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Department of Economics
The University of Michigan
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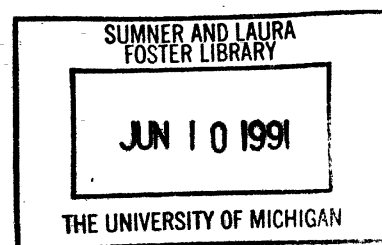
SEMINAR DISCUSSION PAPER NO. 267

Robert M. Stern (Editor)

"Introduction and Overview"
Symposium on TRIPS and TRIMS in the Uruguay Round:
Analytical and Negotiating Issues

Forthcoming in *The World Economy*

Papers by Alan V. Deardorff, Arvind Subramanian, Rachel McCulloch, Keith E. Maskus and
Denise R. Eby.



Symposium on TRIPs and TRIMs in the Uruguay Round: Analytical and Negotiating Issues

Introduction and Overview

Robert M. Stern

THE Uruguay Round negotiations included three 'new' agenda items — trade-related intellectual property rights (TRIPs); trade-related investment measures (TRIMs); and services — that had not been covered explicitly in previous GATT negotiations. While services issues have attracted a good deal of analytical attention, this is much less the case for TRIPs and TRIMs. In an effort to further the understanding of TRIPs and TRIMs, a study group was organised in 1988 to address the important issues. This effort was supported in part by grants from the Canadian Donner Foundation to the Centre for the Study of International Economic Relations of the University of Western Ontario and the Ford Foundation to the Institute of Public Policy Studies of the University of Michigan.

Besides myself, the original members of the study group included Alan V. Deardorff (University of Michigan), Keith E. Maskus (University of Colorado), Rachel McCulloch (Brandeis University), and Deborah Hurley (OECD Secretariat). The members of the study group had the benefit of discussing their work in progress at a one-day meeting convened in Washington, D.C. in April 1989. This meeting included several staff economists from US Government agencies and the World Bank as well as some economists from universities in the Washington area and from the Institute for International Economics. Many useful comments were obtained from those present.

We had planned originally to publish the study group papers in book form, but changes in commitments of some of those involved made this infeasible. It was decided accordingly to publish four of the study group papers as a symposium in

ROBERT M. STERN is Professor of Economics and Public Policy in the Department of Economics and Institute of Public Policy Studies, The University of Michigan, Ann Arbor, Michigan, USA.

The World Economy. The papers on TRIPs include one by Alan V. Deardorff and another by Arvind Subramanian (GATT Secretariat) which was specially commissioned for the symposium, and papers on TRIMs by Rachel McCulloch and Keith E. Maskus. As an aid to the reader, it may be useful to summarise some of the main points that are made in these symposium papers.

In his paper on TRIPs, Deardorff discusses the welfare effects of extending patent protection to parts of the world where it is not now provided. Such extension of patent protection is one of the objectives of the larger negotiations on TRIPs in the Uruguay Round. Deardorff argues, based in part on a theoretical model which is elaborated in a separate paper, that extending patent protection to all countries of the world is unlikely to be globally optimal. He suggests instead that at least the poorest of developing countries should be exempted for this process.

This conclusion is based on considerations of both equity and efficiency. Extending patent protection to a country that does not now provide it, but enjoys free access to the products of invention elsewhere, creates several benefits for the part of the world where the invention takes place. These include both increased monopoly profits and access to additional invented goods. In the country to which patent protection is extended, however, while there is the benefit of additional inventions, there are also costs in the form of monopoly profits paid to inventors and distortion of consumer choice due to monopoly pricing. If patent protection were extended to all countries of the world, Deardorff argues that these costs would outweigh the benefits from the world point of view, so that global patent protection should be rejected on efficiency grounds. Further, since patent protection also involves a substantial transfer of welfare from the developing towards the developed world, equity considerations suggest that it should be the poorest of developing countries which are exempted from extended patent protection.

In his companion paper on TRIPs, Subramanian traces the evolution of intellectual property (IP) as a trade issue. He notes the developed country disappointment with the World Intellectual Property Organization (WIPO) in providing for greater IP protection and the hope that the GATT would become a more effective vehicle for such protection. At the same time, he observes that US IP-related actions have been initiated bilaterally against several developing countries under Section 301 of the US trade law, with the consequence that the multilateral process has been bypassed and possibly undermined.

The TRIPs negotiations in the Uruguay Round concern such issues as standards or norms of IP protection, enforcement, basic principles such as most-favoured nation and national treatment, dispute settlement, and transitional arrangements for developing countries. While the developed countries have some interests in common in the TRIPs negotiations, Subramanian argues that the issues are best viewed from a North-South perspective, with high tech, luxury goods, and entertainment industries in the developed countries pursuing an IP agenda designed to protect what they view as their rights.

Subramanian analyses the welfare consequences of higher IP protection from the national and global standpoints, using a framework similar to Deardorff's. He contends that the most empirically plausible situation is one in which there is a small developing country that is capable of copying the technology or products for which IP protection is being sought. He notes in this case that there is a congruence of producing and consuming interests in countries where imitation is possible, and that, since the countries are small, IP protection is not needed insofar as there is unlikely to be a detrimental effect on R&D in the developed countries. He concedes that a case can be made for greater IP protection when there is a large country, a need to protect the transfer of technology, or discrimination in favour of domestic producers. Nonetheless, there is a distinct possibility that higher IP protection could reduce global welfare and have adverse distributional consequences. By including TRIPs in the Uruguay Round negotiations, there was a possibility of designing tradeoffs to compensate developing countries that might be adversely affected by granting greater IP protection. But it appears, according to Subramanian, that US bilateral actions may have preempted the potentially successful workings of the GATT multilateral process.

In her paper on TRIMs, McCulloch notes that there has been increasing use of investment policies that have combined incentive measures with operating restrictions on investment. This complex of investment policies is intimately bound up with questions of national sovereignty and with strategic decision-making on the part of imperfectly competitive multinational firms. The TRIMs negotiations in the Uruguay Round are ostensibly focused on the trade effects of investment policies. But McCulloch argues that the empirical evidence on the trade distorting effects of the investment policies is by no means clear, and, further, that the policies are complicated depending on whether they have an impact on the distribution of rents between firms and host countries or the allocation of resources in production and trade. She concludes therefore that the TRIMs negotiations may be too narrowly conceived, and that national investment policies need to be addressed in their own right either in GATT or in some alternative forum.

Maskus and Eby also note the complexity of the policy objectives and definitions of TRIMs and the consequent difficulties that may be encountered in achieving a multilateral agreement on TRIMs in the Uruguay Round negotiations. The difficulties arise from the fact that while many of the developed countries seek to improve the access of their domestic firms to foreign markets, host developing countries are at the same time straining to protect themselves from perceived loss of sovereignty and from restrictive business practices which may accompany inward direct investment. Granted all of this, Maskus and Eby argue in favour of a limited agreement on TRIMs which would have somewhat narrow coverage and limited country membership. Their hope is that this would serve to sensitise GATT members to the harmful welfare consequences of TRIMs and possibly lead to further negotiations and liberalisation.

Maskus and Eby note that there are narrow and broad definitions of TRIMs, with the spectrum including: (1) local content requirements; (2) export performance requirements; (3) trade-balancing requirements; (4) product mandating; (5) domestic sales requirements; (6) manufacturing limitations; (7) technology transfer and licensing requirements; (8) remittance limitations; (9) local equity requirements; and (10) investment incentives. It is important to distinguish both the direct and indirect trade impacts of TRIMs, which is unfortunately difficult to accomplish. Nonetheless, they argue that there is ample justification for international concern since TRIMs are imposed in an often arbitrary and discriminatory manner and without adequate political controls. If an agreement on TRIMs is possible, it should recognise the pertinence of a number of the existing GATT articles, the need for new GATT disciplines and procedures, and provide for the special circumstances and interests of developing countries. Perhaps the most realistic outcome of the Uruguay Round is for a TRIMs code that would have strong disciplines for the signatory nations and yet provide incentives for others to join eventually as the benefits of greater and more efficient international investment could become available to them.

These symposium papers on TRIPs and TRIMs are by no means the last word on the subjects. Nonetheless, they should prove valuable insofar as they clarify many important analytical and negotiating issues and problems that have arisen in the context of the Uruguay Round negotiations and no doubt will continue to be addressed in the future.

Should Patent Protection Be Extended to All Developing Countries?

Alan V. Deardorff

1. INTRODUCTION

THE Uruguay Round has extended the scope of GATT multilateral trade negotiations well beyond the tariffs that had occupied most previous negotiations.¹ In addition to various non tariff barriers (which had also been dealt with to a degree in the Tokyo Round, as discussed in Deardorff and Stern 1983 and 1986), the Uruguay Round dealt with issues of trade in services, international investment, and intellectual property. Since these 'new issues' have conceptually quite different characteristics than the tariffs of previous negotiations, it is appropriate to examine them afresh to determine whether the objectives of the Uruguay Round negotiations can be considered economically sound. This paper describes such an analysis for a particular aspect of the intellectual property negotiations — patent rights — and in the process voices some skepticism about this aspect of the Uruguay Round's objectives.

Inclusion of 'Trade Related Intellectual Property' issues, or TRIPs, in the Uruguay Round agenda was done largely at the insistence of the United States. Firms in the United States have long been concerned that their position at the cutting edge of technological progress was being eroded by unauthorised copying of their intellectual property elsewhere in the world. While export of such 'copied' products back into the United States might be restricted under US law, this would provide little help in competition with the 'pirate' firms in third-country markets.

ALAN V. DEARDORFF is Professor of Economics and Public Policy in the Department of Economics and Institute of Public Policy Studies at the University of Michigan, Ann Arbor, Michigan, USA.

¹ This paper reflects and draws upon the analysis in Deardorff (1990), which was originally written under the title, 'Should Patent Protection Be Extended to All Countries?' I have benefited from the comments of the many individuals cited there, whose names I will not repeat. The present paper has also benefited especially from the comments and suggestions of Robert M. Stern and John Whalley.

And it would provide no help at all in the countries of the copying firms themselves, since these countries typically have not honoured or enforced US concepts of intellectual property rights. Therefore there has been a sizable US constituency in favour of extending US ideas of intellectual property to the rest of the world. The negotiations under the Uruguay Round were intended, at least by the United States, to achieve this objective.

2. SHOULD THE GATT BE INVOLVED?

Early in the debate, there was some question as to whether the GATT was an appropriate place to raise issues of international intellectual property. These issues have, since 1970, been under the jurisdiction of the World Intellectual Property Organization (WIPO), and many developing countries especially argued that WIPO should remain their sole arbiter. They feared that under GATT their powers would be diminished relative to the industrialised countries, which of course was exactly the reason that the United States and other industrialised countries wanted to move the issue into GATT. More to the point, it was argued that intellectual property issues are not directly issues of trade or of trade barriers, and hence they are not appropriate to the underlying mission of the GATT. It was for this reason that the Uruguay Round negotiating group was charged to deal, not with intellectual property issues generally, but only with 'trade related' ones, hence TRIPs. In practice, of course, in an interdependent world economy just about anything is trade related in some way, and the negotiations have dealt with intellectual property protection quite generally.

As its name suggests, intellectual property 'protection' is a surprising issue for the GATT to be dealing with in another way. That is, on issues of commercial policy, the GATT's mission has always been to prevent, or at least to circumscribe, countries' efforts to 'protect' their domestic industries. Now, in the TRIPs area, the GATT is being called upon to extend protection, not restrict it. Of course the concepts of protection are different in the two cases. Proponents of the TRIPs negotiations would argue that protection of intellectual property is needed to permit the owners of that property to export the products that embody their innovations. Therefore intellectual property protection, despite its name, is said to be pro-trade.

On the other hand, one could also take the view that the GATT's mission has been to promote the free international flow of goods in trade, and that if that mission is indeed extended to intellectual property, it should also promote the free international flow of ideas. From that perspective, again, the goal of the Uruguay Round negotiations in restricting this free flow may be viewed as perverse.

I should note that proponents of intellectual property protection also argue that such protection actually enhances the international dissemination of ideas. By granting and enforcing patent rights internationally, for example, owners of the

patents will no longer be forced to keep the details of their inventions secret, and indeed they will be forced to make them public as part of their patent applications. Thus the knowledge itself will indeed be disseminated more freely, not less, and it is only the use of this knowledge that will be restricted. For the purpose of this paper, I will assume that access to knowledge without the ability to use it provides no economic benefit, although I acknowledge that this is not always the case.²

3. ARE THESE REALLY RIGHTS?

Before turning to a discussion of the costs and benefits of intellectual property protection, I should first ask whether intellectual property rights are really 'rights', in the same sense as the basic human rights that modern societies now appropriately defend. If intellectual property rights are human rights in this sense, then the costs and benefits of protecting them are less of an issue. One might still ask whether it makes sense to broaden the scope of the GATT to defend human rights, but one could agree that some international agency should be charged with the task.

Proponents of intellectual property protection in the industrialised countries often speak of them in these terms. Just as one is entitled to the fruits of one's labour — and we therefore outlaw slavery — one is also entitled to the fruits of one's creative activity. Violators of intellectual property rights are spoken of in pejorative terms, as pirates, counterfeiters, and thieves. Lobbyists for intellectual property protection report the economic 'losses' due to the absence of this protection, measured as the sales that, say, patent owners could have made in countries without patent protection, without even raising the question of whether they were in any sense entitled to these sales.³

Yet there are several reasons to be skeptical that intellectual property rights should enjoy the same status as basic human rights, or even as other property rights.

First, as is the case with certain other property rights, our conception of intellectual property rights is largely culture specific. In the traditional Chinese culture, for example, there is nothing onerous about copying another's artistic creation. On the contrary, copying an artist is the highest compliment one can pay him. As I understand it, this attitude also carries over to other forms of intellectual property, such as the written word. I do not know, unfortunately, the traditional Chinese attitude towards patent rights.

² For example, if one is engaged in innovation, then knowledge of the details of other innovations can be quite helpful as a guide to new ones. Since I will be discussing extension of patent protection to countries where, by assumption, inventive activity is not being undertaken, this consideration will not arise.

³ These 'losses' are often also exaggerated. That is, it may be assumed that all illegal sales replace legal sales, unit for unit, even though legal sales would presumably be at a higher price and hence a lower quantity. And the total value of lost sales is typically taken as an economic loss, without deducting costs.

Second, even in Western culture, rights to intellectual property extend only to particular forms of creative activity, and as new forms appear they are not automatically covered, but are subject to negotiation. In US law, for example, ideas cannot be copyrighted. It is only the expression of ideas, in written or other form, that is protected by copyright, and it is only the embodiment of ideas in physical products or processes that is protected by patents. Implicitly our culture recognises that not all creations are the property of their creator. Instead we appear to have determined which creations to protect, and which not, on more practical grounds.

