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Office

# **A Perspective from the MNE Declaration to the Present: Mistakes, Surprises, and Newly Important Policy Implications**

by

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## Preface

The Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy (“MNE Declaration”) was adopted by the Governing Body of the ILO in 1977 with the objective of providing principles “to encourage the positive contribution that multinational enterprises can make to economic and social progress and to minimize and resolve the difficulties to which their various operations may give rise”.

The Declaration sets out principles in the fields of employment, training, conditions of work and life and industrial relations which governments, employers’ and workers’ organizations and multinational enterprises are recommended to observe on a voluntary basis. The Declaration has been updated periodically during the last 30 years to keep it relevant to modern day conditions.

Our understanding of the impact of MNEs has deepened considerably since the early days of the MNE Declaration. This is why, on occasion of the 30<sup>th</sup> Anniversary of the MNE Declaration, the International Labour Office would like to increase the knowledge base on the impact of multinational enterprises on host and home countries and about the policies that have worked to encourage the positive contribution of multinational enterprises to economic and social progress in different sectors and to minimize potential difficulties. To this end, the Office will commission a series of papers by renowned international independent experts reviewing research and evidence on different aspects of the trends, operations and impacts of MNEs.

The first in the series is this paper by Dr. Theodore Moran on “Multinational Enterprises, Decent Work and Development” which takes stock with the evidence on the impact of MNE direct investment in manufacturing and assembly (as opposed to in extractive industries, infrastructure and services). The paper argues that MNE investment can be a powerful force to create employment and decent work. It reviews how some developing countries have been able to harness MNE investment to move into increasingly sophisticated higher-skilled manufacturing activities, with backward linkages and spillovers that benefit host countries, firms and workers. And it reviews the policies that countries have put in place to achieve these results.

The paper is particularly relevant for the current debate about the use of performance requirements to maximize the benefits of MNEs for host countries. There are two contrasting approaches in this regard: one that argues in favour of using performance requirements (such as local content and technology requirements) to encourage the development of backward linkages and the transfer of skills and technology, and another that argues in favour of leaving MNEs quite free to design their competitive strategy, while putting appropriate accompanying policies in place. The author argues that in a number of industries the latter seems to be a superior method of maximizing the benefits in terms of technology transfer, skills upgrading and developing local suppliers. The author adopts a position on these issues but leaves the reader much enlightened along the way based on a review of the vast literature and evidence on the subject. There is also a valuable section at the end with recommendations for future research on questions related to how foreign direct investment can be used to generate decent work in the developing world.

This and other papers in this series reflect only the views of their authors, not those of the International Labour Office nor of its constituents.

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## Executive Summary

What is the impact of MNE investment in manufacturing and assembly on host country labor markets in the developing world? What kinds of jobs do MNE investors create? What is the relationship between the spread of MNE manufacturing investment in developing countries and “decent work”?

Our understanding of the impact of MNE manufacturing investment on host economies – and of the kinds of jobs MNEs in manufacturing and assembly create in developing countries – has deepened considerably since the early days of the Declaration in 1977.

On the one hand, considerably modesty is in order: the direct employment effects of MNE operations in the developing world are not large, in comparison to the enormous workforce that needs employment. On the other hand, the transformative impact of MNE manufacturing investment – on the composition of production, and on the resulting structure of employment – can be impressive.

MNE investment in the developing world is conventionally conceived of as flowing into least-skilled sweatshop-type jobs. But the data show a non-disputed but little-acknowledged empirical fact: *the bulk of MNE investment in the developing world flows to more advanced industrial sectors rather than to garment, footwear, and other lowest-skilled activities*. Indeed the flow of MNE investment to medium-skilled industrial sectors in developing countries – including electrical equipment, electronics, semiconductors, autos and auto parts, industrial machinery, chemicals and chemical products – is more than *ten times larger each year* than the flow to low-skill, labor-intensive operations, and speeding up over time (five times larger 1989-1991, eleven times larger 2002-2004).

Wherever MNE investment is located, foreign-owned firms and plants pay higher wages, on average than comparable domestically-owned ones. When detailed data are available, the evidence shows higher wages offered by MNE-owned firms spill over into higher wages in domestically-owned plants. A satisfying surprise in the evidence about institutions is that as worker treatment improves in those MNE plants with more highly-skilled activities there is often improvement in worker treatment in other MNE plants (and other non-MNE plants) with less highly-skilled activities located nearby.

But the power of MNE manufacturing investment to incorporate semi-skilled workers in the developing world into dynamic global supply chains, complete with widening backward linkages into the local economy, stimulates simultaneous preoccupation about what the consequences might be back in the home economy – might the globalization of industry via MNE investment come at the expense of decent work for labor in the home country of the MNE?

Here too there has been a consistent accumulation of evidence since the MNE Declaration thirty years ago to show that there is a complementary relationship between outward investment and the creation of higher-than-average “decent work” jobs at home. The globalization of industry has not proved to be a zero-sum phenomenon for workers on either side of North-South borders.

What are the implications of these findings for policymakers in developing and developed countries? What are the implications for further research into the subject of multinational enterprises and “decent work”?





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## Introduction and Overview

Multinational Enterprise (MNE) investments in the developing world come in four distinct forms: foreign direct investment (FDI) in extractive industries, FDI in infrastructure, FDI in manufacturing and assembly, and FDI in services. Each form has particular features, problems, opportunities, and public policy challenges.<sup>1</sup>

The analysis in this paper focuses on MNE direct investment in manufacturing and assembly – that is, the globalization of industry via foreign direct investment – with some references to FDI in services as well.

What is the impact of MNE investment in manufacturing and assembly on host country labor markets in the developing world? What kinds of jobs do MNE investors create? What is the relationship between the spread of MNE manufacturing investment in developing countries and “decent work”?

Our understanding of the impact of MNE manufacturing investment on developing host economies – in particular our understanding of the kinds of jobs MNEs create – has deepened considerably since the early days of the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy in 1977.

On the one hand, considerably modesty is in order – the direct employment effects of MNE operations in the developing world are not large, in comparison to the enormous workforce that needs employment. Annex III shows total foreign employment of the top 100 MNEs to total slightly more than 7 million workers; what proportion of them live in developing countries is not known, but the number must be considered small in contrast to the large numbers of individuals who are looking for jobs.

On the other hand, as demonstrated *infra*, the transformative impact of MNE manufacturing investment – on the composition of production, and on the resulting structure of employment in host developing countries – is impressive, if the right conditions are in place.

What are these “right conditions”?

Here again there has been a revolution in our understanding of the relationship between MNE manufacturing investment and developing country welfare. As shown next, unqualified enthusiasm for MNE investment must be replaced by a sharper analysis of when MNE manufacturing operations can in fact have a positive impact on development – indeed, a much more positive impact than conventionally assumed, especially with regard to the kinds of jobs created – and when MNE manufacturing investment can have a negative impact and be harmful for development – much more negative and harmful than often feared.

<sup>1</sup> MNE investment in extractive industries has special problems of contract stability, transparency, and revenue diversion/corruption. MNE investment in infrastructure has special problems of regulatory structure, apportionment of political/commercial risk, and inappropriate awarding of concessions. For analysis of the problems and opportunities in each category of MNE investment, see Theodore H. Moran, *Harnessing Foreign Direct Investment for Development: Policies for Developed and Developing Countries*. Washington, DC: Center for Global Development, 2007.

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This paper begins, in Section I, with an investigation into how some developing countries have best been able to harness MNE investment to move into increasingly sophisticated higher-skilled manufacturing activities, with backward linkages and spillovers that benefit host firms and workers.

Section II turns to MNE investment and the creation of “decent jobs” in developing economies. In this vast subject, it investigates what kind of job opportunities result from the globalization of industry via MNE investment.

Section III shifts the perspective one hundred and eighty degrees, to examine how outward investment by MNEs affects the structure of employment in the home country economy – do “runaway plants” undermine the home country industrial base, or might outward investment actually strengthen the competitiveness of firms and workers at home?

Section IV concludes with policy implications for developed and developing countries.

Section V then identifies what areas would be particularly fruitful for further research into the relationship between multinational enterprises and “decent work”.

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## **I. The Impact of MNE Manufacturing Investment on Development: Enhancing Positive Contributions, Avoiding Negative Outcomes**

At the time of the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy in 1977, a fierce debate raged about the conditions under which MNE direct investment in manufacturing and assembly might make the largest contribution to development.<sup>2</sup>

One side argued that MNEs would bring important benefits only if they operated within strict mandates imposed by host authorities. The other side urged that MNEs be allowed to operate without heavy host country constraints.

This debate was conducted largely on the basis of ideology, without extensive empirical support for the assertions from either perspective. Since then, however, evidence has emerged that has revealed mistakes and surprises in the contentions of both sides.

What does this evidence show about how MNE manufacturing investment can make the most positive contribution to development, and what are the implications for the relationship between MNE manufacturing investment and “decent work”?

### **Mistakes and Surprises in How MNE Manufacturing Investments Impact Developing Economies**

The first opportunity to investigate how manufacturing MNEs might make the largest contribution to development emerged from data that contrasted the experience of countries that used the plants of foreign investors for outward-oriented growth (like Hong Kong and Singapore, later Malaysia and Thailand) with the results for countries that used MNE plants to substitute for imports (like many countries in Latin America, the Middle East, South Asia, and Africa).<sup>3</sup>

The import substitution strategy assumed that MNE investors would set up modern plants in the protected local market to supply capital goods and consumer goods to domestic buyers, while providing the skills needed by workers and managers to become competitive over time with outside producers. To reinforce the process of growth from infant industry to full maturity, developing country authorities typically imposed performance requirements on the MNEs. The most widely used performance requirements were mandates that the local affiliate take on an indigenous firm as partner, and that a given percentage of components be produced in the domestic market.

MNEs responded to host country strategies of import substitution with the creation of plants just large enough to meet local needs. The production process consisted of importing “kits” of semi-knocked-down autos or computers, for example, to be assembled locally while incorporating simple, low-tech local parts. MNE auto assembly operations

<sup>2</sup> Sanjaya Lall and Paul Streetan. 1977. *Foreign Investment, Transnationals, and Developing Countries*. Boulder, CO.: Westview Press.

<sup>3</sup> The evidence summarized in this Section can be found in more detail in *Harnessing Foreign Direct Investment for Development: Policies for Developed and Developing Countries*, *op. cit.*

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reached no more than 10,000-20,000 vehicles per year in protected developing country plants whereas full-scale home country plants averaged 200,000 per year. MNE computer assembly operations put together a few thousand PCs, without reaching the scale needed to introduce high precision production and quality-control procedures. In the tightly controlled Mexican market, for example, Hewlett Packard and Apple had their joint venture plants hand-solder computer circuits together.

Domestic content requirements did lead to some manufacture of indigenous components, but as a rule local suppliers did not have orders large enough to support the equipment or technology that were standard in world-class auto parts or computer parts fabricators. Joint venture requirements provoked the parent MNEs to use older – technology within the JV plants, so as to prevent – by the MNEs’ own candid admission – “leakage” to indigenous partners who might later become rivals. As a result, using MNEs as part of an infant industry strategy produced infants, but these were infants that did not have the wherewithal to grow to fully competitive adulthood. Local workers and managers in the subscale plants obtained jobs, but did not gain the dynamic learning that would propel them to the frontier in international industry.

