMENT

2.1 General Aspects of FIZs

2.1.1 Historical Background

FIZs are a modern adaptation, for industrial purposes, of Free Trade Zones, and have been modeled after the age-old concept of Free Ports (FPs). An FP is "an area generally encompassing an entire port and its surrounding locality, into which goods of foreign origin may be brought without the imposition of customs duties[,] or subject only to a minim[um] . . . tariff, whether such goods are intended for re[-]export or for local consumption."[10] The origins of the FP have been traced to the time of the Phoenician merchants, when attacks and arbitrary taxation forced traders to seek protection in Mediterranean ports such as Tyre, Carthage, and Utica, which offered safe passage of goods.[11] A similar system was adopted by the Greek city-states in Challis and Piraeus, where special stockades were implemented.[12]

The oldest known FP established expressly to promote trade was the Roman customs-free port on the Aegean island of Delos.[13] In 1189,

[8] For a discussion on the apogee and crisis of the law and development school in the United States, see Trubek & Galanter, *Scholars in Self-Estrangement: Some Reflections on the Crisis in Law and Development Studies in the United States*, 1974 WIS. L. REV. 1062 and Burg, *Law and Development: A Review of the Literature & A Critique of "Scholars in Self-Estrangement,"* 25 AM. J. COMP. L. 492 (1977).

[9] Burg, *supra* note 8, at 494.

[10] H. GRAYSON, FREE TRADE ZONES AND RELATED FACILITIES ABROAD 6 (U.S. Dep't of Commerce 1970).

[11] *See* D. DIAMOND & W. DIAMOND, *supra* note 4, at xvi. *See also* R. THOMAN, FREE PORTS AND FOREIGN TRADE ZONES 11-12 (1956).

[12] *See* Jayawardena, *supra* note 7, at 427.

[13] *Id.*

Frederic I established one of the earliest significant FPs when he excused the city of Hamburg from payment of customs duties.[14] FPs were also established in harbors located along international trade routes such as Gibraltar (1704), Singapore (1819), and Hong Kong (1848). In 1888, Hamburg became the first port to be granted the special privilege of manufacturing, on the conditions that it not compete with the hinterland and remain export-oriented.[15]

The modern concept of free trade "zone," as opposed to free "port" or free "city," was introduced by the United States in the Foreign Trade Zones Act of 1934.[16] The New York Foreign Trade Zone No. 1 was established in 1937 as the first FTZ in the world.[17] The importance of U.S. FTZs remained rather small until a 1950 act authorized export-oriented processing within the foreign trade zones,[18] creating for the first time an FTZ where manufacturing was permitted.

A further development was accomplished in 1959 with the founding of the Shannon FTZ in Ireland. The Shannon FTZ was the first Free Industrial Zone (FIZ) created expressly for customs-free export-oriented manufacturing. The FIZ model developed at Shannon was a combination of the FTZ concept with the emerging concept of industrial estates, i.e., "a tract of land which is subdivided and developed according to a comprehensive plan for the use of a community of industrial enterprises."[19] The Shannon zone also merged the advantages of both concepts, offering "full infrastructural facilities, including . . . rental of suitable factory accommodations, and permitting duty free access of raw materials, components and capital equipment and similar

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[14] *See* Note, *Foreign Trade Zones: "Everything Except the Customs?,"* 31 U. FLA. L. REV. 725, 727 (1979) [hereinafter Note, *Foreign Trade Zones*].

[15] Jayawardena, *supra* note 7, at 427.

[16] Foreign Trade Zones Act of 1934, Pub. L. No. 73-397, 48 Stat. 998 (codified as amended at 19 U.S.C. §§ 81a-81u (1982)). A Free or Foreign Trade Zone (FTZ) was described by Congressman Emanuel Cellar, principal promoter of the Act, as "an isolated, enclosed and policed area in or adjacent to a port of entry, furnished with the necessary facilities for lading or unlading, for supplying fuel and ship stores for storing goods and for reshipping them by land and water—an area within which goods may be landed, stored, mixed, blended, repacked, manufactured, and reshipped without payment of duties and without the intervention of customs officials." Bader, *Jurisdictional Uncertainty: The American Foreign Trade Zone*, 8 N.C. J. INT'L L. & COM. REG. 239, 240 (1983) (citing 78 Cong. Rec. 9853 (1934)).

[17] *See* R. THOMAN, FREE PORTS AND FOREIGN TRADE ZONES 140 (1956), *cited in* Note, *Foreign Trade Zones*, *supra* note 14, at 732 n.55.

[18] *See generally* deKieffer & Thompson, *Political and Policy Dimensions of Foreign Trade Zones: Expansion or the Beginning of the End?*, 18 VAND. J. TRANSNAT'L L. 481, 483-91 (1985).

[19] *See* W. BREDO, INDUSTRIAL ESTATES: TOOL FOR INDUSTRIALIZATION 1 (1960).

facilities for exports."[20]

The Shannon FIZ model was immediately followed by developing countries such as Puerto Rico (Mayaguez, 1962) and India (Kandla, 1965).[21] Zones were established subsequently in Taiwan (Kaohsiung), the Philippines (Bataan), the Dominican Republic (La Romana), Mexico (Baja California), Panama (Colon) and Brazil (Manaos). Between 1971 and 1975, twenty-three new FIZs were created in ten developing countries, and from 1976 to 1978 another twenty-one zones were set up in fourteen countries.[22] By 1984, there were some seventy-nine zones operating in third world countries, and dozens were under development.[23] As stated above, 1988 figures indicate that there are approximately 107 FIZs operating in fifty-one developing countries today.[24]

2.1.2 The Concept of FIZs

The ancient institutions of Free Ports and free cities originated the concept of customs-free enclaves, the oldest forerunners of the modern FIZ. A more sophisticated development was the concept of the FTZ, conceived as a bounded area (not necessarily a port or a city) that through a legal fiction is considered to be outside the customs territory of the country where the FTZ lies. FTZs are still used for commercial activities such as storage, exhibition, blending, and packing of goods "in transit" and to facilitate their sale, distribution, or onward shipping without changing the customs tariff classification.[25] Through the years, manufacturing has been permitted in certain free zones. The modern concept of FIZs was finally defined when this model of manufacturing FTZs merged with the industrial-estate technique of providing a common infrastructure and facilities to attract domestic and foreign investors.[26] Thus, FIZs are basically customs-free industrial estates.

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[20] J. CURRIE, EXPORT PROCESSING ZONES IN THE 1980S: CUSTOMS FREE MANUFACTURING 1 (1985) [hereinafter J. CURRIE, EPZS IN THE 1980S].

[21] A few years later, the United Nations Economic and Social Commission encouraged the establishment of FIZs as an avenue for export expansion and diversification. *See* sources cited *supra* note 5.

[22] J. CURRIE, INVESTMENT: THE GROWING ROLE OF EXPORT PROCESSING ZONES 7 (1979) [hereinafter J. CURRIE, THE GROWING ROLE OF EPZS].

[23] J. CURRIE, EPZS IN THE 1980S, *supra* note 20, at 3.

[24] *See supra* note 4. For an updated list of FIZs in developing countries, see the Appendix to this essay.

[25] H. GRAYSON, *supra* note 10, at 5.

[26] A study by UNIDO includes Asian FIZs among the most successful industrial estates in developing countries. *See* U.N. INDUS. DEV. ORG., GUIDELINES FOR THE ESTABLISHMENT OF INDUSTRIAL ESTATES IN DEVELOPING COUNTRIES 93-94, U.N. Doc. ID/220, U.N. Sales No. E.78.II.B13 (1978).

Two significant developments in this concept occurred during the late 1960s, when third world countries began to establish FIZs as tools for industrial development. First, in addition to the infrastructure and facilities inherent in the Shannon model and the well-known comparative wage advantages of developing countries, new incentives were created to attract foreign investors. Artificial stimuli such as tax exemptions, financial assistance, and subsidies were offered to create a paradise for transnational capital and to compete successfully in the world arena of investment opportunities.[27] The second relevant development in the concept of FIZs is in fact a consequence of new trends in international trade and recent shifts in the international division of labor. FIZs in developing countries became export processing zones with very limited linkages with the host economy, since most of the inputs were foreign raw materials and intermediate products, and most of the production was destined for foreign markets.[28]

In summary, an FIZ is a designated area, frequently near a port or an airport, which has a basic infrastructure of common facilities and services, is considered for customs purposes as outside the territory of the host nation, and where an incentive package is offered to potential investors for the establishment of manufacturing plants primarily oriented toward foreign markets.

2.1.3 A Flexible Instrument of Industrial Policy

Despite the reported success of FIZs in the quest for industrialization and their relevant role in the economic growth of newly industrializing nations, it is important to bear in mind that the zones are not by themselves a developmental strategy. An FIZ is just an instrument of industrial policy whose success depends on careful design and implementation within the broader framework of a coherent strategy of economic development. Among the main features that make the zone concept attractive for third world countries are its exceptional flexibility in adapting to any developmental strategy and its reported capacity to accomplish, although on a small scale, certain development objectives commonly ascribed to industrialization.

FIZs are frequently considered to be vehicles for implementing ex-

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Doc. ID/220, U.N. Sales No. E.78.II.B13 (1978).

[27] The down side of such an innovation, that is, the increasing competition among developing nations operating FIZs, will be extensively discussed below.

[28] In fact, the term "Export Processing Zones" most frequently designates the concept of FIZs. However, "Free Industrial Zones" is also used in several previous works, and it has been preferred because it more properly conveys the industrialization objectives attributed to the zones.

port-oriented industrialization strategies.[29] In fact, most of the zones in developing countries are expressly created to be export-led, "reserved for the production of goods for the world market."[30] The adaptability of FIZs to outward-oriented schemes is quite natural: as lower costs of production are characteristic of these areas, products manufactured in the zones may successfully compete in the international market. FIZs, however, may also fit well within an industrialization strategy based on import-substitution. As the zones are usually a system of exceptions, a correlation might be established between them and tariff protection for domestic industries, so that export-oriented manufacturers would enjoy the benefits of an incentive package including duty-free imports. As Basile and Germidis remark, "This is of course quite natural, as in a completely liberal system the FEPZ [free export processing zone] has no *raison d'être*."[31]

Export-orientation of the zones is not an invariable rule. Currie reported in 1979 that occasionally zones may be import- rather than export-oriented, citing the case of Colombia.[32] About eighty-five percent of the goods produced in Colombian FIZs are sold in the domestic market.[33] Backward linkages with the local economy in Colombian zones are quite developed, with a domestic value added exceeding fifty-one percent in 1979.[34] Nonetheless, the new Free Trade Zones Act of Colombia, passed in late 1985, established explicitly that the objective of FIZs is "to promote and develop the process of industrialization of goods destined primarily for foreign markets."[35]

The versatility of FIZs as an industrial policy tool is also to be noted in the emergence of relatively new forms of zones, such as the concept of special sub-zones. The sub-zones are tailor-made regimes "for companies wishing to utilize the zone concept but unable to relocate to an existing zone."[36] The major distinction between a FIZ and a

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[29] Neil Dias Karunaratne characterizes FIZs as "the main vehicle for implementing the export-oriented industrialization strategy." Karunaratne, *Export Oriented Industrialization Strategies*, 1980 INTERECONOMICS 217, 220.

[30] Fernândez Kelly, *Contemporary Production and the New International Division of Labor*, in THE AMERICAS IN THE NEW INTERNATIONAL DIVISION OF LABOR 206, 222 n.2, (S. Sanderson ed. 1985).

[31] A. BASILE & D. GERMIDIS, *supra* note 3, at 21.

[32] J. CURRIE, THE GROWING ROLE OF EPZs, *supra* note 22, at 20.

[33] Ibarra, *Por Favor No Hagamos Experimentos Costosos*, 18 REVISTA ANTIOQUENA DE ECONOMIA Y DESARROLLO 60 (1984).

[34] Giraldo, Prada & Turriago, *Las Zonas Francas en Colombia: Evolución, Situación Actual y Perspectivas*, REVISTA DE PLANEACION Y DESARROLLO, Sept.-Oct. 1980, at 17.

[35] Law No. 109 of 1985, art. 6, *Legislacion de las Zonas Francas*, COLOMBIA EXPORTA, July-Aug. 1986, at 5-11 (in English) [hereinafter COLUMBIA-EXPORTA].

[36] Bader, *supra* note 17, at 241.

sub-zone is that the latter is accessible for use by only one firm, which simply designates the part of its facilities which will comprise the sub-zone.[37] Although the sub-zone concept was initially developed in the United States,[38] today there are several sub-zone systems in developing nations, such as the Licensed Manufacturing Warehouse Programme in Malaysia,[39] the Vallejo Plan in Colombia,[40] and the Maquiladoras Program in Mexico.[41]

2.2 Economic Foundations of FIZs

An analysis of economic concepts and issues related to international relations provides a four-part explanation of the origin, expansion, and current trends of FIZs in developing countries: (1) theories of comparative advantage underline the relevance of the countries' endowments to their specialization in production and commerce; (2) a phenomenon known as vertical integration explains the emergence of a new international division of labor in manufacture; (3) several factors have determined a massive shift from import-substitution to export-oriented industrialization strategies; and (4) the world debt crisis generates balance-of-payments constraints in developing economies. An analysis of the importance of these economic foundations for the evolution of FIZs in third world countries follows.

2.2.1 Comparative Advantage and the Product Life Cycle

In the early nineteenth century, David Ricardo demonstrated the mutual benefits from bilateral trade between countries when each of them specializes in exporting those goods in the production of which it has a comparative advantage.[42] According to the law of comparative advantage, a country trading with another country must export those goods in which, comparatively, it has the lowest production costs and

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[37] *Id.*

[38] *See generally* Atkins, Doyle & Schwidetzky, *Foreign-Trade Zones: Sub-Zones, State Taxation and State Legislation*, 8 DEN. J. INT'L L. & POL'Y 445, 448 (1979) (discussing the United States sub-zone concept).

[39] *See* ECON. & SOC. COMM'N FOR ASIA & THE PACIFIC/U.N. CENTRE FOR TRANSNAT'L CORP. JOINT UNIT ON TRANSNATIONAL CORPORATIONS, AN EVALUATION OF EXPORT PROCESSING ZONES IN SELECTED ASIAN COUNTRIES, U.N. Doc. ST/ESCAP/395, 146 (1985) [hereinafter ESCAP/UNCTC JOINT UNIT ON TRANSNATIONAL CORPORATIONS].

[40] *See* Gonzales, *El Sitio Adecuado para las Zonas Francas: Una Cuestion de Alternativas*, 18 REVISTA ANTIOQUENA DE ECONOMIA Y DESARROLLO 146 (1984).

[41] *See* Bettwy, *supra* note 7, at 61 & n.47 (discussing the Maquiladoras Program).

[42] The theory of comparative advantage was explained in the famous book, D. RICARDO, THE PRINCIPLES OF POLITICAL ECONOMY AND TAXATION (1911).

must import those goods in which, comparatively, it has a disadvantage. Benefits for both economies are derived from such an exchange.[43] Developing countries following Ricardo's theory would specialize in producing those goods containing a high proportion of domestically available natural resources.[44] In other words, the natural endowment of a country determines its specialization in production and trade.

More than a century after Ricardo, the Swedish economist Bertil Ohlin, following some insights of his teacher Eli Heckscher, developed the so-called factor-allocation theorem.[45] According to this theorem, countries will have a comparative advantage in exporting those goods that use their more abundant factors of production—labor, capital, etc.—more intensively.[46] The Heckscher-Ohlin theorem clarified why developing countries will concentrate in producing and exporting labor-intensive goods, whereas industrialized countries will produce capital-intensive goods. Hence, the factor endowment of a country also determines its specialization in production and commerce.

Both the Ricardian and the Heckscher-Ohlin models rely on an assumption of purely competitive product and factor markets. But there are further theoretical developments that include in their analyses dynamic factors, such as international capital investments and technology diffusion. In particular, new theories demonstrate that research endowments—i.e., skilled labor, research and development (R&D) expenditures, etc.—do contribute to trade promotion and country specialization.[47] The most celebrated of these theories was developed by Raymond Vernon and is known as the product life-cycle model.[48]

According to Vernon, products have a life cycle that can be divided into a series of phases. In the "early" phase, a new skill-intensive product is introduced to the home market and subsequently exported to high-income countries. In the "growth" phase, foreign markets are becoming more familiar with the product, and local demand for domestic production is satisfied by licensing or establishing subsidiaries. Finally,

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[43] *See* J. BARTON & B. FISHER, INTERNATIONAL TRADE AND INVESTMENT: REGULATING INTERNATIONAL BUSINESS 5-7 (1986).

[44] *See* Hirsch, *Hypotheses Regarding Trade between Developing and Industrial Countries*, in THE INTERNATIONAL DIVISION OF LABOUR: PROBLEMS AND PERSPECTIVES 65, 66 (H. Giersch ed. 1974).

[45] Paul Samuelson finally spelled out the Heckscher-Ohlin theorem, based on E. HECKSCHER, THE EFFECT OF FOREIGN TRADE IN THE DISTRIBUTION OF INCOME (1919) and on B. OHLIN, INTERREGIONAL AND INTERNATIONAL TRADE (1933).

[46] *See* P. LINDERT & C. KINDLEBERGER, INTERNATIONAL ECONOMICS 31 (1982).

[47] *See* G. MEIER, INTERNATIONAL ECONOMICS: THE THEORY OF POLICY 36-37 (1980).

[48] The first explanation of this theory may be found in Vernon, *International Investment and International Trade in the Product Cycle*, 80 Q.J. ECON. 190 (1966).

in the "mature" phase, the innovative advantage of the home country is lost, while overseas producers in low-income countries gain a comparative advantage in production costs and begin to export the product to third markets and even to the product's home country.[49]

As with the natural endowment and factor allocation of the country, research endowment will also determine a specialization in exports of manufactures, following the product life cycle. Developing countries will produce and export "mature" products, while industrialized countries will typically manufacture products in their earlier phases. The aforementioned theories imply that developing countries should specialize in manufacturing and trading those goods that more efficently utilize their own endowments. This suggests that countries may benefit from adopting industrial and commercial policies, such as establishing FIZs, which are oriented toward fully exploiting their comparative advantages.

