Export processing zones (EPZs) are areas within developing countries that offer incentives and a barrier-free environment to promote economic growth by attracting foreign investment for export-oriented production. The number of zones internationally, countries hosting EPZs, and firms operating in them, and the business volume they handle, are all growing rapidly, suggesting their importance. Yet, business research on EPZs is virtually nonexistent, leading to poor understanding of their role in international marketing. This article draws from the literature in economics, macromarketing, and other disciplines to provide an integrative review of the concept. The authors then adopt a macromarketing perspective to develop a new definition of EPZs, typologies of free export zones and of their benefits for host nations and investors, and the notion of a “virtual network” of free zones as part of the international market system. The authors conclude by highlighting the need and potential directions for new research in this field.

Keywords: export processing zones; free trade zones; international marketing systems; macromarketing systems; global strategy; FDI location choice
The overall goal of the article is to examine EPZs as marketing systems by addressing three specific objectives: to provide an integrative analysis of EPZs drawing on insights from development economics, to examine their potential role in international marketing, and to suggest directions for future research. The article is based on a comprehensive review and synthesis of the literature coupled with secondary statistics from international organizations. Its intended contributions are contained in the four main sections that follow this introduction. Of these, the first defines and develops a typology of EPZs and outlines their growth patterns; the second reviews and synthesizes the relevant literature; the third draws on the previous two to revisit EPZs from the perspectives of the host country and the firm; and the fourth suggests potential directions for future research and summarizes the main conclusions.

**DEFINITION, TYPOLOGY, AND IMPORTANCE OF EPZs**

**Definition and Typology**

EPZs are a contemporary manifestation of an institution that has existed since city states in antiquity established “free passage” areas for merchants from neighboring jurisdictions. The concept has evolved extensively over time and now takes many variant forms, including general purpose “free trade zones” (FTZs), import-oriented “foreign trade zones” in the United States, “bonded warehouses” and “freeports,” export- and/or investment-oriented EPZs, broader “economic development” zones, and others (Papadopoulos 1987; Madani 1997; Makabenta 2002). The principal concept behind all such zones is that firms operating within them are offered certain privileges providing they engage in some form of international activity. These usually include a complete exemption from duties and related excise taxes, fewer operational barriers, and/or more investment incentives that are not normally available to firms operating in the same country’s “domestic” or regular “customs” territory beyond the zone. Thus foreign zones differ substantively from such other concepts as industrial development or high technology “parks,” which are open for any type of activity, offer fewer incentives and no duty exemptions, and are primarily intended to foster growth synergies through clustering (Markusen 1996).

Differences between the various types of foreign zones and the characteristics of each have blurred over time, leading Kusago and Tzannatos (1998) to list no fewer than nineteen terms used to describe EPZs and their variants and to decry the resulting terminological confusion that impedes understanding of the concept (also see Makabenta 2002). For this article, drawing from the literature, we posit two key distinctions that can lead to a typology of free zones and thence to a workable definition of EPZs: zones that encourage imports versus exports and zones that permit trade only or also manufacturing. The generic term EPZ is used in this article to refer to zones that clearly focus on manufacturing for export (Wei 2000). These can be further distinguished into three main types depending on the geographic extent of their jurisdiction (Ettore 1998; Makabenta 2002; World Economic Processing Zones Association [WEPZA] 2004):

1. The original form of EPZ, which refers to a geographically restricted, and often fenced-in, enclave. Although these are typically set up to host firms in any industry, some are sector specific (as is the case in India’s “Jewellery Zones”).
2. Their larger cousins, special economic zones (SEZs), which typically cover a large area extending to the territory of an entire city, province, or region. These are established to attract firms for export-oriented manufacturing but also, in some cases, allow for selling to the host nation’s domestic market and also include supporting service-oriented sectors.
3. At the other end of the size scale are firm-specific zones (FSZs), which are established at the level of a particular facility such as the factory of an individual firm. This represents an important recent development in some developing countries, including Mexico’s “maquiladoras” and the Philippines’ “private Eco(nomic)zones.” (FSZs were initiated in the United States in 1963 and now exist in some other developed countries as well, but in all such countries, FSZs are import-oriented and are not discussed here; U.S. Foreign-Trade Zones Board 2002.) The concept has been embraced by large numbers of firms, as it allows for considerably greater flexibility by enabling them to enjoy zone benefits without having to actually locate within one.

Drawing from the widely used International Labor Organization (ILO)/United Nations Center for Transnational Corporations (UNCTC) (1988) and World Bank (1992) definitions, but adjusting to account for the broad range of zone sizes in modern markets, EPZs, SEZs, and FSZs can be defined as geographically defined places within a country offering a free trade environment, a liberal regulatory regime, and/or tax and other incentives oriented to attracting foreign investment and with an expectation that firms operating within them focus on export-oriented manufacturing. Given that the emphasis is on development, virtually all such zones (except for FSZs in developed countries) are located in the developing world. Small-area zones are most often found in market economies and SEZs in centrally planned and transitional nations (Wong and Chu 1985). Table 1 summarizes the above by showing a typology of EPZs, including their key characteristics, and compares them to free ports to underscore some of the differences between export- and import-oriented free zones.

