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Export Processing Zones

PAST AND FUTURE ROLE IN TRADE AND DEVELOPMENT

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OECD

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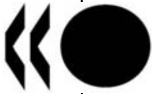

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EXPORT PROCESSING ZONES: PAST AND FUTURE ROLE IN TRADE AND DEVELOPMENT

OECD Trade Policy Working Paper No. 53

by Michael Engman, Osamu Onodera and Enrico Pinali

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ABSTRACT

This paper studies export processing zones (EPZs) which have become increasingly popular as a policy tool for development and export-oriented growth, and can be found in 130 countries around the world.

The report consists of four parts. Part I provides a broad overview on the current use of EPZs, including the evolution of EPZ policy, their objectives and how these are achieved, and the incentives commonly offered. It presents case studies from China, India and Russia illustrating new trends and policies. Part II then provides a review of the economic costs and benefits of EPZs with particular focus on their trade and employment implications. Part III presents an analysis of how common EPZ policies relate to trade rules. It reviews the relationship between EPZs and the WTO Agreements such as the WTO Agreement on Subsidies and Countervailing Measures (ASCM), followed by a discussion of how EPZs are commonly treated in RTAs. Part IV concludes.

EPZs are a sub-optimal policy from an economic point of view since it benefits the few and distorts resource allocation, but may be useful as a stepping stone to trade liberalisation on a national basis. Governments should consider all available policy options, and conduct a thorough cost/benefit analysis before implementation.

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The Working Party of the OECD Trade Committee discussed this report and agreed to make the findings more widely available through declassification on its responsibility. The study is available on the OECD website in English and French: http://www.oecd.org/trade

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EXECUTIVE SUMMARY

Export processing zones (EPZs) as a policy tool for development and export-oriented growth have proliferated over the last four decades. While already widely used in Asia and Latin America in the 1970s, over the last two decades they have become increasingly common in Africa and in transition economies. More recently, several large emerging markets such as China, India and Russia have adopted new EPZ legislation in response to shifts in industrial and trade policies. Increasingly, EPZs not only cater to traditional manufacturing but also target the services sector. More than 100 countries currently implement some form of zone policy for the supply of goods and services to foreign markets.

Trade liberalisation and government initiatives to improve the investment and business climates are most beneficial if introduced on a country-wide basis. EPZs provide a combination of financial incentives, streamlined business administration and trade liberalisation to a subset of the economy often defined as a specific geographical zone and/or targeting a specific sector. Hence, this is a sub-optimal policy from an economic point of view since it benefits the few and distorts resource allocation. EPZs as a policy tool touches on a range of issues and this paper primarily analyses its economic and trade rules aspects. It starts with an overview of the development of EPZs, including history and recent trends, and studies common objectives for EPZs and frequently offered incentives. The paper further assesses potential costs and benefits of EPZs and examines how EPZ incentives are covered by provisions in the WTO and regional trade agreements (RTAs).

The review of the economic costs and benefits of EPZs finds that while it is difficult to isolate the effect of any single policy, some EPZs have been successful in attracting FDI, promoting exports and generating jobs. In 2004 a limited global survey indicated that EPZs account for an estimated 8.3 percent of exports of manufactured goods and 0.2 percent of total manufacturing employment in countries with active EPZ programmes. However, not all EPZ programmes have been successful. Investment in infrastructure and generous tax incentives have not necessarily led to an increase in FDI. Even where FDI has been forthcoming, value added has often been low, and backward linkages and technology transfers quite limited. There is also a risk that a moderately successful EPZ may act as a "safety valve" and allow a government to defer necessary structural reforms in the overall economy.

Nevertheless, EPZs can play a useful role in a country's development and act as a spearhead for reform if integrated in the overall national strategy and complemented with other policies. EPZs may be particularly useful for countries that undertake progressive trade liberalisation. The EPZ may reduce anti-export bias of high tariffs, facilitate the creation of an export industry and improve a country's trade balance. RTAs and other preferential agreements have occasionally contributed to the success of EPZs. Exclusion on the other hand has had significantly negative effects on excluded countries. Provisions commonly contained in RTAs on drawback schemes may have serious implications on EPZ programmes.

A review of EPZs from the WTO rules perspective finds that the Agreement on Subsidies and Countervailing Measures is the most relevant agreement. Some developing countries, especially in Latin America, may have to reform their EPZ programmes by the end of 2007 when the transition period to phase out existing export subsidies runs out. Some EPZ policies may also need to be reviewed in light of the provisions in the Agreement on Trade Related Investment Measures (TRIMs) and the General Agreement on Trade in Services (GATS). A brief look at EPZ-related provisions contained in RTAs reveals that some RTAs especially related to Europe and Latin America have explicit provisions to limit the use of EPZs and duty drawbacks to avoid circumvention.

The analysis in this paper reaches the following conclusions:

- EPZs are a suboptimal policy from an economic point of view. Improvement of the business environment on national basis through trade and investment liberalisation, establishment of good infrastructure, rule of law and administrative simplification remains the optimal policy option to promote investment, employment and growth.

- EPZs however can provide an interim solution to countries with poor business environments where bridging deficiencies at a national level is not possible. This type of policy – with resources and market incentives focused on a subset of the economy– may be less time-consuming and require less political capital in the short term as it allows for continued protection of domestic industry.

- As an interim solution, EPZs should not be considered a substitute for general economic reform. While incentives may make up for certain deficiencies, governments should bear in mind that such incentives are made possible by taxing other parts of the economy, and thus should provide commensurate benefits to the economy.

- EPZs and similar policy instruments can logically serve, and in some cases such as Mexico and some Asian countries seem to have served, as a stepping stone to trade liberalisation on a national basis. They reduce anti-export bias of high tariffs by allowing an exporting company to access inputs at global prices, and thus may facilitate the creation of an export industry and improve a country's trade balance.

- Governments should consider all available policy options when examining strategies for export promotion, including general trade liberalisation, bonded warehouse schemes, duty drawback schemes, zone type EPZs and enterprise type EPZs. Each scheme has its advantages and disadvantages. In some cases countries have pursued a combination.

- In designing an EPZ policy, a government should set realistic expectations and conduct a thorough cost/benefit analysis. In conducting such an analysis, it should bear in mind that benefits are dependent on private investment which are unpredictable and rely on external factors. Thus governments should minimise upfront costs (e.g. infrastructure costs) whenever possible.

- Choice of location is critical for zone type EPZs. Companies look for, among other things, reliable infrastructure (energy, logistics, telecommunications), adequate supply of labour, and a well-functioning legal environment. A good location will minimise the costs of putting these requirements into place. Tax incentives provided to compensate for deficiencies are costly and unsustainable. More importantly, access to local suppliers is the key to promote technology transfers from foreign companies to domestic companies.

- While the use of financial and other incentives to attract foreign investors may be necessary in the short term, such incentives have government revenue implications and do not provide a substitute for policy measures towards a sound investment environment. Such incentives should be minimal and time bound. Long-term commitments create equity problems by discriminating an EPZ company and non-EPZ company which both are inherently equally important for the economy and go against the "temporary" nature of EPZs.

- Improved legal services, enforcement of the rule of law – even designated courts for dispute settlement - and streamlined procedures can significantly reduce business risk and help attract investors. Bearing in mind that FDI may easily shift elsewhere when incentives phase out, improvements in the business environment should be made expeditiously. EPZs can be a first step to such improvements by providing an avenue for consultation between governments and businesses. Improvements in the business environment thus achieved should be extended on a national basis.

- Exemptions or relaxation of labour rules and other regulations have often been detrimental by creating differential standards within a country which may disadvantage certain classes of workers and contribute to economic distortions.

- Interaction of EPZs and regional trade agreements may also lead to MFN tariff cuts. Phase out provisions for EPZs and duty drawback schemes often contained in regional trade agreements to avoid circumvention may force governments to respond in different ways. Governments can either phase-out tariff exemptions on inputs for exports to RTA partners and risk losing FDI or allow continued access to inputs at global prices by cutting tariffs on an MFN basis.

EXPORT PROCESSING ZONES: PAST AND FUTURE ROLE IN TRADE AND DEVELOPMENT

INTRODUCTION

1. Export processing zones (EPZs) represent a policy instrument frequently used by governments to promote trade and foreign direct investment (FDI). EPZs have become increasingly common as countries have shifted from import-substitution policies to export-led growth policies. According to the International Labour Office (ILO), the number of EPZs has increased exponentially from 79 in 25 countries in 1975 to some 3,500 zones in 130 countries in 2006. In 2006, EPZs employed an estimated 66 million workers, 26 million of which were employed in EPZs outside China.[1] EPZs are found throughout the world and prevalent in both developed and developing economies. The proliferation of EPZs implies that growing shares of international trade, investment and labour are affected by the various policies applied in these zones. It is hence pertinent to monitor this trend and study its implications.

2. The major reason for the proliferation in the use of this policy tool is the seeming success of EPZs in some countries and the confluence of four trends: a) the increasing emphasis on export-oriented growth; b) the increasing emphasis on FDI-oriented growth; c) the transfer of production of labour intensive industries from developed countries to developing countries; and d) the growing international division of labour and incidence of global production networks.

3. EPZs have evolved substantially since their first inception and have diversified both in terms of form and scope. Geographically, EPZs have evolved from fenced-in zones to include anything from single factory/company zones to zones encompassing a much wider area. While EPZs used to target foreign investors, increasingly both foreign companies and domestic companies coexist in the zones. The types of activities have also evolved: traditional production of goods such as textiles and clothing is still common but many new zones specialise in particular *goods* sectors such as electronics and chemicals, or in *services* sectors such as IT and financial services. In addition, ownership patterns have changed. Initially EPZs were owned and managed by governments but there is increasingly private involvement. The requirement that all production must be exported has been relaxed in many new zones and the supply of goods and services are increasingly allowed in the domestic economy upon payment of duties.

4. In addition, the trade and investment incentives that are offered vary greatly and include e.g. exemptions of import and export duties; streamlined customs and administrative procedures; liberal foreign exchange policies; free repatriation of profits; tax exemptions; subsidies and more flexible labour market regulations, which sometimes include exemptions from national labour laws and regulations. The diversity of EPZs is matched only by the diversity of terminology used by analysts.

[1] www.ilo.org/public/english/dialogue/sector/themes/epz/stats.htm

5. While many EPZs have had a positive impact on the host economy, not all EPZs have been successful and there is no consensus view of the relative merits of EPZs. Some analysts have emphasised that EPZs can help attract FDI, promote trade and thus generate employment and foreign exchange earnings. FDI and local production in turn may generate economic linkages to other domestic industries and spill-over effects through transfers of management know-how and technology. Other analysts have cautioned that the costs, which include investment in infrastructure, forgone tax and tariff revenue, and administrative support costs, may exceed the benefits. While there are well documented success stories, many EPZs have not managed to achieve their objectives of attracting FDI, promoting trade and generating new employment.

6. The debate on the merits of EPZs touches on a host of issues: from social issues, like labour rights (including the effect on women and children), environmental protection and urban planning, to macro-economic issues related to their impact on government revenue, employment, trade and foreign exchange earnings. While acknowledging the relevance of all these issues, the objective of this paper is narrower. It first provides an overview on the current use of EPZs and focuses primarily on the economic and trade rules aspects of EPZs. The information used is mainly retrieved from existing databases and previous studies. Some of the material has also been obtained from authorities in EPZs/SEZs.

7. The paper consists of four parts and is structured as follows. Part I provides a broad overview on the current use of EPZs, including the development of EPZ policy; their objectives and how these are achieved; and the incentives commonly offered. It presents case studies from China, India and Russia illustrating new trends and policies. Part II then provides a review of the economic costs and benefits of EPZs with particular focus on their trade and employment implications. Exemplary cases are again used to illustrate how EPZs have been used as a tool for regional policy; how EPZ policy and RTAs/trade preferences interact; and how EPZs have been used as a tool for trade facilitation and/or economic reform. Part III presents an analysis of how common EPZ policies relate to trade rules. It reviews the WTO Agreement on Subsidies and Countervailing Measures (ASCM), the General Agreement on Trade in Services (GATS) and the Agreement on Trade Related Investment Measures (TRIMs) followed by a concluding discussion of how EPZs are commonly treated in RTAs. Part IV concludes.

PART I. EXPORT PROCESSING ZONES – AN OVERVIEW

8. The fundamental concept of a zone or an "enclave"[2] is that it is covered by a policy framework designed by a government that is distinct from what applies elsewhere (i.e. the zone is treated as being outside of the domestic customs territory) and that aims to promote certain policy objectives. The zone is often subject to an environment strictly controlled by customs to prevent smuggling into the domestic customs territory (Hayward, 2000). However, in other respects, most rules are the same or more liberal than the general domestic economy in order to attract FDI. Some zones link incentives to performance requirements such as export requirements and local content requirements in the past or more recently technology content and employment commitments.

9. Different countries have adopted different names for their 'EPZs' or similar zones. The same holds for analysts and their definitions of what constitutes an 'EPZ'. Kusago and Tzannatos (1998) have presented a list on terminology that has been used: e.g. 'industrial free zone' and 'export free zone' in Ireland, 'maquiladora' in Mexico, 'duty free export processing zone' and 'free export zone' in the Republic of Korea, 'export processing zone' in the Philippines, 'special economic zone' in China, 'investment promotion zone' in Sri Lanka, 'foreign trade zone' in India and 'free zone' in the United Arab Emirates. Another frequent reference is 'free trade zones' which dates back to the 19th century.

10. Common denominators for EPZ definitions include references to "geographic or fenced-in areas" and "free trade conditions" to attract "export-oriented manufacturers". Frequently cited definitions state that an EPZ is:

- "an industrial estate, usually a fenced-area of 10 to 300 hectares, that specialises in manufacturing for export. It offers firms free trade conditions and a liberal regulatory environment" (World Bank, 1992);
- "a territorial or economic enclave in which goods may be imported, stored, repacked, manufactured, and reshipped with a reduction in duties and/or minimal intervention by customs officials" (McIntyre et al., 1996) ;
- "a fenced-in industrial estate specialising in manufacturing for exports that offer firms free trade conditions and a liberal regulatory environment" (Mandani, 1999) ;
- "an industrial zone with special incentives to attract foreign investment, in which imported materials undergo some degree of processing before being exported again" (ILO, 2003)

11. But as previously mentioned the variety and complexity of zones have increased as more countries have adopted various trade promotion zones for an ever larger variety of traded goods and services. Modern EPZs often have more flexible rules with regard to export requirements, e.g. some EPZs

[2] The word 'enclave' has been commonly used in EPZ literature with a negative connotation as it emphasises the strong intent of introducing and maintaining a regulatory difference inside and outside of the zone. While the word "enclave" is occasionally used in this text, it should be noted that zones can play a positive role if it regulatory changes introduced in zones are subsequently rolled out to the general economy.

allow for domestic supply although these products and services are treated as imports and subject to the same trade rules including tariffs. In this paper, we define an EPZ programme as:

> *a government policy to promote exports of goods and/or services by offering a more competitive business environment through provision of special incentives including in particular tariff exemptions to inputs either in a geographically defined area or through a specification process.*

12. This definition encompasses both traditional "fenced-in" zones and single factory EPZ programmes such as the Maquiladoras in Mexico. It also covers the "Information Processing Zones (IPZs)" which provide for tariff exemptions for computers and other equipment dedicated to the international supply of services. In addition, it conceptually includes other policy mechanisms that provide duty-free access to imported raw materials and semi-finished products for exports, such as duty exemptions on inputs for exporting firms and other similar schemes. Duty drawbacks where import duties on inputs for exports are refunded and bonded factories (factories placed under supervision of customs into which firms can bring imported inputs and from which they can export without entering the domestic customs territory) are other examples of such schemes. It excludes Free Ports that only allow for packing/repacking and warehousing, and SEZs that allow special regulatory treatment inside the zone but no tariff exemptions for inputs. Tailor-made policies have increasingly blurred the borders between different zones.

13. ILO's typology of export-oriented zones is presented in Table 2. References to SEZ, free zones, free trade zones and EPZ/IPZs are often used interchangeably in different countries. For example, SEZs in India fit our definition while the SEZs in China do not. This makes the issue of comparing and compiling country statistics challenging. The following analysis is based on the best data sources that are publicly available. Many of them have been compiled by organisations like ILO and FIAS.[3] The paper also presents SEZ policies in China and Japan to illustrate recent trends and to provide a brief but comprehensive overview.

The growth in export processing zones

14. The modern EPZ has existed for roughly half a century. Some of the first zones were established in Puerto Rico and in Ireland. The Shannon Free Zone[4] in Ireland is widely credited as the first model EPZ. It was set up in 1959 and replicated in one form or another in several other countries. In Asia, India established its first EPZ in Kandla in 1965, Chinese Taipei in Kaohsiung in 1965, the Republic of Korea in Masan in 1970, Malaysia in Sungei Way in 1971, the Philippines in Bataan in 1972 and Indonesia in Tanjung Priok in 1973 (World Bank, 1992). Bangladesh, Sri Lanka and Thailand also followed in 1977-1980. Some of these countries, like India, Malaysia and the Philippines, established several zones but many hosted a relatively limited number of workers. However, the Kaohsiung EPZ in Chinese Taipei grew particularly fast and employed approximately 90,000 workers a few years after its establishment (Bohlin, 2004). In 1980, surrounded by neighbours with EPZs, China decided to experiment with liberalisation of trade and investment in large but geographically limited SEZs. The five coastal SEZs generated FDI and economic growth and their relative success helped influence the Chinese government to embark upon an export-oriented growth path.

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[3] Please note that ILO and FIAS data may not always match perfectly with our definition of an EPZ.

[4] Faced with the imminent decline of Shannon International Airport, caused by the advent of the jet airliner which, unlike its propeller-driven predecessors, no longer needed refuelling on the transatlantic flight, the Irish authorities decided to transform the airport area into a free trade zone and set up manufacturing facilities in the area. In 1960, its first year of operation, the Shannon free trade zone saw the creation of 440 new industrial jobs and by 1975 was employing 3800 people. The total number of employees in the airport grew from 1250 in 1960 to 2200 in 1975 (ILO, 1988).

15. In 1970, Mauritius passed its Export Processing Zone Law.[5] African countries like Senegal, Liberia and Ghana also established EPZs in the 1970s. Latin America and the Caribbean followed the Asian trend with Colombia's Barranquilla (1964), Dominican Republic's La Romana (1965), Guatemala's Zolic/Santo Tomas de Castilla (1972), Honduras' Puerto Cortés (1972), El Salvador's San Bartolo (1973), Jamaica's Kingston (1976) and Costa Rica's Santa Rosa/El Roble (early 1980s). Except for the Dominican Republic's EPZs, these zones typically hosted a small number of companies employing moderate numbers of workers (World Bank, 1992).

16. By 1975, ILO estimated that there were 79 EPZs in 25 countries. Both the number of EPZs and the number of host countries have grown rapidly since then as have the number of workers in EPZs (Table 1). In 1997, most zone workers outside China were based in Latin America (48 percent) and Asia (42 percent) (Kusago and Tzannatos, 1998). Over the last decade, many new zones have been established in Africa, Eastern Europe and in transition economies. For example, in Africa, EPZs were established in Zaire in 1981, Togo and Madagascar in 1989, Cameroon and Kenya in 1990, and a number of other countries including Tanzania and Zimbabwe in the 1990s (Kinunda-Rutashobya, 2003). Some large emerging markets like Russia and India have recently passed SEZ legislation and China is currently establishing export-oriented services zones (more on this later). EPZ policies have generally been implemented in a wave-like pattern, starting from Asia, Mexico, Central America and parts of the Middle East in the 1970s, spreading to South Asia and the rest of Latin America and the Middle East/ North Africa in the 1980s and 1990s, and in transition economies and Sub-Saharan Africa in the 1990s onward (see Annex A for dates of established EPZ programmes).

Table 1. Estimates of the development of export processing zones

	1975	1986	1997	2002	2006
Number of countries with EPZs	25	47	93	116	130
Number of EPZs	79	176	845	3000	3500
Employment (millions)	N/A	N/A	22.5	43	66
- of which China	N/A	N/A	18	30	40
- of which other countries with figures available	0.8	1.9	4.5	13	26

Source: ILO (2003), www.ilo.org/public/english/dialogue/sector/themes/epz.htm.

