

Christian Bellak +)

How performance gaps between domestic and foreign firms matter for policy

+) Address: Vienna University of Economics, Department of Economics, Augasse 2-6,
A-1090 Vienna, Austria. E-mail: christian.bellak@wu-wien.ac.at

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Abstract

While public discussion and policy measures focus on performance gaps between domestic and foreign firms, empirical results as well as theory suggest multinationality to be the relevant explanatory factor of performance gaps. The paper identifies key areas, in which performance gaps matter for the impact of FDI: agglomeration effects; spillover effects / linkages; rent shifting effects; competition effects / foreign entry; effects on policy-making / locational competition / rent-seeking. The paper concludes that there is limited argument for discrimination of firms by foreign and domestic ownership, but distinction between multinational and uni-national firms is relevant. Some general lessons and gap-specific policy measures are outlined, which go well beyond pure investment attraction.

Keywords: Foreign Direct Investment; Performance; Economic Policy; Investment Promotion; Welfare; Firm growth; Spillovers; Productivity.

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Introduction

The impact of inward investment on the host economy has been studied widely. It includes aspects of balance of payments, employment, capital stock and resources, transfer of profits and dependence. Part of the impact of inward investment on the host economy stems from the existence of performance gaps between foreign-owned and domestic firms. Such performance gaps have been revealed in areas like productivity, profitability, wages, skills, labour relations, technology factor intensity and growth. The role of such performance gaps for policy have not been addressed systematically in the literature.

Numerous policy measures taken by regional or national governments discriminate between foreign-owned and domestic firms. Such measures are rooted in location policy and investment promotion (e.g. Conyon et al. 2002), others emphasise the necessity to safeguard national sovereignty and still others grow out of national sentiment. Also, public discussion, often oversimplifying matters, develops a "black and white" view of Multinationals, frequently stressing either the good or the bad sides of MNEs, depending on the purpose.

The argument behind these examples is driven by the believe of a generally superior performance of foreign firms *qua* ownership. While the existence of such gaps cannot be denied, their explanation is not so straightforward and simple as the above examples suggest. If this were the case, there would be a simple solution: increase the share of foreign-owned firms and thus compensate for the weakness of the domestic economy. In other words, improve the average performance of the host economy by raising the share of foreign firms. However, the real situation - never *quite* in line with the idealised picture drawn by theory - suggests that matters are more complicated. Complexity emerges for several reasons: First, assuming that foreign-owned firms perform superior in all fields denies the variety and inter-

relationship of the gaps. Second, there are positive and negative externalities from inward FDI (Hanson 2000) and the net effect thus may well turn out to be negative. Besides, there is no single logical argument - apart from differences in corporate governance systems (Buckley, 2000) - that relates to the distinction between domestically and foreign-owned firms.

What is a more realistic view of the policy relevance of revealed performance gaps in economic terms? This paper summarises the main argument how performance gaps matter for policy and why they justify intervention. In other words is it justified to believe that an increase in the share of foreign owned firms will raise average performance and therefore, the attraction of foreign firms is a suitable measure to enhance the performance of the total economy? Only a systematic exploitation of the theoretical and empirical literature on performance gaps allows to design *gap-specific policies* rather than just general policies which have been preached for decades ("build human capital", "lower taxes" etc.). The paper concludes that there is limited economic argument for discrimination of firms by foreign and domestic ownership, but distinction between multinational and uni-national firms is relevant. Some lessons and gap-specific policy measures stimulated by revealed performance gaps are outlined, which go well beyond pure investment attraction.

The paper is organised as follows: First, empirical results of earlier studies are summarised and the quantitative relevance of performance gaps is shown. Secondly, the main theoretical explanations are outlined in brief. Third, key policy areas towards MNEs are discussed and particularly, whether and how performance gaps between domestic and foreign firms matter. There is a short section on policy conclusions.