**Importance and Growth of EPZs**

The importance of EPZs and their growth over time is found in virtually all relevant measures, as outlined below (currency figures in U.S. dollars unless noted otherwise):
<table>
<thead>
<tr>
<th>Type</th>
<th>Size*</th>
<th>Objective</th>
<th>Supported Activities</th>
<th>Public vs. Private</th>
<th>Location</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPZ</td>
<td>Small, &lt; 200 hectares</td>
<td>Export-oriented FDI</td>
<td>Manufacturing</td>
<td>Public</td>
<td>Near major trade routes</td>
<td>Noida EPZ, India</td>
</tr>
<tr>
<td>SEZ</td>
<td>Large, typically &gt; 100km²</td>
<td>Integrated development, mostly export-oriented FDI</td>
<td>Manufacturing and support services</td>
<td>Public</td>
<td>Strategically important regions or those targeted for development</td>
<td>Shenzhen, China</td>
</tr>
<tr>
<td>FSZ*b</td>
<td>Very small, individual firm facility</td>
<td>Export-oriented FDI</td>
<td>Manufacturing</td>
<td>Private</td>
<td>Anywhere (firm-specific facility)</td>
<td>Maquiladoras, Mexico, and Ecozones, Philippines</td>
</tr>
</tbody>
</table>

Comparison to import-oriented FTZs

<table>
<thead>
<tr>
<th>Type</th>
<th>Size*</th>
<th>Objective</th>
<th>Supported Activities</th>
<th>Public vs. Private</th>
<th>Location</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free port</td>
<td>Small, &lt; 50 hectares</td>
<td>Facilitate trade, mostly import oriented</td>
<td>Warehousing, minor processing oriented</td>
<td>Public</td>
<td>Near ports, airports</td>
<td>Glasgow-Prestwick, U.K.</td>
</tr>
</tbody>
</table>

NOTE: EPZ = export processing zone; FDI = foreign direct investment; SEZ = special economic zone; FSZ = firm-specific zone; FTZ = free trade zone.

a. The size classification is adapted from WEPZA (2004).
b. For this discussion, the term refers to export-oriented FSZs in developing countries. In developed countries, the characteristics of such zones would be similar except for their import orientation.
• The number of countries with at least one EPZ grew from 25 in 1975 to 93 in 1997 and 105 in 2003 (Kusago and Tzannatos 1998; WEPZA 2004).

• The total number of EPZs today is approximately 1,100, including about 600 main EPZs, 50 large-area SEZs, and 450 firm-specific locations (calculated from Makabenta 2002; ILO 2004). These figures represent marked growth since the first EPZ in 1965 (India) and from estimates of 500 export zones as of 1997 (Kusago and Tzannatos 1998; WEPZA 2004).

• Exports from EPZs have increased steadily and now account for the lion’s share of total exports in countries with strong zone programs, such as China (nearly 90 percent) or Vietnam, Malaysia, Kenya, and Senegal (more than 50 percent), and for high proportions where such programs are more recent, as in the case of Sri Lanka (33 percent) (Madani 1997; ILO 2004).

4. Reliable global statistics specifically for EPZs are not available, but several reports suggest that the volume of business channelled through free zones of all types stands at as much as 20 percent of total world trade (Etiole 1998; Martin 1998; ILO 2004). Considering that most countries operate export-oriented zones, that many of these countries are major exporters (e.g., China and others in Asia Pacific), and that most have had much higher export growth rates recently than have developed nations, it can be safely assumed that at least three quarters of the total for all zones is accounted for by EPZs. By cross-referencing a variety of statistics from reliable sources (e.g., data from the U.S. Foreign-Trade Zones Board 2002 on the contribution of American zones to U.S. and international trade), we were able to confirm this figure with reasonable confidence. In other words, EPZs account for as much as 15 percent of total world exports.

5. Based on available ILO (2004) data, the number of firms in EPZs ranges from fifty or so in smaller countries (e.g., Macau) to several thousand in larger ones (e.g., 3,000 in Turkey), with a total of 54,298 firms in zones in fifty-seven developing countries worldwide plus 456,892 firms in Chinese SEZs, for a “world total” of 511,190. (Note: The ILO does not supply tenant data for another thirty-six EPZ host countries it lists in its database, and some apparent discrepancies in the data shown suggest caution in their use. This is addressed in the last section below.)

6. Although Mexico’s economy suffered from a currency devaluation in 1995, its maquiladora EPZs were the only component that showed growth over 1994 in jobs (13 percent) and exports (from $26 billion to $33 billion), with the export figure accounting for 39 percent of Mexico’s total exports (Romero 1998).

7. There is evidence that FDI in developing countries increases dramatically with successful EPZ programs. For example, Makabenta (2002) reports that annual FDI inflows in Philippine EPZs, which stood at near zero from the 1980s until just prior to the introduction of new SEZ legislation in 1994, increased to between 50 and 70 billion pesos in each of 1995 and 1996 and then doubled or tripled to about 100 to 150 billion pesos annually for 1997 through 2000.

8. After a late and slow start, the rate of EPZ adoption in African countries has recently begun to follow the global trend. According to Romero (1998), twenty-four nations had (fifteen) or were planning (nine) zone programs as of 1996. Three of the planned programs had not materialized as of 2004, but eleven nations that had not been included in her original list had in fact implemented new zones, bringing the total to thirty-two, more than a twofold increase in this eight-year period (WEPZA 2004).

A LITERATURE-BASED ASSESSMENT OF EPZs

The Economics Perspective

The economics literature clearly supports a positive relationship between exports and economic growth and shows that developing countries (DCs) with an export-led strategy grow faster than those that still focus on the earlier paradigm of import substitution (United Nations Conference on Trade and Development [UNCTAD] 1983; Johansson and Nilsson 1997). The four original “Asian Tigers” (South Korea, Hong Kong, Taiwan, and Singapore) were the first adopters of strong free zone programs and are commonly cited as prime examples of successful EPZ-led, export-focused policies. But has the EPZ concept succeeded overall as an instrument for development? At first glance, the literature offers a somewhat mixed verdict.

On the positive side, EPZs have been hailed as precursors and drivers of development where successful programs have been implemented. The objectives and results of EPZ programs of course vary by country, but most researchers in this group agree on the likely main payoffs from a successful program and focus on such direct benefits as FDI attraction and increased national exports (e.g., Romero 1998; Wei 2000; Kinunda-Rutashobya 2003). By focusing on manufacturing, EPZs also help to shift the composition of exports toward higher value-added products and away from the traditional emphasis of developing countries on commodities, which are prone to elastic demand and price instability (Madani 1997). More broadly, EPZs may help to close “idea gaps” (Johansson and Nilsson 1997) by exposing domestic manufacturers to the modern business practices of zone-based foreign investors. Lastly, EPZs can serve as testing grounds for reorienting a nation’s policies toward economic liberalization (Grubel 1983).

