Regulatory Standards in the WTO:

Comparing Intellectual Property Rights with Competition Policy, Environmental Protection, and Core Labor Standards

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Abstract:

The negotiation of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) greatly expands the purview of the World Trade Organization (WTO) into domestic regulatory standards. The minimum standards required in TRIPS are essentially about production processes, thereby erasing the traditional "product versus process" distinction in the trading rules. This evolution immediately raises the question of whether other regulatory and process standards, including competition policy, environmental standards, and worker rights, should be placed onto the WTO agenda. Because they evidently no longer may be excluded on the grounds of the inability of the trading system to discipline process standards, the argument must proceed on other grounds. In this paper I review the logic and evidence for such inclusion based on economic arguments for multilateral management of market externalities, policy coordination problems, and systemic trade issues. The review concludes that, conditional upon the protection of intellectual property rights in the WTO, a strong case may be made for including competition rules. The case is weaker for environmental regulation and quite weak for labor rights.

1. Introduction

With the implementation of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), intellectual property rights (IPRs) become, on the part of WTO member states, obligations of commercial policy that cannot be escaped. Intellectual property rights are thus enforceable rules governing establishment and treatment of the rights and terms of competition. Adoption and enforcement of at least the minimum standards required will procure considerably stronger global protection of intellectual assets.

Observers often write about TRIPS as though the rules it contains are comparable to disciplines against trade restrictions. While there are certainly parallels, particularly to the extent that weak IPRs interfere with trade, these two policy regimes differ fundamentally. First, trade restrictions are border measures that inherently discriminate between home and foreign interests. The same cannot necessarily be said about the partial harmonization of IPRs standards put forward by TRIPS. These standards apply without discrimination to domestic and foreign interests, meaning that the TRIPS Agreement extends the reach of WTO rules into domestic business regulation.

Second, border restrictions amount to inefficient taxes on particular forms of economic activity. Their reduction or removal via trade liberalization is widely viewed by economists as a movement toward national and global welfare maximization. Put another way, free trade in goods and services generates the maximum gains from efficient global resource specialization, with each country benefiting. Protection of IPRs, in contrast, tilts the balance toward incentives for innovation while raising the costs of gaining access to the fruits of innovation. This outcome could raise global efficiency in a dynamic sense but cannot be expected to increase welfare in all

countries. Again, there is no obvious benchmark of optimality against which to measure global IPRs agreements.

Third, WTO trade rules are aimed at liberalizing trade in products without reference to the processes by which those products are made. While exceptions to this principle are provided in GATT Article 20, they are rarely invoked (Hoekman and Kostecki, 1995). Many of the standards that must be observed in TRIPS, in contrast, are explicitly about production processes. This is clearly the case with respect to process patents, industrial designs, the use of integrated circuits, and plant varieties. It holds also for trade secrets and infringement of software copyrights. Weak protection for these processes produces goods that are not necessarily inferior or dangerous for consumption relative to good produced under strong protection. Under TRIPS, not only must such goods be excluded both from domestic production and international trade, but the underlying processes must also be modified or ended. In effect, TRIPS ushers into the system of global trading rules an extensive mechanism for disciplining processes (standards) in addition to products.[1]

This fact raises the question of whether other standards belong in the WTO. Critics of TRIPS wonder why, if IPRs are included in the WTO to protect capital, labor standards are not also needed to protect workers, environmental regulations to protect natural resources, and competition policy to protect consumers. Whatever the misunderstandings of IPRs implicit in this question, it is not easily dismissed. In this paper I address the question by comparing IPRs, competition policy, environmental standards, and labor rights in terms of the logic of including each within a system of international trade rules.