Cost-benefit analyzes of individual FDI projects oriented toward protected domestic markets – valuing all inputs and outputs at world prices – showed that the great majority subtracted from host economic welfare, and retarded the prospects for broader development.<sup>4</sup> The adverse consequences of the using-MNEs-for-import-substitution strategy were felt not only by consumers in the host country. Host country firms that used the home-made products also found themselves held back as they tried to become internationally competitive – Emex in Mexico and Petrobras in Brazil lagged oil companies abroad in trying to perform complicated seismic calculations because they had to rely upon low-capability high-cost computers assembled by MNEs in the protected domestic market; Embraer spoke out against Brazilian import-substitution policies, pointing out that the company’s engineers were not able to engage in CAD-CAM design of advanced aerospace parts.

Independent of ideological debates about the pro’s and con’s of government intervention in the economy, the empirical results from trying to use MNEs to build up competitive industries behind trade barriers were disappointing (for the question of whether the “Korean model” was a genuine exception to the norm, or not, see *infra*).

This negative outcome did not imply, however, that MNE investments in sheltered developing country markets were unprofitable. Chrysler’s boutique plants in Mexico, prior to the country’s shift from an import substitution to an export-promotion auto strategy, were a “cash cow” that stood out among the parent’s most highly profitable affiliates. Hewlett Packard recycled three-year-old-model computers in the protected Mexican market at prices that were set 140%-180% higher than what was available outside the country. This point will emerge as an important consideration in the discussion of policy implications later.

The outcome of the alternative approach – attracting MNE investors to produce goods for export – presents a clear contrast. Cost-benefit analysis of MNE projects oriented toward export markets showed the local affiliate augmenting host economic welfare and contributing positively to host country development.<sup>5</sup> Whereas early evaluations of MNE

<sup>4</sup> Dennis J. Encarnation and Louis T. Wells, Jr., “Evaluating Foreign Investment”, in Theodore H. Moran, ed., *Investing In Development: New Roles for Private Capital?* (Washington, D.C.: Overseas Development Council, 1986).

<sup>5</sup> Encarnation and Wells, *op. cit.*

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manufacturing investment in export-oriented operations suggested that the parent firms were merely looking around for lowest-cost inputs, moreover, the picture that emerged in the second half of the 1980s showed a much more potent relationship between foreign MNE parents and local affiliates.<sup>6</sup>

As MNEs built factories that were integral to their ability to compete in international markets, they invariably designed the plants to take advantage of all economies of scale, and incorporated the most advanced production technology and quality control procedures known to headquarters. They upgraded the plants continuously, keeping them at the frontier of the industry. To ensure their ability to conduct a coherent multi-country strategy, MNE headquarters typically insisted upon having wholly-owned or majority-owned affiliates that were free from domestic content requirements.

Evidence from the 1990s and early 2000s revealed moreover that many MNE investors had begun to expand the responsibilities of plants in the developing world. In the electronics industry MNE affiliates in Singapore, Hong Kong, Malaysia, and Thailand were assigned design and development functions for increasingly sophisticated subassemblies and functions.<sup>7</sup> In the auto industry, MNE plants in Mexico and Brazil were given responsibility for high performance engines that were perfect substitutes for the best produced in the United States, Europe, or Japan.<sup>8</sup>

As will be seen in the next Section, the creation of integrated complexes and clusters across borders has important implications for the kinds of jobs MNEs can create in the developing world. With the ratification of NAFTA, the North America auto industry wove component development and assembly together in a seamless system where latest upgrades could be transmitted to plants in Mexico and Canada within hours of initial execution in the United States. MNE auto exports of vehicles and parts from Mexico grew from very small numbers dimensions in the 1970s to more than \$42 billion per year in 2006, employing one out of every eight workers in the Mexican manufacturing sector.

This process is now being replicated with the EU enlargement to the East, as the major auto MNEs deploy production platforms in which engineering adjustments to engines, chassis, and other major components can take place on a near real-time basis.<sup>9</sup> Volkswagen facilities in Eastern Europe can incorporate production upgrades within sixteen hours of each other. General Motors cylinder head equipment at its engine export plant at Szentgotthard in Hungary can reconfigure output without rebuilding the production line. Thirty percent of the GM production workers in Hungary have either college or university degrees, sixty-five percent have graduated from technical institutes, and less than five percent have no more than a high school education. Their wages and benefits are roughly twice the national average (although still one-eighth the level in Austria, and one-tenth the level in Germany).

<sup>6</sup>Theodore H. Moran. 2001. *Parental Supervision: The New Paradigm for Foreign Direct Investment and Development*. Washington, DC: Institute for International Economics.

<sup>7</sup> Michael Borrus, Dieter Ernst, and Stephan Haggard, eds., *Rivalry or Riches: International Production Networks in Asia*, edited by (Cornell, NY: Cornell University Press, 1999).

<sup>8</sup> James P. Womack, Daniel T. Jones, and Daniel Roos. 1991. *The Machine that Changed the World*. New York: Harper Perennial.

<sup>9</sup> Karen Klein, *General Motors in Hungary: The Corporate Strategy Behind Szentgotthard* (Washington, DC: Georgetown University, Pew Economic Freedom Fellows Program, 1995). Kalman Kalotay, "Central and Eastern Europe: Export Platform for Investors?", *The Journal of World Investment*, Vol. w No. 6, December 2002, pp. 1042-1049.

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In high performance electronics production, Seagate, Read-Rite, and other disk drive corporations bring dozens of Thai and Malaysian engineers and line-managers to the US prior to the introduction of each new generation of magnetic platters and associated high speed motors.<sup>10</sup> Home-based counterparts then accompany them back to their plants in Thailand and Malaysia to set up the new assembly operations and debug the system.<sup>11</sup> What the MNEs call “new product teams” are genuinely teams.

The evidence from these contrasting approaches to the transfer of technology and management skills have proven counter-intuitive to many development strategists: the imposition of domestic content and joint venture requirements upon multinational corporations leads to less domestic content and less technology transfer into the host economy than leaving multinational corporations free to structure their operations as best suits their interests. Magnus Blomstrom, Ari Kokko, and Mario Zejan find that host requirements obliging MNEs to provide access to the parent’s patents, perform research and development onsite, or transfer skills to local personnel are negatively correlated with technology inflows from headquarters to affiliate.<sup>12</sup> Shujiro Urata and Hiroki Kawai observe the same phenomenon – a negative coefficient for intra-firm technology transfer in Japanese MNEs – when host authorities impose technology-sharing mandates as a condition for these MNEs to establish a local affiliate.<sup>13</sup>

Survey data show that technology transferred from MNE parents to joint venture affiliates is consistently older than the technology transferred to wholly-owned subsidiaries.<sup>14</sup> There is also a differential intensity of interaction between parent and affiliate: Vijaya Ramachandran reports that the sharing of production techniques and the interchange of managers and technicians between headquarters and subsidiary are significantly higher for wholly-owned plants than for joint ventures or licensees.<sup>15</sup> The MNEs in her sample range from metal products, chemicals, rubber, food, textiles, and medical products, to transport equipment and electrical goods. The Chinese experience is not immune from this distinction. Drawing on the responses from 442 MNEs operating in China in 2003, Guoqiang Long recorded that foreign wholly-owned and majority-owned affiliates are much more likely to utilize technology as advanced as used by the parent firm than affiliates that have 50-50 shared ownership or affiliates that have majority indigenous

<sup>10</sup> David G. McKendrick, Richard F. Donner, and Stephan Haggard. 2000. *From Silicon Valley to Singapore: Location and Competitive Advantage in the Hard Disk Drive Industry*, Stanford, CA: Stanford University Press.

<sup>11</sup> The wages of line-managers and production engineers in the electronics sector of Thailand and Malaysia averaged more than \$9 per hour in 2006.

<sup>12</sup> Magnus Blomstrom, Ari Kokko, and Mario Zejan. 1992. “Host Country Competition and Technology Transfer by Multinationals.” Cambridge, MA: National Bureau of Economic Research Working Paper #4131.

<sup>13</sup> Shujiro Urata and Hiroki Kawai, “Intrafirm Technology Transfer by Japanese Manufacturing Firms in Asia”, in Takatoshi Ito and Anne O. Krueger, eds., *The Role of Foreign Direct Investment in East Asian Economic Development* (Chicago: The University of Chicago Press for the National Bureau of Economic Research, 2000).

<sup>14</sup> Edwin Mansfield and Anthony Romeo. 1980. “Technology Transfer to Overseas Subsidiaries by US-based Firms.” *Quarterly Journal of Economics*. 95:4. J.-Y. Lee and Edwin Mansfield, “Intellectual Property Protection and US Foreign Direct Investment”, *Review of Economics and Statistics*, 1996, Vol. 78.

<sup>15</sup> V. Ramachandran, “Technology Transfer, Firm Ownership, and Investment in Human Capital”, *Review of Economics and Statistics*. 75(4), 1993, pp.664-70.

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ownership.<sup>16</sup> Thirty-two percent of the wholly-owned affiliates and 40 percent of the majority foreign-owned affiliates brought the most advanced technology used by the parent firm into their local plants, whereas only 23 percent of the 50-50 joint venture affiliates and 6 percent of the affiliates with majority Chinese-ownership brought the most advanced technology used by the parent firm into their local plants. Thus, even in the midst of phenomenal success in attracting MNEs overall, China has experienced results similar to other developing country hosts when those hosts have required foreign investors to take on a local partner with a goal of forcing technology transfer.

MNE strategists do not hide the fact that they try hard to avoid technology diffusion to potential rivals.<sup>17</sup> They make it clear that the popular phrase “technology transfer” -- in the horizontal direction -- is an oxymoron.

In the vertical direction, in contrast, the surprise in the data is that “technology transfer” is deliberate, and growing rapidly.

### **Backward Linkages from MNE Investment to Local Suppliers**

Host authorities showed considerable trepidation that the strategy of using MNE investment for export-led growth would leave their economies with nothing more than minimal assembly operations, without backward linkages or substantial value-added. The earliest evidence reinforced this apprehension, but in the early 1980s the data began to paint a distinctly different picture.<sup>18</sup> Longitudinal studies in Southeast Asia and Latin America showed MNEs setting up “vendor development” programs, searching out indigenous parts suppliers and providing them with advice, drawings, design specifications, equipment recommendations, quality control procedures, in order to create a viable component base. Over time, MNEs thickened these backward linkages with methodical transfer of technology and management know-how to indigenous firms. The purchase orders from the export-oriented MNEs were typically large enough to enable these local suppliers to reach full economies of scale and to incorporate world-class production and management techniques – a stark contrast to the outcome when the host country used MNE investment for import substitution.

The spill-overs of technology and production know-how were not limited to the industries where the MNEs themselves were located. The Malaysian machine tool industry grew out of the MNE-dominated telecommunications and computer sectors, as Malaysian managers who worked in these sectors left to set up their own machine tool companies on

<sup>16</sup> Guoqiang Long. 2005. China’s Policies on FDI: Review and Evaluation. In *Does Foreign Direct Investment Promote Development*, *op. cit.*

<sup>17</sup> Benjamin Gomes-Casseres, “Ownership Structures of Foreign Subsidiaries: Theory and Evidence”, *Journal of Economic Behavior and Organization* 11, no. 1 (January, 1989), pp. 1-25. Paul W. Beamish and Andres Delios, “Incidence and Propensity of Alliance Formation by US, Japanese, and European MNEs”, in Paul W. Beamish and J. Peter Killing, eds., *Cooperative Strategies: Asian-Pacific Perspectives* (San Francisco: The New Lexington Press, 1997). MNEs choose to set up wholly-owned affiliates, in contrast, to provide themselves with both security and flexibility in carrying out their global strategies.

