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MAJOR EMERGING TRENDS AND ISSUES IN INDUSTRIAL DEVELOPMENT OF  
LATIN AMERICA AND THE CARIBBEAN

Implications for UNIDO

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I. INTRODUCTION

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This short paper is a contribution for the debate on UNIDO's priorities for the current decade, and the means for increasing the level of effectiveness of its actions. Section II discusses some of the major trends in industry: increasing competition among firms and nations, the acceleration of technical progress, the globalization (and regionalization) of production and the internationalization of firms, have brought about critical changes in the way firms are managed and production organized -- to an extent that some analysts are talking about the advent of a "new paradigm".

These changes hold important implications for industrializing and developing countries, which are explored in section III. They demand that a new industrial development agenda for the 1990s be defined, starting with a reconceptualization of the role of the State, which will be increasingly characterized by market-supportive, externality-compensating activities, in the context of a partnership for competitiveness with the major actors of civil society.

Section IV concludes with a discussion of UNIDO's role in defining and carrying out the new agenda. It suggests that while establishing its "niche of competence" in new, "wide-open" areas (such as "education for competitiveness"), UNIDO should coordinate efforts with other development-oriented agencies in others (as in export-oriented reforms of the trade regime), offering a differentiated, high-quality, country, region and industry-tailored service (attracting new investors for export-oriented activities, or linking local producers with world markets, for example).

## II. KEY TRENDS AND STYLIZED FACTS OF RECENT INDUSTRIAL DEVELOPMENT

For the last ten years, the fundamental fact of economic life has been the intense and growing competition among firms and nations, coupled with the use of technology as a prime weapon to dislodge rivals from entrenched positions. Competitive pressures have been reflected in a rise in economic nationalism in industrialized countries. Although mostly a response to job losses and a perceived threat to their manufacturing base, such nationalism is also a sign of the renewed importance of industry as the core of economic power. The formation of trading blocs and intensifying commercial conflicts are symptoms of a less benign international environment; so is a much closer attention to intellectual property and the competitive value of technology. "Industrial policy", which has been associated generally with targeted capacity creation or coordinated capacity reduction, became increasingly focussed on industrial competitiveness and the restructuring of industry<sup>1</sup>.

A. Increasing Competition among Firms and Nations. The series of exogenous shocks that affected the world economy since the mid 1970s, starting with the steep rise in energy and raw material prices, followed by inflationary pressures and high interest rates, led to the slowdown of economic growth, initially in the U.S., eventually spreading to other OECD and industrializing countries. With the long postwar expansion over, and as rivalry from Japan and the NICs (mostly from Southeast Asia, but some from Latin America) intensified, most firms were forced to redo their competitive calculus. Competition beget competition. Awakened from the Hicksian "easy life" by the East Asian onslaught, and facing shrinking profits, American and European managers progressively

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<sup>1</sup>See I. Atyias, M. Dutz and C. Frischtak, "Fundamental Issues and Policy Approaches in Industrial Restructuring," Industry Series Paper no. 56, May 1992..

changed their behavior, became more quality conscious, and service-oriented. With no choice but to challenge rivals in order to survive, firms' aggressive tactics changed the nature of many industries; where tacit cooperation once prevailed, the norm became aggressive competition.

**B. Accelerated Rate of Technical Progress.** In efforts to move out the long cycle of recession and frail recoveries that have characterized these economies since the 1970s, firms and nations have focussed on technical progress as the means to gain a competitive advantage over rivals. Technology became the object of considerable attention of business managers and policy makers alike; resources were fueled towards R&D as well as the more mundane, but equally important factors behind technical progress. The result was the rapid introduction of new products (as cycles shortened), and a large and continuous improvements in production processes, and in the overall productivity of the firm.

**C. Growing Rivalry and Technical Change** has led to the restructuring of whole industries and of leading firms within them, not only reactively, but also on a preventive basis. Restructuring has progressively become a continuous activity, part of the normal competitive efforts of firms .

**D.** Driven by the need to increase productivity, improve quality, establish closer relations with clients (thus becoming client and service driven), and earn innovation rents, firms moved to:

**D1. Internationalize their Operations.** Whereas foreign direct investment, domestic output and domestic investment grew at similar rates throughout the 1970s, in the early 1980s these rate of growth began to diverge, and since 1985, DFI has grown four times as fast as GDP, twice as fast as domestic investment, and two and half

times the rate of growth of exports<sup>2</sup>.

