

**North-South Agreements on Trade and  
Intellectual Property beyond TRIPs:  
An analysis of recent US bilateral Agreements in  
comparative perspective**

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**TABLE 1 ACRONYMS**

<b>Acronym</b>	<b>Description</b>
<b>IP</b>	Intellectual Property
<b>TA</b>	Free Trade Agreement
<b>IP Categories</b>	
TM	Trademarks
GI	Geographical Indications
DNI	Domain Names on the Internet
<b>Commitment</b>	
S	Shall
M	May
BE	Best efforts
R	Recognize
RE	Reasonable Efforts
A	Affirm
F	Flexibility
<b>US's TA Country/Partners</b>	
CL	Chile
CO	Colombia
PE	Peru
PA	Panama
SG	Singapore
JO	Jordan
AU	Australia
MA	Morocco
CAFTA	Central American Countries Free Trade Agreement
DR	Dominican Republic
OM	Oman
BH	Bahrain
KR	Republic of Korea
<b>Multilateral Treaties/ Standards</b>	
WTO-TRIPs	World Trade Organisation- Agreement On Trade-Related Aspects Of Intellectual Property Rights
TLT	Trademark Law Treaty
Joint Recommendation	Joint Recommendation Concerning Provisions on the Protection of Well-Known Trademarks (1999), adopted by the Assembly of the Paris Union for the Protection of Industrial Property and the General Assembly of the World Intellectual Property Organization ("WIPO")
PCT	Patent Cooperation Treaty (1984)
PLT	Patent Law Treaty (2000)
Budapest	Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure (1977), as amended in 1980;
UPOV 1991	International Convention for the Protection of New Varieties of Plants (1991) (UPOV Convention)
Hague	Hague Agreement Concerning the International Registration of Industrial Designs (1999)
Madrid Protocol	Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks (1989)
<b>Products, Chemical Entities and Uses</b>	
PP	Pharmaceutical Products

CP	Agro-Chemical Products
NCE	New Chemical Entity
OCE	Old Chemical Entity
NU	New Use

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**Forms of Data protection**

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UCU	Unfair Commercial Use
Mk Exc	Market Exclusivity

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**Data Features**

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D	Disclosed Data/information
UnD	Undisclosed Data/information

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# North-South Agreements on Trade and Intellectual Property beyond TRIPs: An analysis of recent US bilateral Agreements in comparative perspective <sup>4</sup>

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## ABSTRACT

This essay builds comparative qualitative indexes of the extent of IP protection that go beyond WTO-TRIPs benchmark reached by Industrial Property related sections of recent US bilateral trade agreements (TAs). The analysis indicates that despite similarities in structure and content found across TAs, there is significant dispersion in number of compulsory commitments they contain. Another salient feature is the considerable weight that pharmaceutical-IP-specific-WTO-TRIPs+ provisions have in the aggregate of all compulsory industrial property-related-commitments. They account for 7% to 36% of such commitments; those related to data protection exhibit the largest dispersion. This finding tends to reaffirm the pharmaceutical industry's success in agenda-setting in US international policy since the 1980s. The extent of IP protection in TAs is highly correlated across IP categories. The indexes reveal that Chile is the US-TA partner that has agreed the lowest number of compulsory IP protection commitments at the aggregate level, whilst Oman and CAFTA-DR have the greatest number of WTO-TRIPs+ compulsory provisions. The duration of the negotiations appear to be negatively and significantly correlated with the measures of extent of protection for patent and data protection for pharmaceuticals.

## 1 INTRODUCTION

The bilateral trade agreements subscribed by the US with several countries, many from the Developing world, under the George W. Bush administration during this decade, have drawn the attention of different sectors -academia, politicians, industry- with regard to their outcomes and long term effects. These agreements have consolidated prior US preferential duty market access regimes to the US market for developing economies under the Generalized System of Preferences of the World Trade Organization – GSP-WTO -, from temporal into permanent schemes for these economies (Lagos (2003), Roffe (2004), Shadlen (2005), Shadlen (2008))<sup>1</sup>. In many cases, they went beyond hastening trade access rules in areas where tariffs formerly protected the industries of Parties. Additionally, these agreements have set new rules beyond those of the World Trade Organisation (WTO) benchmarks in disciplines other than market access, rules which were established less than a decade earlier at the multilateral level.<sup>2</sup> One

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<sup>4</sup>This research has been made possible thanks to the grants from the Cambridge Political Economy Trust and King's College Studentship.

<sup>1</sup> This point was clearly set out in the message sent by former Chilean President Lagos Escobar to Congress urging it to adopt the Chile-US Trade Agreement in section 2.b (pp. 10). It read “*Uno de los elementos centrales de este capítulo fue haber consolidado las concesiones unilaterales concedidas por Estados Unidos en virtud del Sistema Generalizado de Preferencias (SGP).*” (One of the central elements of this chapter was the consolidation of the unilateral concessions by the United States by virtue of the Generalized System of Preferences (GSP). This point was acknowledged by Roffe (2004) and analysed by Shadlen (2005), Shadlen (2008).

<sup>2</sup> Whether IP protection rules are ‘trade related’ and thus whether they should be related to trade agreements, has been a moot issue. Notwithstanding the different positions, it is clear that these types of agreements predated WTO-TRIPs and were not agreed exclusively by ‘North’ countries.

such discipline is Intellectual Property (IP) protection. Consequently, these Trade Agreements (TAs) have set out new market access and IP protection rules in tandem, following the experience gleaned from WTO agreements during the 1990s at the multilateral level.

Envisaging the long term effects of these TAs for signatory countries, both in absolute and relative terms, requires prior study of the IP protection commitments that each of these agreements encompass. To date, it has been noted that these agreements entail WTO-TRIPs-*plus* content, and that they represent the ‘price to be paid’ by developing economies for the expected economic benefits of economic integration (Roffe (2004), Roffe and Santa-Cruz (2004), Shadlen (2005)). However, such characterisations are usually made in a general context, without examining the extent of IP protection each of these agreements involve in comparative perspective. This essay attempts to reduce this shortcoming in the literature by building comparative indexes of the extent of IP protection in the Industrial Property related sections of these agreements (patent, trademarks, domain names on the internet, Geographical Indications and regulated products) that go beyond the WTO-TRIPs benchmark. To do so, the TAs provisions are compared to the WTO-TRIP provisions in order to identify those WTO-TRIPs-*plus* norms they contain. In doing so, the essay develops comparative quantitative indexes for measuring the level of protection achieved by each of these agreements, allowing for comparisons across bilateral US TAs. Using the metrics developed, the paper explores the salient factors of the similarities and differences found across these agreements.

The use of IP protection indexes has become quite ubiquitous in the literature,<sup>3</sup> as they have enabled empirical analysis of the economic impacts associated with IP protection standards. This essay develops a methodology for building a specific index of IP protection that is relevant to countries which have agreed to abide by some specific IP protection commitments. In this context, this essay can also be understood as a contribution to the literature on the development of empirical tools for analyzing the economic impact of IP protection. The essay also attempts to contribute to the empirical knowledge regarding the dimensions of IP for which the US has been seeking broader and stronger IP protection internationally, and to what extent small US trade partners have agreed to grant such protection.

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The US had made agreements of this kind for some time, examples are the 1903 US-China (Penrose (1951)) and those of the 1990s with Mexico and Canada (NAFTA), the texts of which provided a model for later enactment of the WTO-TRIPs agreement. Among the US bilateral agreement trading partners this essay deals with, Chile was perhaps one of the first countries to reach an agreement combining trade rules with IP provisions during the 19th century. Chile extended its 1858 Treaty of Friendship, Trade and Navigation with Belgium in 1877 to include trademark protection clauses (published in the Chilean official gazette Chile (1877)). Such agreement was signed only eight months after the enactment of the first ever Chilean trademark law (November 1874). After the 19th century, Chile signed trade agreements with IP provisions in the 1990s (with Canada Mexico and Central American countries) and in the 2000s (with US, Korea, EFTA, EU, Japan, P4- New Zealand, Brunei, Singapore and Chile-, Australia and China).<sup>3</sup> The most frequently used are those of Rapp and Rozek (1990), Lee and Mansfield (1996), Ginarte and Park (1997), Park (2008). Other indexes include Seyoum (1996), Lerner (2000), Ostergard-Jr. (2000), Lerner (2002).

The essay is organised as follows: the first section of the essay briefly scans some of the arguments given by scholarship for the understanding of the motivations and consequences of agreements relaxing trade access rules and strengthening IP protection between countries of different levels of development. The second part of the essay examines the data regarding the most salient features of the countries engaged in these negotiations. In general, negotiations took place between partners of asymmetrical size and economic power. Under such circumstances, negotiation outcomes are expected to reflect the interest of the strongest party (the US, and hence higher IP protection standards). The third section of the essay presents the methodology used herein to analyse and compare the content of the different bilateral US TAs. The fourth part of the essay contains the substance of the Industrial Property related sections (Trademarks, Geographical Indications, Patents and Data Protection for pharmaceuticals and agrochemicals) of the IP chapters of the US bilateral TAs. The fifth section draws on the above indexes, and measures the extent of IP protection of the different TAs. Finally, the essay sets out the main conclusions of the analysis.

## **2 THE LITERATURE ON MOTIVATIONS FOR DEVELOPING COUNTRIES TO AGREE ON IP PROTECTION NORMS INTERWINED WITH TRADE ACCESS RULES**

From a theoretical point of view, the welfare effects of such types of agreements are less than clear. Some economists have argued that agreements that increase IP protection from ‘South’ countries in exchange for market access to the ‘North’ entail optimal policy. The benefits of greater innovation in the ‘North’ triggered by tighter IP protection standards in the ‘South’ are transferred (partially) to the latter in the form of market access. This appears necessary in order to compensate the costs the South must bear through higher prices for goods resulting from the tightening of IP protection (Lai and Qiu (2003)). Taylor (1993), Taylor (1994), Kwan and Lai (2003), Gancia and Bonfiglioli (2008) concur that these agreements are mutually beneficial and welfare improving, to such an extent that they do not need to resort to compensations from the North to the South (market access or otherwise). Furthermore, Diwan and Rodrik (1991) have argued that these agreements will benefit the South at the expense of incentives to innovation in the North. Therefore, the provision of R&D subsidies in the North become necessary. Nonetheless, Chin and Grossmann (1988), Deardorff (1992), Helpman (1993) have found more grounds for scepticism about the likelihood of welfare benefits for the South stemming from these sorts of agreements. These authors conclude that this type of policy is likely to improve welfare for the North at the expense of welfare for the South. From a different perspective, some scholars believe WTO-TRIPS-*plus* agreements are likely to harm developing countries, not only due to more detrimental access conditions to IP protected subject matter stemming from higher prices charged by North IP right holders, but also from the consequences of relinquishing flexibilities of the Doha Ministerial Declaration (Uranga, Gómez et al. (2008)), and relinquishing flexibility for public policy purposes more generally (‘tie government’s hands’) (Abbot (2006), Shadlen (2008)).<sup>4</sup>

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<sup>4</sup> Abbot (2006) notes that US public face similar risks with these agreements.