The TRIPS Agreement makes protection of intellectual property rights a foundation block of the World Trade Organization. It is natural to ask why IPRs attained this status, while

other major forms of business regulation did not. To a considerable extent, the answer relies on considerations from political economy (Ryan, 1998). Three powerful and easily organized industries (pharmaceuticals, recorded entertainment, and software) presciently recognized the opportunity afforded by the Uruguay Round to protect their intellectual property in the future and made IPRs a core issue for the United States Trade Representative (USTR). This approach complemented their efforts to publicize the damages they faced from weak international IPRs and to push for aggressive unilateral trade actions by the United States under Section 301. As intellectual property became better recognized as a trade policy issue, more American export-oriented industries signed on to the effort, making TRIPS a required condition for success in the negotiations. Recognizing this, developing countries were able to use the Uruguay Round to secure other trade advantages in compensation for agreeing to stronger standards.

In this context, IPRs were simply an issue ripe for inclusion in the WTO, which is consistent with numerous technical explanations for the rising demand for intellectual property protection (Maskus, 2000). The other broad issues were not similarly positioned, largely because of difficulties in organizing the relevant interests. Thus, the proximate answer to the question of what to include in the next round of negotiations is simply whatever area successfully mounts the associated pressures. However, this answer is unsatisfying analytically.

The inclusion of intellectual property rights in the WTO suggests that such rights are integral to the trading system. As shown in recent empirical studies, IPRs are strongly trade-related, meaning they pass the minimal test for inclusion (Maskus, 2000). Moreover, they significantly affect investment and licensing decisions, which are distorted by weak and variable IPRs. Accordingly, a well-designed system of IPRs should support the efficient functioning of international markets. Conversely, by agreeing to establish and respect standards for intellectual

[1] For an extensive discussion and analysis of TRIPS, see Maskus (2000).

property protection in the WTO, governments recognize that their existing, separate regimes may be sub-optimal in some dimensions. Surrendering some discretion to international rules forcing stronger standards may promote both collective and national welfare.

2. Other Standards under Consideration

The foregoing essentially describes the case for negotiating a set of multilateral rules, supported by dispute settlement procedures and trade sanctions, covering IPRs or any other set of standards. The logical grounds for such inclusion rest on the severity of inherent trade impediments posed by varying standards, the ability of stronger standards to support the trading system, and the role of multilateral regulation in overcoming international market and policy failures. In this context, it is interesting to compare IPRs to the other types of standards that might appear in the next round of trade negotiations. In these other areas, proposals for the WTO exist at various stages of complexity and inclusiveness. Thus, it is difficult to capture what may be intended in policy terms except in broad brush.

Competition policies refer to laws and regulations designed to maintain market contestability, in both static and dynamic terms. Indeed, there is a strong relationship between IPRs and competition regulation, though the latter area covers broader elements, such as merger control, market dominance, cartels, tied sales, and other forms of behavior that might restrict competition. As for their inclusion in the trading system, current proposals range from minimalist concepts of consultation to extensive harmonization and proscriptions of anti-competitive activity (Graham and Richardson, 1997a). The definition I take here is fairly comprehensive and focuses on trade-related anti-monopoly precepts. Specifically, countries would be expected to prevent export cartels, to relax distribution monopolies that deter imports,

and to discipline licensing practices that anti-competitively restrain marketing and product development. Some policies may require blanket proscriptions while others may be based on a rule-of-reason approach.

I define environmental standards here as national regulations aimed primarily at influencing the use of environmental resources by producers and consumers. Such regulations include effluent taxes, mandated abatement programs, trade in pollution permits, recycling programs, fuel taxes, and the like. What form a WTO agreement might take is unclear though presumably it would address standards that are sufficiently weak to permit cross-border environmental damages (Esty, 1994). Borrowing a page from international environmental agreements, such rules could involve outright bans on production or trade of particular pollutants, such as chloroflourocarbons in the Montreal Protocol. Or they might set out targeted reductions in emissions, such as those for carbon dioxide in the Kyoto Agreement. They could also call for national promotion of internationally agreed environmental goals, such as the preservation of biological varieties in the Biodiversity Convention. Negotiations would aim at establishing each country's obligation levels.