17. EPZs are today established throughout the world. Annex B presents a list of 131 countries and customs territories – 101 of which are WTO members – that had established some form of "economic processing zone" by October 2006.[6] Most zones belong to the group that the World Economic Processing Zones Association (WEPZA) defines as "small area zones" (found in 124 countries and territories), which are generally less than 1,000 hectares, surrounded by a fence, and investors must locate within the zone to obtain any benefits. Thirteen countries and territories have "large area zones" with their own resident populations. Fifteen countries and territories have industry specific zones. While these definitions do not match the definition used in this paper, they exemplify the geographic reach of areas with tailor-made policies for the supply of goods and services. They cover all income groups from least developed countries

[5] The Mauritian zone was unique in providing duty-free inputs to export-oriented companies regardless of their location on the island.

[6] Please note that the ILO and WEPZA figures differ because of different definitions used and different time periods studied. Note also that the table refers to types of *economic* processing zones rather than strictly to *export* processing zones.

such as Bangladesh, Bolivia, Togo and Yemen to OECD-countries like France, Japan and the United States (see Box 1 on Foreign Trade Zones in the U.S. and Box 2 on China and Japan's experience with SEZs).[7]

Box 1. Foreign-trade zones in the United States

In 2004, some 2,700 companies employed around 330,000 workers in U.S. 'foreign-trade zones' (FTZs). These zones are declared outside U.S. Customs territory for customs duty purposes and were established to offer special customs treatment to U.S. factories. A good that enters an FTZ is not subject to tariff payment unless it later enters into U.S. Customs territory. Goods held in FTZs are exempted from state and local inventory taxes and quota restrictions may be waived for goods entering an FTZ and later exported.

FTZs cover activities such as assembling, packaging, destroying, storing, cleaning, exhibiting, re-packing, distributing, sorting, grading, testing, labelling, repairing, combining with foreign or domestic content, or processing. There are two types of FTZs: 'general-purpose zones' are used by more than one company and they are generally ports or industrial parks used by SMEs for warehousing/distribution and some processing/assembly; and 'subzones' which often cover a single company's site used for more extensive manufacturing/processing or warehousing/distribution that cannot easily be accomplished in a general-purpose zone.

In 2004, the value of shipments to FTZs amounted to US$ 305 billion while exports from FTZs amounted to US$ 19 billion. This export figure does not include indirect exports of FTZ goods that undergo further processing in the United States prior to exports. Crude and petroleum oils and related products and autos/other motor vehicles and parts were the largest items received in the general-purpose zones in terms of value. In the sub-zones, crude and petroleum oils were by far the largest item. The export figures as compared to shipments to FTZs show that foreign trade zones in the United States in fact may be acting more as "import processing zones". If approved by the U.S. FTZ Board, inputs and intermediate products may be admitted to an FTZ for manufacturing (generally in combination with domestic inputs) with duty ultimately assessed on the basis of the finished products that are shipped to the US market. The deferral of payment of import duties on inputs and intermediate products while the products are kept in stock acts as an incentive for producers. FTZs are also used as EPZs in the traditional sense for some trade with Mexico where parts are imported from Mexico and re-exported to Mexico for further processing.

Source : 66th Annual Report of the Foreign-Trade Zones Board and http://ia.ita.doc.gov/ftzpage/tic.html, FIAS (2007, forthcoming).

[7] While the example of U.S. is provided, many European countries maintain similar zones under EC Council Regulation No. 2913/92, Title IV, Chapter 3, Section 1 "Free Zones and Free Warehouses" (Articles 166 through 181). See UNESCAP(2005) for details on EU policies on incentives.

Box 2. China and Japan's experiences with Special Economic Zones

While they do not fit the definition of an EPZ, the Special Economic Zones (SEZs) in China and Japan highlight the various zone policies available. In China, SEZs were part of an initial wave of enthusiasm for economic and political reforms that swept through in the 1970s. They were conceived as an instrument to bring the skills, technology and foreign capital needed for the country's modernisation process. The SEZs were to be laboratories in which different doses of the market economy could be experimented upon and adapted and imported into the socialist economy. One characteristic of China's SEZs is that they often encompass entire cities. Shenzhen became the testing ground for market oriented reforms, which included, among others, the private (non-state) financing of state-owned enterprises, the adoption of employment based on labour contracts, the introduction of performance based wages and bonuses, and the recognition of citizen status to foreign firms, thus allowing competition to state owned enterprises. SEZs contributed significantly to the Chinese's modification of prevailing policy thinking and to its economic progress.

In 2002, Japan launched its initiative on *Special Zones for Structural Reform* building on China's success in its Special Economic Zones. The Special Zones approach allows geographically limited areas to act as a testing ground for reforms that are blocked at the national level. By 2005, a cumulative total of 547 regulatory reform proposals had been accepted. Of them, 206 had been tried in 709 special zones while the remaining 341 proposals were implemented nation-wide. One objective of the Special Zones initiative was to trigger "regulatory competition" among municipalities striving to attract investment. While it is still too early to judge the effect of the initiative, a number of observations can be made. First, special interests continue to stall the implementation of key reforms even in special zones. Second, striking a balance between the interests of municipalities making reform proposals and the general economy presents a challenge. According to the Japanese government, the implementation of proposals are basically evaluated after one year and are extended on a national basis unless there are adverse effects. While early extension of reform proposals on a national basis is preferable from a general economy perspective, this leads to smaller benefits to the municipalities taking the reform initiative, which may lead to lower incentives towards making future proposals. Third, the introduction of a regulatory reform measure on a limited basis and subsequent extension on a national basis leads to a significant increase in the administrative burden of regulatory reform: many agencies state that acceptance of regulatory reform proposals on a national basis from the start may be a less costly alternative.

Source : Wei (1999b), OECD (2004), OECD (2006a).

Table 2. Types of zones: ILO's evolutionary typology

	Trade	Manufacturing			Services		
	Free port	**Special economic zone**	**Industrial free zone / Export processing zone**	**Enterprise zone**	**Information processing zone**	**Financial services zone**	**Commercial free zone**
Physical characteristics	Entire city or jurisdiction	Entire province region or municipality	Enclave or industrial park	Entire or part of city	Part of city or zone	Entire city or "zone within zone"	Warehouse area often near port or airport
Economic objectives	Development of trading centre and diversified economic base	Deregulation; private sector investment in restricted area	Development of export industry	Development of SMEs in depressed areas	Development of information processing centre	Development of off-shore banking, insur-ance, securities hub	Facilitation of trade and imports
Duty free goods allowed	All goods for use in trade, industry, consumption	Selective basis	Capital equipment and production inputs	No	Capital equipment	Varies	All goods for storage and re-export of import
Typical activities	Trade, service, industry, banking, etc.	All types of industry and services	Light industry and manufacturing	All	Data processing, software dev. Etc	Financial services	Warehousing, packaging, distribution, trans-shipment
Incentives **- taxation** **- customs' duties** **- labour laws** **- other**	Simple business start-up; min. tax & regulatory restraints; waivers to termination of employment & overtime; free repatriation of capital, profits & dividends; preferential interest rates.	Reduced business taxes; liberalised labour codes; reduced foreign exchange controls. no specific advantages; trade unions discouraged	Profits tax abatement and regulatory relief; exemption from for. exchange controls; free repatriation of profits; Trade union freedom restricted despite that EPZs are required to respect national employment regulations; max 15 years exemptions on all taxes	Zoning relief; simplified business registration; local tax abatement; reduction of licensing requirements; prohibited trade unions; government mandated liberal on hiring and firing	De-monopolisation and deregulation of telecoms; access to market- priced INTELSAT services; specific authority manages labour relations; Trade union freedom restricted	Tax relief; strict confidentiality; deregulation of currency exchange & capital movements; free repatriation of profits	Exemption from import quotas; reinvested profits wholly tax-free
Domestic sales	Shipment outside possible with payment of full duty	Highly restricted	Limited to small portion of production			Limited to small portion of production	Unlimited, upon payment of full duty
Other features	Additional incentives & streamlined procedures	Developed by socialist countries	May be extended to single- factory sites				
Typical examples	Hong-Kong, Macao, Singapore, Bahamas, Bataan, Labuan	China (southern provinces, incl. Hainan, Shenzhen)	Ireland, Ch. Taipei, Malaysia, Dom. Rep., Mauritius, Kenya, Hungary	Indonesia, Senegal	Bangalore, Caribbean	Bahrain, Dubai, Caribbean, Turkey, Cayman	Jebel ali, Colon, Mauritius, Iran

Source: ILO (2003) edited by Secretariat

EPZs and economic development

18. Some developing countries have tried to use EPZs as a tool to kick-start industrialisation. New economic opportunities create employment, which by extension generates income for consumption. Many poor countries have scarce resources for investment in productive capacity and try to attract foreign capital to produce goods and services for foreign markets. Other countries have good access to capital but potential investors have limited incentives to invest due to regulatory restrictions, trade barriers and inefficient administration. In both types of environments, a relaxation of government intervention and attached incentive packages for capital investment in export-oriented production in a limited area is one strategy to stimulate economic activity. This type of policy – with resources and market incentives focused in a specific zone – may be less time-consuming to establish. It allows for continuing protection of the domestic economy and thus consumes less political capital in the short term than comprehensive reforms often linked to country-wide liberalisation.

19. Some countries have established EPZs to increase foreign exchange earnings while yet others have aimed to stimulate production of non-traditional exports such as electronics and automobiles. EPZs have also been located in disadvantaged regions or cities to tackle unemployment. With time, some countries have benefited from the significant dynamic effects that foreign investment can bring. Technology transfers and demonstration effects can act as catalysts for domestic entrepreneurs and some of the more successful EPZs have managed to integrate the zones in the national economy (Cling and Letilly, 2001; Madani, 1999).

20. Traditional EPZs offer export-oriented manufacturers access to duty-free imports of capital and intermediate goods, supply of cost-effective labour, and various tax incentives. According to Schrank (2001), EPZs thus "reconcile the otherwise conflicting interests of developing country officials who need to generate jobs and foreign-exchange revenues, foreign manufacturers who need to import essential inputs and local manufacturers who are unable to compete in world markets". In his view, EPZs are designed to attract export-oriented light industry and to shield the domestic industry from competition. While this may still hold in some countries, others have designed more forward looking policies, managed to better integrate the EPZ in the national economy, and in the end used the EPZ as a tool for national reform. Rather than focusing on fiscal incentives such as tax breaks and tariff exemptions, some modern zones have primarily focused on providing an internationally competitive business environment. This means improved infrastructure in terms of transport and logistical linkages and state-of-the-art communication networks, efficient customs operations, reliable utility services and efficient administration. More and more zones – in particular in the services area – are today attracting high-skilled labour rather than low-skilled labour.

21. In a paper reviewing experiences in Asia, Jayanthakumaran (2002) presents a number of overarching objectives for established EPZs/SEZs. In Singapore, EPZs were used to attract investment in an economy already free of trade restrictions. Transition economies such as Malaysia, Korea, Chinese Taipei, and Thailand used EPZs as a catalyst to shift from inward to outward-oriented policies: EPZs were one of several steps taken to integrate in the world economy. The EPZs in Korea and Chinese Taipei also evolved and integrated well in the domestic economies. In Thailand, a major aim was to move industry from Bangkok to overcome problems of congestion and pollution. In inward-oriented countries like India, Indonesia and the Philippines, EPZs were introduced to create island of business friendly areas free from the significant distortions plaguing domestic industry. China initiated its ongoing economic reforms by experimenting with Special Economic Zones (SEZ) to attract FDI in selected areas. This policy was initially discouraging linkages with the domestic economy but was later reversed.

Common incentives in EPZ policy

22. Incentives are offered in EPZs to make up for the host economy's inherent inefficiencies, be they a protected domestic market, regulatory barriers or poor infrastructure. An EPZ in an economy with high inherent inefficiencies may allow it to attract investors while maintaining some of these inefficiencies by providing incentives compensating for the lower returns an investor may expect compared to other locations. Some of these incentives are normally time limited – e.g. corporate income tax breaks – or tied to specific criteria, such as minimum levels of investment or employment. Others yet are intended to create a more business friendly environment.

23. Companies that wish to move production abroad evaluate a number of locations before they decide where to invest. These evaluations are normal cost/benefit analyses which may include risk assessments and considerations to scalability of labour resources, access to suppliers, time-to-market, etc. The following incentives are often provided to affect companies' decisions[8]:

- ***Enhanced physical infrastructure***, including enhanced access to transport and logistical networks, telecommunications networks and utility services. Some zones also provide production/office space, residential housing and services institutions such as schools;
- ***Streamlined administrative services***, for instance by providing single window or one-stop shop government services, fast track customs services, simplified or abolish licensing procedures, and a dedicated legal framework and court;
- ***Fiscal incentives***, such as:
    - Duty drawbacks or exemptions from import duties on raw material, intermediate inputs and capital goods used in the production of goods and supply of services.[9] This can also include various exemptions of customs fees and charges;
    - Exemptions from the payment of sales tax on exported products or services as well as on all goods and services domestically purchased and used in the production;
    - Tax holidays, rebates or reduced tax rates on corporate income or profits, often linked to the export performance of companies or to the share of exports in total production;
    - Indirect subsidies, like special grants for education and training; and direct subsidies, like the supply of water and electricity below market rates;
- ***Relaxed legal and regulatory requirements***, including on foreign ownership, labour and environmental laws and regulations; foreign exchange regimes, and rules on the lease or purchase of land;
- ***Export promotion services***, including business advisory services, sales and marketing support, finance, and export credit services

24. Many of the policies and incentives presented above are related to trade policy and covered by the rules in the WTO framework. An overview and analysis of these agreements and their prospective applicability to common EPZ policies are provided in part III of this paper.

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[8] UNESCAP (2005) presents a comprehensive list of incentive packages frequently offered.

[9] Sometimes duty exemptions may extend to construction material for manufacturing facilities and offices and automobiles for transport.

New trends in zone policy

25. This section presents three short case studies of large emerging markets that have recently renewed their interest in EPZ/SEZ policy and introduced new legislation for their establishment. The first case is India which very recently adopted a legal framework for SEZs that may have a significant impact on the economy due to the virtual explosion in the number of zones that have been approved. The second case study presents recent developments in Russian SEZ legislation which was modified in 2005. Finally, the Dalian Software Park is one of six export-oriented zones that have been established in China to complement the country's manufacturing-oriented economy and to stimulate the exportation of IT and IT-enabled services.

Special Economic Zones in India[10]

26. While the first Indian EPZ was established already in the 1960s, EPZ policy has not been part of a coherent national strategy and its impact on the Indian economy was minimal. According to the Confederation of Indian Industry, the Indian EPZ policy of the 20th century failed to address issues related to administrative inefficiencies, rigid customs procedures for bonding and bank guarantees, foreign ownership and infrastructural shortcomings. However, in April 2000, the Government of India adopted a new policy framework titled 'Export and Import Policy 2000' for the establishment of public, private or joint public-private SEZs. The objective was to provide internationally competitive and business friendly environments for goods manufacturers and services suppliers. Existing EPZs were converted into SEZs and private zones were allowed to be controlled by both Indian and foreign companies. By March 2005, 811 companies were operating in eight functional SEZs, generating INR[11] 18.3 billion (US$ 0.4 billion) in exports and providing employment to 100,650 workers of which one-third were women. Given these rather modest results, the 'Special Economic Zones Act 2005' was enacted in February 2006 and it has triggered a rush to establish new SEZs. By September 2006, 181 new zones had been approved and another 200 applications were pending (BBC, 2006; FT, 2006).

27. The Special Economic Zones Act 2005 provides for the simplification of procedures and for single window clearance on issues relating to central and state governments.[12] Designated courts and a single enforcement agency will be established in SEZs to ensure swift trial and investigation of offences committed in SEZs. Proposals for new SEZs are required to fulfil a number of conditions. There is a minimum size criteria of 1,000 hectares for multi-product zones; 100 hectares for services-sector zones; and 10-100 hectares for sector-specific SEZs. The 10 hectares limit holds e.g. for gems and jewellery, IT services and bio-technology. SEZ-based companies must abide by local laws, rules, regulations or by-laws in regard to area planning, sewerage disposal, pollution control and the like. They must also comply with industrial and labour laws and such other laws/rules and regulations as may be locally applicable. Companies in SEZs are not subjected to any pre-determined value addition or minimum export performance requirements but sales in the Domestic Tariff Area (DTA) by SEZ-based companies are subject to payment of full custom duty and import policy in force.

28. SEZs are declared designated duty free zones treated as foreign territory for trade operations and tariffs. A manufacturer in a SEZ needs to be a net foreign exchange earner over a five-year period to qualify for the benefits but can then be a net importer and supply the domestic market. Salient features of the SEZ policy framework include e.g. the exemption from customs duty, excise duty, etc. on

[10] This case study is based on information provided by the Indian Ministry of Commerce and Industry (2006a, 2006b).

[11] Indian rupees

[12] The single window was designed to help overcome bureaucratic barriers prevalent in India.

imports/domestic procurement of goods for the development, operation and maintenance of SEZs and the companies therein. Central sales tax for domestic purchases are reimbursed and supplies from the DTA to the SEZs are treated as deemed exports. There are no licence requirements for imports. Companies can carry forward losses and write-off unrealised export bills up to 5 percent. Profits may be repatriated without dividend balancing requirements.

29. In addition, there is a 100 percent income tax exemption for five years, 50 percent for the next five years and up to 50 percent of the export profits reinvested for an additional five years. Offshore banking units located in the SEZs also enjoy a 100 percent income tax exemption for five years and a 50 percent cut for the next five years. 100 percent FDI in the manufacturing sector is allowed automatically except for a few sectors such as arms and ammunition, alcoholic beverages, atomic substances and tobacco products. The customs authority provides in-house customs clearance, performs no routine examinations and requires no separate documentation for customs and import-export policy. There are also exemptions from the dividend distribution tax to SEZ developers and minimum alternate tax and central sales tax on inter-state purchase of goods for SEZ developers and SEZ-based companies.

30. India's new SEZ policy, promoted by the Ministry of Commerce, has given rise to concerns. For example, the Ministry of Finance estimates that the government will lose out on INR 0.9 trillion (US$ 20 billion) in taxes by 2009-2010. The Indian Ministry of Commerce estimates that SEZs will attract investment of INR 1 trillion (US$ 22 billion) in 2006-2008 and result in direct employment of more than half a million workers. Some analysts point out that some of the tax breaks benefit economic agents that would have invested regardless of the SEZ scheme while others believe the many small-sized SEZs will fail to provide the scale economies needed to industry (BBC, 2006; FT, 2006). There are also concerns about the compensation programme for farmers and land owners. It remains to be seen whether the SEZ policy will serve as a spearhead for reform, especially of regulations at the state level. If sufficient FDI can be attracted to the SEZ, it is hoped that the backward linkages and spill-over effects in the Indian economy would be much greater than in the past[13].

Special Economic Zones in Russia[14]

31. Although Russia had an EPZ policy in place in Kaliningrad, it is a relatively new user of EPZs. In June 2005, the Russian government adopted Federal Law no. 117 "On special economic zones in the Russian Federation" which is a new legislation on the creation of special economic zones which forms part of a programme to diversify and modernise the economy. According to the new legislation, two categories of SEZs can be established on land owned by federal or local governments for a maximum period of 20 years.[15] First, SEZs for industrial production can be established on a territory of up to 20 km². The value of each project should be at least € 10 million (€ 1 million in the first year) and in the form of green-field investment in activities other than mining and processing of natural resources and processing of ferrous and non-ferrous metallurgy products. Second, technology-innovative zones can be established on territories up to 2 km² and there are no minimum investment criteria for such projects.

32. Russian or foreign-controlled companies based in SEZs are eligible for various tax incentives, including exemptions of regional taxes (property and land taxes). Companies in technology-innovative

[13] According to Madani (1999), backward linkages have been greater in countries where a solid industrial base existed prior to the establishment of the EPZs.

[14] This case study is based on information in OECD (2006b).