Understanding countries' objectives (stated and implicit) in recent patterns of regional integration, other than securing market access or the fear of being left out of trade agreements with major trading actors, gives rise to opposing views across different avenues of thought. On the optimistic end of the spectrum, Schiff and Winters (2003) believe governments wish to: i) bind themselves to better policies and signal such binding to international investors; ii) maintain sovereignty by pooling it with others in areas of economic management where nation states are too small to act alone; iii) pressure the multilateral system into deeper action in areas of policy interest; iv) a desire to help neighbouring countries to develop and prosper. The authors believe these views derive from a change in the understanding of the -beneficial- role of openness in economic development, the need for creating a domestic momentum for the reforms required to achieve greater openness by minimising the political problems of disrupting existing sources of income and the change of attitude from the US towards these type of agreements. A more pessimistic view states that developed countries are 'bad Samaritans' by imposing rules of economic relationships with the developing world that make their chances of overcoming underdevelopment more difficult (Chang (2008)). In a way, the 'bad Samaritans' have been 'kicking away the ladder' (Chang (2002)) by restricting the range of public policy options available to developing countries, and locking them into strategies of economic development that have generally failed to boost economic development so far (Sánchez-Ancochea and Shadlen (2008)).

Motivations to engage in such bilateral trade negotiations at the beginning of the 21st century that combine market access with IP protection rules can hardly be founded on the intrinsic desire of developing countries' to agree to stricter IP legal commitments. In fact, it has been reported that less than a decade prior to reaching these agreements, developing countries had reluctantly agreed to the WTO-TRIPs benchmark (Dhanjee and Chazourness (1990), Sell (2003), Pugatch (2004)).<sup>5</sup> WTO-TRIPs set out even stricter IP protection norms than the prior multilateral legal standards (Berne, Paris and Rome Conventions) that mandates commitments countries must comply with. On the one hand, such rules increased the scope of subject matter to be protected, defined compulsory minimum terms of protection for these subject matters and established enforcement rules and legal procedures member countries had to comply with. On the other hand, compliance with these rules became the subject of the dispute resolution mechanism established under the WTO framework. Without an obvious domestic stakeholder from developing economies able to benefit from such norms, the interest in such protection can be anticipated to be of limited scope. By and large, developing economies are importers of foreign technology and knowledge intensive goods. In addition, for many developing countries WTO-TRIPs implied the need for changing domestic legislation in order to align it to the agreed

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<sup>5</sup> By 1990, when the WTO-TRIPs negotiations were well underway, the likelihood of such an agreement curtailing the sovereign rights of developing countries to adapt their economic systems had been seriously questioned, even though it had been foreseen; this right had been widely used by developed countries with regard to IP protection (Dhanjee and Chazourness (1990)). Nonetheless, it has been stressed that developing countries expressed fierce opposition to such an agreement only during the second half of the 1980s, and later, after it was enacted (Sell (2003), Pugatch (2004)).

international standards. By the time bilateral trade negotiations commenced at the turn of the millennium, many US TA partners still had to implement these changes. Furthermore, the likelihood that developing economies had an interest in IP protection due to the theoretical increased variety of goods that such protection could trigger, as claimed by some trade theorists (Taylor (1993), Taylor (1994), Kwan and Lai (2003), Gancia and Bonfiglioli (2008)) does not hold, as the economies of each of the US trading partners were too small (either individually or aggregately)<sup>6</sup> to be likely to affect worldwide incentives to innovate.

Despite all these circumstances, bilateral TAs were finalised and their IP sections ended up containing, as shall be seen, higher legal standards than those of WTO-TRIPs.

### **3 US PARTNERS IN BILATERAL TRADE-IP NEGOTIATIONS**

By December 2008, the US had signed and made available to the public agreements with 17 countries, negotiated during the G. W. Bush administration.<sup>7</sup> Table 2 details the chronology and landmarks of these negotiations.<sup>8</sup> The table shows that negotiations were finalised between October 2000 and April 2007. The shortest negotiation period (or adhesion period, in the case of Dominican Republic) was two months, while the longest was 32 months (Panama).<sup>9</sup>

There were different negotiating arrangements and formats with different US partners. Some were negotiated at bilateral closed-doors levels (such as with Jordan, Singapore, Australia, Morocco and Chile), while others were negotiated with groups of countries (Central American Countries, Colombia, Ecuador, Peru). In the latter case, some countries joined once an agreement had been reached (The Dominican Republic joined the Central American Countries TA – CAFTA-), while others joined and abandoned group negotiations at different stages (Colombia, Peru and Ecuador). However varied the negotiating arrangements may have been, in the end the nature of the agreement mirrored a bilateral relationship, since all provisions had to be acceptable to each country in every respect for the agreement to see the light of day.<sup>10</sup>

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<sup>6</sup> It is incorrect to assume that each of these countries might have computed other countries' decisions in this respect, as bilateral negotiations were undertaken separately. Countries could only observe what common knowledge was, namely the existing trade agreements at the time of the trade negotiations. Even if they had considered them, these countries were jointly too small in a global perspective to affect worldwide incentives to innovate.

<sup>7</sup> There are other agreements in the US pipeline, but as of December 2008 they were either not finished or not made available to the public.

<sup>8</sup> Table 2 also includes Ecuador, which decided to withdraw from the ongoing trade negotiations after the political reshuffle derived from the Election of Rafael Correa as President in January 2007.

<sup>9</sup> The latter took longer, partly because in 2007 the US Congress mandated the government to renegotiate some norms related to access to medicines (see pp. 18 and 88 in Díaz (2008)). While the G.W. Bush administration had a majority in Congress, negotiation would take up to 24 months (Chile-US TA).

<sup>10</sup> Ecuador, for example, decided to withdraw from the negotiation table after years of talks.

**TABLE 2 CHRONOLOGY OF TA NEGOTIATIONS' LANDMARKS**

US Trade partner	Notice US Congress	Launch of Negotiations	First Round	Last Round	N° Rounds	Signature	Negotiation Duration	
							Months	Ranking
<b>Jordan</b>		06-2000	06-2000	10-2000	4	10-2000	5	15
<b>Singapore</b>			11-2000	08-2001		05-2003	10	13
<b>Chile</b>		12-2000	12-2000	12-2002	14	06-2003	24	2
<b>El Salvador</b>	10-2002	01-2003	01-2003	12-2003	9	05-2004	12	7
<b>Guatemala</b>	10-2002	01-2003	01-2003	12-2003	9	05-2004	12	7
<b>Honduras</b>	10-2002	01-2003	01-2003	12-2003	9	05-2004	12	7
<b>Nicaragua</b>	10-2002	01-2003	01-2003	12-2003	9	05-2004	12	7
<b>Costa Rica</b>	10-2002	01-2003	01-2003	12-2003	10	05-2004	13	6
<b>Morocco</b>	10-2002	01-2003	01-2003	03-2004	8	06-2004	14	5
<b>Australia</b>	02-2004	03-2003	03-2003	02-2004		05-2004	11	11
<b>Dominican Republic</b>	04-2003		01-2004	03-2004	3	08-2004	2	17
<b>Bahrain</b>	08-2003	01-2004	01-2004	05-2004	5	09-2004	4	16
<b>Ecuador</b>	11-2003		05-2004					
<b>Peru</b>	11-2003		05-2004	12-2005		04-2006	19	4
<b>Colombia</b>	11-2003		05-2004	02-2006			22	3
<b>Oman</b>	11-2005	03-2005	03-2005	10-2005		01-2006	7	14
<b>Panama</b>	11-2003	03-2004	04-2004	12-2006		06-2007	32	1
<b>Korea</b>		02-2006	06-2006	04-2007	8	06-2007	10	12

Source:

Own Elaboration based on USTR information available at website ([www.urtr.gov](http://www.urtr.gov)). Blank spaces, are due to non availability of information.

Table 3 shows some economic features of US negotiating partners. At the time of the negotiations, they were all small economies and, on average, poorer countries than the US, the size of their respective economies (GDP) being on average less than 1% of US levels.<sup>11</sup> The average per capita income (at parity purchasing power) of these countries ranged from 5% to 90% of US levels, with a median level of 16%. Despite the broad range, only four of the 18 countries (Korea, Singapore, Australia and Bahrain) had economies with per capita incomes higher than half the US level at the time of the negotiations.

On the other hand, US negotiating partners consisted of countries with significantly lower domestic industrial property activity than the US. Table 4 shows some indicators of trademark and patent applications at the time of the trade negotiations. For most countries (except Korea), patent applications originated mostly in foreign countries. In fact, for most countries, domestic patent applications accounted for less than 11% of total applications. Furthermore, domestic applications per million inhabitants were less than 1% of average US figures for twelve of these countries (66% of the set), Korea being the exception with less than 20% of US levels. Trademark activity reflects a less dramatic, but in the end similar picture, as applications are almost equally split between foreign and resident applicants for the majority of US negotiating partners, whereas in the US resident applicants accounted for almost 90% of trademark applications.

<sup>11</sup> Population was, on average, less than 5% of that of the US, except for Colombia, Morocco and Korea whose populations were over 10% of that of the US at the time of the negotiations.