Thus although some researchers have tended to emphasize one EPZ characteristic over others (e.g., Romero calls them “investment promotion strategies” 1998; 391), the consensus among the concept’s supporters is that, as an instrument for development, EPZs can offer multiple potential benefits. Chen (1994) classifies these into six main categories: FDI attraction, employment generation, export promotion, technology transfer, domestic integration, and regional development. Perhaps more effectively, McIntyre, Narula, and Trevino (1996) distinguished between two major groups: direct and quantifiable benefits, such as FDI, employment, exports, and foreign exchange earnings, that can have an immediate impact on the host nation’s economy,
and longer term externalities that benefit the host nation through spillover effects and linkages with the domestic economy, which are harder to quantify but perhaps even more important.

Given the potential benefits, it is not surprising that many developing countries have developed EPZ programs. Arguably the most successful (and certainly most discussed) zone is the Chinese SEZ in Shenzhen. Since its inception in 1979, this zone area developed from a small town of 20,000 into a modern city of 3.5 million, with a GDP per capita of $4,000, an annual GDP growth rate of 32 percent, and investors representing a “who’s who” of major multinational firms. As an illustration of its global importance, in 1998 Shenzhen accounted for 14 percent, 6 percent, and 8 percent of world output in, respectively, floppy disks, PC motherboards, and hard drives (Wei 2000). At the other end of the scale, Mauritius, a very small country that set up its first EPZ in 1971, has risen to “middle-income nation” status in the World Bank classification (Kinunda-Rutashobya 2003) and has become one of Africa’s leading exporters of merchandise, which replaced sugar as the country’s main export. Its export earnings grew at an average annual rate of 70 percent in the 1980s, and its EPZs are credited with reducing unemployment from 20 percent in 1971 to less than 2 percent in 1994 (resulting in an enviable position where labor to service the zones now has to be imported; Romero 1998; Kinunda-Rutashobya 2003).

Notwithstanding their benefits, EPZs have not been without their critics, and several researchers have noted a number of potential limitations and problems. Of these, two stand out most prominently. The first concerns labor issues, including but not limited to inadequate wages, job benefits, health and safety standards, job security, and training, the latter also suggesting limited opportunities for zone workers to migrate from unskilled to supervisory jobs (Rondinelli 1987; Romero 1998). For example, analyses by ILO/UNCTC (1988) and others have concluded that the societal impact of EPZs may be negative because of the “shadow price of labor,” or the differential opportunity cost from bringing unskilled young females into the workforce for the first time, versus offering the jobs to skilled but currently unemployed men who could technically command higher wages. This is claimed to result in below-market wage rates within zones, as young females compose the bulk of EPZ labor (ILO 2004). As well, Jauch (2002, 101, 105) posits that the incentives offered to zone tenants in southern African countries essentially constitute a “race to the bottom” and “greatly limit the net benefits of the new investment to the national economy,” resulting in lower labor standards, restricted union rights, and significantly less employment than promised by the country’s government when promoting the relevant legislation. The author cites Namibia as a case in point, where only 400 jobs were created against a forecast of 25,000 as of 1999, after three years of operation of the country’s zones.

The second major area of concern focuses on negative and/or fewer-than-expected externalities. These include adverse impacts on the host society (e.g., human rights violations in the work environment, corruption among government zone managers, and implicit support for the informal economy in poorly run zone programs), as well as low levels of technology transfer, labor migration to city-based zones that burdens already weak urban infrastructures, and overdependence on zone investors who may move to other countries when labor costs rise (Rondinelli 1987; ILO/UNCTC 1988; Romero 1998; Jauch 2002). Ironically, the latter risk may result in large part from the success of EPZ programs, which often bring about higher wages and force “foot-loose” manufacturers in sectors such as textiles or electronics to relocate in search of cost differentials (Shapiro 1981; Papadopoulos 1987).

These two major areas of concern, coupled with confused or poorly thought out policies by host nations, which lead to poor zone management and discourage foreign firms, are commonly used to explain the failure or difficulties of various EPZ programs. Examples that are commonly cited include the early experience of Africa (Romero 1998) as well as Russia (Manezhev 1993), North Korea (Noland and Flake 1997), and India (Kundra and Sharan 2000).

However, a number of researchers suggest that many of the issues raised are misstated or exaggerated or that they reflect early problematic experiences that are eventually addressed once a country gains experience with the zone concept. For example, Summerfield (1995) argues that using the shadow price of labor to assess EPZs ignores the broader benefits from employing women in zones (e.g., higher status in society and within the household). Furthermore, Kusago and Tzannatos (1998) have shown that the proportions of managerial and clerical staff within Malaysia’s EPZs in fact rival the national average (respectively 5 percent and 8 percent within zones, versus 4 percent and 7 percent in domestic manufacturing). Madani (1997) compared in- and off-zone wages in five Latin American countries and found that those in EPZs were actually somewhat higher than the national rates in three cases, somewhat lower in one, and noticeably lower only in one (Panama). Lastly, concerning employment in the above-mentioned case of Namibia’s EPZs, the ILO (2004) reports the current number of jobs as 29,000, or 16 percent higher than the initial target of 25,000 that was noted as badly missed by Jauch (2002) using 1999 as the reference year.

Based on the above, it may be concluded that although disagreements among researchers naturally exist, these have to do more with specific implementation problems than with the EPZ concept as such. Kinunda-Rutashobya (2003) rightly argues that current theories are inadequate and that a more appropriate explanation of the EPZ phenomenon is yet to emerge. However, this does not negate the apparent consensus and available empirical evidence that, if the right factors are in place, EPZs can and do lead to successful development (Jayanthakumaran 2003).
THE BUSINESS/MARKETING PERSPECTIVE

Given the large number of studies by researchers in economics, the relevance of free zones to the study of marketing systems and the strong interest in EPZs by business as signalled by the thousands of firms that invest in them, we had expected to find a similarly large number of business studies on EPZs. To identify such studies, we carried out a comprehensive and exhaustive search that involved four sequential and systematic steps. The decision rule used for the search was that a “business study” would be one that had been carried out by business researchers, was published in a business journal, and/or at least reflected a business orientation.