Similarly, even for those categories of intellectual property that our culture and our laws do choose to protect, we do not provide that protection in an unlimited way. This is most obvious in the case of patents, which are granted for only a limited number of years. Even this number, which is 17 in the United States, differs from country to country, again presumably on practical grounds. There is surely nothing in philosophy that would grant an inventor an inalienable right to his invention for exactly 17 years, and then remove that right completely thereafter. Instead, implicitly again, we seem to recognise that there are both costs and benefits associated with patent protection, and that balancing these costs and benefits requires that we extend patent protection for a while, but not indefinitely.

I will argue that the same sort of tradeoff of costs and benefits may apply geographically, as well as over time. There are indeed benefits from a certain amount of patent protection that outweigh their costs, and these benefits suggest that we grant an inventor an exclusive market for his product. But this exclusive market need not be unlimited, either in time or in space, in order to generate some return on the invention. Whether the extent of this market should be limited, or not, ought to depend on a weighing of the costs and benefits to the world as a whole, and this calls for the sort of analysis that is described below.

In any case, it seems clear that our society has already accepted the argument that costs and benefits matter, and that unlimited intellectual property protection is not an inalienable right. It remains to be seen what these costs and benefits are and how they may best be balanced.

Costs and benefits matter in two ways. First, taking the perspective of the world as a whole, if the costs of extending intellectual property protection exceed the benefits, then extending it is inefficient and should be rejected from a world welfare point of view. Second, when the incidence of these costs and benefits is not uniform, with the costs instead being borne disproportionately by one group in society and the benefits largely accruing to another, then the distributional implications of extending intellectual property protection should also be considered. I will argue first that, taking the world point of view, extension of intellectual property protection to the entire world is inefficient. Therefore, if such protection is extended beyond the countries that currently provide it, the process should stop short of covering the entire world. In addition, taking distributional considerations into account, I will also argue that the appropriate countries to be left out of a

system of otherwise global intellectual property protection should be the poorest of developing countries.

I shall restrict attention in the remainder of the paper to patent protection, leaving aside the other two major categories of intellectual property protection: copyrights and trade marks. I do this in part for simplicity of exposition. But I also do it in recognition that the case for these other two forms of protection as fundamental rights may rest on firmer foundations. Abuse of trademarks, for example, may be condemned as simply being deceptive, and therefore trademarks might be defended by law along with other forms of truth in packaging.⁴ And in a different sense, we seem to recognise a writer's inherent claim to the product of his work on a more unlimited basis than a patent, when we grant copyrights that are renewable for the lifetime of the author.

4. COSTS AND BENEFITS OF EXTENDING PATENT PROTECTION

If there were no patent rights at all or any other means for an inventor to secure a return to invention, such as trade secrets or a government subsidy to research, there would presumably be nothing invented.⁵ Inventors and the public both would lose. The inventor would lose the profit that could have been collected from selling the invention to the public. The public would lose the consumer surplus from consuming⁶ or otherwise using the invention.⁷ Thus, in a sense there are no costs, and only benefits, to introducing a system of patent protection.

However, once a limited system of patent protection is in place, providing inventors exclusive rights to sell their inventions to a certain market that is limited either in time or in space, then there are indeed both costs and benefits to extending that protection to a larger market. Both arise from the fact that patent rights grant the patent holder the right to charge a monopoly price, or to collect the rents from charging such a price by licensing someone else to do so. On the one hand, the

⁴ Or perhaps, this is not so much a matter of fundamental right as just a case where benefits so clearly outweigh costs.

⁵ I ignore the very real possibilities that inventors do it just for the fun, for the glory, or for the altruistic motive of benefiting civilisation. Many inventions undoubtedly have appeared for these reasons, though even these, at the margin, might have been further stimulated by an economic incentive. Given my purpose of arguing for limitation of patent protection, such motives would only strengthen my case.

⁶ For simplicity of exposition, I will usually assume that the invention is a final good. Inventions of intermediate inputs and process innovations can be handled similarly, though it is then necessary to work through the markets of the goods they help to produce to get to the consumer surplus, and there is the additional possibility of imperfectly competitive downstream producers capturing part of the surplus. See Chin and Grossman (1990) for an analysis of process innovation that reaches some of the same conclusions that I describe here.

⁷ Loss to consumers assumes, of course, that the inventor would not have succeeded in pricing as a perfectly discriminating monopolist, and hence in extracting all of the potential consumer surplus.

monopoly profits add to the incentive to invent, and this will in general lead to a larger amount of invention taking place. This is a benefit, so long as the level of invention is already suboptimal, which in general it will be. On the other hand, the monopoly price distorts consumer choice, and this leads to a suboptimal quantity of invented goods being consumed. This is a cost, so long as some positive amount of invention would have taken place without extending the market.

To elaborate a bit, suppose first that there is only a single market, and that patent rights are granted for all of it. The monopoly profits from serving that market will induce a certain amount of invention. This will be whatever level of invention will balance the expected returns, in the form of monopoly profits, against the expected costs of invention. This situation will be much better than no invention at all, but it will be less than optimal in two ways. On the one hand, because consumers of the invented goods pay monopoly prices instead of perfectly competitive prices which would be lower, they will consume too little of the goods that are invented and will therefore enjoy less consumer surplus than would have been possible. At the same time, because consumers do derive some consumer surplus even with monopoly pricing, the inventing monopolists fail to earn monopoly profits equal to the entire benefit to society that is generated by their inventions. This may sound only fair, but it means that their incentive to invent is not as great at the margin as it should be from society's point of view, and therefore that the level of invention will also be suboptimal. That is, in a world where a great many potential inventions are possible, there will be some inventions that could have benefited consumers more than they cost to invent, but that inventors will not have found it profitable to pursue.

These two aspects of suboptimality give rise to both the benefit and the cost of extending patent protection to a larger, or an additional, market. Suppose there is an additional, call it foreign, market that has not previously granted patent protection. If the monopolist-inventors had previously also been able to deny potential producers in that market access to their technology, in part by refusing to sell their products to the market's consumers, then extending patent protection will create only benefits, through three different channels. First, foreign consumers gain access to the new products, which they did not have at all before. Second, monopolist inventors in the home market gain additional monopoly profits on foreign sales of the goods they would have invented anyway. Third, these additional profits expand the return on invention and cause more invention to be undertaken. These additional inventions generate still more monopoly profit for inventors, plus additional consumer surplus for consumers in both markets.

Thus, if denial of patent protection in a market also denies to consumers in that market access to the invented goods, then extending patent protection to the market is unambiguously welfare improving for everyone. Suppose, however, that this is not the case. Suppose instead that producers in the protected market do not manage to keep their technology secret and that a competitive supply of the invented

products arises instead in the unprotected market. However realistic this possibility may be — and I do regard it to be the more likely case — it is surely the case that motivates most of the firms that have been lobbying for extending intellectual property protection under the GATT.

In this case of free foreign access to technology, it is still true that extension of patent protection creates a benefit. If competitive supplies are eliminated in the newly protected foreign market, then the inventing firms will earn additional monopoly profits and hence additional return on their inventions. Since, as argued above, the level of invention was already suboptimal, it follows that the resulting expansion of invention will increase world welfare. This is the benefit from extending patent protection to an additional market: the increased profit and consumer surplus (all positive) in both markets on the goods that are invented only as a result of extending protection.

There is, however, now also a cost. All of those goods which were available on the unprotected market previously will now be subject to monopoly pricing, and this will cause their consumption to be reduced to a suboptimal level.⁸ As is usual in the case of monopoly pricing, the loss to these (foreign) consumers exceeds the gain in monopoly profits to the supplier, and the difference is therefore a dead-weight loss for the world as a whole.

Finally, as must already be obvious, there is an additional effect of extending patent protection which is neither a benefit nor a cost from the world's perspective, but which is undoubtedly more important than either in terms of understanding the position that countries take on this issue. That effect is the transfer of welfare from foreign consumers to domestic monopoly-inventors, and it is equal to the monopoly profits earned in the presence of patent protection on foreign sales. Even if neither foreign consumption nor the level of invention were to change in response to incentives, so that the benefits and costs enumerated above would be zero, this transfer of welfare could be considerable. It should be considered when one examines the implications of the policy for income distribution and equity.

5. HOW FAR SHOULD PATENT PROTECTION BE EXTENDED?

Given that there are these costs and benefits to extending patent protection to additional markets, plus a transfer effect, how far, geographically, should a system of patent protection extend? The answer might still be that it should cover all markets in the world, if there were practical obstacles to providing it only over a limited area.⁹ However, as the demands of the Uruguay Round make clear, we

already have a system in which patent protection is granted in only some countries of the world, and while that may not be fair or optimal, it certainly does seem to be workable.

Let us consider first, then, just the costs and benefits of extending patent protection which were identified above, and ask what these imply, for the world as a whole, about the optimal geographical scope for patent protection. It is easy to see, as I will argue in a moment, that as protection is extended to a larger and larger portion of the world, the marginal benefits of extending it further decline and the marginal costs increase. Therefore, if the two are equal for some particular extent of patent protection, then this will be an optimal situation.

To see that the marginal benefits and costs behave in this way, consider the effect of extending protection to an additional market of some given size. The benefits from doing so arise entirely from the new inventions that this additional market will make profitable but which would not have been profitable to invent with the previous protected market size. The larger the previously protected market, however, the greater will be the number of inventions already invented, and the less desirable will be the ones that remain. Hence the marginal benefit declines.

Similarly, the cost of extending patent protection to this additional market is some fraction of the consumer surplus generated in this market by the inventions that would be undertaken anyway. This fraction is the amount by which consumer surplus declines on these goods when consumers are charged a monopoly price, minus the monopoly profits that are earned on the goods.¹⁰ This is therefore a deadweight loss to the world as a whole. The size of this fraction depends on the elasticity of demand for invented goods, and hence on the size of the monopoly markup, but there is no reason to expect this fraction to decline systematically as protection is extended. Therefore, as protection is extended further, and as more and more inventions are therefore stimulated and become subject to this markup, the deadweight loss due to extending to the additional market will grow.

All of this suggests, therefore, that there will be an optimal geographical extent of patent protection that need not be the whole world. I have not yet made the case, however, for it being less than the whole world.

In fact, such a result is not absolutely necessary, as can be seen from a simple extreme example. Suppose that the constellation of available inventions were such that there existed *no* inventions at all that would be profitable to invent for anything less than the entire world market. But suppose also that there was at least one invention which would be profitable to invent for the entire world market. That is, it would become profitable only if the very last consumer in the world were

⁸ I am considering only the costs that arise when markets function costlessly and efficiently. In addition there are likely to be various costs of adjustment, as suppliers in the previously unprotected market must shut down and their workers find other employment.

⁹ For instance, while it might seem reasonable to exempt only the poorest individuals within a given society from paying the monopoly prices permitted by patents, the difficulties of implementing such a system would surely be prohibitive.

¹⁰ With linear demand, this fraction is one quarter. That is, with a switch from competitive to monopoly pricing in a market with a linear demand curve, three quarters of the previous consumer surplus is lost to consumers, but two thirds of that loss accrues to the monopolist in the form of profits, leaving a deadweight loss of one quarter of the competitive consumer surplus. See Deardorff (1990).

included in the market where a monopoly price could be charged. In that very special case, there would be no cost to extending protection to cover this last consumer, and there would be the considerable benefit due to the new invention. Thus in this extreme case, the optimal geographical scope of patent protection would indeed be the whole world.

The example is so extreme, however, that it easily suggests why this is not normally the case. Suppose, as we contemplate extending protection to the last consumer, or even to the last country, that there *does* exist a plentiful array of inventions that could be supported by the rest of the world market excluding this consumer or country. Then these existing inventions, as just discussed, determine the deadweight loss due to extending protection, and at the same time, since these will always be the most profitable of potential inventions, they suggest the undesirability of the inventions that remain. That is, as long as the number of inventions that can be supported without extending patent protection is at all large, one can presume that the benefits of extending protection still further, and hence stimulating a few not-very-desirable inventions, will be outweighed by the costs. Thus I believe that there is a strong presumption in favour of the optimal geographic scope for patent protection being something less than the entire world.¹¹

6. WHO SHOULD BE EXEMPT FROM PATENT PROTECTION?

While I have argued that some portion of the world should be exempt from a system of patent protection, in order to maximise the welfare of the world as a whole, I have not yet discussed what portion of the world this should be. While it is perhaps not possible to make a formal argument in this regard, there are a number of reasons why I think it makes sense to exempt developing countries, starting with the poorest of them.

The most compelling reason for this is an equity argument, based upon the effect on the world distribution of income. Patent protection has the effect of transferring income from consumers in the protected market to the monopoly inventor/producers. Since technological innovation is itself a part of the development process and seems to occur more rapidly the more developed a country is, these monopolists reside predominantly in the richest countries of the world. Therefore, extending patent protection to poor countries involves a transfer of welfare from the poor to the rich. Assuming that greater world-wide income equality is a desirable goal, for any number of reasons, this surely suggests that it should be the poorest of countries that are exempted.

A second reason is that a system of patent protection may be more likely to induce a substantial flow of inventions in developed countries. Residents of developed countries have more resources to devote to inventive activities, and perhaps a greater inclination to do so. Therefore, if we want patent protection to cover at least those parts of the world where invention takes place, this too suggests that it be only the developing world that is excluded.¹²

Finally, there is a political reason for letting it be only the poorest of countries that are exempted from patent protection. As the pressures to include intellectual property issues in the Uruguay Round make clear, the owners of patents and potential patents make up a large and powerful constituency in favour of extending the system. This constituency works most effectively at home, and therefore has led the developed world to the system of intellectual property protection which we have today. The poorest countries of the developing world, on the other hand, often have no such strong constituency, and they may not acquire one as long as they remain poor. Therefore, to exempt developed countries from patent protection would be to run counter to their internal domestic political forces, while to exempt many developing countries most likely would not. Since in this case the political and economic forces seem to be pushing in the same direction, I see no reason to resist them.

A harder question is where to draw the line between the poorest countries that should be exempt from patent protection and the richest countries that should not. Should the newly industrialising countries (NICs), for example, be exempt? It is clear that as countries do succeed in developing, they eventually begin innovating extensively, and they come to see the benefits for themselves of a system of patent protection. On the other hand, to wait until they voluntarily adopt such a system is to wait too long, at least from the standpoint of world efficiency, since patent protection will always yield some benefit external to their own societies. Thus I can see the need for the developed countries of the world to lean on the most successful NICs to get them to adopt intellectual property protection somewhat earlier than they would voluntarily.

7. CONCLUSION

This discussion has focused on a narrow aspect of the intellectual property rights debate. I have looked only at patent protection, and my analysis has been based primarily on a simple static model of how patent rights affect innovation and market structure. Some will no doubt argue that I have missed the point, in a variety

¹¹ In Deardorff (1990) I derive this result formally from a simple model. By assuming that both demand functions and a function describing the potential inventions are continuous and linear, the conditions under which global patent protection is suboptimal are made quite weak.