**TABLE 3 ECONOMIC FEATURES OF US NEGOTIATING PARTNERS AT THE TIME OF THE NEGOTIATION (\*)**

US TA Partners		Negotiation period a	GDP		
			Per Capita (PPP)	% US per capita (PPP)	% of US Total
Acronyms					
<b>JO</b>	<b>Jordan</b>	2000-00	3217	9,3	0,09
<b>SG</b>	<b>Singapore</b>	2000-01	32399	92,2	0,89
<b>CL</b>	<b>Chile</b>	2000-02	9865	27,8	0,70
<b>HN</b>	<b>El Salvador</b>	2003-03	4884	13,0	0,14
<b>GT</b>	<b>Guatemala</b>	2003-03	4154	11,0	0,20
<b>HN</b>	<b>Honduras</b>	2003-03	3270	8,7	0,07
<b>NI</b>	<b>Nicaragua</b>	2003-03	2214	5,9	0,04
<b>CR</b>	<b>Costa Rica</b>	2003-04	7997	20,6	0,16
<b>MA</b>	<b>Morocco</b>	2003-04	3316	8,6	0,47
<b>AU</b>	<b>Australia</b>	2003-04	30838	79,6	5,15
<b>DO</b>	<b>Dominican Republic</b>	2004-04	6001	15,1	0,18
<b>BH</b>	<b>Bahrain</b>	2004-04	25137	63,1	0,10
<b>EC</b>	<b>Ecuador</b>	2004-05	6409	15,7	0,29
<b>PE</b>	<b>Peru</b>	2004-05	6525	15,3	0,62
<b>CO</b>	<b>Colombia</b>	2004-06	6776	16,1	1,12
<b>OM</b>	<b>Oman</b>	2005-05	20424	48,7	0,25
<b>PA</b>	<b>Panama</b>	2004-06	8427	20,1	0,13
<b>KO</b>	<b>Korea</b>	2006-07	23944	53,3	6,88
	<b>Median</b>		6651	15,9	0,22
	<b>Mean</b>		11181	28,4	0,93
<b>US **</b>	<b>Median</b>		38748	100	100

(\*) Drawn up using International Monetary Fund data (on-line), considering average values for the period of negotiation for each Trading partner.

(\*\*) US median values taken from relevant values for each Trading partner at the time of the negotiations.

a- Taken from ;Error! No se encuentra el origen de la referencia..

The above figures show that the TA negotiations took place between would-be partners of a significantly asymmetrical nature. The US economy is seen to be the strongest and therefore likely to be in the most advantageous negotiating position. Furthermore, the relative interest in IP protection, as mirrored by resident patent and trademark application indexes of would-be-partners, also reflect strong asymmetries between their desires regarding levels of IP protection. These features indicate that the outcomes of the negotiations were likely to generally reflect the interests of the US as the partner in strongest negotiating position, namely strong IP protection rules.

**TABLE 4 FEATURES OF US NEGOTIATING PARTNERS AT THE TIME OF THE NEGOTIATIONS (\*)**

Country	Negotiation period a	N° Patent Applications b				N° Trademark Applications b			
		Total		Resident		Total		Resident	
		N°	per Million Inhab.	N°	per Million Inhab.	N°	per Million Inhab.	N°	per Million Inhab.
<b>JO</b> Jordan	2000-00	71	14,8	12	2,5	6573	1370	3307	689
<b>SG</b> Singapore	2000-01	8446	2068,6	520	127,2	19617	4805	4234	1037
<b>CL</b> Chile	2000-02	2803	179,7	293	18,8	40570	2602	28240	1811
<b>HN</b> El Salvador	2003-03	203	31,3	6	0,9				
<b>GT</b> Guatemala	2003-03	271	22,4	8	0,6	7138	590	2255	187
<b>HN</b> Honduras	2003-03	168	25,6	7	1,1	5770	878	1959	298
<b>NI</b> Nicaragua	2003-03	117	22,0	6	1,1	4484	842	794	149
<b>CR</b> Costa Rica	2003-04	385	91,3	49	11,7	9288	2204	4332	1028
<b>MA</b> Morocco	2003-04	610	20,5	117	3,9	8498	286	4163	140
<b>AU</b> Australia	2003-04	22214	1109,8	2489	124,3	53794	2688	33865	1692
<b>DO</b> Dominican Republic	2004-04	270	29,0	37	4,0	4922	528	0	0
<b>BH</b> Bahrain	2004-04	33	46,9	0	0,0	2793	3933	300	422
<b>EC</b> Ecuador	2004-05	540	41,6	6	0,4	12963	998	9466	729
<b>PE</b> Peru	2004-05	922	34,0	33	1,2	16899	623	9568	353
<b>CO</b> Colombia	2004-06	1740	38,7	106	2,4	18428	410	11355	253
<b>OM</b> Oman	2005-05	0	0,0	0	0,0				
<b>PA</b> Panama	2004-06	371	114,8	24	7,4	8511	2634	3859	1194
<b>KO</b> Korea	2006-07	169329	3493,2	127089	2621,8	136014	2806	108851	2246
<b>Median</b>		378	36,3	28	3,2	8511	938	4199	388
<b>Mean</b>		11583	390,6	7267	172,5	20956	1533	14159	664
<b>US Median</b>		349692	1196,7	189239	649,7	248406	846	213495	727

Sources(\*):

Drawn up by the author from different sources, detailed below. The data presented corresponds to the annual average for the years of trade negotiations, according to USTR information.

a- Table 2

b- Based on information published on the WIPO website ([www.wipo.int](http://www.wipo.int)). For El Salvador, Guatemala, Costa Rica, the Dominican Republic the data was made available to the author by the corresponding Patent and trademark offices from February-April 2009; Morocco, Bahrain, Jordan and Colombia data was updated according to patent offices websites' information. Data on patents includes industrial designs and or utility models for Costa Rica and the Dominican Republic figures. Data for residents for Costa Rica is calculated according to proportions published by [www.ricyt.org](http://www.ricyt.org) (Red Iberoamericana de Ciencia y Tecnologia, a cooperation intergovernmental agency).

c- World Bank data bases on-line.

#### **4 METHODOLOGICAL NOTES FOR TA COMPARISON AND INDEX BUILDING OF TAS IP PROTECTION**

Accomplishing the aim of identifying similarities and differences of language used across IP chapters of US bilateral TAs requires first of all identifying provisions regulating similar matters throughout the TAs texts. This task is undertaken by creating a matrix of contents, where rows contain specific topics subject to regulation across TAs and columns correspond to the bilateral TA that contains it. Whenever norms contain different elements, the matrix separates each of them into separate rows, and they are thus considered different provisions. The tables presented in the next sections identify the columns related to the US trading partner the TA was agreed with, by using the acronyms used in **Error! No se encuentra el origen de la referencia.**, Table 3 and Table 4 in

order to save space.<sup>12</sup> This procedure is repeated in each section of the TA that is the subject of analysis in this essay (namely Trademarks, Geographical Indications, Patents and Regulated Products for pharmaceuticals and agrochemicals). The analysis covers the full content of these categories in US bilateral TAs.<sup>13</sup>

Once the issues are organised in the contents' matrix, differences in language used across TAs are identified by relying on three criteria: the nature of commitment, the scope of protection, and the relationship to the WTO-TRIPs benchmark. With regard to distinguishing idioms based on the nature of the commitment, the typology used categorises the following types: 'Shall', 'May', 'Faculty', 'Best effort', 'Reasonable efforts' and 'Recognize' and 'affirm' type of commitments (denoted in the tables by the acronyms 'S', 'M', 'F', 'BE', 'RE', 'R' and 'A', respectively). The order in degree of stringency of these commitments is: 'shall', 'may', 'Best efforts', 'reasonable efforts', 'affirms', and flexibilities, which comes last as it grants parties more freedom regarding protection granted under domestic law.

Another criterion used to categorise language used across TAs, is the evaluation of the TA protection standard with regard to that of WTO-TRIPs benchmark. Every provision whose level of TA protection implies greater entitlements for IP right holders, that is, a wider range of subject matter, more rights for right holders, less flexibility for national legislation to determine legal standards or procedures, can be labelled as a WTO-TRIPs-*plus* provision, which in the tables is labelled using the '+' sign). When the nature of the provision is identical or equivalent to that found in WTO-TRIPs, they are labelled with an '=' sign. Nevertheless, there are cases where similar provisions across TAs differ in such a way with regard to the extent of protection that resorting to separation of the norm in rows becomes ineffective. To overcome this hurdle, such cases use a '+', '-' or '=' sign in addition to the regular ones to convey the difference of language found across TAs.<sup>14</sup>

The third criterion for analysing language across TAs is the scope of circumstances to which the commitment applies. This distinction is particularly relevant for norms governing regulated products. Homologising the scope of circumstances where a commitment applies entails building a meaningful contents' matrix that encompasses the subtleties involved in drafting IP protection commitments. Some greater details are given below.

One strategy for enabling comparisons on the extent of protection across TAs is to focus the analysis on the subset of commitments of a compulsory nature ('shall' commitments) that go beyond the WTO-TRIPs benchmark (marked as

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<sup>12</sup> The acronyms are: Chile (CL), Colombia (CO), Peru (PE), Panama (PA), Singapore (SG) Jordan (JO), Australia (AU), Morocco (MA), CAFTA-DR (Central American Countries Free Trade Agreement, - Honduras, Guatemala, Costa Rica, El Salvador, Nicaragua - plus the Dominican Republic which joined later).

<sup>13</sup> The set of agreements considered were those made public in December 2008 on the US Trade Representative website ([www.ustr.gov](http://www.ustr.gov)).

<sup>14</sup> If a norm is marked with 'S++' in one TA, it means that is more protective than the equivalent norm in another TA which is marked with the 'S+' sign; although both cases entail compulsory WTO-TRIPs '+' norms.

‘+’ commitments). The other types of commitments (‘May’, ‘Best efforts’, etc.) are more difficult to enforce as parties enjoy some leeway to comply with them by virtue of the verb used to frame the commitment. Notably, the same cannot be said for ‘shall’ commitments. Usually, the only flexibility that comes with these commitments is the implementation term, depending on the case, and these are bound to vanish when the term expires.<sup>15</sup> Although compulsory commitments of a WTO-TRIPs ‘=’ nature may eventually entail WTO-TRIPs ‘+’ effects,<sup>16</sup> in view of simplifying computations; it would seem to be more sensible to disregard them as WTO-TRIPs ‘+’ norms.

