

## EDITORIAL

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Recent questioning concerning the impact of globalisation on developing countries has sparked off further debate on the strategies that these countries could adopt to help them integrate world trade markets. The World Trade Organisation Conference in Doha in November put the spotlight on the trade policy disputes between North and South, highlighting the deep conflicts of interests not only between industrialised and developing countries, but also between the different developing countries themselves.

In this issue of Dialogue, we will be looking at these questions from a particular angle, by analysing the role of Export Processing Zones (EPZs), their potential as development tools and the impact that recent international trade agreements may have on their future. EPZs have expanded considerably in recent years as most developing countries have adopted export-led growth strategies. Our research, based on a review of literature on the subject and on DIAL case studies on Madagascar, has reached two main conclusions.

Firstly, historical experience shows that the hopes initially raised in developing countries by the free zones have proved excessive. In fact, EPZs have only made a significant contribution to development in a very small number of emerging countries, in Asia (Indonesia, Malaysia, etc.), Latin America (Mexico) and Mauritius. To date, projects for free zones have almost systematically failed in Sub-Saharan Africa. The only exception is Madagascar. Thanks to the success of EPZs since the 1990s, Madagascan foreign trade figures have been exceptionally dynamic due to growth in exports of manufactured goods. However, in general, although they may be considered a success in terms of investments and job creation, EPZs are rarely capable of being more than "screwdriver operations".

Secondly, continuing globalisation of international markets will have a significant impact on free zones in the coming years. EPZs will be particularly affected by two WTO agreements: the Agreement on Subsidies and Countervailing Measures (ASCM), which prohibits tax derogations (particularly for EPZs) as of 2003 in countries with GDP per capita exceeding \$1,000 (this deadline has been extended for some developing countries following the Doha Conference); and the ending in 2005 of the quotas imposed by industrialised countries on textile exports from the developing countries (Multifibre Agreement), which will lead to a redistribution of world production in this sector and have a significant effect on EPZs. Our research also shows that the concepts of regionalism and free zones are in principle contradictory, even though the boom in the Mexican *maquiladoras* was favoured, and not interrupted, by the NAFTA.

DIAL's work on free zones will continue in 2002, with micro-economic studies on employment and income. Some results will be published jointly with the External Economic Relations Department at the French Ministry for Economic Affairs, Finance and Industry.

## The future of Export Processing Zones as an instrument for insertion into the global economy

The adoption of export-led growth strategies by developing countries is directly responsible for the considerable expansion of export processing zones (EPZs) since the 1980s. The following pages present the conclusions of a DIAL study on this theme (Cling and Letilly, 2001). The three-part study aimed first, to describe recent trends in the development of free zones; second, to analyse their potential for enhancing development; and third, to assess the compatibility between the free zone system and international multilateral agreements, and the impact of new forms of globalisation.

### The recent proliferation of free zones

The standard definition applied by international organisations states that an Export Processing Zone (EPZ) is an industrial area that constitutes an enclave with regard to customs' tariffs and the commercial code in vigour in the host country. The country receiving investment, mainly of foreign origin, grants enterprises establishing in such zones certain concessionary advantages with regard to the national regulatory environment, principally with regard to taxation<sup>1</sup>. The enterprises that benefit from these exemptions and fiscal advantages are required to produce goods essentially, if not wholly, for export.

Four interlocking goals can be distinguished as reasons for deciding to set up Export Processing Zones (Madani, 1999): the first aims at sparking off a process of industrial development, in which the EPZ is part of a wider economic reform strategy (Taiwan, South Korea); the second seeks to provide a safety valve as relief from unemployment difficulties and to amass foreign exchange (Tunisia); the third consists in using EPZs as experimental laboratories for free market policies (China); and finally, most EPZs are created for the purpose of attracting foreign capital to bolster the economies' competitiveness.