2.2.2 Vertical Integration and the New International Division of Labor

Since Adam Smith, the theory of division of labor has postulated that if a person has a relative advantage in some activity, there is an efficiency gain, both for him and for the whole society, to be derived from his specializing in it.[50] Accordingly, a person may decide to specialize in order to acquire or develop a relative advantage.[51] The division of labor concept has been raised to the international level and adapted to the theory of comparative advantage. If a country has a comparative advantage in the production of certain goods, there is an efficiency gain from its specialization in producing and exporting them. Hence, resource-based and labor-intensive products would constitute the obvious first choice for a populous and capital-poor developing country, in order to integrate its economy into the international division of labor.[52]

However, during the last three decades, a rather new character has emerged and rapidly increased its importance in the world trade

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[49] *See* Amendola, *Genesi e Definizione del Modello Teorico del Ciclo del Prodotto*, in CICLO DEL PRODOTTO E DIVISIONE INTERNAZIONALE DEL LAVORO 17, 43 (F. Angeli ed. 1981).

[50] Adam Smith explained the theory of division of labor in his classic piece, A. SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS (1776).

[51] *See* E. PHELPS, POLITICAL ECONOMY: AN INTRODUCTORY TEXT 99 (1985).

[52] *See* Scheid, *The Export Needs of Developing Countries and the Need for Adjustment in Industrial Countries*, in THE NEW INTERNATIONAL DIVISION OF LABOUR: PROBLEMS AND PERSPECTIVES, *supra* note 44, at 151, 152.

and investment scene, determining new trends in the international division of labor: the transnational corporation (TNC). The profit-increasing instinct of these business organizations has led them to seek new ways of benefiting from comparative advantages of both industrialized and developing countries. First, TNCs transferred to developing countries the production of resource-based, labor-intensive or mature goods, and later TNCs moved production "stages" from the center to the periphery.[53]

The latter type of arrangement is frequently called vertical integration,[54] and it has generated an international specialization in production that contrasts with horizontal integration. Horizontal integration exists where one group of countries specializes in a certain set of industries and another group in a set of comparable industries, whereas vertical integration cuts across industrial processes through overseas-assembly operations.[55] Vertically integrated TNCs take advantage of lower transport costs and developments in communications to split their operations among two or more countries, leading to a new international division of labor in manufacturing.

As the United Nations Industrial Development Organization (UNIDO) recognized in a 1982 report, competitive pressures in industrial markets have "forced most producers of standardized (or mature) electronic products to continue their search for ways to transfer parts of their operations to developing countries where costs are lower."[56] This new specialization in production is also influenced by comparative advantages of developing nations in the production of resource-based and labor-intensive goods, sometimes complemented or accentuated by incentive measures designed to increase a country's comparatively lower production costs.[57] Moreover, the new division of labor through vertical

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[53] Fernández Kelly, *supra* note 30, at 210.

[54] Other authors prefer to call such arrangements international integration, as vertical integration may also occur among industries located in one country. *See, e.g.*, J. BEHRMAN, INDUSTRIAL POLICIES: INTERNATIONAL RESTRUCTURING AND TRANSNATIONALS 2 (1984).

[55] Sauvant, *The Role of Transnational Enterprises in the Establishment of the New International Economic Order: A Critical View*, in INTERNATIONAL TRADE, INDUSTRIALIZATION AND THE NEW INTERNATIONAL ECONOMIC ORDER 109, 128 (J. Lozoya & R. Green eds. 1981).

[56] U.N. INDUS. DEV. ORG., CHANGING PATTERNS OF TRADE IN WORLD INDUSTRY: AN EMPIRICAL STUDY ON REVEALED COMPARATIVE ADVANTAGE at 6, U.N. Doc. ID/281, U.N. Sales No. E.82.II.B1 (1982).

[57] A study by UNCTAD pointed out that such inducements are not utilized to acquire a competitive advantage, but rather to put third world nations on an equal footing with their developed country competitors. U.N. INDUS. DEV. ORG., INCENTIVES FOR INDUSTRIAL EXPORTS at 4, U.N. Doc. TD/B/C.2/184, U.N. Sales No. E.82.II.DA (1982).

integration entails an increase in transnational trade among affiliated companies.[58]

The expansion of FIZs in the third world is in a way a by-product of this evolving international specialization in manufacture and trade. TNCs are searching for new ways to split their operations among several countries, while developing nations are willing to exploit, accentuate, or create comparative advantages in production costs. Developing countries have been driven to this marriage of interests by various factors, including the consolidation of export-oriented industrialization schemes, the balance of payment disturbances caused by low prices of raw materials, and the world debt crisis.

2.2.3 Export-Oriented Industrialization Strategies

Historically, the first industrialization strategy selected *en masse* by developing countries was import-substitution, namely the promotion of domestic production of goods that were imported in the past. Under an import-substitution scheme, the observed pattern of imports provides a guide to planners in identifying the activities in which manufacturing can be expanded and should be promoted.[59] The industries initially selected by developing countries were luxury consumer goods,[60] as import-substitution was seen as a sequence, beginning with light industries and working its way to intermediate products and on to capital goods.[61] Thus, the eventual success of such a strategy clearly depended on whether the country could, in the early stage, "build up enough strength for further industrial growth in terms of successful development of entrepreneurship and technical capability."[62]

There is consensus among economists on the failure of the import-substitution scheme. Among the principal reasons frequently given are: non-conformance with the above-mentioned sequence of protection and

[58] One commentator observes that although "at present such intra-firm or intra-industry trade is (still) complementary or vertical . . . , its quantitative significance, its rapid growth, the range of traded products and its potential to be influenced by policy action, suggest that . . . it could end up being an important means of expanding and diversifying exports from developing countries." Laird, *Intra-Industry Trade and the Expansion, Diversification and Integration of the Trade of Developing Countries*, in INTERNATIONAL TRADE AND THIRD WORLD DEVELOPMENT 166 (P. Ghosh ed. 1984).

[59] R. BALLANCE & S. SINCLAIR, COLLAPSE AND SURVIVAL: INDUSTRY STRATEGIES IN A CHANGING WORLD 36 (1983).

[60] Karunaratne, *supra* note 29, at 218.

[61] *See* R. BALLANCE & S. SINCLAIR, *supra* note 59, at 37.

[62] Yoneda, *Trade Policy of Asian Developing Countries*, in TWO DECADES OF ASIAN DEVELOPMENT AND OUTLOOK FOR THE 1980s 203 (T. Haseyama, A. Hirata & T. Yanagihara eds. 1983).

promotion;[63] a lack of consideration of the countries' comparative advantages;[64] a negative effect in the balance of payments;[65] inadequate regulation of foreign-owned subsidiaries;[66] outset limitation on local supply of raw materials;[67] and discrimination against export industries.[68] Although it has been argued that there is no evidence that "import-substitution *per se* has adversely affected export growth,"[69] this strategy and export-orientation are commonly deemed to be either/or options, and the reported failure of the former is frequently contrasted with the spectacular growth attained by the few countries that followed the export scheme. The star performers following this strategy, so-called newly industrialized countries (NICs), accounted for nearly seventy-five percent of total third world exports in 1973.[70]

Among the main features of the export-oriented scheme which contrast with those of import-substitution, Anne Krueger lists that the former allows the country to better adapt technological opportunities to its comparative advantages, prevents the country from establishing restrictive and protectionist policies, and leads the government to encourage better performance in the local private sector.[71] Other advantages are a positive effect in the balance of payments[72] and the promotion of employment that results from adopting labor-intensive technologies.[73]

Encouraged by the impressive performance of the NICs, since the

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[63] *See* R. BALLANCE & S. SINCLAIR, *supra* note 59, at 38.

[64] *See* Yoneda, *supra* note 62, at 203.

[65] *See* Karunaratne, *supra* note 29, at 218; C. OMAN, NEW FORMS OF INTERNATIONAL INVESTMENT IN DEVELOPING COUNTRIES 33 (1984).

[66] *See* IBRD/IMF Working Group on Access to Capital Markets, *The Impact of Economic Policies of Host Countries on the Flow and Net Benefits of Private Direct Foreign Investment in Developing Countries*, *reprinted in* 1 NEGOTIATING FOREIGN INVESTMENTS: A MANUAL FOR THE THIRD WORLD 3.1D 3 (R. Hellawell & D. Wallace eds. 1982).

[67] *See* Hernadi, *Export Oriented Industrialization and Its Success in the Asian Pacific Region*, 3 E. ASIA 1, 2 (1983).

[68] *See* R. BALLANCE & S. SINCLAIR, *supra* note 59, at 38-39.

[69] J. AHMAD, IMPORT SUBSTITUTION, TRADE AND DEVELOPMENT 57 (1978).

[70] U.N. CONF. ON TRADE AND DEV., TRADE IN MANUFACTURES OF DEVELOPING COUNTRIES AND TERRITORIES, U.N. Doc. TD/B/C.2/161, U.N. Sales No. E.76.II.D.8 (1976), *cited in* Karunaratne, *supra* note 29, at 218. Figures include Hong Kong (23%), South Korea (16%), Mexico (9%), Brazil (8%), India (6%), Singapore (6%), Malaysia (4%) and Argentina (3%).

[71] *See* Krueger, *The Experience and Lessons of Asia's Super Exporters*, in EXPORT ORIENTED DEVELOPMENT STRATEGIES 197-99 (1985).

[72] *See* G. MEIER, INTERNATIONAL ECONOMICS: THE THEORY OF POLICY 316 (1980) (discussion on achieving gains in foreign exchange earnings through export expansion schemes).

[73] *See* Fels, *The Export Needs of Developing Countries and the Adjustment Process in Industrial Countries*, in THE INTERNATIONAL DIVISION OF LABOUR: PROBLEMS AND PERSPECTIVES 179 (H. Giersch ed. 1974).

early 1970s an increasing number of developing countries have gradually shifted away from import-substitution to export-led policies,[74] either by explicitly emphasizing the promotion of export-oriented industries or by establishing special incentive regimes for export promotion, such as the zones. Hence, FIZs may also be seen as a corollary to the process of selecting industrialization models by developing countries; implementing FIZs is sometimes a complementary measure of export promotion, sometimes a liberalizing instrument in the context of an import-substitution scheme.

2.2.4 Debt Crisis and Foreign Exchange Imperatives

Debt servicing has become a major constraint on the balance of payments of third world countries, a problem exacerbated by high real interest rates and low prices in basic commodities. Early in 1985, the outstanding external debt of the third world was calculated to be $812 billion, while debt service payments projected for that year amounted to $122 billion.[75] In 1987, Latin American countries owed $400 billion, whereas their total annual exports did not exceed $90 billion.[76]

Responses of developing countries to balance-of-payment deficits have included attempts to reduce foreign exchange expenditures, attract fresh foreign capital, and increase foreign currency earnings through exports. Because outflows of foreign currency are difficult to reduce after they have reached a certain level, and because foreign capital flows are likely to be quite insignificant, given the difficulties of developing countries in meeting their current obligations,[77] policies tending to increase and diversify exports play a very important role in developing nations.[78]

Some debtor countries promote export industries not in the context of an industrialization strategy, but as a desperate effort to meet their

[74] A recent survey by Colin Kirkpatrick emphasizes that in practice most developing countries employ elements of both industrialization strategies. *See* Kirkpatrick, *Trade Policy and Industrialization in LDCs*, in SURVEYS IN DEVELOPMENT ECONOMICS 71 (N. Gemmel ed. 1987).

[75] Hallberg, *International Debt, 1985: Origins and Issues for the Future*, in WORLD DEBT CRISIS 4 (M. Claudon ed. 1985).

[76] Kuczinsky, *The Outlook for Latin American Debt*, 66 FOREIGN AFF. 129, 130 (1987).

[77] *See* Goldsbrough, *Investment Trends and Prospects: The Link with Bank Lending*, in INVESTMENT IN DEVELOPMENT: NEW ROLES FOR PRIVATE CAPITAL 173 (T. Moran ed. 1986).

[78] As recently observed, "debtor developing countries must increase significantly their export earnings as a means of attaining economic growth and improving their debt situation." A. Thompson, Linking Debt and Trade: A Challenge for Developing Countries 82 (1988) (LL.M. thesis, available at Harvard Law School Library).

foreign exchange imperatives. As FIZs have proven to be a significant source of foreign currency, it is likely that some developing countries are establishing them in an attempt to confront increasing deficits in their balances of payments.

2.3 The Aims of FIZs

What are developing countries looking for when establishing FIZs in their territories? Why are TNCs willing to invest? What can local entrepreneurs expect of their eventual participation? What interest do industrial countries have in the establishment of FIZs in the Third World? This section examines the aims of the establishment of FIZs in developing countries from the perspective of the main actors in the international trade and investment process.

2.3.1 From the Perspective of Developing Countries

It is difficult to generalize when referring to a group as heterogeneous as third world countries. Nevertheless, as FIZs follow similar patterns in responding to a common economic rationale, it seems possible to identify some general motivations applicable to most of them. Needless to say, each country ranks these aims according to its particular needs and possibilities.

a) *Export-Promotion Objectives*: Although certain FIZs turned out to be import-oriented, as occurred in Colombia, most of them were established during the massive shift to export-orientation and were designed to enhance foreign commerce. Export-promotion includes either the search for new markets for local products[79] or export diversification through the promotion of non-traditional trade.[80]

b) *Foreign Exchange Generation*: Since most FIZs are established as a means to promote exports, they imply the objective of yielding positive effects on the country's balance of payments[81] through the generation of substantial hard currency influxes.

c) *Employment Objectives*: FIZs are also created to reduce domes-

[79] *See, e.g.*, *Zonas Francas Industriales para la Exportacion*, in INSTITUTO DE COMERCIO EXTERIOR, 2 COMERCIO EXTERIOR ECUATORIANO: INSTITUCIONES Y POLITICAS 179 (1984).

[80] *See, e.g.*, Art. 3 of the Free Industrial Zones Act bill for Peru, *reprinted in Zonas Francas Industriales*, 1 REVISTA PERUANA DE COMERCIO INTERNACIONAL 13, 21 (1982).

[81] *See generally* U.N. CONF. ON TRADE AND DEV., EXPORT PROCESSING FREE ZONES IN DEVELOPING COUNTRIES: IMPLICATIONS FOR TRADE AND INDUSTRIALIZATION POLICIES, U.N. Doc. TD/B/C.2/211/Rev.1, U.N. Sales No. E.85.II.D.17 (1985) [hereinafter UNCTAD: EPFZS IN DEVELOPING COUNTRIES].

tic unemployment.[82] Some countries have specifically provided that one purpose of creating FIZs is to safeguard employees' interests against possible exploitation by establishing adequate labor policies.[83]

d) *Attraction of Foreign Investment*: Most countries consider FIZs as a means to attract foreign investment by offering lower production costs. The influx of foreign capital and expertise facilitates the development of an industrial export-oriented sector in the country,[84] as TNCs are considered to be in a better position to open foreign markets for local products.

e) *Exploitation of Natural Resources*: Developing countries are becoming aware of the fact that the local value added to exported goods will usually determine the balance-of-payments effects and the macroeconomic impact of a FIZ. Thus, the exploitation of local resources other than labor is becoming an increasingly important concern when establishing the zones. Some countries have even adopted a policy of requiring a minimum local content that is fixed when the authorization to set up in the zone is granted.[85]

f) *Industrialization Objectives*: As instruments for industrial development, FIZs share the general developmental goals attributed to industrialization, including forward and backward linkages with the domestic economy.

g) *Regional Development*: FIZs are frequently located in remote and relatively poor regions of the country because they facilitate industrial decentralization and regional development.

h) *Export Industries Deregulation*: Some developing countries see in FIZs a possibility for insulating the export sector from various regulatory policies intended to protect domestic industries.[86] Through the zones, as Samuel Bettwy puts it, "[b]y carving out specifically legislated areas, a developing country can gracefully operate a dual economy."[87]

i) *"Open Market" Policy Testing*: FIZs may also be viewed as "laboratories" for testing open-market economic policies that may be later applied in the whole country.[88] This occurred in countries such as

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[82] ESCAP/UNCTC JOINT UNIT ON TRANSNATIONAL CORPORATIONS, *supra* note 39, at 16.

[83] *See, e.g.*, Meissner, *Mexican Border and Free Zone Areas: Implications for Development*, in U.S.-LATIN AMERICAN TRADE RELATIONS: ISSUES AND CONCERNS 264 (M. Czinkota ed. 1983).

[84] *See* J. CURRIE, THE GROWING ROLE OF EPZS, *supra* note 22, at 20.

[85] A. BASILE & D. GERMIDIS, *supra* note 3, at 46.

[86] That has been the case, for example, in India. *See* ESCAP/UNCTC JOINT UNIT ON TRANSNATIONAL CORPORATIONS, *supra* note 39, at 16.

[87] Bettwy, *supra* note 7, at 56.

[88] *See* H. GRUBEL, FREE MARKET ZONES: DEREGULATING CANADIAN ENTERPRISE 31 (1983).

Taiwan, where FIZs clearly contributed to a shift from protectionism to an open economy.[89]

j) *Political Objectives*: The implementation of FIZs may be motivated in part by political or geopolitical considerations. For instance, it has been reported that the Chinese zone bordering on Shenzen and Hong Kong is part of a long-term strategy to intensify the process of economic osmosis before Great Britain hands over the administration of Hong Kong in 1997.[90]

2.3.2 From the Perspective of Transnational Investors

Despite the ongoing debate among scholars, there is no widely accepted definition of TNCs. The reason may be related to differences on critical issues such as country of incorporation, nationality of shareholders, organizational form, size, countries of operation, and so on.[91] Nevertheless, given the business-organization character of TNCs, identifying their aims when investing in FIZs is not likely to be as difficult a task as searching for a generally acceptable definition.

It is clear that the main consideration of TNCs when undertaking any investment is profit maximization. Therefore, the question of why multinationals are willing to invest in FIZs in developing countries could be reduced to an inquiry on the specific means the zones offer to allow transnational investors to increase their net earnings. The following are likely to be among the motivations that influence a TNC's decision to invest in FIZs.

a) *Access to Low-Cost Labor*: According to a report by the United Nations Conference on Trade and Development (UNCTAD) the main reason why foreign investors locate industrial activities in developing countries is the availability of comparatively cheap, hard-working, easy-to-train manpower.[92] TNCs engaged in labor-intensive production will take advantage of lower wages, frequently complemented by favorable employment legislation specially designed for the zones.

b) *Duty-Free Imports Regime*: The customs duty-free regime appears to be particularly attractive to TNCs, especially those that are vertically integrated, as imported materials will constitute a considera-

[89] *See* Jayawardena, *supra* note 7, at 432.