<sup>18</sup> Linda Y. C. Lim and Pang Eng Fong. 1982. “Vertical Linkages and Multinational Enterprises in Developing Countries.” *World Development*. 10: 585-95.

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the basis of purchase contracts from their former employers.<sup>19</sup> As they mastered increasingly sophisticated machine tool applications, they became suppliers to a broader array of US, European, and Japanese corporations. These Malaysian-owned-and-managed machine tool companies grew to become MNEs in their own right.

World Bank investigations from Eastern Europe show a similar pattern of vertical relationships between MNEs and local suppliers. Survey results from 119 majority-owned foreign affiliates operating in the Czech Republic in 2003 indicate that ninety percent of the MNE subsidiaries have at least one local supplier, while the median MNE subsidiary draws upon ten Czech suppliers, and the top quartile of MNE subsidiaries make purchases from at least thirty Czech suppliers.<sup>20</sup> The sectors in this MNE survey are diverse, including fabricated metals, public and printing, rubber, machinery, apparel, electrical machinery, food products, textiles, non-metallic mineral products, furniture, pulp and paper, wood products, chemicals, radio, TV and communications equipment, leather, basic metals, medical equipment, motor vehicles, and other transport equipment.

The accumulation of evidence from the past two decades demonstrates that “contract manufacturing” for MNEs can be a powerful mechanism for generating backward linkages. In the process many local firms become certified as Original Equipment Manufacturers (OEM), qualifying them to supply the MNC parent anywhere in the world.

In Thailand, Archanun Kohpaiboon has investigated MNEs whose desire to create a local base of OEM firms extends well beyond factory visits and production recommendations.<sup>21</sup> The MNE affiliates sent technicians who “ate and slept with local workers” to help reduce defect rates and lower dollar costs per parts-unit. By 2003, according to the Thai Automotive Industry Association, the fourteen major US, Japanese, and European automotive MNEs certified 709 local firms for OEM status (287 foreign-owned, 68 joint ventures, and 354 Thai-owned), followed by 1,100 second and third tier suppliers.

In Indonesia, American and Japanese MNEs set up a systematic process through which indigenous firms could qualify to enter the foreigners’ supply-chain.<sup>22</sup> First, engineers from the MNE affiliate visit factories of potential suppliers and recommend production modifications. Then, the MNEs send sample components for testing in the home country. Managers of local firms that pass inspection are invited to external training classes to learn the parent MNE’s procedures for inventory control, quality control, and cost accounting. Finally, once small initial contracts are fulfilled to the MNE parent’s

<sup>19</sup> Rajah Rasiah. 1994. “Flexible production systems and local machine-tool subcontracting: electronics components transnationals in Malaysia” *Cambridge Journal of Economics* Volume 18, No. 3, June, 279-298; *Foreign Capital and Industrialization in Malaysia*. New York: St. Martin’s Press, 1995.

<sup>20</sup> Beata Smarzynska Javorcik and Mariana Spatareanu. “Disentangling FDI Spillover Effects: What Do Firm Perceptions Tell Us”, in *Does Foreign Direct Investment Promote Development?* *Op. cit.*

<sup>21</sup> Archanun Kohpaiboon, *Industrialization in Thailand: MNEs and Global Integration*, PhD Thesis submitted to the Australian National University, March 2005.

<sup>22</sup> Garrick Blalock and Paul J. Gertler. *Foreign Direct Investment and Externalities: The Case for Public Intervention*. in *Does Foreign Direct Investment Promote Development?* *Op. cit.*



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satisfaction, the Indonesian suppliers are allowed to become part of the MNE's own network.

Of particular importance for the development process are “externalities” that flow from MNE investors into the host economy, but care is required to judge whether or not backward linkages from MNE manufacturing investment genuinely qualify for this designation. The technical definition of “externalities” is benefits that accrue to the domestic economy that do not have to be “paid for”, so to speak. (The focus here is on benefits that flow to indigenous firms. The next Section will look at benefits that go to local workers – that is, “labor market externalities”).

Some backward linkages that appear in the data are not authentic externalities – as when MNE investors select the best local suppliers and both parties engage in a purely commercial transaction. Other backward linkages do contain valid externalities – as when MNE investors provide free technical advice to upgrade supplier performance, and the suppliers use this advice to win customers more broadly throughout the economy. Other backward linkages are ambiguous – as when MNEs announce that local firms must meet ISO 9000 (quality control) certification to qualify as potential suppliers, and the local firms initiate self-improvements to meet ISO 9000 standards, thereby putting themselves in line to receive technical assistance and advance-payment contracts from MNE buyers. The evidence from MNE manufacturing investment contains all three categories of backward linkages.<sup>23</sup>

The evolution of export-oriented MNE investment into vertical supply chains with extensive backward linkages into the host economy has important implications for the kinds of jobs MNE generate in the developing world. Before turning to that discussion, however, it is important to look what is sometimes considered an alternative pattern of industrial development.

### **A Digression: Korea as an Exception to the Norm, or Not?**

The central role of contract manufacturing and OEM production in Southeast Asia has provoked a reappraisal of what is sometimes called the “Korean model” of economic growth in high tech sectors. Some developing country authorities – including contemporary Chinese government officials – argue (on the basis of allusions to the Korean experience) that hosts might limit FDI, and substitute licensed technology, in an effort to create indigenous “national champion” corporations along the cutting-edge of leading international industries. This approach may describe Korean policies toward their steel and shipbuilding industries with reasonable accuracy. But such a strategy did not in fact underlie the development of the Korean electronics industry, where the pace of technological change was more pronounced.

Instead, all of the Korean electronics firms originated as suppliers to the foreign affiliates of US, European, and Japanese MNEs. Then, when Korean authorities did close the economy to MNE direct participation in the 1980s, the Korean electronics firms continued to be contract manufacturers and OEM suppliers to the MNEs, who had now moved offshore. At the end of the 1980s, fifty to sixty percent of color TVs and VCRs

<sup>23</sup> Beata Smarzynska Javorcik and Mariana Spatareanu, *op. cit.*

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were still shipped from Korea via OEM contracts, to MNE purchasers such as Philips, RCA, Zenith, Hitachi, Mitsubishi, Panasonic, and Toshiba.<sup>24</sup>

The three most successful Korean electronics companies – Samsung, Lucky Goldstar, and Hyundai – all learned the basic skills in the industry as suppliers to MNEs in the 1960s, and more than twenty-five years later still found themselves exporting sixty percent of their electronics output via OEM contracts to MNE purchasers. The OEM contracts allowed them gradually to assume more sophisticated design capabilities, and as a result – for some products – they managed to introduce their own brands in international markets.

Therefore, as Michael Hobday points out, the contention that Korea followed a different model than Taiwan, Singapore, and Hong Kong overlooks the most important common development experience for all four countries.<sup>25</sup> They all relied on the guidance and discipline imposed by MNEs to climb the ladder from contract manufacturing to Original Equipment Manufacturing, and then – combining imitation with incremental innovation -- to Original Design Manufacturing (ODM) and – occasionally – to Own Brand Manufacture (OBM) as full-blown MNEs in their own right.

### **The New Model of Trade-and-MNE Investment: Dynamic Comparative Advantage**

The three decades since the Declaration have shown conclusively that the traditional view of the relationship between MNE investment and host country development is seriously outmoded. Early efforts to conceptualize how manufacturing MNE investment might affect a host economy in the developing world took their cue from conventional trade analytics of comparative advantage: MNEs could act as provider of scarce resources (capital, technology, management) that put underutilized local factors of production to work, creating jobs, and helping the host country do what its natural endowment allowed more efficiently.

But the preceding analysis shows that this model is far too static, both with regard to MNE strategy and with regard to impact on the host economy. From the perspective of the MNE, the pace of change has speeded up, and pressures to create vibrant global supply chains have come to dominate MNE strategy. From the perspective of the developing host economy, MNE manufacturing investment provides potential entry to the cutting edge of technology, management, quality control, and marketing in a given industry. Taken together, contemporary models of trade-and-MNE investment feature “dynamic comparative advantage” in which MNE investment allows the host economy to shift from one production frontier to other more advanced production frontiers.<sup>26</sup>

<sup>24</sup> Y. W. Jun and S. G. Kim.1990. The Korean Electronics Industry-Current Status Perspectives and Policy Options. OECD Report., pp. 22-23.

<sup>25</sup>Michael Hobday. 1995. Innovation in East Asia: The Challenge to Japan. London: Aldershot. 2000. East versus Southeast Asian Innovation Systems: Comparing OEM- and TNC-led Growth in Electronics. In Linsu Kim & Richard Nelson, eds, Technology, Learning, & Innovation, New York: Cambridge University Press, 2000.

<sup>26</sup> Gene M. Grossman and Elhanan Helpman, *Innovation and Growth in the Global Economy*. Cambridge, MA.: MIT Press, 1991, ch. 7. Philippe Aghion and Peter Howitt. 1998. *Endogenous Growth Theory*. Cambridge, MA.: MIT Press; James Markusen, 2005.

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To provide a simple illustration, one might ask: what is the comparative advantage of Costa Rica? Thirty years ago, the answer, with a bit of MNE investment, was coffee and bananas. Fifteen years ago, with a bit more MNE investment, the answer was coffee and bananas, and textiles and footwear. Today, with much more sophisticated MNE investment – and (as discussed in the next Section) an increasingly well-trained and skilled and motivated work force – the answer is coffee and bananas, and textiles and footwear, and semiconductors and other electronics production, medical products, pharmaceuticals, call centers, and management services, with MNE-based exports exceeding \$5 billion per year in 2006.

The distinction between static comparative advantage and dynamic comparative advantage is not minor. In dynamic comparative advantage, the benefits to the host economy from trade-and-FDI liberalization are more than twenty times greater than previously calculated with more static methodologies.<sup>27</sup>

This dynamic re-conceptualization has important implications for understanding the relationship between MNE manufacturing investment and the kind of job opportunities that MNEs bring to the host economy.

"Modeling the Offshoring of White-Collar Services: From Comparative Advantage to the New Theories of Trade and FDI," NBER Working Paper 11827, National Bureau of Economic Research, Inc.

<sup>27</sup> Paul Romer, "Two Strategies for Economic Development: Using Ideas and Producing Ideas," *Proceedings of the World Bank Annual Conference on Development Economics*, 1992, and "New goods, old theory, and the welfare costs of trade restrictions," *Journal of Development Economics*, 43, 1994.



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## II. MNE Investment and Jobs in Developing Host Economies

What is the impact of MNE investment in manufacturing and assembly on host country labor markets in the developing world?

One of the most fundamental concerns about how MNEs treat their employees is expressed in Article 33 of the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy of 1977, reaffirmed in 2002: “Wages, benefits and conditions of work offered by multinational enterprises should be not less favorable to the workers than those offered by comparable employers in the country concerned.”

Do MNEs fulfill this condition?

More broadly, might it be said that MNEs do, or do not, provide “decent work”?

Decent work is defined as “opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men.”

But precise data on wages, benefits, and other workplace conditions provided by MNE investors in their developing country plants are not available.