The first step focused on standard databases (e.g., Emerald, Business Source Premier) that were searched using relevant keywords, both specific (e.g., EPZs) and general (e.g., “zones”). This resulted in identifying only a very small number of studies, leading to the thought that perhaps authors were using different terms to describe the field. Thus the second step focused on reviewing in detail the tables of contents of twenty major business journals from 1970 to early 2005, and downloading and scanning the actual content of articles whose titles suggested at least a potential reference to the theme. The result was similar to that from the first step. The third attempt focused on a detailed examination of the lists of references of the few articles that had been identified from the previous two steps, on the assumption that scholars working in this field would typically cite earlier research on the topic. This revealed only one publication that had not been already identified through the previous two steps. Lastly, we downloaded and word-searched nearly 100 articles from three of the above major journals to consider the possibility that business researchers were including references to EPZs in other, broader but related works (e.g., those dealing with FDI or modes of entry). These journals were selected because they deal more heavily than the others with related themes: the Journal of International Business Studies, Journal of International Marketing, and International Marketing Review. This search was also fruitless, except for noting a small handful of passim references to Chinese SEZs.

The result of this four-step process laid our original expectation to rest: the total number of business studies identified on the broader concept of free zones in general was fifteen. Of these, eight have looked at import-oriented foreign zones in the United States and are of no interest in this article, and two Papadopoulos (1985, 1987) mentioned EPZs but did not go much beyond simply describing them alongside other zone types. This leaves only five studies that have dealt specifically with EPZs. None of these is empirical, and on examination, three were found in fact to be economics rather than business studies, even though two appeared in business journals (Brenes and Vince 1997; Noland and Flake 1997) and one alluded to a “zone users” component in its title (McIntyre, Narula, Trevino, et al. 1996). The remaining two studies in this subgroup deal with China’s SEZs and are rather simplistic and totally a-theoretical (Firoz and Murray 2003; Firoz, Narula, Trevino, et al. 2003). Therefore as best as could be determined from the systematic but fruitless search described above, the business and marketing literature on EPZs not only is virtually nonexistent but also does not offer any theoretical, strategic, or other insights of potential interest from the business, marketing, or macro-marketing perspectives.

REVISITING EPZs: ZONES AS PART OF NATIONAL AND INTERNATIONAL MARKETING SYSTEMS

The EPZ Paradox

The opening paragraph of this article and the statistics cited in the first main section pointed to the puzzling phenomenon that EPZs are growing rapidly worldwide in the context of a “global” reduction of the barriers that these zones are designed to counter. This paradox suggests that trade and investment barriers may not be falling nearly as “globally,” or at least not at the national level in all countries, as is commonly thought. Lower barriers are very real among the developed Triad nations, whose key features include broader and highly successful free trade agreements (e.g., European Union and North American Free Trade Agreement). However, in the context of DCs, EPZs may in fact be “the,” or at least “one of the,” major instrument(s) through which barriers are being reduced—rather than being an add-on that offers perhaps minor and temporary freer trade advantages while the host countries’ national economies themselves are being broadly liberalized.

Our in-depth search of the literature did not, unfortunately, reveal any studies that might offer hard evidence for this assertion, but the circumstantial evidence supports it. Because EPZs are located in DCs, most of which have highly regulated national economies, the relevant facts are that (1) DCs account for only 37 percent of total world exports (International Monetary Fund 2003) and, (2) as noted above, as much as 15 percent of global trade is funnelled through EPZs in DCs. Combining these points, about 40 percent of DC trade appears to be EPZ trade (i.e., 15 percent over 37 percent)—with the other 60 percent accounted for mostly by traditional resource exports from these countries’ domestic territory. In other words, EPZs are growing in the context of global barrier reductions simply because they appear to be at least “a,” and perhaps “the,” principal instrument for reducing barriers in DCs. This suggests that national obstacles to trade within DCs are not falling as rapidly as is commonly reported, which in turn makes EPZs even more important than has been posited so far.

Given their nature, as noted in the introduction and elaborated on in the literature review section, EPZs have direct effects on their host nations. This is the main subject of
interest in development and regional economics. Meade and Nason (1991), however, drawing from Hunt’s (1977) “three dichotomies” model of marketing, note that the unit of analysis in macromarketing studies is the marketing system, including its impact on society as well as society’s impact on it. Furthermore, Layton (1989) notes that “marketing systems can be thought of as exchange networks” (p. 5), a notion that is central to a business view of zones, as will be seen below. Therefore, it seems reasonable and potentially fruitful to adopt a macromarketing perspective when attempting to better understand EPZs. This would view export zones as the central component of a system that includes not only the zone itself and its host nation but also the international firm.

In this light, and using the available literature in development, regional, and other branches of economics along with the small handful of business studies on EPZs, the remainder of this section attempts to address two main questions: what is the role of EPZs for their host nations, and what do EPZs mean for business and marketing, if seen through the macromarketing lens as marketing systems?

A Host Country View of EPZs

Chen (1994) notes that there are three major development theories of EPZs in economics: the neoclassical theory, which views them positively and suggests that their deregulated environment gradually diffuses benefits to the domestic sector; the state-centered perspective, which focuses on the role of host governments in minimizing any undesirable consequences from zone programs; and the dependency/world-systems perspective, which takes the dimmer view that tenants profit disproportionately from cheap local labor and low taxes in EPZs. As can be seen in the literature review, the weight of the evidence and most writers do not favor the dependency theory. In fact, UNCTAD (2002) clearly sides with the view that EPZs are instruments for “providing efficient infrastructure and removing red tape . . . in the context of promoting export-oriented FDI” (p. 20). Although most agree that zones are “an,” rather than “the,” engine for growth (Madani 1997), even critics such as Rondinelli (1987) and Romero (1998) focus on the need for better implementation and do not dismiss the value of the institution as such.

