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GLOBALISATION, INVESTMENT AND SUSTAINABLE HUMAN DEVELOPMENT A LEARNING AND INNOVATIVE APPROACH

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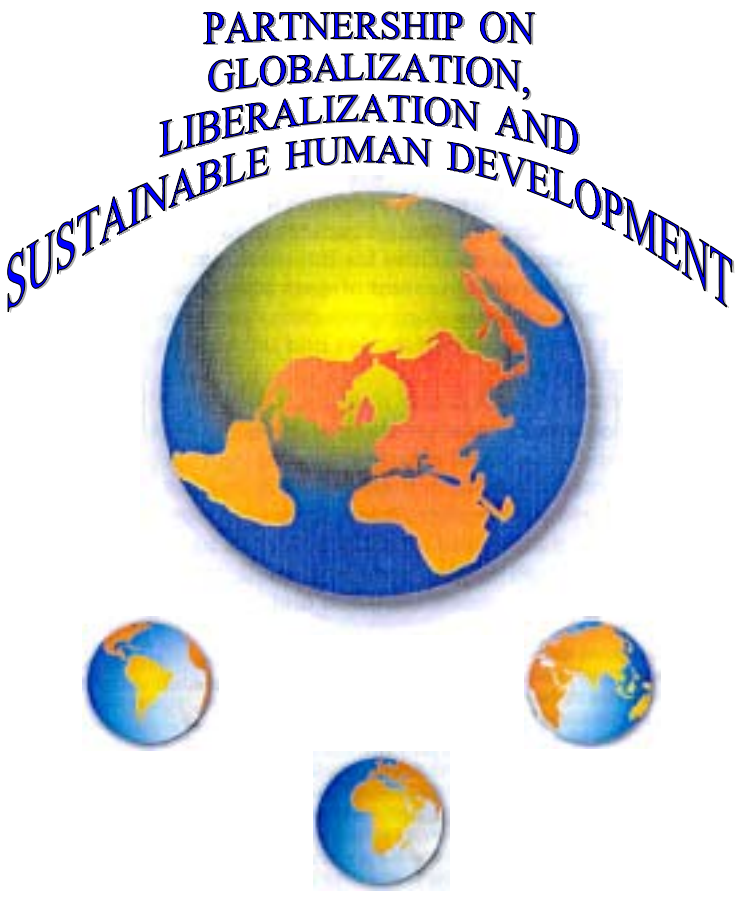

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I. INTRODUCTION

1. There is some debate as to whether the rapid expansion of international trade and the growth of investment and financial flows relative to the growth of output in the last three decades of the 20th century are unique to that period. The 1870-1913 period, as a number of researchers have pointed out, exhibits some similar characteristics[1]. For example, trade grew faster than output and the share of trade in GDP in 1913 was not exceeded until the 1970s. Capital flows also grew rapidly in the earlier period, but for the most part, consisted of portfolio, rather than equity investment, took the form of bonds, were issued mainly by governments and invested largely in infrastructure, especially utilities and railroads.

2. Flows of foreign direct investment (FDI) accelerated in the 1970s and especially in the 1980s, growing nearly two and a half time faster than exports. Despite the rapid growth of FDI, portfolio investment and other capital flows, especially international bank lending, grew even faster and in the 1990s exceed the value of foreign direct investment by far. Nevertheless, FDI has had a tremendous impact on global inequalities, particularly through the ability of Transnational Corporations (TNCs) to shape

X *The pace of technological change*. Through in-house R&D, linkages to research laboratories at home and abroad and the strengthened and extended patent system, TNCs set the technological trajectories in many global industries and make critical decisions with respect to which new technologies are introduced onto the market, where, when and by whom[2].

[1] Deepak Nayyar, AGlobalisation: The Past in Our Present≅ Presidential Address, Seventy-Eighth Annual Conference, Indian Economic Association, (Chandigarh: 28-30 December, 1995); Paul Bairoch, AGlobalization Myths and Realities: One century of external trade and foreign investment≅ in Robert Boyer and Daniel Drache (eds). States Against Markets the limits of globalization (UK:Routledge, 1996), pp. 173-192; Paul Hirst and Grahame Thompson, Globalization in Question (UK: Polity Press, 1996), Paul Bairoch and Richard Kozul-Wright, AGlobalization Myths: Some Historical Reflections on Integration, Industrialization and Growth in the World Economy≅ UNCTAD Discussion Paper No. 113 (Geneva: March, 1996)

