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## Introduction and Synopsis

The best research on important public-policy issues has several distinguishing characteristics. For policymakers, such research will contain fresh revelations that contradict conventional wisdom. For policy analysts (above all, economists), such research will contain familiar models, familiar analytical techniques, and familiar lines of argument that make the results appear comfortingly obvious, even self-evident. For both policymakers and policy analysts, such research will build its case on new evidence while acknowledging and incorporating much of what is already known. All these are found here.

This study addresses three groups of questions. First, what benefits and opportunities does FDI bring to the development process, and—even amidst today's unparalleled enthusiasm for foreign direct investment (FDI)—what risks and dangers accompany it? When are the benefits and opportunities likely to predominate, and when are the risks and dangers likely to prevail?

Second, how well do international markets function in providing FDI to developing countries and economies in transition, and what have been the principal obstacles preventing them from functioning more effectively? Are there indications of market failure and market distortion that signal a need for individual countries or the world community at large to be concerned?

Third, what policies should host governments and would-be host governments in the developing world and the economies in transition adopt to capture the benefits, avoid the dangers, and maximize the contribution of FDI? In particular, is “getting the fundamentals right” (pursuing

sound macroeconomic policies and investment-friendly macroeconomic policies and building reliable legal and other commercial institutions) enough? That is, after getting the fundamentals right, can host authorities simply sit back and expect international forces to deliver appropriate amounts of valuable economic activity to them via FDI? Or do host authorities have a larger role to play—a larger, more energetic, especially vital role to play—to enhance the use of FDI in the development process?

The evidence examined here points to the latter: that there is a larger, more energetic, especially vital role for host authorities in the developing countries and the economies in transition to play—certainly more activist, perhaps more interventionist, potentially more perilous—than waiting passively for international markets to bring foreign investors to participate in the growth of the local economy.

But the agenda for action—how to design policies and where to focus efforts to enlarge the contribution of FDI to development—turns out to differ substantially from the most commonly held beliefs on this subject.

The purpose of this study is to delineate a “new agenda” for action on the part of host governments and would-be host governments in the developing countries and economies in transition. This new agenda aims to maximize the benefits they can obtain from FDI and minimize the dangers. It also suggests how they might best pursue this new agenda, acting singly, acting collectively, and acting (often) in conjunction with home-country authorities, with multilateral institutions, and with the investors themselves.

Chapter 1 introduces the legacy of investigation about the impact of FDI on development. There is a common assumption that if international companies conduct their activities with the same good citizenship standards abroad that they do at home, their contribution to the host economy can only be positive. But this reasoning hinges, implicitly, on the presence of highly competitive conditions that are fundamentally at odds with both theory and evidence about FDI behavior. In fact, FDI typically originates in international industries where there are high barriers to entry and deploys itself in domestic markets in the developing countries and economies in transition where there are high degrees of concentration. Quite apart from important specific harmful activities (such as permitting pollution, carrying out operations with inadequate health and safety standards, or tolerating the behavior of abusive subcontractors) that could be righted by common good citizenship standards for behavior at home and abroad, the possibility that FDI might lead to fundamental economic distortion and pervasive damage to the development prospects of the country is ever present.

Simultaneously, however, the same conditions of imperfect competition that might be so troublesome indicate that FDI may provide rents (including high wages, benefits, and profits), intangible assets (including

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technology, marketing, best management practices), and potential spillovers and externalities that are highly beneficial for host-country economic growth.

In this precarious setting, three aggregate “net assessments” of the impact of FDI covering 183 projects in some 30 countries over more than 15 years found that a majority of the projects (55 percent to 75 percent) usually had a positive impact on the host national income, but a large minority of the projects (25 percent to 45 percent, and in one of the studies 75 percent) had a clearly negative impact on the economic welfare of the host. The difference between positive and negative impacts was accounted for by policy variables, as subsequent chapters reveal, that the host authorities could control.

The choice of policies to deal with FDI—and the design of the policy environment that surrounds FDI—is crucial, therefore, to ensure that the contribution of foreign firms is beneficial to host-country development.