A WTO agreement on core labor standards would require each country to agree to recognize and enforce five general rights that are considered by many to be fundamental human rights. These include banning exploitative use of child workers, eliminating forced labor (slavery, bonded labor, and prison labor), preventing discrimination in the workplace, allowing free association of workers, and permitting workers to undertake collective bargaining (Maskus, 1997). The role of the WTO would be to permit trade sanctions against countries that fail in these endeavors under certain circumstances. One variant under discussion would be to allow

countries to ban imports of offending goods (or their equivalent value) under a consensus view of abhorrent practices (Rodrik, 1997).

As noted above, traditional GATT rules did not include offensive production processes as actionable practices, preferring instead to focus on the conditions of competition or market access for products themselves. While GATT allowed countries to exclude imports of goods produced in ways that violated their own IPRs, it did not extend its reach to outlawing such practices generally. Ultimately, then, TRIPS will result in trade sanctions imposed against failures to prevent the use of illegal production processes. Even if one defines such practices as theft it is difficult to see a distinction in trade policy terms between them and offensive use of environmental resources or workers. Accordingly, it is hard to maintain that those areas should remain outside the purview of the WTO on the basis of an unwillingness to define illegal production processes.

3. A WTO Ranking of Standards Based on Economic Grounds

Thus, distinctions must be found on other grounds. I consider several criteria that could support the inclusion of standards into the WTO, and how well the issue areas fit them, in Table 1. These criteria are divided into five general items and some more specific questions. The first four general items provide a basis for comparison of IPRs with competition policy, environmental regulation, and labor standards. They include how trade-related the areas are, the importance of international externalities that trade rules might overcome, coordination failures of countries to enforce collective interests through stronger standards, and the ability of dispute settlement to deal with them effectively. The final general area looks at systemic questions,

presuming that IPRs are already in the WTO and analyzing the other issues conditioned upon that fact.

In each of these areas I assign a qualitative ranking indicating the extent to which the issue may be supported in theoretical and empirical terms. The word "absent" indicates no relationship or evidence, "murky" indicates a weak or highly ambiguous relationship, "moderate" indicates a relationship of medium strength, and "clear" indicates an identifiable and strong relationship.[2] To economists the proper resolution of complex policy questions rests on both theory and empirical evidence. The qualitative descriptions reflect both the apparent importance of the problem and the ability of multilateral coordination through enforceable trade rules to deal with it adequately. Because the rankings are qualitative only they inevitably exhibit a degree of arbitrariness. For example, some entries under "evidence" are "absent", reflecting an absence of empirical research devoted to those areas rather than implying that no such evidence could be found. Readers will differ in their own assessments of how the standards fit the underlying criteria. However, the criteria and rankings can serve as a basis for discussion about the desirability of extending the WTO to additional issue areas.

Trade Impacts

Inclusion of IPRs in the WTO was originally justified by their relationship to trade in goods. That IPRs may be closely trade-related is evident. The essential point is that weak IPRs can operate as a non-tariff barrier to trade by reducing domestic demand for goods imported under patent or trademark protection. However, a strengthening of IPRs does not necessarily increase trade volumes because it enhances market power at the same time that it shifts demand toward imports. Net impacts depend on a variety of factors in each country and product.

Empirical evidence demonstrates that such impacts clearly operate in international trade markets (Maskus and Penubarti, 1995, Smith, 1999). Accordingly, IPRs are strongly trade-related in both theory and fact, earning a ranking of "clear" on each scale.

Competition policy also has potentially strong impacts on trade in theory (Levinsohn, 1996), but has attracted little empirical study. In this case, the ranking of "murky" under evidence reflects simply the practical attention the issue has drawn in recent years to particular cases (Graham and Richardson, 1997a). Environmental standards (Levinson, 1996) and labor rights (OECD, 1996) also affect trade in theory. Evidence is stronger in the former case. Rodrik (1997) produced some evidence that trade in labor-intensive goods is marginally affected by core labor rights, as measured by membership in international labor conventions. Other examinations could find no credible evidence that deficient core labor rights have any impact on trade flows (OECD, 1996; Maskus, 1997).