D2. Globalize their Production. Thus the rapid expansion of manufactured exports, which has been growing one-and-a-half times as fast as domestic output, with a significant proportion of intrafirm nature. Intrafirm trade of transnational corporations account for an estimated 25 of worldwide trade<sup>3</sup>.

D3. Adopt a "Post-Fordist" Model or Paradigm of the Way Production is Structured and Business Organized.

\* A new pattern of production is emerging that is increasingly vertically desintegrated, horizontally specialized, with tighter universal standards of productivity, quality, delivery time, among others. The production unit is less hierarchical, more compact, with fewer levels between top management and linemen, and information flowing more freely among levels and within ranks; groups or circles of workers or "associates" are being empowered to make decisions on their own regarding the best way to run a plant, reduce costs and improve quality.

\* At the same time, firms are integrating domestic and international networks wherein they access technology, tap information, source critical inputs, sell their output. In parallel, they are establishing strategic alliances within the industry, cooperating to compete more effectively. "Virtual proximity" with suppliers, clients, and even Government, is guiding investment decisions, contractual relations, cooperative arrangements.

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<sup>2</sup>See United Nations, World Investment Report: Transnational Corporations as Engines of Growth, New York, 1992, p. 51 and seq. Note as well that in 1990, the Asian region attracted 61 percent of DFI inflow to developing countries, whereas flows to developing countries and the Caribbean reached 32 percent.

<sup>3</sup>Ibid., p. 53.

In sum: the fundamental economic forces of the last decade-and-a-half -- competition, technical progress and restructuring -- have generated powerful undercurrents that are pushing towards internationalization, globalization (and regionalization) and the adoption of radically new models of management and production. They are forcing analysts to rethink the process of economic development and the role of industrial development.

### III. MAJOR IMPLICATIONS FOR INDUSTRIALIZING AND DEVELOPING COUNTRIES

The industry trends summarized above hold a number of major implications for the competitive strategies of nations (and firms), and the specific policies they need to pursue not to fall behind. For industrializing and developing countries, the core of national strategies is integration in the investment, trade and technology flows; now, more than ever, a national project of industrial development calls for internationalization, despite the fact that countries face a far less benign trade, investment and technology international environment than they did two decades ago. Although autarchy was never really part of their choice set, it is now out of the question. The underlying forces that are shaping the world at this end-of-century are of international nature: direct foreign investment, trade and the international flows of technology; growth is to an increasing extent being driven by such forces.

For industrializing and developing nations, the question is how to be part of this movement in a way that maximize national benefits or welfare? How to insert themselves in world markets so that their competitive standing is continuously improving and progressively approaching the frontier?

First, deregulation and the introduction of market-supportive institutions stand as preconditions of industrial competitiveness. Specifically through:

A. Reform of the policy and regulatory regime to remove the critical barriers to mobility, competition and structural change. The task of deregulation implies subjecting domestic producers to the forces of competition; allowing for factor mobility, so that producers react flexibly and timely to changes in the international and domestic environment; stimulating structural change by addressing policy-generated rigidities in markets and contracts; and to simplify and increase the transparency of rules<sup>4</sup>.

B. Introduction of rules to orient the behavior of agents and market-supportive institutions. With deregulation there is the need for establishing a regulatory framework based on principles of efficiency and distributive justice in areas characterized by either substantial market imperfections (ultimately the outcome of non-convexities in production or consumption) or failures (product of high transaction costs). Examples of such areas would include anti-competitive conduct in production and distribution of goods and services, consumer unfriendly behavior, obstacles to restructuring and exit, inequities and inefficiencies in labor markets, instability in financial markets, environmental damage and the exercise of natural monopoly<sup>5</sup>.

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<sup>4</sup>See C. Frischtak, "The Changed Role of the State: Regulatory Policies and Regulatory Reform in Industrializing Countries," Economic Development Institute Working Papers, 1993.

<sup>5</sup>See Ibid.

Second, attracting DFI, and expanding the volume and quality of exports, are the centerpieces of policies directed at improving the competitive standing of industrializing countries. The increasing importance of DFI and of industrial exports as sources of investment and economic growth -- consistent with the trend towards internationalization of firms' operations and globalization of their production requirements -- suggests that successful manufacturing strategies hinge upon the internationalization of domestic economies to a far greater extent than it did up to a two decades or so ago.