Simply put, the potential benefits to host countries with a successful EPZ program are too many to ignore. Although these were outlined above based on the available literature, we posit that past research has often “lumped” together some zone advantages that in fact are rather distinct. As well, although most potential benefits have been identified by one researcher or another, no one has developed a comprehensive listing or typology. In line with McIntyre Narula, Trevino et al., but taking into account Chen’s (1994) six-category approach, and additional characteristics not mentioned by either of these researchers, we suggest, in table 2, a more complete typology that summarizes thirteen distinct categories of zone benefits.

Coupled with the life cycle theory of EPZ evolution (infancy, growth, maturity, and decline) that was proposed by Fujimori (1978) and is supported by Chen (1994), and with the newness of the institution itself (most zones are less than twenty years old), the wide range of benefits shown in table 2 suggests that the EPZ problems identified by some earlier studies may be little more than “growing pains” that can and will likely be addressed over time. Namibia, already cited as a case-in-point in the literature review, can again serve as an example here. The country’s initial zone employment forecast had been missed by a wide margin after three years of zone operations (Jauch 2002) but was exceeded by the eighth year (ILO 2004). In fact, Jauch (2002) himself notes a Namibian government claim that Mauritius “had to wait 20 years to see positive results” (p. 105; perhaps not an unreasonable amount of time considering the success of that country’s zone program). The last point in table 2 is particularly important, as it stresses that foreign firms investing in the domestic territory of EPZ host nations often are market seekers, intending to capitalize on the nation’s market, whereas those in free zones are oriented to exporting, thus serving to engender an outward orientation among local producers while also representing less domestic competition against them.

Needless to say, realization of the benefits outlined in table 2 is subject to successful implementation, as stressed above. To this end, scholars have made specific suggestions for improving the zones’ chances of success. The main ones include the following:

1. measures to ensure a better balance between workers’ interests and the national desire for more FDI and exports (Romero 1998; UNCTAD 2002),
2. provisions to encourage more backward linkages with domestic firms (Yabuuchi 2000),
3. developing a better infrastructure to match international standards (Manezhev 1993),
4. continuous monitoring of the competitive environment to ensure more rapid adaptation of zone incentives to changing global conditions (Wei 2000), and
5. targeting specific sectors for EPZs to optimize their beneficial effects on the domestic economy (Manezhev 1993).

However, useful as they may be, such recommendations from economics research appear to be missing four important points that the macromarketing perspective can add, much like its contributions to the broader problems facing developing and transitional economies (e.g., Shultz and Pecotich 1997):

1. Studies in economics stress the importance of infrastructure but pay scant attention to its cost, which can be prohibitive. This includes the zone itself (e.g., a single EPZ in the Philippines, converted from a former U.S. military base, was assessed at $8 billion; Makabenta 2002) as well as broader facilities such as road, sea, air, and telecomm access; quality-
NOTE: EPZ = export processing zone; FDI = foreign direct investment; ILO = International Labor Organization; SEZ = special economic zone.

### TABLE 2
A TYPOLOGY OF EPZ BENEFITS FOR HOST COUNTRIES

<table>
<thead>
<tr>
<th>Category</th>
<th>Area</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct benefits</td>
<td>1. Exports</td>
<td>More exports increase foreign exchange reserves and improve the balance of payments, enabling, among others, imports of needed technology from developed nations.</td>
</tr>
<tr>
<td></td>
<td>2. Local supply chains</td>
<td>More business for domestic producers who sell inputs needed by zone-based firms.</td>
</tr>
<tr>
<td></td>
<td>3. FDI</td>
<td>Increased currency inputs, enhances the host country's capital formation process.</td>
</tr>
<tr>
<td></td>
<td>4. Employment</td>
<td>More jobs (that might have gone elsewhere). The ILO (2004) estimates the number of EPZ workers worldwide at nearly 42 million, with China accounting for 71 percent, Asia for 86 percent, and the top fourteen countries on three continents for 95 percent, of the total.</td>
</tr>
<tr>
<td></td>
<td>5. Incomes</td>
<td>Wages may be lower than at developed countries but are higher than in the host’s domestic territory and tend to rise rapidly over time (Shapiro 1981; Kusago and Tznannatos 1998).</td>
</tr>
<tr>
<td>Long-term externalities</td>
<td>6. Technology and knowledge transfer</td>
<td>We treat this as distinct from “more FDI,” as FDI does not necessarily, in itself, imply such transfers. The case of the Asian Tigers, among others, shows that beneficial spillover effects from EPZ-based firms can be sizeable.</td>
</tr>
<tr>
<td></td>
<td>7. Labor skills</td>
<td>The employability of workers outside the zones is enhanced and transfers throughout the economy.</td>
</tr>
<tr>
<td></td>
<td>8. Regional development</td>
<td>EPZs can be established selectively in areas that can best capitalize on the nation's strengths and/or that need new business activity the most.</td>
</tr>
<tr>
<td></td>
<td>9. Infrastructure</td>
<td>Development of an efficient industrial infrastructure is a must for a successful EPZ program and enables the host country to compete internationally for FDI through state-of-the-art facilities that may not be possible nationwide.</td>
</tr>
<tr>
<td></td>
<td>10. Support services</td>
<td>Successful EPZs require banking, legal, consulting, telecom, and other similar support services that, once developed for the zone(s), benefit the nation as a whole.</td>
</tr>
<tr>
<td></td>
<td>11. Controlled/partial deregulation</td>
<td>Enables host to participate in the international economy without compromising national policies or political ideologies (as in the case of China, which “keeps its pie and eats it too” by operating free-market SEZs under a communist regime umbrella; Grubel 1983).</td>
</tr>
<tr>
<td></td>
<td>12. Deregulation models</td>
<td>Where deregulation is desired, EPZs enable the testing of models prior to applying them nationally (e.g., this has been practiced in India; Kundra and Sharan 2000).</td>
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<tr>
<td></td>
<td>13. Broader catalyst and demonstration effects</td>
<td>Overall economic modernization, especially because EPZs help to attract foreign firms that might not otherwise have invested in the country (Rhee and Belot 1990).</td>
</tr>
</tbody>
</table>