[15] The Russian notion of SEZ departs from the language applied in most other jurisdictions. In particular, the Chinese SEZ usually mean entities established outside the normal legal and regulatory framework and with a governing board stipulating tax rates, utilities tariffs, regulatory requirements, etc. The Russian SEZ seems to correspond rather to the concept of free economic zones.

zones also enjoy reductions (from 26 percent to 14 percent) of the federal unified social tax. Industrial companies are allowed to accelerate depreciation of their fixed capital investment, carry over losses and include their R&D spending in current expenditures. Registration procedures for SEZ-based companies are simplified with an administrative single-window arrangement and reduced tax inspections. SEZ-based companies can also enjoy a number of customs privileges such as exemptions of customs duties and VAT on imports, and exemptions of excise duties on Russian goods. Exports of goods from SEZs will furthermore not be subject to payments of customs duties, VAT and excise taxes. Transport and other infrastructure will be partly financed by the federal budget (between 50 to 75 percent depending on the zone) and the remaining costs by regional budgets. A Federal SEZ Agency will also negotiate with Russian banks the possibility of guarantees and privileged credit conditions for SEZ-based companies.

33. In November 2005, four sites were selected for technology-innovative zones and two sites for industrial production zones. These SEZs are expected to be operational in 2007. While several OECD-based multinationals have expressed their interest in establishing subsidiaries within the zones, and several new technology-innovative zones are planned, it is too early to pass any judgment on their likely effect on the Russian economy. According to estimates by the Ministry of Economic Development and Trade, an SEZ is expected to produce an annual output of US$ 210 million, create some 14,000 jobs and attract foreign investment of US$ 330 million. Russia's recent experience with SEZs in particular in Kaliningrad has been mixed. Such zones have tended to create enclaves rather than become the engine of general economic development. The SEZ scheme is considered as a pilot project to be carefully evaluated in a few years time. Given that the main objective of the SEZs is to reduce administrative barriers, the authorities expect SEZ to be particularly attractive to foreign investors which often see administrative barriers as the main obstacle to their establishment and operations in Russia.

Dalian Software Park[16]

34. China embarked upon a progressive liberalisation process which started in 1979 and established Special Economic Zones in Shenzhen, Zhouhai, Shantou, Xiamen and Hainan (See also Box 2). These zones were later followed by a large number of development zones on various levels in the economy. The Dalian Software Park is a useful illustration in the recent evolution of China's Zone policy.

35. China's IT and IT-enabled services sector is expanding rapidly due to buoyant domestic demand and increasing exports in particular to Japan. The 3 km² Dalian Software Park (DLSP), established in 1999, is one of the fastest growing software parks in East Asia and a major gateway for Chinese exports of IT and IT-enabled services to Korea and Japan. It is also one of six "national software export bases" approved by the Chinese Government to export IT and IT-enabled services. DLSP has several merits for the supply of IT and IT-enabled services. Due to its geographical proximity and historical links to neighbouring Japan and Korea, the region has a substantial Japanese and Korean speaking population which can supply voice-based and non-voice-based business process services. Dalian and surrounding regions also host several universities and research institutes that provide plenty of high-skilled graduates which form the backbone in the outsourcing sector.

36. Exports has grown rapidly: after the first establishments of mostly domestic companies in 1999, Panasonic setup operations in 2001 as the first Japanese multinational and GE Capital International Services arrived the following year. In September 2006, 340 companies were operating from the DLSP and roughly 40 percent of those were foreign-owned. Half of the companies supplied IT and IT-enabled services to clients mainly in East Asia. A recent joint venture between DLSP and a Singaporean company is currently investing to develop the park by adding another 9 km² which would make it the largest software park in China. This project is to form an industrial arrangement enclosing a Software

[16] *Source:* www.dlsp.com.cn and discussions with representatives from the DLSP.

Development Zone, a Research & Development Zone, an Information Service Zone, an Education & Training Zone, and a Corporate Campus Zone, plus adjacent public services and housing.

37. DLSP offers companies a set of preferential policies. Foreign companies that operate in the DLSP can enjoy preferential tax treatment during five years from the year the company starts making a profit: the taxes of the first 2 years are exempted and taxes for the following 3 years are reduced by 50 percent. Moreover, as long as exports make up at least 70 percent of total production value, income tax is reduced from 33 percent to 10 percent and the maximum VAT from 17 percent to 0-3 percent. For software products, VAT and export tax are exempted. For technology exports, the sales tax and income tax are exempted. Companies that export software products for more than US$ 1 million can conduct trade operations without having to make use of a third party export/import agent. Furthermore, import tax and VAT are exempted for imported equipment used by software companies and for technology, including software, and the parts and spare parts imported together with the equipment (with some exceptions).

38. Companies that employ graduates with Bachelor degrees or higher qualifications are further allowed to register their employees as permanent residents. Software developers and backbone operating management personnel under the age of 35 from other regions, including their spouses and underage children, can also be registered as permanent residents. They are also exempted from paying the city environmental fee. The same goes for overseas Chinese that come and work in the DLSP. They receive long-term temporary residential cards and their children enjoy similar rights as locals for school and kindergarten services. Annual “special funds” are provided from state departments, the province and the city to DLSP-based companies in addition to support from risk investment companies. Companies and employees also enjoy preferential treatment in buying or renting office buildings in the park.

PART II. EPZS FROM AN ECONOMIC PERSPECTIVE

39. In a competitive global market, exporting companies without access to inputs at global prices, may be at a significant disadvantage. In fact, the presence of high tariffs in some developing countries often undermines the expansion capacity of companies looking to compete in the international market. Combined with recurring bottlenecks affecting the general business climate in an economy, it discourages FDI inflows. EPZs provide policy responses aiming at the provision of a level playing field for exporters through a combination of financial incentives, streamlined business administration and trade liberalisation. This is often targeted to a subset of the economy, defined as a specific zone, or directed to a specific sector.

40. Although widely employed, zone programmes remains a less than optimal strategy. Instead, trade liberalisation and government initiatives to improve the investment and business climates on a country wide basis are the best policy option. Most economic theory papers show that EPZs are welfare reducing[17] although a few papers state that welfare may be improved under certain limited conditions, e.g. by attracting FDI that diversifies production.[18] Hence, EPZs are an economically sub-optimal policy since they benefit the few and distorts resource allocation. Considering the possible benefits and underlying costs (See Table 3), a thorough cost/benefit analysis should always be conducted.

41. In the first section of Part II, we review a number of cost/benefit analyses conducted for EPZs in the past. We then look into some of the major elements considered in such analyses. These cover exports, FDI, foreign exchange earnings, employment, technology transfers, investment in infrastructure, foregone tax revenue and subsidies. In the second section, we study how an EPZ programme can fit in an overall economic policy and present a case where EPZ programmes have often failed (e.g. regional policy). There is also discussion of some major trends that may affect the success or failure of an EPZ programme, including in particular RTAs and preferential trade programmes such as the African Growth and Opportunity Act (AGOA).

[17] See Devereux and Chen (1995) for a comprehensive review of the literature which includes Hamada (1974). Hamilton and Svensson (1982) and Wong (1986).

[18] Miyagiwa (1986) for example states that EPZs can improve welfare if the export subsidy is small relative to the import tariff, and that the impact of the subsidy in the output of the industrial good previously produced in the country is large relative to the impact in the output of the diversifying good (Jenkins, 1998).

Table 3. Prospective benefits and costs of EPZ policy

Benefits	Costs or Loss of Revenue
• Export growth • Foreign direct investment • Foreign exchange earnings • Employment • Technology transfers • Information exchange with companies • Government revenue	• Infrastructure investment • Administrative costs (setting up of separate administrative arrangements) • Foregone tax revenue (tariffs, income tax and other taxes forgone) • Subsidies • Social and economic costs (potential loss of worker rights and protection afforded under national laws and regulations and possible degradation of the environment)

Source: OECD Secretariat based on Madani (1999).

Costs and benefits of EPZs

42. A thorough cost/benefit analysis based on realistic expectations should always be conducted at the planning stage of an EPZ (See Box 3 for examples of cost-benefit analyses). Private sector investment is key for a successful EPZ policy and much of the expected benefits rely on their realisation. While the expected number of investing companies would depend first and foremost on whether the EPZ provides good prospects for profits, this would depend to some extent on external factors such as the state of the home country economy (in the case of FDI) as well as the global economy and the availability of funding on the international financial market, which are difficult to predict beforehand. The expected FDI inflow (and thus expectations on the benefits of an EPZ) may be significantly overestimated, while costs related to the establishment of an EPZ such as infrastructure investment and various administrative costs will often tend to be underestimated. Thus when conducting a pre-EPZ cost/benefit analysis, it is necessary to employ conservative estimates especially minimising the upfront costs.

43. When performing such an assessment, a country would need to look at various alternatives – i.e. trade and investment liberalisation on a national basis or on a more limited basis; if considering the EPZ option, whether to construct a traditional zone type or whether to introduce an "enterprise" type of policy, or a combination of both. If incentives can be limited to free access of imported inputs and intermediates, a duty drawback scheme or a bonded warehouse may be an appropriate solution (see Box 4).

44. Three caveats should be made before looking at experiences in benefits and costs of EPZs. The first point is that, as is the case in social sciences, the counterfactual is not clear. Even if exports and/or employment increase after the establishment of an EPZ, this does not necessarily signify a cause and effect. In other words, there may well be cases where FDI may have increased even in the absence of an EPZ. It is extremely difficult to distinguish the effect of an EPZ and effect of other policy changes and/or changes in the general environment. This may lead to a systematic over-estimation of the benefits of EPZs. Second, the following analysis does not look at the distribution of benefits and costs. Some benefits such as employment clearly benefit the host country. On the other hand, while foreign exchange earnings are expected to benefit the host country, they may simply be repatriated abroad in the form of profits. Third, some of the benefits are intangible and difficult to measure such as technology transfer, effect on regulatory capability of the host government, etc.

Box 3. Examples of Cost and Benefit Analysis of EPZs

Warr (1989) conducted an analysis measuring the net benefit from the presence of a zone as opposed to the gain that could occur if those resources were used elsewhere in the economy. He calculated a benefit and cost stream for several years and discounted this using an estimated social discount rate. The benefits that were considered included net foreign exchange earnings, employment generation, revenue raised from renting or selling factory space, domestic material sold and taxes raised. The main costs considered were infrastructure expenses, public services provided, access to preferential financing and administrative costs. The author concluded that foreign exchange and employment generation were the most important sources of benefits to the economy while infrastructure costs were the main cost factor. Studying four zones in Malaysia, Indonesia, Korea and the Philippines, the author further concluded that three of them achieved positive internal rates of return while the Bataan Zone in the Philippines showed negative returns. [19]

Jayanthakurmaran (2003) reviewed several cost-benefit analyses[20] of EPZ experiences in Asia, which tried to quantify net benefits derived from zone programmes.[21] The study found that static gains from EPZs were realised through increased inflow of foreign exchange and through the compensation received by factors of production and suppliers. Complementing these gains were improvements in infrastructure and government services as well as land development. Other more dynamic gains took place while supporting a country's process of industrialisation. The EPZ's showcase induced knowledge spill-over effects bringing technology improvements and skills development to the domestic market

Most EPZs were found to be economically efficient and generating returns well above the estimated opportunity costs except in the above mentioned case of Baatan. EPZs were a significant source of employment in the observed countries and in some cases zones were also able to promote local entrepreneurship. Conversely, as countries further develop their industrial capacity, market advantages given by zone programmes as well as the opportunity costs of labour in EPZs tend to shrink. Without effective long-tem linkages with the domestic economy through profit generation for local shareholders, continued national interest in zone programmes is considered likely to be lost.

While these studies are based on many assumptions such as the estimated social discount rate which have great bearing on the results and do not incorporate the indirect benefits of EPZs, these and similar studies provide useful reference points. When the concept of discount rate is incorporated, one finds that the effects of high upfront infrastructure costs are augmented while the importance of attracting FDI at an early stage becomes clearer.

Source : Warr (1989) and Jayanthakurmaran (2003).

19 .One of the reasons for the negative returns is because the cost of the hydroelectric dam built under the free zone program had been fully attributed to the Bataan zone whereas the significant benefits provided by the dam outside the zone through power and water was not reflected.

[20] Spinanger (1984), Warr (1989 and 1990), Chen (1993) and Jayanthakumaran and Weiss (1997) were the studies considered.

[21] China, Indonesia, Malaysia, Philippines, South Korea and Sri Lanka were the countries surveyed.

Box 4. The Pros and Cons of a "Zone Approach" vs "Enterprise Approach"

A zone approach would provide incentives to companies in a geographically defined zone. This would make it easier to monitor the movement of goods and maintain the integrity of the customs territory. Companies inside the zone would be allowed to import inputs and intermediates and export freely while goods transferred to the domestic customs territory could be monitored and subjected to duty as necessary. A zone approach would also facilitate the provision of infrastructure and other services that may act as an incentive to companies. A zone may act as a catalyst for the formation of an industry cluster. An industry cluster may yield significant benefits in terms of information spill-overs, efficient division of labour among enterprises, the development of skilled labour markets and decrease in business transaction costs. [22] However a zone approach also has drawbacks. It restricts the ability of a company to freely choose the location of production: the company setting up in an EPZ may demand additional incentives to invest in the EPZ, adding to government costs. Depending on location, backward linkages may be limited and infrastructure costs high.

An enterprise approach on the other hand would allow companies to freely choose the location. It will also not involve upfront costs on the part of the government in terms of infrastructure investment. The main disadvantage would be the difficulty in maintaining the integrity of the customs territory and other administrative costs of maintaining a country wide programme. If incentives are limited only to free access of imported inputs and intermediate products, bonded warehouses and duty drawback mechanisms may provide similar benefits. The benefit of a duty drawback mechanism[23] is that it would not be required to maintain the integrity of the customs territory; however, high administrative capacity would be required to provide refunds to exporters on a timely basis. Exporters often prefer a bonded warehouse to a duty drawback as duty refunds are often delayed considerably. Another disadvantage of the enterprise approach including duty drawback and bonded warehouse/factory schemes is that it may disadvantage small and medium enterprises (SMEs).[24] Under a duty-drawback scheme, companies are required to pay duties upfront and receive a refund afterwards – often several months afterwards. The administrative burden is also often considered too large as well. Under a bonded warehouse scheme, companies are often required to submit a fixed sum of money or "bond" to the authorities. Such problems would not exist under a zone approach.

Which option is better suited to the country would depend greatly on policy objectives, business environment, administrative capacity and other factors. In a country with a less favourable business environment, an "enterprise" approach may not help in attracting FDI. Some countries may either lack the administrative capacity to implement a nation wide "enterprise" approach scheme or consider that the risks of smuggling of goods may be too high. Some countries such as Korea, Chinese Taipei and Costa Rica have used both approaches.

Foreign exchange earnings, foreign direct investment and exports

45. The most frequently cited benefits of EPZs are increases in foreign exchange earnings through FDI and exports (see Box 5 on Jordan). It is argued that foreign exchange earnings linked with EPZs may ease some of the constraints that low income countries face, allowing them to source inputs and other import needs for the whole economy. While there are some EPZs where domestic investors have been more dominant such as Mauritius and India, the majority of EPZs focus on attracting FDI and have been very successful in some cases.

46. FDI is not only a direct source of foreign exchange, but can also help fill a country's gap in technology, management know-how, market intelligence, etc. – all of which are necessary to develop an export industry. The direct effect of FDI on a country's balance of payments (BOP), however, may be limited as initial investment often may be used to import capital goods and necessary intermediate inputs.

22 See Marshall (1920) and Otsuka (2006) for details. Otsuka (2006) especially points out that "transaction costs arising from moral hazard and delays are low in an industrial cluster because rumours of such opportunistic behaviours become public knowledge quickly by word of mouth".

23 Wu and Chuang (1998) provide a description of the duty drawback system in Chinese Taipei.

24 . See Poapongsakorn et al. (1998) for an assessment of these measures in Thailand.

47. Data on EPZ-induced FDI is available for some countries. In Mexico, for instance, FDI in maquiladoras doubled from US$ 895 million in 1994 to US$ 2.98 billion in 2000 and as a result the maquiladoras share of FDI to total FDI jumped from 6 percent to 23 percent over the same period. In the Philippines, FDI in zone programmes as a share of total FDI rose from 30 percent in 1997 to over 84 percent in 2005. According to Aggarwal (2005), in Sri Lanka cumulative investments grew from US$ 21 million to US$ 292 million in 2003, and in Bangladesh from less than US$ 1 million in 1983 to about 750 US$ million in 2003, over 80 percent of which were FDI in both countries. At the beginning of its EPZ programme, Chinese Taipei received annual FDI flows of US$ 12 million from 1961 to 1965, which increased to US$ 44 million between 1966 and 1971. In 2006, Chinese Taipei hosted 340 companies in EPZs with accumulated investment of US$ 3.9 billion (WTO, 2006). Generally speaking, the establishment of a zone does not automatically lead to an increase in FDI. Examples abound of EPZs that failed to attract FDI since many factors come into play in production location decisions (See Box 9 on Senegal and the example of Walvis Bay in Namibia in the section on government revenues/losses).

48. An increase in exports may have a significant impact on foreign exchange earnings. According to FIAS, EPZ exports may already constitute up to 8.3 percent of global exports of manufactured goods in countries with EPZ programmes (Table 4). The effects can be larger in smaller economies with limited production capacity. Mauritius, for example, which runs a country-wide EPZ programme, saw exports increase from Rs 3.9 million in 1971 to Rs. 4.96 billion in 1986 and its share of exports produced in EPZs jumped from 3 percent to 53 percent of total exports. Indonesia, South Korea and Taiwan were also able to manage a high ratio of net to gross export from 49 percent to 63 percent in the mid-1980s (UNESCAP, 2005). In Costa Rica, EPZs' share in manufacturing exports increased from 10 percent in 1990 to 53 percent in 2005 and in the 2001-2005 period exports grew by 55 percent. The Dominican Republic, whose exports grew by 72 percent from 1994 to 2004, saw the share of EPZ exports remain at around 78 percent. According to Cling and Letilly (2001), the share of EPZ exports to total exports was 82 percent in the Dominican Republic (1998), 73 percent in Mauritius (1999), 41 percent in Mexico (1997) and 36 percent in Madagascar (1997). Finally, Bangladesh saw its EPZs' share of total foreign exchange earnings through exports jump from 0.02 percent in 1983-84 to 18 percent in 2004-05. This annual trend of EPZ export earnings growth has been more than six times higher than the total national export earnings, signalling that zone programmes are outperforming the domestic economy (Hossain, 2005).

Table 4. Impact of free zones on exports

	Zone exports of manufactured goods (US$ billion)	Percentage of total exports of manufactured goods (in percent)
Global	177.7	8.3
Asia/Pacific	84.5	11.0
Americas	44.0	5.3
Central/East Europe & Central Asia	14.5	6.8
Middle East & North Africa	28.7	16.7
Sub-Saharan Africa	2.4	19.5

Source: FIAS (2007, forthcoming).

[25] The numbers used in table 4 and 6 are indicative as data is not comprehensive. FIAS uses end-2003 data complemented by earlier data when this was not available. The sample does not include all countries: only a selected number of developing countries and some developed countries. The total merchandise exports of countries included amounted to above 30 percent of global merchandise exports, which were 7,578 billion US$ in 2003.

49. Foreign exchange earnings from exports depend on the source of inputs. Companies in EPZs are often set up to do the labour intensive part of the process in garment and electronics sectors[26], and the foreign exchange effect may be much smaller than the percentage of EPZ exports in total may imply. Benefits are greatest where backward linkages have been developed – like in Korea and Chinese Taipei – but such effects have been much more limited in other countries. Indonesia is also an often cited example of success as the garment industry was able to source more fabric domestically. On the contrary, the zones in Nicaragua and Guatemala averaged a mere 6 percent share of domestic raw material and supplies in total production, with the majority of inputs sourced from abroad (Madani, 1999).

50. Export diversification is another potential advantage of EPZs. Many developing countries suffer from a mono-culture economy and rely on the exports of a limited number of commodities in the primary sector. FDI in new manufacturing sectors can contribute to diversification of exports and the effect has been impressive in some cases. Cling et al (2002) studied the evolution of two diversification indexes for the period 1991-2001 for selected African countries. The analysis focused on measuring the extent to which EPZ-induced industrial manufacturing resulted in a diversification of exports for these countries. In the analysis, Madagascar is found to have made the most progress in diversifying its product base during that 10 year span; the number of products with export value of over US$ 1 million increased from 38 to about 70. This is impressive compared with Ghana (48 products) and Mauritius (66 products), both of which also experienced diversification induced by their zone programmes. Costa Rica also succeeded in diversifying its exports: the share of traditional exports to total exports declined by 48 percent between 1970 and 2000 (See Table 5). In the Philippines, the electronics sector now comprises at least 70 percent of the country's exports as a result of its success in attracting considerable FDI in the sector.