[2]. The information and communications technologies, automobile and biopharmaceutical industries are examples. See: R.D. Pearce and S. Singh, *Globalising Research and Development* (London: Macmillan, 1992); F. Malerba and L. Orsenigo, A The Dynamics and Evolution of Industries≅ *Industrial and Corporate Change*, Vol. 5, No. 1, 1996, pp. 51-87; L.K. Mytelka and M. Delapierre, AIndustrial dynamics, Knowledge-base networked oligopolies and the emergence of new modes of competition≅ paper prepared for the Druid workshop on Industrial dynamics and New Modes of competition (Skagen, Denmark: 1-3 June 1997).

X *The mode of competition.* Through static (eg. scale, scope and price-based) and dynamic (knowledge and innovation-based) modes of competition, TNCs create new barriers to entry in local markets and heighten uncertainties for smaller local firms as they strategically switch between them[3];

X *The pattern in the distribution of production and trade around the globe.* Through Foreign Direct Investment, global production networks, strategic alliances and intra-firm trade, TNCs influence the location of economic activities, the flow of trade, and the prices at which goods, services and knowledge are offered in national and regional markets[4].

3. This shaping potential has significantly increased over the 1990s and 1980s as production became more knowledge-intensive and competition globalized. For developing countries beginning to catch up, the sustainability of comparative advantage based solely on the existence of location-specific raw materials or cheap labour began to erode and competitive advantages changed rapidly. Those developing economies, which are overly specialized in one or a few commodities for which markets are highly oligopolistic and prices fluctuate widely, and those having neither the financial, infrastructural or knowledge base to respond rapidly to the multiple shocks that have taken place in the world economy since the 1970s, have suffered repeated setbacks. Contrary to conventional beliefs in convergence, the gaps between developing and developed countries have yawned ever wider.

4. Given its shaping potential, the impact of foreign direct investment on future opportunities for catch up by developing countries is much greater than its relative size (value)

may suggest. Indeed, the 'capital flow' element in FDI is hardly its most significant attribute, and I would argue, is decreasingly so. Nor from a dynamic perspective is it the major contribution that FDI can make to development. Section 2 briefly highlights the centrality of 'control' rather than 'capital', and the growing importance of 'knowledge' as the vector of control in TNCs. Section 3 then suggests that this will require an approach based on learning and innovation in order to capture the dyanmic aspects of FDI, its impact on the enterprise sector and more broadly, on sustainable human development in developing countries.

[3] L.K. Mytelka ACompetition, Innovation and Competitiveness: Learning to Innovate Under Conditions of Industrial Change≅ paper presented at the EU/INTECH Conference on The Economics of Industrial Structure and Innovation Dynamics (Lisbon: Centro Cultural de Belem, 16-17 October 1998). D. Ernst, AHigh-Tech Competition Puzzles. How Globalization Affects Firm Behaviour and Market Structure in the Electronics Industry, Danish Research Unit for Industrial Dynamics (DRUID) Working Paper No. 97-10, September 1997.

[4] Intel=s recent decision to locate an assembly and testing facility in Costa Rica is but one such example. See D. Spar, AAttracting High Technology Investment≅ (Washington: World Bank, Foreign Investment Advisory Service Occasional Paper 11, 1998); See also, G. Gereffi, A The Reorganization of Production on a World Scale: States, Markets and Networks in the Apparel and Electronics Commodity Chaines≅ in D. Campbell, A. Parisotto, A. Verma and A. Lateef (eds.) *Regionalization and Labour Market Interdependence in East and Southeast Asia* (U.K. Macmillan /ILO, 1997) pp. 43- 91. D. Ernst and P. Guerrieri, AInternational production networks and changing trade patterns in East Asia: The case of the electronics industry≅, *Oxford Development Studies*, 1998.

II. THE CHANGING NATURE OF FDI

5. From the outset foreign direct investment was distinguished from the more common portfolio investment by the element of control that it involved. Initially control was regarded as a function of ownership and traditional descriptives were mainly given in terms of ownership structure: for example, wholly- owned vs majority-owned subidiaries. Also common were the belief that such control was related to the capital invested and that much of this capital consisted in 'greenfield' investment.