Chapter 2 reviews theoretical considerations about the pros and cons of host-country policies that guide the activities of foreign firms, such as investment promotion, domestic-content requirements, and export-performance requirements. Under assumptions of perfect competition, these kinds of intervention almost always produce damaging outcomes that distort the allocation of resources, penalize unfavored sectors, create industrial-policy targeting problems, and introduce a rentseeking dynamic into the economy.

Under assumptions of imperfect competition—in particular, within a strategic-trade framework—the outcome from intervention is indeterminate. The prospect of capturing a share of the rents and externalities from the operations of international investors in imperfectly competitive industries raises the stakes for those who are successful in attracting (or holding) them and imposes large opportunity costs on those who are not successful or who do not take part in the competition. But the rationale for activism is matched by equally powerful caveats about the dangers, because improperly constructed public policies may have a magnified negative impact on the prospects for economic development.

To analyze what kind of interventions might be helpful and what kind might be damaging under strategic-trade-type conditions requires, as a consequence, complex and subtle judgments about both the economic desirability and the political-economic feasibility of pursuing alternative paths with consistent success. Depicting the policy ingredients and policy options necessitates, moreover, a broad canvas: investment policy cannot be artificially separated from the provision of grants, subsidies, tax preferences, and other locational incentives to foreign and domestic firms or from the use of investment-distorting measures in trade policy.

Investment promotion, examined in chapter 3, is the first area in which the question arises of whether it is enough to get the fundamentals

right or whether a more proactive approach might be needed. Even so seemingly benign an activity as devoting resources and attention to “market” a country as an attractive site for FDI can impose burdens and create distortions for the rest of the economy.

But marketing efforts do yield impressive results. A rigorous examination of the evidence, with appropriate controls for alternative explanations, shows a high payoff for hosts who make aggressive efforts to attract foreign investors, generating benefits with a (conservatively estimated) net present value of almost four dollars for every dollar expended.

What accounts for the high payoff? Marketing theory suggests that the answer could come from the need for product differentiation on the part of the host. Models of search and signaling that embody poor indices of quality differentials among products indicate that hosts may find it beneficial to show that they have superior properties to rival locations. Thus, superior hosts could stimulate more interest among potential investors for their location than those investors would have for the least attractive alternatives.

If strategies of investment promotion could be confined to efforts at product differentiation and overcoming minor information asymmetries—with no larger indications of market failure to contend with or distortionary interventions on the part of others to compensate for—there are relatively unobtrusive, inexpensive, and nondangerous methods to accomplish these goals.

But, to anticipate the analysis in subsequent chapters, such is not the case. Both the imperfect functioning of international markets and the investment-diverting actions of others pose challenges to the design of any given host country’s approach to dealing with foreign investors.

After investment promotion, chapter 4 shifts the focus to domestic-content requirements, chapter 5 analyzes export-performance requirements, and chapter 6 broadens the inquiry to what is becoming a global struggle for the location of manufacturing investment. Each of these chapters draws heavily on evidence from three sectors that have been the leaders in the globalization of industry—the automotive, petrochemical, and electronics/computer sectors—cross-referencing these with studies from other sectors. (The special problems of natural-resource and private-infrastructure projects are analyzed in chapter 9). The evidence comes from the economics literature, from the political science/political economics literature, and from business case studies. While some of the data are in fact introduced here for the first time, the degree to which these multiple literatures draw upon each other or even acknowledge each other is so astonishingly small that the majority of the studies are likely to strike any given reader as completely new.

Chapter 4 shows that the intervention most frequently used by host authorities in the developing countries and economies in transition—insisting upon domestic-content requirements in highly protected markets—is not

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only extremely costly, but also quite ineffective as an infant-industry tactic to demonstrate the underlying appeal of a given host to multinational corporations. Except in the largest countries, economies of scale are seldom realized, and there are weak managerial incentives to upgrade technology, or maintain the highest standards of quality control, or improve human resources. Contrary to conventional expectations, backward linkages to domestic suppliers are less sophisticated and exhibit fewer indications of training, assisting, or providing technological and marketing externalities than are foreign operations with fewer restrictions.