2. Many EPZs are located at remote rural areas, as a result of misguided attempts to achieve regional development objectives that disregard investors’ needs and lead to zone failure (Papadopoulos 1987; Makabenta 2002). For example, Miyagiwa (1993) dismisses this factor by stating that “once the [any] location is designated, foreign firms will bring the necessary capital . . . ” (p. 188). Of course, foreign firms will not do so if the location or other characteristics of a given zone do not suit them. Taking the potential investor’s interests into account is inherent in the view we propose, that EPZs are part of a broader system that includes not only the host country but also the international firm.

3. Little or no thought has been given to how investors perceive the attractiveness of the host nation itself versus its zones (except perhaps for Noland and Flake’s [1997] review of North Korea’s sole, and failed, EPZ). Perhaps as a matter of national pride, lack of marketing know-how, a failure to consider that EPZs are at the center of a system that has bidirectional linkages to the host nation and the investing firms (Klein and Nason 2001), or other factors, most nations appear to be driven by the better mousetrap fallacy: a view that the only missing ingredient for national success is an EPZ, on the establishment of which investors will beat a path to the nation’s door.

4. Combined, the previous three points lead to, and can be subsumed under, the fourth: overall poor marketing of EPZs, resulting from characteristics that are common in DCs overall. These include limited financial resources, a lack of relevant skills, a jaundiced view of marketing and other “capitalist” practices, and other factors (Klein and Nason 2001). This means that zone marketing is most often limited to promotion (perhaps arising from the common misconception that equates marketing only with its promotion component), which is, if only occasionally, practiced by some zone managers. On the other hand, it ignores both the other parts of the marketing mix (including, under “pricing” for example, the psychological and hidden operating costs that may be engendered by the host country’s environment) as well as such other components as marketing research (to assess
EPZs from the Perspective of the International Firm

Since there really is no business research on EPZs to date, understanding this institution from the firm’s perspective must by necessity rely on limited resources. These include the available insights from EPZ-specific research in economics, as above, and from three theory streams that have not discussed free zones specifically but have at least dealt in one way or another with the underlying issue of the international expansion of the firm. These include, first, Dunning’s (1993) eclectic paradigm, which refers to ownership, location, and internalization advantages and focuses on the spatial distribution of foreign investment; second, the Uppsala internationalization model (Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977), which stresses the importance of geographic and perceived psychic distance in international managers’ perceived and actual risk from foreign ventures; and lastly, the theory on international market selection (Papadopoulos and Denis 1988), which deals with the factors affecting and the approaches used by international firms in deciding their expansion targets.

Absent these perspectives, researchers to date have focused on duty exemption as the key advantage of free zones for the firm (e.g., McGillivray 2004), with “logistics” being the only other benefit that is mentioned with some frequency in EPZ studies. This seems to be a remnant from when duty exemption was the only advantage of traditional general-purpose or import-oriented zones (e.g., see Diamond and Diamond 1984), and a regrettable consequence of the lack of business-minded research that might challenge this narrow, and by now archaic, perspective.

It is clear from the small handful of researchers who have considered the broader EPZ benefits for business (Papadopoulos 1987; McIntyre, Narula, Trevino, et al. 1996) that these are indeed many and multifaceted. For this discussion, we draw on the four resources mentioned above to develop the three-point typology of EPZ advantages for business shown in table 3.

Compared to earlier “lists of benefits,” this has three main advantages. First, by identifying twenty-two distinct EPZ benefits for business, it is far more complete than the classifications suggested in the handful of earlier studies that have dealt with this issue. Second, and more important, it recognizes that in addition to their own unique advantages, EPZs also share, by definition, in two additional sets of benefits by virtue of where they are located and of the fact that they are a subpart of the broader “free zone” concept. Specifically, using Dunning’s (1993) eclectic paradigm, we identify ownership and location advantages that arise from being located in developing countries rather than being unique to the zones themselves (e.g., availability of labor and materials), and using the literature on free zones in general, we distinguish advantages that also accrue to the EPZ variant. Therefore, the typology classifies the EPZ benefits into three distinct categories: those arising from their location in developing countries (five), those resulting from being a free zone in general (seven), and those that are unique to EPZs (twelve).

Third, the typology considers the fact that the majority of the tens of thousands of zone tenants (hundreds of thousands if China is included) are smaller firms in the early stages of internationalization. Therefore, in line with the Uppsala model and international market selection theory, a number of factors that address the international manager’s need to reduce real and perceived risk are explicitly included (e.g., greater operational flexibility, repatriation of capital and profits, better security than in the home nation’s domestic territory) as are factors pertaining to market choice (e.g., potential of targeting the EPZ host nation’s domestic market, availability of materials, lower operational costs and higher incentives).

In addition to the above advantages, and most importantly in the context of globalization and the need of firms to develop internationally coordinated strategies, the typology draws from Layton’s (1989) marketing systems as “exchange networks” and implicitly points to the zones’ potential if these are viewed collectively as part of an international system. The twenty-two benefits in table 3 pertain to advantages that may accrue to the user firm from each zone, viewed independently of others in which it may operate. However, the large number of EPZs in operation today (650 small and large area “public” zones, i.e., excluding firm-specific locations as these depend on the initiative of individual firms) means that these zones literally dot the planet. Taken together, they present an opportunity to the enterprising firm to create exchange networks and achieve nearly seamless supply and marketing chains as part of an international system while operating under highly advantageous trade and FDI regimes. In fact, coupled with import-oriented zones in major developed markets, EPZs can be viewed and used as important parts of a “virtual network” that may enable the production, movement, and marketing of goods in a barrier-free environment from their conception to just before the final sale. In viewing free zones worldwide as a system that can augment the benefits of individual EPZs, a firm would be able to use its familiarity with one or more EPZ operations by expanding to other zones as well, thus leveraging its firm-specific advantages in line with the precepts of the eclectic paradigm.