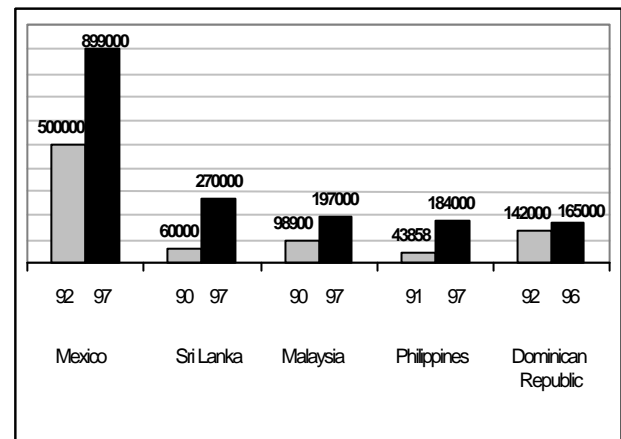
Other than these specific goals, countries establishing EPZs also seek to promote the transfer of technology and to improve the efficiency of their productive tissue, thanks to better manpower training offered by enterprises in the zones and to demonstration effects.

<sup>1</sup> The choice between the different EPZ regimes is determined by the objectives and the characteristics of the regions or countries involved. However, in every case the main elements of a EPZ are as follows: simplification of administrative procedures; duty free imports of machinery and equipment, raw materials and intermediate goods necessary for the production of goods to be exported; tax advantages for the enterprise and for the expatriate workforce; in certain cases, waivers to the application of national employment laws; specific centralised infrastructure (water, buildings, etc.); special foreign exchange arrangements.

The first "modern" EPZ is generally considered to be that established in Ireland in 1959 (the "Shannon Free Zone"). At the end of the 1960s, there were a dozen or so such zones, mostly in Asia (Taiwan, Singapore, Hong Kong and India) and in Latin America (Mexico, Colombia and the Dominican Republic). Subsequently the EPZ concept spread and such zones multiplied both in the developing and in the developed countries with an exponential expansion over at least three decades. Whereas in 1975 only 25 countries hosted EPZs, employing some 800,000 people, by 1996 they employed 4.5 million people, excluding China<sup>2</sup>, in 93 different countries (ILO, 1998). EPZs are mainly concentrated in Latin America (48% of the total labour force in the world's free zones, excluding China) and Asia (42%). Africa (Madagascar, Mauritius and above all Tunisia) represents barely 5.5% of the total employed in EPZs world-wide.

### The five leading EPZ hosts world-wide (excluding China)

(Classified according to numbers employed)



Source: Madani [1999] for 1992 data and OECD [2000] for 1996 and 1997 data

In the countries where EPZs have had the greatest success, they have also witnessed a significant growth of exports from such zones: in 1999, EPZs accounted for more than 80% of all merchandise exports in the Dominican Republic (and were the second largest provider of foreign exchange after tourism); in Mauritius, still the perfect text-book example, the 500 or so enterprises in the EPZ accounted for nearly 75% of the country's exports

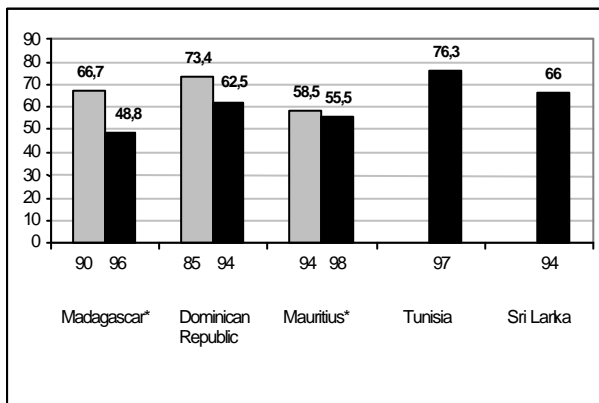
<sup>2</sup> China's Special Economic Zones were created in 1979 and employ approximately 20 million people. However, it is not strictly correct to call them EPZs. First, they are more than simple industrial parks, as they are in fact whole towns or regions where all the companies present benefit from a favourable status. Also, many of the companies produce for the domestic market, although those that export more than 70% of their output do benefit from a reduced rate of tax on profits (10% instead of 15%).

in 1999 (of which 65% in the textiles and clothing sector). However, in the long term, by over-specialising in the production of low value-added goods, EPZs run the risk of not being able to escape from this strategy. The ILO summed up this problem as follows: *"a striking feature of EPZs has been their development into "monocultural" industrial estates rather than into well-balanced industrial parks as originally planned"* (ILO, 1998). Although it has great potential, diversification towards service activities (computer data entry, for example) still remains very limited.