The imposition of high domestic-content requirements in protected markets tends, moreover, to generate a perverse political economy in which the foreign investors themselves frequently join domestic forces in opposing further liberalization of trade and investment. A detailed case study of the IBM investment that marked a turning point in Mexico's approach to FDI shows that Hewlett-Packard and Apple helped, in vain, to wage the fight within the higher echelons of the Mexican political establishment against the IBM initiative and the policy shift it represented. There is similar evidence from contemporary Eastern Europe, where Suzuki (in Hungary) and Fiat (in Poland) have successfully lobbied for continued, even increased, protection to safeguard their small assembly operations. In these countries, the foreign investors have allied with domestic workers and suppliers to slow the prospects for accession into the European Union.

Overall, there is scant justification on infant-industry grounds, strategic-trade grounds, or any other grounds for the use of domestic-content requirements as a sound tool of development policy. Instead of the foot dragging and obfuscation that is taking place in some countries, strict adherence to obligations under the World Trade Organization (WTO) to phase out domestic-content requirements as rapidly and thoroughly as possible makes good sense as a part of host-government development policy.

Turning from domestic content to export promotion, the question of how to attract world-scale operations that are thoroughly integrated into the global/regional networks of international corporations is the most important issue for host authorities intent upon utilizing foreign manufacturing investment to enhance their own development. The assessment of theory and evidence needed to guide host-country policy, gathered in chapters 5 and 6, occupies the major portion of this volume.

The evidence offered in these chapters shows that full-scale foreign plants in the automotive, petrochemical, and electronics/computer industries provide benefits to the economies where they are located far in excess of the capital, management, and marketing commonly assumed. They have, indeed, been characterized by high wages and benefits, high levels of research and development, and sophisticated managerial and marketing techniques. But beyond this—once the parent investors committed themselves to incorporate a host site into their global/regional

sourcing network, with the aim of enhancing their overall competitive position in international markets—there is evidence of a dynamic-integration effect, which provides newer technology, more rapid technological upgrading, and greater attention to quality control, cost control, and managerial/human resource development in the local subsidiary than does any other method of acquiring such benefits. The subsidiary enjoys persistent parental supervision in raising the state of play to major league standards, so to speak, and keeping it there.

The energetic advantages that this integration effect brings from the parent corporation may be akin to the commitment to superior performance that has been observed when domestic firms in the United States are exposed to the challenges of global engagement.

The establishment of integrated production systems that cross borders in the industries examined here—in particular, the automotive and electronics/computer sectors—not only creates a highly potent interaction between parent and subsidiary, but generates abundant backward linkages. Spillovers and externalities to locally owned suppliers, including coaching in management and marketing, are more evident from foreign investors whose only host requirements involve exports than from foreign investors operating with other host-country constraints. Indigenous suppliers to these investors often themselves begin to export to other affiliates of the parent and then to independent buyers in external markets. Hundreds of local firms in the countries surveyed here became certified as original equipment manufacturers (OEM) and replacement equipment manufacturers (REM) suppliers, many with sales in the millions of dollars. In addition, measures of capital and technological deepening within these local firms have risen.

The investments of large international companies examined here, and the clustering of foreign and indigenous suppliers to serve them, frequently exhibit characteristics of agglomeration, specialized inputs and services (many of which enjoy their own economies of scale), labor pooling, and enhanced likelihood of further technological spillovers.

Chapter 5 focuses on the role of export-performance requirements per se in creating such valuable activities, as part of the globalization of the automotive, petrochemical, and electronics/computer sectors. Despite notable differences among the three sectors, these case histories reveal a surprising story: they show export-performance requirements playing a crucial part in impelling international investors (against considerable resistance) to establish sourcing networks that included developing and transition economy sites, with results that benefited not only firm and host-country welfare but global welfare as well. These sourcing networks rapidly generated billions of dollars of sustained new output from hosts in Latin America and Southeast Asia—a far different outcome from the weak streams of artificially supported exports usually depicted as emerging from export-performance requirements.