Empirical results on performance gaps between domestic and foreign firms¹

Empirical studies have repeatedly revealed performance gaps between foreign and domestic firms. The size of the gaps varies and in the majority of studies, foreign-owned firms

perform better than domestic firms (except for profitability), no matter which indicator is analysed. Performance gaps may amount up to several hundred percent of domestic performance, depending on the indicator. For productivity gaps, a range of 20-40 percent is quite common. Mainly productivity (growth) gaps and wage, skill gaps have been studied and the majority of studies is very recent (i.e. post 1995). The studies differ in methodology and whether plant and firm level data are used. The lack of suitable data is still the most serious constraint to empirical analysis. The majority of studies has been carried out in the US and the UK for that reason.

The *central question is whether foreign ownership is an explanatory factor* as often assumed. In most studies ownership explains mostly only a few percentage points of the variance after controlling for other variables. Instead, multinationality of firms turns out to be more important than ownership. This means that gaps arise between MNEs and uni-national firms, be they foreign-owned or not.

The other determinants ("controls") of the gaps are as follows: Industry distribution accounts for the possibility that foreign-owned firms invest in better performing industries (e.g. growth industries). Most studies reveal different impacts according to parent countries. While the parent country effect has not yet been explained on a satisfactory basis, corporate governance, history, legal environment, business cultures etc. may be contributing factors. Besides, firm-specific characteristics (size etc.) are important determinants of performance gaps, which is found to be relevant on the establishment level and on the plant level.

Overall, the empirical evidence points to a limited explanatory power of foreign ownership and the importance of gains from multinationality *per se*. In the following subsection we ask, whether such empirical results are consistent with the theoretical argument of the theory of Multinational Enterprises and FDI.

¹ This subsection is based on a thorough survey of 56 empirical studies by the author published elsewhere. These studies are listed in the

Some theoretical explanations of performance gaps

Two hypotheses have been mainly put forward to explain performance gaps: The first well-established hypothesis argues that firm-specific advantages which allow MNEs to overcome the burden of foreignness in markets abroad constitute the basis of their direct engagement abroad (Dunning 1970, 1977, 1988; Hymer 1976) and of *superior* performance vis-à-vis competitors in the host country. (see Rugman 1980; Buckley 1981; Casson, 1987; Itaki 1991 for critical reviews). The second, more recent hypothesis is based on a "technology-sourcing" argument, which may drive already existing MNEs - lacking firm-specific advantages - to undertake FDI to acquire such advantages. This latter case is indicative of the fact that such MNEs either may have lost their advantages or never had such advantages and thus show *inferior* performance than their domestic counterparts.

Firm-specific advantages

The specific-advantage hypothesis (Caves 1974, 1996; Koutsoyiannis, 1982; Markusen 1995) assumes that foreign MNEs transfer primarily intangible assets to avoid multiple forms of market failure and / or to have competitive advantages in other than technological (e.g. organisational) fields. Such firm-specific advantages, although not directly measurable, should then "materialise" in performance indicators like productivity, wages, profitability etc. on the grounds that they can be denied to competitors and are highly mobile (i.e. transferable at low marginal costs) within the MNE.

A sub-category of this hypothesis is the strategic advantage hypothesis put forward by Acocella (1990), which assumes the firm-specific advantage to be the result of strategic reactions of firms. It is important here, since MNEs have more options of strategic behaviour than uni-national firms.

Firms without advantages

Apart from the above *advantage-exploiting* motives for market-related or efficiency-related FDI, part of FDI is based on the lack of firm-specific advantages. Such FDI is termed *advantage-acquiring* FDI. For example, Fosfuri and Motta (2000) emphasise the empirical importance of such kind of FDI. Inferior performance of foreign MNEs, is, however, hardly found empirically.

We conclude that empirical results are largely in line with the theoretical predictions based on the firm-specific advantage with the exception of "advantage acquiring" FDI (cf. Fig. 1) and this view differs from that of the general public.