Any assessment of the relationship between MNEs and “decent work” must therefore be somewhat indirect. One place to start is to identify what are the predominant kinds of operations and activities MNE manufacturing investors bring to developing country host economies. This can provide a vantage point to consider whether most of the jobs associated with these MNE operations and activities might qualify to be considered “decent work”.

Finally, moving beyond MNE plants themselves, are there wage spillovers from the MNE plants to plants owned by indigenous firms? That is, do locally-owned firms pay higher wages when MNE investors locate their operations nearby? Further, might there sometimes be even broader spillovers in the structure of worker-management relations, traceable to the influence of MNE investors?

### MNE Wages in Comparison to Other Comparable Employers

Evidence on the relative level of compensation paid by MNE manufacturing investors should begin with ILO surveys that show that international companies tend to pay wages – in export processing zones, for example – higher than alternative jobs elsewhere in the host economy.<sup>28</sup> Such a wage premium paid by MNEs persists as controls are introduced to ensure the comparability of the evaluation. In Madagascar, for example, Mireille Razafindrakoto and Francois Roubaud held education level, extent of professional experience, and length of tenure in the enterprise constant, and found that MNEs and

<sup>28</sup> International Labor Organization. 1998. Labor and Social Issues Relating to Export Processing Zones. Geneva.

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subcontractors in export processing zones paid 15-20 percent more than what workers with similar qualifications received elsewhere in the economy.<sup>29</sup>

Looking beyond EPZs, surveys of relative wages for both higher-skilled and lower-skilled workers in developing countries consistently show that MNEs pay more than local counterparts within any given industry.<sup>30</sup> Robert Lipsey goes so far as to characterize as a “universal rule” that foreign-owned firms and plants pay higher wages, on average than domestically owned ones.<sup>31</sup>

Trying to pin down exactly what to attribute these higher wages to is difficult. MNE-owned plants are typically larger, MNE-owned plants may use different inputs, MNE-owned plants may be located in high wage regions. Data limitations regularly limit the analysis. But when adequate information can be found, the results are striking.

For Indonesia, Robert Lipsey and Fredrik Sjöholm make use of extensive data collection that allows an unusually detailed separation of plant and worker characteristics.<sup>32</sup> Examining evidence from almost 20,000 firms, they find that MNEs paid 33 percent more for blue-collar workers and 70 percent more for white-collar workers than did locally-owned firms. Controlling for education, MNEs paid more for labor of a given education level than domestically owned firms. Controlling for region and sector, the premium stood at 25 percent for blue-collar workers and 50 percent for white-collar workers. Controlling for plant size, energy inputs per worker, other inputs per worker, and proportion of employees that were female, the wage-gap in foreign-owned establishments remained at 12 percent for blue-collar and 22 percent for white-collar workers. Thus, roughly one-third of the MNE premium can be attributed to region and sector, one-third attributed to plant size and use of other inputs, and one-third left unexplained.

In short, MNEs were paying wages for both blue-collar and white-collar workers greater than what might be explained by increased productivity coming from greater inputs per worker and higher efficiency resulting from larger scale of production.

This introduces a pleasant mystery into the investigation of MNEs and decent work: what explains the wage-gap? Lipsey and Sjöholm hypothesize that MNE-owned firms might wish to reduce employee turnover because they invest more in training than locally-owned firms. And broad World Bank surveys report that foreign-owned firms do tend to

<sup>29</sup> Mireille Razafindrakoto and Francois Roubaud, “Les Entreprises Franches a Madagascar: Economie d’enclave ou promesse d’une nouvelle prosperite? Nouvel exclavage ou opportunité pour le developpement du Pays?”, *Economie de Madagascar*, No. 2., 1995.

<sup>30</sup> Brian Aitken, Ann Harrison, and Robert E. Lipsey. 1996. “Wages and Foreign Ownership: A Comparative Study of Mexico, Venezuela, and the United States.” *Journal of International Economics* 40(3-4): 345-71; D. W. Te Velde and O. Morrissey. 2001. “Foreign Ownership and Wages: Evidence from Five African Countries.” CREDIT Discussion Paper.

<sup>31</sup> Lipsey, Robert. 2006, “Measuring the Impacts of FDI in Central and Eastern Europe Cambridge, MA”, National Bureau of Economic Research. Working paper 12808.

<sup>32</sup> Lipsey, Robert E. and Fredrik Sjöholm. 2004, “Foreign Direct Investment, Education, and Wages in Indonesian Manufacturing”, *Journal of Development Economics* 75 (1): 415-422.

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provide more employee-training than indigenous companies.<sup>33</sup> But the explanation for the positive wage-differential remains speculative, and requires further research.

Are these wage-premiums more pronounced in richer developing countries, and less evident in poorer developing countries?

The calculations of Edward “Monty” Graham show, in fact, just the opposite: compensation per indigenous employee in foreign affiliates in the manufacturing sector is greater, as a multiple of average compensation per employee in the host manufacturing sector, in poorer countries than the middle-income developing countries.<sup>34</sup> In the latter, the ratio of foreign-paid wages to other wages in manufacturing is 1.8; in low-income developing countries, the ratio of foreign-paid wages to other wages in manufacturing is 2.0 – that is, twice as high as average compensation in the host country manufacturing sector.<sup>35</sup>

## **MNE Manufacturing Investment and Types of Jobs for Developing Country Workers**

What kinds of job opportunities does the spread of MNE investment in manufacturing and assembly introduce into developing countries? Might most of these jobs qualify as “decent work”?

Unfortunately, precise data on the numbers of jobs, types of jobs, and levels of compensation paid by MNE investors in developing countries – let alone other workplace conditions that might be associated with “decent work” -- are not available.<sup>36</sup> But evidence about the kinds of industries where MNE manufacturing companies invest, the sophistication of their operations, and the skill-levels of the workers they require offers valuable insights.

MNE investment in the developing world is conventionally conceived of as flowing into least-skilled sweatshop-type jobs. As the next Section emphasizes, sweatshop issues of worker abuse and denial of ILO core labor standards have always been and remain extremely serious.

But the analysis in Section I – showing MNE manufacturing investment spearheading the globalization of industry around the globe – provides background for a non-disputed but little-acknowledged empirical fact: *the bulk of MNE investment in the developing world flows to more advanced industrial sectors rather than to garment, footwear, and other lowest-skilled activities.*

Indeed the flow of MNE investment to medium-skilled industrial sectors in developing countries – including electrical equipment, electronics, semiconductors, autos and auto parts, industrial machinery, chemicals and chemical products – is more than *ten*

<sup>33</sup> World Development Report 2005: A Better Investment Climate for Everyone. Washington, DC: The World Bank, 2005, p.146.

<sup>34</sup> Edward M. Graham, *Fighting the Wrong Enemy: Antiglobal Activists and Multinational Enterprises* (Washington, DC: The Institute for International Economics, 2000, Table 4-2, pp. 93-94.

<sup>35</sup> Graham removes salaries for foreign managers and supervisors from these calculations.

<sup>36</sup> Communication from Christoph Ernst, ILO, July 31, 2007.

*times larger each year* than the flow to low-skill, labor-intensive operations, and speeding up over time (five times larger 1989-1991, eleven times larger 2002-2004).<sup>37</sup>

If the stock of MNE investment is used – rather than the annual flow – as the basis for comparison, the ratio of MNE investment in more advanced industrial sectors to MNE investment in lowest-skilled sectors is again more than *ten to one*, and building up more rapidly (this comparison is probably understated, moreover, since stock numbers typically do not provide accurate information on reinvested earnings and allowances for accelerated depreciation which are particularly pronounced in the more capital-intensive higher-skilled FDI operations).<sup>38</sup>

**Table 1: MNE Operations in Developing Countries**

	FDI Flows		FDI Stocks	
	(millions of dollars)		(millions of dollars)	
	1989-1991	2002-2004	1990	2004
Lowest-Skilled Sectors	\$2,946	\$7,369	\$19,004	\$53,308
Higher-Skilled Sectors	\$13,507	\$77,589	\$125,370	\$560,252

For a complete breakdown by sector, see Annex I (FDI flows) and Annex II (FDI stocks).

Precise data on the skill-intensity of the work force in various sectors is not available, and each sector includes both higher- and lower-skilled workers. But UNCTD data on FDI flows and stocks reinforce the observations introduced in Section I: the ratio of FDI flows into electrical and electronic equipment, machinery and equipment, metals and metal products, motor vehicles and other transport equipment, chemicals and chemical products, and precision instruments in comparison to FDI flows into textiles, clothing, and leather is *sixteen-to-one* (2002-2004). The ratio of FDI stocks in these same sectors is *twenty-eight-to-one*. (2004). For all sectors, foreign subcontractors are included in flows and stocks; indigenous subcontractors are not.

<sup>37</sup> *World Investment Report 2006*. Geneva: United Nations Conference on Trade and Development. Annex tables A.1.2 and A.1.4. These are the most recent MNE investment statistics by industry sector. UNCTAD data for “Developing economies” do not include “South-East Europe and CIS”.

<sup>38</sup> *Ibid.*



**Table 2: Sectoral Comparisons of MNE Investments**

	FDI Flows (millions of dollars) 2002-2004	FDI Stocks (millions of dollars) 2004
Textiles, clothing and leather	\$1,334	\$7,688
Electrical and electronic equipment	\$4,319	\$62,629
Machinery and equipment	6,153	25,093
Metals and metal products	1,653	19,751
Motor vehicles and other transport equipment	2,130	30,812
Chemicals and chemical products	6,716	76,995
Precision instruments	64	1,379
Total	\$21,035	\$216,659

It is important to note that these data on FDI flows and stocks do not mean that MNE employment in developing countries consists, in aggregate numbers, primarily of higher-skilled workers.<sup>39</sup> MNE employment in sectors ranging from automotive equipment to semiconductors and computers to medical devices is intrinsically more capital-intensive (hence less labor-intensive) than footwear factories. One GM high performance engine export plant in Eastern Europe may employ 800-900 workers (paying two times the average national wage-and-benefit package).<sup>40</sup> One Intel semiconductor export plant in Costa Rica may employ 2900 workers (paying 150 percent of average manufacturing wages).<sup>41</sup> One Nike athletic footwear export plant in Vietnam may employ 10,000 workers (paying slightly more than the minimum wage).<sup>42</sup>

<sup>39</sup> Data on what the aggregate employment profile of MNE investors in the developing might look like are incomplete and insufficient even to make reasonable estimates.

<sup>40</sup> Karen Klein, *General Motors in Hungary: The Corporate Strategy Behind Szentgotthard*, *op. cit.*

<sup>41</sup> Felipe Larrain, Luis F. Lopez-Calva, and Andres Rodriguez-Clare. 2001, Intel: A Case Study of Foreign Direct Investment in Central America. In Felipe Larrain, ed., *Economic Development in Central America, vol. 1: Growth and Internationalization*. Harvard University Press.

<sup>42</sup> CESAIS Center for Economic and Social Applications, University of Ho Chi Minh-Vietnam (now Truong Doan). 2002. "Workers' Voices: A Study of the Assets and Needs of Factory workers in Vietnam".

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But these data on FDI flows and stocks do mean that the principal thrust of the globalization of industry around the world, via MNE investment, is to enlarge the array of opportunities available to medium and higher-skilled workers.

These facts about MNE operations in developing countries bring a logical – but not always well-appreciated – corollary about the globalization of MNE manufacturing operations and the provision of “decent work”. As foreign investors move from lowest-skilled activities into higher-skilled activities, they must offer higher wages and benefits and better working conditions to attract and keep the kind of employees they need for their plants. They have a self-interest in paying more, in providing more job-related and non-job-related services, in promoting supervisors on the basis of merit, in adopting efficient human resource policies.