Table 5. Costa Rica's export diversification (1970 – 2000)

Product Category	1970 (%)	1975 (%)	1980 (%)	1985 (%)	1990 (%)	1995 (%)	2000 (%)	Share Growth 1970-2000 (%)
Traditional	60	52	47	39	26	27	12	-48
Other primary	5	5	7	8	10	10	7	2
Apparel	1	2	3	14	15	17	11	10
Other manufactures	0	5	4	10	18	17	41	41
CACM	16	18	23	10	5	8	7	-9
Services	18	19	16	18	25	22	21	3

Source: Nathan, Inc., 2003

[26] According to Cling and Letilly (2001), textiles and clothing constituted 48.8 percent of EPZ employment in Madagascar,(1996), 62.5 percent in the Dominican Republic (1994), 55.5 percent in Mauritius (1998), 76.3 percent in Tunisia (1997) and 66 percent in Sri Lanka (1994). In Malaysia and Mexico, electronics was dominant constituting 65 and 35 percent of the workforce respectively.

Box 5. Qualified Industrial Zones in Jordan: Investment Attraction and Export Platforms

Jordan's Qualified Industrial Zones (QIZ) originated in a US-sponsored programme designed to create Arab-Israeli private sector business linkages that would contribute to peace, stability and economic growth in the region. The arrangement provided for the extension of benefits enjoyed by Israeli companies under the 1985 US-Israel FTA Implementation Act to designated border areas between Israel and Jordan. The QIZ programme specifies that a minimum of 35 percent of the value of exported goods must be composed of local content: 11.7 percent must be Jordanian, 8 percent (7 percent for high-tech products) Israeli and the remainder to arrive at 35 percent should be from either Jordan, the US, Israel and/or the West Bank and Gaza.

The QIZ experiment has offered numerous benefits to the Jordanian economy in terms of export development and investment attraction. QIZ exports rose from US$ 2.4 million in 1999 to about US$ 586.6 million in 2003. Exports of garments from QIZ, in particular, represented the largest addition to the Jordanian economy as they rose to a record US$ 400 million in 2003, a figure far exceeding the US$ 50 million in 1998 (pre-QIZ). QIZ also contributed to attracting a large number of investors that may not have considered Jordan without the export programme. Up to 2003, Jordan's seven QIZ attracted about 51 companies from 12 different countries. Since 1998, these companies invested some US$ 182 million, most of which came from Asian investors that saw Jordan as an opportunity to circumvent US textile quotas. The QIZ programme also had trade-diverting effects on Jordanian exports: in 1998, less than US$ 8 million worth of goods were exported to the United States while in 2003 these exports amounted to US$ 660 million. Job creation has also been significant: employment in QIZ as a share of total manufacturing employment grew from 16.4 percent in 2001 to 20.2 percent in 2003. In December 2005, there were 54,672 employees in the QIZs of which 17,900 were Jordanian.

While the QIZ has provided a number of benefits to the Jordanian economy, it has been a source of controversy over labour issues. In May 2006, a U.S.-based NGO, the National Labor Committee, issued a report that identified a number of labour problems suffered by guest workers who make up approximately two thirds of the QIZ workforce. These included delays or non-payment of wages, confiscation of passports, excessively long working hours, non-payment for over-time work, poor food and living conditions, and physical and sexual abuse. After extensive discussions between the U.S. Government and the Government of Jordan over these concerns, the Jordanian Government has taken a number of measures to discourage labour abuses in the QIZs, including special inspections, imposition of fines and the closing of certain facilities, establishment of telephone hotlines to encourage reports of labour law violations, and an increase in the number of labour inspectors. The Government of Jordan has welcomed U.S. bilateral and multilateral technical assistance in enforcement and is also considering labour law reform in line with internationally recognised labour rights.

Source : Kardoosh, 2004 (mimeo), Jordanian Ministry of Labor (2006), Greenhouse et al. (2006).

Employment generation

51. One of the main objectives in many EPZs is employment generation, which in turn can have a positive effect in the alleviation of poverty. EPZs, for the most part, have led to creation of jobs as shown in Table 1. According to ILO (2003), total employment in zones excluding China has risen from 4.5 million in 1997 to 13 million by the end of 2002. In the Philippines, employment increased from 39,000 in 1986 to 907,000 in 2003. Costa Rica's employment increased from 11,000 in 1991 to 39,000 in 2005. The Dominican Republic increased employment from around 165,000 in 1993 to 190,000 in 2004[27].

52. In some cases, however, the number of created jobs, if compared to the total labour force of the host countries, has been modest. As Madani (1999) noted, the EPZs in the Philippines in 1997 employed about 180,000 workers, a noticeable quantity, which, however, amounted to only 0.6 percent of the 31 million workforce that was growing at an annual rate of 1.4 million workers. This marginality of job creation in absolute terms is confirmed at regional and global level (see Table 6 and Table 7). It has also

[27] Because of lack of data, one cannot exclude the possibility that employment increase in zones may have been realised as a result of companies simply moving from a non-EPZ area to inside an EPZ to take advantage of the incentive packages offered.

been pointed out that EPZs tend to have very high staff turnover rates with the average career of a worker seldom exceeding five years (ILO 2003a). The ILO notes that "the intensive nature of production, cultural factors, use of fixed-term contracts, a lack of human resource development (HRD) policies and underdeveloped labour relations practices in some zone enterprises contribute to the turnover. Zones with tight labour markets have noticeably better HRD policies and practices."[28]

53. Nevertheless, the social impact of zone jobs in areas of high unemployment and underemployment can be quite significant. Moreover, the relative marginality measured in direct job creation does not take into account indirect employment, which is estimated to range from 0.25 percent in Mauritius to 2.0 percent in Honduras. This means that indirect employment generated by EPZs could potentially amount to 77 million jobs worldwide (FIAS, 2007, forthcoming). Hence, while EPZs do not present a solution to unemployment, it is nonetheless a viable source of employment creation especially if indirect employment is also considered. Zones also have also been a source of controversy due to labour and social issues[29] (See Box 6).

Table 6. Direct employment in EPZs

	Direct employment (million)	Share of total employment (in percent)
Global	38.2	0.2
Asia/Pacific	35.0	2.3
Americas	2.1	1.2
Central/East Europe & Central Asia	0.2	0.001
Middle East & North Africa	1.1	1.5
Sub-Saharan Africa	0.7	0.2

Source: FIAS (2007, forthcoming).

[28] ILO (2003a), paragraph 15.

[29] Environmental issues have also been a source of debate related to some EPZs. Maquiladoras in Mexico have been used as an example where environmental standards have led to investment diversion. While it is true that environmental standards differ between developed and developing countries, there does not seem to be strong evidence that environmental protection differs between inside and outside an EPZ. To the contrary, there seem to be cases where environmental measures are taken more properly inside an EPZ perhaps because EPZs tend to have more foreign companies who worry about negative publicity. There are also cases where governments have put in place stronger environmental standards because of industry concentration.

Table 7. Some examples of employment growth in some export processing zones

Country/territory	Number employed in EPZs in 1986	Number employed in EPZs in 2003
Mexico	250 000	1 062 000
Mauritius	61 700	77 623
Philippines	39 000	907 127
Dominican Rep	36 000	173 367
Sri Lanka	35 000	104 237
Egypt	25 000	114 747
Honduras	2 586	114 227

Source: Starnberg Institute Bank as quoted in Kreye et al (1987), INEGI, Bank of Mauritius, www.peza.gov.ph, WTO document G/SCM/N/146/DOM, Aggarwal (2005), Egypt WTO Trade Policy Review, Banco Central de Honduras.

Box 6. Labour and Social Aspects of EPZs

Export Processing Zones have been the subject of international attention regarding labour and social issues for some time. ILO has monitored EPZs for more than 20 years and EPZs were the special topic for discussion in the ILO Committee on Employment and Social Policy in 2003. OECD has also monitored developments on EPZs in the context of discussions on Trade and Labour (OECD, 1996; OECD, 2000).

According to surveys conducted by the ILO in 1992 and 2001,[30] most governments that replied have stated that the labour laws applicable in EPZs do not differ from those applied elsewhere in the country.[31] However, some cases have been reported where countries had different labour laws or regulations for EPZs and/or where the application/enforcement has been different from the rest of the country. For example, in the 2001 ILO survey, 24 out of 85 respondents from 19 countries[32] replied that the labour laws applicable in zones differed in some way from those applied elsewhere in the country. Some respondents "…described differences which evidenced less favourable treatment than workers received elsewhere in the country, such as more overtime or holiday work required, night work for women, no retirement provisions, less favourable leave terms, exemptions from Occupational Safety and Hazard practices or OSG practices, indefinite renewal of temporary contracts, special provisions in cases of redundancy or dismissal". Since 1998, the ILO supervisory bodies have commented on problems concerning freedom of association and/or the right to bargain collectively in EPZs in 15 countries (ILO, 2003a).[33] The labour unrest in Bangladesh in May

[30] The two surveys are the 1992 survey conducted on the basis of an ILO Tripartite Declaration (OECD 1996) and the Seventh Survey based on the ILO Tripartite Declaration conducted in 2001 (ILO, 2003b)).

[31] OECD (1996) cites the US Department of Labor as stating that at least 14 countries restricted labour rights in law and practice. "One or more restrictions on the right to form unions, to strike or to bargain collectively were found in Bangladesh, the Dominican Republic, Malaysia, Jamaica, India and Sri Lanka, among others. Only in six cases has it been demonstrated that the law is different in EPZs than in the rest of the country, indicating a deliberate government attempt to reduce core standards in these zones". OECD (2000) states that a few countries excluded EPZs from the national labour legislation and system of labour management relations citing examples of Bangladesh, Pakistan and Panama. ILO (2003a) states that discrepancies between ratified conventions and legislation and practice have been noted as regards the right to organise and join organisation (e.g. Bangladesh, Dominican Republic, Namibia, Nigeria, Pakistan, Togo), on the right to strike (e.g. Panama, Turkey), and on collective bargaining rights (e.g. Bangladesh, Dominican Republic, Panama, Turkey) although there have been improvements subsequently in some countries.

[32] These 19 countries are Bangladesh, Costa Rica, Dominican Republic, Ecuador, Egypt, Jordan, Kenya, Mauritius, Mozambique, Norway, Pakistan, Panama, Peru, Senegal, Tanzania, Togo, Turkey, Ukraine and Zimbabwe

[33] These countries are: Bangladesh, Cameroon, Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, Namibia, Nigeria, Pakistan, Panama, the Philippines, Sri Lanka, Turkey, and Togo.

2006 led to a number of injuries (including death) and extensive property damage (ready-made garment factories etc.) and was result of persistent low wages, extensive overtime and non-payment of overtime in some factories.[34]

However, labour conditions may also be better inside than outside a zone. In the 2001 ILO survey, some "…perceived the differences in such areas to bring more favourable treatment for workers in EPZs than elsewhere in the country. These included transport, medical and childcare facilities, special training programmes, procedures requiring prior authorization from the government before closure of operations of an EPZ enterprise, wages higher than the minimum wage…". Romero (1995) concluded that companies in EPZs generally pay higher wages and offer better working conditions than those in the rest of the economy because: a) they often pay productivity incentive bonuses and overtime; b) they tend to be larger and usually pay scales and working conditions are correlated with firm size perhaps because governments may monitor large firms more easily than smaller ones; c) most foreign-owned firms apply their domestic best practice codes in all their branches; and d) the government often regulates higher minimum wages for firms in sectors related to EPZs. Fleck (2001) found that in 1998 maquila hourly earnings were 2.6 percent lower than Mexican wage workers in other sectors, but benefits averaged 8 percent more leaving maquila workers ahead. Sargent and Mathews (1999) interviewed 59 production workers in Mexico and reported that a majority of those interviewed considered that the maquila job was at least as good as the alternative job (or lack of a job) outside of the maquiladora. Brown (2001) also found that women and men who work in the maquila areas earn 38 percent and 31 percent respectively more than their counterparts in non-maquila manufacturing. Abuse can still occur where monitoring procedures are lax or union rights restricted which opens the case for closer government monitoring.

EPZs have generated high rates of employment growth in many countries, especially for women. Women make up the majority of workers in the vast majority of zones, reaching up to 90 percent in some of them (ILO, 2003a). For example, in the Philippines women constituted 74 percent of the EPZ labour force (1994): the corresponding figures were 70.1 percent (1990) in Korea; 60 percent (1995) in the Dominican Republic; 59.5 percent (1993) in Mexico; and 53.5 percent (1990) in Malaysia. The share of women tended to show a declining trend. (Cling and Letilly, 2001) Gender-related barriers have been alleged in the operation of some EPZs in the form of discrimination in hiring, wages, benefits and career development, as well as relating to a lack of accommodation of women workers' needs in relation to issues such as working hours, pregnancy, maternity leave or childcare (ILO, 2003a). Industries such as electronics and textiles and garments have often employed more women than men, and the nature of the industry/industries in the EPZ may have a large effect on the level of female employment in EPZs (ILO, 1988).

In summary, EPZs have been an important source of employment creation, in particular for women, and may contribute to the creation of decent jobs for people with modest skill levels. Nonetheless, labour and social issues remain a concern related to EPZs. While in some cases, labour conditions do not differ in EPZs compared to the overall economy and grievances are not an "EPZ" specific issue, there are cases where either applicability of labour laws or regulations or their actual application/enforcement has been different. As ILO (2003b) states "legal restrictions on trade union rights in a few EPZ operating countries, the lack of enforcement of labour legislation and the absence of worker's organisations representation" may undermine "the ability of zones to upgrade skills, improve working conditions and productivity and thereby to become more dynamic and internationally competitive platforms".

Source : ILO (various documents), OECD (1996, 2000), Romero (1995) and Ferranti et al. (2002)

Government revenues/losses

54. The establishment of an EPZ affects government revenue and expenditure in various ways (see Table 8). In terms of government expenditure, significant public investment in infrastructure is often necessary – especially in state sponsored EPZs. The Bataan EPZ in the Philippines, for example, required the construction of a US$ 25 million dam to supply water to zone firms (FIAS, 2007, forthcoming) . While capital expenditure may be minimised by using existing infrastructure such as the Clark EPZ in the Philippines, which used a former army base, this is not always possible. Infrastructure costs including public utilities such as electricity and water may become extremely costly especially if expected benefits such as employment and investment are delayed. In some cases where the assessment of infrastructure needs have been insufficient, considerable state funds/tax exemptions have been used to establish expensive infrastructure which has not been widely used.

[34] Jordan's QIZ is another example. See Box 5 on Jordan's QIZ.

Table 8. Government revenue and costs from zone development

Revenues	Costs
• Corporate income tax (if no tax holiday) • Personal income tax on direct and indirect employment • Permitting fees and service charges • Rental or sales fees (from sale or rental of public land to developers) • Import duties and taxes on zone products sold to the domestic customs territory • Concession fees for other facilities (port, power plant, etc., linked to zone development	• Wage bill of government workers need to regulate zone activity or operate the zone and other operating expenditures • Public sector capital outlays for external infrastructure (and internal infrastructure and facilities in the case of a publicly developed zone) • Import duties and charges lost from smuggling • Taxes incentives provided • Taxes forgone from enterprises relocating from the domestic customs territory to the zone • Subsidies

Source: FIAS (2007, forthcoming) .

55. The use of various fiscal incentives such as tariff exemptions, income tax exemptions and exemptions of other taxes may have a negative impact on government revenue.[35] Zee et al. (2002) argue that although tax incentives can stimulate investment, the empirical evidence on their cost-effectiveness remains inconclusive. Government authorities that offer fiscal incentives to attract investment need to periodically evaluate their relevance, appropriateness and economic benefits and compare these to the related costs, which includes their long-term impact on resource allocation (see more in OECD, 2006c).[36] The incentives must also be consistent with international obligations. Namibia is an example where incentives did not work well. Namibia tried to attract FDI to its EPZ at Walvis Bay - a well-constructed harbour with good infrastructure – by providing investors an indefinite tax holiday. After the enactment of the EPZ Act in 1995, the authorities expected to reach 25,000 newly employed people within the first 5 years. Despite the very generous tax incentive, the EPZ had created a mere 400 jobs by 1999 (Jauch, 2006).[37]

56. Nonetheless, perception persists, especially among developing countries, that these types of fiscal incentives are needed to compete in a world where capital can flow freely and where trade liberalisation offers the opportunity to move production. As a consequence of these competitive pressures, increasingly generous incentive packages have been offered to attract potential investors. This is one of the reasons why EPZs are established in regional "waves" as we saw in Part I. These packaged deals, if not properly assessed, can deprive developing countries of tax income without proper compensation in return. When analyzing the economic and financial return of zones, the use of tax and other non fiscal incentives does not therefore automatically produce cost-effective results and this has sparked debate in some countries (See Box 7 on the EPZ incentive debate in Ukraine).

[35] It should be noted that if the EPZ leads to new investments, this is not a "loss" in government revenue. If the investor would have come without the tax incentive, this may constitute an opportunity cost.

[36] www.oecd.org/dataoecd/1/31/36671400.pdf.

[37] Walvis Bay subsequently was successful in attracting FDI by emphasising the benefits of AGOA. See also the reference to Walvis Bay in the section on trade agreements.

Box 7. The EPZ Incentive Debate in Ukraine

Although well-endowed with natural resources, Ukraine's economic growth is partly undermined by its business environment. To improve the country's investment climate and to attract new business ventures in depressed regions, the Ukrainian authorities in 1999 developed a programme for the creation of free enterprise zones. Exports, however, did not take off. In 2003, EPZs exported around one-third of their output, which represented 4 percent of total Ukrainian exports for the year. These EPZs provided incentives which were primarily duty-free importation of raw materials and inputs. In 2004, these tariff exemptions were estimated to have a negative budgetary impact of about 350 million UAH, or nearly 0.1 percent of GDP. Although this figure seems low, it does not take into account the value of shadow activities and/or intra-corporation transfer pricing, which would make the impact higher.

The combination of weak export performance and negative budgetary impact made the Ukrainian authorities rethink their overall zoning strategy. The problem of ineffectiveness has been acknowledged as a moratorium on new zone creation was introduced in 2002. However, as privileges in some zones have been granted for a period of up to 60 years, a drastic change in regulation has not been feasible without invoking moral hazard issues.

In a recent analysis by the World Bank, it is suggested that Ukraine should diminish the importance placed on the creation of small enclaves with friendly tax incentives and better business conditions. A more advisable policy would be to focus on improving the overall national investment climate to stimulate enterprise development. Key market intervention could take place in assuring wage-adjusted labour productivity, availability of infrastructure, reasonable levels of taxation, stability of the overall tax regime, a simple and fair licensing system, a clear legal frameworks where contracts can be enforced, and an efficient bureaucracy. Tax incentives as a way to balance out other weaknesses increase forgone tax income and chances of rent-seeking and tax evasion behaviour. EPZs in Ukraine do not adhere to good practices, and had a limited impact in creating further economic activities in Ukraine. On the other hand government income may have been foregone at the expense of other needed reforms that might improve the overall investment climate in Ukraine.

Source : World Bank (2004), Davis (2005)

Technology transfer and knowledge sharing

57. One of the potential benefits of an EPZ is transfer of technology from foreign companies in the zone to domestic companies. Technology transfer may be realised through several paths: forward linkages from a supplier of products to a buyer and backward linkages from a buyer of products to a supplier as well as through formal training, personnel transfer from one company to the other, etc. Technology transfer may also occur by FDI serving as a role model for other domestic companies. A domestic company situated in an EPZ may gain from some technology transfers from abroad as it is able to import capital goods and inputs on a duty free basis[38]. Given that most products produced in EPZs are exported, there is often little scope for further forward linkages to domestic companies outside of the zone.[39]

58. Development of backward linkages between export-oriented companies and the rest of the economy can bring potentially large benefits to a host country. Backward linkages occur when technology is transferred from a company buying an input (e.g. a multinational company) to a company selling the input (domestic company). It may also occur when a multinational company inside the zone subcontracts some of its production to a domestic company outside the zone. Technology transfer occurs because

[38] This is often not the case for other domestic companies in the domestic customs territory who will have to pay tariffs to import capital equipment and inputs.

