

# The impact of TRIMs on trade and development

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This article draws from a UNCTAD/ITNCTAD-sponsored study entitled *The Impact of Trade-related Investment Measures on Trade and Development: Theory, Evidence and Policy Implications*,<sup>1</sup> prepared by the author. Trade-related **investment measures (TRIMs)** have become a subject of considerable contention in North-South economic relations. The North argues that TRIMs **cause distortions in patterns** of trade and investment because business decisions on **the part** of TNC's come to be made **on the basis of considerations other than** market forces. The South argues that TRIMs can be useful policy tools to promote development objectives and strengthen trade balances. **The present** article reviews **the principal arguments in** this regard.

The term trade-related investment measures is very broad. There is no commonly accepted method to draw the line among different kinds of measures (in home or host countries) which may affect the location of production and the consequent flows of goods, services, technology and capital among markets. The Uruguay Round of negotiations has produced a list of 14 TRIMs, intended not as a definitive catalogue, but as illustrations of the types of measures to be considered: investment incentives, local equity requirements, licensing requirements, remittance restrictions, foreign exchange restrictions, manufacturing limitations, transfer-of-technology requirements, domestic sales requirements, manufacturing requirements, product-mandating requirements, trade-balancing requirements, local content requirements, export requirements and import substitution requirements. In addition, certain home-country and corporate practices could be considered TRIMs to the extent that they in-

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fluence patterns of trade and investment. If that is done, four broad categories could be distinguished: incentives, performance requirements, corporate measures and home country measures.

### **Characteristics of TRIMs**

Despite the absence of consensus on what constitutes a TRIM, three kinds of TRIMs (domestic-content TRIMs, export-performance TRIMs and trade-balancing TRIMs) have provoked the most intensive empirical examination. A close examination of the principal attempts to document TRIM characteristics yields five conclusions:

- TRIM requirements tend to be concentrated in specific industries, with the automotive, chemical and petrochemical and computer/ informatics sectors leading the list.
- Local-content TRIMs are more frequent than export TRIMs in the automotive industry, with the reverse true in computers/ informatics. In chemicals and petrochemicals both domestic-content and export-performance TRIMs are present.
- TRIM regulations exist in both developed and developing countries, but are more frequent in the latter (although implicit TRIMs may be hidden in the former via "rules of origin" indicating a requirement for domestic content).
- In contrast to the raw numbers of countries with TRIMs, the extent of investment covered by TRIM regulations is heavily weighted towards the developed world. The 20 developed countries with the most extensive presence of TRIM regulations are recipients of \$230 billion in United States direct investment. For example, the comparable figure for the 20 developing countries with the most extensive presence of TRIM regulations is \$30 billion.
- With regard to the actual exercise of local-content or export TRIM mandates, there is wide disparity in the data between firms reporting their third world subsidiaries subject to such TRIMs (approximately 2 per cent to 6 per cent of all affiliates in the most extensive surveys) and the amount of third world investment hypothetically covered

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by such TRIMs (45 per cent to 62 per cent of all investment). Two possible (complementary) explanations find support in the data: first, that the majority of TRIMs on the books are, in fact, discretionary and negotiable, and are often not required; and second, that many TRIMs are redundant in the sense of simply accelerating the firms' plans to develop local suppliers and enter export markets.

### **Theory and evidence**

TRIMs are one area of economic analysis in which theoretical considerations have crucial relevance. In the neo-classical paradigm, under assumptions of perfect competition, TRIMs are clearly distortionary to patterns of trade and of development. A TRIM requirement which mandates a certain amount of domestic content on the part of foreign investors, like any other form of import protection, raises the cost of production to the subsidiaries upon which it is imposed, reducing consumption and withdrawing resources which could be more productively used elsewhere in the economy. Even export-performance TRIMs are likely to worsen rather than improve the host country's trade balances. Within the neo-classical model, output costs in the local market must, by definition, be higher than world prices or else domestic subsidiaries of foreign corporations would be exporting on their own. Consequently, with the export requirement must come a public subsidy to induce the firm to respond, imposing a tax of sorts on the public and further reducing consumption. The subsidy then draws more resources into the inefficient sector, intensifying the misallocation of resources in the first place [Grossman, 1981].<sup>2</sup> Finally, since TRIMs should produce abrupt shifts in firm behaviour under competitive conditions, the world trading community has an interest in proscribing them.