Long predicted in theory, this outcome can now be demonstrated empirically.<sup>43</sup> While there are enormous problems with finding comparable wage-and-benefit data across countries and throughout time periods, the best evidence available shows that as MNE investors engage in higher-skilled activities they pay their workers *two to three times as much for basic production jobs*, and perhaps *ten times as much for more technical and supervisor positions*, in comparison to what is earned by employees in comparable positions in lower-skilled MNE operations. It would be hard to argue that jobs like these do not have many of the characteristics of “decent work”.

The prominence of MNE investment in relatively more advanced manufacturing operations helps illuminate otherwise unexpected findings. Contrary to the expectation that MNE investment in Mexico would aim to take advantage of least-skilled labor (Mexico’s abundant factor of production), for example, Rob Feenstra and Gordon Hanson show that the principal result from MNE investment has been to raise the demand for semi-skilled workers, and to increase the wage premium they received as they entered into the MNE supply chains.<sup>44</sup> Meanwhile, the returns to skill accumulation (for example, completion of ninth grade) and to steady work experience have risen for the Mexican workforce.

The findings reported here support the insight – highlighted by Marion Jansen of the WTO and Eddy Lee of the ILO – that MNE investment allows North-South “technological catch-up” in a manner that raises demand for skills among workers in both developed and developing countries.<sup>45</sup>

As part of this process, detailed studies of “investment promotion” in developing countries show that access to skilled labor plays a key role in the attraction of MNE manufacturing investors.

In the Philippines, the strong educational institutions located near Baguio City helped ensure the success of what popularly referred to as the “TI Industrial Zone” because of the lobbying Texas Instruments undertook to create a special platform for information technology and electronics exports. In the late 1990s the workforce in the Baguio City Zone exhibited the highest educational level of all Philippines EPZs: 63 percent of all male

<sup>43</sup> Theodore H. Moran. 2002. *Beyond Sweatshops*. Washington, DC: The Brookings Institution, Chapter 1.

<sup>44</sup> Robert C. Feenstra and Gordon H. Hanson, Foreign Direct Investment and Relative Wages: Evidence from Mexico’s Maquiladoras. 1997. *Journal of International Economics*, 42 (3-4): pp. 371-394.

<sup>45</sup> Marion Jansen and Eddy Lee. 2007. *Trade and Employment: Challenges for Policy Research*. Geneva: A joint study of the International Labor Office and the Secretariat of the World Trade Organization. P. 41.

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employees and 66 percent of all female employees had some postsecondary education, and 34 percent of all male employees and 38 percent of all female employees had a college degree.<sup>46</sup> Average monthly earnings in the zone were two to three times higher than in other EPZs.

In Mexico, once the country turned away from an informatics policy that required MNEs to take on a majority Mexican partner, FDI in computers and high performance electronics expanded rapidly.<sup>47</sup> Guadalajara became the country's "Little Silicon Valley" due to superior offerings of the region's technical schools and universities. US investors (IBM, Hewlett-Packard, and 3Com) came first, bringing their component suppliers from Southeast Asia (including contract manufacturers such as Flextronics and Nat Steel Electronics) with them. By 2000 the Guadalajara cluster included some 125 companies, employing 90,000 workers.

In Costa Rica, the well-documented drive to recruit Intel as part of a campaign to upgrade MNE production from low-skilled to higher-skilled operations hinged on the country's agreement to create a joint training program between Intel's human resource staff, the Ministry of Education, and the vocational training institutes.<sup>48</sup> In 1997 Intel expressed satisfaction with the outcome and announced the decision to build a plant near the capital. In 2000, a survey of thirty-six electronics MNEs, thirteen medical device MNEs, and three business service MNEs reported that this played an important "signaling" role in their own subsequent decisions to invest in the country.<sup>49</sup>

In each case access to skilled labor provided a powerful magnet that determined the location of the more sophisticated MNE plants.

## **MNE Investment and the Treatment of Non-MNE Workers in the Host Economy**

How does the spread of MNE manufacturing investment affect the treatment of non-MNE workers in the host economy? Are there any "spillovers" from MNE manufacturing investment to workers in locally-owned plants?

These are vast questions, and require detailed data sets and carefully-designed investigations to begin to answer. But there are indications – expanding on the evidence introduced above – that positive spillovers may sometimes be present.

As described earlier, most MNE manufacturing investment flows into sectors like auto parts, electric equipment, chemicals, semiconductors, and computers, driving up

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<sup>46</sup> Mark Jacobson. 1999. "The Philippines: The Case of Economic Zones" in *Alleviating Poverty through Foreign Direct Investment: Country Case Studies*. Washington, DC: The World Bank, 1999.

<sup>47</sup> Theodore H. Moran. 2006. *Harnessing Foreign Direct Investment for Development: Policies for Developed and Developing Countries*, op. cit., p. 17.

<sup>48</sup> Debora Spar, *Attracting High Technology Investment: Intel's Costa Rican Plant* (Washington: World Bank Group, Foreign Investment Advisory Service Occasional Paper 11, 1998).

<sup>49</sup> *Ibid.*, and F. Larrain, F. Lopez-Calva, and A. Rodriguez-Clare. 2001. Intel: A Case Study of Foreign Direct Investment in Central America. In Felipe Larrain, ed., *Economic Development in Central America, vol. 1: Growth and Internationalization*. Op. cit.

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demand for semi-skilled workers and – where measurements have been possible, as found in Mexico (cited earlier) – increasing the premium paid for technical education.

This would suggest that MNE investment flows benefit workers outside MNE plants. But this outcome depends upon other conditions in the labor market, and requires extensive information and extensive controls to isolate the precise relationship.

Once again, drawing on data collected in Indonesia, Robert Lipsey and Fredrik Sjöholm have been able to carry out one such study, and show that the higher wages offered by MNE-owned firms do in fact spill over into higher wages in domestically-owned plants.<sup>50</sup> Controlling for labor force quality, they found a positive spillover within broad industry groups at the national level, and a smaller, but still positive and significant, spillover within narrower industry specifications and at the regional level.

Even more provocative is evidence on the institutions that mediate between MNE investment and what might be called “decent work”, suggesting that as worker-treatment improves in those MNE plants with more highly-skilled activities there is often improvement in worker-treatment in other MNE plants (and other non-MNE plants) with less highly-skilled activities located nearby.<sup>51</sup>

From 1980 to 1986, the Philippines, for example, suffered extensive labor strife across its Export Processing Zones. During this period, in the Mactan zone, located near Cebu, the second largest city after Manila, the composition of MNE activities was shifting from garments, textiles, and footwear to metal fabrication, electronics, automotive parts, optical equipment, and medical devices, although a large fraction of the former remained side-by-side with the later. With the objective of heading off the labor unrest – according to on-site investigation by Professor Elizabeth M. Remedio of the Economics Department of the University of San Carlos – the Mactan’s Chamber of Exporters and Manufacturers set up a human resource association whose membership included personnel managers from all the companies located in the zone.<sup>52</sup> In the early 1990s, the Chamber initiated a self-policing program to ensure that all participants complied with all national labor regulations. Companies that violated such regulations received reprimands, and one firm that was unwilling to respect the protocols set by the Chamber appears to have been expelled from the zone.

The Mactan Chamber was “particularly vigilant” about wages, allowing individual firms to establish their own levels but ensuring the compensation met or exceeded legal minimums. The Chamber provided transport to and from the zone, and promoted benefits such as paid sick leave, canteen facilities, and uniforms. Over the course of the 1990s, the Chamber became active in mediating labor complaints, without waiting for action on the part of government inspectors or zone administrators. By the end of the 1990s more than two thirds of the MNE investors had plants with higher-skilled operations, but almost a

<sup>50</sup> Lipsey, Robert E. and Fredrik Sjöholm. 2004, “FDI and Wage Spillovers in Indonesian Manufacturing”, *Review of World Economics* 140. no. 2: 287-310.

<sup>51</sup> For the details of the case studies that follow – and others – see *Beyond Sweatshops*, *op. cit.*

<sup>52</sup> Elizabeth M. Remedio. 1994. “Foreign-Owned Firms and Skill formation at the Mactan Export Processing Zone, Philippines: A Case-Study” in *Human Resources Management and Economic Development in Asia*. Tokyo: Japan Institute of Labor. 1996. “EPZs in the Philippines: A Review of Employment, Working Conditions, and Labor Relations,” International Labor Organization Working Paper 77. Geneva.

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third (28%) remained at the lower end of the skill-ladder. All were obliged to comply with the framework of the Chamber.

Similarly, MNEs with more sophisticated plants played a leading role in the evolution of worker-management relations in the Dominican Republic.<sup>53</sup> Export Processing Zones in the DR had historically been exempted from the same labor regulations that applied to firms and workers in other parts of the country. As MNEs producing electronics, electrical equipment, medical equipment, metal products, and data processing became the fastest growing new investors in the zones, the political economy of policy-formation began to shift. In 1992 the ILO sent an advisory mission to help write a new labor code that would apply throughout the country, including in the EPZs. Six workers' federations and the directors of the association of zone employers signed an "Agreement for Social Peace and Productivity" to implement the new code, but the broader membership of EPZ firms refused to ratify the agreement. Not giving up, the leaders of the zone employers' association, the trade unions, and the government called upon the Catholic Church to mediate, leading to nation-wide labor legislation that included – among other things – the right to organize workers in the zones. The ILO Global Report 2000 identified the Dominican Republic as a "positive example" of a country that was making progress in observing labor standards and protecting freedom of association in its EPZs.<sup>54</sup>

Costa Rica also provides an example in which MNE executives in higher skilled sectors – led by companies like Intel, Motorola, Baxter Medical, Proctor and Gamble, Western Union, and Fed Ex – have taken a pro-active role in creating mechanisms to improve labor relations and instill company loyalty within the workforce. Indeed the disputes involving labor standards in Costa Rica have centered on whether the MNE employers have been too "pro-active" in creating worker-management "solidarity associations" that preempt trade union representation.<sup>55</sup> This introduces a complexity into the analysis of labor standards, since MNE investors in higher-skilled industries often are not unionized in their home countries and prefer to conduct worker-management relations in the developing world without the mediation of trade unions.

Overall, the evidence in this Section grows naturally out of the evidence introduced in Section I: the power of MNE manufacturing investment to incorporate increasingly-skilled workers in the developing world into dynamic global supply chains, complete with widening backward linkages into the local economy, carries strongly positive implications for the creation of what might qualify as "decent work".

But the sometime successes in the developing world stimulate simultaneous preoccupation about what the consequences might be back in the home economy – might the globalization of industry via MNE investment come at the expense of decent work for labor in the home country of the MNE?

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<sup>53</sup> Ana Teresa Romero. 1995. "Labor Standards and EPZs: Situation and Pressures for Change," *Development Policy Review*. Vol. 13.

<sup>54</sup> ILO. 2000. *Your Voice at Work: Global Report under the Follow-Up to the ILO Declaration on Fundamental Principles and Rights at Work*. Geneva. P. 34.

<sup>55</sup> ILO. *Your Voice at Work*, *op. cit.*, p. 51. *Labor and Social Issues*, *op. cit.* p. 24.