[39] Some EPZ polices are designed to protect domestic economies from EPZ's products inflows. Kenya and Tanzania, for example, allow EPZ companies to sell up to 20 percent of their annual output on the domestic market, although subject to payment of normal import duties (on an MFN basis) and taxes on the products.. Kenya goes even a step further by establishing the possibility of levying a 2.5 percent surcharge if it is determined that the sale is so significant as to cause injury to domestic industries producing similar goods. (WTO, 2006a, pg. 63)

buyers have an incentive to help the seller to meet the specifications that it needs. Domestic sourcing is often desirable from the buyers' point of view as domestic sourcing often leads to lower costs but this may not be possible in many cases. While quantifying the benefits of backward linkages is difficult, numbers such as the percentage of raw materials purchased and the percentage of domestic expenditures in total output have been often used to approximate backward linkages.

59. Despite high expectations, backward linkages have been weak in many cases although the share of domestic products tends to increase with time. For example, Jenkins et al. (1998) states that share of domestic raw materials ranged from 4 to 9 percent for Costa Rican, Guatemalan and Salvadorian EPZ firms between the years 1993 and 1996. According to Kusago and Tzanntos (1998), local sourcing inputs ranged from a low of 4 percent for Sri Lanka (1991) to between 18 percent in Malaysia (1987) to 32 percent in Korea (1985).

60. The weakness of backward linkages is due to several reasons. Often local firms do not have the technological capability to provide the inputs required by the foreign companies in the EPZ. This may especially be the case if the domestic economy is small and the domestic company has no intentions of selling in the export market, as the returns to skill upgrading is not considered very high. There often may be an absence of necessary raw materials in the local market in which case the inputs would have to be imported which may be subject to duties (see Box 8 on the Dominican Republic).

61. However, there have been instances where countries have provided well-structured policies extending EPZ treatment gradually to firms located outside the zone, inducing in some cases relevant linkages. Chinese Taipei, Ireland, Korea, Mauritius and Saint Lucia are examples where local entrepreneurs were able to supply EPZ producers with material inputs treated duty free (Tekere, 2000; Jenkins et al., 1998). Thailand, Indonesia and Malaysia are also cited as examples of countries that have had some success in offering facilities to indirect exporters (Radelet, 1999).

62. Technology transfer may also occur when there is transfer of personnel between a foreign company and a domestic company. Efforts by local authorities to promote personnel exchanges, supporting training efforts and providing technical assistance to potential suppliers have been important. (Jenkins et al., 1998) provides the example of Masan, Korea where an estimated 3000 to 4000 persons received specialised training in the zone and abroad (especially Japan), half of which eventually left the zone to work in local electronic Korean firms". Foreign Direct Investment in an EPZ may also have a "demonstration effect" by serving as a role model for replication by local entrepreneurs. The role played by Daewoo in promoting the garment industry in Bangladesh is an oft cited example.

63. It is often pointed out that technology transfer may be limited as employment in EPZs is often concentrated in low-skilled labour areas. However, in the case of successful EPZs in Asia, there has been a general trend for the ratio of labour intensive industries in EPZs to decline significantly. (Kusago and Tzannatos, 1998). This suggests a switch toward more capital intensive manufacturing, characterized by technological advances in manufacturing and changes in the industry composition of EPZs as wage levels increase. In this context, knowledge spillover and human resources development can occur more frequently as these industries focus more on the delivery of increasingly high value and knowledge intensive production. Learning chances increase in particular for local middle managers, which, in many instances (e.g. Philippines and Mauritius) took advantage of their working experience in EPZ-based foreign firms to start their own companies (FIAS, 2007, forthcoming).

Box 8. Dominican Republic - Backward Linkages are not automatic

The experience with EPZs in the Dominican Republic produced mixed results. Designed as enclaves, EPZs have expanded rapidly from 4 in 1985 to 32 in 1994 and 58 in 2004. The number of enterprises has increased from 144 to 476 in 1994 and 556 in 2004. Exports increased from US$ 0.2 billion in 1985 to around US$ 2.8 billion in 1994 and around US$ 4.7 billion in 2004. Textile exports growth in particular moved from US$ 1.6 billionin 1994 to more than US$ 2.1 billion in 2004. Employment rose from 35,720 in 1985 to 176,311 in 1994 and around 190,000 in 2004. Thus from an export and employment point of view there has been considerable success. On the other hand, 30 years after the creation of the first free zone, Dominican EPZs purchased no more than 0.0001% of material inputs from the domestic customs area, signalling that efforts to create backward linkages were unsuccessful.

USAID encountered several obstacles while trying to run an industrial linkages programme. Although rigorous diagnostics and feasibility assessments found significant demand for textiles, precision plastic parts, metal stamping, machine shops, and tool, mould and die making, backward linkages did not occur. The programme failed mainly because: (1) some of the sectors simply did not exist in the Dominican Republic; (2) local producers were unable to meet world market standards for price, quality and delivery terms, and more importantly; (3) there was lack of interest by local manufacturers in serving EPZs because of low perceived returns.

Source : Rhee et al. (1990), Schrank (2001), WTO (2006),. FIAS (2007, forthcoming)

EPZ policy in the overall economic strategy

64. As we have seen in the previous section, although economic theory would state that EPZs are at best a second best policy option, EPZs have been used extensively. There are mainly three points of view on the role of EPZs in an economy.

- The first views EPZs simply as a tool for achieving one or several specific policy objectives - increasing employment, attracting foreign direct investment and/or increasing foreign exchange earnings. Under such a view, the enclave nature of the EPZ allows a country to maintain its current economic policy in the general domestic environment.

- The second views EPZs as laboratories for experimentation which is a part of economy-wide reforms. In such a case EPZs are considered as a stepping stone which allows a country to phase in trade and investment liberalisation while regulating the speed of change in the general domestic environment.

- The third views EPZs as a regional policy tool aimed at increasing employment in disadvantaged areas.

65. In practice, the differences between the three points of view may be subtle. For example, the difference between the first and second point of view may lie only in the presence of the intent for further trade and investment liberalisation on a national basis. Moreover, a country that started off with the first view of EPZs may decide to proceed with trade and investment liberalisation; on the other hand, great success (e.g. in terms of job creation) may allow a country to defer necessary structural reform in the domestic economy.

EPZ as an "enclave" to achieve specific policy objectives

66. The first view of EPZs defining them as an "enclave" to achieve specific policy objectives has been adopted by many developing countries. High tariff levels and poor business environments discourage FDI and common concerns relate for example to weaknesses in infrastructure (e.g. transport networks, telecommunications, public utilities) and administrative capacity (e.g. customs), rigid labour market policies, high levels of corruption and/or taxation and a volatile regulatory and policy environment

Bridging for such deficiencies at a national level is seldom possible – at least in the short-run. In terms of tariffs, while tariff liberalisation may be a desirable long term goal, dependency on trade taxes or protection of certain domestic industries may preclude immediate tariff liberalisation on a national scale.

67. In such cases, an EPZ may allow a country to focus its resources to improve its business environment in all of the above areas albeit in a limited area to attract FDI (see Box 9). Fiscal incentives are used to compensate for remaining weaknesses that increase cost levels. The EPZ may allow the country to establish an export-oriented manufacturing sector even though it lacks the technical or administrative capacity to develop a countrywide system to allow exporters duty-free access to imported equipment and materials (UNIDO, 2002).

Box 9. Customs Friendly Enclaves

Trade facilitation measures that reduce trade transaction costs are often crucial for a well-functioning special zone programme. Manufacturers are generally dependent on frequent and timely delivery of raw material and intermediary goods for their production processes. Inefficient customs services extend business cycle time and add both direct costs (e.g. fees to speed up border crossings) and indirect costs (e.g. related to business risk and uncertainty), which in turn affects the productivity of a country's manufacturers. While labour costs are a key feature of EPZs, efficient customs procedures may provide an advantage vis-a-vis alternative production centres. But effective customs services should preferably be accompanied by adequate local transport and logistics services. Hence, well-structured zone programmes include trade facilitation measures and are designed to minimise bottlenecks along the value chain.

Bangladesh provides an example of the dynamic contributions of EPZs to trade facilitation. Imports and exports in Bangladesh are mostly cleared at the borders in international ports and airports as well as in the EPZs of Chittagong and Dhaka. The procedures for temporary importation of fibre and fabric, and exports of fabric and garments, have been greatly simplified in recent years, with a reduction of the steps by 2/3 for imports and 3/4 for exports. The number of required signatures has also decreased from 40 to 8. These improvements contributed to a decline in customs clearance time from more than a week to one day for exports and to one or two days for imports of raw materials. The clearance time in the Chittagong EPZ was particularly improved as the zone experimented with the implementation of customs automation. The combination of administrative reforms and computerisation efforts therefore responded to the demand for improvements in the efficiency of the EPZ. It also provided a positive example for replication in other customs clearance points in the country.

Source: Engman (2005), World Bank (2005), and Nordas et al.. (2006)

68. The FDI may start a virtuous cycle where FDI leads to creation of employment opportunities, which in turn provides local workers with a greater incentive for education and investment in skill upgrading. FDI may also be a catalyst for domestic investment, which in turn may make investment in infrastructure more viable by allowing for scale economies to kick in. Enhanced human resources and infrastructure may in turn lead to greater investment.

69. This may especially be useful for a country considering the development of a specific industry. The launching of an EPZ focused on a specific industry may signal a country's commitment to develop the industry. If such industries are located in a geographically limited area, there will be greater accumulation of information which may also facilitate growth of the industry (e.g. the IT services sector in Bangalore). When trade and/or investment liberalisation is envisaged, geographical limitation of trade liberalisation may attenuate whatever domestic opposition there may be.

70. However, there is a danger that the EPZ policy becomes a "safety valve" which provides the needed foreign currency to accommodate import needs for the host nation and creates jobs to alleviate some of the national unemployment or under-employment. If the objectives in terms of employment and/or exports are met, no efforts may be made to improve the overall business environment. When tax incentives expire, footloose industries can move elsewhere and an opportunity to use the EPZ for general reform would have been lost.

71. Schrank (2001) argues that EPZs combined with import-substitution strategies in small economies have often led to inefficiencies and limited backward linkages. Local entrepreneurs in small economies often argue that the safeguarding of tariffs and non-tariffs barriers are necessary to maintain employment levels and hard currency earnings although they often are uncompetitive, and likely to remain uncompetitive, on a global scale. In such a case, EPZs are more inclined to take the shape of isolated enclaves growing at the expense of the domestic industry.

EPZs as a spearhead for reform

72. Nevertheless, the second view of EPZs is that they can play a more dynamic role in a country's development. With careful design and management, the use of EPZs can be a step in an integrated move towards general liberalisation of the economy with revisions as national economic conditions change. This may especially be important for countries liberalising their trade regimes as experience shows that an increase in imports often precedes an increase in exports as there is a time lag before domestic industries adjust to new tariff regimes. FDI that is attracted provide a means by which governments can learn what needs to be changed in order to improve its business environment. EPZs can also support general market reform by demonstrating the effectiveness of market reforms. The following case on Mexico's Maquiladora scheme illustrates how an initially restrictive EPZ scheme was changed in response to corporate needs and contributed to liberalisation on a national scale (Box 10).

Box 10. Case of Mexico's Maquiladora (Part 1)

The modern Maquiladora in Mexico may be classified as a factory based EPZ which has the objective of promoting inward investment and exports by offering benefits to qualified firms regarding import duties and other taxes. The programme was initiated in Mexico in the mid 1960s as a part of the Border Industrialisation Program to ameliorate the high unemployment rates in the northern border zone. It started out as a facility to import duty-free raw material, intermediate inputs and capital goods from the United States for the production of goods to be re-exported to the United States. It applied only to zones within 20 km of the border, allowed duty-free imports of raw material and capital goods, obliged firms to re-export all of their production and required at least 51 percent national capital (Buitelaar et al., 2000).

In the 1970s, the maquila system was expanded to the whole national territory except for some industrialised areas and full foreign ownership was allowed. One of the reasons for the geographical expansion was equity considerations between border states and non-border states. The maquila industry developed gradually mainly based on U.S. FDI. However until the beginning of the 1980s, the maquila programme remained an exception to the import-substitution industrialisation regime and maquiladora firms were allowed to sell only up to 20 percent of their production domestically. In the mid 1980s, Mexico shifted to a new export-led development policy and maquilas were considered an integral part of this new strategy. Trade reforms begun in 1984 gained speed as the PITEX program (Temporary Import Program for Exporters) allowing exporting companies to temporarily import duty-free all machinery equipment and material was introduced as a supplement to the Maquiladora program, and import permit requirements were eliminated for all but 908 items out of a total of 8000 items in 1985. In 1986, Mexico joined the GATT and began to ease restrictions on FDI (Moreno-Brid et al., 2005). Growth in maquiladoras accelerated in this period. While there were some signs of diversification, the U.S. continued to dominate as a source of FDI and imports, and especially as the main export market.

In 2001, the Mexican government had to phase out import duty exemptions provided to maquiladoras companies for exports to the United States in order to conform to Article 303 of the NAFTA Agreement (see also Box 13 and section on treatment of EPZs in RTAs in Part III). While import duty exemptions for exports to non-NAFTA

destinations could be maintained (and were), this was little consolation for most maquiladora companies that exported 90 percent of their products to the US. The Mexican government was faced with a situation where the implementation of Article 303 of NAFTA could lead to the relocation of Maquila firms. This was because many Asian and European maquila companies used non-NAFTA components, which would be subject to import duties after the phase out, and these companies were unwilling to change their sourcing patterns. The Mexican government held close consultations with Maquiladora industries which were affected and decided to decrease tariffs on an MFN basis for those parts that affect profitability of EPZs the most (the Sectoral Promotion Program or PROSEC).

The PROSEC was a tariff reduction programme on an MFN basis that reduced tariffs to 0-7 percent on items that were not produced domestically. The programme applied to companies that submitted declarations in one of 22 selected industries, ranging from electronics and furniture to chemicals and automobiles. In order to meet the requirements of NAFTA Article 303, export requirements were not placed. While some Japanese, Korean and Taiwanese companies decided to relocate their production to Asia and other locations, the introduction of PROSEC succeeded in persuading many companies to stay in Mexico.

As Mexico has concluded more RTAs, companies have had to keep track of an increasing number of tariff rates, rules of origin and other regulatory requirements such as applicability of PROSEC, etc. This has increased the complexity of doing business in Mexico. Partly in response, the Mexican government announced a reduction in tariffs on an MFN basis for over 6,000 items, including for automobile parts, steel, chemicals and other raw materials and inputs as of September 2006. This reduction of tariffs on an MFN basis further dilutes the benefits of maquiladoras but simplifies the sourcing activities of many companies. In November 2006, the Federal Government of Mexico published the *Decree for the Development and Operation of the Manufacturing, Maquiladora and Services Industry for Exportation* (IMMEX Decree) to support Mexican companies facing strong competition in global markets. The IMMEX adapts the Maquiladora to the fast changing business environment by integrating the Maquiladora and temporary import programme (PITEX) into one legal instrument, reducing costs related to commercial transactions, and expanding the application of benefits to services exporters (e.g. Business Process Outsourcing).

The history of the Mexican maquiladora system which has constantly been modified over the years is an interesting example of how an EPZ system which started out as a limited trade liberalisation mechanism has acted as a spearhead for reform.

Source: Buitelaar et al. (2000), Gruben (2001), Sargent and Matthews (2001), U.S. GAO (2003), Moreno-Brid et al. (2005), and Jetro (various issues).

73. The process of integrating zones into the local economy requires time, planning and appropriate policy tools as was the case, for example, in Ireland, Malaysia and Korea (See Box 11 on Korea's experience). Granting 'equal footing' to local suppliers of capital and intermediate goods and the usage of sub-contracting mechanisms from zone enterprises to local producers were among the most effective measures. These methods, combined with overall trade and investment reforms, fostered successful export oriented zones and backward/forward linkages from the EPZ and the local economy.

74. Several countries, in particular China, have used zones to experiment with the effect of new policies on the overall investment climate. Using zones as policy laboratories can be useful to test new approaches before deciding to extend them to all firms in the economy. In the Montego Bay Free Zone in Jamaica, high speed telecommunications services were opened up to competition prior to countrywide telecommunications deregulation. Kuwait liberalised ownership rules first in its FTZ and subsequently extended the policy to the broader economy (FIAS, forthcoming, 2007). Even in more developed countries like Japan, zones have proven useful to assess the effectiveness of reforms that did not enjoy full support at the national level (See Box 2 in Part I).

Box 11. Korea's experience with Export Free Zones

Korea's experience with Export Free Zones provides an example of a country where establishment of the EPZ program spearheaded broad reform and structural transformation of the overall economy. Korea first introduced the EPZ system as it was changing from an import substitution policy towards an export led development strategy. The first EPZ was introduced in Masan in 1970 which was followed shortly by Iksan in 1973. Both EPZs were of the zone type where the normal set of incentives such as duty free imports of parts and components and machinery, tax incentives etc. were provided to companies establishing themselves in the zone. They were built with the objective of attracting foreign direct investment for promoting exports, employment and technology transfer. In the Masan Zone, the zone authority were given very wide powers, including the right to authorise foreign investment, and supervised the wide range of back-up services for enterprises, primarily banking, insurance, catering, transport, storage and packing facilities etc. (Basile and Germidis, 1984).

The EPZs were highly successful in promoting inward FDI, mainly from Japan, and especially in the electronics sector. Within two to three years, about a hundred foreign and joint venture enterprises were in operation with exports of US$ 175 million (World Bank 1992). By 1980, the two EPZs employed 28,532 workers, or roughly 0.7 percent of total industrial sector employment and accounted for roughly 4 percent of total manufacturing exports. While both zones were successful, as can be seen in Table 9, the Masan FTZ reached its peak between 1980 and 1985, as did the Iksan FTZ. The main reason for this was saturation of space inside the zone and increased labour costs.

Table 9. Performance of Masan FTZ

Year	Investment (US$ millions, stock)	FDI as share of total investment in zone (%)	Employment	Number of companies	Exports (US$ millions)
1971	5.3	93	1 248	22	1
1973	82.8	95	21 240	115	70
1980	112.9	83	28 532	88	628
1985	125.9	77	28 983	79	809
1990	215.8	84	19 616	72	1 405
1995	235.3	77	14 736	73	2 401
2000	251.4	77	14 415	78	4 442
2004	263.9	78	9 424	76	4 618

Source : UNESCAP (2005), Table 4.11.

Thus the FTZ itself played a relatively limited role in terms of direct impact on the general economy and its importance faded as the Korean economy picked up. However, Korea's EPZs did have a demonstration effect (Schrank, 2001) and successfully created backward linkages and had spillover effects. According to Basile and Germidis (1984), between 1971 and 1979, local value added as a percentage of export value rose from 28 to 52 percent.[40] In Masan, in 1980, 35 percent of FEPZ needs in light equipment and components were obtained locally mainly through subcontracting. Firms used subcontracting either to meet orders for which their production capacity was not great enough or for labour cost considerations. The law allowing 40 percent of the total production process to be carried out outside the zone probably contributed to the creation of linkages together with the duty drawback system.

The main reason for the growth of such backward linkages was the absorbing capacity in the Korean industry. However, a conscious effort by Korean policy makers also contributed by providing "equal footing policies". Tariff exemption advantages on imported components and machinery were extended to other firms in the domestic customs area through the duty drawback system. Application of duty drawback systems to shipments to companies inside the zone was also important. As of 1990 over 90 percent of Korea's exports were based on duty exemption or duty drawback and 8 percent on the in-bond system, including the 3 percent for EPZs (World Bank, 1992).

Source : Basile and Germidis (1984), World Bank (1992), Schrank (2001)

40 .According to one expert, the "local value added as a percentage of export value" may be substantially inflated as a result of the way the statistics are taken. In Korea, the total value of the product when returned to the free zone is recorded as the "local value added" which includes the value of the imported inputs in addition to the local value added.