[90] ESCAP/UNCTC JOINT UNIT ON TRANSNATIONAL CORPORATIONS, *supra* note 39, at 17.

[91] The question seems to be even more complicated today with the rise of third world multinational corporations, whose importance is rapidly increasing. For a discussion on the emergence of third world TNCs, see Heenan & Keegan, *The Rise of Third World Multinationals*, HARV. BUS. REV., Jan.-Feb. 1979, at 101.

[92] UNCTAD, EPFZS IN DEVELOPING COUNTRIES, *supra* note 81, at 12.

ble percentage of their inputs.

c) *Access to Markets*: Although FIZs are primarily export-oriented, access to the domestic market can be a relevant consideration for TNCs, especially in cases such as China, where it has been traditionally difficult to penetrate protectionist barriers.[93] Zone investment may also be important to gain access to extended markets, such as the Andean Common Market or the Caribbean Community (CARICOM), and to third markets, as is occurring with European investments in Caribbean zones and Japanese investments in Mexican zones, both reportedly oriented to the U.S. market.[94]

d) *Home Market Competitiveness*: Another motivation for investing in FIZs, clearly tied to the natural and artificial advantages of reducing production costs, is the possibility of retaining or regaining competitiveness in the TNC's home market. This is especially important when technology becomes standardized and the TNC must deal with imported goods sold at a lower price than those produced domestically.

e) *Vertical Integration*: Intra-firm trade in intermediate products, namely those that are an output of one production process and an input to another, generate vertical integration within an industry.[95] Due to the free export and import regime characteristic of the zones, global industries may find FIZs to be excellent locations for offshore manufacturing.

f) *Product Life-Cycle Extension*: In the "mature" phase of a product, the decrease in unit price that is a consequence of transferring stages of production to lower-cost locations motivates TNCs to transfer the complete production to developing countries.[96] FIZs, clearly among the lowest-cost industrial locations in the world, give TNCs the opportunity to extend the mature phase of their products' life-cycles.

2.3.3 From the Perspective of Domestic Investors

Local enterpreneurs view the zones as an alternative investment opportunity that may lead to successful competition in foreign markets. Lower production costs vis-a-vis any other location in the country might also constitute an incentive to seek access to the local market.

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[93] *See* Cable & Mukherjee, *Foreign Investment in Low-Income Developing Countries*, in INVESTING IN DEVELOPMENT: NEW ROLES FOR PRIVATE CAPITAL? 104 (T. Moran ed. 1986).

[94] It has also been reported that TNCs operate in third world zones to gain access to industrial countries by complying with the local content requirements of the Generalized System of Preferences. *See* Karunaratne, *supra* note 29, at 222.

[95] *See* M. CASSON, MULTINATIONALS AND WORLD TRADE: VERTICAL INTEGRATION AND THE DIVISION OF LABOUR IN WORLD INDUSTRIES 11 (1986).

[96] *See* Amendola, *supra* note 49, at 135.

a) *Duty-Free Regime*: Domestic investors may enjoy the benefits of being exempted from paying customs duties when purchasing capital goods and intermediate products. This would lower production costs, giving the local entrepreneur an advantage both for international and local sales.

b) *Special Incentive Measures*: Although domestic investors operating within the customs territory of the country enjoy the benefits of low wages and access to raw materials, FIZs offer them the additional advantage of an incentive package, i.e., infrastructure facilities, tax benefits, financial incentives, free exchange regulations, labor incentives, etc.

c) *International Competitiveness Acquisition*: Lower production costs, resulting from duty-free imports and special incentives, determine a lower final FOB price that makes zone industries more competitive in the world market.[97] In addition, special arrangements such as joint ventures and international subcontracting allow domestic enterpreneurs an opportunity to develop managerial skills to operate at international standards.

d) *Dual Economy Operation*: Local entrepreneurs may be willing to support the establishment of FIZs as a means to ensure that protectionist measures sheltering their domestic industries remain in place while they take advantage of lower costs of production, both for exports and domestic sales.[98]

2.3.4 From the Perspective of Industrialized Countries

Industrial countries have encouraged the development of FIZs in third world countries, by creating special tariff structures allowing goods that were previously exported to be imported subject to ad valorem tariffs levied only on the value added abroad, exclusive of the value originated in the home country.[99] For instance, in 1983, U.S. imports of assembled goods under the so-called "806-807" classifications (articles previously exported for repair, alteration, processing, or assem-

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[97] It has been noted, however, that this advantage may be curtailed via the imposition of non-tariff barriers in industrial countries. *See* R. GIRLING, MULTINATIONAL INSTITUTIONS AND THE THIRD WORLD: MANAGEMENT, DEBT, AND TRADE CONFLICTS IN THE INTERNATIONAL ECONOMIC ORDER (1985).

[98] According to a report on South Pacific countries, the fundamental reason underlying local advocacy for FIZs is the promise that they will enable the national bourgeois to seek wealth in the world beyond, while affecting minimally the social order in the rest of the country. *See* Howard, *Export Processing Zones and Development Strategies in the South Pacific*, in TRANSNATIONAL CORPORATIONS AND EXPORT-ORIENTED INDUSTRIALIZATION 81 (E. Utrecht ed. 1985).

[99] *See* Casson & Pearce, *Multinational Enterprises in LDCs*, in SURVEYS IN DEVELOPMENT ECONOMICS 90, 111 (N. Gemmell ed. 1987).

bling abroad) amounted to $21.8 billion, of which the total value originating in the United States was only $5.2 billion.[100] Some of the reasons given to justify such an indirect support are identified below.

a) *Home Market Defense*: John Grunwald and Kenneth Flamm have found that production arrangements abroad have allowed certain U.S. businesses to remain competitive in the face of serious threats from imports.[101] In fact, given the high wages of low-skilled labor in developed countries some labor-intensive industries have had to transfer production stages to FIZs in order to protect their positions in home markets against foreign competitors.

b) *Foreign Market Competitiveness*: The principle mentioned above also allows the industries of developed countries that shift labor-intensive production to FIZs in developing countries to gain or regain competitiveness in foreign markets. Mark Casson has recently written that proximity to export-processing free zones may be a competitive advantage to a mature economy because such proximity reduces that economy's overall cost of production relative to those of other mature industrial economies.[102]

c) *Lower Consumer Prices*: As a general rule, lower costs of production result in lower prices to consumers, another benefit that an industrial economy may obtain as a result of foreign assembling and manufacturing in third world FIZs. For example, it has been estimated that the gain in welfare to U.S. purchasers of semiconductors, as a result of the internationalization of such industry, has been about ten percent of the value of consumption.[103]

d) *Geopolitical Considerations*: The rationale of encouraging the implementation of FIZs may sometimes be found in geopolitical considerations. For instance, the geopolitical importance of South Korea and Taiwan to the United States is listed among the favorable international circumstances that made it possible for those countries to develop a competitive industry.[104] The development of each was initially based on the implementation of FIZs.

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[100] V. BAILEY & S. BOWDEN, UNDERSTANDING UNITED STATES FOREIGN TRADE DATA 51 (U.S. Dep't. of Commerce 1987). For an analysis on the impact of tariff 806 and 807 in Mexican FIZs, see Wertman, *Tariff Items 807.00 and 806.30 and the Mexican Maquiladoras*, in *Maquiladora Impact on U.S. Jobs and Trade Competition with Japan: Hearing before a Subcomm. of the Comm. on Government Operations, U.S. House of Representatives*, 100th Cong., 1st Sess. app. 2 at 218 (1987).

[101] J. GRUNWALD & K. FLAMM, THE GLOBAL FACTORY: FOREIGN ASSEMBLY IN INTERNATIONAL TRADE 221 (1985).

[102] M. CASSON, *supra* note 95, at 6.

[103] J. GRUNWALD & K. FLAMM, *supra* note 101, at 221.

[104] *See* Kirkpatrick, *supra* note 74, at 79.

2.4 Types of Investments in FIZs

Although it seems possible to find general patterns applicable to most investments in FIZs, it is valuable for this analysis to identify four types of investments in the zones, reflecting the convergence of various historical, political, and economic factors. As there is no single criterion for such a classification, the following simply addresses the question of what characteristics of different types of investments developing countries should consider when regulating FIZs.

2.4.1 Foreign Export-Oriented Manufacturers

Export-oriented companies are foreign branches, or locally incorporated corporations wholly owned by a TNC, that undertake all stages of production of goods to be sold in foreign markets. These companies may take full advantage of local resources, and of the attractive framework of FIZs, benefiting from low labor costs, a duty-free regime, industrial-estate infrastructure, and other special incentives. In turn, foreign companies might bring external capital, expertise, and technology to the country, along with accomplishing the aims of generating employment, increasing foreign exchange earnings, and decentralizing industry.

In spite of the suitability of export-oriented subsidiaries in the scheme of FIZs, several factors, such as the emergence of a new international specialization in manufacturing, the protectionist measures of industrial countries, and the lower costs in transportation, have resulted in a recent trend of multinationals transferring only labor-intensive stages of production to the zones, while retaining capital-intensive and high-technology stages in their home countries. According to a report by UNCTAD, vertically integrated TNCs are currently deemed to be the most important investors in FIZs located in developing countries.[105]

2.4.2 Foreign Intra-Firm Assemblers

One form of international integration found in the zones is frequently called off-shore manufacturing or foreign assembling. Assembling through international integration is a relatively recent phenomenon.[106] It consists of the production-sharing relationship between a

[105] *See* UNCTAD, EPFZS IN DEVELOPING COUNTRIES, *supra* note 81, at 12.

[106] Off-shore assembling emerged as domestic labor-intensive production became less and less economical and competition increased, forcing U.S. firms to look to other countries, breaking production into stages and carrying out the labor-intensive stages in locations where wages were comparatively low. *See* J. GRUNWALD & K. FLAMM, *supra* note 101, at 11.

"principal" firm, normally located in an industrial country, and its subsidiary, usually located in a developing country, each one undertaking one or more manufacturing processes to co-produce a final good.[107]

FIZs provide an ideal environment for intra-firm activities. In fact, as one author has correctly pointed out, the emergence and development of off-shore production and export processing zones are tightly connected.[108] Among the factors that have determined this relationship are the duty-free import and export regime inherent to the concept of FIZs, favorable tariff regulations in industrial countries, infrastructure facilities existing at the zones, and the incentive packages usually offered in addition to the main feature of low-cost wages.

There has been a good deal of discussion on the costs and benefits of intra-firm trade for developing countries, mostly related to the need for minimal investment, the low cost in moving zone companies, and the difficulties faced by developing countries trying to control and regulate intra-firm activities in a vertically integrated scheme.[109] It has been observed that sharing in the manufacturing of products provides a partial compromise between the promotion of non-traditional exports from developing nations and the rising pressures for protectionist measures in industrial countries.[110]

2.4.3 International Subcontractors[111]

International subcontracting has been defined as a business relationship involving a "principal" contractor, based in an industrial nation, that places orders with a subcontractor in a developing country, to produce components or assemble products with inputs provided by the principal or its affiliates. The final product is normally sold by the principal, frequently in its home market.[112]

Subcontracting is distinguishable from intra-firm co-production in

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[107] The rationale of foreign assembly is that an industry's production can be carried out in one or more plants located in one or more countries, and one or more processes may be carried out within these production units. Laird, *supra* note 58, at 167.

[108] Fernández Kelly, *supra* note 30, at 207.

[109] Mark Casson lists among these concerns the concentration of global economic power in TNCs, the economic dependency of developing countries, and the fiscal consequences of transfer pricing. M. CASSON, *supra* note 95, at 10.

[110] J. GRUNWALD & K. FLAMM, *supra* note 101, at 2.

[111] The term international subcontracting, as used in this subsection, should not be confused with the legal concept of "subcontract," which refers to an agreement with obligations that are subordinated to those of a previous agreement (the "principal contract") in the sense that the purpose of the former is to contribute to the performance of the latter.

[112] C. OMAN, *supra* note 65, at 17.

regard to the identity of the parties involved in each arrangement. In the latter, the TNC deals with its own subsidiary, so that the company's headquarters is the only source of business decisions. Conversely, in a subcontracting arrangement, the TNC deals with an independent enterprise with a position in vertical integration not necessarily identical to that of the TNC. The arrangement will frequently be complex, however, involving technological assistance, quality control, output requirements entitling the TNC to commercialize the final product, and input obligations requiring the TNC to purchase most intermediate products from the foreign company.

In comparison to intra-firm trade, subcontracting stimulates local entrepreneurs to participate in outward-oriented industries. Domestic corporations are in a position to acquire a certain degree of expertise in producing and marketing at international standards, and they tend to maximize linkages with the domestic economy.[113] It is nonetheless debatable whether subcontracting brings significant benefits to the host economy, since it is usually tied to standardized or mature technology, and it links scarce local capital and managerial skills to industrial activities that are dependent on TNCs' business decisions and strategies.[114]

2.4.4 Export-Oriented Domestic Industries

As a Japanese researcher wrote some years ago, export- promotion programs should recognize that local entrepreneurship is one of the key requirements for success but often an extremely scarce resource. Consequently, an export strategy must include a comprehensive plan creating favorable conditions allowing both foreign investors and local businesspeople to operate complementarily.[115]

Even though one of the aims of developing countries in establishing FIZs is to attract foreign investments, local participation is often encouraged by host countries and uniformly permitted in full export-oriented industries.[116] Local participation usually takes place through direct investment in export-oriented industries, but a trend to partici-

[113] It has also been observed that subcontracting facilitates the transfer of technology and provides the opportunity for national firms to improve their expertise through practical experience. J. GRUNWALD & K. FLAMM, *supra* note 101, at 250-51.

[114] For a discussion of the impact of subcontracting in developing countries see Germidis, *International Sub-contracting and Industrialisation of the Third World: Problems and Perspectives*, in INTERNATIONAL SUBCONTRACTING 10 (D. Germidis ed. 1980).

[115] *See* Yoneda, *supra* note 62, at 203-04.

[116] Basile and Germidis have pointed out that sometimes local investments in the zones take place spontaneously, as occurred in the Beirut FIZ in Lebanon. A. BASILE & D. GERMIDIS, *supra* note 3, at 57.

pate in joint ventures with foreign investors has been observed in the last decade.[117] For instance, in 1980, of a total of 101 projects in the Masan and Iri FIZs in South Korea, thirty-seven were joint ventures in which local partners had a majority holding in sixty percent of the cases.[118]

An export-oriented local industry may be vertically integrated with a TNC via subcontracting or may compete by itself in the international market. In the latter circumstance, the local industry can take advantage of comparatively lower costs in labor and domestic resources, as well as of the duty-free regime, incentive packages, and physical infrastructure of FIZs.

Linkages with the domestic economy seem to be intrinsic to local investments in the zones. As a general rule, backward linkages with the host economy are seen as an advantage, as they increase the demand of locally produced raw materials, intermediate products and services. Conversely, forward linkages may conflict with certain aims of the host country to the extent that local industries may take advantage of the zone to lower costs of producing goods containing a high level of imported inputs that are to be sold in the domestic market.

3. An Evaluation of FIZs in Developing Countries

One confronts several obstacles in evaluating the performance of FIZs in developing countries . First, various political, economic, social, and geographical factors within each of the countries make it somewhat artificial to compare the actual impact of the zones in their quest for development. Second, expectations and reliance on the success of the zones vary considerably from one country to the other, and success must be evaluated in the context of a particular development strategy. Third, the countries' aims when establishing the zones are not identically ranked by all of them, making it extremely difficult to identify steady patterns by which to measure the zones' eventual success. Finally, the seniority of certain zones provides greater potential for evaluating their performance, whereas most of the recently established FIZs are in the process of acquiring a share of the international investment portfolio, making an attempt to evaluate their performance premature.

Nevertheless, as discussed in the first part of this article, FIZs re-

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[117] Some governments limit local participation to a certain percentage of equity, as in the Karachi FIZ, where Pakistani citizens are not permitted to invest more than 15 percent of the total capital. ESCAP/UNCTC Joint Unit on Transnational Corporations, *supra* note 39, at 33.

[118] *See* A. Basile & D. Germidis, *supra* note 3, at 57.

present the application of one general theory, and they are established to achieve certain developmental goals attributed to their operation. Although generalizations do not appear to be convenient in the evaluation of the zones, empirical studies have shown that the outcome of their implementation has been consistent enough in several respects to establish some general characteristics of the operation of FIZs in developing countries. Furthermore, in spite of substantial differences between developing countries, it is clear that they share several problems and deficiencies intrinsic to underdevelopment. Therefore, it is likely that the actual impact of a given policy in one particular zone will be a good reference for estimating the convenience of adopting a similar measure in another country.

There are several ways to approach an evaluation of FIZs. One possibility is a case-by-case analysis of the existing zones, followed by a summary of findings. This approach would be indisputably adequate if the available data for every zone were comparable. Such is clearly not the case, for those studies that have adopted a case-by-case approach have carried out their own field evaluations of the FIZs to be compared, or have attempted to unify the information available from different sources.[119] A different perspective—perhaps more realistic given the existing data—consists of a general survey of the zones, aimed at identifying problems that have barred the accomplishment of projected aims. This approach has been followed in several previous works[120] and provides the structure of the following survey.

At least two different standards for measuring the success or failure of FIZs are possible. An objective criterion may be adopted, i.e., conducting a cost-benefit analysis of the actual impact of the zones in the economy of a given country.[121] To determine the net benefits and costs to the rest of the country's economy, it would be necessary to com-

[119] The former approach has been followed by the ESCAP/UNCTC JOINT UNIT ON TRANSNATIONAL CORPORATIONS, *supra* note 39. Examples of the latter perspective can be found in J. CURRIE, EPZS IN THE 1980S, *supra* note 20, and Note, *Foreign Trade Zones in Latin America*, *supra* note 7.

[120] *See, e.g.*, A. BASILE & D. GERMIDIS, *supra* note 3; UNCTAD, EPFZS IN DEVELOPING COUNTRIES, *supra* note 81.