Third, education has become the primary or basic endowment for the competitive transformation of the economy. The higher the level of education of a country's labor force, the better positioned it will be to attract skill-intensive activities and capture "value" or rents from its exports. The acquisition of skills -- technical, language, business -- are being increasingly acknowledged as the basis for competitive advantage.

Education as a good (or service) has interesting properties. It is a merit good, in the sense that all individuals should consume (at least) some minimum for a life of dignity, and an acceptable degree of social equity or distributional justice in society. In particular, it is an endowment the consumption of which by the poor has the strongest redistributive impact in urban industrial societies.

Yet, education is also an economic good, with large externalities and strong efficiency effects associated with its consumption. The fundamental economic inequation associated with the consumption of education is straightforward: the social returns from investments in education are greater than private returns, which on their turn, tend to be larger than returns from most other investments.



Moreover, and this should be stressed, the value of education is increasing, as it becomes clearer that it is a basic tool for long-term industrial competitiveness. A program of "Education for Competitiveness" should strive:

- \* to be consistent with the requirements of post-fordism, namely the ability to understand, interpret, solve problems, decide on the basis of new information and communicate. Language and Mathematics are the fundamental skills; twelve years of universalized, high-quality primary and secondary education, is the target that governments and society as a whole should be aiming at.

- \* focus not exclusively on the education of the labor force, and the means to improve shopfloor productivity, but complement these efforts with the education of managers, and their ability to deploy technological assets, so that firms and nationals can move beyond defensive restructuring.

- \* lay the basis for the growth of an entrepreneurial class of educated, non-parochial individuals. Small and medium-sized firms are again the focus of attention as dynamic sources of job creation, as counterweights for structural, long-term unemployment, the product of an intensifying process of defensive restructuring. The ability of such firms to sustain growth, integrate themselves into larger networks and eventually graduate, hinge on a cosmopolitan view of the world; an understanding of business beyond the city or the province; an exposure to foreign sources of technical and market knowledge, all of which is predicated on a broad-based education and access to information.

Fourth, the acceleration of technical change calls for a fast dissemination of new knowledge throughout industry. Facilitating access to technology involves deployment of a diffusion-oriented strategy, centered on extending the assistance of experienced technical personnel in the areas of productivity, quality and other

essentials of production, to the large mass of producers that are far away from the best-practice frontier. It also calls for a more effectively use of existing infrastructure. Having invested substantial resources in the technology delivery system, it is expected that knowledge from universities and Government R&D institutes be transfered to the productive sector, including by facilitating the mobility of scientists, engineers and other technical personnel. An finally, it requires the removal of regulatory restrictions so that producers can choose freely partners and technology.

Fifth, there is growing evidence that net employment creation originates with SME development. For many years, technical assistance was thought to be the instrument of choice inb SME promotion, then succeeded by finance. Though both technical assistance and finance are required, recent studies suggest that the sustainability of SMEs activity appears to be predicated on their ability to establish links with buyers (in subcontracting relations), other firms (within a productivity-enhancing division of labor -- as in industrial districts), integrating themselves into networks of SMEs; and most important, success hinges upon the entrepreneur's ability to gain a broad-based, international (or at least cosmopolitan) perspective of the industry, that is, about its actors -- suppliers, buyers, competitors --, technologies and markets, beyond the immediate vicinity of the firm<sup>6</sup>.

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<sup>6</sup>On the last point, see, for example, C. Frischtak, "Adjustment and Constrained Response: Malawi at the Threshold of Sustained Growth," Industry Series Paper no. 41, October 91, and C. Frischtak and M. Dutz, "Industrial Adjustment and Restructuring: Reflections from Tanzania," mimeo.

Finally, the State no doubt is a strategic player in the competitive game, as a partner -- neither isolated from nor captured by, but instead inbedded in -- the productive sector, exchanging information; coordinating actions; setting mutually agreed and credible objectives, in their areas of "comparative advantage" (the State committing over the supply of physical and social infrastructural services, for example, and firms over investment volumes, composition, timing).

Such "strategic partnerships" between business and the State bureaucracy is observed in a number of successful industrializing countries, and should be encouraged. Insofar as they depend on the ability of both parties to deliver, their point of departure (the mutually agreed objectives) should not be excessively ambitious; credibility has to be built over time, on the basis of successful joint commitments and outcomes.