¹² On the other hand, there really is no need for inventors to reside in an area where there is patent protection, as long as they are eligible to be granted patents elsewhere. Thus the argument that developing countries need patent protection in order to encourage their own residents to innovate is not compelling.

of ways, and that a different analysis would yield a different result. That may be true. Perhaps there are, for example, dynamic considerations that could make a compelling case for extending patent protection even into the poorest and most remote of countries in the world. If I could be convinced that a patent system would be the magical key to unlocking the secret of development for those who need it most, then I would gladly change the conclusion of this paper. But at the moment I do not see how that case can credibly be made.

Instead, the point I have tried to make here is that resistance to adopting patent protection in developing countries is not by any means the wrong-headed folly that advocates of extending protection in the developed countries would like us to believe. Failure to erect and enforce a patent system is not analogous to, say, the failure of similar countries to open their markets to trade. More liberal trade policies will enhance the welfare of developing countries, as they do the welfare of the world, and the only costs are distributional consequences within the countries that probably need to be dealt with in any case. But patent protection is almost certain to redistribute welfare away from developing countries. And it may even lower world welfare, as I have argued here, if it is extended too far to cover all the countries of the world. If nothing else, the developing countries that resist this change should be given a fair hearing.

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TRIPs and the Paradigm of the GATT: a Tropical, Temperate View

Arvind Subramanian

1. INTRODUCTION

THE term Intellectual Property (IP) and its counterfeit¹ cousin TRIPs (the trade-related aspects of intellectual property rights, including trade in counterfeit goods) have clearly entered the trade policy lexicon. In the recent past IP has figured prominently in unilateral, bilateral, and multilateral trade policy processes. 'Successful' negotiations on TRIPs will, by most accounts, weigh heavily in assessments of the Uruguay Round and of the continued viability of the multilateral trading system. This paper will analyse TRIPs as an international economic policy issue in its widely perceived, although not exclusively North-South context, and examine its role and position in the paradigm of international trade cooperation embodied in the GATT.

2. THE CONTEXT

The changing pattern of world production and trade and the growing importance of technology as a determinant of international competitiveness have naturally focused attention on the means to secure the protection of high technology in the face of matching developments in imitation-facilitating technologies. Insistent demands for greater IP protection from its creators, located in the industrialised world, began to be heard in the trade policy arena as early as the 1970s. TRIPs thus found its appropriate place on the agenda along with the other so-called new issues — TRIMs and Services — of the Uruguay Round, which was widely seen as

ARVIND SUBRAMANIAN is currently working as an Economics Affairs Officer in the GATT Secretariat in Geneva. The views expressed in this paper are his own and should not be attributed to his employing organisation. He obtained his M.Phil and D.Phil in Economics from the University of Oxford, England.

¹ Counterfeit because TRIPs is a misleading term in suggesting the existence of a dichotomy between trade related and non-trade related IP rights.

setting the multilateral framework for the conditions of international competition into the next century.

But this seemingly natural coming together of IP and trade against the background of the emerging importance of technology masks an earlier 'market failure.' Greater demands for IP protection had always been expressed, but without eliciting the equilibrating supplies. The arena for these concerns was the World Intellectual Property Organization (WIPO), where years of deliberation produced international agreements which in some important areas such as patents preserve the freedom of countries to determine nationally their level of IP protection.² However, these agreements enjoin that any such protection not discriminate between nationals and foreigners — the so-called national treatment principle: in other words, freedom on the level but discipline on the manner, a distinction that is useful in analysing the economics of IP protection.³

The concerns related largely to the perceived inadequate level of IP protection. But to the dismay of the 'demandeurs,' attempts to increase the level of protection within the WIPO context remained unfulfilled. Underlying this perceived failure in WIPO was a tacit admission that at least within the field of IP there was no possibility of striking mutually beneficial deals between the major importers and exporters. Or, in other words, developing countries did not on balance perceive increased IP protection to be in their interests. The demandeurs appeared to recognise that such tradeoffs or a Pareto-increasing exchange could only be successfully made in a trade context. Thus, in multilateral rounds of negotiations involving many subjects, it is sometimes possible to resolve issues that if addressed in isolation would simply prove too difficult. The Uruguay Round was seen as offering the possibility of tradeoffs between topics on the negotiating agenda so that countries that saw themselves as making concessions⁴ in one area could seek countervailing benefits in another. Implicitly the demandeurs in TRIPs hoped to secure higher IP protection in exchange for concessions in areas such as textiles and agriculture. 'Positive reciprocity' one might call this.

But there was an equally important obverse side to the reciprocity. I shall call this 'status quo reciprocity'⁵ because the status quo is offered as the concession in return for changes demanded of others. In other words, the denial of existing market access concessions was the threat for refusal to increase IP protection. This stick, wielded unilaterally and in bilateral trade relations, was sanctioned, even mandated by national policy instruments such as Section 301 of the US Trade and

² The Berne Convention for the Protection of Literary and Artistic Works is an exception in that it prescribes a set of minimum standards for the level of copyright protection.

³ See Subramanian (1990b).

⁴ The word concessions is open to misinterpretation. On the one hand the person receiving the benefits, be it in the form of reduced tariffs or, in the case of a technology exporter, of higher IP protection. On the other hand, the person granting may not always 'lose,' depending on whether he is a mercantilist or a true economic welfareist.

⁵ See Bhagwati (1990).

Tariff Act — the conspicuously invisible ghost in this tale of doubt, lurking on the margins of the multilateral arena, but like Hamlet's father's ghost, defining and determining the outcome.

The portrayal of WIPO as a toothless institution lacking effective international enforcement mechanisms was one of the reasons advanced for transferring the issue to GATT. However, this consideration was subsidiary, the main dissatisfaction being less that the existing IP regime in the important area of patents was inadequately respected around the world than that the WIPO context did not offer enough leverage to the *demandeurs* that would assist in changing the regime. This distinction between negotiating fora and enforcement fora is important in understanding the institutional question described below.

IP was also a natural vehicle for advancing the trade policy concerns of the United States. At the level of substance, the shifting pattern of comparative advantage pointed to greater specialisation away from the traditional sectors towards knowledge- and R&D-intensive areas. At the level of rhetoric, concerns in the field of IP could be articulated in the same terms as the perceived grievances in other areas of trade policy, which contributed to the drift towards unilateralism and bilateralism in US trade policy. Inadequate IP protection abroad translated into the Lockean natural rights (an arguably defensible basis for IP protection as Deardorff rightly argues in his preceding article)⁶ idiom of the violation of the rights of US creators by others. 'Theft,' 'robbery,' 'piracy' etc. were thrown about. One more reason for levelling the playing field.⁷

This representation of the issue added to the charged and often fractious debate obscuring, at least in the popular mind, the hard-core economic origins of the conflict of interests. Obfuscation was contributed in equal measure by developing countries whose riposte was founded on fuzzy arguments relating to national sovereignty, freedom to pursue national development and technological goals, and fears of imperialist domination by large transnational corporations.

3. THE NEGOTIATING ISSUES

Before examining the analytics of IP protection it is worth mentioning the issues addressed in the Uruguay Round negotiations.

⁶ A problem with natural rights theory, besides those mentioned by Deardorff in the accompanying article, concerns the notion of individual creation raised by T.S. Elliot in his famous essay, 'Tradition and the Individual Talent.' If creativity is a cumulative process drawing upon the stock of tradition, it is questionable whether creative effort can be claimed as an individual's without acknowledging and rewarding the contribution of the many others.

⁷ However, it could not be alleged of unilateralism in the area of IP that it sought or evaluated success in terms of outcomes rather than rules. It is not clear, however, whether this was due to the nature of the subject matter or to conscious intent.

- (1) *Standards or norms of IP protection* — This is the most prominent issue and concerns what the law should specify in terms of the protectable subject matter, the rights conferred on IP creators, the duration of protection, the exceptions to the exclusive rights conferred notably in the form of compulsory licensing, etc. The intellectual property rights addressed are patents, copyrights, neighbouring rights (which relate to the protection of phonogram producers, performers and broadcasting organisations), trademarks, industrial designs, geographical indications including appellations of origin (which relate to the protection of names such as 'Bordeaux,' 'Champagne,' etc.), the layout-design of semi-conductor integrated circuits ('chips') and finally, a disputed category, trade secrets, which the opponents of inclusion argue is not an intellectual property right as it does not satisfy one of its defining characteristics, namely that of disclosure.
- (2) *Enforcement* — This concerns judicial, administrative, and criminal procedures available under national law, both internally and at the border (e.g., customs procedures), that right holders should have recourse to in order to enforce their rights in the event of, or in order to prevent, infringement. The main concern here is to make these procedures effective and expeditious while ensuring that they do not become barriers to legitimate trade.
- (3) *Basic principles* — These concern inter alia the applicability of the most-favoured-nation and national treatment principles.
- (4) *Dispute settlement* — This relates to the procedures for settlement of disputes between governments over their respective international legal obligations undertaken in the TRIPs context. It should be distinguished from the enforcement issue, which concerns the procedures for the settlement of disputes between private parties under national law. The dispute settlement question is related to the large and contentious institutional question of whether the forum for the multilateral enforcement of obligations should be the GATT or WIPO. The *demandeurs* wish to see the TRIPs agreement lodged in the GATT because of the perceived effectiveness of its dispute settlement procedures. Others wish to see any final agreement lodged outside the GATT framework, fearing the possibility of retaliation in the field of goods for failure to observe obligations in the field of IP. These fears, however, appear to relate as much to GATT, the negotiating forum, as to GATT, the enforcement forum.
- (5) *Transitional arrangements* — The implementation of any TRIPs agreement will take time. Differential timeframes for implementation might be agreed upon, it being likely that special and differential (S&D) treatment in favour of developing countries will take the form of longer timeframes so that the actual assumption of obligations by them is delayed.

4. THE INTERESTS

In the multilateral trade policy arena the battle lines in TRIPs, at least initially, were drawn along traditional North-South lines. With hindsight it has emerged as more of a North-South issue than Services in the negotiations. This is not to argue that there are not important North-North IP issues or that the commercial interests at stake in this regard are any less significant. Nevertheless, from an analytical viewpoint, the more interesting issues, notably in the high technology area, are to be found on the North-South axis.

In the industrialised countries three main, albeit overlapping, interest groups pushed for greater IP protection:

- (1) *High technology industries* — The large companies that have been the prime movers of the IP initiative in Europe, the United States, and Japan were primarily concerned about the protection of technology in its various forms — patents for inventions in fields such as biotechnology, trade secrets for know-how, copyright for computer programs, a new form of protection for the layout design of integrated circuits, etc. The companies that took the lead were the pharmaceutical/chemical and the information technology companies.
- (2) *Luxury goods industries* — Producers of luxury branded products were mainly interested in action on trade in counterfeit goods, i.e., goods that involve infringement of trademarks. The fake Lacoste T-shirt, Gucci handbag, Rolex or Cartier watch, so much a part of today's consumerist baggage, were examples of their targets.
- (3) *Entertainment industries* — Companies in the field of sound recordings, motion pictures and publishing were interested in copyright protection.

One difference between the high technology industries on the one hand and the luxury and entertainment industries on the other was that the former were especially keen on improving the standards of protection, while the latter wanted to improve the mechanisms and procedures for enforcement of rights under national law. Although this distinction is particularly important in legal and institutional terms, it is arguably less so in economic terms as standards and enforcement together determine the level of IP protection.

5. AN ANALYSIS OF THE INTERNATIONAL ECONOMICS: CONFLICT OR CONGRUENCE?

The question at issue is the welfare consequences of higher IP protection by developing countries. The starting point for the welfare analysis is the unashamedly utilitarian view that IP protection is a form of governmental intervention aimed at maximising social welfare in the face of market failure engendered by the public good nature of knowledge or information. IP protection has two effects: first, the static effect of creating extra-normal profits for the

inventor for the duration of protection and secondly, the dynamic effect of inducing greater R&D so that over time greater consumer surplus accrues. It ought to be noted that the ex ante inducement to R&D that ex post protection is meant to provide is largely an article of faith. Theoretical economics is genuinely divided on this point. There are models to demonstrate the contrary, namely that competition rather than temporary monopoly provides the spur to R&D activity.⁸ If this were true, the general scepticism about TRIPs would be considerably strengthened. However, here the received wisdom will be taken for granted.

I present below four situations (no doubt there are many more) for which I analyse heuristically the national and global welfare consequences of higher IP protection. These will be interesting in themselves and in their implications for international cooperation.

(i) *Imitation + small country* — The most important and most plausible situation of conflict arises when a potential technology importer maintains a low level of protection to facilitate cheap or costless imitation by indigenous producers. This can be likened to a positive supply shock. If one postulates in addition a 'small country' assumption, that is that the level of protection has no significant effect on global R&D creation, there need be no dynamic losses. Static gains accrue to the importer whose welfare unambiguously increases; so does global welfare because of the small country assumption.⁹ Similar results have been obtained by others.¹⁰

This configuration, I believe, applies to many areas of current conflict — pharmaceuticals, software, audio and video cassettes. In the pharmaceutical sector, for example, indigenous producers in several developing countries compete ferociously, taking advantage of imitation afforded by the lack of patent protection. Prices are often significantly lower than comparable prices for products patented abroad.¹¹ Furthermore, developing countries individually and even collectively

⁸ See, for example, Kamien and Schwarz (1982) and Nelson and Winter (1982).

⁹ This argument might be thought to be vulnerable to fallacy of composition: if all countries attempted to free ride, there would be significant underproduction of R&D resulting in global welfare deterioration. Although valid, this is irrelevant in the TRIPs context. Countries with lower levels can in principle free ride without the threat of reduction in protection by those with the higher level; the latter can be taken as given and threats of their withdrawal are not credible.

¹⁰ See, for example, Chin and Grossman (1990).

¹¹ A few observations are perhaps necessary to understand the political economy of IP in some countries that have strongly opposed demands for increasing protection. This understanding is best illustrated by a contrast with the political economy of trade protection. The conventional wisdom is that we see persistent protection because a few producers can organise themselves to lobby for protection, while the 'many' consumers whose interests are adversely affected, cannot. In the case of IP protection, where domestic producers operate by imitating foreign technology, there is a coincidence of the interests of producers and consumers. With low IP, domestic producers out-compete foreign technology creators while at the same time securing lower prices because of freer competition. In such cases, the resistance can be considerable, as was borne out by the position of countries that have well developed indigenous pharmaceutical, software, and entertainment industries. Here producers' lobbies and consumer interest groups, at least initially, threw their weight behind a cause that was seen to further the interests of both.

account for a small fraction of global sales in products for which R&D is considered to be important, underscoring the likelihood that patent protection in their markets will have no significant effect on global R&D. I have dwelt on this situation at some length not just because of its empirical plausibility or realism but also because of the questions it raises about the TRIPs initiative.