[121] Unfortunately, very few analyses of the type have been undertaken, and most of the existing studies concentrate on the Asia-Pacific region. Peter Warr is one scholar who has conducted several economic cost-benefit analyses in the Asia-Pacific region. Among the studies are included: P. WARR, PROMOTION VIA INDUSTRIAL ENCLAVES: THE PHILIPPINES' BATAAN EXPORT PROCESSING ZONES (University of the Philippines School of Economics Discussion Paper No. 8407, 1984); P. WARR, KOREAN MASSAN FREE EXPORT ZONE: BENEFITS AND COSTS (Development Studies Centre, The Australian National University, Occasional Paper No. 36, 1983); and Warr, *The Jakarta Export Processing Zone: Benefits and Costs*, 19 BULL. OF INDONESIAN ECON. STUD. 28 (1983).

pare the situation with the zone to the hypothetical situation without it, but under an alternative set of industrial policies.[122] An alternative standard consists of an inquiry into whether the zones have accomplished the aims that led developing countries to adopt them. The following sections of this article are devoted to this type of teleological analysis. The objective is both to determine the role of FIZs in development and to identify legal and policy questions arising from their implementation and operation.

3.1 A Third World Overview of FIZs

Have FIZs succeeded in achieving the developmental goals attributed to them by third world nations? The degree of attention paid to FIZs since their inception in the mid-1960s suggests a positive answer, as the number of zones has increased from a total of nine at the end of the 1960s to 107 FIZs in fifty-one developing countries by the end of 1987.[123] The steady expansion of the concept in third world nations is explained in part by the enthusiastic support given it by development organizations such as UNIDO, UNCTAD, and the Japanese organization AMPO in the early 1970s.[124]

There seems to be a common belief among developing countries in the guaranteed success of FIZs in achieving export-oriented industrialization goals in the context of a world economy which favors export-oriented schemes. However, an initial examination of the performance of FIZs in the third world leads to the conclusion that there have been both highly successful zones and total fiascos. Some of the former benefited from particularly propitious circumstances, while others simply managed to learn from the mistakes of the failures. The fact is that both successes and failures provide important policy lessons for those engaged in establishing or restructuring FIZs in developing countries.

Global statistics on FIZs are relatively rare. The few studies available give only a slight idea of their impact, inasmuch as figures are extremely difficult to evaluate when abstracted from a specific economic, social, and political framework. For instance, various sources have suggested that zone industries provide over a million jobs in the third world. In certain countries zone employment amounts to more than five percent of the economically active population. In most nations, however, it represents little more than one percent of the manufactur-

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[122] *See* ESCAP/UNCTC JOINT UNIT ON TRANSNATIONAL CORPORATIONS, *supra* note 39, at 62.

[123] For an updated list of FIZs operating in developing countries, see the Appendix to this article.

[124] *See, e.g.*, sources cited *supra* note 5; Jayawardena, *supra* note 7, at 429 n.10.

ing work force.[125]

There is no single benchmark by which to judge whether a particular zone has been successful or not. Most analysts, however, would agree that an FIZ's performance should be measured not only by the amount of investment it has attracted, but also by the extent to which the zone has stimulated the local economy.[126] Nevertheless, it is important to understand that the macroeconomic effects of the zones are often very limited. "[O]ne should not be under the illusion that a few cordoned-off areas, where essentially the subsidiaries of foreign companies are permitted to produce for foreign markets, can lead to an economy-wide growth process on a significant scale."[127]

A region-by-region evaluation of the zones may help to draw some interesting conclusions about their performance. Perhaps the most important conclusion is that there are both successful and unsuccessful FIZs in almost every region in the world, suggesting that, under appropriate circumstances, a properly structured zone may succeed anywhere.[128] Among the zones generally considered the most prosperous are those of Mauritius and Tunisia in Africa; the Dominican Republic and Haiti in the Caribbean; China, Hong Kong, Malaysia, the Philippines, Singapore, South Korea, Sri Lanka, and Taiwan in East Asia; and Brazil and Mexico in Latin America. Other relatively well-to-do FIZs are those located in Egypt, India, Jamaica, Jordan, Pakistan, Panama, Syria, Thailand and the United Arab Emirates. Among the less prosperous zones today are those of Bermuda, Guatemala, Honduras, Lebanon, Nicaragua, Senegal, and Western Samoa.

Every successful or unsuccesful zone is the result of several convergent elements, both external and internal. However, the legal implementation of adequate or inadequate policies related to the operation of the zones is believed to have played a significant role. The following section is devoted to identifying those legal and policy lessons and to analyzing some of the most significant issues in the implementation and operation of FIZs in developing countries.

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[125] Similarly, a study by UNCTAD found that in many developing nations zone exports represent less than five percent of total manufactured exports. *See* UNCTAD, EPFZs IN DEVELOPING COUNTRIES, *supra* note 81, at 5. In some developing countries zone exports account for more than 15% of gross national exports.

[126] *See, e.g.*, Jayawardena, *supra* note 7, at 429.

[127] U.N. ECONOMIC & SOCIAL COMM'N FOR ASIA & THE PACIFIC, DEVELOPMENT STRATEGIES FOR THE 1980S IN SOUTH ASIA at 19, U.N. Doc. ST/ESCAP/154, U.N. Sales No. E.81.II.F. 16 (1981).

[128] There are FIZs operating in seven countries in Africa, eight countries in the Caribbean, fifteen countries and territories in East Asia and the Pacific, fourteen countries in Latin America (including Central America), and five countries in the Middle East. *See infra* app.

3.2 Surveying the Performance of FIZs in Developing Nations

3.2.1 Development Costs and Zone Profitability

A report by UNCTAD emphasizes that the cost of construction of the FIZ estate crucially influences its profitability, and the report advises developing countries to avoid excessive expenditure in the zone's estate development.[129] In fact, the industrial-estate feature of offering a complete physical infrastructure, including basic services and facilities, has proven to be a significant factor for the success of the zones. This expenditure is frequently justified in that the selected host region will experience an impulse towards development, since part of the goods and services required for the operation of the zones would be generated locally.

Naturally, the cost of developing a zone varies considerably from one country to another. Perhaps the most telling illustration of the importance of carefully considering the required investment is the Bataan FIZ in the Philippines, where the final development cost exceeded $208 million, an extremely heavy burden even for a highly successful project.[130] The development cost per hectare of FIZs in Asian countries has ranged from $13,000 in Pakistan to $602,900 in the Philippines.[131] In other regions of the world the situation seems to be comparable.[132]

The relatively high overall infrastructure costs of the zones, as well as the recent experience of unprofitable FIZs, requires that developing countries insure that certain conditions are met by the selected location prior to investing in zone development. For instance, the experience of zones such as the Buenaventura FIZ in Colombia and the Santo Tomas de Castillo FIZ in Guatemala shows that lack of access to adequate communications systems constitutes a severe handicap for the success of the zones.[133] The moral is that FIZs should be located near airports and seaports, and preferably close to international routes to major markets.[134]

The availability of sufficient energy and water supplies has also

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[129] UNCTAD, EPFZs in Developing Countries, *supra* note 81, at 6.

[130] *See* ESCAP/UNCTC Joint Unit on Transnational Corporations, *supra* note 39, at 65.

[131] *Id.*, at 64.

[132] For instance, the investment required to develop a zone on the coast of Peru was calculated to be $314,000 per hectare in 1985. *See* Ciriani, *Zonas Francas Industriales*, in Proyecto Peru: Hacia un Plan Nacional de Desarrollo a Mediano y Largo Plazo 252 (Sociedad Nacional de Industrias ed. 1985).

[133] *See* A. Basile & D. Germidis, *supra* note 3, at 36.

[134] As Currie puts it, "[T]here must be good and relatively inexpensive transport links with the markets which the country is intending to serve." J. Currie, The Growing Role of EPZs, *supra* note 22, at 20.

proven to be critical for the investment decision, since they are important for industrial activities, and their installation costs are frequently high.[135] Basic facilities are not the only factors influencing the preference of industrial investors for zones located near relatively urban areas. David Wall reports that proximity to specialized services such as postal, banking, and telecommunications facilities is among the main reasons cited by firms choosing to set up in FIZs.[136]

In recent years developing countries have been testing two systems designed to avoid the high costs of zone development. One is the aforementioned concept of sub-zones or bonded manufacturing warehouses, which allows the country to authorize industrial establishments located outside zones to operate under the same regime as enterprises established within FIZs. This concept has been successfully adopted by countries such as Colombia, Malaysia, Mauritius, Mexico, Singapore, Sri Lanka, and Tunisia. The second innovation, adopted in recent zone regulations in several countries, allows private entrepreneurs to undertake the construction and exploitation of FIZs, provided that government authorization is granted beforehand.[137] This system has already been utilized by countries such as the Bahamas and offers the advantage of allowing a country to establish a zone without incurring development costs.

3.2.2 Employment Generation and Working Conditions

According to UNCTAD and UNIDO, the labor force employed in FIZs in developing countries by the beginning of this decade was estimated to be slightly under one million persons.[138] Figures compiled by Mark Casson indicate that 645,800 workers were employed in the zones in 1978, and that Korea (with 120,000 workers), Singapore (with 105,000), and Mexico (with 70,000) accounted for nearly forty-five percent of the total.[139] By 1983, Jean Currie calculated that at least

[135] Basile and Germidis list the inadequacy of water and energy supplies among the serious disadvantages experienced by the costly Bataan FIZ in the Philippines that led the government to locate the new zones in urban regions where good services were available. *See* A. BASILE & D. GERMIDIS, *supra* note 3, at 36.

[136] *See* Note, *Export Processing Zones*, 10 J. WORLD TRADE L. 478, 483 (1976) (authored by D. Wall).

[137] *See, e.g.*, art. 39 of Law No. 105 of 1985 [Colombian Free Zones Statute], *supra* note 35, at 11. *See also* arts. 8, 9, 10, 11, 12 and 13 of the Uruguayan Free Zones Act of 1988, in 330 DIARIO OFICIAL DE LA REPUBLICA ORIENTAL DEL URUGUAY 75, 76 (1988).

[138] UNCTAD, EPFZS IN DEVELOPING COUNTRIES, *supra* note 81, at 18. *See also* U.N. INDUS. DEV. ORG., EXPORT PROCESSING ZONES IN DEVELOPING COUNTRIES at 10, U.N. Doc. UNIDO/ICIS.176 (1980).

[139] M. CASSON, *supra* note 95, at 5.

837,500 jobs existed in FIZs located in 35 developing nations and found that Hong Kong, Malaysia, Singapore, Taiwan, Haiti, Mexico, and Brazil employed more than 50,000 workers each.[140]

The relative importance of FIZs as an employment generation strategy in a particular country should be evaluated in connection with the size of its economy. For instance, in 1981, zones in Mexico employed 119,500 workers, which accounted for only 0.72% of the total economically active population, whereas zone jobs in Mauritius represented 6.72% of the active population, even though they employed only 20,151 persons.[141] One commentator has written that industrial export expansion is a driving force in creating employment only in the case of relatively small economies: "For large developing countries, the export promotion of manufactures, while appealing and efficacious for other purposes, offers little immediate hope of substantial relief from their employment problems."[142]

Nevertheless, the number of jobs generated by the zones in developing countries is far from negligible, accounting as it does for about three percent of the total registered workforce in manufacturing in the third world.[143] A study by the International Labor Organization (ILO) concluded that FIZs have been successful in generating new direct employment in labor-intensive activities in Asian countries. The study also pointed out, however, that the total manufacturing sector is still a relatively small segment of their economies.[144]

The indirect employment effects of FIZs are relatively small, in part because of the high level of imported inputs used as a consequence of the duty-free regime characteristic of zone manufacturing. Following a categorization by Sanjaya Lall, according to whom indirect employment effects may be either macroeconomic, horizontal, or vertical,[145] it can be said that macroeconomic effects are more likely to occur in service-oriented activities, such as banking, communications, transportation, electricity, construction, maintenance and repairs. On the other hand, as discussed below, vertical and horizontal linkages with the domestic economy are very limited, as local value added in zone produc-

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[140] *See* J. CURRIE, EPZS IN THE 1980s, *supra* note 20, at 5-6.

[141] *See* A. BASILE & D. GERMIDIS, *supra* note 3, at 47.

[142] Tyler, *Employment Generation and the Promotion of Manufactured Exports in Less Developed Countries: Some Suggestive Evidence*, in THE INTERNATIONAL DIVISION OF LABOUR: PROBLEMS AND PERSPECTIVES 363 (H. Giersch ed. 1974).

[143] *See* UNCTAD, EPFZS IN DEVELOPING COUNTRIES, *supra* note 81, at 18.

[144] R. MAEX, EMPLOYMENT AND MULTINATIONALS IN ASIAN EXPORT PROCESSING ZONES 64, 65 (International Labour Office Working Paper No. 26, 1983) [hereinafter ILO, EMPLOYMENT IN ASIAN EPZS].

[145] *See* P. ENDERWICK, MULTINATIONAL BUSINESS & LABOUR 49-50 (1985).

tion is low, and as access of zone products to domestic markets still seems to be an exception.

The characteristics of the worker population in FIZs have attracted the attention of economists and sociologists. The typical zone worker is a young, unmarried woman with no previous work experience.[146] Several charges, ranging from the disruption of the family to exploitation of women workers, have been made against this peculiar composition of the zones' workforce. From the economic viewpoint, perhaps the most serious critique is that instead of eradicating unemployment, FIZs may actually induce it by encouraging groups that might otherwise not work to join the labor force.[147] A counter-argument is that women workers predominate in certain assembly operations everywhere in the world.[148] This "feminization" of jobs must be understood in a broader perspective, for "a growing number of jobs in countries like the United States are acquiring characteristics formerly associated with female employment," namely low-skill jobs that provide comparatively low wages and offer limited possibilities of promotion.[149]

A number of issues have been raised regarding the quality of employment in FIZs, both with respect to employment policies and the circumstances of zone workers themselves. Several countries have adopted special labor regulations that apply only within the zones, in an attempt to attract industrial investors, whom it is believed would otherwise be discouraged from investing because of the risk of unionization, demands for job security, etc. This attitude has reportedly led to abuses by zone employers. In several FIZs, work environments are substandard, safety measures are almost nonexistent, strikes are banned, industrial injury compensation is lacking, workers are employed on a temporary basis, and working hours are frequently extended. A 1977 report by AMPO found violations of internationally set labor standards and basic human rights in zone establishments.[150]

In deciding whether or not to grant socially expensive labor advantages to potential investors, policy-makers should bear in mind the case

[146] In Asia, for example, the proportion of women workers in FIZs ranged from 74% in the Philippines to 88% in Sri Lanka; an average of about 80% of zone workers were under the age of 29; unmarried workers accounted for more than 70% in most zones; and newcomers to the labor market ranged from 52% in Malaysia to 76% in Sri Lanka. ILO, EMPLOYMENT IN ASIAN EPZS, *supra* note 144, at 49-51.

[147] *See* J. GRUNWALD & K. FLAMM, *supra* note 101, at 226-227.

[148] *Id.* at 227.

[149] Fernández Kelly, *supra* note 30, at 208.

[150] *See* Jayawardena, *supra* note 7, at 429. Interestingly, other commentators have written that "working conditions in assembly plants are generally thought to be somewhat better than in firms of similar size in the rest of the country." J. GRUNWALD & K. FLAMM, *supra* note 101, at 228.

of Mexico, where some of the most successful zone operations are located. Employment in Mexican FIZs is subject to the Federal Labor Law applicable throughout the country. Workers' rights include, a minimum required salary, bonuses, profit sharing, social security contributions, severance pay, housing, education and day-care contributions, and unions are easy to establish.[151] This has not prevented investors from establishing industries in these zones, which now employ over 300,000 workers.[152] "The benefits accorded employees under this law may appear to be overly generous by American standards, but it should be remembered that the total cost of a minimum wage employee in Mexico, including all taxes and benefits, is low (less than $1 per hour)."[153]

3.2.3 Foreign Exchange Earnings and Local Value Added

Substantial foreign exchange earnings are derived from exports originating in FIZs. They account, for instance, for twenty percent or more of manufacturing exports in countries such as Hong Kong, Malaysia, Mauritius, Mexico, the Philippines, Singapore, Taiwan, and Tunisia.[154] In fact, a study by UNCTAD underscores the fact that the main benefit host economies derive from FIZs is the net foreign exchange inflow obtained in the form of export proceeds and investment capital.[155]

However, given the provision of free access to imports, a greater-than-average use of imported inputs is characteristic of zone production. There is a considerable difference between gross foreign exchange generation and net foreign currency earnings.[156] Consequently, to measure the effect of zones on the host country's balance of payments one has to consider the amount of local value added to manufactured goods which, together with the initial capital investment of transnational investors, will constitute the net foreign exchange earnings of the host economy. This has been well understood by several developing countries such as India, which imposed a minimum of thirty percent local

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[151] *See* Note, *An Investors' Introduction to Mexico's Maquiladora Program*, 22 TEX. INT'L L.J. 109, 134 & n.204 (1987) [hereinafter Note, *Mexico's Maquiladora Program*].

[152] *See* Clement, *An Overview of the Maquiladora Industry*, 18 CALIF. W. INT'L L.J. 55, 56 (1988).

[153] Note, *Mexico's Maquiladora Program*, *supra* note 151, at 134.

[154] *See* J. CURRIE, EPZS IN THE 1980S, *supra* note 22, at 36.

[155] UNCTAD, EPFZS IN DEVELOPING COUNTRIES, *supra* note 81, at 6.

[156] For instance, it has been reported that the net imported content in goods manufactured at the Sri Lankan FIZs was 68% in 1983. J. CURRIE, EPFZS IN THE 1980S, *supra* note 20, at 36.

inputs on enterprises willing to set up in one of its zones.[157] Under similar policies, high percentages of local content have been reached in other FIZs such as those located in Korea (52%) and Taiwan (46%).[158]

Nonetheless, a significant level of domestic inputs is still far from being the general rule. The local content of zone products is quite low even in countries such as Brazil and Mexico, where the level of industrialization would presumably determine comparatively lower costs and higher quality in locally produced inputs.[159] This phenomenon also seems to be related to various new trends in transnational trade and investment, particularly vertical integration and transfer pricing.