Once the provisions of the TA are categorised in the way described above, the contents’ matrixes (one per each IP protection category -trademarks, patents, etc.) are sorted according to the nature of commitment (‘shall’, ‘may’, etc.). Those of a compulsory nature that protect beyond the WTO-TRIPs benchmark (‘shall +’) are separated from the rest and counted. These metrics provide a measure of the extent of IP protection that allows for comparisons across TAs.<sup>17</sup>

The simplicity of sorting and counting ‘Shall +’ commitments has both virtues and vices. The virtue of simplicity is the ease of undertaking the procedure; the vice, the aggregation of different matters. Counting ‘shall +’ commitments weighs commitments of a different nature equally and therefore with varying significance for a country. To reduce the problems of aggregation the analysis is performed only on an IP category basis. Furthermore, the commitments related to pharmaceuticals contained in the patent and regulated products sections are further separated from the rest of the provisions. Therefore, the categories for which the analysis is performed are: trademarks (TM), geographical indications (GI), domain names in the internet (DNI), patents for unspecified sector (general patent), patent related to pharmaceutical products (PP Patent), regulated products for pharmaceutical products (Data protection PP) and regulated products for Chemical products (Data protection CP). The first three categories (TM, GI and

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<sup>15</sup> Implementation terms are not considered in the analysis for the purpose of categorisation of the extent of IP protection across TAs. The reason for this omission is that bringing these implementation terms into the analysis would introduce a complexity in the process of categorisation without producing any significant improvement to the qualitative nature of the commitment analysed. The commitment will eventually fall within the ‘shall’ finality once the term of implementation is met. Moreover, terms for implementation are a tricky subject to analyse from texts, as there are some ‘invisible’ implementation terms in some texts. With some TAs the US decided to place them before Congress for its deliberation only once the trading partner had amended domestic legislation to comply with the TA’s provisions in a way that suited the US (CAFTA-DR is one of such cases). The ‘visible’ TA implementation terms were generally considered for the purpose of ratification or adherence of multilateral IP protection treaties, and they tend to coincide across TAs. This does not mean their effects were identical across US TA partners, as some treaties were signed later than others, and therefore the effective term of implementation was shorter for the latest TAs. Other than these implementation terms, the Chile-US bilateral TA contains more elaborated implementation provisions (see article 17.12.12). Such norms have allowed Chile flexibilities in the TA implementation phase that other US trading partners have not been granted.

<sup>16</sup> This would depend of the differences in retaliation measures derived from both WTO and TA dispute mechanisms.

<sup>17</sup> Ties in the index across TAs could be resolved by relying on the next level of protection set of provisions, namely ‘may +’ commitments, and if these new figures could not untie TAs, the next category (Best efforts +) could be used, and so on.

DN) are related to trademarks or denominations, the next two to patents and the final two to data protection.

The above description is not fully applicable to some specific TA commitments, particularly those regarding regulated products. A brief description of the methods used to accomplish meaningful computations of the extent of protection for these IP categories is given below.

#### **4.1 COMMITMENTS REGARDING MULTILATERAL IP TREATIES**

There are two types of commitments found in TAs regarding IP multilateral Treaties. Most TA draft Treaties-related commitments use ‘shall adhere or ratify’ language. Few TAs refer to a multilateral treaty in such a manner as to make trading partners’ laws consistent with those of the multilateral treaty using ‘shall give effect to articles [...] of XX Treaty’ type of language. Although either form of referring to an agreement implies that domestic legislation has to become coherent with such international standard, the enforcement effects differ. The ‘give effect’ formula places compliance of each of the referred Treaty norms under the TA bilateral dispute resolution mechanism. Conversely, by committing to ‘ratify or adhere to’ a Treaty, the dispute resolution scope covers only the compliance to ratify or adhere to the Treaty, not the compliance of domestic law to the international Treaty norms. Thus, the extent of protection achieved with the ‘adhere to or ratify’ language is less far-reaching than with the ‘give effect’ model.<sup>18</sup>

In terms of computing extent of protection, the ‘give effect to articles’ formula equates to adding each article of the referred IP Treaty to the TA, as each of them needs to be complied with (and infringement can trigger the TA dispute resolution mechanism). Provisions stating the need to ‘adhere to or ratify’ a multilateral Treaty imply that only such act can be enforced through the TA dispute resolution mechanism. Thus, the ‘give effect’ commitment is equated to adding to the ‘Shall +’ norm set as many articles as are referred to in the ‘give effect’ norm, whereas the ‘ratify or adhere’ commitment is computed as one additional ‘Shall +’ commitment.

#### **4.2 METHODOLOGY USED TO QUANTIFY THE EXTENT OF PROTECTION FOR SOME DATA PROTECTION PROVISIONS**

TA norms referring to ‘pharmaceutical products’ (PP) or ‘agrochemical products’ (CP) have been drafted in different ways across TAs. Differences in meaning and scope of protection of similar provisions across TAs can be noticed. This fact generates some hurdles for computing the extent of protection using the simple row aggregation procedure described above. To overcome the obstacle in computation, it was necessary to clarify and homogenise the scope of protection of these norms.

One situation appeared whenever the expressions PP and CP were used without any qualifier (such as ‘new’) or where the type of chemical entities used in such

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<sup>18</sup> Some Treaties have designated a forum for dispute resolution (PCT, for instance). The ‘give effect’ language may generate cumbersome legal issues regarding the appropriate forum and procedures for resolving disputes on compliance of Treaty norms between TAs partners.

products was not specified either. These cases contrast from those TAs that neatly specify which ‘chemical entities’ are used in products or whether they are new. If the terms PP or CP are used without qualifiers, it could be interpreted either way: that it includes both new and old chemical entities, or that it includes only one of them. This room for interpretation is not found in those TAs where the type of chemical entities used in the product is explicitly mentioned (new, old or both). Computations need to stress the number of cases where protection applies. In cases with general description and ambiguous interpretation of the scope of protection, the values used for the number of circumstances where commitment applies were intermediate values. Thus, instead of assuming values 1 (provision applies only in one circumstance) or 2 (provision applies in both circumstances) the value used in the computations was 1,5. Similarly, some TAs (Morocco and Singapore) use the expression ‘new pharmaceutical products’ or ‘new agrochemical products’. In one of these cases the text does not clarify which chemical entity is contained in the product (new or old). The situation is equivalent to the one described above, and therefore the same rationale was used in this case for computing the number of situations where commitment applies.

TAs using expressions ‘new pharmaceutical’ or ‘new agrochemical’ products in addition to distinctions of the type of entity used in the respective products are presented in the tables in more than one row. However, in the case of computations, row aggregation procedure cannot provide an adequate estimator for the number of circumstances where TA commitments apply, as it would incorrectly amplify the number of cases of binding commitments. In particular, it would add one inexistent circumstance to the actual ones derived from the texts. Appropriate corrections in the procedure are made.<sup>19</sup>

#### **4.3 METHODOLOGY USED TO QUANTIFY THE EXTENT OF PROTECTION FOR ‘AGAINST DISCLOSURE’ COMMITMENTS OF THE DATA PROTECTION SECTIONS.**

Some TAs limit data protection norms to information of an undisclosed nature (UnD). In some of these cases, there is an additional obligation to provide protection for such data against disclosure (AD). The appropriate computation of these cases necessitates considering the correct number of circumstances where a TA requires data protection of information of an undisclosed nature. Therefore the appropriate number of cases where the obligation to protect data against disclosure is:

AD cases \* UnD cases

where AD cases refers to the ‘against disclosure’ cases (presented as rows in Table 11 and Table 12, and UnD cases correspond to the Undisclosed Information cases presented in Table 10 adjusted by the criteria explained above in 4.2.

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<sup>19</sup> ¡Error! No se encuentra el origen de la referencia. in the annex exemplifies the inadequacy of aggregating rows in all the above cases for computing the number of situations where a commitment applies.

## **5 THE INDUSTRIAL PROPERTY RELATED CONTENTS OF TA IP CHAPTERS**

### **5.1 TRADEMARKS (TM)**

Table 5 shows the substantive trademark (TM) provisions of the different TAs.<sup>20</sup> These provisions can be grouped into 17 types of norms, each containing at least one sphere of commitment (shown as rows in the table). A brief explanation of these provisions in relation to WTO-TRIPs rules is given below.

The first type of provisions refers to the categories of TM to be recognised by Parties (collective, certification, sounds, scent and Geographical Indications (GIs)). The multilateral standard only obligates recognition of collective signs as trademarks<sup>21</sup>, therefore the other categories imply a substantive departure from WTO-TRIPs standards. One TA acknowledges the ability of Parties to require adequate description of the mark to be protected, which can be understood as flexibility for the parties to regulate recognition of new trademarks. Related to this commitment is the one which refers to the limitations on Parties imposing restrictions to register a trademark on the grounds of the nature of the mark (visually perceptible, scent or sound). Such provisions reflect the interest of the US in extending the scope of protection to new forms of TMs worldwide.

The third type of commitment states that GIs should be able to constitute a trademark by combining the WTO-TRIPs definitions of trademarks with those of the GI.<sup>22</sup> In some TAs this extension is made applicable to both goods and services. While WTO-TRIPs distinguished neatly between GIs and TMs as separate IP categories, TAs fuse them in such a way as to accommodate the continental approach of distinct protections for GIs from TMs with that of the US system where GIs are protected largely as a species of the TM genre.<sup>23</sup> Language found in some TAs, where the fusion of both WTO-TRIPs definitions gets more accomplished, other than adding scents and sounds as TMs do, also broadens the scope of protection by accepting GIs' recognition not only to goods but also to services.<sup>24</sup>

The fourth provision refers to limiting the ability of Parties to restrict the way a TM is used in order to limit impairment of its effectiveness of use.<sup>25</sup> TAs make the commitment specific to types of mandatory use of the TM.

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<sup>20</sup> Trademark related provisions of the enforcement section of the treaties are not included in the table.

<sup>21</sup> By applying article 2.1 of WTO-TRIPs and article 7 bis of the Paris Convention.

<sup>22</sup> See articles 15.1 and 22.1 of WTO-TRIPs agreement.

<sup>23</sup> Many legal systems of Latin American countries protect GIs as a different category to TMs; closer to the protection system found in the EU.

<sup>24</sup> See article 22.1 of WTO-TRIPs.

<sup>25</sup> The language used is extended in some TAs to the TM of both goods and services. Although the original WTO-TRIPs provision refers to goods and services, the new language found in the TA goes beyond the multilateral standard by exemplifying forms of limitations, and therefore the reference to goods and services extends the protection to a larger set.