In recent investigations associated with strategic trade theory, in contrast, assumptions about perfect competition are relaxed

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z. On the other hand, less developed countries frequently face a tariff structure which discriminates against processed raw materials. In such a situation, export incentives could be needed to offset such discrimination, as in the case of the protection of plywood manufacture in the Republic of Korea. The outcome could be a more efficient allocation of resources internationally with the export TRIM than without.

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[Krugman, 1986]. Under conditions of oligopoly in the industries where transnational investment takes place, public policy interventions can shift rents and producer surplus to countries where the investment is located. When there are increasing returns to scale and dynamic gains from learning, strategic trade theory shows that the distribution of international production and trade is much less even than traditional trade theory suggests, with public-policy-driven scale economy specialization overlying a comparative-advantage base. In industries with multiple operating sites of roughly comparable end-of-learning-curve costs (and/or where the cost of finding the optimal site is high in comparison to the operating cost differential), activist hosts win out. States which misconstrue the industries as having neo-classical properties, in contrast, and wait passively for markets to work on their own, lose.

Drawing on a simple model from Paul Krugman to illustrate a public-policy perspective for oligopolistic industries with increasing returns to scale, the study demonstrates formally that there is a substantial dimension of rent-and-producer-surplus (gains for infra-marginal workers and suppliers) which any given host and all other potential hosts have an interest in procuring for themselves [Krugman, 1989].<sup>3</sup>

rent-and-producer surplus, domestic-content and export-performance TRIMs are probably not the first-best tool. An approach using TRIMs which threaten exclusion from the local market unless export targets are met may have special advantages, however, *vis-a-vis* TNCs with high exit costs in the home country (including the opposition of organized labour), a preference for risk aversion, and rigidities in altering established patterns of intra-firm trade.

One must be careful not to take this cautious appraisal of the use of TRIMs as policy tools, however, as an endorsement of trade protectionism. As Jagdish Bhagwati points out, even in industries with relatively few large players, trade liberalization is one of the most effective methods of stimulating competition; trade protection, in contrast, is likely to solidify non-competitive behaviour [Bhagwati, 1988]. David Richardson (1989) has documented the fact that constraints on trade under conditions of imperfect com-

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<sup>3</sup> Martin Richardson helped in the modification of the model.

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petition lead to losses in efficiency two to three times as great as under perfect competition. As a general proposition, therefore, trade liberalization still makes good sense.

Turning from theory to evidence, three layers of data are examined in the study: on industry structure, on firm response to TRIMs and on the economic impact of TRIM requirements. After noting that all the principal explanations for foreign direct investment [Hymer, 1976; Kindleberger, 1969; Vernon, 1966; Caves, 1971, 1982; Williamson, 1985] depend on the presence of imperfect competition, the actual examination of the structure of industries in which transnational direct investment takes place confirms the existence of high concentration ratios both in the home countries, where it originates, and in the host countries, where it terminates. The United States, the United Kingdom, France and Germany, for example, exhibit a significant correlation between degree of oligopoly and outward investment; Brazil, Mexico and other receiving States have more than 80 per cent of direct capital inflows in sectors where the four-firm concentration ratio is higher than 50 per cent. As a result, there is simply no empirical support for using the neo-classical paradigm to characterize industry structure in areas where foreign direct investment predominates. That conclusion introduces the possibility that TNCs will have discretion (choice) about the location of production, the selection of inputs and the marketing of output which would be absent under perfectly competitive conditions, and fits with evidence of "stickiness" in disrupting intra-firm relations among fixed facilities. The magnitude of the stickiness problem should not be underestimated, since intra-firm trade ranges from one quarter to three quarters of all manufactured exports from third world economies.

The data on firm response to TRIMs come from investigations which ask how corporate behaviour would change if TRIM investment packages (including, in many cases, trade protection) were eliminated. This methodology should tend to exaggerate firm response (and overstate the importance of TRIMs in altering trade patterns), since firms were invited to recalculate their activities in the absence of TRIMs while all other policy interventions on the part of non-TRIM-using Governments remained in place. But all such investigations report that changes in international corporate

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operations attributable to TRIM requirements were relatively small. TNCs were not jerked or twisted about by TRIMs, as alleged by those concerned that TRIMs might pose a threat to the stability of the international trading system. In the light of this finding, the contention that TRIMs constitute a high-priority trade policy issue runs quite a bit ahead of the data.