#### IV. IMPLICATIONS FOR UNIDO

The discussion above suggests a set of seven major areas for UNIDO's involvement, some of which possibly in cooperation with other international organizations.

First, with respect to regulatory policy and regulatory reform, it appears on a prima facie basis that institutions such as the World Bank would hold a strong comparative advantage (and have considerable more weight), having dealt with numerous countries in the context of a broad agenda of adjustment and reform. When, however, it comes to market-supportive regulatory interventions, this is not so. Here, there is a significant number of areas which UNIDO could support, and that most governments would welcome specialists with cross-country, hands-on experience. This would be the case, for example, in helping set up and run labor market support institutions, that facilitate mobility, including the search for alternative employment and the reskilling of labor;

regulatory agencies that deal with (quasi natural) monopolies in infrastructural services (telecom, power), prior to and particularly after these services are privatized; consumer protection agencies, with a special focus on the industrial sector.

Second, the promotion of direct foreign investment, as part of a strategy to help internationalize developing economies, is predicated upon legal and regulatory reforms in host countries. IBRD's IFC and MIGA, among others, have acquired considerable experience in reforming countries' legislation and improving the regulatory environment. There remains, however, a critical gap, in the activities necessary to attract direct foreign investment. It relates to the need of "selling" the country to investors once the reforms are in place. UNIDO's assistance in organizing missions or tours of host country actors to targeted suppliers of productive capital, while identifying the latter ex-ante, might contribute to stimulate considerably the flow of capital (and associated managerial and technological assets) to the host country. The most effective country participants, in this regard, would be high level officials, who hold decision-making power, and domestic investors, who can act as partners and advisors to potential foreign investors. This activities should be organized on a joint basis with governments and industry associations.

Third, export-oriented and import liberalizing trade reform has now been undertaken by a large number of countries, with mixed, but on balance, positive results. The approach and methodology of the reforms are, by now, well known, among institutions and actors in client countries. What is far less obvious is now to identify the trade networks that local firms need to insert themselves in order to realize their competitive advantage. Here is a matter of "matchmaking" groups of local exporters with buyers/distributors or potential partners; and advertising the outcomes, making them well-known to other producers. This would be most useful for smaller economies, and in areas where buyers play a dominant role,

including as suppliers of designs and information regarding recent trends in consumer tastes, as in the case of garments, shoes and high-value agriculture products (fresh fruits, special coffees, cut flowers). Those "catalytic agents" of international trade range from manufacturing firms searching for inputs, importer/distributors scanning for new opportunities, large retailing outlets looking for new product lines, or to substitute those that have been outpriced by competitors. UNIDO's role would be of identifying and mobilizing directly or through the help of specialized firms such agents, placing them in contact with exporters, and ensuring that their successful ventures become well-known to other potential exporters, thus serving as useful models.

Fourth, the educational requirements of the post-fordist paradigm of production and business organization are redefining the role of education for industrial competitiveness. This is an area that is effectively "wide open"; few multilateral or bilateral institutions appear to have accumulated competence in establishing an agenda of issues and actions, despite the growing importance of education for industry. At the very least, UNIDO should cooperate with countries in defining the requirements for effective industry-focussed educational systems of the new paradigm, searching for ways to influence the national debate (through seminars, publications etc.), and financing pilot projects that come out with institutional models addressing the educational needs of newly empowered workers, innovation-driven managers, and SME entrepreneurs.

Fifth, the improvement of technology delivery systems should be considered an area of high priority for technical assistance by UNIDO. Many countries of the region have invested heavily in the last twenty or so years in their technology infrastructure. However, the linkages of these institutions -- universities, government R&D labs, metrology centers -- with the productive sector are generally quite tenuous. The historically weak economic

incentives for both enterprises to upgrade their technology and innovate, and for S&T institutions to deliver useful knowledge has been the basic cause of the relative isolation of firms and institutions from each other.

In the last few years, the environment has changed dramatically. The search for competitiveness has become the major driving force in firms' attempts at improving industrial technology, while the fiscal crisis of the State has implied that institutions face progressively tighter budget constraints. This combination has offered a window of opportunity for redefining the role of government in industrial technology development, particularly of its institutional network. Countries are actively looking at alternative institutional models to use more effectively the supply-demand "mismatch", by rearranging existing technolocal assets so they become more client-driven, while experimenting with diffusion-focussed technology extension services, such as those provided by productivity centers, for example.