As most of the vertically integrated production is destined to be sold in industrial countries' markets, TNCs have been legitimately concerned with the maintenance of high standards of quality required by consumers in such markets. In addition, due to special regimes in force in several developed countries that encourage off-shore manufacturing through charging customs duties only to the value added abroad, the use of imported inputs in vertically integrated production could ultimately be less costly for the transnational investor. It is the general practice of vertically integrated TNCs to overcharge for goods and services, or inflate the interest rate of loans to a subsidiary, as a mechanism to reallocate worldwide profits in countries where tax rates are lower and remittance-of-dividends regulations are less exacting. Apparently, TNCs' opportunities to engage in transfer pricing practices increase with the volume of intra-firm trade of goods, services, and capital, while the potential for governments to control such activities decreases.

In summary, although the effect of FIZs in the net balance of payment is somewhat significant and is in fact one of the most relevant features of the zones today, it is marginal when compared with the gross exports of zone production. Developing countries are beginning to realize the importance of making every effort both to induce use of local

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[157] *See* A. BASILE & D. GERMIDIS, *supra* note 3, at 46.

[158] *See* ESCAP/UNCTC JOINT UNIT ON TRANSNATIONAL CORPORATIONS, *supra* note 39, at 78-80. The case of Taiwan constitutes a very interesting policy experience. In the beginning, local suppliers were unable to provide inputs which satisfied international standards. Experts from the zones were placed at the potential suppliers' factories to offer advice on manufacturing methods and quality control. The results were quite impressive: a rise in local content from 8% in 1969 to 46% in 1979. *Id.* at 80.

[159] For instance, despite efforts made by Mexican authorities to induce industrial investors in the "maquiladoras" program to increase their procurement of local raw materials and components, the results obtained have so far been modest, with a 16% of domestic value added, most of which corresponds to labor wages. *See* A. BASILE & D. GERMIDIS, *supra* note 3, at 48.

inputs in zone manufacturing as a means of increasing net hard currency earnings and to encourage linkages with the domestic economy.

3.2.4 Do Fiscal Concessions Work?

FIZs in developing countries are generally considered to be tax havens. In addition to customs-duties concessions, which are the *modus vivendi* of free zones, it is common to find that industries are exempt from income, property, and sales taxes, thus enjoying a fiscal regime that is clearly more favorable than that in force in the rest of the country. Most countries offer tax holidays to zone producers, exempting them from all or most taxes for periods of up to fifteen years. These incentives are usually complemented by zone industries' being allowed to carry forward losses incurred during the tax exemption period, to be set against subsequent taxable profits, and also by free or accelerated depreciation of investment costs for zone industries.[160] The net cost of fiscal incentives for the host country—or, more precisely, the loss of revenues—is quite substantial.[161]

Despite the importance that third world governments assign to tax concessions, they have not turned out to be of as much practical significance as anticipated.[162] Foreign investors in FIZs "have confirmed that complete exemption from taxes on corporate profits did not significantly influence their investment decisions and that investments would still have been made if the host countries had charged a moderate tax on corporate profits."[163] Moreover, it has been pointed out that a number of successful zones, such as the Philippines FIZs, offer no tax concessions at all, suggesting that long tax holidays may be overly generous.[164] There is an increasing concern over the degree of competitiveness that such incentives induce among developing countries, creating a genuine "race to the bottom" that will be discussed below.

Evidence of the uselessness of offering tax holidays in the zones is supported by the realization that these benefits may be smaller than they first appear. Much or all of the tax relief is taxed away by the

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[160] A. Basile & D. Germidis, *supra* note 3, at 38.

[161] For instance, in Malaysian FIZs no significant income tax was obtained until 1986, 14 years after the first industries were established, because of a mixed regime of tax holidays and other fiscal incentives. *See* ESCAP/UNCTC Joint Unit on Transnational Corporations, *supra* note 39, at 26.

[162] Note, *Export Processing Zones*, *supra* note 136, at 483.

[163] UNCTAD, EPFZs in Developing Countries, *supra* note 81, at 25. For a study on the significance of tax holidays, see Lim, *Fiscal Incentives and Direct Foreign Investment in Less Developed Countries*, 19 J. Dev. Stud. 207 (1983).

[164] For instance, Senegal offers tax exemption until 1999, and Egypt offers an unlimited period. *See* J. Currie, The Growing Role of EPZs, *supra* note 22, at 22.

home country of the foreign investor, unless there is a tax-sparing treaty between the home and the host country or profits are reinvested in the subsidiary.[165] Tax-sparing agreements are bilateral treaties allowing both host and home countries reasonably to benefit from taxes paid by TNCs. In the absence of such agreements, most home countries offer transnational investors only a partial tax-credit, which allows them to charge a portion of the tributes paid to foreign governments for operations abroad against their world-wide tax liability.[166]

Some evidence suggests that developing countries may benefit from a low-rate income tax upon zone operations without losing the attractiveness of low-cost manufacturing. It may be argued that TNCs are normally able to reduce or even avoid taxable profits, and consequently income taxes, through the mechanism of transfer pricing.[167] However, since FIZs are usually low-tax locations, tariff payments are not relevant for customs-free zone operations, and exchange controls do not apply in most zones, the actual risk of transfer pricing to host countries seems significantly low in zone manufacturing, even in the case of vertically integrated industries.[168]

3.2.5 Incentive Measures: A Race to the Bottom

Some years ago, William Cary published a highly controversial article on the phenomenon that occurred in U.S. corporate law during the first decades of this century. At that time, several states in search of new sources of revenues entered a "race to the bottom" by offering more favorable and "enabling" corporate statutes to attract the lucra-

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[165] As Lessard and Hansen put it, in some cases tax relief simply ends up being a transfer of resources from the developing country's treasury to the home country's treasury, providing no incentive at all to the investor. *See* Lessard & Hansen, *Host Government Regulations and Incentives for Foreign Direct Investment*, in 1 NEGOTIATING FOREIGN INVESTMENTS: A MANUAL FOR THE THIRD WORLD 3.1B 11-12 (R. Hellawell & D. Wallace eds. 1982).

[166] For a survey of home-countries' tax credits for income taxes paid abroad, see Anthoine, *Provisions in Tax Laws of Developed Countries Bearing Upon Private Direct Investment in Developing Countries*, in UNITED STATES TAXATION AND DEVELOPING COUNTRIES 43 (R. Hellawell ed. 1980).

[167] Transfer pricing occurs when the accounting price at which an intra-firm transaction takes place differs from the price that would prevail in an arm's length market. Transfer pricing provides the company with the chance to reduce its global tax liability by transferring accounting profits to low-tax countries, to reduce ad valorem tariff payments by understating the value of imports, and to avoid exchange controls by disguising capital transfers as expenditure flows. *See* M. CASSON, *supra* note 95, at 17.

[168] As transfer pricing is a problem both to developed and developing countries, the latter should take advantage of recent developments in foreign trade laws and tax policies of the former, which increase the possibility of controlling and regulating transfer pricing, through the application of methods for determining arm's length reference values. *See, e.g.*, I.R.C. § 482 (West Supp. 1988).

tive business of incorporation. Delaware succeeded in achieving dominance by virtue of its liberal and tolerant Corporate Act, becoming "both the sponsor and the victim of a system contributing to the deterioration of corporate standards."[169] Something similar to the U.S. experience is happening today in the foreign investment area. As the attractiveness of foreign investment grows, as the competition for that investment becomes more global, and as capital supply diminishes, the specter of "foreign investment wars" looms ever larger.[170] Arrival at the bottom, where host country benefits are imperceptible, seems to be the predictable outcome of this unreasonable race.

The investment wars are readily noticeable in FIZs, where incentive measures are considered to be part of the concept.[171] According to UNCTAD, this competition tends to be heavy, and as a result "there seems to be a tendency to provide increasingly attractive fiscal and financial incentives."[172] Although, as discussed above, investors see certain incentives as secondary, countries seem to believe that it would be unwise not to offer such incentives if they are available elsewhere. Under these circumstances, the criteria when designing an incentive package are no longer what the country needs to offer in order to attract industrial investment, but what the other zones are offering to potential investors. It is a question of competitiveness, rather than an inquiry into the country's needs and relative advantages.

Several risks arise as a consequence of this race to the bottom. The most obvious is the danger of overstepping the frequently unpredictable boundary between net gains and losses.[173] From the macro perspective of third world countries as a whole, it has been argued that competition in providing incentives for exports "would merely result in the transfer

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[169] Cary, *Federalism and Corporate Law: Reflections upon Delaware*, 83 YALE L.J. 663, 666 (1974). For a more recent discussion on the subject, see Fischel, *The "Race to the Bottom" Revisited: Reflections on Recent Developments in Delaware's Corporation Law*, 76 NW. U. L. REV. 913 (1982).

[170] *See* Encarnation & Wells, *Sovereignty en garde: Negotiating with Foreign Investors*, 39 INT'L ORG. 47, 48 (1985).

[171] As one author puts it, "there is now severe competition to attract foreign investment by offering a package of inducements through free trade zones." Karunaratne, *supra* note 29, at 220.

[172] UNCTAD, EPFZS IN DEVELOPING COUNTRIES, *supra* note 81, at 6. This statement should, nevertheless, be compared with a previous report by the same international organization, suggesting that an "investment war" between zones is not likely to occur because the investment decisions of foreign firms seem to be based primarily upon more fundamental factors than removable government incentives. *See* UNCTAD, INCENTIVES FOR INDUSTRIAL EXPORTS, *supra* note 57, at 24.

[173] It has been reported, for example, that "because of growing competition the countries concerned are moving towards extremely liberal investment codes . . . [that] run counter to any effort . . . in the direction of improving social legislation and working conditions generally." A. BASILE & D. GERMIDIS, *supra* note 3, at 58.

of resources from the developing to the developed countries without necessarily increasing the overall level of such exports from the developing countries."[174] Moreover, given the reported mobility of zone industries, the danger of relocation of existing firms to lower-cost sites promising of increasingly better and more effective incentives ought to be considered.[175]

Policy-makers in developing countries may reasonably question whether a country not willing to participate in this race may successfully operate an FIZ. There is empirical evidence suggesting an affirmative answer, although it refers to countries enjoying or having enjoyed particularly favorable circumstances. One of these is Taiwan, a country that imposes several restrictions on foreign investors. For instance, foreign investors must have no adverse effects on hinterland industries, export all their products, invest a minimum of $1.5 million, and include at least twenty-five percent local inputs.[176] Despite these restrictions, Taiwan has succeeded in attracting a substantial amount of foreign investments.[177]

In recent years, concern about foreign investment wars has increased considerably. A few proposals for stopping the race have been presented, the feasibility of which will be further discussed in the last part of this study. Commentators such as Cable and Murkherjee have insisted that the best way to minimize the costs of such competition is to establish coordinated incentive policies to reduce the extent of competitive bidding for investment.[178]

3.2.6 The Question of Appropriate Technology

Transfer of technology is a particularly delicate issue when analyzing transnational investment in developing countries. Host governments may reasonably expect to benefit from the know-how of industrial investors. This would allow the host country to learn by doing and, ultimately, to undertake industrial production with local resources. The conflict arises when such expectations confront the legitimate interest of TNCs in retaining their industrial knowledge.

Evidence suggests that this conflict is somewhat less significant in

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[174] UNCTAD, Incentives for Industrial Exports, *supra* note 57, at 5.
[175] *See* UNCTAD, EPFZs in Developing Countries, *supra* note 81, at 28-29.
[176] *See* Jayawardena, *supra* note 7, at 430.
[177] A similar situation occurred in Mexico where the application in the FIZs of tax and labor laws in force all over the country has not deterred foreign investors from setting up enmasse in the zones. *See, e.g.*, Note, *Mexico's Maquiladora Program*, *supra* note 151, at 128-35.
[178] Cable & Mukherjee, *supra* note 93, at 98.

the context of foreign investments in FIZs. There are several reasons that explain this phenomenon. One is that transfer of technology itself is only a marginal aim of developing nations when establishing zones. On the other hand, developing countries are increasingly aware of the fact that most zone investors are vertically integrated assembling plants.[179] Technically sophisticated pre-assembly phases usually remain located in the home countries.[180] Another factor influencing the relatively low interest of developing countries in encouraging transfer of technology in the zones is that the aim of promoting employment implies a preference for labor-intensive operations, usually tied to low-tech and standardized production of goods in the mature phase of their life-cycle.

There is a separate issue of technology use in the zones that policy-makers have been facing for several years: that of the "appropriate" technology.[181] In a 1979 essay, Gustav Ranis emphasized that choosing appropriate technology means selecting both production and products in relation to the capabilities and objectives of a given society at a given stage of its development.[182] Accordingly, third world countries should give priority to the use of technology that is consistent with the aims constituting the rationale of the zones at a given time. If employment generation and foreign exchange earnings are the main concerns, it is clear that, *ceteris paribus*, labor-intensive technologies will be preferred, for they create more employment while saving foreign currency spent on capital goods.[183]

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[179] For instance, the Regulations of the Customs Law of Mexico define a "maquiladora" (i.e., an enterprise operating in Mexican free perimeters) as a "company, individual or establishment, service, or any other kind of in-bond program approved and registered with the competent authority, *engaged in the transformation, assembly or repair of merchandise or raw materials originating abroad, and temporarily imported to be returned abroad*" (emphasis added). Note, *Mexico's Maquiladora Program*, *supra* note 151, at 110 n.1.

[180] This general rule may, in fact, have certain exceptions, as has reportedly occurred in Mexico, where "[t]he RCA plant in Ciudad Juárez operates the most advanced computer-run machinery of the firm's operations worldwide." Meissner, *supra* note 83, at 261-62.

[181] Julio Cortes has defined appropriate technology "as a body of technological solutions and knowledge of any kind or level that will favor the effective solution of specific problems within a given context and that will lead to a different way of thinking and acting." *See* Cortes, *Appropiate Technology: Obstacles and Strategies*, in INTERNATIONAL TRADE, INDUSTRIALIZATION AND THE NEW INTERNATIONAL ECONOMIC ORDER 175 (J. Lozoya & R. Green eds. 1981).

[182] *See* Ranis, *Appropriate Technology in the Context of Redirecting Industrial Development Strategy: Concepts and Policies*, in U.N. INDUS. DEV. ORG., CONCEPTUAL AND POLICY FRAMEWORK FOR APPROPRIATE INDUSTRIAL TECHNOLOGY 50 (1979).

[183] An International Labour Office study found that it may be counter-productive to compel TNCs to choose labor-intensive technologies, as they will select them anyway

Finally, it is interesting to note that experience corroborates that countries' technological priorities in individual zones may change with time. Such a change has occurred in relatively industrialized countries such as Taiwan, where Science Parks have now been established to promote high-tech transnational investments in special-purpose FIZs.[184]

3.2.7 Zone Location and Regional Development

An overview of FIZs in third world nations reveals that most countries select relatively underdeveloped regions to establish zones, believing that increased economic activity will entail a boom effect in the economy.[185] The theory that regional development could be promoted through industrial areas was widespread in developing countries and, along with the concept of industrial estates, was closely tied to the origin of FIZs.[186] An Indian economist observed that dispersal of industries on a regional basis has been regarded as fruitful and recommended that the policy of decentralization of industrial activities be adopted by countries trying to bring economically stable and regionally balanced industrial development.[187]

Economic activity in the zones may hasten the integration of underdeveloped or remote regions into the cultural and economic mainstream of the country.[188] However, unequal results have been obtained in achieving regional progress through zone operations. Success has frequently depended on the potential linkages with the regional economy, although arguably the mere installation or improvement of certain public services that accompany the establishment of an FIZ yields benefits for the surrounding area.

Zones have been regarded as regional economic boosters in coun-

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if those technologies are commercially competitive. *See generally* INT'L LABOUR OFF., TECHNOLOGY CHOICE AND EMPLOYMENT GENERATION BY MULTINATIONAL ENTERPRISES IN DEVELOPING COUNTRIES (1984).

[184] *See* J. CURRIE, EPZS IN THE 1980S, *supra* note 20, at 9.

[185] The promotion of regional development through industrial decentralization is considered by several countries to be one of the principal considerations for establishing a zone. As to China, it "regarded its Export Processing Zones as comprehensive zones aimed at promoting regional development." ESCAP/UNCTC JOINT UNIT ON TRANSNATIONAL CORPORATIONS, *supra* note 39, at 16.

[186] "Once an industrial estate is set up in a given locality, therefore, having regard to such factors as population density, present and potential resources, trade prospects of the surrounding area, it gets the potentiality of serving as an industrial nucleus or economic base for the community as a whole." K. BANDYOPADHAYA, INDUSTRIALIZATION THROUGH INDUSTRIAL ESTATES: A PATTERN OF ECONOMIC DECENTRALIZATION 16 (1969).

[187] R.K. BHARTI, INDUSTRIAL ESTATES IN DEVELOPING ECONOMIES 14 (1978).

[188] *See* Note, *Foreign Trade Zones in Latin America*, *supra* note 7, at 120.

tries such as Malaysia, Mexico, Haiti, Sri Lanka, the Philippines, and Brazil.[189] Notwithstanding the general rule that zones foster regional economic booms, there have been important exceptions in countries such as Chile, Guatemala, and Uruguay, where the local impact of the zones has been rather insignificant. Even in relatively successful FIZs, such as those in Colombia, it has been reported that regional impact has been quite irrelevant and that "the zones do not seem to have a significant potentiality as instruments for regional development."[190]

3.2.8 Extraterritoriality: A Country Within A Country?

FIZs are deemed to enjoy an "extraterritorial" status, i.e., a juridical fiction that exempts activities held in a designated area from the application of rules and regulations in force in the rest of the country. Several factors appear to justify such a qualification, the most relevant being the customs-free character of the zones, according to which "for all intents and purposes movements to and from free trade zones and domestic tariff areas . . . constitute movements between two countries."[191] The extraterritoriality is reinforced by the fact that the establishment of an FIZ is frequently complemented by the creation of a relatively autonomous public entity to governing industrial and commercial activities within the zones.

On the other hand, FIZs are usually considered to be policy enclaves, in which the government can implement policies not necessarily consistent with those applied in the rest of the country. In fact, the zones have been regarded by some countries, such as India, as instruments to implement policies designed to isolate the export sector from the local economy, based on the concept of import substitution. Similarly, China and other countries have found in the zones an opportunity to open their doors to foreign investment, without altering the domestic economic scheme.