Figure 1 portrays the notion of free zones as a virtual exchange network, which is part of a complete international network that is part of a complete international network.
system that also includes the EPZ host nations, potential suppliers from other countries, and the firm’s ultimate target markets. The figure highlights the role of a set of EPZs in producing final goods that are also stationed in a freeport at the destination market before being released to the final buyers, all part of the virtual network. It also shows the role of the EPZ host nations and, lastly, also “closes” the broader system, in line with Meade and Nason (1991, 78), by including the feedback loops between host countries, the firm(s) operating in the zones, and the zones themselves.

### CONCLUSIONS AND DIRECTIONS FOR FUTURE RESEARCH

The virtually total silence of business scholars on the EPZ issue can be thought of as a second paradox in this field, when contrasted with the growing perceived importance of EPZs on the part of the three main constituents that show interest in it: business firms (which engage in ever-increasing zone-based trade and investments), host countries (of which an increasing number initiate or expand EPZ programs), and researchers in economics (where interest in free zones was and remains strong). To stress a point made early on in this article, although research in economics is clearly useful and offers relevant insights, its clear focus on development only prevents it from addressing the broader systemic issues that are relevant to the firm, the zone operators, and their host countries.

This lack of interest in EPZs by business researchers to date may be due to a number of factors, including the relatively recent emergence of interest in global marketing issues, which are integral to a business perspective on EPZs; awareness that another discipline is dealing with EPZs,

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**TABLE 3**

**A TYPOLOGY OF EPZ BENEFITS FOR INTERNATIONAL FIRMS**

<table>
<thead>
<tr>
<th>Category and Rationale</th>
<th>Benefit</th>
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<tr>
<td>DC-derived advantages</td>
<td>Depending on the country, five DC characteristics also apply to EPZs:</td>
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<td>1. Inexpensive labor</td>
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<td>2. Plentiful labor</td>
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<td>3. Access to raw and intermediate materials</td>
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<td>4. Access to large internal markets, given that the “exports-only” rule for EPZs has tended to be relaxed in many countries during the past two decades, enabling sales to the host’s domestic market as well (Kusago and Tzannatos 1998; UNCTAD 2002)</td>
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<td></td>
<td>5. Strategic country locations near major target markets for export</td>
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<td>FTZ-derived advantages</td>
<td>Seven general advantages of free zones also apply to EPZs:</td>
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<td></td>
<td>6. Duty-free imports</td>
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<td></td>
<td>7. No wasted duties/taxes on discarded materials due to spoilage/defects</td>
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<td></td>
<td>8. Less red tape</td>
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<td></td>
<td>9. Lower insurance costs (premiums apply to the duty-free value only)</td>
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<td></td>
<td>10. Lower inventory costs through centralized warehousing</td>
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<td></td>
<td>11. Flexibility in bulk-breaking, packaging, and labelling for various different foreign markets while goods enjoy duty-free status</td>
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<td>12. Given the above benefits, EPZs can be used more advantageously than other potential locations as central distribution hubs.</td>
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<tr>
<td>Unique EPZ advantages</td>
<td>At least ten EPZ-specific advantages can be identified:</td>
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<td>13. Product assembly or manufacture (not available at freeports etc.)</td>
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<tr>
<td></td>
<td>14. Generous (Madani 1997) tax holidays, grants, etc. FDI concessions</td>
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<tr>
<td></td>
<td>15. Duty-free imports not only of goods but also of manufacturing equipment (of particular importance in capital-intensive industries)</td>
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<td>16. Near-complete absence of red tape (mentioned under “FTZs” above but repeated here given the much greater differential between EPZ and domestic environments in DCs than, for example, at import-oriented zones in countries such as the United States)</td>
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<td>17. Relaxed environmental protection or labor laws (e.g., right to hire or fire workers based on merit within China’s SEZs)</td>
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<td>18. Right to establish fully owned or majority-controlled ventures</td>
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<td>19. Full repatriation of profits and/or capital (unlike the case in DCs’ domestic territory, where this is heavily regulated)</td>
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<td>20. Superior and often subsidized infrastructure (e.g., lower leasing costs for in-zone facilities)</td>
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<td>21. Greater protection against crime or unstable political environments (host authorities normally assume responsibility for security of the zone’s perimeter; e.g., Makabenta 2002)</td>
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<td>22. Dynamic competitiveness differential (hosts invest more on zones, to keep them globally competitive, and so their advantages are less static than those that the same nation’s domestic territory might offer.)</td>
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</table>

**NOTE:** DC = developing country; EPZ = export processing zone; FDI = foreign direct investment; FTZ = free trade zone; SEZ = special economic zone; UNCTAD = United Nations Conference on Trade and Development.
Countries establish and fund EPZs

1. raw/base materials from various countries are channeled to, or through after processing, one or more EPZs...

2. ... in parallel and/or sequentially...

3. ... "travelling free" throughout the virtual EPZ network...

4. ... including the opportunity for "duty-free stay," labelling, repackaging, etc. at an import-oriented Freeport...

... until demand warrants its release to the end-market in the target country’s “restricted” territory.