(ii) *Imitation + large country* — Here assume that the imitation possibilities are as above but that the potential technology importer's IP regime has a significant effect on R&D. In other words the threat of *ex post* free riding dents the *ex ante* incentive to innovate.¹² Clearly global welfare will be higher with higher IP protection. However, and herein lies the strategic trade theory insight, national welfare of the technology importing country could still be lower with high IP protection, because the rent appropriated by the foreign creator of technology could outweigh any consumer surplus gains resulting from the R&D. A real life example of this situation could relate to the development of drugs for the treatment of tropical diseases or of technologies, such as seeds or chemicals, designed for tropical agriculture. In the absence of IP protection some R&D might not be undertaken, whereas a decision by a group of developing countries, together constituting a worthwhile market, to afford greater protection could increase the incentives for R&D effort in fields of major importance to them. The welfare calculus would depend *inter alia* on the magnitude of profits accruing to the foreign creator of technology and the terms of access to foreign technology.

(iii) *Moral hazard* — An instance of congruence arises when the cooperation of the inventor, for example in providing the requisite knowhow, is necessary for the transfer of technology. Even though the IP regime might have no influence on the creation of technology, it might on its transfer because of the possibility of the technology being copied after the transfer is effected. A common situation arises when employees learn the knowhow necessary for commercialising an invention and use it in other contexts. In fact, this illustrates the moral hazard problem, so common in economic analysis. *Ex post* copying creates adverse *ex ante* incentives, and the appropriate solution is one of precommitment, namely for the government to institute a regime that would disallow such *ex post* copying and preserve the appropriate incentives for the transfer of technology. This is an instance of global and national welfare benefiting from higher IP protection. However, the relevance of this argument for the current international situation is doubtful because sectors where higher protection is being sought are precisely those where imitation is possible even without the cooperation of the inventor so that the transfer of technology does not have to rely on the provision of incentives to facilitate such transfer.

(iv) *Discrimination* — Conflicts might also arise because countries wish to discriminate in favour of nationals in relation to R&D.¹³ One kind of situation envisaged is where a foreign and domestic firm have filed a patent application for an identical or similar product or process, and the government chooses to grant the patent to the domestic firm irrespective of who filed first. This conflict arises once again because the monopoly profits created by IP protection, when accruing to foreign nationals, do not contribute to domestic welfare, creating a case for discrimination. Such situations arise whenever there exists some indigenous R&D capability even if it is inferior to that prevailing abroad. In other words, there could be an infant industry argument for some developing countries to promote the activity of R&D generation.¹⁴ This result is however subject to all the usual caveats applying to the interventionist conclusions of strategic trade theory — the neglect of general equilibrium considerations, the onerous informational requirements, doubts about the practical design of such a policy, etc. The essential point here is that in principle national welfare could increase. Global welfare would however, unambiguously decrease.

6. CERTAIN MYTHS

(i) *IP protection and R&D* — Many commentators and countless industry experts writing about TRIPs have taken as self evident that IP protection is essential for R&D generation. Is that not why society has instituted a system for the protection of property rights? The simple answer to that is: (1) IP is important for R&D generation in some sectors in countries with R&D capability; (2) IP may not be important for R&D generation for technology importers for whom imitation serves as a substitute (albeit imperfect); and (3) the lack of IP protection by some might not adversely affect global R&D if the countries in question are 'small' enough. With the small country assumption, TRIPs is more accurately seen as an exercise in rent creation and rent shifting rather than as an attempt to enhance global R&D.

(ii) *Respect for rights or national advantage* — One view, inspired by natural rights theory, has tried to represent the North-South dimension on IP as reflecting different approaches to respecting property rights in general. This characterisation glosses over the use of low IP protection to national economic advantage by developed and developing countries alike, unmindful of underlying rights considerations. Developing countries exempt a few more sectors from IP protection in the area of technology than developed countries do. However, all these sectors

¹² A similar situation is examined in Diwan and Rodrik (1989).

¹³ Despite the discipline of national treatment that virtually all international agreements require of signatories, there are many instances of *de facto* discrimination found in patent and trademark law and in patent enforcement procedures in developed and developing countries alike.

¹⁴ See, for example, Subramanian (1990a).

have, until recently, been similarly excluded by many European countries and will continue to be excluded by some of the others until the mid-1990s. By posing the conflict as one related to rights, this view also misrepresents the relatively narrow range of areas on which differences exist. In fact it is canny that all those areas where developing countries have relatively lower levels of IP protection are precisely those where there is a real conflict of economic interests, a conflict stemming from a single characteristic applicable to all such areas: copyability. This is as true of the high technology areas — pharmaceuticals, chemicals, and software — as of the entertainment and high fashion areas. Unsurprisingly the technology areas, where developing countries have low IP protection and thus benefit from imitation, are also those areas where research shows protection to be important in allowing the appropriation of returns from R&D.¹⁵ In other areas there is no conflict: levels of protection are similar because means other than IP protection (such as increasing returns to scale, advertising, secrecy, etc.) are more effective in ensuring the appropriation of returns from R&D.

There is an important ethical/legal distinction between counterfeiting and piracy on the one hand and IP protection in the technology areas on the other, but in terms of the economics there is very little difference. Counterfeiting and piracy are potentially more likely areas of conflict as they better fulfill the copyability criterion — it is far easier to produce and stitch a crocodile label onto a T-shirt than indeed to reverse engineer a medical compound.

(iii) *Transfer of technology* — There are fervent expositions in favour of developing countries granting higher IP protection on grounds that this would facilitate the transfer of technology to developing countries, increase foreign investment, boost growth, etc.¹⁶ In the light of what has been argued earlier, it should be clear that the transfer of technology consideration is largely irrelevant. To repeat, the areas of conflict are the highly copyable ones; copyability can almost tautologically be defined as the lack of need for technology transfer. The cooperation of the creator is unnecessary in developing the product as indigenous producers can imitate it cheaply. In other areas where technology transfer requires the cooperation of the inventor and therefore high IP protection, this is already provided for. In sum, where this argument is valid there is no conflict, and where there is conflict it is invalid.

(iv) *Higher IP protection and liberal economic policy* — There has been an apparent correlation in recent years between the shedding of dirigiste economic policy and the adoption of higher IP protection. It is therefore tempting to conclude causation at the peril of ignoring that first lesson in undergraduate statistics that correlation does not imply causation. The missing variable in this statistical model is bilateral pressure notably by the United States under Section 301. By and large,

¹⁵ See Levin, Klevorick, Nelson, and Winter (1987).

¹⁶ See, for example, Siebeck (1990).

changes in developing country IP regimes have been made pursuant to discussions under Section 301. A more telling piece of evidence pointing to the overwhelming explanatory power of this variable is that prior to its deployment the correlation also operated in the opposite direction: generally low levels of IP protection were also found in conjunction with relatively liberal trade and industrial policies. Chile and the Far Eastern dragons are cases in point.

7. REQUIREMENTS FOR AN INTERNATIONAL TRADE PARADIGM, THE GATT AND TRIPS

a. Aggregate Welfare

It must be a *sine qua non* of any international arrangement for cooperation in the field of trade that the policies or objectives being pursued serve to enhance global welfare, however imperfectly the term may lend itself to definition or quantification. The traditional GATT paradigm eminently satisfies this requirement, because in seeking national liberalisation it pursues an objective that is not only nationally, but also globally, welfare enhancing. This raises the question of why GATT is necessary at all. The answer, of course, is that the GATT is necessary for the politics, if not the economics of trade liberalisation. First, it has to contend with the mercantilist view of imports as 'bad' and exports as 'good.' In this scenario GATT offers countries the opportunity to precommit themselves to an apparently externally imposed discipline in the conduct of trade policy. Such precommitment enables the mediation of conflicts between competing groups within a country.¹⁷ Furthermore, GATT facilitates national liberalisation by requiring multilateral or reciprocal liberalisation that helps to create constituencies (e.g., in export sectors) with a stake in liberalisation. Finally, by allowing limited exceptions to the rules of trade liberalisation, the GATT acknowledges the need for facilitating adjustment to the changes brought about by liberalisation.

However, does TRIPs satisfy the condition of contributing to global welfare? The answer is probably no. In situation (i) described above — the empirically plausible situation — there is genuine ground for believing that global welfare deteriorates with higher IP protection. Several studies cited below confirm this finding. This result in my view sets TRIPs apart from several of the trade policy issues in the Uruguay Round and in the traditional GATT areas.¹⁸

¹⁷ Robert Hudec has drawn my attention to one of the less recognised rules served by TRIPs in industrialised countries, namely its use by lobbies to advocate and pursue higher international IP standards in order to secure or even legitimise higher IP protection at home. Recent trends in copyright legislation in the United States and patent legislation in Europe are cases in point.

¹⁸ The question of whether higher IP protection is pro- or anti-trade is in my view peripheral in assessing its appropriateness as a GATT subject. The preamble to the GATT is a salutary reminder that GATT's objective is greater welfare, (with trade liberalisation merely serving as the means to attain this objective) and IP should therefore be assessed in welfare terms.

However, it could legitimately be alleged of this view that it is too narrowly focused and ignores the wider canvas. Higher IP protection might lead to greater aggregate welfare for two reasons. First, insofar as low IP protection results in counterfeiting and piracy that amount to unfair trade judged on universal rather than unilateral standards, it is in the systemic interest to pursue higher IP protection. Second, higher IP protection might be necessary, even crucial, in achieving liberalisation in other areas or in helping to keep the large trading powers committed to the multilateral trading system, resulting in the larger good. Taking these as working hypotheses, it is clear that greater global welfare results, but at the expense of welfare losses to some — in this case, the countries granting higher IP protection. This leads to the second requirement that an international paradigm for cooperation must satisfy.

b. The Distribution of Welfare

The case for international cooperation might in principle be greater where situations of conflict of economic interest arise between countries. However, in some cases international cooperation must address the distribution question, not merely because equity is objectively desirable but for its essential role in maintaining systemic feasibility and stability. The attainment of these objectives is facilitated if global welfare increases are translated into Paretian welfare increases.¹⁹

It can be seen that in situations (ii) and (iv) the welfare of the technology importing countries deteriorates but global welfare increases. I suspect that this configuration has general applicability to the range of situations identified by and addressed in strategic trade theory. That is to say, interventionist trade or industrial policy (in our examples either through discrimination or IP protection) enhances national welfare at the expense of global welfare through profit or rent shifting in favour of nationals. At the global level of course it does not matter who reaps the profits. Thus, if international cooperation such as in TRIPs pursues higher IP protection (where situation (ii) prevails), or non-discrimination (where situation (iv) prevails), global welfare will increase.

It is worth noting that this configuration of global welfare gains but national losses are alien to the traditional GATT paradigm where national policy actions (e.g., tariff or quota reductions) simultaneously increase national and global welfare. However, I would argue that in principle the GATT paradigm is suited to cope with the distributional aspects because it provides for implicit compensation mechanisms. GATT rounds of multilateral trade negotiations are indeed compensation mechanisms that allow gainers to compensate losers within particular areas and

across areas.²⁰ GATT negotiating rounds provide for reciprocity, a mechanism which becomes more important if there are welfare losses for individual countries as is the case in TRIPs. It is perhaps worth recalling that this was an important reason underlying the introduction of TRIPs into the Uruguay Round. However, between the possibility of reciprocity (positive reciprocity that is) and its realisation lies the shadow, or perhaps one should say the ghost, of bilateralism.

At this writing, it is too early to predict the outcome of the Uruguay Round and hence to assess whether the distribution question will be satisfactorily resolved through significant compensatory offers to developing countries, for example, in the areas of agriculture and textiles. But to some extent these questions appear to have faded in importance. Section 301 of the US trade law has pre-empted and indeed defined the outcome in TRIPs to a considerable extent. At least some of the important changes that were set as objectives on the North-South axis in the Uruguay Round have largely been attained through bilateral initiatives. The ghost has a better record for spurring successful action than his literary counterpart. Copyright, trademark and/or patent legislation have been or will soon be significantly changed in South Korea, Singapore, Indonesia, Thailand, Malaysia, Mexico, Argentina, Chile, and Brazil. Whatever the compensation that may have been accorded to these countries in this relatively opaque process, 'status quo' reciprocity appears to have played an important role, so that the abstention from withdrawal of existing market access concessions appears to have been presented as 'compensation.' Thus TRIPs will arguably no longer be the object of bargaining and compensatory offers between North and South, or at least not to the same extent, on the multilateral arena as it was expected to be or otherwise ought to have been.

There is a cautionary tale. TRIPs has exposed an inherent limitation in the workings of multilateralism. There is a systemic weakness which is that multilateralism cannot prevent multilateral outcomes from being largely the product of asymmetric bilateral processes. In other words multilateral outcomes need not always be determined by multilateral bargaining, which is thought to protect the small against the strong, but might serve to legitimise the objectives of bilateralism.

If the gloomy prognosis about the world economy were to be proved true, with protectionist sentiment remaining in favour, it is difficult to believe that bilateralism, with its proven success in the area of IP, will be easily renounced. In the traditional trade policy areas one could argue that there was less to fear of bilateralism at least insofar as its objectives were nationally and globally desirable.²¹ One could perhaps even advocate a role for, or at least be less critical of, unilateralism on grounds of 'justifiable non-compliance,' in Professor Hudec's words.²²

¹⁹ The drift towards unilateralism in the United States appears to have stemmed in large part from perceived asymmetries in the multilateral trading system.

²⁰ In fact, the GATT negotiating rounds also allow for periodic adjustment to shifting comparative advantage.

²¹ Ignoring for a moment the other perils of unilateralism documented in Bhagwati (1988).

²² See Hudec (1990).

8. CONCLUSION

In the area of TRIPs, ends and means merit a critical examination. 'Ends' because the economics posits a presumption of global welfare deterioration. 'Means' because insofar as positive compensation needs to be forthcoming to make up for national welfare losses even where there are global welfare gains, bilateralism with its 'status quo' reciprocity, tends to impede the working of a multilateralism that could provide for such compensation.

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Investment Policies in the GATT

Rachel McCulloch

1. INTRODUCTION

EARLY all countries make efforts to attract inward direct investment. At the same time, most also impose limits on access and otherwise restrict the activities of foreign-controlled companies within their borders. This carrot-and-stick approach can have important consequences for the location of economic activity and for the efficiency of that activity in any given location. In particular, investment policies can have predictable effects on trade flows similar to those of policies aimed explicitly at trade: reducing imports, expanding exports, or both.

Along with other nontariff measures that influence trade flows, investment policies have become more conspicuous in recent decades. As successive rounds of GATT negotiations have achieved major reductions in the role played by the more straightforward trade-influencing policies, a major but unanticipated result has been expanded use of investment measures and other 'opaque' forms of protection as alternative means to achieve national objectives. Because of this substitution, the central trade-liberalisation goal of the GATT may not be attainable without limits on at least some types of national policies toward direct investment.

The Uruguay Round was the first GATT round to attempt negotiations on policies toward foreign direct investment. While some past agenda items (e.g., subsidies) have been comparable in their importance to members' perceived ability to control economic activity within their borders, none has been such a core issue in terms of national sovereignty. In the case of direct investment, the policies in question are aimed specifically at controlling the extent and character of foreign production within the nation's own boundaries. Moreover, by its very nature, direct investment tends to be concentrated in sectors of the economy that conform least well to the paradigm of perfect competition. Thus, standard arguments for free trade are least likely to apply without significant qualification.