**TABLE 5 TRADEMARK NORMS OF BILATERAL US TAs**

NORM	Trademark section of TA US-											
	CL	CO	PA	SG	JO	AU	MA	CAFTA	OM	BH	KR	
	PE					DR						
<b>1 TM Type</b>												
	Goods							S =				
	Services							S =				
	Collective	S =	S =	S =	S =	S =	S =	S =	S =			
	Certification	S +	S +	S +	S +	S +	S +	S +	S +	S +	S +	
	Sounds	S +		S +					S +			
	Scent	M +	M +	M +	BE +	M +	M +	M +	M +			
(*)	GIs	M +	M +	M +	M +	M +	S +	M +	M +			
	<b>Adequate description</b>							F +				
<b>2 Limits of TM registration requirements</b>												
	Visually perceptible		S +		S +		S +	S +		M +	M +	M +
	Scent		S +				S +	S +		M +	M +	M +
	Sound		S +				S +	S +		M +	M +	M +
<b>3 IG as TM (*)</b>												
	Goods	M =	S -	M =	M =	M =	M =		M =	S -	S -	S -
	Services	M +		M +	M +	M +						
<b>4 Other Requirements which impair effectiveness of use</b>												
	Goods	S +	S +	S +	S +		S +	S +	S +	S +	S +	S +
	Services		S +	S +			S +	S +	S +	S +		S +
<b>5 Exclusive Right to exclude others</b>												
(*)	Including GI											S +
(*)	Any GI		S +	S +	S +	S +	S +	S +	S +	S +	S +	
(*)	Subsequent GI	S +										
<b>6 Likelihood of confusion presumption</b>												
(*)	Including GI			S +			S +	S +	S +	S +		S +
	Defined by domestic legislation	F =										
<b>7 Art. 6 bis Paris C. for TM</b>												
	Registered or not	S +	S +	S +	S +	S +	S +	S +	S +	S +	S +	S +
	Scope of reputation	S +	S +	S +			S +	S +	S +	S +	S +	S +
	Domestic Definition		F =									
	Other requirements											S +
	Prohibition / cancelation of TM on grounds of well known TM											S +
(*)	TM	S +								S +		S +
	GI									S +		S +
	Goods									S +		S +
	Services									S +		S +
<b>8 Exceptions to Exclusive rights</b>	M =	M =	M =	M =		M =	M =	M =	M =	M =	M =	
<b>9 Registration system</b>												
	Written communication	S +	S +	S +			S +	S +	S +	S +	S +	S +
	Opportunity to respond	S +	S +	S +			S +	S +	S +	S +	S +	S +
	Right to oppose registration	S +	S +	S +	S +		S +	S +	S +	S +	S +	S +
	Right to cancel registration		S +	S +			S +	S +	S +	S +	S +	S +
	Decisions of refusal or cancelation be reasoned and in	S +	S +	S +			S +	S +	S +	S +	S +	S +

writing

<b>10 Electronic System</b>											
<b>application, processing, registration, and maintenance of trademarks</b>											
	S +--	S +	S +		S +	S +	S +-	S +	S +	S +	
Publicly available electronic data base		S +	S +		S +	S +	S +-	S +	S +	S +	
<b>11 Use of Nice Classification on goods and services</b>											
Classify/group	S +-	S +	S +		S +	S +	S +	S +	S +	S +	
Publish including classification	S +	S +	S +		S +	S +	S +	S +	S +	S +	
Goods/ services not be considered (di)/similar solely on grounds of classification	S =	S =	S =		S =	S =	S =	S =	S =	S =	
<b>12 Term of protection 10 years</b>											
		S +	S +		S +	S +	S +	S +	S +	S +	
<b>13 Prohibition to require registry of licences</b>											
		S +	S +	S +	S +	S +	S +	S +	S +	S +	S +
For validity		S +	S +	S +	S +	S +	S +	S +	S +	S +	S +
Other purposes		S +	S +			S +	S +	S +	S +	S +	S +
Exception for publicity		F +	F +				F +				
<b>14 Harmonization of multilateral law</b>											
						M +					
<b>15 Assert rights, opposition and cancelation</b>											
						S +					
<b>Joint Recommendation Concerning Provisions on the Protection of Well-Known trademarks</b>											
Recognizes the importance		S +									
** Gives effect to Articles 1-6					S +	S +					
					(6)	(6)					
<b>17 Multilateral Treaties</b>											
<b>a Trade Mark Treaty</b>											
Ratifies or accedes	S +	S +	S +		S +	A +	S +	S +	S +	S +	S +
** Gives effect (25)					S +						
					(25)						
<b>Protocol Relating to the Madrid Agreement Concerning the International Registration of Trademarks (1989).</b>											
Ratifies or accedes	RE +	RE +	RE +	BE +	BE +	A +	S +	RE +	S +	S +	S +
<b>b Singapore Treaty</b>											
Ratifies or accedes											RE +

Notes:

Acronyms for countries contained in footnote N° 12.

S : Refers to 'Shall' type of commitment; compliance mandatory.

M : Refers to 'May' Commitment; compliance optional

F : Refers to 'Exception' or Flexibility type of provision

+ : Refers to a provision that goes beyond the TRIPs minimum standard of IP protection.

= : Refers to a provision with identical IP protection to that of TRIPs minimum standard.

- : Refers to a provision with lower level of protection than equivalent provision in IP chapters of other TAs.

(\*) : GI Refers to Geographical Indications

(\*\*): Equivalent to 6 and 25 'shall' commitments, for the Joint recommendation and Trade Law Treaty, respectively.

There is also a provision that extends exclusive TM rights to GIs. The consequence is to ensure the enjoyment of the exclusive rights of TMs for GIs if

they happen to be protected as TM by a partner.<sup>26</sup> It should be noted, though, that this does not necessarily oblige US trading partners to provide GI protection to US GIs with the Trademark system. The Chile-US TA for example makes that distinction very clear by separating regulation for trademarks from that of GIs. Such TA obligates providing means to protect collective and certification US trademarks as such if protection is requested. However, protection of US GIs as such (whether they are protected as collective or certifications trademarks or in other way in the US) would be protected in Chile as the country protects GIs, namely by resorting to a special registration system. Something similar occurs with other GI registration or protection systems of other US TA partners.<sup>27</sup>

Another provision refers to the presumption of the likelihood of confusion of well known trademarks; it extends the obligation to be applied to GIs in relation to a TM, as prescribed by WTO-TRIPs.

The seventh provision refers to the well known TM. It extends article 6 bis of the Paris Convention to unregistered TMs, limits the ability to extend the scope of reputation required of the TM, other requirements for protection, and in some cases also provides for domestically determining public dealing with the goods and services. Related provisions extend the ability to cancel or refuse registration of TM on grounds of well known trademarks infringement to GIs.<sup>28</sup>

The norm regulating exceptions to exclusive rights is one of the few provisions that strictly follow WTO-TRIPs language.<sup>29</sup>

TAs also provide for standards for the TM registration system to be complied with. These are: having written communication with the applicant, the opportunity to respond, the right to oppose and cancel registration, and that refusal decisions should be reasoned and in writing. Most TAs have commitments regarding putting electronic registration systems in place, including the availability of databases of registering parties. All these norms are new and beyond the scope of WTO-TRIPs.

Another domain of provisions is related to the Nice classification system. In general, these obligations force parties to use the system, but not to be entirely governed by it regarding registration decisions.

TAs extend the term of protection for TMs from the 7 years provided by WTO-TRIPs to 10 years. It also includes provisions limiting or prohibiting the ability of Parties to subject TM to registration schemes for their licences, either for

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<sup>26</sup> US's GIs are generally protected through the TM system -certification and collective trademarks-, unlike many countries, for example Latin-American countries.

<sup>27</sup> Australia has also put in place a registry system for wines and spirits. Andean countries (Perú and Colombia, US TA partners) have a regional protection system for GIs.

<sup>28</sup> The novelty of the norm for the legal systems of countries depends to a large extent on the kind of protection countries use to protect GIs. To the extent protection is given through the TM system (like the US) no major changes are implied. If countries rely on a distinct protection system for GIs, the norm may imply new standards.

<sup>29</sup> By application of articles XX of WTO-TRIPs and article XX of the Paris Convention.

validity of the TM or for any other purpose. Some TAs, however include an exception to this provision for advertising reasons.<sup>30</sup>

There is a two-part provision specific to the Australian TA. It calls for reducing differences in law and practice between the countries and participating in multilateral efforts towards harmonization of trademark law. The nature and extent of commitment, however, is weak.

The TAs include in the general provisions sections a norm that provides for incorporating multilateral treaties and legal standards into domestic legislation of TA trading partners. Regarding TM, TAs include the Trade Mark Law Treaty (TLT), the Joint Recommendation on the protection of well known trademarks<sup>31</sup>, the Protocol Relating to the Madrid Agreement Concerning the International Registration of Trademarks (1989) and the Singapore Trademark Treaty. Ever since the Chile-US TA was agreed, this type of provision took the form of adhering or ratifying the Treaty (or other Treaties for this matter); earlier TAs (Jordan and Singapore US bilateral TAs) drafted the obligation so that TA partners have to 'give effect' to the articles of the Multilateral text referred.

## **5.2 DOMAIN NAMES ON THE INTERNET (DNI)**

Table 6 provides a summary of the content of domain names in the internet provisions of the different TAs signed by the US during the 2000 period. These provisions provide for procedures to be available for TM right holders to file complaints for allegations of cyber piracy of trademarks or trade names. With the same reasoning, it also provides for the need for management of country names top codes to make contact information regarding the domain names of registering parties available. In the case of the TA with Singapore, it also includes a provision to make governments engage in ICANNs Governmental Advisory Committee. As the latter has no clear relationship to any IP protection issue, other TAs disregard the matter.<sup>32</sup> In some cases, there is also a provision establishing the commitment of making available information on domestic rules regarding personal protection laws to registering parties. Of the four provisions, three are related to TM protection.

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<sup>30</sup> This is due to the fact that many Latin-American countries, at least, have a property rights system where dominion is founded on the good's listing in public registries. Agreements made between private parties regarding such good are considered to have been made known by any third party for enforcement purposes, only if it is listed or annexed to the good's public registration. Without such listing, in spite of the validity of such agreement, it has no hope of having binding effects over third parties' actions regarding the good. For most Latin American countries, IP is not exempted from this general feature of the property system.