Standards might also have important indirect impacts on trade through their influence on FDI and technology licensing, as noted in the second row. This theory is well established for IPRs, competition policy, and environmental standards, though clear (but not overwhelming) evidence of these impacts exists only for IPRs. That competition policies could affect investment decisions seems clear from historical and descriptive evidence but the issue has attracted little systematic study. One recent paper could find no impacts (Noland, 1998). Numerous attempts have failed to discover systematic evidence in the environmental realm (Levinson, 1997; Low and Yeats, 1992). Regarding core labor rights, their absence does not necessarily attract FDI even in theory because denying such rights is tantamount to cost-increasing distortions in many cases (Maskus, 1997). Neither is there any evidence of such effects (OECD, 1996; Maskus, 1997).

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[2] This approach follows that in Graham and Richardson (1997b).

International Externalities

To economists a primary justification for an international policy regime is its ability to internalize cross-border externalities that are harming global welfare. Policy intervention in each of the four issue areas is advocated on these grounds by various observers. Externalities may be static or dynamic and I have listed (non-exhaustive) examples of each kind in Panel B. of Table 1. In IPRs the main static concern is that weak and variable international protection promotes uncompensated international technology diffusion and product copying, which could slow down invention and innovation. This case is easily made in theoretical terms, though in fact it is not clear whether effective diffusion happens more readily under weak or strong IPRs. Moreover, the impact on global welfare is not easily determined. Evidence exists that diffusion transpires through a variety of international channels (Coe, Helpman and Hoffmaister, 1997), including the legitimate use of patented technologies (Eaton and Kortum, 1996). The evidence is not entirely clear, however, and I assign it a rank of "moderate".

Table 1 about here

The externality theory in competition policy is essentially that weak rules encourage anti-competitive and exclusionary behavior that permits abuse of monopoly power abroad or in defending home markets. Export cartels are one example, as is predatory dumping that might emanate from protected scale. So also are collusive agreements among firms in one set of jurisdictions to divide markets elsewhere. These concerns are reasonably well established in theoretical terms, though doubts expressed by industrial organization specialists about the

efficiency losses associated with monopolization and vertical arrangements in closed economies apply as well at the international level. Evidence on the prevalence of anti-competitive practices spilling over borders is weak and indirect.

That there are static spillovers in the environmental area is clear theoretically and constitutes the basic argument for international intervention. There is moderate but convincing evidence on this point, at least through a wide range of case studies. In core labor rights, the spillover argument is that consumers in rich nations are made worse off by awareness of exploitative labor conditions abroad. It is also argued that weak core labor standards may operate to suppress wages of low-skilled workers in countries that import products made by exploited workers. The theoretical basis for the utility spillovers is sensible, if based on an untested assumption about preferences, but there is little basis for the wage story even in theory (Maskus, 1997). Evidence is weak in any case.

The dynamic externality in IPRs is that weak rights may generate inadequate global investment in R&D. The evidence on this point is mixed and hardly conclusive. A subtler variant is that weak IPRs in developing countries result in too-little R&D aimed at meeting particular needs of consumers in those countries, such as tropical medicines. Theory points in this direction (Diwan and Rodrik, 1991), while evidence in the pharmaceutical sector suggests strongly that global research efforts suffer from this distortion (Lanjouw, 1997).

In competition policy, dynamic markets are distorted to the extent that weak rules induce excessive investment in entry deterrence, such as excess capacity and closed distribution networks. This theory is respectable but I am unaware of any studies of the issue.

Similarly, the issue in environmental regulation is that weak standards generate insufficient global investment in abatement efforts, causing future generations to suffer excessive

pollution. Again, the theory is well established but evidence is scarce and anecdotal. Finally, in labor rights the question becomes whether inadequate protection of children results in sub-optimal levels of education that spills over into lower global growth rates. In theory, low schooling rates are more closely associated with poverty than with weak proscriptions against child labor, while strengthening rules against child labor paradoxically could result in less schooling (Maskus, 1997). Evidence on this crucial point is again missing.