### Free zones as a tool for development

In neo-classical theory, export processing zones are a second best policy choice, consisting of compensating for one distortion (import duties) by introducing another (a subsidy). In this case, the impact of EPZ policies on the well-being of the host nation is not, in principle, easy to determine. New growth theories make a more favourable assessment of the potential impact of these policies, stressing the possible external effects that may take the form of learning, human capital development, demonstration effects and so on. Free zones concentrate on labour-intensive activities (particularly textiles, clothing and electronics), making them a significant source of new employment.

**Share of textiles and clothing in EPZ employment (%)**



Source: Bost [2001] for Mauritius, Bureau de la Statistique de Madagascar, Cook [2000] for Tunisia, Madani [1999] for Sri Lanka and the Dominican Republic

\* : industrial concentration is calculated on reported number of firms active in textiles and clothing

In Mauritius, without taking into account indirect jobs generated by their activities, EPZs employed 18% of the working population in 1999, compared with only 2% in 1980. Apart from this quantitative criterion, the quality of jobs created must of course also be addressed. Experience shows that even if salaries in EPZs are generally higher than those paid by companies outside the zones, most are for low or unskilled jobs, mainly occupied by often

very young, female workers (between 60 and 80% of jobs in EPZs), limiting the learning effects. Also, one of the main criticisms of EPZs is their poor working conditions, to the extent that they are sometimes described as "oppression zones". Surveys carried out on this subject have revealed numerous violations of fundamental labour standards, as defined by the International Labour Office, particularly with respect to rights of association and collective bargaining agreements. For instance, trade unions are forbidden in Pakistan and Bangladesh.

The impact of EPZs on the economy of the host country depends, essentially, on the activity (direct and indirect) they generate. The ratio of net exports to exports of finished goods<sup>3</sup>, an indicator of the degree of local integration, is far higher in Asian EPZs than average rates elsewhere. In the Philippines, this ratio is as high as 42% (1994), whereas it is only 22% in the Mexican *maquiladoras* (1999), although the country has a far higher level of development.

The low rate of sourcing from local suppliers and the resulting low degree of integration of free zones into domestic economies are most often explained by high product prices, poor quality and a lack of reliable local suppliers.

In general, there have been mixed results in terms of trickle-down effects from EPZs on the rest of economic activity in host countries, either upstream or downstream. The number of indirect jobs created can be calculated in a partial equilibrium model using an input-output matrix. The ratio of indirect/direct jobs created is estimated at 0.2 in Madagascar (Razafindrakoto and Roubaud, 1997), at 0.25 in the case of Mauritius (ILO 1998), and 2 in Honduras (ILO, *ibidem*)

The nature of EPZs and their activities are an intrinsic obstacle to creating significant external effects. The main objective for companies investing in EPZs usually being to benefit from tax free imports, there is bound to be a bias in favour of imports, by nature contradictory to a high level of local integration. EPZs are often specialised in component assembly and sub-assemblies that are part of global production processes that remain, for the most part, inaccessible to local subcontractors. In the poorest countries, the technological divide between the local economy and the EPZ also frequently limits the scope for technology transfers.

Developing countries establishing EPZs often considered such zones as a central instrument of their development policy. Whilst the objectives concerning employment have sometimes been attained, the more general impact in terms of

<sup>3</sup> (exports of finished goods - imports of inputs) / exports of finished goods

development is often far removed from initial hopes. The rare success stories, such as Mauritius and Malaysia, are more than likely to remain the exceptions that prove the rule.