*****Figure 1 about here

There are few reasons to view ownership as a central determinant of performance gaps, yet ownership is not totally negligible. After having reviewed the main empirical and theoretical literature, we turn to the question, how performance gaps between domestic and foreign firms matter for policy.

Economic relevance of performance gaps

This subsection identifies key areas in which performance gaps matter in different ways and thus *inter alia* determine the impact of inward FDI on the host country. In general economic terms the importance of the areas is defined by the net outcome of externalities (Hubert & Pain, 2001; Hanson, 2001). Several arguments point to limited influence of policy measures on the gaps.

Spillover effects / linkages

Spillovers are positive or negative externalities arising from inward FDI (Blomström and Kokko, 1998). They may emerge as intra-firm or intra-industry, as inter-firm or as across-industry spillovers (Hubert and Pain, 2001) and may derive from any linkages between domestic and foreign firms. There seems to be a close relationship between the *size* of the performance gap and likelihood that performance gaps translate into spillovers:

At least in an industrialised country setting with high intra-industry FDI, provided that indigenous firms have achieved a certain managerial and technical level, the gaps will be *small*. In such cases, spillovers may even tend to flow from domestic to foreign firms. (Driffield and Taylor, 1999; advantage acquiring motive, see above)

If gaps are of *medium* size, benefits derived from FO firms are likely to be high in terms of technology spillovers, industry composition, rents and competition. The notion of absorptive capacity (see Cohen and Levinthal, 1990) comes to mind here.

If gaps are very *large*, such externalities arise to a small extent. Developing countries, which often lack absorptive capacity, have to reach some threshold of their indigenous sector in order to reap such benefits. Driffield and Taylor (1999) state that in such a case it is likely that domestic firms are unable to assimilate new technologies and therefore, spillovers are unlikely to occur. Even more, local firms may be damaged by the presence of foreign firms (see "competition effect" below).

If spillovers depend positively on foreign ownership ("transfer argument"), industries with a higher share of foreign MNEs should benefit most, while "national / local industries" would lose out with the danger of the emergence of a dual economy. If ownership does not matter, spillovers are possible in all sectors and a rise in the foreign share would not automatically guarantee positive indirect effects.

There are four other points relevant in this context:

- Empirically, positive spillovers are hardly found. See Haddad and Harrison (1993) for a discussion on Morocco.
- The idea of spillovers is based on the idea that FDI leads to growth in the host country. Yet, as e.g. Freund and Djankov (2000, p. 4) argue on the basis of foreign takeovers in Korea "growth induces FDI". Thus, reverse causality has to be taken into account here.
- The local nature of spillovers (see also the next point on agglomeration) has been frequently emphasised (see e.g.; Blomström and Sjöholm 1999: "local participation matters"), which may limit the influence of policy decisions on location decisions of MNEs. (Hanson, 2001)
- The net effect of positive and negative spillovers is difficult to calculate and therefore are optimal subsidies difficult to determine. (See, e.g. the comment on Doms and Jensen, 1998 by Keith Head.)

Agglomeration effects

If foreign ownership determines the agglomeration effects they would arise without the participation of domestic firms and thus may limit inter-firm spillovers and the host-country benefits. In contrast, if it does not matter, whether domestic or foreign firms cluster regionally, foreign firms would contribute just the same firm-specific advantages as domestic firms. Yet, here multinationality is likely to make a difference, since intra-firm spillovers within the network of the MNE will differ from local intra-firm activity of uni-national firms.

Also, if agglomeration effects are of a limited geographical range as is suggested by the local nature of spillovers, gaps among spatially close firms should become smaller over time. Market forces should lead to an outcome, where local concentration of firms attracts new foreign entry (e.g. Head, Ries and Ruckman, 1998 on Japanese affiliates in the US). Also, Mayer and Mucchielli (1998) find spatial and temporal agglomeration of Japanese affiliates.