This paper examines the economic and political context of the Uruguay Round negotiations on investment measures. Within the GATT, investment measures

have been treated as a particular instance of a broader problem: the proliferation of nontariff trade distortions. However, this approach ignores the interaction between multinational firms and governments that is typical when host countries seek to regulate direct investment. Observed investment measures are often the end result of a bargaining process. A central issue is whether investment regimes actually alter the allocation of resources in production and trade or merely the distribution of rents between firms and host countries. The analysis in this paper underscores that trade impact depends as much on economic conditions as on the specific combination of investment measures imposed.

2. GATT INITIATIVES ON INVESTMENT

Given its nature and purpose, the GATT is far from being the obvious forum for discussion of issues related to foreign direct investment (FDI). Indeed, inclusion of investment policies on the agenda for the Uruguay Round negotiations was itself a major break with past practice and strongly opposed by some capital-importing nations. In the Uruguay Round, consideration has been limited to a subset of investment policies known as 'trade related investment measures' (TRIMs). These include local content requirements, minimum export requirements, and similar regulations tied specifically to the trade practices of multinational firms, along with other policies that may have a less explicit but nonetheless significant influence on trade flows through their effects on the location of production.

The success of the GATT as a vehicle for promoting open markets for internationally traded goods has rested from the start on a delicate balance between two conflicting goals of member nations: securing the acknowledged collective benefits of freer trade and integrated global markets (more precisely and from the mercantilistic perspective of most negotiators, securing improved access to old and new export markets) while sacrificing a minimum of national sovereignty. Until the Tokyo Round, the balance between these goals was achieved by concentrating liberalisation efforts on national policy measures that affect goods 'at the border', primarily tariffs. Yet the acclaimed success of these efforts in slashing most tariffs brought about notably less success in achieving the ultimate goal of freer trade. Rather, the role of 'nontariff' trade distortions became increasingly prominent.

Some nontariff policies had already been in place but now loomed larger as tariff barriers shrank. To a considerable extent, however, the very success of the GATT in limiting the use of tariffs led member nations to substitute other measures from the shortened menu of allowed policy instruments. In turn, countermeasures initially aimed at these nontariff barriers themselves blossomed into further distortions of trade flows, as in the case of countervailing and anti-dumping duties. The Tokyo Round and Uruguay Round were thus required to tackle a wide range of nontariff policies and practices. Even when not their primary intent, these measures can have a significant distorting impact on trade flows.

RACHEL McCULLOCH is Rosen Family Professor of Economics and Director of the Lemberg Program in International Economics and Finance at Brandeis University, Waltham, Massachusetts, USA. She is also a research associate of the National Bureau of Economic Research.

Within the GATT framework, there are two possible approaches to dealing with investment-related issues. The first, already implemented in a number of cases, is to apply existing GATT articles to situations arising from national or subnational investment policies. This approach focuses on the possible trade-distorting effects of the policies rather than the policies themselves. For example, the United States was successful in arguing before a GATT panel that local content requirements imposed by Canada's Foreign Investment Review Agency violated Article XXIII. However, the panel did not agree with the US contention that Canadian export performance requirements for foreign investors violated GATT rules.

The second approach, as pursued in the Uruguay Round by the United States, is to negotiate new agreements that broaden GATT authority to deal with specific policies not previously covered by GATT rules. In practice, this strategy concentrates on enumerating proscribed, suspect, and acceptable policies toward direct investments. But, because a method that singles out unacceptable policies has the proven disadvantage of promoting the substitution of less transparent alternatives, it may be more the form than the fact of protection which is thereby controlled.

The Uruguay Round negotiations on investment were initiated at the insistence of US-based multinational firms and labour groups, at a time when policy concerns within the United States were still focused mainly on outward investments by US firms. Complaints highlighted the presumed effects on US production and profits of performance requirements imposed by a number of less developed host countries and by Canada under the Foreign Investment Review Act.

Ironically, US efforts within the GATT started to bear fruit just when direct investment by European, Canadian, and Japanese firms in the United States had begun a period of rapid growth, and US policy concerns had become more aligned with those of other host countries. By the mid-1980s, the United States had emerged as the world's largest host country in terms of the total value of inward direct investment. Yet the United States continued to be the main advocate of GATT restrictions on TRIMs, even while the Congress contemplated new policies to monitor and regulate the activities of Foreign companies within US borders.

3. A GATT FOR INVESTMENT

Proceeding within the GATT framework implies at a best a partial remedy for the efficiency losses that may arise from national policies toward direct investment. In particular, any GATT action must be justified in terms of significant effects on trade. Rather than trying to shoe-horn investment issues into the GATT framework at all (over the vehement objections of some less developed host countries), why not treat the problem separately in a logical and comprehensive fashion?

For many years there have been calls for a new international forum that would oversee foreign direct investment in much the way that GATT oversees interna-

tional trade — in effect, a GATT for foreign investment, as originally proposed by Goldberg and Kindleberger (1970) and endorsed by many other academic specialists. Such a body would establish a set of rules and dispute-settlement procedures aimed at increasing the global benefits of international investment, just as GATT does — at least in principle — for national policies governing trade.

The evident reluctance of the United States and other major industrial nations to pursue free standing multilateral negotiations on investment issues may be rooted in the failure of previous efforts along similar lines. The International Trade Organization (ITO) was designed at the end of World War II to complete the institutional framework for international cooperation that included also the International Monetary Fund and the International Bank for Reconstruction and Development (World Bank). At the urging of the US business community, the ITO draft charter dealt specifically with national policies toward foreign direct investment. But to the eyes of US companies concerned primarily about the security of their property abroad, the actual provisions of the charter appeared to favour the interests of host over source countries. The objections of the US business community were one reason for the eventual failure of the United States to ratify the charter (Spero, 1981). The GATT, as a more limited successor to the ITO, made no attempt to deal with foreign investment issues.

The World Bank's International Center for the Settlement of Investment Disputes (ICSID), established in 1965, remains the only international forum devoted entirely to the settlement of foreign investment issues, but one that is remarkably toothless even relative to other international bodies. Disputes must be submitted voluntarily by both parties, precluding consideration of the most controversial issues. Moreover, the ICSID has no power to enforce its decisions (Lipson, 1985). Yet some Latin American nations have seen even this mildest form of governance as intruding unacceptably on national sovereignty.

In the early postwar period, as many former colonies became sovereign nations, the prospect for setting up an international regulatory body that could satisfy both host and source countries grew ever more remote. By the 1970s, the atmosphere in the major international organisations had become openly confrontational. Demands for a 'New International Economic Order' were pressed by less developed nations of a somewhat unified 'South' upon an unprepared 'North' reeling from oil-price shocks. High on the South's agenda were measures to enhance host-country control over multinational corporations.

While the industrial nations were understandably slow to acquiesce to such demands, the increased policy activism of host countries also increased the pressure to provide some form of international governance in this area. The nations of the Organization for Economic Cooperation and Development (OECD) produced a voluntary code of conduct for multinational firms, intended primarily to disavow the most controversial and anticompetitive business practices attributed to multinational corporations. Voluntary codes were also produced by the Center on

Transnational Corporations of the United Nations and by the United Nations Conference on Trade and Development (UNCTAD).

By the 1980s, both the investment climate and the prospects for new types of international agreements had begun to improve. The inclusion of investment issues on the Uruguay Round agenda was one reflection of this improvement. After a decade or more of experimentation with aggressive regulation of multinational firms, host countries were concerned as much about competing to attract foreign firms as about controlling their activities. The formerly appealing strategies of expropriation and of 'unbundling' direct investment — i.e., acquiring foreign technology and financial capital without foreign equity participation — had been somewhat discredited by the generally disappointing results actually achieved by nations implementing them. While policy activism toward direct investment had not been renounced entirely, the carrot-and-stick approach had largely replaced the stick.

A second change that also augured well for progress on international agreements was the increased extent of intra-industry foreign direct investment among the industrialised nations, and especially involving the United States. This development blurred the distinction, at least among industrial nations, between host and source countries. In the 1960s, the United States was the preeminent and indeed quintessential source country, by far the most conspicuous potential beneficiary of limits on nationalistic policies of host countries. By 1990, the United States remained a major source country and the strongest voice for international action to regulate investment policies, yet it had also become the world's most important host to direct investment. The European Community as well as Canada and Japan had gained a corresponding stake in placing limits on host-country investment policies, and particularly those of the United States. The US-Canada Free Trade Agreement, ratified in 1988, in fact went far beyond any multilateral action contemplated in the Uruguay Round. Like other aspects of the agreement, this may be viewed as a 'leading indicator' of trends in multilateral negotiations.

Given these developments, the 1990s may offer the first real opportunity in many decades for comprehensive multilateral negotiations on investment issues. Indeed, while the concept of a GATT for investment remained alive mainly in the academic literature during the 1970s and 1980s, by 1990 it had reemerged as a serious proposal for action. For this reason, I deal with national investment policies somewhat more broadly in this paper than was actually undertaken in the Uruguay Round negotiations, while still concentrating on the potential effects of such policies on location of production and trade flows.

4. NATIONAL INVESTMENT POLICIES

Although the universe of policies potentially affecting foreign direct investments is immense, policies relevant to recent international negotiations can be

classified into two basic types: incentives for investment and operating restrictions on investment (performance requirements). As extremes, the first type includes the requirement of local establishment for market access, a policy prominent in services, while the second type includes investment prohibitions in specific sectors as well as limits on the percentage of foreign equity ownership.

The Uruguay Round negotiations focused mainly on certain performance requirements — the policies now known as TRIMs — that are presumed to have direct effects on trade flows. However, not all TRIMs are binding; non-binding TRIMs may have no effect on trade flows. Moreover, almost all TRIMs are imposed in conjunction with investment incentives. To the extent that incentives are successful in influencing the location of production, they may equally, if not as transparently, be regarded as trade-related measures.

Despite a perception on the part of some US officials and some US-based companies that TRIMs 'constitute one of the most serious trade policy problems facing the international trading community' (LICIT, 1981), neither the documented incidence of measures nor available estimates of their trade-distorting effects provide strong support for this position. Although a laissez-faire approach toward foreign investment is clearly the exception rather than the rule among host countries, data from several empirical studies of policy measures with specific trade effects yield surprisingly little consensus on their relative frequency and importance.

A US Department of Commerce study of 24,666 foreign affiliates of US companies found that in 1977 just over a quarter of these benefited from some type of incentives to investment, while on average 14 per cent were subject to one or more performance requirement. However, only two per cent of US affiliates were subject to a minimum export requirement, three per cent to a maximum import level, three per cent to a minimum level of local inputs, and eight per cent to a minimum labour local requirement, with about six per cent overall affected by one or more of these measures (US Department of Commerce, 1981). In sharp contrast, a much smaller but more detailed World Bank study of 74 investments found that more than half were subject to explicit trade-related performance requirements; however, many of these were considered non-binding by the respondents (Guisinger, 1986, p. 92).

One important finding of the Commerce study in light of subsequent developments in the Uruguay Round was that a much larger percentage of US subsidiaries in less developed countries were subject to performance requirements than in developed countries. Both the Commerce and World Bank studies confirmed that TRIMs were much more prevalent than average in some manufacturing industries, notably automobiles. These conclusions support the view that less developed countries rely on investment measures as an integral part of overall industrial development policies.

A study of 682 investments commissioned by the US Overseas Private Investment Corporation (OPIC) found 40 per cent of all OPIC-supported projects subject

to actual or potential trade-related investment performance requirements. However, because of OPIC policies regarding eligibility, these investments cannot be regarded as a random sample of all US investments either by host country or by industry. In particular, no automobile investments were included.

The studies revealed considerable variation across host countries in preferred policy strategies. Approaches favoured by individual host countries ranged from Mexico's explicit published performance requirements, through France's tax breaks tied to job creation and exports, to Ireland's cash grants to subsidiaries producing for export (Moran and Pearson, 1988, pp. 122-122). In the United States no fewer than 24 state governments were found to offer investment incentives, prompting the observation that although the United States has no local-content legislation, 'it would be disingenuous to suggest that the pursuit by certain states of foreign-owned automobile plants has no impact on the country's trade flows' (p. 122).

While diverging markedly on the relative importance of TRIMs, all studies have noted the large number of early equivalent policy instruments used by any one host. For example, the World Bank study found that in a group of ten developed and less developed host countries, governments used an average of 22 different investment policies of various types. Although no government used all available measures in the case of each investment, the average number of instruments per project was 'surprisingly high' (Guisinger, 1986, p. 84).

Since an equivalent net incentive could be provided much more simply, some investigators concluded that the nontransparency achieved through multiple and apparently contradictory policy instruments might in fact serve the interests of the host government and perhaps even the foreign firm. The availability of multiple incentives and disincentives could enhance the ability of the host to act as a discriminating monopolist, i.e., to extract a larger share of the profits associated with a particular project. On the other hand, an investing firm would be better able to conceal from potential competitors — and perhaps also from a suspicious public — the extent of preferential treatment bestowed on its activity.

Even harder to pin down than the extent of TRIMs is the actual effect on subsidiaries subject to these policies. In two-thirds of the projects surveyed in the World Bank study, managers reported that the location decision was affected by incentive policies. However, the question posed was whether the same location would have been chosen in the absence of host incentives but the same performance requirements, and with all investment policies of alternative sites unchanged. Since performance requirements are almost always paired with incentives, and since there is often active competition among localities for new investments, the two-thirds figure is clearly an extreme upper bound on the fraction of investments thus influenced.

Survey evidence suggests a rather minor effect of the performance requirements themselves on exports and imports. Many TRIMs were perceived to be non-bind-

ing, while others merely speeded up changes in trade that firms would have undertaken even in the absence of the policies. As already noted, such reports may reflect ex-ante versus ex-post optimisation by corporations. However, as Safarian (1983, p. 612) has observed, reporting may be incomplete because companies are reluctant to appear critical of 'the wielders of regulatory and fiscal power' in host countries.

5. THE PERSPECTIVE OF THE GLOBALLY INTEGRATED FIRM

National investment policies, whether of host or source countries, seek to enhance benefits derived from the presence of multinational corporations (MNCs). This may entail rent shifting, changes in the pattern of production and trade, or some combination of these. While rent shifting affects primarily the distribution of benefits within and between countries from an investment, changes in the pattern of production or trade may improve overall economic efficiency by correcting a market failure or achieve certain 'non-economic' objectives of policy makers. To analyse the potential consequences of investment policies, it is useful to begin by considering the role of direct investments in global production and trade, first in a fully integrated global economy without national boundaries and then in a world divided into sovereign nations.

In a world without national boundaries or other barriers to the free movement of goods and productive factors, maximisation of profits requires minimisation of cost. The location of each step in any production process is therefore determined by cost alone, so as to minimise the overall cost of serving any particular market. Depending on scale economies and the relative costs of moving goods versus required inputs, a given process may be carried out at a single location or at many locations around the world.