EPZs as a regional development tool

75. EPZs may also be used as a tool to promote investment in remote areas. Experience shows that such a policy often reflects political and social rather than economic and technical considerations. Using EPZs as a regional policy tool has often turned out costly as developing an EPZ in a remote location tends to require relatively high investments in infrastructure. Higher tax incentives may then be necessary to compensate for the additional degradation of the investment environment. Benefits such as job creation must be higher to justify the higher cost but job creation has not always been the result. While labour costs may be lower in some remote areas, this may not compensate for weaker linkages to markets and unreliable supporting services (Radelet, 1999). The relative small size of the local labour pool may mean that even moderate success leads to labour shortages.

76. Thus, when choosing a location for an EPZ, a country should realise that the economic benefits will be most readily available if it is located near urban centres. Infrastructure, utilities, services, airports and sea ports are often present or cheaper to install near urban centres. This is especially important if the country lacks experience in the establishment and management of EPZs. The likelihood of backward linkages and spill-overs to the local economy also increases because of proximity to existing local industries. The case of Costa Rica illustrates a case where incentives have not made up for initial bad location choices whereas subsequent projects in better locations have led to success (See Box 12). The experience of Senegal illustrates a case where location selection has worsened an already difficult situation (also Box 12).

Box 12. Costa Rica and Senegal's Experience with EPZ location

Costa Rica established its first EPZs in the early 1980s in the port cities of Puntarenas and Limón - both of which were economically depressed areas. To attract foreign investment, the authorities designed a system of fiscal incentives for interested firms to locate in these zones. However, mainly due to their locations, these initial attempts were unsuccessful in attracting large investment and saw only a few firms and jobs created. The majority of companies invested in operations in private zones, which were subsequently formed in the central region of the country. These areas had better infrastructure facilities, access to specialised services, and abundant skilled workers that made the location more attractive. EPZ investors preferred better supporting conditions than incentives.

Since 1990, that export-oriented activity in Costa Rica has increased rapidly under the EPZ and Regime of Temporary Admission (RTA) regimes.[41] Between 1991 and 1996 employment increased annually by more than 7 percent and net EPZ and RTA exports increased annually by more than 14 percent. In 2005, 8 percent of Costa Rica's total export volume and 53 percent of total value originated in EPZs. This value-added production is driven by Intel Corporation, which is the largest exporter. EPZs in 2005 were employing around 39,000 people, 5,000 more than in 2001.

Senegal established an EPZ near the port of Dakar in 1974 but the project failed and was aborted in 1999. At the time of closure, the Dakar EPZ had hosted only 14 active enterprises with a total of 940 employees. Principal reasons of failure included excessive bureaucracy (custom procedures, long delays in acquiring permits etc.), unfortunate location (12 km from the Dakar port), an obligation for companies to hire more than 150 people, and rigid and constraining labour regulations.

Source : Jenkins (2005), ILO (1999), Cling and Letilly (2001), and Promotora del Comercio Exterior de Costa Rica (2006).

[41] Firms operating under the RTA regime may be located anywhere in the country and after posting a bond with the fiscal authorities may import raw materials, equipment and machinery free of duties.

What makes an EPZ succeed or fail?

EPZ as a learning tool

77. EPZs have shown that they can be useful tools in fostering trade and economic development. However, examples abound of zones that did not succeed financially and did not deliver expected outcomes. Cumbersome bureaucratic procedures, poor planning, lack of effective management, and the provision of overfriendly fiscal incentives are some common reasons for failure.[42] Restrictive policies and procedures such as performance requirements, restrictions on land ownership, and excessive documentary requirements have often undermined effectiveness (see Box 12 on Senegal). For example, until recently the application for free zone status in Egypt could be 40 pages long with an expected response time between 12 to 24 months (FIAS, 2007, forthcoming). Successful examples in countries such as Mauritius, Mexico and Korea all seem to indicate the importance of changing and adapting EPZ schemes to changing circumstances - both in terms of government's needs and corporate needs. The businesses that operate in EPZs are a good resource to understand business needs in order to improve the business environment inside the EPZ and the business environment in the general economy.

Effect of trade agreements on EPZs

78. Trade agreements may have a considerable effect on FDI, and in particular on export-oriented investment. The Africa Growth and Opportunity Act (AGOA), which provides for preferential tariff treatment to exports from Africa to the United States from 2000, is a case in point. In Namibia, while the EPZ was unsuccessful until 1999, employment reached 10,000 in 2004 due mainly to a large investment by Ramatex, a Malaysian textile manufacturer, in order to benefit from AGOA. Similarly in Kenya, although incentives were not as generous as in Namibia, the EPZ programme only took off after the introduction of AGOA in 2000. While employment had only reached 2,800 in the first five years of operation (1993-1998), employment soared to 27,000 in 2002 and 38,000 in 2003.[43] Between 2000 and 2002, knit apparel exports to the US increased from US$ 0.2 million to US$ 22.6 million, and woven apparel exports from US$ 43 million to US$ 102 million. These examples show that incentive loaded EPZs are not automatically successful and may need to be complemented by trade preferences to realise their full potential (Rolfe et al., 2003).

79. The quota system under the Multi-fibre Arrangement (MFA) also had a significant effect on FDI in many countries. According to Cling and Letilly (2001), many Asian producers in countries that had reached the limits of their quotas invested elsewhere. Popular locations were EPZs in South Asia, Latin America and Africa. Table 10 shows how investment by newly industrialised economies such as Hong Kong, South Korea, Chinese Taipei and even Mauritius have been important for EPZs in many developing countries.

[42] World Bank (2006) evaluated World Bank projects with EPZ components and found (i) lack of clearly defined management of EPZ (2 cases), (ii) delayed privatisation of EPZ (2 cases), (iii) lack of an appropriate fee structure of EPZ (lack of economic viability) (1 case), (iv) lack of responsibility for the operation and maintenance of the off-site infrastructure (1 case), (v) environmental concerns (1 case), (vi) absence of sound sector policies (1 case), and (vii) lack of effective project management (1 case) as reasons for poor performance (World Bank, 2006 Table D3.7 on p123).

[43] Sri Lankan investors alone accounted for more than US$ $2.4 million in the apparel sector and 14,000 of the jobs.

Table 10. Examples of FDI flows affected by MFA

Country	Year established	FDI sources	Sectors	Key markets
Dominican Rep.	1969	US, Chinese Taipei, Korea	Apparel, health care	US
Guatemala	1973	US, Chinese Taipei, Korea	Apparel	US
Jamaica	1976	US, Chinese Taipei, Korea	Apparel, call centres	US
Honduras	1977	US, Chinese Taipei, Korea	Apparel	US
El Salvador	1978	US, Chinese Taipei, Korea	Apparel	US
Sri Lanka	1978	HK, EU, Korea, domestic	Apparel, jewellery, luggage, food processing	EU, US
Bangladesh	1980	Korea, domestic, China, Japan	Apparel, textiles, leather	US
Jordan	1984	HK, Pakistan, India, Israel, China, Korea, Chinese Taipei, US	Apparel, trading	US, Middle East
Mauritius	1981	Domestic, France, HK	Apparel, textiles	EU
Madagascar	1991	China, France, India, HK, Mauritius	Apparel, textiles	EU

Source: Secretariat based on Tables 11- 15 in FIAS (2007, forthcoming).

80. Regional Trade Agreements (RTAs) can also have a significant effect on trade and FDI, which affect EPZs. The signing of an RTA will tend to increase FDI in an existing EPZ because: (1) a company in the EPZ would benefit from tax free inputs; while (2) the company also benefits from an increased tariff free export market. The effect can be substantial for a small country signing an RTA with a large country. The example of Mexico after the signing of NAFTA is a prime example (see Box 13). Conversely, the exclusion of a country from an RTA may have significant effects on the EPZ situated in an excluded country, as illustrated by the impact of NAFTA on EPZ-based companies in the Dominican Republic (Madani, 1999).

81. However RTAs may also require changes in an EPZ programme. Specific articles in an RTA may prohibit duty drawbacks and similar tools, sometimes making it impossible to maintain an EPZ as it exists (see part III for details). If certain privileges such as tariff exemption on inputs are withdrawn, there may be cases where existing business in an EPZ is non-viable because of local sourcing constraints. The Mexican case shows that when duty drawback schemes which include EPZs are prohibited in an RTA, the EPZ hosting country may have to make hard decisions about its multilateral tariffs (see Box 13). While the EPZ host country may prefer that companies purchase their inputs domestically, it may not be of interest to companies that can source input material from other countries. The country with the RTA hosting the EPZ may have to cut tariffs on a multilateral basis in order to allow companies investing in EPZs to maintain their current purchasing patterns. The case of Mexico shows that the combination of an RTA and an existing EPZ may contribute to trade liberalisation on a multilateral basis.

Box 13. Case of Mexico's Maquiladora (Part 2 – The Effect of NAFTA on the Maquiladora)

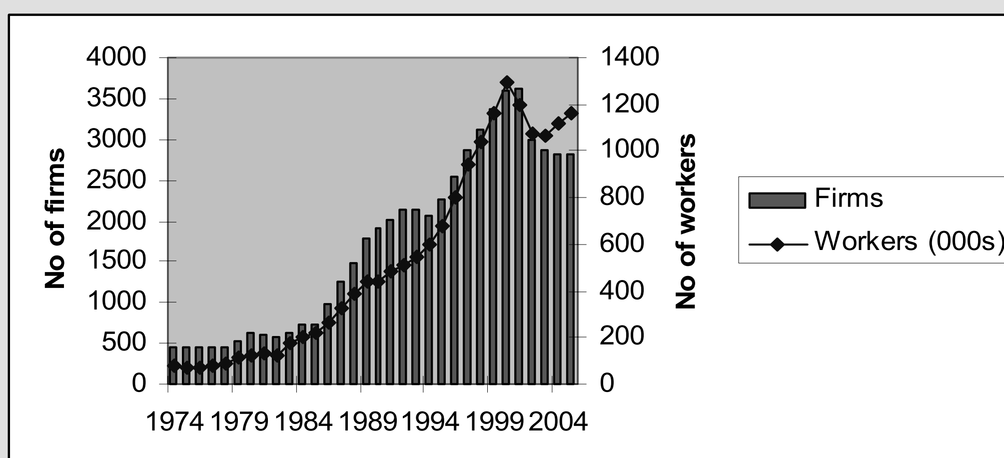
The North American Free Trade Agreement (NAFTA) which came into effect in 1994 provided new impetus to the growth of Mexican maquiladoras. US tariffs were cut in stages and companies were able to export from Mexico to the United States on a duty free basis if preferential rules of origin were met. NAFTA provided greater predictability in terms of ensured access to the U.S. market and helped provide assurance to businesses on the investment environment in Mexico. The duty free import of raw materials and intermediate inputs provided under the maquiladora scheme together with relatively lower labour costs provided additional incentives for non-NAFTA companies to invest in maquiladoras. The maquiladora system was also changed to meet some NAFTA requirements allowing greater domestic market access[44].

NAFTA provided renewed energy to growth in the maquiladora (see Figure 1) and led to increased FDI inflows into maquiladoras: doubling from US$ 895 millionin 1994 to US$ 2,983 in 2000. One reason why maquiladoras were so successful during this period was because external cost pressures on certain U.S. industries.forced companies to look for more cost effective production locations abroad. Thus, to tackle increasing competition from East Asia, many U.S. companies chose to move production to Maquiladoras in their southern neighbour. Another reason was that many European and Asian companies established production lines in Mexico following the establishment of NAFTA to supply the U.S. market. Mexico was considered an attractive investment destination with relatively low labour costs and with ensured U.S. market access. This may have led to some diversification in terms of sources of imports (Table 11).

The booming U.S. economy and weak Mexican peso were drivers of the rapid deepening of the U.S.-Mexico division of labour. Maquiladora production increased by 197 percent from January 1993 until its peak in October 2000, while overall Mexican manufacturing production increased by 58 percent over the same time period. Employment in maquiladoras also tripled and in 2000, maquiladoras accounted for about 4 percent of total employment and about 20 percent of manufacturing employment in Mexico. Moreover, maquiladora exports accounted for 40-45 percent of total exports.

Growth in maquiladoras in Mexico tapered off after 2000. According to GAO (2003), the decline is attributed mainly to the cyclical downturn of the U.S. economy but other structural factors such as increased competition in the U.S. market, particularly from China, Central America and the Caribbean, and the strength of the Mexican peso also contributed. In addition, the phasing out of maquiladora benefits as part of NAFTA was another cause of the decrease in maquiladora production and employment.

Figure 1. Number of firms and workers in Maquiladoras



Source: INEGI

[44] In 2001 sales to the domestic market were allowed without limitations

Table 11. Exports and imports of Maquiladoras by partner country

	1992		1997		2004	
	Exports	**Imports**	**Exports**	**Imports**	**Exports**	**Imports**
Maquiladora Trade (Million US$)	18 680	15 935	44 972	36 332	87 859	68 624
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Canada	0.1%	0.0%	0.3%	0.4%	0.5%	1.0%
United States	99.2%	96.4%	98.7%	91.2%	97.3%	57.8%
Asia	0.4%	3.2%	0.5%	7.6%	0.5%	36.1%
Europe	0.2%	0.3%	0.2%	0.6%	1.1%	3.4%
Netherlands	0.0%	0.0%	0.0%	0.0%	0.4%	0.1%
Germany	0.0%	0.0%	0.0%	0.2%	0.1%	1.0%
United Kingdom	0.0%	0.0%	0.1%	0.0%	0.2%	0.3%
France	0.2%	0.2%	0.1%	0.2%	0.2%	0.4%
Asia	0.4%	3.2%	0.5%	7.6%	0.5%	36.1%
Japan	0.1%	2.0%	0.1%	2.2%	0.1%	8.1%
Korea	0.0%	0.4%	0.0%	2.3%	0.0%	5.0%
Chinese Taipei	0.0%	0.0%	0.0%	0.7%	0.0%	11.1%
Latin America	0.1%	0.0%	0.3%	0.2%	0.5%	1.0%
Rest of World	0.0%	0.0%	0.0%	0.0%	0.2%	0.7%

Source: Ministry of Economy with data from Banxico.

Source : Buitelaar et al. (2000), Gruben (2001), Sargent and Matthews (2001), U.S. GAO (2003) and Jetro (various issues).

PART III. EPZ POLICY AND TRADE RULES

82. While EPZs are not specifically mentioned in any of the WTO Agreements, certain incentives that are part of EPZ policy may be covered by WTO provisions. This part reviews some common incentives in light of the Agreement on Subsidies and Countervailing Measures (SCM Agreement), the General Agreement on Trade in Services (GATS) and the Agreement on Trade Related Investment Measures (TRIMs Agreement). It should be stressed that all WTO Agreements (the GATT, related agreements such as the SCM Agreement and TRIMs Agreement, and the GATS) apply to any measure. Thus a certain subsidy or measure permissible under one agreement (e.g. GATS) may raise legal issues in the context of other agreements (e.g. SCM Agreement).

Agreement on Subsidies and Countervailing Measures

83. The WTO Agreement on Subsidies and Countervailing Measures addresses two separate but closely related topics: multilateral disciplines regulating the provision of subsidies, and the use of countervailing measures to offset injury caused by subsidized imports. In the SCM Agreement, export subsidies are prohibited under Article 3.1 (a) and subsidies contingent on the use of domestic goods over imported goods are prohibited under Article 3.1 (b). Article 27.2 provides for the Special and Differential Treatment of Developing Country Members for export subsidies with a general exemption for some developing countries (Article 27.2 (a)) and a phase out period for other developing countries (Article 27.2 (b)). Article 27.3 provides for a similar phase out period for developing countries for subsidies contingent on the use of domestic goods over imported goods. In this section, we proceed first to discuss the general applicable provision prohibiting export subsidies and subsidies contingent on domestic goods over imported goods. We then turn to look at the special and differential treatment provided to developing countries in the area of exports subsidies such as exemptions, transition periods, the Doha Decision related to extension of the transition period and product graduation. It should be noted that even those subsidies that are not prohibited would remain subject to countervailing duties while some limitations may apply.

Prohibition of export subsidies

84. According to Article 1 of the SCM Agreement, a subsidy is defined as a *"financial contribution by a government or any public body which thereby confers a benefit"*. Not only *"direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees)"* but also *"government revenue that is otherwise due which is forgone or not collected (e.g. fiscal incentives such as tax credits)"* are considered subsidies. Subsidies contingent on export performance are prohibited by Article 3.1(a) and an illustrative list of export subsidies are included in Annex I of the SCM Agreement. Thus, under this definition, various tariff exemptions, tax exemptions (income tax exemptions etc.), provision of services other than general infrastructure at concessional rates would all fall under the definition of "subsidies" and would be prohibited if they are contingent on export.

85. However, duty free imports of raw material and intermediate inputs used in the production of goods for exports, and other duty drawback schemes of a similar nature, are exempted from the above definition of subsidies by virtue of a footnote. Footnote 1 to Article 1.1(a)(1)(ii) of the SCM Agreement states that *"the exemption of an exported product from duties or taxes borne by the like product when destined for domestic consumption, or the remission of such duties or taxes in amounts not in excess of those which have accrued, shall not be deemed to be a subsidy"*. Similar treatment is provided for

exemption or remission of indirect taxes on *"inputs that are consumed in the production of the exported product"*[45] under certain conditions. Certain provision for wastage may also be allowed[46]. Duty free imports of capital goods used in production of an exported product do not meet the requirements of the footnote as they are not consumed in the production of the exported product, as provided under item (i) of Annex I of the SCM Agreement[47]. Thus tariff exemptions for capital goods which are contingent on exports would be an export subsidy.

86. What does this mean in practice? Take an example of a garment manufacturer who imports 100 percent of his material and exports 70 percent of his products. Tariff exemptions on material would be allowed up to 70 percent of the material (although the actual material used in the garment may be somewhat less due to wastage). Tariff exemptions on inputs which are consumed in the production (e.g. fuel) may also be allowed. If there is some domestic input such as dyes on which internal indirect taxes are paid (V.A.T. etc.), such indirect tax may also be refunded to the extent that such input is used for the production of exports. However, direct taxes such as income taxes, tariffs on capital equipment such as sewing machines, duties on material not consumed in the production of the exported product such as construction material for factories and/or housing may not be exempted as this would likely constitute an export subsidy if contingent on exports. In practice, many countries have trimmed down incentives to permitted exemptions or made such exemptions WTO consistent by relaxing the export requirement. Thus requirements that all or a certain percentage of production must be exported are becoming increasingly rare. Some countries have extended tariff exemptions on capital products and inputs to all companies by cutting tariffs unilaterally on a most-favoured-nation basis. Most EPZs allow final products to be imported upon payment of duties either on the final product or on the inputs used in production.

Prohibition of subsidies contingent on the use of domestic goods over imported goods

87. Article 3.1 (b) of the SCM Agreement prohibits the use of "*subsidies contingent, whether solely or as one of several other conditions, upon the use of domestic over imported goods*". While less obvious and less discussed than the prohibition on export subsidies, such subsidies can also be found in some EPZs. If some benefits provided to companies located in EPZs (e.g. duty free access of products to the domestic customs territory) are contingent upon the use of domestic over imported goods (e.g. a requirement to use a certain percentage of local inputs), this would likely constitute a violation of Article 3.1 (b) of the SCM Agreement. While Article 27.3 provided for phase out periods of eight years for least developed countries and five years for other developing countries, the phase out period has already expired for all countries contrary to the case of export subsidies as will be discussed in the next section.

Special treatment for developing countries for export subsidies

88. Article 27 of the SCM Agreement provides for the Special and Differential Treatment of Developing Country Members. Article 27.2(a) stipulates that the prohibition on export subsidies does not apply to "developing countries referred to in Annex VII"(explained further in para 91). Article 27.2 (b) provides that other developing countries can maintain export subsidies for a limited transition period subject to compliance with procedural requirements. While the initial transition period was for eight years after the date of entry into force of the Agreement (i.e. 2003), this was extended for some developing

[45] See item (g) and (h)In Annex I of the SCM Agreement (Illustrative List of Export Subsidies) and Annex II of the SCM Agreement (Guidelines on Consumption of Inputs in the Production Process) for details.