### **The impact of recent international agreements on the future of EPZs**

In general, trade liberalisation has ambiguous effects on EPZs, as improved market access favours their sales, whereas on the contrary the dismantling of customs tariffs in host countries reduces the relative attractiveness of the system in the long term.

Apart from this general impact, several WTO agreements signed in Marrakech in 1994 will have a significant impact on the geographical and sectoral distribution of EPZs.

The Agreement on Subsidies and Countervailing Measures (ASCM) imposes new constraints in this area for countries with a GDP per capita in excess of \$1,000 (it does not apply to developing countries with lower GDP per capita). As from 2003, the subsidies and advantages commonly offered by EPZs will be among the various fiscal measures prohibited. This deadline has been extended for several developing countries (especially Caribbean islands) following the WTO Conference in Doha. There are three possible scenarios concerning the way the ASCM may be applied in developing countries with EPZs:

- Developing countries with free zone regimes could be forced to modify their regulations to bring them into line with the ASCM, progressively eliminating the subsidies;
- A status quo situation could be maintained. In practice, developing countries whose EPZ incentives flout the ASCM rules will only be obliged to change their legislation if another WTO member makes a complaint. In the current context, it is difficult to imagine a developed country taking action on this issue against a developing nation;
- Finally, a modification of the agreement may be obtained by developing countries during the next round of multilateral trade negotiations.

Excluding Asia, developing countries (particularly in North Africa) will suffer from the end of the Multifibre Agreement (MFA), which favours investment in their EPZs as a means of bypassing quotas imposed by industrialised countries on imports of textiles. The dismantling of the quotas, as of 2005, is likely to mean that direct investments in the textile sector will be redirected mainly to more competitive Asian countries (EPZs in Bangladesh, China, etc.).

In the last decade, a wealth of regional trade agreements have been signed, particularly North-

South agreements. The economic logic of these agreements in principle contradicts that of EPZs, particularly if they are in free trade areas: on the one hand, abolishing customs duties on intra-regional trade eliminates the EPZs' advantages for imports of inputs from countries that have signed the agreement; on the other, duty free import benefits for EPZ firms on non regional imports must be abolished, as the principle of regional agreements is to grant preferential treatment to intra-regional trade. For these reasons, the NAFTA agreement signed in 1993 between the United States, Mexico and Canada, led many observers to predict the elimination of the *maquiladoras* system (Sargent and Matthews, 2001). However, at the price of a few changes to the Mexican customs regime, they have in fact prospered since then, as they employed 1.3 million people at the beginning of 2001, compared with 550,000 at end 1993.

### **Future prospects**

As we have seen, the impact of EPZs on employment and exports in developing countries is often far from negligible, although it would be an exaggeration to say that they are a key factor in development strategies.

In this context, it is important to highlight the threat to the durability and potential of EPZs, particularly from evolutions in world trade policies. Another factor that is even more difficult to assess is the impact of new forms of the international division of labour, with technological progress leading in some cases to relocation of some activities in the North and, in the other direction, the increasing trend towards sub-contracting to "firms without factories", etc.

These different issues confirm the need for more efforts to be made in new research projects designed to help developing countries elaborate appropriate policies in this field.

**Cling J.P., Letilly G.** (2001) "Export Processing Zones : A threatened instrument for global economy insertion ?", DIAL Working Paper N°2001/17.

**ILO** (1998), "Labor and social issues relating to Export processing Zones", available on ILO website (www.ilo.org).

**Madani D.** (1999), "A review of the role and the impact of Export Processing Zones", World Bank, Working Paper N° 2238.

**Razafindrakoto M., Roubaud F.** (1997) "Les entreprises franches à Madagascar" *Economie de Madagascar*, N°2.

**Sargent J., Matthews L** (2001), "Combining Export Processing Zones and regional free trade agreements : Lessons from the Mexican experience", *World Development*, Vol.29, N° 10.

### Missions and participation in conferences, second semester 2001

**Alain Brilleau** took part in missions offering methodological support for 1-2-3 surveys, from 17 to 27 October in Togo and from 5 to 14 December in Senegal.