A factor reinforcing the notion of extraterritoriality is the special incentive measures offered within the zones. Ad hoc tax and labor regimes create an important distinction between the two legal frameworks under which zone industries and domestic manufacturers operate. The

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[189] A psychological impact has been reported in the Manaus FIZ in Brazil. Reportedly, the collective consciousness in a region "formerly accustomed not to harbor grand hopes and to live harshly" is of non-measurable value as an impetus for regional development. R. DE OLIVEIRA PONTES, ZONA FRANCA: FATOR DE DESENVOLVIMENTO PARA A AMAZONIA OCIDENTAL 9 (1977), *cited in* Note, *Foreign Trade Zones in Latin America*, *supra* note 7, at 136.

[190] Giraldo, Prada & Turriago, *supra* note 34, at 47.

[191] Jayawardena, *supra* note 7, at 428.

dissimilarity is even greater in those countries where dispute resolution agreements, submitting to international arbitration any controversy involving zone investors, have been signed. Sri Lanka is a good example of such a situation, in which domestic investors may not be sued in ordinary domestic courts.[192]

But extraterritoriality is not only a legal status. Other factors, such as physical boundaries, internal policing devices, few linkages with the local economy, and the dominance of TNCs, reinforce the appearance of zones as foreign enclaves. "Since assembly production is often clustered in compact and politically discrete free manufacturing zones, it is criticized as an enclave of foreign interests."[193]

Developing countries have faced several problems as a consequence of the extraterritoriality of the zones. Some are primarily legal, including the inconvenience of running two distinct legal systems with rather different policies in force.[194] The problem is particularly acute because some basic principles orienting the economic policies of most developing countries are inconsistent with the zone concept itself or with the aims of the country when establishing FIZs. There are also social problems that emerge as a consequence of the country-within-a-country status. For example, cultural alienation has been reported in the Mexican-U.S. border region, supposedly originating from the industrial "yankeezation" of zone operations.[195] Reportedly, when offshore activities are "seen from the distant capital, Mexico City, the border region appears more nearly integrated with the United States than with Mexico."[196]

Finally, one author has underlined the fact that unequal economic development between the zones and the surrounding areas may constitute a source of social problems,[197] a fact frequently exacerbated by the

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[192] Sri Lanka is a signatory to the 1965 Convention on Settlement of Investment Disputes between States and Nationals of States. *See* J. CURRIE, EPZS IN THE 1980S, *supra* note 20, at 136.

[193] J. GRUNWALD & K. FLAMM, *supra* note 101, at 229.

[194] A good illustration of this problem, in a developed country may be found in decisions involving U.S. FIZs, where jurisdictional uncertainty on the application of federal and state laws has been reported. For instance, one New York federal court held U.S. patent law applicable to zone-based transactions, G.D. Searle & Co. v. Byron Chemical Co., 223 F. Supp. 172, 174 (E.D.N.Y. 1963), whereas a New York state court held that local regulations on liquor trade do not apply in Foreign Trade Zones. During v. Valente, 267 App. Div. 383, 46 N.Y.S.2d 385 (1944). *See generally* Bader, *supra* note 17, at 246-254; Note, *Foreign Trade Zones*, *supra* note 14, at 739-748.

[195] *See* Meissner, *supra* note 83, at 261.

[196] J. GRUNWALD & K. FLAMM, *supra* note 101, at 230.

[197] *See* Utrecht, *Gains and Losses in 25 Years of Export-Oriented Industrialization in South and Southeast Asia*, in TRANSNATIONAL CORPORATIONS AND EXPORT ORIENTED INDUSTRIALIZATION 156 (E. Utrecht ed. 1985).

presence of foreign corporations, managers and technicians. "Appalling social conditions caused by unequal economic development, have become sources of social unrest and upheaval in areas where impoverishment has created problems of life or death."[198] Despite the drama of such a statement, it is not difficult to imagine that industrial-enclave operations in traditionally poor and relatively underdeveloped regions may in fact cause social disturbances.

3.2.9 Tea for Two? Local Entrepreneurs and the Zones

Some developing countries still see FIZs as a game that only host governments and foreign investors can play. However, the recent history of several zones has shown that domestic investors may successfully participate, particularly through international subcontracting, in joint ventures or export-oriented free-lance industries. Experiences in countries such as Colombia, India, and more recently South Korea, have shown that positive effects may arise from allowing domestic investments in the zones. Among the benefits are an expected increase in linkages with the domestic economy, acquisition of industrial and marketing expertise at international standards, development of local entrepreneurship and management skills, and an increase in foreign exchange earnings that will remain in the country.[199]

There are various other factors driving developing countries' governments not only to allow local investments, but also to encourage domestic participation. A preference by foreign investors to engage local businesspeople as partners in joint ventures has been reported.[200] An anticipated contraction of capital flows from industrial countries may be another consideration for garnering local participation; local investments are now permitted even in countries that originally banned them. This is the case with Pakistan, which recently shifted from a 100%-foreign-owned capital requirement to encouraging domestic participation through joint-ventures.

3.2.10 Zone Exports and Neo-Protectionism

As discussed in the preceding sections, transnational investments in FIZs take place primarily through assembling subsidiaries, vertically-

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[198] *Id.*

[199] Charles Oman lists other benefits that apply in particular to subcontracting and joint ventures, such as reducing foreign investor's scope for transfer pricing, controlling absorption of local savings or external indebtedness, favoring the development of local technological capacity, etc. *See* C. OMAN, *supra* note 65, at 96.

[200] *See* J. CURRIE, EPZS IN THE 1980s, *supra* note 20, at 45.

integrated companies, international subcontractors and local export industries. Most of these forms of investment fall into the category of so-called off-shore manufacturing. The concept of off-shore manufacturing encompasses those industrial operations that TNCs relocate in developing countries in order to lower costs of production, although their output is primarily intended to be exported to the TNC's home country or to other industrial countries. The typical off-shore transnational investor is a business organization originally wholly-based in a developed nation, which has been forced to move one or more stages of its industrial process, usually labor-intensive stages, to a third-world location in search of lower production costs. The motivation for this type of move is due primarily to factors such as increasing competition from foreign products in the home market or the fact that a given product has reached the "mature" phase of its life-cycle.

Developed countries have been indirectly supporting vertically integrated manufacturing, and thereby zone production, by limiting the application of tariffs to value added abroad. In addition, off-shore investors have been taking advantage of preferential access to industrial-country markets, granted to manufactured imports from developing countries through international trade arrangements such as the Generalized System of Preferences[201] or the Lomé Convention.[202]

In recent years, however, much concern has been raised in developed countries over the negative effects of encouraging the relocation abroad of labor-intensive stages of production. Phenomena such as the so-called "export of jobs" to third world nations, the deterioration of the balance of payments in important industries, and the loss of international competitiveness through the leakage of technology[203] have been identified to support these claims, primarily by workers' unions and industry associations.[204] Unfortunately, political pressure exercised by these groups has resulted in an overestimation of the effects of manufactured imports from developing countries on the economy of industrial countries, and a defensive attitude has taken in the shape of a new

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[201] The Generalized System of Preferences was originally introduced in Geneva at the first UNCTAD in 1964, when developing nations realized that the equal-footing negotiations and arrangements of the General Agreement on Tariffs and Trade (GATT) were nothing but an inconvenient illusion, and the necessity of a preferential treatment for third world exports was recognized. *See Economic and Social Questions*, 1964 *U.N.Y.B.* 195, at 200-01, U.N. Sales No. 65.I.1.

[202] Lomé Convention, Feb. 28, 1975, Africa-Caribbean-Pacific—European Economic Community, O.J. DUR. COMM. (No. L24) 1 (1976).

[203] *See* J. GRUNWALD & K. FLAMM, *supra* note 101, at 8.

[204] For a recent example of this trend, see *Maquiladora Impact on U.S. Jobs and Trade Competition with Japan: Hearing before a Subcomm. of the House Comm. on Government Operations*, 100th Cong., 1st Sess. (1987).

wave of protectionism that characterizes this stage of international trade in manufactures.

Ernst Utrecht has pointed out that developed countries' protectionist policies constitute one of the most serious threats to the very existence of FIZs in developing countries.[205] As the success of the zones is closely related to the expansion of off-shore manufacturing in the context of the new international division of labor, any measure that industrial countries take against the latter will directly affect the former. The irony of this situation is that the negative effects of off-shore manufacturing upon the developed countries' economies are likely to be minimal, even with respect to unemployment, admittedly a legitimate concern. Conversely, industrial countries' gains, in lowering costs for consumers through overseas production and allowing certain industries to remain competitive, are quite significant.

The fact is that neo-protectionist measures against zone exports are seriously threatening the future of FIZs in developing countries, while such measures are not likely to solve any problems in mature economies. In any event, developed countries should recognize that in many cases "the alternative to export-platform production is not the retention of production in the mature economy, but the transfer of the entire industry" to a third world location.[206]

3.2.11 Export Orientation and Access to the Host Market

Evaluating foreign investments in low-income developing countries, Cable and Mukherjee suggest that purely export-oriented investment is difficult to attract and that countries with large internal markets could offer zone products some degree of access, with or without full payment of duties, as a means to render the prospect of investing in their FIZs more appealing. According to these authors, one major reason for the almost negligible foreign presence in the Kandla FIZ in India is the virtual lack of access to the domestic market.[207] Other countries with relatively large domestic markets such as Brazil, Mexico, China, Korea, and Taiwan provide incentives to firms to set up in the zones by allowing foreign investors to sell part of their output in the local market. The Chinese experience demonstrates the interest of TNCs in entering traditionally closed markets through zone manufacturing, as foreign investors are seeking and gaining access to local sales

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[205] Utrecht, *supra* note 197, at 147.
[206] *See* M. Casson, *supra* note 95, at 6.
[207] Cable & Mukherjee, *supra* note 93, at 100.

rather than concentrating on exports.[208]

The decision to allow FIZs' products to be commercialized in the local market is not an easy one. It raises the dilemma of reaching a balance between the interest of the country in attracting foreign investments and the need to protect domestic industries. Another conflict appears between the objective of generating foreign currency, inherent to the establishment of FIZs, and the potential local consumption of import-intensive goods produced in the zones.

Evidence suggests that access to the host market, although not an ordinary feature of FIZs, may constitute an additional inducement for prospective investors, particularly for zone-manufactured products which do not compete with domestic manufactures. Equally important, access to the home market may turn out to be a convenient way to substitute imports. In Sri Lanka, for instance, a glass manufacturer was allowed to sell fifty percent of its production domestically, even though the general rule is to permit no more than ten percent of local sales.[209]

Foreign investors may also be interested in investing in developing countries which participate in extended-market regimes, such as those of the Andean Group, the Arab Common Market, or CARICOM, in order to be entitled to freely commercialize zone products in countries other than the host nation.[210] Similarly, countries which have special tariff arrangements for exporting manufactures to third markets could replicate such incentives, if they were to include zone products in their quotas, provided that certain requirements of minimun local content were met.[211]

In summary, the regulatory potential of authorizing local sales, or of providing foreign investors with preferential access to regional or third markets, has gone generally unexplored. Indeed, this field may offer an important feature to help make the zones more attractive and profitable, in accordance with the country's needs and potentials.

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[208] *Id.* at 104.

[209] *See* A. BASILE & D. GERMIDIS, *supra* note 3, at 39.

[210] For instance, article 36 of the Colombian Free Zones Statute establishes that industrial companies installed in the Free Zones may benefit from the Free Trade Program of Andean Pact, provided that they comply with the applicable regulations of the Cartagena Agreement. Law No. 109 of 1985, art. 36, *reprinted in* COLOMBIA EXPORTA, *supra* note 35, at 5.

[211] This has reportedly occurred in countries such as Sri Lanka that enjoy commodities' export-quotas to developed countries but do not produce enough manufactures to fill them. Producers from the newly industrialized nations have been investing in those countries merely to take advantage of their unused quotas. *See* Jayawardena, *supra* note 7, at 441.

3.2.12 Political Instability and Footloose Industries

According to recent surveys, political stability ranks among the most significant elements that TNCs evaluate when considering an investment decision in a third world country.[212] A 1983 study suggests that TNCs operating in developing countries carefully analyze the political environment in making their business decisions.[213] A complete evaluation of the political climate through the investors' eyes would encompass not only the degree of vulnerability of the country's *status quo*, but also the attitudes of the government and of the population vis-a-vis foreign investments. Other important considerations are the tradition of respect for generally accepted principles of international law and, more generally, the reliability of the country's legal system.

In addition to the well-known political risks faced by transnational investors in developing nations, other elements may enhance their risks in the context of zone investments. Political vulnerability seems to be considerably higher due to the exceptional regime of the zones. The "foreign enclave" status characteristic of FIZs may also turn into a possible source of social conflicts and political questioning. Moreover, the fact that host countries' benefits from the zones frequently fall far below expectations could create an adverse political climate for zone operations.

These and other risks are familiar to transnational investors, and therefore host governments have attempted to neutralize the potentially pernicious effects by granting special legal safeguards to zone producers. Countries such as South Korea and Sri Lanka have signed multilateral and bilateral agreements with home-country governments to guarantee zone investments against nationalizations and to submit to arbitration any dispute between zone authorities and foreign investors.[214]

Nonetheless, political risks may be mitigated considerably by the simple production structure that characterizes zone industries. Since vertically-integrated transnational enterprises split their manufacturing activities between several countries, their overall exposure to risk is lowered relatively. Thus, diversifying production among countries is an explicit strategy of TNCs for reducing the risks of political and eco-

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[212] For instance, a linkage has been found between the political instability in Panama since late 1987 and a decrease in the interest of potential investors in visiting the Colon FIZs. *See* S. Salcedo, *supra* note 7, at 54.

[213] *See* J. Austin and D. Yoffie, Political Forecasting as a Management Tool 1 (1983) (unpublished paper, available in Harvard Business School Library).

[214] *See* A. BASILE & D. GERMIDIS, *supra* note 3, at 3.

nomic disturbances.[215]

The basic infrastructure usually provided by the host country in FIZs minimizes the installation costs to the company, reducing its exposure to political instability. "The preference for relatively small plants in EPZs, the low investment cost per workplace, the use of relatively inexpensive and simple equipment, the lack of backward linkages and the availability of standard factory buildings in nearly all zones enable companies to relocate production from one country to another comparatively quickly."[216] Mobility of zone enterprises is encouraged by the harmful competition among FIZs in developing countries. As the investment portfolio is relatively broad and the disinvestment costs are rather low, TNCs use their footloose character both as a defensive tool to avoid political risks and as a permanent threat to obtain better incentives from host countries.

The more unstable a country's political situation is, the more likely it is that the company will be permanently prepared to move. However, the mobility of zone companies should not be overestimated. It may be observed that once a company is established in a zone it will leave it only after determining that the operation is uneconomical or under extraordinarily precarious circumstances. Cases in which firms have left FIZs overnight are considered exceptional.

4. Law and Policy Implications for a Zone Strategy

Throughout this study, several problems arising from the implementation of the concept of FIZs in the third world have been identified. In most cases, such problems have prevented developing countries from maximizing the benefits they could have obtained from operation of the zones, or have even turned what could have been a relatively important tool for economic development into a useless waste of resources. The last section of this article suggests policy guidelines and legal mechanisms that third world countries could adopt to mitigate, or eventually eliminate, certain problems that may arise from the establishment and operation of FIZs. Several such legal and policy instruments have already been successfully adopted by one or more countries. Others have not yet been tested in the context of individual zones but are thought to be potentially useful for solving certain specific problems that FIZs are facing today. None of these instruments is supposed to be applicable in all zones, but they all should be considered by developing nations engaged in adapting the zone concept to meet their own needs

[215] *See* J. Grunwald & K. Flamm, *supra* note 101, at 218.
[216] UNCTAD, EPFZs in Developing Countries, *supra* note 81, at 6.

and possibilities.

Of course, it must be borne in mind that even a well designed and efficiently operated FIZ is far from being a panacea. A country must carefully evaluate the economic feasibility of a zone and its potential social and economic impact before seriously considering an appropriate strategy for zone development. Conducting a detailed social cost-benefit analysis in advance to evaluate the pros and cons of setting up a zone in a particular location is advisable. All policy recommendations discussed below are suggested with the assumption that the outcome of such an evaluation has shown the viability of establishing an FIZ in the concerned country.

At this point, it should be remembered that the success of a particular FIZ does not depend solely upon a positive evaluation of its economic feasibility or on an adequately structured and implemented law and policy framework. Several social, economic, and political factors, both internal and external, may alter the circumstances, deciding the zone's fate in unpredictable ways. Governments would be well advised to follow closely any internal or external development that might affect the operation of the zones and to evaluate, in view of the particular circumstances, whether a variation in individual zone policies should be implemented.

4.1 General Guidelines for a Zone Strategy

Policy recommendations must always be addressed to particular issues. As a matter of fact, policies should always be tested for their possible effects in a particular scenario. However, one can recognize certain general patterns that might lead policy-makers to respond to individual policy questions more adequately. This section attempts to suggest such guidelines in the context of designing and structuring policies and regulations for more efficient operation of FIZs.

This study has revealed some structural features that developing countries may find useful to consider when drafting particular rules to be applied in FIZs. The first is that zone policies should be designed and structured only after identifying the aims that the country intends to accomplish through the operation of the zones, considering its own economic potential and comparative advantages. The country should rank these goals according to its own needs and priorities, and only after that should it structure a zone strategy.

Another important point made evident throughout this study is that FIZs, despite their conceptual simplicity, imply in their implementation the convergence of various individual policies—on employment, taxes, and foreign exchange, for example—that will apply exclusively within the bounded area. As the development strategy of the country may be affected by or may overlap with such zone policies, it is quite obvious that the ideal performance of the zones will not be attained unless the overall development strategy of the country is considered when drafting individual zone regulations.

The preceding statement raises the issue of extraterritoriality. The extraterritorial status of FIZs is nothing but a legal fiction created to justify or to facilitate the adoption of exceptional policies and legal norms that will apply only within the zones. The significance of extraterritoriality should not be overestimated by developing countries. It is nothing but an artificial tool for regulation, and being such, it may occasionally be disregarded in the event that it becomes an obstacle to the attainment of developmental goals, or if it compromises the country's rule of law. There are, of course, certain advantages that the country gets from the exceptional status of FIZs, the main one being that zone policies need not be consistent with the overall economic policies in force in the rest of the country. The natural limit on this license is that zone regulations should never contradict the country's overall developmental objectives or endanger the consistency of the country's public policy.