In a fully integrated global economy, observed trade among regions may be based on classical comparative advantage, scale economies, or a combination of the two. Some firms operate at a single location and carry out only a single process; any required coordination of the activities of individual firms is then achieved entirely through arm's-length (market) transactions. For other firms, coordination of activities in multiple locations is performed by a single management — 'internalised' by the firm, in the language of industrial organisation. However, since internalisation has costs of its own, the existence of multiple-location or multiple-product firms has to be explained in terms of corresponding increases in efficiency over what could be attained with separate management and market coordination.

Now contrast production and trade under the more realistic assumption that the world economy is divided into multiple political jurisdictions. A central feature of this case is that profit maximisation no longer implies cost minimisation. Along with whatever factors determine the cost of serving any given market in a fully

integrated economy, location of production in a multi-country world must also reflect any policy induced elements of profitability, including tariffs and other trade policies, taxes and subsidies, and policies toward foreign investment. These policies can affect profits through either costs or revenues. In particular, higher profits may be associated with both higher revenues and high production costs, as might occur with induced local production to serve a protected market.

Where does direct investment fit into this scheme? Whenever multiple-location firms span national boundaries, the pattern of profit-maximising production by definition includes foreign direct investment. However, since firms operating in foreign locations typically incur costs higher than otherwise similar local firms, the existence of such operations again has to be explained in terms of greater firm profitability.

Modern theories of foreign direct investment rest on the existence of a firm-specific advantage that is most profitably exploited through managerial control over operations in multiple countries. This firm-specific advantage may also provide the basis for the existence of multiple-location operations within a single integrated economy. However, because production costs are necessarily minimised in the case of a single integrated economy but not in a multi-country world, it is useful to separate direct investments into three categories.

The first category of investment, which I call cost-driven, consists of those parts of multiple-location operations simply relabelled as foreign direct investments when national boundaries are superimposed on what was previously assumed to be a single integrated economy. Obviously, the newly designated 'foreign investors' in this category are a subset of all firms that would engage in multiple-plant operations in the single-economy case. These investments are characterised by strong locational motives along with significant internalisation benefits. Extractive industries provide numerous examples of cost-driven investments. Other important categories are consumer services, e.g., retail banking and hotels, and investments complementary to local sales, such as distribution and service facilities.

Although this category includes all investments not subject to any specific investment policies, an investment would also be appropriately included even when it is subject to investment policies as long as actual production and trade decisions are not affected by the policies. This may be true because the policies are aimed primarily at extracting rents rather than changing production decisions, because policies are not expected to be binding, because policies overall play only a minor role in the firm's decisions relative to other locational advantages or political stability, or because any incentive package offered by one potential host is largely matched by others. The latter two possibilities may apply in the case of 'footloose' activities that are the object of active bidding by rival would-be hosts.

The second and third categories consist of those direct investments actually induced by the assumed division of the world into sovereign political jurisdictions, rather than merely relabelled. In the second category, which I call policy-driven,

are investments directly influenced by national policies, including those located and operated to serve a protected market, to benefit from favourable tax treatment or other incentives, or to meet local-content requirements applied to existing operations. From the point of view of the firm, such investments represent a second-best response to market fragmentation. Most entail substitution between local production and foreign production, with higher production cost to the firm, and corresponding changes in trade. Many manufacturing investments in both developed and less developed countries, such as those in electronics and automobiles, belong in this category. Such investments may be either import-substituting or export-oriented.

Investments in the third category, which I call border-driven, are not direct responses to specific policies; rather, they are responses to the fact of multiple political jurisdictions. Such investments have no easily predictable impact on local production, trade, or global efficiency. Establishment of local production may be a means to enhance the firm's credibility as a market participant, whether in the eyes of consumers or of potential competitors. Also, since production and market conditions in sovereign political units are likely to be less than perfectly correlated, an increase in the extent of direct investment may be part of the firm's risk-management strategy for a multi-country world. Border-driven investments are designed to capture the benefits of being multinational, rather than the advantages of locating the firm's activities in any specific place.

Although it would be impractical to apply this classification to actual investments, the distinctions among the three types provide some insight into the issues arising both from national investment policies and from attempts to limit their use. The first two categories of cost-driven and policy-driven investments correspond roughly to two potential objectives of national policy measures: rent extraction (with no intended effect on resource allocation) and resource reallocation.

In cost-driven investments, firm location decisions are unchanged from the case of the integrated world economy. However, the imposition of national boundaries implies potential competition with other tax jurisdictions, as well as with foreign owners and workers, for whatever rents are associated with the firm-specific advantage. Taxes, together with rules on transfer pricing and remittances, are the main policy tools used to extract such rents on behalf of the host (or source) government. Taxation may have little or no direct effect on production and trade. However, rent may also be extracted implicitly via (binding) performance requirements that reduce firm profits.

For policy-driven investments, rent extraction remains a potential goal of policy makers, but this is achieved in conjunction with changes in global production that are themselves policy induced. Since most changes in production move the firm away from its preferred (profit-maximising) position, only marginal results are likely to be achieved without the inclusion of policy measures to enhance firm rents. For example, a tariff may be used to protect the domestic market from imports of a good that would otherwise be supplied from abroad. If the supplying

firm possesses a firm-specific advantage sufficiently valuable to offset the greater cost of producing locally, it will now shift the location of some production activity to the host country.

Although somewhat artificial, this classification is helpful in understanding the conflict within the GATT over the appropriate treatment of investment policies. To the extent that investments are cost-driven and policies mainly shift rents without affecting the allocation of resources, there is little resulting impact on trade (or on overall economic efficiency). However, whether this is true in any particular situation depends on both the policies and the underlying economic forces.

Some less developed countries have therefore argued that the GATT should focus not on the measures themselves, but only on their effects on trade flows, and then only when the resulting impact on trade — if there is such an impact — is significant and the resulting injury to other countries sufficiently great to merit a sacrifice of national sovereignty by the host. In contrast, the United States has favoured an approach that begins by identifying particular measures that may be expected to affect trade — a kind of 'round up the usual suspects' approach. But in either case, if significant trade effects are the criterion for including investment measures in international negotiations, a large set of policies, including most taxes and many types of incentives, is thus omitted entirely from consideration.

6. THE ECONOMIC CASE FOR INTERNATIONAL ACTION

As with policies toward trade, in practice national policies aimed at investment tend to reduce global efficiency via suboptimal allocation of resources in production and via associated rent seeking activities. An important difference, however, is that investment policies are less likely than those aimed directly at trade flows to reduce the country's own aggregate welfare. International cooperation may therefore be even more important than in the case of trade in avoiding a 'prisoner's dilemma' situation.

For a country small enough to have no appreciable effect on world prices, the cost of tariff protection is borne almost entirely by the country itself. Even for large countries, the net effect of protection on national welfare is typically negative. But when a tariff creates an incentive for import-substituting direct investment, and investment policies are then used to extract some part of the rents generated by foreign-controlled production for the local market, the country may in fact gain. However, the foreign investor will also gain (or expect to gain), at least relative to the situation of protection but no investment. The corresponding losses, although typically larger in the aggregate, will be spread among other competing suppliers but may be small for any one of them. An important implication is that the 'problem' of TRIMs is at least in part a problem of incomplete liberalisation of trade. Without tariffs, quotas, and other import barriers, there would be less rent to extract and thus less scope for performance requirements.

Efforts to bring investment policies under GATT discipline have come principally from the United States and have been propelled by the perceived interests of some US-based multinational firms. Yet while there is no question that many US-based firms have been affected by TRIMs, the evidence is far from conclusive that source countries like the United States have been harmed significantly by the use of these policies. In many instances, the host country and the source country can both benefit on net at the expense of numerous 'third' nations, each of which however, bears only a small part of the cost.

Moreover, there is still less evidence to suggest that trade-related investment policies currently exert an important independent influence on global patterns of production and trade, especially in relation, say, to the remaining egregious and well-documented barriers in textiles and apparel and in agriculture. As suggested above, the main effect of many investment measures at least in the medium term is to shift rents between the source and the host country.

The conventional argument for inclusion of investment measures within the GATT framework thus appears to rest on shaky ground, while any favourable influence on global efficiency of GATT efforts is in any case limited by the agreement to focus exclusively on the trade-distorting effects of such measures. Moreover, the decision to tackle investment measures primarily on the basis of their presumed role as nontariff trade distortions neglects important interactions between trade restriction and direct investment as joint determinants of the global pattern of production. Changes in trade policies have implications for foreign investment decisions; conversely, the effects of trade policies on productive efficiency and income distribution within and across countries depend crucially on the extent of induced changes in foreign investment. National investment policies can thus have an important though typically indirect influence on the consequences of protection and of trade liberalisation.

For this reason, national investment policies may indeed be critical to the success of the GATT even though these policies in themselves do not constitute important distortions of trade. Whether in the GATT or an alternative forum, the need is for negotiations to limit the use of all efficiency-robbing national investment policies, not merely the subset designated as TRIMs.

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Developing New Rules and Disciplines on Trade-Related Investment Measures

Keith E. Maskus and Denise R. Eby

1. INTRODUCTION

IN deciding to pursue negotiations in the Uruguay Round on rules and disciplines covering trade-related investment measures (TRIMs), the contracting parties of GATT set themselves a highly complicated task.¹ Because there is little international consensus even over how broadly to define TRIMs and what their effects on trade and welfare may be, reaching a comprehensive agreement among very many countries that effectively disciplines the use of TRIMs seems an elusive goal. Indeed, in discussing conflicts in the negotiations, one analyst stated flatly that, 'TRIMs . . . now seem the least likely candidate for a sustained confrontation, partly because the political and technical costs of enlarging the GATT to deal with them seem prohibitive. . . .'²

This assessment may be overly pessimistic. In our view, there is scope for at least a limited agreement on TRIMs that could, for the first time, elevate the most directly trade-distorting investment restrictions into the purview of GATT discipline. The limits would come in two dimensions. First, rather narrow coverage of TRIMs included in any agreement is likely. Second, the agreement could reflect some combination of limited country membership, reminiscent of the Tokyo-Round Codes, and minor provisions for special treatment for developing nations.

If this assessment proves accurate, the resulting narrow agreement will invite controversy over whether it promises to liberalise investment and trade on net and whether and for which countries it will raise economic welfare. To anticipate this

KEITH E. MASKUS is Associate Professor of Economics at the University of Colorado, Boulder, Colorado, USA. DENISE R. EBY is a doctoral candidate in economics at the University of Colorado.

¹ We are grateful to Alan V. Deardorff, Robert M. Stern, and John Whalley for their comments on an earlier version of this paper.

² See Abreu (1989). It should be noted that Abreu allowed that some of the concerns surrounding TRIMs negotiations could be covered by an agreement on services.

debate somewhat, our position is that an agreement of this nature may be defended, apart from its expected welfare effects, as an important first step in sensitising GATT members to the links, presumably deleterious, between TRIMs and trade in goods and services. The eventual payoff to beginning this process could come in subsequent multilateral or plurilateral negotiations. Further, if such an agreement were to establish rules covering the investment policies of the industrial countries and several of the newly industrialising countries, it would extend GATT disciplines to the great bulk of foreign direct investment flows. In itself, such an outcome would provide substantial liberalisation benefits.³

With this background, in this paper we pursue three interrelated areas of inquiry. We first discuss the bewildering complexity involving TRIMs. Relevant issues include reasons for the existence of TRIMs, their definition, specific practices of concern, and what costs and benefits they may provide. We then consider the capabilities of existing GATT mechanisms to discipline TRIMs and to provide a framework for a subsequent agreement. We subsequently discuss the question of the forms that a prospective agreement might take. Building from a description of the current status of the negotiations, we attempt to characterise the outlook for developing new rules and disciplines on TRIMs.

2. BACKGROUND ANALYSIS OF TRIMs

We keep the treatment of underlying analytical issues as brief as possible because they are not the focus of this paper. Nonetheless, it is important to note several background questions in order to inform the later policy discussion.

A brief exploration of the reasons that TRIMs exist might provide insight on prospects for their control through multilateral agreements. In general, nations consider TRIMs to be important components of broader economic policy regimes designed to pursue such goals as industrialisation through import substitution, technology development and diffusion, skill acquisition and entrepreneurship, local employment, regional development, and export expansion.

Thus, there may be clear linkages between TRIMs and broader policies, such as infrastructure provision and commercial regulation. As one example, performance requirements may be imposed on subsidiaries of multinational enterprises in order to redirect the rents that these firms would enjoy from a local market protected by import barriers. These firms would have little incentive to engage in local technology improvements or technology transfer, or to improve productivity and quality in order to break into export markets. In this context, host-country governments may be reluctant to dismantle their TRIMs without due regard for appropriate changes in wider policy regimes, a complicated prospect at best.

³ A similar view is expressed by Graham and Krugman (1990).

More specifically, distinct policy objectives are often listed as motivations for TRIMs. A primary motivation is to maintain a degree of policy sovereignty and local control over the rents from indigenous resources. Others include industrial development (including industry structure and firm size), technology transfer, and mitigation of difficulties in the balance of payments. TRIMs may be considered countervailing tools to commercial policies in source countries that may block market access for exports from host countries. Most controversially, TRIMs are advocated to counter the market power and commercial abuses ('restrictive business practices') of multinational enterprises through bargaining over terms and codes of conduct. Such abuses are perceived to include, *inter alia*, transfer pricing, excessive use of foreign inputs, deficient technology transfer, monopoly pricing, and monopsony hiring. In this view, TRIMs may be sensible policies in the naturally distorted second-best world characteristic of foreign direct investment. Finally, TRIMs simply may be protective devices for local interests.

It is one thing to develop a set of TRIMs policies that may be targeted at such disparate objectives. It is quite another thing to demonstrate that such policies operate as desired and result in welfare increases in host countries. Most economists would argue that unless TRIMs policy is designed with unusual precision and foresight, there is a strong presumption that systemic inefficiencies from these policies would be generally harmful in both host and source economies. Further, there are liable to be more efficient means, at least in principle, to pursue the objectives specified earlier. And the imposition of thorough market restrictions covering foreign investment is likely to generate substantial resource waste through rent seeking behaviour. Thus, though there is no general logical guarantee that TRIMs damage welfare in host countries and though there is little reliable empirical evidence on this point, there is a basic presumption in that direction.

This case has been made repeatedly by governments in industrial countries, primarily the United States, seeking to improve access of their firms to foreign markets and to offset expected distortions in global trade patterns. However, the argument has fallen largely on unresponsive ears, especially in developing countries. Two primary notions persist strongly in many capital-importing countries that make their resistance to significant decontrol of foreign direct investment virtually inviolable. First, the fear remains that less regulation carries risks of substantial losses in sovereignty and a surrender of economic control to foreign interests, which may be too high a price for any apparent growth benefits. Second, the belief continues that a freer market for investment and trade would yield suboptimal levels of technology transfer and a sustained condition of lagging economic development.