<sup>31</sup> This document does not constitute a Treaty, as it was not agreed at a diplomatic conference and signed by countries, but rather agreed within the WIPO Standing Committee for Trademarks and Geographical indications. It is usually considered as 'soft law'.

<sup>32</sup> This provision was found of little interest for Chile as the body Governments were supposed to advise has no international validation or recognition. Its origin is not related to an international treaty to which countries are bound. Therefore governments have no assurances on the body's procedures or outcomes.

**TABLE 6 TA'S PROVISIONS REGARDING DOMAIN NAMES ON THE INTERNET**

Topic	Commitments	US Trading Partner										
		CL	CO	PA	SG	JO	AU	MA	CAFTA	OM	BH	KO
		PE					RD					
1	Appropriate disputes settlement procedure based on the principles established in the Uniform Domain-Name Dispute Resolution Policy	S+	S+	S+	S+		S+	S+	S+	S+	S+	S+
2	Participate in Governmental Advisory Committee of Internet Corporation for Assigned Names and Numbers (ICANN)				S+							
3	Provide online public access database of DNI registrants	S+	S+	S+	S+		S+	S+	S+	S+	S+	S+
4	Exception regarding protection of personal data	F+		F+					F+			

Notes:

Acronyms for countries contained in footnote N° 12.

S : Refers to 'Shall' type of commitment; compliance mandatory.

F : Refers to 'Flexibility' as it entails an exception type of provision

+ : Refers to a provision that goes beyond the TRIPs minimum standard of IP protection.

### 5.3 GEOGRAPHICAL INDICATIONS (GIs)

Table 7 includes GI provisions of TAs, other than those related to the previously analysed TM. It highlights that two TAs (Singapore and Jordan agreements) completely exclude the treatment of GIs as a separate category or with separate provisions to those of TMs. Conversely, the Chile-US TA considers GIs provisions distinctly in both format and language to that of TMs.

The table shows that bilateral US TAs provide for 14 types of provisions concerning GIs. As in TMs, it fuses definition of GIs with that of trademarks. Hence, domestic GI protection systems of US partners necessarily have to accommodate protection of US GIs. Some TAs include a clarification for the 'originating' concept of the GI definition, with respect to similar expressions found elsewhere in the Treaties.

GI sections include a norm for providing a legal means for identifying and protecting a GI, including in some cases, a definition of what should be understood by such means. WTO-TRIPs standard makes it mandatory to provide legal means for preventing acts of unfair competition<sup>33</sup> and misrepresentation of the origin of goods<sup>34</sup>. It also enables the refusal or invalidation of Trademark registration of GIs which misrepresent the origin of the goods. Therefore by stating the need to provide means for identifying GIs, TAs goes beyond the WTO-TRIPs standard.

TAs include a similar provision, potentially in many cases, to provide for means to request protection or recognition of GI, by a registration system (TM or otherwise). This obligation clearly exceeds the WTO-TRIPs standard, as there is no such obligation of recognition at the multilateral level. All TAs include a provision prohibiting the requirement of government intercession to grant

<sup>33</sup> Within the meaning of Article 10bis of the Paris Convention.

<sup>34</sup> See articles 22.2. and 22.3 of WTO-TRIPs.

recognition of GIs. Additionally, they state that domestic procedures need to have a minimum of formalities and rules concerning application procedures and have to be made available to the public in written and electronic formats, all of which are novel compared to the WTO multilateral rules.

**TABLE 7 GI PROVISIONS OF BILATERAL US TAS**

Topic Commitments	US Trading Partner										
	CL	CO	PA	SG	JO	AU	MA	CAFTA	OM	BH	KO
	PE					RD					
<b>1 GI Definition</b>	=	=	=	=	=	=	=	=	=	=	=
<b>2 Sign Definition</b>	S+	S+	S+	S+	S+	S+	S+	S+	S+	S+	S+
<b>3 Clarification of 'originating' concept</b>						F+	F+		F+	F+	
<b>4 Provide legal means to identify and protect</b>	S+	S+						S+			
Definition of legal means to identify		S+						S+			
<b>5 Provide means to request protection or recognition of GI</b>	S+	I+	S+			I+	I+	S+	I+	I+	I+
By TM or other system		=				=			=	=	=
<b>6 No requirement of government intercession</b>	S+	S+	S+			S+	S+	S+	S+	S+	S+
<b>7 Process petitions with Minimum of formalities</b>	S+	S+	S+			S+	S+	S+	S+	S+	S+
<b>8 Rules concerning application procedures available to the public</b>	S+	S+	S+			S+	S+	S+		S+	
In written and electronic format	S+										
<b>9 Provide for Publication of application and opposition</b>	S+	S+	S+			S+	S+	S+	S+	S+	S+
<b>10 Provide for system of Cancellation of registry</b>	S+	S+	S+			S+	S+	S+	S+	S+	S+
<b>11 Provide for clear procedures</b>	S+	S+	S+			S+	S+	S+	S+	S+	S+
Available to the public						S+			S+	S+	
Containing sufficient information for general Public applicant			S+			S+	S+	S+	S+	S+	S+
<b>12 Refusal of application on grounds of similarity to</b>											
Good faith TM application	S+	S+	S+			S+	S+	S+		S+	
And earlier priority to GI									S+	S+	
Registered TM	S+	S+	S+			S+	S+	S+		S+	
And earlier priority to GI									S+	S+	
TM acquired through use	S+	S+	S+			S+	S+	S+		S+	
And earlier priority to GI									S+	S+	
Pre-existent well known marks									S+	S+	
Pre-existent definition									S+	S+	
<b>13 Recognition of the principle of TM exclusivity</b>	R+										
Communicate to the public how commitments are to be implemented	S+										
<b>14 Provide recognition to US GIs of wines and spirits</b>	S+										

Notes:

Acronyms for countries contained in footnote N° 12.

S : Refers to 'Shall' type of commitment; compliance mandatory.

F : Refers to 'Exception' or Flexibility type of provision

R : Refers to a 'Recognition' type of commitment; acknowledgment, no action required.

I : Refers to a 'If' provision; commitment is binding only if condition applies and if it is a conditional commitment.

+ : Refers to a provision that goes beyond the TRIPs minimum standard of IP protection.

= : Refers to a provision with identical IP protection to that of the TRIPs minimum standard.



<b>1</b>	<b>Patentability prerequisites</b>	=	=	=	=	=	=	=	=	=	=	=	
<b>2</b>	<b>Limits to patent exclusions</b>												
	TRIPs art. 27.3												
	(a)	S+											
	Plants	RE	RE	RE	S+	S+	S+	S+	RE	++	S+	S+	S+
	Animals	S+				S+	S+	S+					
<b>3</b>	<b>Restrictions to limitations on parallel imports</b>	S+				S+	S+						
<b>4</b>	<b>Exceptions to exclusive rights</b>	=	=	=	=	=	=	=	=	=	=	=	
<b>5</b>	<b>New Uses</b>					S+	S+			S+	S+	S+	
<b>6</b>	<b>Basis for revoking or annulling only on grounds</b>												
	that would have justified refusal to grant, including												
	fraud	S+	S+	S+	S+	S+	S+	S+	S+	S+	S+	S+	
	Make patent unenforceable	S+		S+	S+			S+	S+	S+	S+	S+	
<b>7</b>	<b>Opposition</b>	S+				S+			S+	S+	S+		
	Ex-post grant only	S+	S+	S+			S+	S+	S+	S+	S+		
<b>8</b>	<b>Unauthorized uses of patent</b>	S+				S+	S+						
<b>9</b>	<b>Extension patent term due to</b>												
<b>a</b>	<b>unreasonable delays in patent granting</b>												
	Pharmaceuticals	s+	M+	M+	s+	s+	s+	s+	s+	s+	s+	s+	
	Other patents	s+	S+	S+	s+	s+	s+	s+	s+	s+	s+		
	Extensions due to other countries delays	S+							S+	S+			
<b>b</b>	<b>Unreasonable term curtailment resulting from MKT approval process of Pharmaceuticals Products</b>	S+					S+			S+			
	Any	S+		S+				S+					
	New										S+		
	New methods of use										S+	S+	
(*)	NCE										S+		
	occurring in 3 <sup>rd</sup> countries										S+	S+	
<b>10</b>	<b>Deposit sample according to Budapest Treaty.</b>					S+							
<b>11</b>	<b>Innocuous Publications for novelty and inventive step standards</b>	S+	S+	S+	S+			S+	S+	S+	S+		
<b>12</b>	<b>Opportunity to submit amendments</b>	S+		S+	S+			S+	S+	S+	S+		
	No amendment shall introduce new matter	S+											
<b>13</b>	<b>Sufficient disclosure, without undue experimentation</b>	S+		S+	S+			S+	S+	S+	S+		
<b>14</b>	<b>Sufficient disclosure standard (possession)</b>	S+		S+	S+			S+	S+	S+	S+		
<b>15</b>	<b>Industrial applicability standard-usefulness</b>	S+		S+	S+			S+	S+	S+	S+		
<b>Topic Commitments</b>		<b>US Trading Partner</b>											
		<b>CL</b>	<b>CO</b>	<b>PA</b>	<b>SG</b>	<b>JO</b>	<b>AU</b>	<b>MA</b>	<b>CAFTA</b>	<b>OM</b>	<b>BH</b>	<b>KO</b>	
		<b>PE</b>										<b>RD</b>	
<b>16</b>	<b>Endeavour to reduce differences in law and practice</b>					S+							
<b>17</b>	<b>Endeavour to establish a cooperative framework</b>					S+							

between their respective patent offices											
18 Multilateral Treaties											
<b>PCT</b>											
Ratifies or accedes	S+	S+	S+	S+	BE+	A+	S+	S+	S+	S+	S+
<b>UPOV 1991</b>											
Ratifies or accedes	S+	S+	S+	S+		A+	S+	S+	S+	S+	S+
Give effect/ Comply with (+22)						S+*					
<b>PLT</b>											
Ratifies or accedes	RE +	RE +	RE +			BE+	RE +	RE +	BE+	RE+	
Give effect/ Comply with						BE+					
<b>Budapest</b>											
Ratifies or accedes		S+	S+			A+	S+	S+	S+	S+	S+
<b>Hague</b>											
Ratifies or accedes	RE +	RE +	RE +	BE+		BE+	RE +	RE +	BE+	RE+	
Give effect/ Comply with						BE+					

Notes:

Acronyms for countries contained in Table 2 and footnote N° 12.