Because several zone policies will be different from those in force in the rest of the country, efforts should be made to effect policies which are both comprehensive and coherent. Even though most policies applying in the FIZ will be the same as those in force in the rest of the country, it would prove valuable to approach zone policy-making as a separate set of policies, in the sense that the outcome should be a systematic body of rules and regulations that will apply exclusively in the zones. For the same reason, zone policies should be particularly uncomplicated and stable, especially when the country's goal is to attract a steady flow of long-term investments. Again, the exceptional policies applying in FIZs, incentive measures in particular, are likely to generate skepticism among both foreign and domestic companies. Easily removable regulations and clearly inconvenient concessions may generate doubt concerning the stability of zone policies and may have a negative impact on potential investors.

A relevant lesson to be gained from the past experience of FIZs is that governments engaged in structuring them should always consider those trends and developments in international trade and investment that may affect the zone's operation. In fact, external political and economic factors may dramatically alter the zone's scenario and encourage the adoption of one individual policy instead of another.

Finally, evidence suggests the advisability of centralizing both the design and execution of zone regulations. This goal could be attained through the creation of a relatively autonomous zone authority to work on such zone policy design and execution. Centralization in the decision-making process entails standardization of criteria and avoids inconsistencies in policy structure and implemention. Moreover, centralization might facilitate the operation of zone enterprises and lower their administrative costs, as they would have to deal only with one government agency.

4.2 Law and Policy Recommendations for a Better Performance of FIZs

4.2.1 Zone Strategy and Industrial Development

The role that FIZs can play in the quest for industrialization is still unclear for most developing nations. In terms of industrial development, what can a country expect from establishing a zone? Should the industrialization goals be confined to setting up manufacturing plants within the bounded industrial area? Is it sensible to expect a broader impact in the whole country or at least in a selected region? Although the answers to these questions are necessarily related to the actual industrial potential of the country, some evidence suggests that the impact of the zone on industrialization may have a wider ambit than merely being an outward-oriented industrial estate.

In order to maximize the zone's effects on industrialization, a developing country should see zone industrial policy as a branch of its overall industrialization scheme instead of looking at zone policy as a separate strategy. Zone industrial policy should be coordinated with the country's industrialization strategy, and FIZs must be considered another instrument to accomplish the industrialization goals of the country. This is not to say that FIZs are only feasible in the context of an export-oriented scheme, or that zone policy must necessarily be consistent with the individual industrialization policies in force in the rest of the country, as exceptional regimes will often be in force within the bounded area.

One practical consequence of such a macro perspective on the zones is related to the selection of investment projects, technologies, and products to be encouraged in the zones. A coordinated approach to zone industrial policy would lead the country to prioritize in FIZs those projects that are more likely to accomplish the overall industrialization objectives. A macro perspective may also influence priorities regarding the type of investors the country is willing to attract, namely, foreign subsidiaries or branches, joint ventures, or local enterprises engaged in subcontracting or export activities.

The zones' impact on industrialization will definitely be increased by encouraging backward and forward linkages with the domestic economy. Backward linkages might be increased through a minimum-local-content policy that could be implemented by fixing a reasonable minimum percentage of domestic inputs in zone products or through case-by-case negotiations with zone investors, depending on the host government's administrative capacities. The minimum-local-content requirement might be adjusted according to the destination of the companies' production. For instance, higher local content might be required in domestic-market-oriented industries.[217] However, locally manufactured inputs often do not reach the quality standards required in industrial-country markets. The minimum-local-content rule might be achieved by sponsoring or inducing temporary supervision by zone enterprises of potential domestic suppliers' production. Such domestic industries might also be induced via incentive measures to reach the standards of quality required by zone enterprises.

Backward linkages may also be increased by encouraging participation of local entrepreneurs in the zones, through joint ventures, subcontracting, or free-lance export industries. Domestic investors will naturally find it convenient to utilize domestic inputs, particularly when they are acceptable by international standards. Local participation may also serve to develop export-oriented domestic entrepreneurship and to increase net foreign exchange earnings, two features that have already been discussed above.

Although FIZs usually are related to export-oriented schemes, countries may find it convenient to allow zone production limited access to the domestic market as a means to increase forward linkages with the domestic economy and/or to substitute imports. Competition through forward linkages may contribute to raising the quality standards of local industries, although it also risks jeopardizing the subsistence of formerly protected, inefficient domestic industries. A country might evaluate the advisability of granting zone producers access to the domestic market on a case-by-case basis, considering in its analysis both the convenience of increasing forward industrial linkages and the feasibility of import substitution. At the very least, the country must establish a local content requirement that would guarantee at least a neutral

[217] Similarly, a given value-added might be established to allow zone industries to participate in export quotas granted to the country by developed nations through existing systems of tariff preferences. This possibility will be further discussed below, when considering of the impact of FIZs on the country's foreign trade policy.

balance-of-payments impact for each zone industry.[218]

Import-substitution may be an extremely important consideration when evaluating the convenience of granting zone producers some access to the domestic market, as well as when ranking investment projects to be encouraged in the zones. In fact, the customs-free regime characteristic of zone manufacturing and the incentive measures frequently offered in the zones should result in comparatively lower production costs than those for the domestic industries. This could make it economically feasible to undertake production in the zones of goods formerly imported.

An interesting policy question that developing countries may face when establishing an FIZ is whether domestic industries should be allowed to move to the zone. There are certain pros and cons that policy makers should consider before reaching a decision on the issue. Among the latter, FIZs constitute a significant investment made under the assumption that zone industries will create new jobs and additional income for the country. Furthermore, the country will typically receive considerably fewer benefits in customs duties and taxes from a zone enterprise than those from a domestic industry. Nonetheless, the zones may be an adequate place to relocate export industries, which normally enjoy special regimes, in low-cost export platforms, thereby giving them additional advantages to compete in the international market. This would be particularly important for those enterprises that use a large portion of imported inputs and in countries where production costs are significantly higher outside the zones.

In any case, the costs of moving an enterprise to the zones should also be considered. Countries may find an alternative in authorizing export industries to operate as sub-zones or bonded manufacturing warehouses, enjoying *mutatis mutandis* the same regime applicable to zone enterprises. Sub-zones may also be extremely useful for those operations that clearly are too large to be installed in the zones. The main problem to be considered in adopting the sub-zone concept is that they require an extensive and efficient system of control which is not likely to be found in most developing countries and which generates additional administrative costs for the host nation.

As for the in-zone industrial policies, developing country governments should always bear in mind the existence of various forms of investment likely to be found in FIZs, all of which have been discussed in the first part of this essay. Those forms of investment are wholly-

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[218] As discussed above, authorization of local sales may also be a very important incentive to attract foreign investors, particularly in the case of countries with large markets.

owned subsidiaries, intra-firm assemblers, international subcontractors, and free-lance local industries. It would prove valuable for zone policy-makers to test the compatibility of every proposed zone policy with each of these types of zone investors, in order to guarantee that zone regulations will be appropriate and applicable to any and all zone manufacturers.

At the same time, host countries may find it advisable to follow closely those new trends and recent developments in transnational trade and investment that are likely to affect the behavior of each of these different types of zone investors. It may also be useful to consider the advisability of formulating separate sets of rules for each of these groups of investors in an effort to maximize benefits to be obtained from FIZs.

4.2.2 Law and Employment Policy in FIZs

Formulating an employment policy for the zones is certainly a difficult task. Both the importance that developing countries assign to the aim of generating employment and the fact that cheap labor is regarded to be the most relevant consideration for transnational investors in FIZs make it particularly difficult to reconcile the frequently conflicting interests between employers and workers. This concern is exacerbated by the fact that most developing countries suffer from chronic unemployment. Policy-makers frequently find themselves facing the dilemma of either improving the standard of living of current workers or liberalizing labor regulations in order to attract new investments that will in turn generate more employment. The rationale of developing countries seems to be to protect the labor standards of zone workers to the extent that they will not discourage potential investors from setting up in the FIZ.

There are, of course, certain problems in labor relations that employment law and policy are clearly in no position to solve. These limitations may be easily noticed when discussing the characteristics of the zones' work forces. The preference of zone manufacturers for young, inexperienced, and unmarried women is unlikely to be changed through the adoption of specific policies to induce companies to alter the composition of their work force.[219] Even if the country's concern is that the

[219] The composition of FIZs' work forces seems to be related to a reported docility of young female workers, insofar as the defense of their employment rights is concerned. A zone entrepreneur in Bangladesh is quoted stating that women are willing to work for as little as $13 a month and accept harsh conditions and long hours without complaint: " 'If I appoint 400 men workers they immediately start making union politics,' he said. 'Not the women.' " *See* Mydans, *In Bangladesh Women Can't Go Home*

typical zone worker may be more subject to abuses, the protection granted by the implementation of labor laws might be as far as the law could go.

Something that developing countries should always consider when structuring employment policies for FIZs is that the most relevant comparative advantage that the country may offer to transnational investors is relatively cheap labor, which can materially lower a company's production costs, thereby increasing its international competitiveness. Policy-makers should always bear in mind that the burden employment rights will place on the enterprise's operational costs must not significantly reduce the zone's relative advantage in labor costs. However, cases of non-observance of international labor treaties and human rights violations have been reported in the zones. Host countries should realize that certain internationally accepted employment rights, not frequently recognized in FIZs, are not considered critical by zone investors. A moderate minimum wage, reasonable hours, and annual holidays are some of the working conditions that transnational investors would typically not even discuss. Labor policies allowing worker exploitation are thus not necessary to appeal to potential zone investors.

On the other hand, experience shows that foreign companies would *not* expect certain employment rights to apply in FIZs, and, therefore, these rights cannot be granted without the zone's losing some attractiveness. Unionization, job security, and participation in corporate governance have proven to be conflicting issues for zone enterprises. This fact does not necessarily mean that those rights will never be granted in the case of zone workers, but it highlights the challenge for lawmakers to regulate labor in a way that would not diminish the zones' attractiveness to foreign investors. Another important fact to consider is that, although the suspension of certain labor and union regulations is supposed to benefit investors, such suspension would not necessarily constitute an advantage for zone enterprises. As wages paid to zone workers are frequently low, poor labor conditions may generate a hostile working environment that would repel, rather than attract, potential investors.[220]

A particularly delicate matter for both zone companies and workers is that of the employer's discretion to cancel at will an employee's contract. Developing countries should realize that this point is frequently considered to be non-negotiable by foreign enterprises, al-

Again, N.Y. Times, Apr. 17, 1988, at 8, col. 4.

[220] Commentators have pointed out that "in the case of a serious crisis the absence of institutionalized mechanisms for concertation may provoke a brutal rupture of social peace." *See* A. Basch & D. Germidis, *supra* note 3, at 34.

though job security has been granted in some successful FIZs. In any case, countries might be interested in trying various methods, such as encouraging fixed-term employment contracts or establishing automatic compensation for employees discharged without a good cause, to alleviate the problem.

Regarding the number of jobs that a zone industry may generate, it might be concluded that labor-intensive operations need not be induced, as they constitute the largest number of industries in FIZs everywhere. The best way of increasing the total number of jobs generated by zone activities is to maximize their potential macroeconomic effects through increasing forward and backward linkages with the domestic economy, not only with the service sector, but also with domestic industries.

Finally, given the interest of third world countries in developing local expertise in producing for the international market, they may also be willing to induce participation of nationals in key managerial and technical positions. Nevertheless, policy makers should be aware of the fact that most zone enterprises are simply structured assembly plants that need very few high-level employees. As most foreign companies operating in the zones are vertically integrated, the relevant management and technical decisions are ordinarily made by corporate headquarters, rather than by the local subsidiary. Thus, there seem to be very few possibilities for generating jobs at the managerial level in FIZ operations.

4.2.3 Tax Law and Policy in FIZs

Most zones are regarded as tax havens, as foreign companies may receive income or own assets without paying the ordinary tax rates upon them, or may simply enjoy tax holidays.[221] A very important tax policy implication of this study is that tax holidays need not be offered to attract foreign investors to FIZs, or at least not to the extent that they are granted in several countries. Various reasons have been pointed out to support such a conclusion. One is that zone locations in themselves offer a significant comparative advantage in production costs vis-a-vis other places, so no additional substantial incentives are required to attract foreign companies. Moreover, tax credit and tax sparing systems existing in several industrial countries make it useless to grant local tax immunities, as zone profits will be taxed in the company's home country.

[221] For an explanation of the pros and cons of tax havens, see Casanegra de Jantscher, *Tax Havens Explained*, 13 FIN. & DEV. 31 (March 1976).

Several studies have concluded that a complete exemption from local taxes does not significantly influence TNCs' investment decisions. Furthermore, certain successful FIZs do not offer tax concessions at all, yet do not lose their appeal to foreign investors. Some evidence suggests that an acceptable regime for FIZs may include taxes to the extent that they would not prevent potential investors from setting up in the zones. On the other hand, it seems that the less complicated a tax regime is, the less harmful it will be considered by manufacturing enterprises. Hence, developing countries may consider imposing a low-rate income tax on zone operations, in lieu of all other taxes applicable in the rest of the country.

An alternative system would be to adopt a case-by-case regime that considers the treatment of local taxes in the investor's home country, e.g., tax crediting or tax-sparing, when deciding whether or not to tax its zone operations. Policy-makers should notice that this regime, in spite of being theoretically more efficient, implies additional expenses in gathering, processing and updating information on the tax systems in force in the investors' home countries. Moreover, imposition of the high tax that may result from such a case-by-case approach would probably generate a serious risk of dealing with transfer-pricing practices. The fact that FIZs typically are duty-free areas, where low, if any, taxes apply and where foreign exchange restrictions are not in force, virtually preserves zone operations from transfer pricing practices.

A valuable system that all third world countries should explore when dealing with the problem of double taxation is that of tax-sparing conventions. Through these agreements the potential home country "grants a credit not only for the tax paid but for the tax spared by incentive legislation in the developing country."[222] The system would allow host nations nominally to establish in the zones the same tax rate that is in force in the rest of the country. The system grants to the investor an additional financial incentive for the difference, without generating extra costs for the developing nation. Tax-sparing treaties are being strongly promoted by international organizations, but they are still far from being widely accepted by developed or newly industrialized countries.

Finally, another legal mechanism that tax-policy makers in developing nations might be willing to consider consists in so-called tax-stability agreements. Through these instruments, host developing countries may agree with zone investors not to raise the income tax rate and not

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[222] U.N. DEP'T OF INT'L ECON. & SOC. AFF., U.N. MODEL DOUBLE TAXATION CONVENTION BETWEEN DEVELOPED AND DEVELOPING COUNTRIES at 104, U.N. Doc. ST/ESA/102 (1980).

to create additional taxes for a given period, in exchange for a promise by the zone company to reach certain economic goals. Examples of potential goals would be to create a certain number of jobs, or to export goods of a given value. The country's obligation may or may not be secured by a local or foreign institution, and any dispute could be submitted in advance to international arbitration under domestic laws.

4.2.4 Technology Policy and Industrial Property Protection

Experience shows that technology transfer is not an issue when defining zone policies with respect to foreign investors. Reasons include the fact that most TNCs in the zones are vertically integrated plants where low-tech assembly operations take place. Moreover, the country's aim of generating employment through zone manufacturing implies that labor-intensive technologies would be preferred to capital-intensive high-tech processes. It would be, of course, extremely difficult to evaluate at this point whether the relatively low interest of developing countries in encouraging transfer of technology at the zones is counter-productive. Evidence seems to support the arguments for paying little attention to this issue. A further rationale for such a position is that technology transfer regulations may unnecessarily generate an additional burden on foreign investors, with no effective benefit for the country.[223]

Those who are still not convinced by these arguments should be prepared to answer questions on the advisability of compelling investors to "transfer" standardized and even obsolete technology, such as that in mature products, and technical knowledge corresponding to particular stages of production, such as that of vertically integrated industries. More importantly, one may end up being confronted with questions on whether policies directed towards technology transfer have succeeded in the past, and on whether some degree of transfer has spontaneously occurred in successful zones despite the absence of exacting regulations.

The issue of encouraging the appropriate technology for the zones is also controversial. Developing countries want to attract new technologies precisely because the countries know very little about them. Yet these nations seem in no position to specify what technologies they are interested in attracting. This problem is aggravated by the fact that most countries consider technology transfer to be a limited aim, if an

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[223] One author has argued that "the elimination of restrictions on the transfer and use of technology is a fundamental prerequisite for the promotion of exports of manufactures from developing countries." *See* Lacarte, *Aspects of International Trade and Assistance Relating to the Expansion of Employment in Developing Countries*, in INTERNATIONAL TRADE AND THIRD WORLD DEVELOPMENT 141 (P. Ghosh ed. 1984).

aim at all, when establishing FIZs. It has been suggested repeatedly that labor-intensive technologies usually are more applicable to the country's goals in establishing an FIZ and guarantee that the investor gets the full benefit of the zone's relative advantages. Although this is likely to be the case, it has been pointed out that such technologies need not be induced by specific policies; zone investors use them anyway when they are more economical.

A different approach to the question of the appropriate technology for the zones might be a negative one, namely to define what technological processes and what products are *not* to be allowed in the zones, according to the country's capabilities and objectives at a given time. Defining inappropriate technologies seems to be less complicated a task for policy-makers and a system particularly appealing to the liberal regimes existing in most FIZs.

It has been argued that off-shore manufacturing in developing countries may be risky for TNCs, specifically in the case of subcontracting, as valuable technology may leak to competitors. Even though most investments in FIZs are low-tech manufacturing plants, it is not extraordinary to find zone industries where technical knowledge is specially important. A similar argument might be made regarding trademarks and tradenames, particularly in the case of the garment and soft drink industries found in several zones. The risk of technology leaking is heightened by the fact that some host countries do not have industrial property regulations that adequately protect technical knowledge, inventions, and commercial names.