**Jean-Pierre Cling** went on a mission to Washington (5-8 November) to take part in a conference on trade liberalisation in Latin America, co-organised by CEPII and the Inter-American Development Bank, and had several meetings at the World Bank. He went on two missions to London (29 October and 29-30 November) to assess a British co-operation program. He spoke at the seminar on global public goods, organised by HCCI (Sèvres, 3-5 September) and at the conference organised by Confrontations, on the theme "Why launch a new round of multilateral trade negotiations?" in Brussels (27 September). He **led the discussions** when the World Bank report "Global Economic Prospects" was presented in Paris on 26 October.

**Michael Grimm** presented an article at the annual congress of the European Economic Association in Lausanne (29 August-1st September), at the annual congress of the *Association Française de Sciences Economiques* in Paris (20-21 September), and participated, with **David Rosas**, in a workshop organised by the European Development Research Network in Bonn (18-21 October). He went with **Anne-Sophie Robilliard** to Burkina Faso (1-9 October) on a consulting mission for GTZ (German Co-operation Agency). He gave a class on models, with **Mohamed Ali Marouani**, at the GTZ training centre in Munich from 25 to 27 November.

**Michel Kagan** took part in a mission offering methodological support for a 1-2-3 survey in Benin (16-26 July), and a mission to train supervisors for the 1-2-3 survey in China (24 November-5 December).

**Sandrine Mesplé-Somps** took part with **Philippe de Vreyer**, **Anne-Sophie Robilliard**, **Javier Herrera**, **François Aka** and **Rachel Ravelosoa** in the Forum on Poverty Mapping, organised by the World Bank and the Amsterdam Institute for International Development, in Amsterdam (26-27 October). She also went to the conference organised by the African Economic Research Consortium (AERC) in Kenya, from 1-6 December.

**Mohamed Ali Marouani** went on a mission to Mali (23-30 July) during the second phase of the assessment process for drafting the Poverty Reduction Strategy framework. He presented

an article at the 77th conference of the Applied Econometrics Association in Morocco (20-22 September). He gave a class on calculable general equilibrium models at the GTZ training centre in Munich from 25 to 27 November. He went to Tunisia for a Global Development Network study on growth determinants (29 October-7 November), and for training in dynamic model techniques (3-9 December).

**Mireille Razafindrakoto** went to Madagascar from 18 to 29 October on a technical support mission for the MADIO II project.

**Anne-Sophie Robilliard** presented a paper at a joint World Bank and International Monetary Fund seminar on microsimulation models (Washington, 3 July). She went to Djakarta under a project financed by the World Bank (11-23 November) for a training mission on microsimulation models.

**François Roubaud** went on a mission to Madagascar from 27 June to 12 July, for the MADIO II project. On 7 September, he presented a paper at the *Ecole des Ponts et Chaussées*, during the ADP/ISTED study day. He also carried out a mission on behalf of INSEE at the Department of Statistics in Morocco (1-5 October). He took part in the 6<sup>th</sup> meeting of the scientific council of AFRISTAT in Mali, from 8 to 10 October. He presented a paper at the regional conference, "Urban and City management in Africa", organised by the World Bank Institute and the Municipal Development Program (MDP) in Dakar (15-26 October). He presented an article at the international conference Hexapolis II, organised by the Catholic University in Sao Paulo (Brazil, 5-8 November). He took part, with **Javier Herrera**, in the regional seminar (organised by the Andean Commission with support from MAE) to assess the results of the 1-2-3 survey carried out in 2001 in two pilot countries, Colombia and Venezuela (Colombia, 9-13 December). Finally, with **Marc Raffinot**, he organised a public presentation for the publication of the 20<sup>th</sup> issue of the magazine *Autrepart* at the IRD headquarters, on 20 December.

**Gilles Spielvogel** carried out a mission on macro-economic guidelines in Ghana (9-19 October), with the *Agence Française de Développement*.

**Constance Torelli** went to Madagascar (3-12 July) for an expert mission and to Benin (6-22 September) on a mission connected with the PARSTAT project.