S : Refers to 'Shall' type of commitment; compliance mandatory.

M : Refers to 'May' Commitment; compliance optional.

A : Refers to 'Affirm' type of commitment.

RE : Refers to 'Reasonable efforts'.

+ : Refers to a provision that goes beyond the TRIPs minimum standard of IP protection.

= : Refers to a provision with identical IP protection to that of the TRIPs minimum standard.

- : Refers to a provision with a lower level of protection than equivalent provision in other TA's IP chapters.

(\*) : NCE refers to a 'new chemical entity'.

The first patent provision consists of the patentability criteria. The TA norms follow the WTO-TRIPs' norm. However, when determining the set of protectable subject matter, TAs clearly aimed at extending the scope of patent protection beyond the WTO-TRIPs standard. First, the exclusions included in WTO-TRIPs were trimmed in some TAs, particularly the ability to exclude patents for plants and/or animals.<sup>36</sup> Second, some TAs explicitly provide for second use patents, a matter which is not regulated under WTO-TRIPs.

Some early TAs included a provision which limits the ability of countries to provide for parallel imports, by resorting to language concerning the ability of right holders to make licensing agreements targeting importation rights. This constitutes a significant departure from WTO-TRIPs language and inspiration.<sup>37</sup>

The criterion for exceptions and limitations of TAs was that of WTO-TRIPs. However, some TAs go beyond WTO-TRIPs by limiting the scope for unauthorised uses compared to multilateral rule. This is another major departure from WTO-TRIPs inspiration, where those TAs neatly reduce the built-in flexibility incorporated in the multilateral agreement.<sup>38</sup> Unauthorised uses regulated under WTO-TRIPs are an unbound set of circumstances, which need to address the regulation of WTO-TRIPs' article 30.

<sup>36</sup> However, some TAs assumed light commitments regarding plants patenting, by committing to make 'reasonable efforts' to provide patents for plants.

<sup>37</sup> Article 6 of WTO-TRIPs leaves this matter outside the dispute settlement mechanism of WTO.

<sup>38</sup> Article 30's drafting is one of the tools by which WTO-TRIPs may effectively accomplish the purposes and objectives stated in its foreword and in its articles 7 and 8.

TAs also took a stand on procedural issues leading to making a patent void, null, invalid or unenforceable, in some cases, departing from the WTO-TRIPs standard. The first and most vigorously sought after criterion was that of restricting the grounds for such procedures to take place. Some TAs went even further by stating that these procedures can only take place after patents have been granted. The aim of these provisions differs significantly from that found for TMs and GIs. In the latter, the aim of TA commitments is to provide for as many procedural opportunities for TM right holders to challenge rights (or potential rights) asserted by third parties. For patents, however, the aim is to restrict the events and circumstances where patents can lose their exclusive rights.

Another new area of patent regulation that arises in some TAs is the commitment regarding the need to provide for an opportunity to make amendments during patent application procedures (and in some cases specifying that no additional matter shall be permitted in these amendments). This procedural issue had been absent in WTO standard. One TA includes a provision regarding the adequacy of depositing samples of subject matter in an international depository authority (related to the Budapest Treaty on the International Recognition of the Deposit of Microorganisms) in order to comply with written description requirements for some patents.

TAs innovate in patent regulation by providing for new rules on patentability standards. First, they prohibit publications from affecting either the novelty of patent applications or their inventive nature, prior to filing date. It also provides, in some TAs, for a new criterion of industrial applicability, assimilating it to usefulness in a manner different to TRIPs language. Whereas TRIPs language allows for countries using either the usefulness or industrial applicability criterion, TA drafting makes it mandatory to meet the industrial applicability concept whenever the invention has a credible usefulness. Therefore those TAs equate both standards to the usefulness standard. Sufficiency of disclosure and sufficiency of support are also regulated in a way different to WTO- TRIPs rule; whereas sufficiency of support of the invention claimed would be met if possession of the invention at filing date can be conveyed by a person skilled in the art, sufficiency of disclosure would add to the WTO-TRIPs criterion that for that person skilled in the art, the patent shall be clear without the need for any further experimentation. Additionally, in some TAs there is no reference to the ability of countries to request the best mode to implement the invention as WTO-TRIPs does.

Another area in which TAs break new ground, departing from the WTO-TRIPs rule, is the need to extend the term of patent protection whenever administrative delays are of such an extent that they limit the actual life of a patent. Two procedures are generally considered: first the patent granting procedure and second, the marketing approvals for pharmaceuticals subject to patents. The latter are analysed in the next section.

TAs with more developed countries (Australia and Korea) include an additional provision regarding mutual patent examination cooperation. This one and the one included exclusively in the US-Australia TA regarding the reduction of law and

practices differences are both lax in their terms of commitment (using expressions for the actions required by parties like ‘endeavour’ rather than ‘shall’).

TAs include commitments regarding multilateral Treaties concerning innovations, such as the Patent Cooperation Treaty (known as PCT), the Patent of Law Treaty (known as PLT), The UPOV Agreement (as amended in 1991) for new plant varieties, the Budapest Treaty for the deposit of microorganisms and the Hague Treaty for Industrial Designs. Early TAs (Singapore and Jordan) include fewer treaties than later TAs. As with TM multilateral Treaties, TAs differ on whether the commitment is made to ‘ratify or adhere to’ a Treaty, or if parties need to ‘give effect to’ (or ‘comply with’) a Treaty. The only difference is found in the TA between the US and Australia, where the commitment made is to ‘affirm’ that Parties have ratified a Treaty. This partly obeys the fact that both partners had signed the treaties before the end of the bilateral TA negotiation. This wording has no clear room for the dispute settlement sphere of the TAs.

### **5.5 DATA PROTECTION FOR PHARMACEUTICALS AND AGROCHEMICALS**

TAs include a section within the IP chapters with specific provisions for ‘regulated products’, namely pharmaceuticals and agrochemicals. The aim of these norms, on the one hand, is to specify in greater detail the protection provided under WTO-TRIPs for the data required by government agencies within marketing approval procedures of those regulated products. On the other hand, it aims at extending the scope of applicability of the WTO-TRIPs rule. The latter states the need to protect undisclosed data against unfair commercial use (UCU). This norm allows countries to determine domestically the way of complying with such a general standard. TAs, however, impose a higher protection standard in most cases, as they require a term and form of protection for such data (three, five and ten years) which would enable market exclusivity (MK Exc) for the products that first provide such data within a marketing approval procedure. Additionally, in some cases it also provides for the obligation to protect the data against disclosure. This obligation is closely related to the scope of information which is required to be protected under the market exclusivity clauses, i.e. whether information subject to protection is of an undisclosed or disclosed nature. While WTO-TRIPs provide protection only for the former, TAs extends the reach of protection to disclosed data. Finally, one TA expands the scope of procedures which lead to data protection: marketing approval or sanitary registration. Table 9 summarises the type of data protection regulated under TAs.

The provisions of the ‘regulated products’ sections of the TAs acquire an increasing level of complexity as TAs progress. They are analysed in detail next.

**TABLE 9 PROVISIONS OF BILATERAL US TAs REGARDING DATA PROTECTION RELATED TO PRODUCTS WITH MARKETING APPROVALS**

N° Kind of Protection	US Trading Partner <sup>(1)</sup>										
	CL	CO	PA	SG	JO	AU	MA	CAFTA	OM	BH	KO
	PE					RD					
<b>1 Market Exclusivity (Mk Exc)</b>											
<b>Pharmaceuticals (PP)</b>											
3 years						S +	S +		S +	S +	S +
5 years	S +					S +	S +	S +	S +	S +	S +
other		M +	M +								
<b>Agro Chemicals (CP)</b>											
3 years						S +			S +	S +	S +
10 years	S +	S +	S +	S +		S +	S +	S +	S +	S +	S +
<b>2 Unfair Commercial Use (UCU)</b>											
PP						S +	S +				
CP						S +					
<b>3 Against disclosure</b>											
PP	S +	S +	S +		S +			S +			
CP	S +		S +		S +			S +			

Notes:

(1) Acronyms for countries contained in footnote N° 12.

S : Refers to ‘Shall’ type of commitment; compliance mandatory.

M : Refers to ‘May’ Commitment; compliance optional.

+ : Refers to a provision that goes beyond the TRIPs minimum standard of IP protection.

### 5.5.1 SITUATIONS CONSIDERED IN BILATERAL US TAs FOR DATA PROTECTION

Data protection, other than the kinds of protection discussed above and presented in Table 9 differs across TAs. The language of the agreements describe or imply different situations where protection needs to be provided; some situations refer to the data which would be subject to protection, while others refer to the products subject to marketing approval processes, and consequently texts cover combinations of these two dimensions. Regarding the data to be protected, distinctions are found across TAs on three grounds: i) whether the production of the data involves considerable effort, ii) whether the data is of an undisclosed nature, and iii) whether there is novelty regarding the chemical entity to which the data refers. Additionally, differences are found regarding the type of evidence which generates data protection (either unfair commercial use –UCU-, market exclusivity –Mk Exc- or against disclosure). On the other hand, differences are found in the protection required for pharmaceuticals compared to that required for agrochemicals. Consequently, TAs state a set of circumstances under which protection needs to be provided. The smallest set is that which indicates that the matter to be protected is of an *undisclosed* nature, which has been produced with *considerable effort* and which refers to *new chemical entities*, not previously approved for any prior use. Conversely, the biggest set of circumstances would be such in which no qualification on the data is made.

Additionally, some TAs would add the need to provide for market exclusivity of products subject to marketing approval, whenever domestic marketing approval relies on approval procedures of another country as evidence of meeting safety and efficacy standards. By resorting to the distinctions made in TA language, Table 10 presents a summary of the scope of protection required in each bilateral

US TA. It indicates with the corresponding letters, the binding nature of each commitment for the circumstances explicitly mentioned in the text (denoted with capital letters) and those tacit from the text (denoted with standard letters).