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But why should host countries in the developing countries and economies in transition have to engage in any intervention at all to become sites for global production? Should their use of export-performance requirements now be rationalized and expanded, using export-related subsidies to foreign investors as a tool to connect to the externality-rich sourcing networks of the parents? Or should hosts in the developing and transitioning world be willing to control and curtail the use of export-performance requirements (perhaps in return for some larger agreements on investment and trade policies)? These questions are the subject of chapter 6.

A first justification for some kind of intervention might spring from evidence of market failure. A puzzling discovery in all three industries is the reluctance of many firms to undertake export-oriented investments even after they had obtained clear evidence that their overall profitability and competitive position could be improved by doing so. This reluctance would then be punctuated by rapid follow-the-leader behavior on the part of many members of the industry once a first mover established a new sourcing pattern.

Chapter 6 examines two possible kinds of market failure. The stickiness in undertaking new investments appears analogous to the lemons problem in used-car economics, where an investor can evaluate a large, indivisible world-scale-sized export facility only by “trying it out,” leading to suboptimally slow learning from the perspective of global welfare (within what the chapter introduces as a framework of irreversible investments under uncertainty). Then, the follow-the-leader behavior may be indicative of appropriability problems, with first movers not enjoying sufficient returns to compensate them for the burden of initial risk.

While neither the identification of possible market failures nor the evidence from the potent employment of export-performance requirements in the cases investigated here suggests that export-performance requirements will always work, they pose a challenge for the design of policy toward FDI. Few authorities in the developing countries and the economies in transition could be expected to ignore that those countries who were able to overcome the international firms’ initial reluctance, and trigger a burst of investor response, found that such efforts paid enormous benefits. The cost of remaining passive and simply waiting for international markets to bring world-scale-sized plants to any given economy, in contrast, was appalling. The export-performance requirements themselves may have been cumbersome and inelegant (cumbersome and inelegant in comparison to the straightforward provision of grants and subsidies to hold established investors or entice new ones by countries that are members of the Organization for Economic Cooperation and Development [OECD], considered next), but the payoff was large indeed.

Complicating the task of designing policy toward foreign investment in world-scale manufacturing operations, a second rationale for possible

intervention on the part of hosts or would-be hosts in the developing countries and economies in transition, on second-best grounds, comes from observation of the growing effort on the part of home countries, once the process of globalization began, to use economic carrots and political sticks to keep already-present firms from moving and to attract new international investment to developed-country sites. The developed countries have escalated the use of locational incentives to more than \$50,000-\$100,000 per job, as calculated by the OECD. There are learned disputes about whether Ireland, the eastern regions of Germany, or individual US states lead in this incentive competition.

But the policy options in response are not appealing. Developing countries and economies in transition have tried, mostly ineffectually, to participate in this race, often turning in frustration at their lack of readily available grant monies to the promise of trade rents to match the subsidy packages in the OECD. A case study in box 6.1 documents the negative consequences of even indirect competition for FDI between Germany's grant of more than \$250 million for an integrated GM plant at Eisenach in the former East Germany and Hungary's provision of more than \$50 million from trade protection for a GM engine plant and associated boutique assembly operation at Szentgotthard near the Austrian border.

A third rationale for possible intervention by developing countries and economies in transition comes from evidence of a counteroffensive on the part of capital-exporting countries against their loss of productive capacity, a counteroffensive that utilizes protectionist and investment-diverting trade measures, most notably rules of origin and antidumping regulations. The deployment of both of these measures has evolved in a discriminatory and demonstrably distortionary manner, skewing trade and investment patterns away from what international comparative advantage would otherwise predict.

Here, too, the temptation to mimic the self-centered and myopic use of rules of origin and antidumping regulations of the developed world does not offer a path that coincides with the long-term interests of the developing countries and economies in transition.