6. Both of these reference points would change over the 1970s and 1980s as ' new forms of investment'[5] increased in importance. Mergers and acquisitions (M&As), for example, have proliferated and currently account for well over 50 percent of total foreign direct investment[6]. Greenfield investments are somewhat more important in the developing world, but M&As induced by the pressures to privatize account for a significant share of FDI in Latin America and the recent Asian financial crisis have led to a substantial increase in M&As in Asia.[7] As the share of reinvested earnings and of M&As in FDI inflows rises, it puts into question the role that foreign direct investment plays in the development of new production sites and hence its impact on re-balancing the inequalities in production and exchange that characterize the world economy today. A quick look at the distribution of foreign direct investment today provides additional evidence for this argument.

7. Annual average FDI flows in 1986-1991 amounted to 159 331 million US dollars of which 18.3 percent went to developing countries. Forty-eight percent of this amount, however, went to just five developing countries: Singapore, China, Mexico, Hong Kong and Malaysia. Only .5 percent of total FDI flows in this period went to the least developed countries, which on average received only 781 million per year. In the 1992-1996 period, the share of developing countries in the annual average of total FDI inflows of 261, 027 million US dollars rose to 34.8%, but so, too, did concentration in a handful of developing countries, the top five of which (China, Mexico, Singapore, Malaysia and Brazil) received 58.2% of the FDI going to developing countries. Least developed countries again received only .5% of these flows or an average of 1423 million dollars per year.

8. Coupled with the relatively small share of Foreign Direct Investment that goes to the developing world and its concentration in a relatively small number of developing countries[8], the broader contribution of FDI to convergence in the global economy must thus be examined more closely and with a view to reconsidering the central role which many have assigned to Direct Foreign Investment as an engine of growth and development.

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[5] Charles Oman, New Forms of International Investment in Developing Countries (Paris: OECD Development Centre Studies, 1984)

[6] UNCTAD, World Investment Report 1998, p.19.

[7] Ibid. p. 21.

[8] Figures are calculated from WIR 1998, Annex table B.1. We can place these sums in perspective by comparing them to the total sales in 1996 of some of the most internationalized corporations: General Electric, the most internationalized of the corporations from the developed world had sales in that year of $79.2 billion, Shell, the second ranking firm had sales of $128.3 billion.

9. Equally important is the way in which knowledge rather than capital has become the basis for control by large transnational corporations. The control of 'parent firms', for example, did not necessarily diminish in minority owned investments and joint ventures. Through licensing agreements and management contracts, through the capitalization of patents, know-how and tacit knowledge, 'parent firms' have extended their control with remarkably little capital investment.[9] Similarly, strategic partnerships have tended to be contractual in nature with little or no equity involvement by the participants, yet they are having a powerful impact in structuring markets and in shaping competitive conditions and technological trajectories[10].

III TAKING A LEARNING AND INNOVATIVE APPROACH TO FDI

10. Since FDI currently makes only a small contribution to new capital available for investment in most developing countries, there is a strong temptation to opt for a strategy that stresses the promotion of foreign direct investment in expectation that its benefits will trickle down to the poorest. With very rare exception, however, foreign direct investment has never been the principal source of investment in an economy, nor is it ever likely to play such a role. This is particularly true in the least developed countries but it applies to most of the developing world, as we have seen above. At best, FDI can complement and catalyze production locally and through its presence stimulate innovation through knowledge spillovers and the transfer of information and technology through supplier-client linkages. At its worst, it can crowd out local competitors, through mergers and acquisitions strip proprietary knowledge and other assets from these firms and engage in a variety of market-distorting practices with highly negative effects for the achievement of broader social and economic goals. Thus, in this new knowledge-based global economy, FDI's major positive impact will most likely come through the contribution it can make to the strengthening of local systems of innovation. How might we assess its potential for doing so and what relationship might this have to SHD?

11. The current bout with instability and crisis and the role that innovation has come to play not only in the competitiveness of firms, but in the development of 'local' economies[11], suggests that development itself must be understood in broader terms - as a process of learning and capacity-building that enables a system to adjust rapidly to changes both endogenous and exogenous, and do so in a manner so as to raise the quality of life for an increasing proportion of its citizenry. Adopting a learning and innovation approach to development would require a more dynamic perspective on the contribution of FDI to development. In turn, this would have a number of consequences for the elements to be included in a framework for analysis. First, it would lead to a shift away from a focus on the compilation of an additive list of quantitative

[9] To the extent that M & As involve an exchange of stock, moreover, no new capital flows.