These basic fears surely exist in all countries, since all are prospective recipients of foreign direct investment. Nonetheless, their manifestation in TRIMs is relatively greater in chronic capital-importing countries, which include some industrial countries (e.g., Australia), but are primarily developing nations. Thus, it is roughly

accurate to characterise the TRIMs issue as one divided along North-South lines, though the more appropriate continuum along which to divide countries is by their relative levels of equilibrium capital and technology imports and exports.⁴ In this regard, the probability that a comprehensive agreement on TRIMs may be reached across the broad spectrum of countries depends in part on the dubious prospects for convincing developing countries of the irrationality of their basic concerns.

3. TRIMs AND TRADE DISTORTIONS

As mentioned above, TRIMs are complex. The initial complexity lies simply in the definitions of TRIMs. Adopting the language of the Punta del Este Declaration, TRIMs might be defined as any incentives or disincentives to investment that have '... trade restrictive and trade distorting effects' (General Agreement on Tariffs and Trade, 1986). This focus on trade-restrictive and trade-distorting (TRD) effects leaves considerable scope for identifying TRIMs.

A narrow definition of TRIMs would be those measures clearly designed to influence trade volume or trade patterns. Such measures include export performance requirements mandating that a minimum level of output be exported and local content regulations stipulating that a minimum amount of inputs be sourced domestically. Indeed, this limited interpretation is consistent with most analytical treatments of TRIMs.⁵ The definition is straightforward because of the direct link between the investment policy and the resulting trade impact. It also bears the greatest likelihood of yielding international agreement on the nature of TRIMs.

In contrast, a broad definition of TRIMs would include any government policies, including macroeconomic, regional, employment, and industrial policies that could result in an international pattern of investment and trade that would not emerge in private competition among firms. Such an interpretation, while valid in covering the full extent of potential linkages among investment policies and trade, is nonetheless too broad to be useful in procuring an international consensus on TRIMs. No country is willing to subject its broadest industrial policies to multilateral review and discipline.

To understand the range of TRIMs at issue in the Uruguay Round, consider a condensed form of the extensive list of TRIMs initially specified by the US

⁴ It is noteworthy that, as the United States has moved toward a net capital-importing position in the 1980s, the interests of Congress have shifted toward imposing performance requirements and review mechanisms such as those embodied in proposed modifications to the Exon-Florio amendment to the Omnibus Trade and Competitiveness Act of 1988. A reasonable interpretation of growing Japanese and European interest in a TRIMs agreement is that they see it primarily as a deterrent to additional US intervention, rather than as an important curb on the actions of developing countries.

⁵ See Greenaway (1989), Davidson, Matusz, and Kreinin (1985), and Grossman (1981).

delegation to the negotiations. That submission characterised the following practices as investment measures that could distort trade.⁶

1. Local content requirements specify that a minimum volume or value of inputs or percentage of the value of local production be procured from sources in the host country.
2. Export performance requirements mandate that a minimum volume or value of output or percentage of output be exported.
3. Trade balancing requirements link an investing firm's exports of output to its imports of inputs in some way, say by requiring that the firm sustain a minimum trade surplus.
4. Product mandating requirements demand that a firm supply specified markets, typically in the host country but also in other countries, with output produced only in designated local facilities.
5. Domestic sales requirements specify that an investor produce certain goods for the local market.
6. Manufacturing limitations place restrictions on the amount and types of products that can be produced in local affiliates in order to reserve the market for locally owned firms.
7. Technology transfer and licensing requirements compel the investor to transfer specified technologies on noncommercial terms, perform particular levels or types of research and development locally, or license production in the host country, often with limitations on royalties paid.
8. Remittance limitations restrict the ability of investors to repatriate earnings from an investment and may also control foreign exchange allocations for this and other purposes.
9. Local equity requirements specify that a minimum percentage of a firm's equity must be owned by local investors.
10. Investment incentives provide financial advantages, such as tax limitations, duty remissions, and subsidies, or inducements for foreign investors to locate facilities in the host country. In general, such incentives are offered to offset the negative effects of the various performance requirements imposed.

This list is apparently the widest categorisation of TRIMs that has been advanced for potential discipline. It therefore serves as a useful reference for discussing the scope of the problem in a number of dimensions.

⁶ See US Trade Representative (1987). For another comprehensive list but with a functional classification of TRIMs, see Guisinger and Associates (1985).

The fundamental question concerns the trade distortions caused by these measures. It is apparent that all of them bear the potential to distort international commerce in some degree. The first three measures may be considered directly trade-distorting in the sense that such distortion is their primary intent. Binding local content restrictions, for example, are designed explicitly to limit imports below levels that firms would choose in an unconstrained optimum, while trade-balancing requirements may directly affect both imports and exports. Indeed, in many respects these measures have efficiency and welfare effects that correspond closely to more familiar (and more transparent) trade interventions, such as import quotas and export subsidies. (Greenaway, 1989; and Grossman, 1981.) There is, accordingly, a strong *prima facie* case, as developed below, that conventional GATT disciplines may be brought to bear on them.

Possible trade distortions emerging from the other TRIMs on this list are less direct but self evident nonetheless. Thus, for example, manufacturing requirements can influence decisions on production location of various goods, thereby affecting trade patterns, while licensing and equity requirements can alter the firm's perceived tradeoffs between the net benefits of licensing and exports. Remittance limitations may affect a firm's decision to enter or withdraw from a specific market and result in a suboptimal global distribution of production and trade.⁷ It should be noted also that the threat of facing newly imposed performance requirements once a facility is in place can alter current decision making about location.

The distinction between direct trade impacts and indirect trade impacts of TRIMs is central to the multilateral negotiations. Some consensus has emerged that GATT has competence over those policies with direct trade-distorting intent. The remaining question is whether such policies are to be prohibited (Graham and Krugman, 1990). There is far less agreement about the GATT's potential role in disciplining the broader, indirect measures. In part, this discord reflects concern about the implications of extending GATT's purview to measures that many countries regard as lying within the realm of domestic regulatory and competition policy.

It also reflects disagreement over the extent of trade distortions that may result from investment regulations. In principle, any investment policy distorts the global and national allocation of capital and, therefore, affects trade. The issue becomes how fully the investment distortions are translated into damaging trade misallocations.

That TRIMs may distort trade is indisputable but the empirical evidence that existing measures in fact have resulted in significant distortions is limited and hardly conclusive.⁸ In large part this is due to endemic difficulties in measuring the

⁷ For a fuller discussion of such potential distortions, see OECD (1989).

⁸ See OECD (1984, 1989), Guisinger and Associates (1985), and US Department of Commerce

relation of TRIMs to investment decisions and subsequent trade flows, for several reasons.

First, the existence of a performance requirement or an investment incentive in a particular case does not imply that the requirement is binding or that the incentive was decisive in attracting the investment. Indeed, most foreign direct investment surely takes place based largely on broader market and commercial considerations. Second, firms have incentives to misstate the extent to which TRIMs alter their behaviour or influence their profits, either for proprietary or strategic reasons or for the purpose of not irritating host governments. Third, specific TRIMs may influence investment and trade decisions at numerous, subtly interrelated, levels, including investment location, plant size, technology, input mix, marketing, and distribution, implying that a measure of the distortion is hard to develop. Fourth, in general equilibrium, the panoply of TRIMs may be largely offsetting in effect, resulting in no major net economic distortions.

Finally, it is difficult to know what the true counterfactual experiment should be in measuring the trade effects of a particular TRIM. The elimination of a local content requirement in one country, for example, may serve to attract investment from another country where such a requirement is also in place or to shift economic activity within the firm to fulfil a secondary restriction that now becomes binding. Accordingly, it is difficult to assign an index of trade distortion to various national measures.

a. Broader Welfare Aspects of TRIMs

Whatever the aggregate evidence, however, it is surely true that specific firms have encountered demands from specific countries for TRIMs that have altered investment, production, and trade decisions in ways that have raised costs. The perception by important multinational enterprises that host governments have used TRIMs to limit market access, either directly or indirectly through favouring other competitors, or to force them into less profitable commercial situations, is sufficient to generate policy concerns in source countries. So, also, is a belief by specific labour interests that foreign investment incentives artificially attract managers in source countries to shift production activity overseas. Accordingly, there are ample justifications for source-country governments to argue for changes in the way TRIMs are imposed and for the establishment of disciplines on their use.

In this regard, several characteristics of TRIMs beyond possible trade distortions are worth noting. First, as the list of identified TRIMs would suggest, these measures leave considerable room for arbitrariness in their application. Restrictions may be imposed on or negotiated with potential entrants in a secretive, opaque fashion that leads to discrimination across firms, uncertainty about future changes in requirements and incentives, rent seeking, and other costly outcomes that diminish any benefits from TRIMs and discourage efficient entry and oper-

ations. The arbitrary setting of standards and the resulting lack of transparency are frequently cited by multinational enterprises as costly inconveniences.⁹

Second, TRIMs may be applied in a discriminatory manner between domestic firms and foreign investors. For protective reasons, governments often do not provide national treatment in or equal access to their investment measures. A third aspect of TRIMs worth mentioning is that, more than are other commercial policy interventions, performance requirements and fiscal incentives are often forthcoming at subnational jurisdictions, such as US states and Canadian provinces. This situation raises concerns over the abilities of federal governments to ensure that investment policies are consistently applied, transparent, and nondiscriminatory. It also introduces the potential for uneconomic competition for foreign investment based on the strength of subnational interest.

These broader concerns suggest that a narrow focus on the trade distortions caused by TRIMs is misleading in welfare terms. The more significant problems lie in the potential for structural damages to the trading system itself, including discrimination, uncertainty, rent seeking, and the loss of policy control. Further, as TRIMs proliferate over time they tend to lock the global economy into an increasingly inefficient, and perhaps more rigid, capital distribution.

4. TOWARDS A TRIMs AGREEMENT

The foregoing analysis suggests that, despite the inherent uncertainties about the actual efficiency and welfare effects of specific TRIMs, there are sound economic reasons for erecting international disciplines over their use. In this section we describe the essential features of a framework for a potential GATT agreement to achieve this purpose and discuss the negotiating efforts to date in light of this framework. We also note why consensus on a TRIMs agreement across the large majority of GATT members will be difficult to secure.

The negotiating mandate on TRIMs, as adopted at Punta del Este, states (General Agreement on Tariffs and Trade, 1986):

'Following an examination of the operation of GATT articles related to the trade restrictive and distorting effects of investment measures, negotiations should elaborate, as appropriate, further provisions that may be necessary to avoid such adverse effects on trade.'

This language suggests that an agreement would incorporate three broad themes. First, the mandate recognises that some existing GATT articles may be used to discipline TRIMs. Second, it acknowledges that new disciplines may be required.

⁹ According to the International Monetary Fund (1985) and the OECD (1989), during the 1980s many countries have scaled back their use of TRIMs and also have made greater use of rules-based mechanisms in recognition of this frustration and to ease access to external financing and foreign direct investment.

Third, it constrains the process to focusing on removing and avoiding the trade effects of TRIMs, rather than pointing conclusively at the TRIMs themselves.

a. Relevant GATT Articles

A review of the GATT articles suggests that several of them provide potential disciplines.¹⁰ It may be argued that certain TRIMs are *prima facie* violations of specific obligations accepted by contracting parties. This case is most clear with respect to local content regulations, which act as protective devices for domestic production of intermediate inputs. Accordingly, they violate Article III, Paragraphs 1 (the principle that internal regulations may not be used to favour domestic production), 4 (the commitment to provide national treatment for imports with respect to internal regulations), and 5 (the prohibition of domestic processing requirements favouring home input supplies). Indeed, Article III:4 was the basis for the 1984 GATT ruling against Canada's local content requirements under the Foreign Investment Review Agency (General Agreement on Tariffs and Trade, 1984). Article III:5 appears to be a direct prohibition of local content requirements, whether applied to domestic firms or subsidiaries of multinational firms.

It seems that these provisions, in conjunction with the Canadian precedent, could be used as grounds for disputing the GATT consistency of the local content regulations of any contracting party. In this regard, the TRIM itself appears to be subject to GATT prohibition. Similar comments apply to requirements that are imposed in a discriminatory way across investment applicants from various contracting parties, thereby violating the most-favoured-nation principle, though the discipline invoked could only eliminate the discrimination involved, rather than the TRIM itself.

With respect of the trade impacts, a less straightforward case may be made that domestic content requirements, by limiting imports below undistorted levels, are in violation of two other GATT principles. First, by acting as import barriers they provide additional protection beyond negotiated bound levels, thereby nullifying or impairing benefits provided through other concessions. Second, a complainant could argue that content requirements act as quotas or similar quantitative trade barriers, in violation of Article XI (elimination of quantitative restrictions). The language in Article XI is broad enough to sustain such an argument.

A case for appeal to existing GATT articles for relief from other directly import-reducing TRIMs can also be made. Trade-balancing requirements, for example, could result in artificial restrictions on imports, thereby protecting domestic firms. Accordingly, they would appear also to violate Articles II:1, III:4, and XI, plus be potentially problematic from the standpoint of national treatment

and the most-favoured-nation principle. This argument has been extended to manufacturing limitations, product-mandating requirements, and sales restrictions by some contracting parties in the negotiations.

Export performance requirements, however, are less clearly violations of GATT conventions beyond any discriminatory applications contravening the most-favoured-nation principle. It has been argued that such requirements run afoul of Article VI (anti-dumping and countervailing duties) by inducing firms to lower export prices in discharging their obligations. If firms sustain a higher domestic price to offset this cost and markets remain segmented, authorities in foreign markets may find dumping to have occurred. However, Article VI provides only for the levying of an offsetting duty; there is no language suggesting that the performance requirements themselves are actionable. Further, since this remedy is available there is little need for injured countries to pursue a case based on impairment of their own tariff schedules.

In combination with fiscal incentives, however, minimum export requirements could conceivably be construed as indirect export subsidies, which are banned by Article XVI:4 on non-primary products if they result in lower export prices than home prices and by Article XVI:3 on primary products if they result in 'more than an equitable share of world export trade.' The logical link here is simply that the fiscal incentives provide the wherewithal to meet the export requirements, resulting in a *de facto* export subsidy. Article 9 of the Subsidies Code is relevant here as well. Note also that this argument could be applied to trade-balancing requirements with incentives if the causation is that firms choose to export more than optimal amounts in order to increase their imports.

A general GATT principle that might be presumed to be violated by directly trade-distorting TRIMs is that governments should not undertake policies that force trade decisions to be made on grounds other than simple commercial considerations (Article XVII:1(c) on state trading enterprises). Indeed, this principle formed the basis of the complaint against Canada's negotiations of export performance undertakings and was part of the case against its local content requirements. In reviewing the case, however, the GATT panel found that Article XVII serves only to clarify obligations in cases in which government regulations are applied on a discriminatory basis, ruling in favour of the export requirements. Accordingly, in future cases this principle could only be applicable in cases where national treatment is clearly violated in the imposition of TRIMs. Conditional upon such a finding, the principle presumably could be used further to discipline local content regulations and other import-reducing restrictions, while its use against export minimums would be more difficult.¹¹

¹⁰ For other reviews, see Fonthelm and Gadbar (1983), Greenaway (1989), and US Trade Representative (1987).