[46]. There is reference to "making normal allowance for waste" in item (h) Annex I of the SCM Agreement (Illustrative List of Export Subsidies) and Annex II of the SCM Agreement.

[47] Footnote 61 in Annex II states "Inputs consumed in the production process are inputs physically incorporated, energy, fuels and oil used in the production process and catalysts which are consumed in the course of their use to obtain the exported product".

countries until the end of 2007 based on the Ministerial Decision in Doha on "Implementation-Related Issues and Concerns (WT/MIN(01)17)" and related documents. In this section, we first examine the provisions in the SCM Agreement. We then turn to discuss the Doha decision in the area of export subsidies and finally study a specific provision on product specific graduation.

a) Exemptions for developing countries in Annex VII

89. Annex VII contains two lists of countries to whom the prohibition of Article 3.1(a), i.e. prohibition on export subsidies, does not apply. Annex VII (a) refers to "LDCs designated as such by the United Nations which are Members of the WTO". This consists of Angola, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia,, Central African Republic, Chad, Democratic republic of the Congo, Djibouti, Gambia, Guinea, Guinea-Bissau, Haiti, Lesotho, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Senegal, Sierra Leone, Solomon Islands, Tanzania, Togo, Uganda and Zambia as of 2006 (Column 1 of Annex D of this document). Annex VII (b) includes the list of countries (Bolivia, Cameroon, Congo, Cote d'Ivoire, Dominican Republic, Egypt, Ghana, Guatemala, Guyana, India, Indonesia, Kenya, Morocco, Nicaragua, Nigeria, Pakistan, Philippines, Senegal, Sri Lanka and Zimbabwe) stating that they shall be subject to the provisions applicable to other developing country WTO members if GNP per capita has reached US$ 1,000 (Column 2 in Annex D of this document). Honduras was subsequently added to the list through a correction to the authentic text made under Reference WLI/100. As a result of the review process, the Dominican Republic, Guatemala, and Morocco have reached the threshold and are no longer eligible countries. Albania, Angola, Armenia, China, Georgia, Kyrgyzstan, Moldova, and Mongolia are newly acceding countries with GNP per capita below the US$ 1,000 threshold as of 1994 whose treatment is determined by the terms of accession.

b) Extension of the transition period for the elimination of export subsidies for other developing countries

90. A number of other developing countries were allowed to maintain existing export subsidies under Article 27.2 (b). This article stated that the prohibition on export subsidies will not apply to *"…other developing country Members for a period of eight years from the date of entry into force of the Agreement, subject to compliance with the provisions in paragraph 4"*. If the WTO member considered that further extension was necessary, the member could enter into consultations with the SCM Committee who would decide whether to grant an extension or not. If no such grant was offered, the member would have to phase out the remaining export subsidies within two years from the end of the last authorised period. Thus, under the SCM Agreement, developing countries who had been allowed to maintain export subsidy programmes under Article 27.2(b) were provided an opportunity to file for an extension.

c) Doha Decision in the area of export subsidies

91. In Doha, the ministers agreed on a set of issues related to the implementation of the Uruguay Agreements of which the SCM Agreement was one (WT/MIN(01)17). First, various issues were decided in terms of treatment of members listed in Annex VII(b); (1) members would only graduate if their GNP per capita reaches US$ 1,000 in constant 1990 dollars for three consecutive years; (2) in addition, a member would not graduate so long as its GNP per capita in current dollars has not reached US$ 1,000 based upon the most recent data from the World Bank; (3) a member who has graduated shall be re-included when its GNP per capita falls below US$ 1,000. Second and more importantly, agreement was reached on extension of the transition period and procedures were set out in a document titled "Procedures for Extensions under Article 27.4 for Certain Developing Country Members" (G/SCM/39). It was agreed that *"through the end of calendar year 2007, subject to annual reviews during that period to verify that the transparency and standstill requirements are being fulfilled, Members of the Committee shall agree to continue the extensions"*. This essentially established a semi-automatic extension for certain programmes

through to the end of 2007. Even if a further extension was not granted, countries were given the final two years referred to in Article 27.4 of the SCM Agreement to phase out its subsidies. Thus, without an agreement on extension before the end of 2007, countries who had received exemptions under Article 27.2(b) would have to eliminate programmes which may be deemed to be an export subsidy by the end of 2009.

92. Criteria on eligibility for extension and procedures for extension were set out in the paper "Procedures for Extensions under Article 27.4 for Certain Developing Country Members" (G/SCM/39). On criteria, only export subsidy programmes which were in existence not later than 1 September 2001 and which were provided by developing country members (1) whose share of world merchandise export trade was not greater than 0.10 per cent and (2) whose total Gross National Income ("GNI") for the year 2000 as published by the World Bank was at or below US$ 20 billion were considered eligible to apply for the extension.

93. Members seeking an extension were to submit a notification and 22 countries requested extension in 2002. Most of the requests were approved. However, some were eventually withdrawn and others were not approved for the full extension requested. As of the end of 2005, there were 19 countries who had received extensions (Column 3 in Annex D of this document) of which 11 explicitly referred to Export Processing Zones or similar schemes (See Annex C of this document for a list of notifications which refered to EPZ like schemes with main incentives provided).

94. Looking at the list of incentives included in Annex C of this document, exemption of income taxes and all other direct taxes such as land taxes and municipal taxes, exemptions for import tariffs for equipment and machinery, automobiles, construction material would be considered export subsidies. For these countries, these programmes would have to be modified by the year 2009 assuming that agreement is not reached on further extension. This may create problems for countries stated above who may have made commitments to investing companies to the contrary (i.e. promised incentives such as exemptions for tariffs on imported machinery or income tax exemptions until 2015). The incentives will either have to be modified so that they become WTO consistent or terminated. An extension of these incentives to all companies for example through unilateral reduction of tariffs on capital equipments on a most-favoured nation basis may be a solution in some cases. A proposal to further extend the transition period from end of 2007 until 2018 for "small and vulnerable economies" has been submitted by a group of 15 small economies (G/SCM/W/535) to the Committee on Subsidies and Countervailing Measures and is currently under consideration.

d) Product graduation on the basis of export competitiveness

95. Article 27.5 and 6 of the SCM Agreement further stipulates that if a developing country member reaches "export competitiveness" defined as *"a share of at least 3.25 per cent in world trade of that product for two consecutive calendar years"*, they *"shall phase out its export subsidies for such product(s) over a period of two years"*. Thus even if a country is allowed to maintain export subsidies either because it is an LDC or for other reasons, if its exports are competitive enough to reach a share of 3.25 percent in the world, it may have to give up its export subsidies programme. It is stated that export competitiveness shall exist either: (a) on the basis of notification by the developing country members having reached competitiveness; or (b) on the basis of a computation undertaken by the Secretariat at the request of any member. Thus there is a possibility that a developing country does not phase out an export subsidy despite fulfilling the conditions if it is unaware of the situation.

96. Finally, it should also be noted that even if certain export subsidies by some developing countries are not prohibited, they would remain subject to countervailing duty investigations while some limitations may apply (see Article 27.10 of the SCM Agreement). A proposal to use moving averages to assess

achievement of export competitiveness and to allow for the reintroduction of export subsidies in case export competitiveness is lost (TN/RL/GEN/136), was submitted by Egypt, India, Kenya and Pakistan to the Negotiating Group on Rules and is currently under consideration.

General Agreement on Trade in Services

97. Contrary to the area of goods, there are currently no detailed rules on subsidies in the area of services as this issue is the subject of ongoing discussions (Article XV of the GATS) in the Working Party on GATS Rules. Issues such as information exchange, the definition of subsidies, examples of subsidies in services etc. are being discussed but progress remains slow. Subsidies promoting export of services are not subject to the SCM Agreement. However, this does not mean that such subsidies are not subject to disciplines.

98. GATS Article II states that Members shall accord *"treatment no less favourable than that it accords to like services and service suppliers of any other country"* (Most Favoured Nation Treatment). As EPZs confer some preferential treatment to a subset of companies, differential treatment provided on the basis of nationality may have some implications related to this MFN clause. This would depend on a number of factors such as how exactly the preferential treatment is designed and how the term "like services and service suppliers" is interpreted.[48] The same argument may hold for Article XVII (National Treatment) although in this case, a country must have made a specific commitment in the specific service sector at issue (i.e. business process services, financial services etc.) for a case to be made. In making a commitment, the GATS provides flexibility for countries to maintain limitations (e.g. a country may take a commitment for audio visual production and distribution services but maintain an exception for subsidies).

Agreement on Trade Related Investment Measures

99. The TRIMs Agreement provides an illustrative list of investment measures that are inconsistent with the provisions of Article III of the GATT (national treatment) and Article XI of the GATT (general elimination of quantitative restrictions). Included in the list are trade related investment measures which

a) require *"the purchase or use by an enterprise of products of domestic origin or from any domestic source"* (commonly called local-content requirements);

b) require *"that an enterprise's purchases or use of imported products be limited to an amount related to the volume or value of local products that it exports"* (trade balancing requirements) or;

c) *"restricts the importation by an enterprise"* by *"restricting its access to foreign exchange to an amount related to the foreign exchange inflows attributable to the enterprise"* (foreign exchange restrictions).

100. There are no explicit references to EPZs or other similar schemes in the TRIMs Agreement, but EPZs is a typical trade related investment measure.[49] They fit both the definition of "investment measures" and "trade related" as key stated objectives of most EPZs are to attract more foreign direct investment and to promote exports. Thus any EPZ which has a local content requirement, a trade balancing requirement or a foreign exchange restriction would be in violation of the TRIMs Agreement without submission of a notification in accordance with Article 5.1 of the TRIMs Agreement. According to WTO (2005), there have been no notifications related to export processing zones made since 1995.

[48] With limited jurisprudence – only five disputes existing so far – under the GATS (Cossy 2006), the services agreement is still an agreement where legal interpretation is very much undetermined.

[49] See also page 23-24 of UNCTAD (1999).

101. The requirement in the new SEZ in India to be a net earner of foreign exchange over a five year period may be an example of a trade related investment measure under the TRIMs Agreement. It would have the effect of the company to favour the use of a domestic product over an imported product in order to meet the export balancing requirement. Such a requirement may be made to both manufacturers and service suppliers in an SEZ. Another measure by a different country related to a "bonded warehouse"[50] linked the quantity of products that could be shipped from the "bonded warehouse" into the domestic territory on a duty free basis to the accomplishment of a target on domestic content. Transfer of products from the "bonded warehouse" into the rest of the territory which did not meet the target and/or exceeding such quota could be made on normal terms (paying duty). This measure may be considered a local content requirement as it provides incentive for the company in the "bonded warehouse" to use domestic products in order to meet the target on domestic content. Similar measures related to export processing zones would likely be considered inconsistent with the TRIMs Agreement.

EPZs and Regional Trade Agreements

102. Before examining the relationship between EPZs and RTAs, this section first presents a brief discussion of the functions of an EPZ and an RTA. An overview is then provided of how the issue of EPZs is handled in RTAs.

The functions of EPZs and RTAs

103. As stated in Part I, one of the key features of an EPZ is that it is conceptually outside of the nation's normal customs territory. This allows inputs and intermediate goods to be imported on a duty free basis and processed for re-export. The important feature to note here is that the area in the EPZ is effectively treated as outside the country with regard to tariffs on inputs and intermediate products.

104. An RTA on the other hand is an agreement between two or more countries (e.g. countries A, B and C) with the objective of decreasing trade barriers so that there will be a free flow of goods and services between the countries involved. One of the functions of an RTA is that shipments from an RTA partner are treated in the same manner as domestic shipments once it has been considered as produced in the RTA member's territories. One way to look at this is to see the agreement as enlarging a country's customs territory to include the other country's customs territory. An agreement therefore must be designed to ensure that RTA benefits are accorded only to goods that originate inside the RTA in order to maintain the integrity of the customs regime.

105. One of the ways to realise the objective of ensuring that RTA benefits go only to the intended goods is preferential rules of origin. Among other things, preferential rules of origin are put in place in order to prevent "circumvention" which occurs when goods originating outside of the RTA member countries are shipped through one RTA member country (country A) to another (country B) in order to avoid tariffs or other trade barriers. Circumvention can occur when tariffs levied on a product is higher in country B than in country C. Preferential rules of origin specify the conditions that must be met to qualify for the benefits under an RTA (e.g. percentage of local content required or change of custom classifications). Goods that do not meet the conditions would be subject to normal MFN tariffs.

106. RTA benefits may also be limited by restrictions/elimination of EPZs and duty-drawback mechanisms. This mainly stems from the fact that (1) EPZs are considered outside of a country's custom's territory and (2) RTA benefits should be denied to goods originating outside of the RTA members'

[50] The difference between an export process zone and a bonded warehouse, duty drawback schemes are in fact little especially if compared to a "single company export processing zone" in terms of the economic effect.

customs territory in order to maintain integrity of the custom's territory. This may be easier understood by use of an example.

107. Assume country A had an EPZ and that a television (TV) manufacturer in the EPZ imported parts and components from country Z on a duty free basis, and exported most of its TVs to country B paying tariffs of 10%. Some of the TVs were also shipped into the country A's domestic market upon payment of tariffs on the imported parts and components. Let us assume that country A and country B signed an RTA whereby TV tariffs were cut to zero. Would it be appropriate for the EPZ to continue functioning as it did before?

108. The answer is probably no. The RTA would allow the TV manufacturer to export TVs to country B at zero tariffs. If TV manufacturers are still required to pay tariffs when shipping to its own domestic market, there will be a strong incentive for the manufacturer to ship the TVs first to country B and reship the TVs to country A to circumvent the extra tariffs. The same argument applies for duty drawback mechanisms. The common way to solve this "dilemma" is to prohibit the application of duty-drawback mechanisms to exports destined for RTA member countries. Duty drawback mechanisms may continue to be applied for exports to third countries. In other words, in the above example, the TV manufacturer in the EPZ would be allowed to import duty free inputs when exporting to countries outside of the RTA (country Z) but not for RTA members (country A and B).

Treatment of EPZs in RTAs

109. Although the treatment of EPZs should be considered when signing an RTA, this does not always seem to be the case and treatment differs in different RTAs. NAFTA, Article 303 which provided limitations on the use of drawback mechanisms for exports to the RTA partner so as to make it unviable to circumvent tariffs[51] provides an example of how EPZs are treated. Granados (2004) provides a comprehensive list of how free zones and duty drawbacks are treated in the Americas (Annex E). In a majority of cases, duty drawback schemes have been limited so as to prevent circumvention with certain transitional periods. Turning outside of the Americas, according to UNCTAD (2004), EU's FTAs also tend to explicitly preclude drawback allowing for a phase-out period during which drawback is permitted. For instance the EU-Mexico FTA permitted drawback for the first two years, while the EU-Chile FTA allows drawback through 2007, the fourth year of the FTA.

110. However, according to UNCTAD (2004), AFTA (ASEAN Free Trade Area), ANZCERTA (Australia New Zealand Closer Economic Relations Trade Agreement), SPARTECA (South Pacific Regional Trade and Economic Cooperation Agreement) , the US Israel FTA, CACM (Central American Common Market), and Mercosur stands out for not prohibiting drawback, and Annex E shows that even in the Americas there are some cases where no concrete measures have been agreed upon. As stated above, lack of provisions on the treatment of EPZs and drawback systems in some RTAs may lead to an unintended increase in trade circumvention.

[51] "NAFTA Article 303.1 states "Except as otherwise provided in this Article, no Party may refund the amount of customs duties paid, or waive or reduce the amount of customs duties owed, on a good imported into its territory, on condition that the good is:a) subsequently exported to the territory of another Party, b) used as a material in the production of another good that is subsequently exported to the territory of another Party, or c) substituted by an identical or similar good used as a material in the production of another good that is subsequently exported to the territory of another Party, in an amount that exceeds the lesser of the total amount of customs duties paid or owed on the good on importation into its territory and the total amount of customs duties paid to another Party on the good that has been subsequently exported to the territory of that other Party.

PART IV CONCLUSIONS

111. Export processing zones (EPZs) as a policy tool for development and export-oriented growth has proliferated over the last four decades. More than 100 countries have currently implemented some form of zone policy for the supply of goods and services to foreign markets. EPZs have had mixed impacts on countries' economic development. While in some countries it has led to export diversification and growth, employment creation, and foreign exchange generation, in others results have been disappointing.

112. In this paper, we reviewed the evolution of EPZs and reviewed EPZs from and economic and trade rule perspective. The analysis in this paper indicates that:

- EPZs are a suboptimal policy from an economic point of view. Improvement of the business environment through trade and investment liberalisation, establishment of good infrastructure, rule of law and administrative simplification remains the optimal policy option to promote investment, employment and growth.

- EPZs however can provide an interim solution to developing countries with poor business environments where bridging deficiencies at a national level is not possible. This type of policy – with resources and market incentives focused on a subset of the economy– may be less time-consuming and require less political capital in the short term as it allows for continued protection of domestic industry.

- As an interim solution EPZs should not be considered a substitute for general economic reform. While incentives may make up for certain deficiencies, governments should bear in mind that such incentives are provided by taxing other parts of the economy, and thus should provide commensurate benefits to the economy.

- EPZs and similar policy instruments can logically serve as a stepping stone to trade liberalisation on a national basis. They reduce anti-export bias of high tariffs by allowing an exporting company to access inputs at global prices, and thus may facilitate the creation of an export industry and improve a country's trade balance.

- Governments should consider all available policy options when examining strategies for export promotion, including general trade liberalisation, bonded warehouse schemes, duty drawback schemes, zone type EPZs and enterprise type EPZs. Each scheme has its advantages and disadvantages. In some cases countries have pursued a combination.

- In designing an EPZ policy, a government should set realistic expectations and conduct a thorough cost/benefit analysis. In conducting such an analysis, it should bear in mind that benefits are dependent on private investment which are unpredictable and rely on external factors. Thus governments should minimise upfront costs (e.g. infrastructure costs) whenever possible.

- Choice of location is critical for zone type EPZs. Companies look for, among other things, reliable infrastructure (energy, logistics, telecommunications), adequate supply of labour, and a

well-functioning legal environment. A good location will minimise the costs of putting these requirements into place. Tax incentives provided to compensate for deficiencies are costly and unsustainable. More importantly, access to local suppliers is the key to promote technology transfers from foreign companies to domestic companies.

- While the use of financial and other incentives to attract foreign investors may be necessary in the short term, such incentives have government revenue implications and do not provide a substitute for policy measures towards a sound investment environment. Such incentives should be minimal and time bound. Long-term commitments create equity problems by discriminating an EPZ company and non-EPZ company which both are inherently equally important for the economy and go against the "temporary" nature of EPZs.

- Improved legal services, enforcement of the rule of law – even designated courts for dispute settlement - and streamlined procedures can significantly reduce business risk and help attract investors. Bearing in mind that FDI may pull out when incentives phase out, improvements in the business environment should be made expeditiously. EPZs can be a first step to such improvements by providing an avenue for consultation between governments and businesses. Improvements in the business environment thus achieved should be extended on a national basis.

- Exemptions or relaxation of labour rules and other regulations have often been detrimental by creating differential standards within a country which may disadvantage certain classes of workers and contribute to economic distortions.

- Interaction of EPZs and regional trade agreements may also lead to MFN tariff cuts. Phase out provisions for EPZs and duty drawback schemes often contained in regional trade agreements to avoid circumvention may force governments to respond in different ways. Governments can either phase-out tariff exemptions on inputs for exports to RTA partners and risk losing FDI, or allow continued access to inputs at global prices by cutting tariffs on an MFN basis.