All in all, the setting in which the developing countries and the economies in transition must design policy toward FDI in manufacturing is becoming both more perplexing and more fraught with peril. The evidence from the struggle over valuable externality-rich segments of industrial activity suggests that conventional trade wars are being replaced by investment wars to determine important contours in economic geography around the world.

Extending this perspective, the efforts of diverse countries to hold old or attract new international corporate investment have in fact taken on some of the characteristics of a strategic-trade-like struggle, with less highly stylized visibility than Boeing versus Airbus but no less important

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outcomes for the countries that are players. The use of a strategic-trade framework is more than a theoretical refinement: this struggle has beggar-thy-neighbor features and escalatory dynamics that require supranational consensus to contain. States acting individually may find genuine justification (beyond pure protectionism) for trying to win battles over the location of international firms.

The strategic trade paradigm points, moreover, to the only viable path for resolution of the inherent policy dilemmas: while developing countries and economies in transition might be justified in intervening to attract world-scale-sized manufacturing plants—with means and methods that include export-performance requirements, escalating locational incentives, and self-centered deployment of rules of origin and antidumping regulations—they would be engaging in a struggle that they cannot win and whose outcome their actions would only be likely to worsen. Chapter 6 concludes that their interests would be better served by devoting their energies to efforts to limit and control all forms of investment-diverting mechanisms by all parties.

Chapter 7 shifts the analysis from host efforts to shape foreign-firm operations to host restrictions on foreign ownership, in particular requirements to enter into a joint venture with an indigenous partner. For many kinds of operations, the joint-venture relationship offers benefits to all parties. When the partnership is imposed rather than spontaneous, however, rates of dissatisfaction and instability within three years of start-up are high. US and European parent firms shun joint-venture arrangements when international sourcing, quality control, rapid technological change, and product differentiation are integral to the operations; Japanese firms may now be exhibiting the same tendency.

As for contentions that joint ventures achieve greater technology transfer, expanded access to external markets, and more robust backward linkages to the domestic economy, none is supported by the evidence. Technology transferred to joint ventures is older and speed of upgrading is slower than that transferred to wholly owned subsidiaries. Affiliates that export a large fraction of their output are more likely to be wholly owned; in particular, affiliates incorporated into the especially beneficial global/regional sourcing strategies of the parent and enjoying the integration effect described earlier, are almost always wholly owned. Joint ventures may source more inputs from indigenous firms, but wholly owned affiliates generate more technological, managerial, and export-marketing spillovers for indigenous suppliers (in large part because of the more intimate relationship with the parent corporation).

Contradicting charges that wholly owned affiliates only engage in low-value-added screwdriver operations or that outsourcing represents no more than a relocation of low-wage production, there is extensive evidence—even in electronics/computer assembly—of substantial value added (including responsibility for design and system integration) by the

affiliates themselves and of dynamic coaching, training, and export assistance for indigenous suppliers. Local machine-tool firms working for foreign semiconductor investors in Malaysia, for example, have moved from backyard workshops, through stamping and machining parts, to manufacture of precision factory-automation equipment. These local firms sell first to the nearby investor, then export to other subsidiaries of the same parent, and then export to other buyers in the global industry. Indicators of capital intensity and technological sophistication have risen, and the sales of these indigenous firms, in direct competition with German and Japanese rivals, have increased.

Chapter 8 examines technology-licensing requirements as a substitute for FDI (the so-called “Korea model”). Quite apart from broader questions about the appeal of this development model in light of the Asian financial crisis, the evidence shows that indigenous corporate operations that are built via mandatory technology licensing are likely to suffer the same kind of economic disadvantages as joint ventures: lags in technology acquisition, in best-management techniques, in access to foreign markets, and in development of a competitive supplier base. Even the stylized view of the historical emergence of South Korean electronics firms has to be revised to take note of rather large direct and indirect contributions from FDI and foreign corporate alliances. And enthusiasm for the initial record of South Korean successes must be tempered with consideration of a long history of weak performance in sectors such as chemicals/petrochemicals that have lagged because of the same joint-venture and technology-transfer requirements. Finally, there is the non-trivial issue of diversification, in which the prospects for the South Korean automotive sector, for example, have been tied to the fate of a single national champion, Hyundai (with Daewoo and, as many had hoped, Kia following at some distance) in comparison to the prospects for the Mexican, Brazilian, or Thai automotive sectors where multiple members of the international automobile industry have a large stake.