Policy Coordination Failures

Economists also justify international policy regimes on the basis of overcoming failures of countries to advance their long-term interests through collective action. Indeed, the essential purposes of GATT were to prevent countries from unilaterally raising tariff rates on behalf of domestic political interests and to establish a multilateral forum for reducing tariffs to the joint benefit of members. In IPRs, it is argued that countries may choose standards that are weaker than optimal in an effort to promote local production through copying more rapidly than neighbor countries (McCalman, 1999). If all nations (or a collection of developing nations) did this, each country might be caught in a low-level equilibrium set of standards that discourage growth and technical change. Higher standards in the TRIPS agreement could overcome such a problem. The theory supporting this claim is weakly established at best in the IPRs area and there is little evidence that countries compete on these grounds.

In the competition area it may be argued similarly that countries choose individually and collectively sub-optimal regulations to compete for production and investment that respond to lax competition maintenance. The absence of competition policies in much of the developing world may be taken as indirect confirmation of this problem and I assign somewhat higher

rankings in this area. In environmental standards and labor rights the basic argument is the "race to the bottom", in which countries choose to lower those standards (or not to raise them) despite the negative impacts on national and global environmental quality and worker protection. The theory is reasonably defensible in the case of environmental regulation, though evidence remains mixed and scarce (Levinson, 1996). The theory makes little sense in the labor rights case, though some point to the proliferation of export processing zones as evidence of standards deterioration.

A second coordination failure that trade rules might address is that forcing higher standards could help build market-supporting infrastructures, such as a professional judiciary to enforce property rights, administrative transparency in government agencies, and countervailing power among economic agents. Such institutions may be underdeveloped in poor countries because of the difficulty of organizing interests in their behalf. This argument is perhaps the *sine qua non* for IPRs, because property rights are at the core of effective market systems. Similarly, competition policy is a fundamental support for efficient markets; in its absence concentrated interests are liable to dominate economic systems. There is informal evidence from developing economies that IPRs support business development and innovation, while it seems clear from case studies of market deregulation and trade liberalization that entry can proceed rapidly when unblocked. Hence, IPRs and competition policy score highly on this criterion.

It has been argued that environmental standards help set the stage for cumulative improvements in protection by raising the demand for environmental inputs and expanding awareness of environmental problems. The logic in this claim seems somewhat circular and evidence of the incentive effects of environmental standards is weak. A similar argument does hold water in at least one area of labor rights, because the establishment of labor unions and

collective bargaining can improve prospects for employee training, eliminate inefficient monopsony hiring practices, and expand workers' commitments to acquire firm-specific capital (Sengenberger, 1991, Freeman, 1993). However, evidence suggests that unions frequently do not operate in a manner that raises market efficiency and growth, especially in developing nations (Rama, 1995; Farber, 1986).

Meaningful Dispute Resolution

That such coordination problems exist does not mean their resolution could readily be made operational in the WTO. Dispute resolution is more manageable when the issue stems from commercial damages arising from weak standards rather than from questions of morality. This task is conceptually most straightforward in the case of IPRs, where copying is aimed at particular products and technologies that may be identified through court proceedings. It is surely less straightforward in competition policies, where business practices may exclude particular identifiable competitors but translating those impacts into consumer costs is daunting. Nonetheless, a history of enforcement in the United States and the European Union provides guidelines for calculating and assigning costs, so I assign reasonably high marks in competition policy.

Such exercises in the environmental and labor rights fields are fraught with conceptual and practical difficulties, making their inclusion in the WTO questionable. For example, the immediate losers from exploitative use of child labor are children themselves but it is difficult to assess these costs in relation to available alternatives. Moreover, trade sanctions easily could harm those agents they are designed to protect (Maskus, 1997; Freeman, 1994; Elliott, 1998). On the other side, it is difficult to assign monetary values to the disutility experienced by

consumers of products made under exploitative conditions. Experimentation with product labeling suggests that consumers may be willing to pay some amount to avoid such products. However, willingness-to-pay studies have not been systematically performed. One is left with the nebulous policy of simply banning such imports on the basis of unmeasured psychic costs (Rodrik, 1997), with potentially damaging impacts on recipients of the sanctions.