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ANNEX A. DATES OF ESTABLISHMENT OF EPZ PROGRAMMES[52]

	Before 1970s and 1970s	1980s	1990s	2000-present
OECD countries	Denmark, Finland, Germany, Greece, Iceland, Ireland, Italy, Korea, Mexico, Spain, Sweden, Switzerland, UK, USA	Australia, Hungary, Malta, Portugal	Czech Rep., France, Japan, Poland, Slovak Rep.	
Americas	Bahamas, Brazil, Colombia, Dominican Rep., Panama, Chile, Costa Rica, El Salvador, Guatemala, Honduras, Jamaica	Paraguay, Peru, Trinidad and Tobago, Uruguay	Argentina, Belice, Cuba, Ecuador, Nicaragua, Venezuela	
Asia/ Pacific	Hong Kong, India, Macao, Singapore, Chinese Taipei, Thailand, Malaysia, Phili[ppines, Sri Lanka	Bangladesh, China, Fiji, Indonesia, Pakistan	North Korea, Mongolia, Vietnam	
Middle East and North Africa	Egypt, Israel, Syria	Jordan, Morocco, Tunisia, Dubai, UAE	Algeria, Bahrain, Iran, Kuwait, Lebanon, Libya, Yemen	Oman
Transition Europe and Central Asia		Bulgaria	Belarus, Croatia, Estonia, Kzakhstan, Latvia, Lithuania, Macedonia, Romania, Russia, Serbia and Montenegro, Slovenia, Ukraine, Uzbekistan	Albania, Bosnia and Herzegovina, Moldova
Sub Saharan Africa	Liberia, Senegal	Djibouti, Mauritius	Burundi, Cameroon, Cape Verde, Equatorial Guinea, Ghana, Kenya, Madagascar, Malawi, Mozambique, Namibia, Nigeria, Rwanda, Seychelles, Tanzania, Uganda, Zimbabwe	Gabon, Gambia, Mali, South Africa, Zambia

Source: FIAS (forthcoming, 2007)

Note: Fiji and Australia withdrew their free zone schemes in 2003-04.

52. Some EPZ programmes (e,g. the Darwin Trade Development Zone in Australia) have been abolished at present.

ANNEX B: COUNTRIES AND TERRITORIES WITH ECONOMIC PROCESSING ZONES

Country or Territory	WTO	Wide Area	Small Area	Industry Specific	Performance Specific
ALGERIA			✔		
AMERICAN SAMOA			✔		
ANGOLA	✔		✔		
ARGENTINA	✔		✔		
ARUBA			✔		
AUSTRALIA	✔		✔		
AUSTRIA	✔		✔		
BAHAMAS			✔		
BANGLADESH	✔		✔		
BELIZE	✔		✔		
BERMUDA				✔	
BOLIVIA	✔		✔		
BRAZIL	✔	✔	✔		
BULGARIA	✔		✔		
BURUNDI	✔		✔		
CAMEROON	✔		✔		
CAPE VERDE			✔		
CAYMAN ISLANDS				✔	
CHILE	✔		✔		
CHINA	✔	✔	✔	✔	✔
COLOMBIA	✔		✔		
COSTA RICA	✔		✔		
CROATIA	✔		✔		
CUBA	✔		✔		
CURACAO, NETHERLANDS ANTILLES			✔		
CYPRUS	✔		✔		
DENMARK	✔		✔		
DJIBOUTI	✔		✔		
DOMINICAN REPUBLIC	✔		✔	✔	
ECUADOR	✔		✔		
EGYPT	✔		✔		
EL SALVADOR	✔		✔		
FIJI	✔		✔		
FINLAND	✔		✔		
FRANCE	✔		✔	✔	
GABON	✔		✔		
GAZA STRIP AND WEST BANK			✔		
GERMANY	✔		✔	✔	
GHANA	✔		✔		
GIBRALTAR			✔		
GREECE	✔		✔		
GUADELOUPE			✔		
GUAM			✔		
GUATEMALA	✔		✔		
HAITI	✔		✔		
HONDURAS	✔		✔		
HONG KONG, CHINA	✔	✔	✔	✔	
HUNGARY	✔		✔		
ICELAND	✔		✔		
INDIA	✔	✔	✔	✔	✔

Annex B: Countries and territories with economic processing zones (*continued)*

Country or Territory	WTO	Wide Area	Small Area	Industry Specific	Performance Specific
INDONESIA	✔		✔		
IRAN			✔		
IRELAND	✔		✔		
ISRAEL	✔		✔		
ITALY	✔		✔		
IVORY COAST	✔		✔		
JAMAICA	✔		✔		
JAPAN	✔		✔	✔	
JORDAN	✔		✔		
KAZAKHSTAN		✔			
KENYA	✔		✔		
KOREA, REPUBLIC OF	✔		✔	✔	
KUWAIT	✔		✔		
KYRGYZSTAN	✔	✔			
LATVIA	✔		✔		
LEBANON			✔		
LESOTHO	✔		✔		
LIBERIA			✔		
LIBYA			✔		
LIECHTENSTEIN	✔	✔			
LITHUANIA	✔		✔		
MACAO, CHINA	✔		✔		
MADAGASCAR	✔		✔		
MALAWI	✔		✔		
MALAYSIA	✔		✔		
MALI	✔		✔		
MALTA AND GOZO	✔		✔		
MAURITIUS	✔		✔		✔
MEXICO	✔		✔		✔
MOLDOVA	✔		✔		
MONACO		✔			
MONGOLIA	✔		✔		
MOROCCO	✔		✔		
MOZAMBIQUE	✔		✔		
NAMIBIA	✔		✔		
NEW ZEALAND	✔		✔		
NICARAGUA	✔		✔		
NIGERIA	✔		✔		
NORTH KOREA			✔		
OMAN	✔		✔		
PAKISTAN	✔		✔		
PANAMA	✔		✔	✔	
PERU	✔		✔		
PHILIPPINES	✔	✔	✔		
POLAND	✔		✔		
PORTUGAL	✔		✔		
PUERTO RICO			✔		
ROMANIA	✔		✔		
RUSSIA		✔	✔		
SENEGAL	✔		✔		

Annex B. Countries and territories with economic processing zones (*continued)*

Country or Territory		Wide Area	Small Area	Industry Specific	Performance Specific
SERBIA			✔		
SEYCHELLES			✔		
SINGAPORE	✔	✔	✔		
SLOVAKIA	✔		✔		
SLOVENIA	✔		✔		
SOUTH AFRICA	✔		✔		
SPAIN	✔		✔		
SRI LANKA	✔	✔	✔		
ST. KITTS-NEVIS	✔		✔		
ST. LUCIA	✔		✔		
SUDAN			✔		
SWEDEN	✔		✔		
SYRIAN ARAB REPUBLIC			✔		
CHINESE TAIPEI	✔		✔	✔	
TANZANIA	✔		✔		
THAILAND	✔		✔		
TOGO	✔		✔		
TRINIDAD AND TOBAGO	✔		✔	✔	
TUNISIA	✔		✔		
TURKEY	✔		✔		
UKRAINE			✔		
UNITED ARAB EMIRATES	✔		✔		
UNITED KINGDOM	✔		✔		
URUGUAY	✔		✔		
USA	✔		✔	✔	
VANUATU				✔	
VENEZUELA	✔		✔		
VIETNAM			✔		
YEMEN		✔	✔		
YUGOSLAVIA			✔		
ZIMBABWE	✔		✔		
TOTAL SUM	***101***	***13***	***124***	***15***	***4***

Source: World Economic Processing Zones Association, www.wepza.org, October 2006

Wide area: Large zones with a resident population such as the Chinese SEZs or new cities.

Small area: Zones that are generally smaller than 1000 Hectares and normally surrounded by a fence. Investors must locate within the zone to receive benefits. No resident population, although they may contain worker dormitories.

Industry Specific: Zones that are created to support the needs of a specific industry such as banking, jewelry, oil and gas, electronics, textiles, tourism, etc. Companies invested in the zone may be located anywhere and receive benefits. Examples include India's Jewelry Zones, or many offshore banking zones.

Performance Specific: Zones that admit only investors that meet certain performance criteria such as degree of exports, level of technology, size of investment, etc. Companies can be located anywhere. Examples include India's export oriented factories, the Mexico Maquila programme, or a research park.

ANNEX C. COMMON EXPORT SUBSIDY COMPONENTS IN EPZS FOUND IN SCM NOTIFICATIONS UNDER ARTICLE 27

Country	Export subsidy component provided	Source (WTO documents)
Antigua and Barbuda	- Exemption from - customs duty, consumption and other taxes on the importation of raw materials, machinery, equipment, spare parts and construction materials etc.. - payment of income and other taxes other than social security, medical benefits and education levy	G/SCM/N/146/ATG
Belize	-Full exemption from import duties and internal taxes including income tax, withholding tax, capital gains tax or any new corporate tax for a minimum of twenty years. - Exemption of property and land tax	G/SCM/N/71/BLZ/Suppl.1
Costa Rica	- Exemption from all taxes on imports of raw materials, components and parts, packaging materials, machinery, equipment, spare parts, automobile vehicles required etc.(indefinite) - Exemption form all taxes on imports of fuel, oil and lubricants (indefinite) - Exemption from payment of tax on capital and assets and payment of land tax (10 years) - Exemption from all taxes on profits (4-6 years) - Exemption from any municipal tax or business tax (10 years) - Enterprises based in relatively less-developed areas are entitled to a credit of 10 percent of the amount paid as wages, which will be gradually phased out over five years	G/SCM/N/146/CRI
Dominican Rep	-100% exemption of payment for 15-20 years of - corporate income taxes - construction taxes, taxes on loan agreements and transfer of real estate, - corporate registration tax and taxes on capital increase - municipal taxes - import duties etc on raw materials, equipment, construction materials, office equipment etc. - business tax on inventory or assets and tax on the transfer of industrialised goods. - Payment of duties on the importation of transportation equipment, construction material for employees may also be exempted subject to prior approval.	G/SCM/N/74/DOM
El Salvador	- Exemption from import duties on raw material, parts, components, packaging, machinery, equipment, tools, spare parts etc. - Exemption from import duties on fuels, lubricants, catalysts, etc. - total exemption from income tax, municipal taxes, real estate transfer tax	G/SCM/N/146/SLV
Fiji	- A company exporting 70 percent or more of its products may be granted exemptions of fiscal duty, value added tax and income tax for a period of 13 years.	G/SCM/N/146/FJI

Country	Export subsidy component provided	Source (WTO documents)
Guatemala	- Exemption from company tax on income - Exemption from customs duties and other import taxes, including Value Added Tax (VAT) on machinery, equipment, parts, components and accessories required for the production process.	G/SCM/N/146/GTM
Jamaica	- Duty free importation of capital goods, consumer goods, raw materials or articles for use in connection with the approved product - Duty free treatment of articles for the construction, alteration and repair of equipment of premises in the Free Zone - total relief from income tax for profits from approved activities - exemption from normal fees payable with respect to work permit	G/SCM/N/114/JAM
Mauritius	- Exemption from customs duty and excise duty on scheduled equipment - tax credit allowed by way of reduction from income tax otherwise payable by the company, the credit being determined by the percentage of qualifying export sales to total turnover, and limited such that the rate of income tax payable after the tax credit does not fall below 15 percent.	G/SCM/N/146/MUS
Panama	- complete exemption from national direct and indirect taxes, contributions, duties and levies as well as for any activity operation, transaction, processing and transfer of movable and immovable property, purchase and import of construction materials and equipment, raw materials, equipment, machinery, tools, accessories, inputs and any goods or services	G/SCM/N/95/PAN
St. Lucia	- Exemption from import duty etc on plant, machinery and equipment, raw materials - Special income tax concessions. - Tax credits in accordance with the number of nationals employed - Exemption from income tax during the first five years of operations - Total net losses over the 5 year tax holiday may be carried forward for 3 years	G/SCM/N/74/LCA

Source: Secretariat based on WTO notifications)

ANNEX D. STATUS OF APPLICATION OF PROHIBITION ON EXPORT SUBSIDIES

Country or Area	GNI per cap at constant 1990 US$ (2003)	GNI per cap at current US$ (2003)	2005 GNI	-1	-2	-3
Angola			1350	X		
Bangladesh			470	X		
Benin			510	X		
Burkina Faso			400	X		
Burundi			100	X		
Cambodia			380	X		
Central African Rep			350	X		
Chad			400	X		
Dem. Rep. of Congo	95	115	120	X		
Djibouti			1020	X		
Gambia			290	X		
Guinea			370	X		
Guinea-Bissau			180	X		
Haiti			450	X		
Lesotho			960	X		
Madagascar			290	X		
Malawi			160	X		
Maldives			2390	X		
Mali			380	X		
Mauritania			560	X		
Mozambique			310	X		
Myanmar			-	X		
Nepal			270	X		
Niger			240	X		
Rwanda			230	X		
Sierra Leone			220	X		
Solomon Islands			590	X		
Tanzania			340	X		
Togo			350	X		
Uganda			280	X		
Zambia			490	X		
Senegal	828	625	710	X	X	
Bolivia	740	858	1010		X	
Sri Lanka	722	938	1160		X	

Country or Area	GNI per cap at constant 1990 US$ (2003)	GNI per cap at current US$ (2003)	2005 GNI	-1	-2	-3
Kenya	350	446	530		X	
Cameroon	894	894	1010		X	
Congo			950		X	
Cote d'Ivoire	694	908	840		X	
Egypt	823	1218	1250		X	
Ghana	504	361	450		X	
Guyana	768	908	1010		X	
India	583	561	720		X	
Indonesia	782	927	1280		X	
Nicaragua	500	725	910		X	
Nigeria	296	366	560		X	
Pakistan	572	540	690		X	
Philippines	897	1063	1300		X	
Zimbabwe			340		X	
Morocco	1125	1428	1730		(X)	
Honduras	704	973	1190		Y	
Dominican Republic	1217	1751	2370		(X)	X
Guatemala	1037	1981	2400		(X)	X
Antigua and Barbuda			10920			X
Barbados			-			X
Belize			3500			X
Costa Rica			4590			X
Dominica			3790			X
El Salvador			2450			X
Fiji			3280			X
Grenada			3920			X
Jamaica			3400			X
Jordan			2500			X
Mauritius			5260			X
Panama			4630			X
Papua New Guinea			660			X
Saint Kitts & Nevis			8210			X
Saint Lucia			4800			X
St Vincent Grenadines			3590			X
Uruguay			4360			X

Source : Secretariat from WTO notifications and G/SCM/110 series, GNI data from World Bank.

Note (1) Annex VII (a) Countries – LDCs designated as such by the United Nations which are Members of the WTO

(2) X are Annex VII (b) Countries included in the list of 20 countries. Honduras (Y) was subsequently added. Parentheses connote subsequent graduation.

(3) Countries that were granted extensions in 2005

ANNEX E: SPECIAL IMPORT REGIMES IN SOME TRADE AGREEMENTS IN THE AMERICAS

Agreement	Source	Treatment
NAFTA, 1994	Article 303 and its annexes	Refers to programs of duty drawbacks and deferral. A transitional period of 7 years to Jan 2, 20001 was agreed. After that period, paid duties cannot be refunded, and customs duties on goods for export, or that are to be included in other goods for export, or substituted for other goods for export to the territory of another member of that agreement, cannot be reduced or exempted, in an amount that exceeds the lesser between the total amount of customs tariffs paid or levied on imports of the good to its territory, and the total amount of customs tariffs paid to the other member with respect to the good that is later exported to the territory of that other member.
MERCOSUR, 1994	Resolution CMC/DEC No.8/94	Refers to free trade zones, industrial zones, export processing zones and special customs areas. Goods under these regimes are subject to the payment of the common external tariff or the national customs tariff, as the case may be. Because of their geographical location, the special customs area of Manaos and Tierra del Fuego are not included in these provisions until 2013.
Andean Community, 1991	Dec. 282 CAC and the Declaration of Santa Cruz de la Sierra of Jan 2002	Refers to tariff exemptions, understood to be regimes that allow free consumption with the corresponding exemption, reduction or drawback of tariffs. It was agreed not to grant new tariff exemptions as of March 31, 1991 because they would contravene sub-regional tariff commitments. There are some exceptions but they require a favourable judgment of the Junta on their compatibility with the purposed of the Decision. With respect to special customs regimes, and in line with the definitions of the 1973 Kyoto Convention, it was agreed to embark on harmonisation. In the Declaration of Santa Cruz de la Sierra on Jan 30, 2002, the five presidents reaffirmed their commitment to harmonise the temporary import and other special regimes for intra-subregional trade. It is acknowledged that there should be a rules of origin regime to “avoid distortions in Intra-Community trade”.
CARICOM, 1973	Art. 16 CARICOM’s founding treaty	Refers to the partial or total drawback or remission of import taxes. Each member country can refuse to treat goods that benefit from such drawback or remission as common market goods.
Mexico-Bolivia FTA, 1995	Article 304	Refers to tariff deferral or suspension regimes defined as free zones, temporary imports under bond, temporary imports for export, bonded warehouses, maquiladoras and other export processing industries. A transitional period of 8 years to Jan, 1, 2003 was agreed. Thereafter, paid duties cannot be refunded and customs duties cannot be reduced or exempted for goods to be exported or incorporated into other goods to be exported, or substituted for other goods to be exported to the territory of another member country of the agreement, in an amount that exceeds the total customs tariffs paid or levied on the quantity of that imported good that is materially incorporated into the goods exported to the territory of the other member, or substituted for identical or similar goods materially incorporated in the good exported to the other’s territory, making due allowance for waste. Countervailing disciplines were agreed in the event that the import of goods produced under these regimes cause damage to the national industry.
Mexico-Costa Rica FTA, 1995 and Mexico-Nicaragua FTA, 1988	Article 305	Refers to programs of duty drawback and deferral. A transitional period of 7 years to Jan 1 2002 was agreed on. Thereafter, paid duties cannot be refunded and customs duties cannot be reduced or exempted for goods to be exported or incorporated into other goods to be exported, or substituted for other goods to be exported to the territory of another member country of the agreement, in an amount the exceeds the total customs tariffs paid or levied on the quantity of that imported good that is materially incorporated into the good exported to the territory of the other member, or substituted for identical or similar goods materially incorporated in the good exported

Agreement	Source	Treatment
		to the other's territory, making due allowance for waste. Countervailing disciplines were agreed in the event that the import of goods produced under these regimes cause damage to the national industry.
Mexico –Guatemala, Honduras and El Salvador FTA, 2000	Article 305	Refers to programs of duty drawback and deferral. The signatories reserved their rights and obligations in accordance with their legislation and the WTO Agreement. There can be consultations if a member is affected by the application of these programmes.
Chile-CACM FTA, 2001	Annex 3.04(2)	Goods exported from Chile to Costa Rica cannot benefit from the Drawback Programme for Chilean Exporters. Exporters to Costa Rica must forgo the benefit.
Canada-Chile FTA, 1997	Article C 03 and Canda's tariff reduction lists	Refers, first, to exemption from customs duties conditional on performance requirements. In principle, neither country can grant such exemptions. Second, some of Canada's tariff reduction lists are conditional on the Chilean government's notifying the Canadian government that the good to be exported does not benefit from the duty drawback programme.
Canada-Costa Rica FTA, 2001	Canada's tariff reduction lists	Refers to tax exemptions and other export subsidies granted under the protection of the free zone regime. Implementation of the agreement's different categories of tariff reduction will enter into force 120 days after the government of Costa Rica satisfactorily notifies the government of Canada that it has eliminated all such exemptions and subsidies.
Dominican Rep. CARICOM FTA, 1998	Action Plan, iii)	Refers to free zones. Although no legal disciplines have been agreed, there is an action plan to negotiate such disciplines and an agreement on a series of principles. The latter include: (1)products from free zones must not enjoy additional advantages to those they now enjoy in the different customs territories, and (2) no less favourable treatment than the one they now enjoy in reciprocal trade.
Trade agreement between the Dominican Rep and Panama, 1985	Article V	Refers to free trade zones or free zones. Establishes that goods produced in such zones in the contracting parties may, exceptionally, benefit from the present treaty when the Permanent Joint Committee so agrees.
CACM-Dominican Rep FTA, 1998	Article 3.05 and the Protocol to the treaty	Refers, on the one hand, to programs of duty drawback and deferral programmes. In this regard, the signatories reserved their rights and obligations in accordance with their legislation and the WTO Agreement. Additionally, however, the agreement makes explicit reference to free zones and special fiscal and customs regimes. In that regard, Article 4.1 of the protocol to the agreement states that goods produced under such regimes may be admitted to the territory of the other signatory under conditions that are no less favourable than those applying to the goods of one signatory produced in its own free zones or under other special regimes.
Central American Common Market		There are no specific legal provisions in this regard. However, the practice adopted in the five CACM countries is that free intra-regional trade is not granted to goods produced in free zones.

Source: Grenados (2003) Table 1