The accumulation of practical knowledge in this area would bring UNIDO high dividends, particularly in view of the fact that few bilateral or multilateral agencies have the skills to help client countries. The institutional redesign entailed by such reforms requires high-level expertise by consultants that have been previously involved in systemic changes, or in setting up or running effective delivery institutions. Concerning the latter, in Latin America, a few such institutions stand out, such as Fundación Chile; in Asia, both Hong-Kong's and Taiwan's Productivity Centers are useful models.

Venture capital finance has become an increasingly important instrument for stimulating the creation of technology-based firms. Although these institutions are typical of advanced industrial countries, there is considerable scope for an active presence of such financial institutions in industrializing countries. Their

specific design, the training of specialized staff, and the establishment of an appropriate tax regime (particularly with respect to capital gains), could be the object of technical assistance by UNIDO, in view of the dearth of expertise with depth of practical experience.

Sixth, small and medium-enterprise development has been traditionally the object of supportive policies and mechanisms in a large number of countries. The result of those efforts have been uneven, with substantial administrative and financial resources spent with limited results. At the same time, there is growing consensus in both developed and industrializing countries that as the process of industrial restructuring advances and becomes a permanent feature of the industrial dynamics of these economies, employment generation, including in manufacturing, will increasingly be predicated upon SME development. This coincides with a trend towards the downsizing of firms, whose spin-offs are organized around networks of smaller ventures, with product and services integrated by moderately larger producers.

Although technical capabilities and finance will continue to be major constraints on SME development, particularly the latter, in view of the lack of guarantees that smaller producers or those whose assets are mostly intangible can offer, their ability to enter vertical or horizontal networks is probably even more important for their market resilience and success. It is through those relationships -- with larger buyers or other SMEs acting cooperatively to serve broader markets -- that technical assistance and finance is available on the most effective, incentive-driven basis. Moreover, the ability of individual firms to become integral parts of such networks will depend, in large measure, on the quality of management, in particular, on the level of education and exposure of producers to the "outside" world.

SME development must therefore be approached from a slightly different perspective that has prevailed up to now. On the one hand, it must emphasize networking; on the other, it must focus on improving the entrepreneur's ability to "look beyond the immediate horizon", understand the environmental factors at play in the industry, -- such as the nature of demand, industry technological trends, the behavior of competitors -- and be able to transact and negotiate with competitors, buyers, government agencies.

This new approach to SME development requires donors, and those providing technical assistance and advice, to evaluate and rethink their past strategies. Despite the importance of SMEs for long-term industrial development and employment growth, there are very few cases of successful integrated development. An SME program would have to reflect the importance of developing networks, either in the Italian tradition of horizontal articulation within industrial districts; or following the East Asian experience of vertical linkages between larger producers and their subcontracting network.

Information and advice geared at promoting SME networks could be targeted at voluntary associations of SMEs, particularly for stimulating horizontal links. In case of vertical relations, the objective would be to sensitize larger firms to the potential gains of closer and more durable relations with SME subcontractors, possibly with the help of study tours and expert advice from individuals with actual experience of establishing subcontracting systems. The notion that educational and "eye-opening" efforts are essential for SME development is still at an embryonic stage, and would require from UNIDO some experimentation on alternative pedagogical methods within a multidisciplinary framework.



Finally, UNIDO should function as a "catalyst for industrial development" by promoting public-private partnerships, making itself available to government, the productive sector and certain segments of civil society. There is little doubt that the extremes that have traditionally characterized the interface between government and private sector -- antagonism or just distance, on the one hand, and capture, on the other,-- should give way to a relationship of trust, based on a shared vision of the country's future, common interests and objectives, around which the parties can negotiate broad objectives, specific targets, and the responsibility of each in attaining them. Often, in these arrangements, there is need for a "neutral agent" to mediate the discussions, help draft agreements, monitor commitments. This role of "honest broker" could be undertaken by UNIDO: the starting point should be a broad assessment of the industrial potential of the country, major constraints, key projects required to overcome them, and the role of the public and private sectors in undertaking these projects. A series of meetings to hammer out the specific agreements would follow, culminating with the creation of a Pact of Long-Term Cooperation for Industrial Development, to be implemented over a number of years, with the process overseen by a broad coalition of domestic forces coalesced around an small, semi-permanent independent body, that would continuously push for the implementation of the agreements. These arrangements may be considered the new frontier of industrial policy-making.