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### **III. MNEs and Decent Work in the Home Country: Runaway Plants, Hollowing Out, and the “Great Sucking Sound”?**

The publication of the Declaration in 1977 coincided with one of the first major expressions of a fear that outward investment by MNEs – in this case, MNEs based in the United States – might weaken the industrial base and destroy good jobs at home. This fear was expressed in the Burke-Hartke legislation, sponsored by the AFL-CIO, that would change tax legislation so as to impose a double tax burden on profits earned by US companies on operations abroad. In Sweden and other parts of Europe, similar preoccupations appeared shortly thereafter about the overseas direct investments of home country multinationals. Later, in Japan, the debate focused on whether outward investment by Japanese MNEs might be “hollowing out” the home country manufacturing sector. In the contemporary period, the accession of Eastern European states into the EU, and the expansion of European MNE direct investments there, have stimulated renewed apprehensions across Europe.

The prize for capture of the rhetorical heights, however, should probably be awarded to Ross Perot and his campaign against the runaway plants he foresaw, when a so-called “great sucking sound” from NAFTA might transfer jobs from the American heartland south to Mexico.

There is an understandable dichotomy between the way ordinary citizens in most home countries – including workers and labor leaders – conceptualize outward investment by MNEs, and the way economists and business strategists view the phenomenon.

Public opinion sees outward investment as a zero-sum process in which MNEs close plants at home and open plants abroad, in which MNEs place a fixed amount of investment capital either in a home country site or in a developing country alternative site. In this view, outward investment is a substitute for internal domestic investment; production abroad is a substitute for production at home. This zero-sum perspective is reinforced by the real-life practice of MNE labor negotiators who threaten to move specific parts of their operations off shore if home country labor representatives make tough demands for wages and benefits.

Economists and business strategists see outward investment as an integral part of MNE strategy to maximize the competitive position of the whole corporation, a goal for which headquarters raises the needed amount of capital from sources all around the globe. Relative costs – including relative wages and benefits (and well as relative skills and relative productivity) – play a definite role in how the MNE chooses sites for various operations, but whatever the outcome, operations at home and operations abroad complement each other as the MNE tries to make the deployment of tangible and intangible assets most productive and most profitable.

This difference of perspective – whether outward MNE investment substitutes for investment at home or complements investment at home, whether the MNE creation of jobs abroad substitutes for MNE creation of jobs at home or complements MNE creation of jobs at home – can be tested empirically.

In carrying out this empirical test, it is important to try to specify the counter-factual – what would happen in the home economy if the MNE did not make the outward investment? – because this look at the counter-factual will allow evaluation of the oft-proposed policy alternative, to make it more expensive and difficult for MNEs to engage in overseas operations.

In the early years following the Declaration the pioneer in developing a methodology to investigate outward investment was Thomas Horst.<sup>56</sup> Subsequent analysis – up to the present – has grown increasingly sophisticated. But it is useful to review the Horst approach since his method of assessing the evidence helps policymakers see clearly what the counterfactual would be if the outward investments undertaken by MNEs did not take place.

MNEs often point out that they invest more at home, and export more from home plants than the typical or average home country firm. They should not be accused therefore, they argue, of exporting jobs or undermining the home country industrial base. But, noted Horst, this is not the appropriate way to begin the investigation, since MNEs are not “typical” or “average” – they are larger, do more R&D, engage in more advertising, and have other characteristics that set them apart. Perhaps MNEs should be expected to do even more investment at home or engage in even more exporting from home plants.

To discover whether MNEs substitute production abroad for exports from home, what is needed is to compare the export behavior of “likes with likes” while varying only the extent of outward investment – that is, what is needed is to compare the export behavior of large firms that undertake outward investment with the export behavior of large firms that do not undertake outward investment, to compare the export behavior of firms with high R&D or extensive advertising that undertake outward investment with the export behavior of firms with high R&D or extensive advertising that do not undertake outward investment.

The table constructed by Horst (below) does even better than this. The table compares the export behavior (exports as a percentage of domestic shipments) of likes-with-likes using four measurements: the export performance of those firms that essentially stay at home (first column), the export performance of those firms that have begun to engage in just a bit of outward investment (second column), the export performance of those firms that have expanded their outward investment substantially (third column), and the export performance of those firms that have thoroughly globalized their production (fourth column).

**Table 3: Export Performance of Particular Types of Industries by Foreign Investment Levels**

<i>Type of industry</i>	<i>Exports as percentage of domestic shipments</i>			
	<i>Foreign investment</i>			
	<i>Least amount or none</i>	<i>Low to middle range</i>	<i>Middle to high range</i>	<i>Most</i>
High tech	2.3	7.8	9.7	7.6
Low tech	1.3	3.0	2.5	3.5
High advertising	1.0	2.8	2.4	4.6
Low advertising	1.4	4.8	7.5	7.7
High unionization	1.9	5.5	4.4	3.8
Low unionization	1.3	3.2	7.0	7.8

Source: Adapted from C. Fred Bergsten, Thomas Horst, and Theodore H. Moran, *American Multinationals and American Interests* (Brookings, 1978), pp. 81-82, table 3-3.

<sup>56</sup> In C. Fred Bergsten, Thomas Horst, and Theodore H. Moran, *American Multinationals and American Interests* (Washington, D.C.: The Brookings Institution, 1978), ch. 3

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This set of like-with-like comparisons demonstrates that firms that undertake outward investment actually achieve higher levels of exports-as-a-percentage-of-domestic-shipments than firms that stay at home, and that this superior export performance – and demonstration of superior competitiveness in the face of global pressures – increases as they globalize their operations. The percentage of domestic shipments that leaves the home market destined for external markets rises as the MNE engages in larger amounts of international investment (exactly what the relationship is in the fourth column is somewhat murky, in this set of comparisons, but later statistical analyses show a persistent positive correlation, as considered next). This demonstrates that outward investment enhances the competitiveness of home country operations, measured in comparison to similar kinds of firms that do not undertake outward investment or that do not undertake as much outward investment. Outward investment, as a consequence, is a complement to greater production at home, not a substitute for it.

This set of like-with-like comparisons also provides a clear picture of the counterfactual – what would the situation in the home market look like if MNEs did not engage in outward investment at all, or did not engage in outward investment so strongly. The performance of firms in columns 2, 3, and 4 would resemble the performance of their look-alike peers in column 1. It becomes clear that the stay-at-home option does not strengthen the home industrial base, or lead to more exports from home – on the contrary, the stay-at-home option leads to a *less* competitive home industrial base, and fewer exports from home. If MNEs were prevented from moving abroad, or if obstacles and disincentives were put in their path, the home economy would be *weaker* and the labor market *less filled with export-related jobs*.

Somewhat surprisingly, this positive relationship between outward investment and exports holds for low-tech (low R&D) industries just as for high-tech industries, and for heavily unionized industries just as for non-unionized industries. That is, outward investment creates more export-related jobs at home for low-tech workers and for unionized workers, just as it does for home country workers overall, in comparison to firms with similar workers that do not engage in outward investment.

Subsequent studies, using increasingly sophisticated statistical techniques, have consistently demonstrated the complementarity between MNE outward investment and exports from a more competitive industrial base at home. Robert Lipsey and Herle Yahr Weiss substantiated a positive correlation (after controlling for firm characteristics) between outward investment and exports for all levels of investment.<sup>57</sup> In addition, they found that the level of manufacturing activity in a given country by US firms was positively associated with US exports from the same industries to that country and negatively associated with exports by producers of rival nationalities. In the same vein, they also found that the presence of firms from foreign countries in a given country was negatively related to US exports and positively related to foreign countries' exports. They concluded that direct investment by US MNEs in any one country tended to increase US exports and US market shares in that country and reduce those of producers of rival nationalities, and that non-US MNEs operations tended to raise their countries' exports and market shares, and reduce those of US firms. A smaller US MNE presence abroad would reduce MNE exports to, and market share in other countries. Their counterfactual outcome was the same as Horst: making home country MNEs lessen their outward investment hurts the prospects for home country workers to participate in export-related jobs.

<sup>57</sup> Robert E. Lipsey and Herle Yahr Weiss, "Foreign Production and Exports in Manufacturing Industries", *Review of Economics and Statistics* 63, no. 4 (November 1981), pp. 448-94.



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A later study by Lipsey and Weiss showed that the complementarity between outward investment and domestic exports was strong not only for intermediate goods shipped for further processing but also for the exports of finished products by US MNEs.<sup>58</sup> As for the relationship between the multinationalization of corporate production and wage levels in the parent corporation, Lipsey found that a higher proportion of foreign operations in US firms was associated with higher average compensation at home.

As Swedish MNEs came under fire just like US MNEs, Magnus Bloomstrom, Robert Lipsey, and others duplicated the finding of a complementary relationship between outward investment on the part of Swedish multinationals and home country exports and employment.<sup>59</sup> The outward investment of Japanese MNEs leads to similar beneficial effects at home, allegations of “hollowing out” notwithstanding.<sup>60</sup> In stark contrast to conventional wisdom about outward investment and home country jobs – there is repeated demonstration that the spread of MNE manufacturing operations abroad strengthens the position of both firms and workers in the home economy.<sup>61</sup>

With regard to a possible trade-off between investment abroad and investment at home, Mihir Desai, Fritz Foley, and James Hines find that years in which American multinational firms make greater capital expenditures abroad coincide with greater capital spending by the same firms at home.<sup>62</sup> According to their calculations, one dollar of additional foreign capital spending is associated with 3.5 dollars of additional domestic capital spending, implying that foreign and domestic capital are complements in the production decisions of multinational investors. Their results are consistent with other evidence that firms whose foreign operations grow simultaneously expand their domestic operations.

These findings have important implications for “decent work” in the home country market, since export-related jobs across all developed countries offer a wage-and-benefit premium in comparison to other jobs in comparable firms. In the United States, jobs associated with exports pay wages 9-23 percent higher than non-export related jobs, and offer 11-40 percent higher benefits.<sup>63</sup> Firms that engage in outward investment pay their blue-collar production workers 7-15 percent more than comparable non-outward investors

<sup>58</sup> Lipsey and Weiss, “Foreign Production and Exports of Individual Firms”, *Review of Economics and Statistics* 66, no. 2 (May 1984), pp. 304-8.

<sup>59</sup> Marcus Blomstrom, Robert E. Lipsey, and K. Kulchyck, “US and Swedish Direct Investment and Exports,” in Robert E. Baldwin (ed.), *Trade Policy Issues and Empirical Analysis* (Chicago: University of Chicago Press, for the National Bureau of Economic Research, 1988), pp. 259-97.

<sup>60</sup> Robert E. Lipsey, Eric D. Ramsterrer, and Magnus Blomstrom. 2000. Outward FDI and Parent Exports and Employment: Japan, the United States, and Sweden. Cambridge, MA.: National Bureau of Economic Research, working paper 7623.

<sup>61</sup> James R. Markusen and Keith E. Maskus. 2003. General-Equilibrium Approaches to the Multinational Enterprise: A Review of Theory and Evidence. In E. Kwan Choi and James Harrigan, eds. *Handbook of International Trade*. London: Blackwell.

<sup>62</sup> Mihir A. Desai, C. Fritz Foley, and James R. Hines, Jr., “Foreign Direct Investment and the Domestic Capital Stock”, *American Economic Review* 95, No. 2 (May 2005), 33-38.

<sup>63</sup> J. David Richardson. 2005. *Global Forces, American Faces: US Economic Globalization at the Grass Roots*. Washington, DC: Institute for International Economics. Draft.