Summing up these various effects analyzed, IPRs achieve an unweighted rank of "clear/moderate", suggesting there are justifiable motivations for its entry into the WTO. Competition policy ranks next as "moderate" and environmental regulation third as "moderate/murky". I readily admit that these differences are not significant scientifically. Indeed, I believe that these areas should be grouped together as issues for which international policy coordination is sensible. The balance sheet is less favorable to core labor rights, essentially because the alleged spillovers are questionable and evidence suggests the international trade effects are minimal.

Because various analysts would emphasize different motivations for developing international trade rules, the next four rows weight the rankings by each type of argument, with implicitly a weight of 1.0 for particular designated arguments and 0.5 for the others.[3] This exercise makes the case relatively stronger for IPRs when emphasis is placed on trade-relatedness. It ranks environmental issues at the top if the focus is on international externalities. In all cases, core labor standards achieve a low ranking, suggesting it is of questionable value to consider their incorporation into the WTO.

Conditional Rankings

[3] For this exercise, the basic rankings were assigned index values from zero (for "absent") to three (for "clear"). The resulting verbal descriptions reflect the numerical rankings that ensued.

A final type of justification is that the systemic structure of the WTO invites or repels extension of its coverage to new issue areas, as shown in Panel E. I do not attempt a distinction between theory and evidence because these questions are amenable less to empirical confirmation and more to rhetoric. Because IPRs are already in, I do not rank them on this score. A first question is whether the WTO rules themselves give rise to clear linkages between existing coverage and the new issues. This is strongly so in competition policy, which is directly relevant for IPRs (indeed, the TRIPS agreement invites countries to use competition disciplines in the area) and also strongly connected to antidumping and subsidies. The linkages are perhaps less clear in environmental protection, though there are potential synergies with IPRs and agriculture (in biogenetic technologies) and subsidies. Again, the weakest relationship emerges for labor rights.

A second point is that the WTO may not be an appropriate institution to handle the new issues. Indeed, this argument was made about IPRs before their introduction via the Uruguay Round. Although the potential difficulties in managing competition regimes via the WTO are significant, the focus of competition policy on market access and its intimate linkage to IPRs suggests that the trading system is the appropriate locus. The case for environmental and labor standards in the WTO is far shakier on these grounds. Both areas are primarily about domestic regulations with incidental (if perhaps important) impacts on trade and do not incorporate significant elements of market access. In this context, if there is a strong case for international coordination in the environmental area, as these rankings would suggest, it points more toward a separate institutional structure (Esty, 1994).

Finally, it may be argued that failure to proceed in these issue areas could significantly erode support for the international trading system, a claim that is often made on behalf of

environmental and labor standards. Competition policy carries considerable importance for the international business community in this context, but likely arouses less concern among the general public than environmental policy and labor standards.

Averaging these rankings suggests that competition policy comes in highest on the conditional entry criterion, largely because of its linkages to existing areas and its potential institutional fit. Environmental and labor standards fare less well and raise real questions about how their inclusion would affect the trading system. Overall, the "grand rank" across all five general criteria provides an advantage to competition policy over environmental regulation. The criteria adopted here reject core labor rights as an appropriate area for the WTO.

4. Concluding Remarks

In this paper I have attempted to rank four fundamental areas of commercial regulation – IPRs, competition policy, environmental standards, and core labor standards – in terms of their suitability for inclusion in the multilateral trading system. The prior introduction of IPRs invalidates the claim that the WTO must be limited to disciplining measures that solely affect product trade and has no competence in regulating production processes. Therefore, examination of the desirability or feasibility of incorporating other standards must proceed on broader grounds.

By setting out several basic criteria for this purpose, including trade relatedness, international externalities, policy coordination problems, and systemic appropriateness of the WTO, I find that IPRs were a reasonable regulatory area for inclusion. Competition policy seems also to be appropriate for consideration by the WTO. However, environmental regulations fare less well, unless a high weight is placed on their cross-border externalities.

There is little ground for inclusion of worker rights, either in theory or in terms of available evidence.