## Working papers published in the second semester 2001

All these papers are available on our site: <http://www.dial.prd.fr>

**Razafindrakoto M., Roubaud F. :** « Pense-t-il différemment ? La voix des pauvres à travers les enquêtes statistiques ». June, *DT2001/13*

Drawing on a corpus of household surveys carried out in the capital of Madagascar, this study questions whether past strategies for reducing poverty have really met the needs of the most impoverished populations. Firstly, analysis of living conditions shows that the poorest people accumulate different handicaps. Secondly, it emerges that, on many issues, the opinions of the poor do not differ fundamentally from those of the rest of the population. The specific message expressed by the poor is their strong need for "more State".

**Guénard C., Grimm M., Mesplé-Somps S. :** "What has happened to the urban population in Côte d'Ivoire since the eighties? An analysis of monetary poverty and deprivation over 15 years of household data". August. *DT2001/14*

The aim of this paper is to study the evolution of urban poverty in Côte d'Ivoire since the 1980s. It studies several different dimensions of poverty, checks the robustness of results using dominance criteria and provides an econometric analysis of the determinants of the different forms of poverty. It demonstrates that the dynamics of poverty in terms of living conditions can differ significantly from those of income poverty.

**Gautier J-F. :** « Taxation optimale de la consommation et biens informels ». October. *DT2001/15*

This paper questions whether it would be appropriate to tax the informal sector. First, a theoretical optimal tax model provides an analytical view of the question. Second, an empirical version of the model provides an estimate of optimal tax rates for Madagascar. The paper clearly demonstrates that optimal taxation on informal goods is always lower than that applied to formal goods.

**Cogneau D., Maurin E. :** « Parental Income and School Attendance in a Low-Income Country : A semi-parametric analysis ». November. *DT2001/16*

Using data covering three successive generations of Madagascans, this paper constructs a new semi-parametric indicator of the effect of parental income on the decision to send children to school. It proposes new tests for simultaneity and hereditary bias that have an impact on usual estimates of this effect. The study reveals the importance of the first type of bias as, according to the findings, existing literature underestimates the real effect of family resources on decisions on whether or not to send children to school.

**Cling J-P., Letilly G. :** « Export processing zones : A threatened instrument for global economy insertion ? ». November. *DT2001/17*

In the light of several experiences, this paper analyses the impact that an EPZ can have on the development of its host country. It also studies the challenges facing EPZs following recent World Trade Organization agreements and a number of new forms of globalisation, and concludes that both appear to be pushing towards changes in the geographical distribution of EPZs worldwide.

**Cogneau D. :** « Formation du revenu, segmentation et discrimination sur le marché du travail d'une ville en développement : Antananarivo fin de siècle ». November. *DT2001/18*

This paper proposes a macro-micro econometric model of the labour market in a developing city, applied to the case of Madagascar from 1995 to 1998. The model highlights significant heterogeneity in terms of remunerations, preferences and employment opportunities, even within narrowly defined socio-demographic groups.

**Cogneau D., Robilliard A-S. :** « Croissance, distribution et pauvreté : un modèle de micro simulation en équilibre général appliqué à Madagascar ». November. *DT2001/19*

This paper presents a microsimulation model in a General Equilibrium framework applied to Madagascar. The model presents two innovative features: first, it represents behaviour in the allocation of work time at a microeconomic level; second, it takes into account certain general equilibrium effects by endogenous determination of prices and factors. The results of the simulations confirm that the approach is highly effective in analysing the impact of different growth shocks on inequalities and poverty.

**Guénard C. :** « Analyse biographique de l'évolution des revenus sur ce cycle de vie et des inégalités entre générations : le cas de Madagascar ». December. *DT2001/20*

This paper presents an attempt to distinguish between age and generation effects in the evolution of individuals' living standards over the life cycle, based on data from a **biographical** survey carried out in the agglomeration of Antananarivo in 1998. The analysis consists in the elaboration of a method for estimating incomes during the life trajectories of individuals from three successive generations. This methodology was used to observe the evolution of inequalities during the period 1968-1998.