[10] Lynn K. Mytelka & Michel Delapierre, ABlurring Boundaries: New Inter-firm relationships and the emergence of networked, knowledge-based oligopolies≅ in M. Colombo (ed.) The Changing Boundaries of the Firm, Explaining Evolving Inter-firm Relations (U.K.: Routledge, 1998).

[11] The reference to local economies is intended to enable the consideration of regional as well as national systems of innovation and dynamics of local clusters, both spontaneous industrial agglomerations as well as constructured clusters such as EPZs.

indicators and to the conceptualization of learning and innovation as an interactive process[12]. Actors, their interaction and the policies and institutions (rules, norms, habits and practices) that govern their behaviour are critical here. Second, it would recognize the importance of policy dynamics[13] - that is the interaction of policies and the habits and practices of targeted actors - in affecting outcomes. Third, it would accept the importance of country-level studies in capturing policy dynamics but it would complement these with comparative within-and across-country firm- level case studies of specific investments by industry and company.

12. Lastly, an analytical framework that would enable an assessment of the impact of FDI from a dynamic learning and innovation perspective would need to cover five broad areas: the impact on

(i) **Output** - As a means to reduce the vulnerability of the economy to shocks, emphasis would be placed on the contribution of FDI to economic diversification. This would go beyond the investment itself to an analysis of the role that a given investment plays in catalyzing the creation of or the strengthening of a cluster of activities. IN so doing, the investment contributes to the possibility that such a cluster could build the capacity for innovation and change. This potentiality would, of course, be related to other of the areas noted below and to the broader policy context.

(ii) **Innovation** - Critical elements in stimulating a process of innovation at the firm and system level include, the extent to which a foreign firm establishes local linkages to suppliers and clients, to research institutions, productivity centres and other actors in a system of innovation, the effect it has on knowledge generation and diffusion and the pattern of technological upgrading within the firm itself, moving to new product generations and improved technology.

(iii) **Market Structure** - How does a foreign firm affect industry structure and hence the oppportunities available for the growth and development of local SMEs and other competitive firms, foreign or local. Concentration patterns are relevant here, but so, too, are less evident efforts at market structuring such as the creation of static barriers in the scale of advertising or dynamic barriers through practices which shape the nature of competition and technological change in the industry. New policies and support structures might be required to keep opportunities open, for example, policies to strengthen the role of public sector R&D, to create support structures and financing for local SMEs and to ensure competition in the local market. The importance of existing

[12] The literature on learning and innovation systems is now quite substantial. See, for example, B-A. Lundvall, AInnovation as an Interactive Process: From User-Producer Interaction to the National System of Innovation≅ in G. Dosi, c. Freeman, R. Nelson, G. Silverberg and L. Soete (eds.) *Technical Change and Economic Theory* (U.K.: Pinter Publishers, 1988), pp.349-369; B.A. Lundvall (ed.) *National systems of Innovation. Towards a Theory of Innovation and Interactive Learning* (U.K.: Pinter Publishers, 1992) and B.A. Lundvall and B. Johnson, A The Learning Economy≅ *Journal of Industry Studies*, Vol. 1, No. 2 (Dec. 1994), pp. 23-42.

[13] On the concept of policy dynamics see D. Ernst, L.Mytelka and T. Ganiatsos, ATechnological capabilities in the context of export-led growth: A conceptual Framework≅ in D. Ernst, T. Ganiatsos & L.Mytelka (eds.) *Technological Capabilities and Export Success in Asia* (U.K.: Routledge, 1998) pp, 5-45.

policies and the kinds of incentives they create for TNCs must be examined in detail in such analyses.

(iv) **Consumption** - What is the impact of the foreign firm on income and its distribution and hence the future pull of domestic market demand, adding to the flexibility of the economy. This is affected by the initial choice of product and process technologies, the pattern of technological upgrading, gender equity, as well as employment upgrading through training and higher quality jobs.

(v) **Investment** - What is the net cost of the foreign investment overtime in terms of government revenues and how does this affect public sector investment in the provision of 'resources' to the poor, for example, in education, health care, sanitation, transportation and telecommunications where underinvestment by the private sector is likely to occur. What is the net cost in resources available to the SME sector? How dedicated are the resources put at the service of a foreign investment firm and how likely are they to be able to serve other purposes if this investment fails.

(vi) **Environment** - Choice of technology is the critical factor here. The interactive effects with 'Investment' and 'Innovation' are evident.

The Pyramid and its Critical Bases