At the margin, however, there were consistent reports of competition among potential hosts, especially in footloose industries (with "footloose" apparently referring to the multiple-comparable-cost site phenomenon mentioned earlier). In this competition among would-be hosts, the firms reported that developed countries used investment incentives with much the same effect as the use of TRIMs by developing countries (cash grants in Ireland for operations larger than the Irish market having the same impact as export-performance TRIMs).

Focusing on the economic impact of TRIMs on the allocation of resources, there is a noticeable lack of careful case studies at the micro level. Looking at what evidence is available in three sectors (automotive, petrochemical and computer/ informatics), the study found two distinct outcomes. On the one hand, TRIM failures, in all three sectors, were associated with the sub-economic size of operation, subsidies to compensate investors for high-cost operations and shelter from competition. On the other hand, TRIM successes, again in all three sectors, were associated with economic size (full utilization of economies of scale); subsidies aimed at facilitating corporate exit and adjustment and at compensating for initial risk and uncertainty and subsequent exposure to competition in world markets. The divergent outcomes support the view that TRIMs, like other public-sector interventions in imperfect markets, enhance resource allocation if they help all potentially comparable locales utilize foreign investment to penetrate global markets, but detract if they merely insulate high-cost operations from competition.

## Conclusions

How one judges the use of TRIMs as a tool for development or trade policy depends centrally on the assumptions about industry

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structure. Under conditions of imperfect competition, the greatest potential benefit of domestic-content TRIMs resides in situations where foreign subsidiaries producing final products exercise monopsonistic power to drive down the price received by competitive domestic-input suppliers, with consequent underconsumption of local components [Martin Richardson, 1991]. A local-content TRIM can compensate for the foreign monopsonistic-induced distortion, increasing host-country economic welfare. There are substantial complications, however, in trying to match a domestic-content TRIM policy to situations which diverge from the highly stylized ideal usage. An endorsement of domestic-content TRIMs carries the threat that there could be a "contagion" of usage for import-substitution reasons, which would hinder development efforts.

Export-performance TRIMs (including trade-balancing requirements), in contrast, offer a broader array of development benefits if they serve to "fix" world-scale production within the host's jurisdiction for an industry with increasing returns to scale. The result may be not only the shift of rents-cum-producer-surplus to the host economy, but also, following the analysis of Elhanan Helpman and Paul Krugman in the strategic trade literature [Helpman and Krugman, 1986, chapter 11], the creation of "industrial complexes" with forward and backward linkages in non-traded intermediate goods which also enjoy increasing returns to scale. The study documents that phenomenon for the Mexican automobile industry. To obtain development benefits, an export-performance TRIM is not as efficient as a straightforward production subsidy: a production subsidy collects the inducement fee paid to the firm from taxpayers at large; an export-performance TRIM (offering access to a protected market, for example, in return for a target amount of exports) collects the inducement fee solely from local consumers of the product.

The study poses the following question: Why would a development strategist recommend an export TRIM? The answer depends upon whether the granting of production subsidies to foreign investors (running to \$100 million-\$300 million per plant in the advanced industrial nations) is economically feasible and politically acceptable in a third world context. In addition, the explicit quid

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pro quo associated with the TRIM may carry economic and political advantages (such as defusing domestic criticism which might accompany a large on-budget subsidy to a foreign firm). The shock value of threat of loss (of access to a protected market) with promise of gain (from exporting from a world-scale-sized facility) may help overcome intra-firm rigidities and risk aversion. Finally, in the arena of negotiating tactics, a list of TRIM requirements on the books may permit a host authority to act as a discriminating monopolist, offering a concession on an obligation of relatively high distaste to a foreign firm in return for a commitment of relatively high desirability to the country. Overall, however, the study concludes that export-performance TRIMs remain an imperfect development tool in the world of imperfectly competitive foreign investors.

With regard to trade policy, the debate about whether TRIMs are distortionary is more complicated than conventional wisdom suggests. With developed countries, as well as developing countries, vying to establish world-scale production facilities on their territory, to single out one kind of locational policy while leaving all other locational policies in place would itself be distortionary. What is needed instead is a more balanced approach incorporating all locational policies affecting transnational investment patterns.