Perhaps a useful way to think of these results is along institutional lines. The WTO seems an appropriate and effective locus for developing coordinated standards in the areas of intellectual property rights and competition rules, primarily because of their focus on market access and competition. It is not appropriate for environmental standards because of the systemic problems that could emerge in using the WTO for this purpose. Nonetheless, the international externalities (both static and dynamic) in this area are sufficiently in evidence to provide a strong argument for coordinated international action on environmental protection. This suggests that a separate institutional structure, such as a World Environmental Organization, is worthy of consideration. Finally, the weak theory and limited evidence on the externality and coordination aspects of worker rights, along with potential systemic problems, do not support their inclusion into the WTO. They could provide an argument for strengthening the existing international structure of worker rights through the International Labor Organization.

Table 1. Qualitative Analysis of Arguments for Various Types of Standards to be Incorporated into the WTO

	IPRs		Competition Policy		Environmental Standards		Core Labor Standards	
I. Unconditional Rankings								
A. Trade Impacts								
1. Directly trade-related	Theory	Clear	Theory	Clear	Theory	Clear	Theory	Clear
	Evidence	Clear	Evidence	Murky	Evidence	Moderate	Evidence	Murky
2. FDI-related and technology transfer	Theory	Clear	Theory	Clear	Theory	Clear	Theory	Murky
	Evidence	Moderate	Evidence	Moderate	Evidence	Murky	Evidence	Absent
B. International Externalities								
1. Static	Theory (unpriced diffusion)	Clear	Theory (anti-competitive spillovers)	Moderate	Theory (environmental spillovers)	Clear	Theory (utility spillovers; wage supression)	Moderate
	Evidence	Moderate	Evidence	Murky	Evidence	Moderate	Evidence	Murky
2. Dynamic	Theory (over- or underinvest-ment in global or targeted R&D)	Moderate	Theory (overinvestment in global entry deterrence)	Moderate	Theory (underinvestment in global abatement)	Clear	Theory (underinvestment in global human capital)	Murky
	Evidence	Murky	Evidence	Absent	Evidence	Murky	Evidence	Absent
C. Policy Coordination Failures								
1. Inadequate standards	Theory (Too-weak rights)	Murky	Theory (Insufficient competition maintenance)	Moderate	Theory	Moderate (Race to Bottom)	Theory (Race to Bottom)	Murky
	Evidence	Murky	Evidence	Moderate	Evidence	Murky	Evidence	Murky

Table 1. Qualitative Analysis of Arguments for Various Types of Standards to be Incorporated into the WTO (continued)

	IPRs		Competition Policy		Environmental Standards		Core Labor Standards	
2. Standards build market infrastructures	Theory (property rights)	Clear	Theory (entry conditions)	Clear	Theory (raise environmental demand)	Murky	Theory (labor unions)	Clear
	Evidence	Moderate	Evidence	Moderate	Evidence	Absent	Evidence	Murky
D. Meaningful dispute Resolution	Theory	Clear	Theory	Clear	Theory	Murky	Theory	Murky
	Evidence	Moderate	Evidence	Moderate	Evidence	Murky	Evidence	Murky
Unweighted Rank		Clear/Moderate		Moderate		Moderate/Murky		Murky
Favoring Trade Weights*		Clear		Moderate		Moderate		Murky
Favoring Externality Weights*		Moderate		Moderate/Murky		Clear/Moderate		Murky/Absent
Favoring Coordination Weights*		Moderate		Moderate		Murky		Murky
Favoring Dispute Resolution Weights*		Moderate		Moderate		Murky		Murky
(* assigns weights of 1.0 to designated issues and 0.5 to others)								
II. Rankings Conditional Upon IPRs in WTO								
E. Systemic Issues								
1. WTO Linkages		na		Clear (IPRs, AD, subsidies)		Moderate (IPRs, agriculture, subsidies)		Murky (subsidies)
2. Institutional Fit		na		Moderate		Absent		Absent
3. Support for WTO system		na		Moderate		Clear		Clear
Conditional Rank		na		Clear/Moderate		Moderate		Moderate
Grand Rank		na		Moderate		Moderate/Murky		Murky

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