¹¹ 'The Panel found that there is no provision in the General Agreement which forbids requirements to sell goods in foreign markets in preference to the domestic market.' (General Agreement on Tariffs and Trade, 1984).

The preceding paragraphs described TRIMs that might be construed to be clearly inconsistent with existing GATT obligations. Such TRIMs presumably would be subject to prohibition or substantial modification to offset the associated trade impacts. Because these measures have directly trade-distorting intent, there seems to be a logical basis for an agreement recognising their qualification for GATT disciplines.

Other TRIMs may also be argued to contravene GATT provisions to the extent that they indirectly result in adverse trade effects. Thus, for example, exchange restrictions clearly could function as *de facto* quantitative restrictions on imports, thereby running counter to Articles XI and XV:4 (the latter provision stating that contracting parties should not employ exchange restrictions to 'frustrate the intent of this Agreement'). Technology transfer requirements and licensing requirements could favour local procurement and production over imports, presumably violating Article III as explained earlier. Remittance restrictions might divert demand for inputs to local sources by forcing firms to spend available capital in the host-country market. Related scenarios about potential TRD effects of all TRIMs, either singly or in combination, could be specified with varying degrees of force. To the extent that such TRD effects exist in fact, the Punta del Este Declaration seems to provide latitude for developing means to offset them.

Most analysts would view the foregoing arguments as constituting a straightforward and believable case for applying GATT mechanisms to a fairly broad spectrum of TRIMs. Again, the proposition that nearly all investment measures could affect trade decisions and, therefore, could damage the trading interests of other countries is virtually undeniable. Nevertheless, there remains substantial debate over whether existing GATT provisions may be used against TRIMs, even the directly trade-distorting varieties.

The counter argument runs in stages. First, the Punta del Este mandate referred only to the trade effects of TRIMs, not the measures themselves. A strict interpretation of this language would not allow consideration of any disciplines on TRIMs, despite the apparent implication that such an approach could be largely ineffective. Second, the legal basis for disciplining the TRD effects of indirect TRIMs is absent, in this view. The GATT simply has no competence to review remittance restrictions or local equity requirements, for example, because these are measures designed to protect national sovereignty over domestic policies. That trade distortions could result from them is secondary to the importance of domestic objectives. In any event, it is liable to prove virtually impossible firmly to ascribe particular trade impacts to the operation of such policies. Further, the case that GATT is relevant even for directly trade-distorting TRIMs could be disputed on the grounds that, despite the broadness of its language in certain provisions, the General Agreement is designed only to discipline border measures. A related point is that the GATT has rarely invoked prohibition as a general discipline, preferring instead to provide for remedies and countermeasures to offset the effects of offending policies.

Third, the GATT allows numerous exceptions to a variety of its obligations, including exemptions for safeguarding the balance of payments, promoting development objectives, and preserving national security and health. Thus, even if TRIMs were construed to be inconsistent with GATT, sufficient leeway exists in the document to validate their use, perhaps in the great bulk of cases.

It is apparent from this description that the view that GATT already has the tools to discipline some TRIMs is not unanimous. By themselves, the exceptions for development purposes essentially eliminate the potential for applying GATT mechanisms to investment policies in developing countries.¹² Thus, any workable TRIMs agreement must consider the elaboration of new provisions specific to investment policy.

b. A Framework for New Disciplines and Procedures

The thrust of these disciplines must be, according to the Punta del Este Declaration, to avoid the TRD effects of TRIMs. Inevitably, in our view, such avoidance must mean in some cases the disciplining of the TRIMs themselves. Thus, a TRIMs agreement would comprise a consensus over which measures are actionable and to what extent and under what circumstances they may be disciplined. Additional machinery would be needed for purposes of notification and surveillance, but dispute settlement would proceed according to standard GATT procedures. Finally, limited provisions for special treatment of developing countries may need to be entertained.

With this background, a reasonable proposal for an agreement on TRIMs might proceed as follows. First, the classification used earlier could be the basis for establishing levels of discipline for different forms of investment measures. Specifically, an initial task would be to agree on the identification of those TRIMs that are directly and intentionally aimed at distorting trade. A minimum list of such measures would include local content requirements, trade-balancing requirements, and export performance requirements. The first two measures would be deemed inconsistent with GATT provisions as discussed earlier, while agreement would need to be reached that the last measure is an unacceptable requirement to export for reasons other than strictly commercial considerations.

Despite the difficulty in showing conclusively that such measures result in substantial TRD effects in specific cases, there is a general presumption that they distort trade. Further, the trade effects could not be removed without eliminating the TRIMs themselves. Hence, the initial agreement would erect a prohibition against such barriers, with their reduction and elimination proceeding according to

¹² In fact, the panel ruling on Canada's investment case stated that countries could, in principle, invoke Article XVIII.c (government assistance to promote economic development) to validate local content regulations. See Graham and Krugman (1990).

some negotiated timetable. It seems that the scope of these prohibitions need not be extended to investment incentives because proscription of the TRIMs themselves should obviate the need for such incentives.¹³

Keeping the list of prohibited measures to a minimum seems important for the purpose of procuring widespread agreement. Other TRIMs are not directed specifically at trade levels and so are not clearly inconsistent with GATT provisions. Nonetheless, they may be expected to interfere with trade in some fashion. Thus, a second category of TRIMs could be established in which TRD effects would be actionable on a case-by-case basis. We would argue for imposing on the complainant a rigorous standard for demonstrating the existence of damages from such measures, given the nature of investment policies as domestic prerogatives. This procedure should eventually create an effective hierarchy across TRIMs, with manufacturing limitations, sales requirements, and product mandates likely to attract disciplines, while licensing requirements, technology transfer requirements, and remittance and exchange restrictions would likely result in fewer successful actions, sustaining their viability as perceived development policies.

More specific issues arise with respect to the operation of proposed disciplines. The elimination of directly trade-distorting measures would require a notification system in which each contracting party would designate its TRIMs in this category for reduction over some time period. Once notified, the level of restrictiveness of the measure (e.g., a requirement that 50 per cent of the value of output be exported) would be bound and subject only to diminution. Other contracting parties would be granted the right to notify the GATT of TRIMs in this category in any particular country in preparation for consultation and, perhaps, dispute settlement.

Negotiators could settle on varying time periods for elimination of prohibited TRIMs across countries, with the least developed countries having substantially longer windows for adjustment than those provided to the industrial nations and the newly industrialising countries. Indeed, it might be sensible to allow phaseout periods to vary across TRIMs as well, depending on the perceived sensitivity of particular measures for domestic purposes and domestic political interests. Note also that it might be necessary to allow contracting parties to implement new TRIMs during the phaseout period to avoid discriminatory treatment between new investments and old investments operating under existing measures, though both old and new TRIMs would be subject to elimination.

Elimination would be expected for TRIMs applied to both foreign and domestic investors without discrimination and would cover policies resulting both from general laws and regulations and from discretionary negotiations. The fact that private domestic and foreign investors had acceded to demands for TRIMs would

not be allowed as an indicator of the nonrestrictiveness of the measures. Further, subnational governments would be expected to respect prohibition and other disciplines. Finally, to the extent feasible, contracting parties would agree not to implement new measures during the phaseout as a form of standstill.

Regarding other TRIMs, a clear expectation would establish their use on a most-favoured-nation basis and should not result clearly in adverse trade effects. The agreement should contain a general commitment for notification of such policies in the interests of transparency. Should notification prove too costly for poorer countries, an alternative commitment to provide full information upon receipt of a legitimate complaint through the GATT from another contracting party would be appropriate. Again, other contracting parties would have the right to notify GATT of such TRIMs in any country.

Some procedures would apply to both categories of TRIMs. Thus, for example, dispute settlement would advance through the usual GATT channels, allowing for any changes in those procedures to emerge in the Uruguay Round talks. Dispute settlement would progress through consultation, the formation of a panel in substantive cases, and the issuance of the panel's findings. If necessary, some form of compensation or rebalancing of concessions at the final stage would be envisioned.

It would also be useful for the GATT to provide periodic reviews of TRIMs policy in the various contracting parties in order to deter the introduction of new measures and to promote transparency. In our view, it would be desirable to handle this surveillance through the existing GATT Secretariat rather than to create a new 'TRIMs Committee' that has been advocated by some contracting parties. Such a committee could be seen by certain developing countries as an attempt to create an international regulatory body for investment that would go beyond any reasonable purview for the GATT and would be liable to do the bidding of the capital-exporting countries.

An agreement along the preceding lines presumably would find consensus among most of the industrial countries and the newly industrialising countries. In itself, this achievement would be noteworthy in that many of these countries employ various forms of the TRIMs at issue. However, because resistance to an extension of GATT authority to TRIMs is strongest among developing countries, some accommodation of their interests is necessary if they are to join the agreement. At the first level, this accommodation would consist of well-defined exceptions, tied to levels of economic development and perceived difficulties of adjustment, to the proposed disciplines. Thus, the poorest developing countries would be awarded the longest time periods in which to eliminate their TRIMs in the prohibited category, while temporary derogations in the forms of new TRIMs might be allowed in certain circumstances. Indeed, varying elimination and adjustment periods across countries and policies might be established by GATT, subject to sustaining nondiscrimination as closely as possible. Further, developing countries might appeal to generic GATT exceptions (quantitative restrictions,

¹³ In cases where trade performance levels are not required but receipt of an incentive is contingent upon meeting trade targets, the incentive should, in principle, be actionable under existing GATT provisions covering subsidies.

balance-of-payments difficulties, development needs, and security) in the consultation and dispute-settlement stages to justify their measures, even those in the prohibited category. Again, such measures should be understood to be temporary, nondiscriminatory and, to the extent possible, designed to avoid significant adverse TRD effects. Permanent exceptions to negotiated TRIMs obligations would be disallowed.

It is hoped that by allowing such limited exceptions and by imposing rigorous standards of demonstration on complainants, the bulk of developing countries will be induced to join the agreement. In many quarters, however, there is strong opposition to any disciplines on investment policies as intrusions on domestic sovereignty and an invitation to greater exploitation by multinational enterprises, with perceived consequent negative effects on development.

At the second level, then, an attempt must be made to convince major capital-importing developing countries that joining the agreement will provide them with net benefits. Undoubtedly this task would be difficult, but some arguments may be made in its favour. First, the case must be made that the use of highly restrictive TRIMs is counterproductive to development efforts. Gradual liberalisation of TRIMs may be expected in most scenarios to attract more foreign direct investment and technology as firms react to more open and less opaque policy regimes. Further, such investment would likely provide greater efficiency gains than current flows that may be induced by the combination of protected markets, incentives, and performance requirements. This possibility would be enhanced by more general liberalisation of surrounding trade and industrial policies in host countries.

Such arguments are unlikely to prove persuasive on their own. Hence, the second, and more problematic, arm of this task would be to convince developing countries that investment liberalisation would be rewarded with greater market access in the developed countries. This factor points to a limited TRIMs agreement adopted in concert with a broader set of Uruguay Round agreements with linked concessions across important areas. The obvious candidates in this regard include agreements by industrial countries to pursue some liberalisation of their textile and apparel quotas and agricultural support policies. Further, a commitment by these nations to act more responsibly in enacting safeguards, both within and outside the confines of GATT provisions, could carry substantial weight among developing country negotiators. The various Uruguay Round agreements may also attempt to recognise the complementarities among restrictive policies in investment, services, and intellectual property in a way that results in an acceptable convergence of interests across contracting parties.

c. Difficulties in Procuring a Wide Agreement

It remains to be seen whether recommendations for such linked concessions may prove persuasive for developing countries and politically acceptable for industrial

countries. Because no bargains of that nature have yet been broached, however, attention focuses on prospects for a TRIMs agreement on its own terms.

On that score, there is little room for optimism about a comprehensive accord that would address the issues advanced above. There remains a wide chasm between the positions of the major industrial nations and several of the hard-line developing nations. Regarding the issues, the industrial countries, led by the United States, continue to push for elimination and prohibition of most categories of TRIMs, with tight restrictions on available exceptions for development purposes. On the other hand, several developing countries, led by India and Brazil, insist that no TRIMs be subject to prohibition and that any measures that might otherwise violate general GATT obligations be accorded full exemptions as development policies. A number of peripheral issues divide these two sides as well.

These positions are clearly incompatible. It is conceivable that the expressed preferences are merely bargaining chips that may be deployed successfully in a compromise TRIMs agreement at the end of the day. The strong suspicion, however, is that an accord with firm disciplines would be unacceptable to this group of developing countries while a weak understanding with broad and permanent derogations would be rejected by the industrial countries.

As we stated earlier, what may well emerge instead from the negotiations is a limited agreement among most developed countries and certain middle-income and newly-industrialising countries, with other nations joining depending partly on their views of the viability of any exception provided. Since such an arrangement would be dominated by the industrial nations, it seems likely that it would carry features similar to their negotiating positions. The form of such an agreement would likely be a code on TRIMs in which member nations would commit themselves to prohibit some subset of the TRIMs discussed earlier and to erect mechanisms for dispute settlement and the like. Other countries may find it in their interests to accede if it seems that membership would attract new foreign investment and if the agreement is linked to other relevant GATT concessions.

5. ASSESSMENT AND CONCLUDING REMARKS

The conclusion of a GATT investment code would carry certain risks. Such codes are inherently discriminatory and may redirect resources away from non-members. They tend also to contribute to the general erosion of respect for the multilateral trading system.

In this case, however, we believe that a code with strong disciplines would likely be beneficial in the long term. The agreement would cover the great majority of direct foreign investment if it included simply the major developed countries. Additional membership by the Eastern European GATT members and such industrialising countries as Mexico and South Korea, while hardly guaranteed, would

subject a substantial portion of remaining foreign investment to discipline. In itself, this outcome could provide substantial liberalisation benefits.

Two additional features point toward future gains. First, it is likely that more countries will choose accession as their need for foreign direct investment grows. Second, the agreement could pave the way for more thorough and rewarding multilateral approaches to investment policies. In this light, even if the TRIMs initiative fails altogether in the Uruguay Round — a strong possibility — it may increase awareness of the issue that could be usefully marshalled at a later date.

The TRIMs negotiations inspire a broader observation about the GATT, with which we conclude. Growing foreign direct investment is part of the ongoing internationalisation of business activity, including also trade in information and technology, joint ventures, and related competition. This global competition inevitably encounters distortions in trade and investment when its regulation is left to national authorities. The GATT, devoted to developing disciplines on border trade controls, is poorly equipped to take on the role of an international regulatory agency. Yet the new issues in the Uruguay Round, national policies on investment, intellectual property, and services, are fundamentally concerned with the international effects of domestic regulation or competition policy. Since these issues lie at the heart of national sovereignty and development policy it is unsurprising that firm multilateral agreements should prove elusive to reach. Perhaps those analysts interested in the international aspects of competition policy should consider what forms of institutional change may be required to accommodate the resulting problems for foreign trade.

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