To reinforce that point, the study draws on a technical evaluation of the comparability of alternative forms of public intervention on investor profitability when the investor compares one site with another. Using new analysis by Stephen Guisinger (1989), the study examines the interchangeable relationship between effective rates of protection (the incentive associated with TRIMs) and fiscal incentives (which affect the "rental cost of capital" or the "marginal effective rate of taxation"). Besides demonstrating the comparability between TRIM investment packages and measures such as cash grants or tax breaks, the study documents the substantial dimensions of locational inducements currently offered by European and United States state governments to attract (for example) automobile, petrochemical and computer facilities. European Governments offer cash grants up to 60 per cent of the cost of the entire investment; United States state governments have given as much as \$325 million per project or \$108,000 per job to foreign firms. While

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no explicit domestic-content or export-performance regulations are involved, it would be disingenuous to argue that such efforts were not "trade-related investment measures". The Federal Reserve Bank of St. Louis has already found a positive statistical correlation between the expenditures of individual United States states for international investment promotion and exports from those states [Coughlin, 1988]. No less real is the import substitution dimension of such policies among the developed nations. The trend, moreover, is worrisome. Average state expenditures in the United States to induce inward investment and to promote exports has grown over the last decade by more than 600 per cent. In the European Community, some members, led by Germany (which has traditionally urged a cap on locational incentives), are considering an expansion of regional inducements to the eastern part of Germany, Czechoslovakia, Hungary and Poland.

In the Uruguay Round, the negotiations have focused narrowly on efforts to control, reduce and prohibit TRIMs. This one-sided effort is hardly consistent with a more broadly needed balanced approach to locational incentives. In addition to being unfair to the developing world, the approach is itself distortionary: it seeks to proscribe the kind of investment packages most compatible with third world circumstances, while leaving the investment packages of the developed world intact. Moreover, even on its own terms, the effort could be counter-productive if it simply moved conditional incentive packets from published regulations to negotiations behind closed doors. More beneficial would be an attempt to achieve multilateral agreement to limit all locational incentives. The result could be a mutually advantageous cease-fire in the drift towards "investment wars", which is afflicting all States, North and South, with increasingly intensity. ~

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### References

- Bhagwati, Jagdish (1988). *Protectionism*. Cambridge, Massachusetts: The MIT Press.
- Caves, Richard E. (1971). International corporations: The industrial economics of foreign investment. *Economica*, 38, pp. 1-27.

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- (1982). *Multinational Enterprises and Economic Analysis*. Cambridge: Cambridge University Press.
- Coughlin, Cletus C. (1988). The competitive nature of state spending on the promotion of manufacturing exports. *Federal Reserve Bank of St. Louis* (May/ June), pp. 34-42.
- Grossman, Gene (1981). The theory of domestic content protection and content preference. *The Quarterly Journal of Economics*, 96 (November), pp. 583-603.
- Guisinger, Stephen (1989). Total protection: a new measure of the impact of government interventions on investment profitability. *Journal of International Business Studies*, 20 (Summer), pp. 280-296.
- Helpman, Elhanan, and Paul Krugman (1986). *Market Structure and Foreign Trade: Increasing Returns, Imperfect Competition and the International Economy*. Cambridge, Massachusetts: The MIT Press.
- Hymer, Stephen H. (1976). *The International Operations of National Firms*. Cambridge, Massachusetts: The MIT Press.
- Kindleberger, Charles P. (1969). *American Business Abroad: Six Lectures on Foreign Direct Investment*. New Haven: Connecticut: Yale University Press.
- Krugman, Paul (1986). *Strategic Trade Policy and the New International Economics*. Cambridge, Massachusetts: The MIT Press.
- (1989). New trade theory and the less developed countries. In *Debt, Stabilization, and Development*, Guillermo Calvo, ed. Cambridge, Massachusetts: B. Blackwell for WIDER.
- Richardson, J. David (1989). Empirical research on trade liberalization with imperfect competition: a survey. *OECD Economic Studies*, 12 (Spring), pp. 7-50.
- Richardson, Martin (1991). The effects of a content requirement on a foreign duopolist. *The Journal of International Economics*, 31 (August), pp. 143-151.

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UNCTC/UNCTAD (1991). *The Impact of Trade-Related Investment Measures on Trade and Development: Theory, Evidence and Policy Implications* (forthcoming).

Vernon, Raymond (1966). International investment and international trade in the product cycle. *Quarterly Journal of Economics*, 83 (February), pp. 190-207.

Williamson, Oliver E. (1985). *The Economic Institutions of Capitalism*. New York: The Free Press.