Large performance gaps between regionally closely located firms should diminish by these "self-reinforcing positive externalities".

Competition effects / foreign entry

An important question is whether foreign entry has positive or negative direct and indirect effects on the domestic firms (Lichtenberg and Siegel, 1987) and whether such effects are stronger if the gaps are larger or smaller.

- Do entrants stimulate competition or do they, by takeovers, contribute to highly concentrated or oligopolistic markets?
- Do foreign entrants crowd-out domestic firms? E.g. Driffield and Munday, 1998 find that foreign entry leads to a profit squeeze in the domestic sector.
- Do MNEs through the creation of linkages, have a positive effect on domestic entry or do they crowd-out domestic firms? Görg and Strobl (2002a) study the Irish manufacturing sector and find a positive effect of the presence of multinational companies on indigenous entry. This is due to the presence of foreign MNEs in the same industry as well as the presence of foreign MNEs in downstream industries.

Here again, the size of the performance gap matters: Girma et al. (2001) suggest that firms with inferior performance may be driven out of the industry, while firms with low technology gaps relative to the technological leaders can indirectly benefit from the presence of foreign firms regardless of other characteristics in the sector. (p. 131) Empirical evidence suggests that highly performing firms are more likely to be taken over. (Mata and Portugal, 2000) Society may benefit from intensified competition.

Rent shifting

Rent extraction by transfer pricing may seriously reduce public gains of host countries and increase the private gains of foreign MNEs. Yet, the possibility to extract rents depends

crucially on the generation of rents from economic activity, i.e. profitability. That foreign-owned firms are often less profitable despite their superior performance in economic terms, points to such rent-shifting activity. Knowledge of such inter-relation between gaps allows important interpretations of firm behaviour. Rent shifting activities as well as the inferior performance of MNEs with respect to profitability on paper imply a limited capacity of host governments to influence the welfare impact.

Effects on policy-making and locational competition / rent-seeking effects

Gaps are attractive for policy makers, since they believe that increasing the share of foreign-owned firms will raise the average performance of the economy. The larger the gaps, the more governments tend to rely on foreign firms to solve their competitiveness problems. Therefore they engage in "locational tournaments" and tend to subsidise inward FDI heavily. This creates several effects with respect to the welfare maximisation in the host economy:

(-) First of all often policy makers assume that the performance gaps are due to foreign ownership, even if this is not the case. They wrongly attract foreign capital, which leads to high opportunity costs, e.g. compared to subsidising growth industries at home.

(-) Second, as Oman (2000, p. 119ff) argues, "evidence also fails to support the hypothesis that more intense policy competition for FDI tends to increase the aggregate supply of FDI. ... However, the causal relationship almost certainly has worked in the opposite direction, i.e. the significant growth of FDI has spurred competition among governments that want to be sure to attract "their share" of that FDI while its growth lasts." Again, reverse causality between FDI subsidies and FDI may imply that the expected welfare effects do not materialise.

(+) Oman (2000, p. 116) convincingly argues that instead of a detrimental race to the bottom, which would not contribute to closing gaps, a positive-sum game with the convergence of and upward pressure on locational advantages might result.

(-) Rent-seeking behaviour of MNEs, knowing that through their superior performance they are attractive to governments, might "bid away most of the benefits after subtracting the cost of the incentive package." (Head, Comment... 1998) Playing-off one government against another one, creates a prisoner's dilemma situation and incentives will be the higher, the more governments expect from MNEs. Such negative effects have been shown, e.g. by Haaland and Wooton (1999) theoretically, namely that subsidy competition transfers much of the rents to the multinationals, and there is also ample empirical evidence (e.g. quoted in Hanson, 2001; Loewendahl, 2001; OECD, 2001; UNCTAD, 1996).

This discussion casts doubt on the fact that the policy competition for sectors, where gaps are large and capital is mobile makes sense in economic turns. The net welfare effect of rent seeking behaviour of MNEs and the lack of policy co-ordination on an international level may well be negative.