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(7 percent more in large US MNE plants, 15 percent more in small US MNE plants). Overall, outward investment by MNEs improves the composition of good jobs/bad jobs at home – outward investment by MNEs leads to a higher proportion of good jobs (relatively high wages and benefits) compared with bad jobs (relatively lower wages and benefits).

The benefits that accrue to home country firms from outward investment are not limited to their superior export performance. In the US, American MNEs that invest abroad use frontier production processes in their home country plants more frequently, have higher levels of worker productivity, and enjoy more rapid growth rates of overall productivity than others.<sup>64</sup> As a result they enjoy lower levels of bankruptcy, and are less likely to suffer job loss than similar firms that do not engage in outward investment. These latter findings are intuitively reasonable, but striking nonetheless: contrary to popular perceptions, outward investment by MNEs leads to a more stable job base at home.

To be sure, outward investment does not always mean that the home industry sector where the outward investment originates is expanding on a net basis. What is noteworthy, however, is that firms that engage in outward investment offer better prospects for their workers than firms that do not, in both expanding and contracting industries.<sup>65</sup> To be precise, home country companies in contracting sectors that are “globally engaged” – importing, exporting, and engaging in outward investment – show themselves to be the most successful participants in those sectors.

As some sectors expand and other sectors contract there are bound to be job losses and dislocations for some workers while others gain new opportunities. Changing patterns of MNE investment – like changing patterns of technology deployment more generally – contribute to the job losses and dislocations as well as to the new opportunities. The appropriate public policy response is the design of adjustment programs and retraining programs to cushion the impact on those adversely affected, not a futile effort to impede capital flows and maintain uncompetitive jobs in one place or another.<sup>66</sup>

<sup>64</sup> Andrew B. Bernard, J. Bradford Jensen, Peter K. Schott. Importers, Exporters and Multinationals: A Portrait of Firms in the U. S. that Trade Goods. Cambridge, Mass. NBER Working Paper No. 11404, June, 2005.

<sup>65</sup> Richardson, *op. cit.*

<sup>66</sup> For an agenda of retraining and adjustment policies, see – for the United States – Lori G. Kletzer and Howard Rosen, “Reforming US Labor-Market Adjustment Programs to Better Assist US Workers”, chapter 10 in C. Fred Bergsten and the Institute for International Economics, *The United States and the World Economy: Foreign Economic Policy for the Next Decade* (Institute for International Economics, 2005), and for Europe, Martin Neil Baily and Jacob Funk Kirkegaard, *Transforming the European Economy* (Institute for International Economics, 2004).

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## IV. Policy Implications for Developed and Developing Countries

What are the policy implications from the preceding analysis, for developed and developing countries?

The **first lesson** is that a strategy of imposing performance requirements on MNEs has counter-productive results. Performance requirements do not lead to the creation of competitive MNE affiliates in the host country. They do not ensure transfer of most advanced technology, management, and quality-control practices from MNEs into the domestic economy. They do not spread backward linkages to indigenous firms or build up world-class supplier networks in the host country. They do not provide workers with stable, reliable jobs.

This lesson – although thoroughly supported by overlapping layers of empirical evidence – has continued to escape some practitioners within the community of development strategists. The theme of the Doha Round of trade negotiations, for example, is “development”, and in this spirit, at the Hong Kong Ministerial of 2005 a concession was made to the developing world to *relax* the TRIMs Agreement, affording developing countries greater leeway to impose domestic content requirements on foreign investors and to maintain them until 2020. Prior to this, the TRIMs Agreement had banned domestic content or trade-balancing mandates imposed upon MNEs.

As can be seen from the evidence introduced earlier, this “concession” was *a dramatic move in the wrong direction*. There is simply no evidence that the interests of developing countries – not middle-income developing countries, not poorer developing countries – might be served by greater freedom to impose performance requirements on MNEs operating within their borders.

This lesson has also been ignored by developed countries. It is alarming to observe that the political risk guarantee agencies of eighteen of the nineteen richest OECD countries offer coverage to MNE investment projects oriented toward protected domestic markets.<sup>67</sup> The political risk insurance agencies of the United Kingdom, Canada, France, Germany, Italy, Japan – and, not least, the US Overseas Private Investment Corporation, for example – certify any investment projects for coverage as long as they are expected to earn a profit. Since MNE investments in protected markets are often quite lucrative, they receive approval for coverage. Even more disconcerting is to witness the same practice among the regional development banks as well as the International Finance Corporation and the Multilateral Investment Guarantee Agency of the World Bank Group.

Instead, developed country and multilateral guarantee agencies should screen out any projects that rely on trade protection to survive, and are quite likely – as noted earlier – to subtract from national income

The **second lesson** is that the greatest benefits offered by MNEs in developing countries come not in the form of lowest-skilled jobs but in the form of opportunities for semi-skilled and better-skilled workers. As MNE investors move from least sophisticated to more advanced activities, they have the potential, in turn, to transform the development trajectory of the host economy. Host country policies that improve skill-training for

<sup>67</sup> *Commitment to Development Index*, investment flows component. 2007. Washington, DC: Foreign Policy Magazine and Center for Global Development.

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workers constitute one of the most important magnets to attract MNE investment in manufacturing, and improve the likelihood for backward linkages from that MNE investment (see the agenda for further research, in the next Section).

The **third lesson** is that the globalization of industry via MNE investment constitutes a *win-win* phenomenon for firms and workers and communities in developed and developing countries alike. Outward investment from richer to poorer economies enhances the competitiveness of the economic base at home while creating new jobs in the host. The distribution of benefits from MNE investment is not a zero-sum outcome that helps workers on one side of the border at the expense of workers on the other side.

At the end of the day, MNE investment can be a powerful force to create “decent work” in home and host countries simultaneously. But MNE investment can also become the plaything of government pressures to protect specific jobs and prevent change. The task of strategists in both developed and developing countries is to promote the former, and prevent the latter. Entering the forth decade after the promulgation of the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, this task still requires diligent effort.

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## V. Implications for Future Research

Given the importance of knowing how foreign direct investment can be used to generate “decent work” in the developing world, the agenda for future research could be long indeed. Drawing on the preceding analysis, five investigative tasks of particular interest stand out.

1. *Surveying wages and benefits paid by MNEs, by type of job, skill-intensity, and industry sector, across countries.* Such a survey could build upon current ILO data collection. Once the data are gathered in systematic fashion on a regular basis, a wide variety of statistical investigations could be launched.

2. *Identifying effective methods of MNE-host cooperation in vocational training.* The analysis presented above shows the importance of jointly-designed MNE-host country educational initiatives to deliver skill-training of the kind needed in MNE plants, and in local businesses more generally. Such programs, as illustrated by the case study of Costa Rica, can be a key component in FDI-attraction, and in upgrading and diversifying the host country export base. Further research could investigate how such MNE-host programs have been structured, what the results have been, and what lessons can be learned for emulation across the developing world.

3. *Designing policies to expand backward linkages from MNEs to local suppliers.* A major contribution from MNEs to the host country industrial base and service sector – and associated workforce – can come, as shown earlier, from the development of supplier networks in domestic economy. What are the determinants of success and failure in enhancing this outcome? What host country policies – such as talent-scout and marriage-broker programs, parallel industrial parks, and vendor-development projects – have proven effective, and how do these interact with skill-building institutions for local workers and managers identified in (3)?

4. *Promoting labor market micro-externalities.* One of the most heartening discoveries in the preceding analysis was the finding by Robert Lipsey and Fredrik Sjöholm that the wage premium paid by MNEs to attract and hold the kind of workers they need appears to spill-over into other host country firms. How extensive is this phenomenon across sectors and countries, what explains it, and what measures might host countries take to promote it? To find answers here will require careful analysis of detailed firm-level data sets.

5. *Investigating labor market institutional-externalities.* Case study evidence from the Philippines, Dominican Republic, and Costa Rica – reported above – reveals that improvement in worker treatment, observance of core labor standards, and progress in the conduct of worker-management relations spreads from more-sophisticated MNE plants to less-sophisticated MNE and local plants located in the same EPZs or industrial parks, and sometimes is incorporated in better labor regulations nationwide. Do other countries exhibit similar experiences? What are the dynamics of the spread of “best practices” in human resource management among firms, and how can the process be stimulated?

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## Annex I

### FDI Flows to Developing Countries (millions of dollars)

	1989-1991	2002-2004
<b>Lowest-Skill Sector</b>		
Food, beverages and tobacco	\$2,459	\$5,737
Textiles, clothing and leather	248	1,334
Wood and wood products	239	298
<b>Total</b>	<b>\$2,946</b>	<b>\$7,369</b>
<b>Higher-Skilled Sectors</b>		
Publishing, printing and reproduction of printed materials	\$0	\$140
Coke, petroleum products and nuclear fuels	309	-70
Chemicals and chemical products	2,214	6,716
Rubber and plastic products	31	247
Non-metallic mineral products	225	611
Metals and metal products	1,275	1,653
Machinery and equipment	2,929	6,153
Electrical and electronic equipment	967	4,319
Precision instruments	0	64
Motor vehicles and other transport equipment	301	2,130
Other manufacturing	801	1,374
Unspecified Secondary	4,455	54,252
<b>Total</b>	<b>\$13,507</b>	<b>\$77,589</b>

Note: Each sector contains some lower and higher skilled workers.

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## Annex II

### FDI Stocks in Developing Countries

(millions of dollars)

	1990	2004
<u>Lowest-Skill Sector</u>		
Food, beverages and tobacco	\$9,612	\$33,337
Textiles, clothing and leather	5,012	7,688
Wood and wood products	4,380	13,383
Total	\$19,004	\$53,308
<u>Higher-Skilled Sectors</u>		
Publishing, printing and reproduction of printed materials	\$546	\$273
Coke, petroleum products and nuclear fuels	3,019	22,985
Chemicals and chemical products	43,654	76,995
Rubber and plastic products	1,764	5,424
Non-metallic mineral products	2,729	9,027
Metals and metal products	14,497	19,751
Machinery and equipment	9,615	25,093
Electrical and electronic equipment	16,617	62,629
Precision instruments	459	1,379
Motor vehicles and other transport equipment	7,797	30,812
Other manufacturing	2,380	12,381
Unspecified Secondary	22,293	293,503
Total	\$125,370	\$560,252

Note: Each sector contains some higher and lower skilled workers.

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### Annex III

#### Employment by Top 100 TNCs (2002-2006)

	2001	2002	2003	2004	2005	2006
Total						
Employment	13,234,327	14,066,204	13,613,850	14,331,710	14,625,645	14,850,377
Foreign						
Employment	4,839,426	6,319,750	8,856,501	7,037,454	7,242,696	7,243,568
Foreign						
Employment						
vs. Total						
Employment	0.365672	0.4492861	0.650551	0.491041	0.495205	0.48777



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## BIBLIOGRAPHY

Aghion, Philippe and Peter Howitt. 1998. *Endogenous Growth Theory*. Cambridge, MA.: MIT Press;

Aitken, Brian Ann Harrison, and Robert E. Lipsey. 1996. "Wages and Foreign Ownership: A Comparative Study of Mexico, Venezuela, and the United States." *Journal of International Economics* 40(3-4): 345-71;

Baily, Martin Neil and Jacob Funk Kirkegaard, *Transforming the European Economy* (Institute for International Economics, 2004).