Profit from EPZ operations

Profits partly reinvested in expanded EPZ operations

Benefits returned to sponsoring country

Legend: countries & zones — product flows —— virtual network —— main process steps # broader system

FIGURE 1 INTERNATIONAL SYSTEM OF SUPPLIER COUNTRIES AND A VIRTUAL NETWORK OF FREE ZONES
reducing the perceived need for business research on the issue; perceptions of EPZs as a national development issue or as a tactical tool rather than a matter of strategic importance and one that pertains to the social responsibilities of the firm; the inherent difficulties in conducting international and particularly cross-national research; pure happenstance; or any number of other possible explanations. We will not speculate as to which of these may apply, but whatever the reasons, the dearth of business studies to date, coupled with the importance of EPZs, represents a broad field of opportunity for redressing the situation through new research. Simply put, it is as important for business managers to be aware of the potential impact of their operations in host societies as it is for the latter to be aware of the reverse. Therefore, there is a clear need for studies that investigate EPZs from the business, and particularly the macromarketing, perspective.

More broadly, the background information, the review of past research, and the definition, typologies, and benefits of EPZs that were proposed or outlined in earlier sections suggest that their growth will continue because both nations and firms have good reason (in fact, many and diverse good reasons) to invest in them. Thus we feel that a call for (macro) marketing research on the topic is well placed. At this point—that is, given the complete absence of a base on which new studies might build—such research may take one or both of two main directions.

First, the secondary statistics provided by major organizations leave much to be desired. For example, the principal EPZ database (ILO 2004) cites only thirty-four zones for the Philippines, which misses that country’s 133 Ecozones (Makabenta 2002) and excludes Mexico’s maquiladoras altogether (there were 353 as of almost a decade ago, formally classified as EPZs by the World Bank; Madani 1997). And yet, against these omissions, that database includes “336 industrial parks” in the United States, which is patently wrong in several ways—including that there are no “EPZs” in that country because all its zones are import oriented! As well, the number cited does not come close to the true figures for zones in the United States (248 main and 521 sub-zones; U.S. Foreign-Trade Zones Board 2002); the country’s main zones are not “industrial” but “trade” parks, and its subzones are not “parks” because they are firm-specific facilities. The same database also cites the number of firms in Albania’s EPZs at 2,422—a rather fantastical figure given the country’s size and one that makes the “world totals” of firms in zones, reported earlier with caution, suspect (by comparison to tiny Albania, the number of in-zone firms in Egypt, a country with a successful long-standing EPZ program, is reported as 829). Lastly, another major database (UNCTAD 2004) claims to show zone imports and exports for eighty-three countries during a twenty-three-year range to May 2003—but the vast majority of cells in the table are blank because of lack of data, making it impossible to use it in calculating world totals (e.g., imports and exports for 2000 are shown for only twenty-nine and twenty-one countries, respectively, and exports by rather major contributors such as China are not included).

In light of the above, we took three steps to ensure that the statistics reported earlier are free of major error. First, we cross-referenced a large variety of sources to identify and correct errors and reported only figures in which a reasonable amount of confidence can be placed, otherwise suggesting caution. Second, we used each source as the base for different statistics depending on the source’s known strengths (e.g., ILO on labor, World Bank on FDI). Lastly, we supplemented or cross-checked information in the global databases with data from country- or region-specific studies, which tend to be more accurate because the researchers have more immediate access to local sources pertaining only to the countries or regions in question. However, this can be a painstaking approach that does not allow, much less encourage, in-depth analyses of EPZs. It is clear that there is a great need for considerable work aimed at generating reliable and useful secondary data that would make such analyses possible.

A second, even more important, set of research opportunities lies in empirical studies. Unlike research in economics, which rarely involves field studies, the tradition (and perhaps great strength) in marketing research is that “we talk to people” through surveys and other approaches. Yet, as noted earlier, even among the small handful of business studies on EPZs, none is empirical, and Meade and Nason (1991) had earlier noted a general lack of empirical research in macromarketing. This points to the opportunity to ask a large number of questions of zone investors, zone authorities, and other relevant parties, which to date remain unaddressed.

These are too numerous to list here, but a summary outline can help to make the point. For example, what factors drive a firm’s decision to invest in an EPZ rather than a country’s domestic territory? For what exact purposes do firms use EPZs, and to what extent do they take into account the welfare and development needs of the host societies? Do investors decide on “country” first and then “which EPZ,” or vice versa, and what factors lie behind each approach? Why do some firms elect to locate in rural zones and others in urban EPZs, notwithstanding the systemic disadvantages of the former? (e.g., FedEx set up an Asian hub in the Philippines’ somewhat remote Subic zone, whereas its competitors did so at zones close to Manila; Makabenta 2002.) Which zone benefits weigh most heavily in firms’ decisions to invest in them? How do companies weigh country versus zone characteristics in making FDI decisions? To what extent do EPZ-based firms take global positioning and other broader considerations of the international zone-centered system into account when deciding whether, and if so in which zone(s), to invest? How, if at all, does the eclectic paradigm, as an explanation for FDI behavior, apply in the EPZ context? Lastly, what, if any, are the similarities and differences between the views of various zone constituents, including corporate executives versus local managers of zone operations, firms versus workers versus the host constituents.
society at large, or government zone managers versus corporate zone tenants?

Considering that each of these and many more questions can be asked, and the answers analyzed, from a variety of perspectives and using a variety of methodologies (e.g., small versus large firms, firms in different sectors, comparative research, survey versus case-based studies, and so on), this field presents numerous research opportunities indeed. Considering the potential importance of EPZs for international firms, and the near-complete absence of research to date, the time certainly seems right for new studies to help us understand it better. And considering the importance of EPZs for their host nations, new macromarketing research cannot but add substantively to existing knowledge and thus enhance the positive developmental and welfare effects of these institutions for developing countries. In summary, the value of the marketing perspective can be summed as follows: the better host nations understand the needs of their customers, that is, the investors they aim to attract to their zones, and the better investors understand the needs of their hosts, the more successful zone programs and the firms operating in zones will be. By synthesizing the available literature, suggesting three typologies, including in particular those concerning the benefits of EPZs for host nations and international firms, and suggesting a number of avenues for future studies, this study hopes to have contributed a useful first step in this direction.

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