Policy Conclusions

The result of the previous discussion provokes the serious question, whether there is any justification for government intervention on the basis of performance gaps at all. Just to mention the problems of reverse causality discussed above. Should governments try to close the gaps? If so, how? All gaps? Is there a welfare problem, if a gap remains / exists for a long time? Positive and negative externalities (i.e. social gains and losses, see Fig. 2) suggest some scope for policy measures.

*****Fig. 2 about here

Generally, theory and empirical studies do not suggest discrimination among firms on the basis of ownership, but by structural characteristics. The fact that MNEs carry these structural characteristics to a considerable extent opens several policy routes. As has been shown above,

the size of the gap plays an important role. As a general argument, policy measures related to gaps are not confined to investment promotion, i.e. there is more policy relevance of the gaps than just the attraction of affiliates.

Thus three general strategies, mutually reinforcing, are available:

A. *Rely more on foreign-owned firms* (increase the share of foreign-owned firms, if the domestic sector is small and weak), stimulate foreign entry. As MNEs are the main vehicles of technology and growth, there is a high possibility of success. This has to be weighed against the danger of losing national sovereignty and scope for policy actions. It is an expensive strategy (the "deepest pockets" will win) and may have detrimental effects on domestic firms.

B. *Concentrate on domestic firms* and do not give preferential treatment to foreign firms.² The larger the gap, the more important the focus on domestic firms. The main advantage is that increasing the absorptive capacity of domestic firms will strengthen the competitiveness of the existing firms and industries in the economy, but it may lose out against other regions / countries in certain growth sectors. Effects will only materialise in the long run.

C. Enhance the *interaction between the two sectors*. The creation of linkages of all kinds and long-term cooperation etc. is one possibility. Certain linkages may arise easier with MNEs' from certain home countries (e.g. cultural closeness), as a result of the home-country gap discussed above.

Assuming that governments' objective is to close the gap, some of the following measures can be introduced. A caveat must be made here that the variety of gaps would afford to design *gap-specific policies* by the nature of the gap, therefore the list is incomplete. A main difficulty is that many location factors a host country is able to offer have a two-way

² This strategy is frequently demanded as the following quote shows: "Foreign firms often feel limited by unfair treatment, but overly positive treatment could also hinder their growth since they would be a target of jealousy from local companies. Accordingly, we need to reduce or eliminate unnecessary favoritism ... tax incentives for foreign investment often fail to generate high rates of return..." etc. (Korean Times, 2002-02-03, [www download](#))

relationship with FDI (e.g. low taxes may not just attract inward FDI, since they are an indication of low-quality infrastructure in the long run).

General Policies (Examples)

Objective 1: Close the gap

- Discrimination on the basis of domestic or foreign ownership is not very important in economic terms, although this distinction could be used as a second-best solution for discrimination between MNEs and uni-national firms, even this would of course exclude domestic MNEs.
- Concentrate on MNEs from certain home countries or industries. Yet, most locations are not in a position to cherry-pick among the "best MNEs" (i.e. the technological leaders, Fosfuri and Motta, 1999, p. 627, Girma et al. 2001, p. 131) from particular home countries (otherwise they would not need to subsidise inward FDI!).
- Concentrate on those gaps with the largest potential of externalities
- How to increase spillovers? Try to diffuse spillovers not just within the foreign sector or between domestic and foreign firms, but also across industries. The spatial dimension of spillovers suggests two sub-strategies:
 - The creation of regional zones where inward FDI clusters may lead to additional benefits for society in the host country. The zones should be populated by strong indigenous firms, so that closeness and size of the gaps have the largest effect. This may, however, increase regional inequality and thus not be sustainable. In such a first-best case, spillovers will not remain within the foreign sector and domestic firms will have the necessary absorptive capacity.
 - Fosfuri and Motta (1999) suggest a possible route for the less advanced country (technology gap) to supply "some national firms with the proper incentives to undertake investments in high-tech regions abroad where they could benefit from

geographical proximity with market leaders." Externalities arising from such activity, is, however difficult to measure in praxi.