Beamish, Paul W. and Andres Delios, "Incidence and Propensity of Alliance Formation by US, Japanese, and European MNEs", in Paul W. Beamish and J. Peter Killing, eds., *Cooperative Strategies: Asian-Pacific Perspectives* (San Francisco: The New Lexington Press, 1997).

Bergsten, C. Fred Thomas Horst, and Theodore H. Moran, *American Multinationals and American Interests* (Washington, D.C.: The Brookings Institution, 1978), ch. 3.

Bernard, Andrew B., J. Bradford Jensen, Peter K. Schott. Importers, Exporters and Multinationals: A Portrait of Firms in the U. S. that Trade Goods. Cambridge, Mass. NBER Working Paper No. 11404, June, 2005.

Blalock, Garrick and Paul J. Gertler. Foreign Direct Investment and Externalities: The Case for Public Intervention. in Does Foreign Direct Investment Promote Development? Op. cit.

Blomstrom, Magnus, Ari Kokko, and Mario Zejan. 1992. "Host Country Competition and Technology Transfer by Multinationals." Cambridge, MA: National Bureau of Economic Research Working Paper #4131.

Blomstrom, Marcus, Robert E. Lipsey, and K. Kulchyck, "US and Swedish Direct Investment and Exports," in Robert E. Baldwin (ed.), *Trade Policy Issues and Empirical Analysis* (Chicago: University of Chicago Press, for the National Bureau of Economic Research, 1988), pp. 259-97.

Borras, Michael Dieter Ernst, and Stephan Haggard, eds., *Rivalry or Riches: International Production Networks in Asia*, edited by (Cornell, NY: Cornell University Press, 1999).

CESAIS Center for Economic and Social Applications, University of Ho Chi Minh-Vietnam (now Truong Doan). 2002. "Workers' Voices: A Study of the Assets and Needs of Factory workers in Vietnam".

*Commitment to Development Index*, investment flows component. 2007. Washington, DC: Foreign Policy Magazine and Center for Global Development.

Desai, Mihir A., C. Fritz Foley, and James R. Hines, Jr., "Foreign Direct Investment and the Domestic Capital Stock", *American Economic Review* 95, No. 2 (May 2005), 33-38.

Encarnation, Dennis J. and Louis T. Wells, Jr., "Evaluating Foreign Investment", in Theodore H. Moran, ed., *Investing In Development: New Roles for Private Capital?* (Washington, D.C.: Overseas Development Council, 1986).

---

Feenstra, Robert C. and Gordon H. Hanson, Foreign Direct Investment and Relative Wages: Evidence from Mexico's Maquiladoras. 1997. *Journal of International Economics*, 42 (3-4): pp. 371-394.

Gomes-Casseres, Benjamin, "Ownership Structures of Foreign Subsidiaries: Theory and Evidence", *Journal of Economic Behavior and Organization* 11, no. 1 (January, 1989), pp. 1-25.

Graham, Edward M. *Fighting the Wrong Enemy: Antiglobal Activists and Multinational Enterprises* (Washington, DC: The Institute for International Economics, 2000, Table 4-2, pp. 93-94.

Grossman, Gene M. and Elhanan Helpman, *Innovation and Growth in the Global Economy*. Cambridge, MA.: MIT Press, 1991, ch. 7.

Hobday, Michael. 1995. *Innovation in East Asia: The Challenge to Japan*. London: Aldershot. 2000. East versus Southeast Asian Innovation Systems: Comparing OEM- and TNC-led Growth in Electronics. In Linsu Kim & Richard Nelson, eds, *Technology, Learning, & Innovation*, New York: Cambridge University Press, 2000.

Jacobson, Mark. 1999. "The Philippines: The Case of Economic Zones" in *Alleviating Poverty through Foreign Direct Investment: Country Case Studies*. Washington, DC: The World Bank, 1999.

Jansen, Marion and Eddy Lee. 2007. *Trade and Employment: Challenges for Policy Research*. Geneva: A joint study of the International Labor Office and the Secretariat of the World Trade Organization. P. 41.

Javorcik, Beata Smarzyska and Mariana Spatareanu, 2005. "Disentangling FDI Spillover Effects: What Do Firm Perceptions Tell Us", in Theodore Moran, Edward M. Graham and Magnus Blomstrom. Eds. *DOES FOREIGN DIRECT INVESTMENT PROMOTE DEVELOPMENT?: New Measurements, New Outcomes, New Policy Approaches*, Institute for International Economics.

Jun, Y. W. and S. G. Kim. 1990. *The Korean Electronics Industry-Current Status Perspectives and Policy Options*. OECD Report., pp. 22-23.

Kalotay, Kalman "Central and Eastern Europe: Export Platform for Investors?", *The Journal of World Investment*, Vol. w No. 6, December 2002, pp. 1042-1049.

Klein, Karen *General Motors in Hungary: The Corporate Strategy Behind Szentgotthard* (Washington, DC: Georgetown University, Pew Economic Freedom Fellows Program, 1995).

Kletzer, Lori G. and Howard Rosen, "Reforming US Labor-Market Adjustment Programs to Better Assist US Workers", chapter 10 in C. Fred Bergsten and the Institute for International Economics, *The United States and the World Economy: Foreign Economic Policy for the Next Decade* (Institute for International Economics, 2005),

Kohpaiboon, Archanun, "Industrialization in Thailand: MNEs and Global Integration", PhD Thesis submitted to the Australian National University, March 2005.

Lall, Sanjaya and Paul Streetan. 1977. *Foreign Investment, Transnationals, and Developing Countries*. Boulder, CO.: Westview Press.

Larrain, Felipe Luis F. Lopez-Calva, and Andres Rodriguez-Clare. 2001, Intel: A Case Study of Foreign Direct Investment in Central America. In Felipe Larrain, ed., *Economic*

---

*Development in Central America, vol. 1: Growth and Internationalization.* Harvard University Press.

Lim, Linda Y. C. and Pang Eng Fong. 1982. "Vertical Linkages and Multinational Enterprises in Developing Countries." *World Development*. 10: 585-95.

Lipsey and Weiss, "Foreign Production and Exports of Individual Firms", *Review of Economics and Statistics* 66, no. 2 (May 1984), pp, 304-8.

Lipsey, Robert E. and Fredrik Sjöholm. 2004, "FDI and Wage Spillovers in Indonesian Manufacturing", *Review of World Economics* 140. no. 2: 287-310.

Lipsey, Robert E. and Fredrik Sjöholm. 2004, "Foreign Direct Investment, Education, and Wages in Indonesian Manufacturing", *Journal of Development Economics* 75 (1): 415-422.

Lipsey, Robert E. and Herle Yahr Weiss, "Foreign Production and Exports in Manufacturing Industries", *Review of Economics and Statistics* 63, no. 4 (November 1981), pp. 448-94.

Lipsey, Robert E., Eric D. Ramstetter, and Magnus Blomstrom. 2000. *Outward FDI and Parent Exports and Employment: Japan, the United States, and Sweden*. Cambridge, MA.: National Bureau of Economic Research, working paper 7623.

Lipsey, Robert. 2006, "Measuring the Impacts of FDI in Central and Eastern Europe Cambridge, MA", National Bureau of Economic Research. Working paper 12808.

Long. Guoqiang. 2005. "China's Policies on FDI: Review and Evaluation" In Theodore Moran, Edward M. Graham and Magnus Blomstrom. Eds. *DOES FOREIGN DIRECT INVESTMENT PROMOTE DEVELOPMENT?: New Measurements, New Outcomes, New Policy Approaches*, Institute for International Economics.

Markusen, James R. and Keith E. Maskus. 2003. General-Equilibrium Approaches to the Multinational Enterprise: A Review of Theory and Evidence. In E. Kwan Choi and James Harrigan, eds. *Handbook of International Trade*.

Markusen, James. 2005. "Modeling the Offshoring of White-Collar Services: From Comparative Advantage to the New Theories of Trade and FDI," NBER Working Paper 11827, National Bureau of Economic Research, Inc.

McKendrick, David G. Richard F. Donner, and Stephan Haggard. 2000. *From Silicon Valley to Singapore: Location and Competitive Advantage in the Hard Disk Drive Industry*, Stanford, CA: Stanford University Press.

Moran, Theodore H. 2001. *Parental Supervision: The New Paradigm for Foreign Direct Investment and Development*. Washington, DC: Institute for International Economics.

Moran, Theodore H. 2007. *Harnessing Foreign Direct Investment for Development: Policies for Developed and Developing Countries*. Washington, DC: Center for Global Development,

Moran. Theodore H. 2002. *Beyond Sweatshops*. Washington, DC: The Brookings Institution, Chapter 1.

Ramachandran, V. "Technology Transfer, Firm Ownership, and Investment in Human Capital", *Review of Economics and Statistics*. 75(4), 1993, pp.664-70.

---

Rasiah, Rajah, 1994. "Flexible production systems and local machine-tool subcontracting: electronics components transnationals in Malaysia" *Cambridge Journal of Economics* Volume 18, No. 3, June, 279-298; *Foreign Capital and Industrialization in Malaysia*. New York: St. Martin's Press, 1995.

Razafindrakoto, Mireille and Francois Roubaud, "Les Entreprises Franches a Madagascar: Economie d'enclave ou promesse d'une nouvelle prosperite? Nouvel esclavage ou opportunité pour le developpement du Pays?", *Economie de Madagascar*, No. 2., 1995.

Remedio, Elizabeth M. 1994. "Foreign-Owned Firms and Skill formation at the Mactan Export Processing Zone, Philippines: A Case-Study" in *Human Resources Management and Economic Development in Asia*. Tokyo: Japan Institute of Labor.. "

Remedio, Elizabeth M. 1996 "EPZs in the Philippines: A Review of Employment, Working Conditions, and Labor Relations," International Labor Organization Working Paper 77. Geneva.

Richardson, J. David. 2005. *Global Forces, American Faces: US Economic Globalization at the Grass Roots*. Washington, DC: Institute for International Economics. Draft.

Romer, Paul "New goods, old theory, and the welfare costs of trade restrictions," *Journal of Development Economics*, 43, 1994.

Romer, Paul "Two Strategies for Economic Development: Using Ideas and Producing Ideas," *Proceedings of the World Bank Annual Conference on Development Economics*, 1992,

Romero, Ana Teresa. 1995. "Labor Standards and EPZs: Situation and Pressures for Change," *Development Policy Review*. Vol. 13.

Spar, Debora, *Attracting High Technology Investment: Intel's Costa Rican Plant* (Washington: World Bank Group, Foreign Investment Advisory Service Occasional Paper 11, 1998).

Te Velde, D. W. and O. Morrissey. 2001. "Foreign Ownership and Wages: Evidence from Five African Countries." CREDIT Discussion Paper.

Urata, Shujiro and Hiroki Kawai, 2000 "Intrafirm Technology Transfer by Japanese Manufacturing Firms in Asia", in Takatoshi Ito and Anne O. Krueger, eds., *The Role of Foreign Direct Investment in East Asian Economic Development* (Chicago: The University of Chicago Press for the National Bureau of Economic Research,).

Womack, James P. Daniel T. Jones, and Daniel Roos. 1991. *The Machine that Changed the World*. New York: Harper Perennial.

*World Development Report 2005: A Better Investment Climate for Everyone*. Washington, DC: The World Bank, 2005, p.146.

*World Investment Report 1999*. Geneva: United Nations Conference on Trade and Development. These are the most recent MNE investment statistics by industry sector.