As for the political benefits from autonomy, the extent to which maintaining ownership in national hands has a legitimate national-security rationale—to avoid monopolistic external suppliers who might delay, deny, or set conditions upon the use of inputs—is quite limited, and the drawbacks in terms of cost and performance that self-sufficiency imposes are quite large.

Protecting and nurturing national-champion firms and industries may be inseparable, moreover, from exposing the economy to the problems of “crony capitalism” that have figured prominently in many Asian countries. Even if political-economic corruption is not evident, however, the creation of national champions as a development strategy is highly problematic. A case study in box 8.1 focuses on Malaysia’s national-champion car company, Proton, a joint venture with Mitsubishi, and shows repeated problems of high cost, lagging technology, and weak

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export performance. This dubious outcome stands in marked contrast to Mexico, Brazil, or Thailand's more favorable record in benefiting from competition among foreign investors in the automotive sector and to Malaysia's own more favorable record in benefiting from competition among foreign investors in the electronics/computer sector.

Chapter 9 devotes special attention to FDI projects in natural resources and infrastructure that suffer from a distinctive kind of market failure involving imperfect contracts. Such projects—Involving large fixed investments with long payback periods that make the stability of the regulatory environment paramount for the success of the venture—are vulnerable to “obsolescing bargain” dynamics, in which hosts do not want to pay a premium reflecting initial risk indefinitely (especially host authorities who are successors to those who signed the initial agreements). Here, investors seldom have control over rapidly changing technology and brand-name recognition that manufacturers in other sectors can wield to protect themselves. They suffer from a structural vulnerability to demands for renegotiation of their investment agreements before they are adequately compensated, leading to undersupply of such investment.

Consequently, there has been a growing role for multilateral institutions (in cooperation with private actors) to help to ensure the credibility of commitments, via insurance and guarantee programs, long enough to make up for imperfections in contract markets but allowing hosts some flexibility to adjust investment terms in line with national treatment after a period of time. A case study in box 9.1, on Broken Hill Proprietary's investment in the Escondida copper mine in Chile, details a pioneering effort to build a network of long-term buyers, export-credit agencies, and private and multilateral financial institutions to deter fundamental changes in the initial 20-year investment agreement.

In synthesizing the policy implications of this research, the concluding chapter points out that what is striking about the new agenda of actions needed to incorporate FDI more effectively into the development process is not only what should be included but what should be excluded.

Host authorities in the developing countries and economies in transition have a great interest in three priorities: first, in helping to make transparent and then limiting locational subsidies and locational incentives around the world; second, in mobilizing a campaign to halt and roll back the use of rules of origin and antidumping regulations to protect producers and divert investment flows; and third, in participating in initiatives within the multilateral financial institutions to enhance the credibility of long-term investment agreements for natural-resource and private-infrastructure projects.

Excluded from the list of desirable policies, indeed dismissed from the list altogether, are domestic-content requirements, joint-venture requirements, and technology-licensing requirements.

Reformers in the developing countries and economies in transition who want to pursue this new agenda will face a steep uphill battle, at home and abroad, but they may be able to mobilize powerful allies to help.

Should they proceed individually and unilaterally or as part of a “grand bargain” with reformers in the developed countries to incorporate tradeoffs among the most objectionable investment-related policies of all parties in a Multilateral Agreement on Investment (MAI) that is broader in scope than the current exercise under OECD auspices?

The analysis of costs and benefits of alternative approaches to FDI undertaken here should assist in rendering several of the more contentious issues of a reconstituted MAI more tractable to negotiation, in particular, national treatment, right of establishment, sector-specific reservations, and national-security exceptions.

Combining concessions on these with demands for reform of locational incentives, rules of origin, and antidumping regulations may start a process that, paradoxically, enhances the chances of success on all fronts.