- Provide an environment that favours re-investment of rents or at least minimizes incentives to shift rents abroad.

Objective 2: Upgrade the whole economy

- Introduce "after care" programs (e.g. Young and Hood, 1994). As Pearce (2001) argues, in order to reap sustained benefits of inward investors, policies - the so-called "host country drivers" - should encourage and support subsidiary transformation and embeddedness. The resulting "endogenous dynamism in subsidiary / host-country interactions" (ibidem) will ensure that positive externalities are a continuing phenomenon.³ Yet, at high levels of subsidiary embeddedness, when relocation is unlikely due to the many local linkages that would be lost, there is less reason for special subsidiary programmes (the problem, of course, is how to determine the threshold).
- Connected to the previous point, host governments should show strong commitment, yet this factor should not be overestimated (Janeba, 2001; Wells and Wint, 2000).
- Rule-based vs. incentives-based competition: Oman (2000, p. 123f.) argues that the most efficient policy is the former, if it establishes a high degree of stability, predictability and transparency." Besides, to limit incentives competition and its negative welfare effects, in particular vertical competition is important.

Gap-specific policies (Examples)

- Productivity gap
 - Direct: focus on high-productivity and growth industries

- Indirect: incentives for capital-deepening, concentrate policies on sectors lagging behind; change the tax burden of the relevant production factor
- Wage gap / Skill gap
 - Direct: education, human capital formation
 - Indirect: incentives for capital and technology intensive production requires more workers of higher skill
- Strikes / Labour relations
 - Direct: Corporatist attitude of the government toward both "sides" (labour, capital)
- Profitability gap
 - Indirect: promote efficiency-enhancing restructuring

Neither the main economic argument, nor the general policies outlined are new. What is still lacking is a systematic exploitation of the literature on performance gaps in order to design gap-specific policies.

The theoretical concepts and the empirical evidence produced so far provide useful hints towards certain policy measures. The efficient implementation of such measures and the critical evaluation of the measures are pre-conditions for the success of such gap-specific policies.

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³ Precondition is a "mutually supportive dynamic interface between the evolving local sources of comparative advantage and the companies"

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Appendix

Figure 1. Gap between Public Discussion and Scientific Analysis

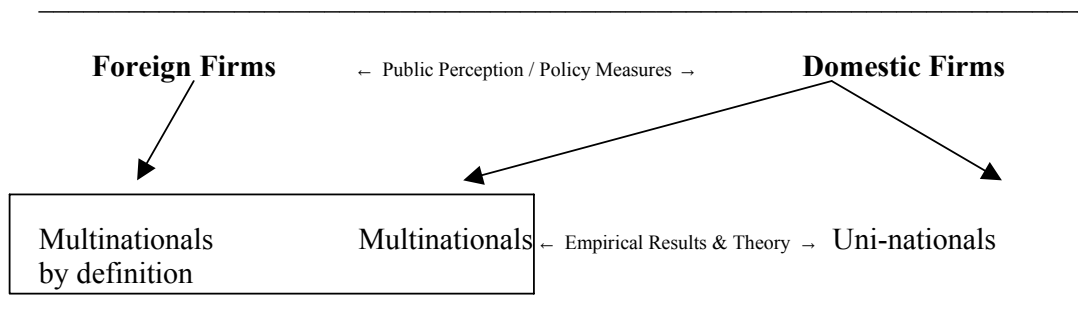


Figure 2. Externalities and Performance Gaps

Positive	Negative
Spillovers of better performing firms to bad performers	Few empirical evidence of spillovers, yet some on negative spillovers
Spatial dimension of spillovers	Discouragement of entry by local firms
Competition enhancing effect	Crowding out of weak domestic firms by foreign entry
Linkage creation	