Zone investors have been concerned about the protection of their intellectual property rights. Reliability of patent and trademark regulations appears to be a significant consideration in the investment decision. Developing countries that do not have currently in force an intellectual property system considered acceptable by international standards may evaluate the advisability of signing the most relevant international treaties on the matter,[224] notably the Paris Convention for the Protection of Industrial Property of 1883,[225] and to adapt their regulations to the model trademark and copyright laws proposed by the

[224] Raymond Vernon says that the constraints imposed by such conventions by and large have been of minor significance. The conventions have left enough leeway, for example, that countries can refuse to issue patents on certain types of products such as drugs, can fix the life of the patent as they choose, can subject an application to search or not, can define the terms that represent "abuse" of the patent, and can limit the rights of the abusive patent-holder. *See* R. VERNON, *supra* note 1, at 166.

[225] Convention for the Protection of Industrial Property, Mar. 20, 1883, 25 Stat. 1372.

World Intellectual Property Organization (WIPO).[226]

4.2.5 Legal Safeguards for Zone Investors

Political instability is commonplace in the third world to the extent that it seems to be characteristic of developing nations. Governments interested in attracting foreign capital must recognize such reality and should learn to live with it. Their first realization should be that although a coherent and predictable legal system is no longer a sufficient guarantee in itself, it remains a *sine qua non* for foreigners. This is particularly true in the case of exceptional investment regimes such as that of FIZs, where some policies are different from those regulating industries in the rest of the country. Zone policies should be translated into a systematic and consistent body of unambiguous, public, legally noncontentious rules and regulations. Furthermore, enforcement of the investor's rights should be as expeditious and effortless as possible.

A primary concern of transnational investors is to protect themselves against the risk of expropriation. One alternative is a constitutional guarantee against nationalization. Such a provision may allow certain exceptions related to extraordinary circumstances, provided there is prompt, adequate and just compensation. The system has been complemented in some countries with a right to make a claim subsequently before an international court.[227]

Another type of legal safeguard is that of investment insurances provided by governmental institutions of developed countries. For instance, the Overseas Private Investment Corporation (OPIC) offers coverage to U.S. investors against losses resulting from currency inconvertibility, expropriation, war, revolution, or insurrection. A previous agreement with the concerned country is required, according to which OPIC will compensate the insured investor and will subrogate the com-

[226] For a discussion of WIPO's proposed Model Copyright Law, see *State Department Copyright Panel Examines WIPO Copyright Law*, 37 Pat. Trademark & Copyright J. (BNA) No. 914, at 258-59 (Jan. 19, 1989).

[227] This is theoretically the case of the state parties to the 1969 American Convention on Human Rights, which declares: "No one shall be deprived of his property except upon payment of just compensation, for reasons of public utility or social interest, and in the cases and according to the forms established by law." American Convention on Human Rights, Nov. 22, 1969, art. 21, para. 2, 9 I.L.M. 673. Any person may file a petition with the Inter-American Commission on Human Rights claiming violation of such right (article 44), which might submit the case to the Inter-American Court of Human Rights, whose jurisdiction is binding for those countries that have declared so under Article 62 of the Convention. For an overview of the Inter-American Human Rights System, see T. BUERGENTHAL, R. NORRIS & D. SHELTON, PROTECTING HUMAN RIGHTS IN THE AMERICAS: SELECTED PROBLEMS (1982).

pany's claim against the country.[228] As foreign investors frequently give importance to the availability of investment insurance, developing countries that still do not participate in such regimes should carefully evaluate the advisability of adopting such a policy. Countries that are willing to examine these and other alternatives might be well advised to consider the fact that the degree of political risk exposure of zone investors tends to be low, particularly in the case of vertically integrated industries.[229]

Another major concern of transnational investors is their potential vulnerability in case of a dispute with the host government that is to be tried before domestic courts. Arbitration arrangements provide a solution that several developing nations have found to be the most convenient. Disputes are submitted to privately chosen arbitrators, or to one of the existing centers for international arbitration, notably the International Centre for the Settlement of Investment Disputes (ICSID).[230] Given the flexibility of the ICSID rules—the concerned state must consent to the Centre's jurisdiction after the dispute arises—a considerable number of developing countries have found it convenient to become members. This reduces the risk of having the investor's home government involved in eventual disputes. All countries having no serious incompatibilities with the Centre's rules might be well advised to evaluate carefully this and other alternatives for establishing reliable methods of dispute resolution.

Other legal safeguards against political risks, such as tax stability agreements and industrial property regulations, have been discussed above and need not be revisited. The challenge for policy makers when considering these and other mechanisms is to grant investors broad protection with no detriment to the country's rule of law. The internal stability of the country and its legal system seem to be the natural limits.

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[228] *See* J. BARTON & B. FISHER, *supra* note 43, at 915-16.

[229] In a celebrated 1977 article, David Bradley wrote that "among the most powerful deterrents against expropriation is the vertical integration of a multinational in which the parent company controls either the supply channels or the market outlets of its subsidiary's products." *See* Bradley, *Managing Against Expropriation*, 55 HARV. BUS. REV. 75, 81 (July-Aug. 1977).

[230] The ICSID is an intergovernmental agency created in 1966 by the Convention on the Settlement of Investment Disputes Between States and Nationals of Other States, to solve investment disputes when one party is a state. The Centre's awards are not subject to review by the courts of the contracting state. For an overview of the role of ICSID in solving investment disputes, see Soley, *ICSID Implementation: An Effective Alternative to International Conflict*, 19 INT'L LAW. 521 (1985); and Delaume, *ICSID Arbitration and the Courts*, 77 AM. J. INT'L L. 784 (1983).

4.2.6 Considerations of Foreign Trade Policy

Some years ago, UNIDO passed a resolution encouraging developed countries to establish and strengthen policies for the redeployment of relatively less competitive industries to developing nations.[231] As has been discussed throughout this essay, the relocation of industrial activities to third world nations in fact occurred, but in a different and perhaps unforseen way, by phenomena known as off-shore assembling and vertical integration. A considerable part of such international industries set up in FIZs. Commentators have insistently argued that both the concerned developing and developed countries have benefited from such a partial industrial redeployment.[232] The former received new investment flows for export manufacturing, with positive effects in employment generation and foreign exchange earnings. The latter retained international competitiveness in certain industries, lowered prices for consumers and conserved jobs in high-tech stages of production.

Favorable tariff treatment in industrial countries to products assembled abroad seem to corroborate the above understanding. Developing countries that established FIZs have substantially benefited from such a propitious regulatory framework. Exports of manufacturing products from developing countries, involving both intra-firm and arm's length trade, have increased considerably in recent years, despite protectionist pressures in industrial countries.

Relatively prosperous developing nations, notably the newly industrialized countries (NICs), should examine the feasiblity of offering favorable arrangements to zone products. In fact, an increasing number of zone industries in less developed countries are subsidiaries of companies based in the NICs searching for lower costs of production to compete in their home markets or third markets. Developing countries should realize that, because of their industrial and trade potential, the NICs could play in the near future a very important role in the development of FIZs.[233]

Occasionally, zone producers have also taken advantage of the

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[231] *See* Sauvant, *supra* note 55, at 127-28.

[232] *See, e.g.*, Balassa, *Intra-Industry Trade and the Integration of Developing Countries in the World Economy*, in ON THE ECONOMICS OF INTRA-INDUSTRY TRADE 245 (H. Giersch ed., 1978); Laird, *supra* note 58; J. GRUNWALD & K. FLAMM, *supra* note 101; M. CASSON, *supra* note 96.

[233] Jagdish Bhagwati wrote some years ago that highly successful developing countries cannot expect to have their markets closed to the manufactured exports of other nations: "The less developed among the developing countries can properly look upon the most prosperous as virtually developed countries with identical obligations to sustain an open trading system." *See* Bhagwati, *Industrial Expansion in Developing Countries and Implications for Trade Policies*, 3 INDUS. & DEV. 45, 46 (1979).

Generalized System of Preferences currently in force in more than twenty industrial nations,[234] but this trend is still far from being an institutionalized mechanism. Some developing countries seem to see this practice as an innocent sin, rather than a valid procedure under the pertinent arrangements. However, all of these preferential systems allow zone products to be included in the countries' quotas, inasmuch as they typically allow a product to qualify for a given level of local content and require substantial transformation.[235] Governments should carefully evaluate the advisability of filling the unused portions of their quotas with zone products, even when products have been only partially manufactured in the country. This might give governments an excellent opportunity to encourage zone manufacturers both to incorporate more local inputs in their products and to undertake more sophisticated manufacturing in the zones.

Developing nations should not be misled by the extraterritorial status of FIZs, nor by foreign participation in zone production, to see in that segment of their economies a sort of separate set of exports. Zone exports should always be viewed as part of the country's overall exports. If as a result of the operation of an FIZ the export potential of the country grows, this factor should be considered when negotiating increases in the country's quotas of manufactured products.

Dealing with neo-protectionist waves in industrial countries will require from developing nations a coordinated, or at least consistent, discourse in the international trade fora, drawing the necessary distinction between export subsidies and special investment regimes such as the zones. Developing countries may, in such a campaign, take advantage of the existing literature evidencing the substantial benefits that both developed and developing economies will get from the new international division of labor. The rather insignificant impact of zone exports on the economy of industrial countries should be contrasted with the importance that such trade may have in the development of the third world. The future of FIZs in developing nations will depend heavily upon this understanding.

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[234] *See supra* note 201.

[235] A U.S. case involving a vertically-integrated electronic industry in Taiwan constitutes an interesting example. The court did not buy the argument that off-shore assembling operations are *per se* excluded from the Generalized System of Preferences (GSP), drawing a distinction between mere assembling and substantial transformation. It held that when a number of employees are needed and have to be technically trained in numerous skills to convert materials into articles, when substantial transformation occurs in the beneficiary developing country, and when the minimum local value added requisite is fulfilled, the product may qualify for the GSP. *See* Texas Instruments, Inc. v. United States, 681 F.2d 778, 69 C.C.P.A. 151 (Cust. & Pat. App., 1982).

4.2.7 Raising Standards to the International Level

At this point, it is quite obvious that the ongoing incentive race among FIZs is nonsense. First, it is compelling countries with relatively higher production costs to minimize the zones' potential profitability. Second, some of these inducements have failed to benefit investors due to home-countries' tax and anti-dumping policies. Third, there is substantial evidence that the investment decisions of foreign firms are based upon more fundamental factors than removable government incentives. Finally, FIZs have been proven to enjoy a relative advantage in attracting export-oriented investments, regardless of additional incentives, due to their duty-free regime and comparatively lower production costs.

Developing countries seem to be more and more aware of the absurdity of this competition. The challenge for their governments is to confront the necessity of stopping the investment race without stimulating massive disaffection among investors. Although some countries enjoying particularly favorable circumstances have succeeded in increasing their benefits simply by withdrawing concessions or by enacting more exacting regulations, this is unlikely to be the case of the majority.

Individual efforts will not stop the race to the bottom. The only feasible alternative seems to be a collective approach through a coordinated dialogue at the international level. The concerned countries should meet not only to share experiences on zone problems and policies, but also to harmonize criteria in regard to incentive measures to be offered by the zones. An initial step towards this aim was taken in 1978 when the World Export Processing Zones Association (WEPZA) was established under the patronage of UNIDO, with the aims of promoting and strengthening cooperation between zone authorities.[236] The establishment of the WEPZA was far from successful, in part because of certain structural deficiencies that caused most coordinating efforts to be futile. Some of the problems faced by WEPZA included lack of political power (zone authorities are normally mid-level government entities) and the inclusion of other institutions with different problems and objectives, notably Free Ports and Free Trade Zones.[237]

Developing countries would substantially benefit from reaching an agreement on the incentives to be offered in FIZs. This is not to say

[236] *See* U.N. INDUS. DEV. ORG., STATUTES OF THE WORLD EXPORT PROCESSING ZONES ASSOCIATION, U.N. Doc. ID/WG.266/6 (1978).

[237] The Statutes of the WEPZA define its members as "all government authorized areas such as free ports, free trade zones, custom free zones, industrial free zones or foreign trade or any other type of zones, as the Council may from time to time decide to include." *Id.*

that all countries are in a position to grant the same inducements to zone investors. In fact, incentive measures should be tailored to the particular needs and possibilities of an individual nation. The only feasible agreement would be to establish reasonable limitations to the countries' autonomy to grant incentives, namely certain minimum standards that would contribute to the preservation of the institution of FIZs.

A revival of the WEPZA itself would also be of extreme importance. This would require the countries to make every effort to enroll all or most FIZs currently in existence. More importantly, this would demand from the concerned governments a serious commitment to providing the association with the required political support and resources to accomplish its aims. The WEPZA may constitute a forum for the concerned countries to coordinate zone policies and strategies in their relationships with TNCs and developed countries. It may also function as a clearinghouse for the exchange of information on recent developments at the zones, and on enterprises currently operating at FIZs. Furthermore, the WEPZA might keep the individual zone authorities updated on new trends in international trade and investment that may affect the operation of the zones.

Developing countries should also coordinate policies at a regional level, provided that such coordination does not conflict with international strategies. A regional approach to zone policies might contribute to mitigating or eventually eliminating the existing competition among FIZs, which is likely to be more intense in a given geographical area. Similarities among neighboring countries would make the goal of reaching an agreement on incentive measures more feasible, at least at the regional level. This would allow the concerned countries to adjust zone policies to their own comparative advantages, rather than depending on what potential investors may get at another FIZ.

Appendix

Free Industrial Zones in Developing Countries[a]

Country	*Zone*[b]	*Date Established*[c]
AFRICA		
1) Djibouti	Djibouti Port	1980
2) Egypt	Alexandria	1974
	Cairo Port Said Ismalia [D][d] Suez Adabia[D] Damietta[D] Marsa Matruh[D]	
3) Liberia	Monrovia	1975
4) Mauritius	Plaine Lauzun Goodlands Coromandel Vacoas-Phoenix [SZs][e]	1970
5) Morocco	Tangier [E][f]	[n/a][g]
6) Senegal	Dakar [E]	1976
7) Tunisia	Tunis Southern End Tunis La Goulette	1972

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[a] Created by the author based on information found in W. DIAMOND & D. DIAMOND, TAX-FREE TRADE ZONES IN THE WORLD (MB) (1988), and J. CURRIE, EXPORT PROCESSING ZONES IN THE 1980s: CUSTOMS FREE MANUFACTURING (The Economist Intelligence Unit, Special Report No. 190, 1985), and other information gathered during the course of research for this article.

[b] Refers to the name usually given to the zone and not necessarily to its location.

[c] Most frequently refers to the date when the first FIZ was legally created in the country.

[d] [D] means that the zone is presently under development.

[e] [SZs] means that there is a system of sub-zones or bonded manufacturing warehouses in the country.

[f] [E] means that the zone is currently under expansion.

[g] [n/a] means that the information was not available.

	Ariana Manouba Bizerte Tunis-Sud Beja Ghannouch Sfax Mahdia Monastir Sousse Nabeul [SZs]	
CARIBBEAN ISLANDS		
8) Aruba	Aruba [E]	1975
9) Bahamas	Freeport Grand Bahama [D] New Providence [D]	[n/a]
10) Bermuda	Freeport	1968
11) Dominican Republic	La Romana San Cristobal Santiago San Pedro de Macoris Puerto Plato [E] Barahono [D] Haina	1969
12) Haiti	Parc Industriel Metropolitain	1974
13) Jamaica	Kingston	1976
14) Puerto Rico	Mayaguez	1962
15) Santa Lucia	Cul-de-Sal Bay Vieux Fort	1979
CENTRAL AMERICA		
16) Costa Rica	Cartago Moin [D] El Roble [D] Coto Sur [D]	1981
17) El Salvador	San Bartolo Cuscatlan [D]	1974
18) Guatemala	Santo Tomas de Castilla	1972

19) Honduras	Puerto Cortes San Pedro de Sula [D]	1978
20) Nicaragua	APEX (Las-Mercedes)	1976
21) Panama	Coco Solo [D] France Field	1969

EAST ASIA AND THE PACIFIC

22) Bangladesh	Chittagong [E]	1980
23) China	Shekou (Shenzen) Xiamen [D] Dalian [D] Canton [D] Shangai [D] Tiansin [D]	1980
24) Hong Kong	All the territory[h]	[n/a]
25) India	Kandla Santa Cruz Falta Kochin Madras [D] Noida [D]	1965
26) Indonesia	Persero P.T. Batu-Ampar East-Coast Sekupang Sabang [D]	1973
27) Macao	Macau	[n/a]
28) Malaysia	Penang	1971

[h] "All the territory" means that the whole country enjoys a status comparable to that of a Free Industrial Zone.

	Sungei Way Batu Berandam Prai Tanjong Kling Bayan Lepas Ulu Klang Labuan Pasir Gudang [D] Panglima Garang Prai Wharf Pulun Jerejak Senai [SZs]	
29) Pakistan	Karachi	1984
30) Philippines	Bataan Mactan Baguio City Cavite Tabango Isabela	1969
31) Singapore	All the territory	1968
32) South Korea	Masan Iri	1971
33) Sri Lanka	Katunayake Biyagama	1978
34) Taiwan	Kaohsiung Nantze Taichung	1971
35) Thailand	Lat Krabang [SZs]	1981
36) Western Samoa	Samoa	[n/a]

EUROPE AND THE MEDITERRANEAN

37) Cyprus	Larnaca	1982
38) Turkey	Yumurtalik [D] Nemrut [D]	1985
39) Yugoslavia	Belgrade Bar Koper Novisad	1967

LATIN AMERICA		
40) Brazil	Manaus	1968
41) Chile	Iquique Punta Arenas	1975
42) Colombia	Barranquilla Cartagena Palmaseca Santa Marta [D] Cúceta Buena Ventura [SZs]	
43) Mexico	Border Zone Matamoros Baja California Tijuana Ciudad Juarez [SZs]	1971
44) Paraguay	All the territory	[n/a]
45) Uruguay	Colonia [D] Nueva Palmira [D]	1976
46) Venezuela	Guamache [D] Paraguana [D]	1974
MIDDLE EAST		
47) Jordan	Aqaba Port Zarqa Queen Alia	1973
48) Lebanon	Beirut	1971
49) Syria	Damascus Adithra Deraa Latakia Tartus Aleppo	1976
50) United Arab Emirates	Jebel Ali	1980
51) Yemen	Aden	[n/a]