**TABLE 10 DATA PROTECTION PROVISIONS OF US BILATERAL TAs. SITUATIONS WHERE PROTECTION IS REQUIRED**

Protection Characteristics					US TA Bilateral Rules (4)										
Kind (1)	Product under MKT approval (2)	Subject of Protection (Data) Features (3)			CL PE	CO	PA	SG	JO	AU	MA	CAFTA	OM	BH	KO
		Explicit Reference in Text	Data Type	Chemical Entity referred to in data											
<b>Pharmaceutical Products (PP)</b>															
<b>UCU</b>															
	PP-NCE	UnD	NCE	Effort					s +						
	PP-NCE	Evidence							s +						
	PP-OCE-NU	UnD	OCE	Effort					s +						
	PP-OCE-NU	Evidence							s +						
<b>Mk Exc</b>															
	PP	D	NCE	Effort					s +						
	PP	D	NCE	Other					s +						
	PP	D	OCE	Effort					s +						
	PP	D	OCE	Other					s +						
	PP	UnD	NCE	Effort					s +						
	PP	UnD	NCE	Other					s +						
	PP	UnD	OCE	Effort					s +						
	PP	UnD	OCE	Other					s +						
	PP	Evidence							S +						
	NPP	D	NCE	Effort						s +		s +	s +	S +	
	NPP	D	NCE	Other						s +		s +	s +		
	NPP	D	OCE	Effort						s +		s +	s +	S +	
	NPP	D	OCE	Other						s +		s +	s +		
	NPP	UnD	NCE	Effort					S +	s +	S +	s +	s +	S +	
	NPP	UnD	NCE	Other					S +	s +	S +	s +	s +		
	NPP	UnD	OCE	Effort					S +	s +	S +	s +	s +	S +	
	NPP	UnD	OCE	Other					S +	s +	S +	s +	s +		
	NPP	Evidence							S +	S +	S +	S +	S +	S +	
	PP-NCE	D	NCE	Effort									s +	s +	
	PP-NCE	D	NCE	Other									s +	s +	
	PP-NCE	UnD	NCE	Effort	S +			S +	S +			S +	s +	s +	
	PP-NCE	UnD	NCE	Other	S +				S +			S +	s +	s +	
	PP-NCE	Evidence						S +	S +			S +	S +	S +	
	PP-OCE-NU	D	OCE	Essential					S +			S +	S +	S +	
	PP-OCE-NU	D	OCE	Other											
	PP-OCE-NU	UnD	OCE	Essential				S +	S +	S +			S +	S +	
	PP-OCE-NU	UnD	OCE	Other											
	PP-OCE-NU	Evidence						S +	S +	S +			S +	S +	
<b>Chemical Products (CP)</b>															
<b>UCU</b>															
	CP-NCE	UnD	NCE	Effort					S +						
	CP-NCE	UnD	NCE	Other											
	CP-NCE	UnD	OCE	Effort					S +						

CP-NCE	UnD	OCE	Other						
CP-NCE	Evidence								S +
CP-OCE-NU	UnD	NCE	Effort						S +
CP-OCE-NU	UnD	NCE	Other						
CP-OCE-NU	UnD	OCE	Effort						S +
CP-OCE-NU	Evidence								S +
<b>Mk Exc</b>									
CP	D	NCE	Effort						s +
CP	D	NCE	Other						s +
CP	D	OCE	Effort						s +
CP	D	OCE	Other						s +
CP	UnD	NCE	Effort						s +
CP	UnD	NCE	Other						s +
CP	UnD	OCE	Effort						s +
CP	UnD	OCE	Other						s +
CP	Evidence								s +
CP-NCP	D	NCE	Effort	s +			s +	s +	s + S +
CP-NCP	D	NCE	Other	s +			s +	s +	s +
CP-NCP	D	OCE	Effort	s +			s +	s +	s + S +
CP-NCP	D	OCE	Other	s +			s +	s +	s +
CP-NCP	UnD	NCE	Effort	s + S +		S +	s +	S +	s + s + S +
CP-NCP	UnD	NCE	Other	s + S +		S +	s +	S +	s + s +
CP-NCP	UnD	OCE	Effort	s + S +		S +	s +	S +	s + s + S +
CP-NCP	UnD	OCE	Other	s + S +		S +	s +	s +	s +
CP-NCP	Evidence			S + S +		S +	S +	S +	S + S + S +
CP-NCE	D	NCE	Effort	s +					s + s + S +
CP-NCE	D	NCE	Other	s +					s + s +
CP-NCE	UnD	NCE	Effort	S + s + s +		S + S +		S +	s + s + S +
CP-NCE	UnD	NCE	Other	S + s + s +		S +		S +	s + s +
CP-NCE	Evidence			S + S +		S + S +		S +	S + S + S +
CP-OCE-NU	D	OCE	Effort						s + s + S +
CP-OCE-NU	D	OCE	Other						s + s +
CP-OCE-NU	UnD	OCE	Effort			S +			s + s + S +
CP-OCE-NU	UnD	OCE	Other						s + s +
CP-OCE-NU	Evidence					S +			S +

Notes:

(1) UCU: Unfair Commercial Use commitment

MKT EXCL: Market exclusivity

(2) PP : Pharmaceutical product

CP: Chemical Product

N : New

NCE : New Chemical Entity

NCP: New Chemical Product

OCE : Old Chemical Entity

U : Use

(3) D : Disclosed data

UnD: Undisclosed data

(4) S: Refers to 'Shall' type of commitment; compliance mandatory.

M: Refers to 'May' Commitment; compliance optional.

+ : Refers to a provision that goes beyond the TRIPs minimum standard of IP protection.

### 5.5.2 DATA PROTECTION AGAINST DISCLOSURE

As mentioned above, some TA protection for undisclosed data also includes protection against disclosure. In these cases, differences can also be found on the extent of protection committed. All of these cases exclude from this type of

protection situations where the public needs to be protected. These cases are tabulated in Table 11.

**TABLE 11 PROVISIONS OF BILATERAL US TAs REGARDING PROTECTION AGAINST DISCLOSURE OF DATA**

Product Type	Situations for Protection Against Disclosure	US Trade Partner									
		CL	CO	PA	SG	JO	AUMA	CAFTA	OM	BH	KO
		PE					RD				
PP	Other cases than protect the public	S+	S+	S+		S+					S+
CP	Other cases than protect the public	S+		S+		S+					S+

Some TAs allow for disclosure of the data on unnamed grounds. However, TAs which allow this impose a substitute form of protection to that of disclosure. Parties need to either protect the data against unfair commercial use or else provide market exclusivity for the product. All these cases are tabulated in Table 11 and Table 12.<sup>39</sup>

**TABLE 12 CONDITIONS IMPOSED ON TA PARTNERS FOR INFORMATION DISCLOSURE**

Product Type	Situations where Protection Against Disclosure is Lifted	Substitute Protection	US Trade Partner									
			CL	CO	PA <sup>1</sup>	SG	JO	AUMA	CAFTA <sup>1</sup>	OM	BH	KO
			PE					RD				
PP	Other cases than protect the public	UCU		S+	S+		S+					
PP	Other cases than protect the public	Mk Exc					S+				S+	
PP	Protect the public	Mk Exc					S+				S+	
CP	Other cases than protect the public	UCU					S+					
CP	Other cases than protect the public	Mk Exc			S+		S+				S+	
CP	Protect the public	Mk Exc			S+		S+				S+	

(1) : The drafting of the provisions regarding CP in the Panama Text (found in norm 17.10.2.d) and PP and CP in CAFTA-DR (found in norm 15.10.d) allow three possible and different interpretations; one where the condition applies only where disclosure seeks to ‘protect the public’, as there would be no other situation of disclosure allowed in the agreement; another where the condition applies only to ‘other than protect public’ disclosures, and a third one in which the condition applies to any disclosure made, regardless of the reason for doing so. Of the three alternatives the Table lists the third one, in the understanding that it could be either.

## 5.6 IP PROVISIONS FOR PHARMACEUTICALS AND PATENTS

Specific analysis is given to the provisions contained in bilateral US TAs regarding pharmaceuticals and patents.

Table 13 presents a summary of the patent related provisions for pharmaceutical products (PP). The table shows that these provisions involve 7 types of commitments. A Bolar exception norm is found in every TA. It enables the use of patents to request sanitary registration or marketing approvals for pharmaceuticals, as the case may be. There is a provision found in some TAs

<sup>39</sup> It should be noted that the provisions regarding substitute protection for non disclosure, are drafted in ways which permit different interpretations of the scope of protection in the TAs between US and CAFTA-DR and Panamá. The table chooses one, in the understanding that either of the three alternatives may be equally plausible.

which prohibits limitations on terms of protection of data on grounds of patent term expiration. Additionally, TAs provide for patent term extensions, as mentioned in section 5.4, in two circumstances when concerning pharmaceuticals: unreasonable delays in patent granting and in marketing approvals. Drafting of the latter commitment varies in different TAs regarding the circumstances where protection needs to be provided. Some TAs draft the commitment in such a way that patent term extensions are necessary for patents covering the pharmaceutical product, whereas others refer also to patents on methods of use and method of production of the product. Additionally, some TAs explicitly state that the commitment refers to patents which had been identified to or by the competent authority while others make no such clarification. In some cases, the patent extension applies also when the marketing approval occurs in other countries.

**TABLE 13 PROVISIONS OF BILATERAL US TAs REGARDING PHARMACEUTICALS**

Topic Commitments	US Trade Partner											
	CL	CO	PA	SG	JO	AU	MA	CAFTA	OM	BH	KO	
	PE						RD					
<b>1 Bolar Exception</b>	S +	S +	S +	S +	S +	S +	S +	S +	S +	S +	S +	S +
<b>2 Not to alter term of data protection if patent expires earlier</b>		S +	S +	S +		S +				S +	S +	S +
<b>3 Extend patent term to compensate for unreasonable:</b>												
<b>a delays in patent granting</b>												
Pharmaceuticals	s +	M +	M +	s +		s +	s +	s +	s +	s +	s +	s +
<b>b Curtailment resulting from marketing approval (MKT) of a product subject to a patent</b>												
i Pharmaceutical product (PP)	S +				S +		S +		S +			
Any PP		M +	M +	S +				S +		S +		
a PP						S +						
(**)    New PP (NPP)-NQE												S +
Definition of effective patent term									S +	S +	S +	
ii Patent covering:									S +		S +	
Methods of use of PP									S +		S +	
Method of making a NPP											S +	
iii Occurring in another country									S +	S +		
<b>4 Identity of 3<sup>rd</sup> party requesting MKT approval</b>												
<b>a) Make information available to patent owner</b>												
products subject to a patent (notified or not to authority)												
(*)    Products	s +(2)											
<b>b) Inform/notify patent owner</b>												
products subject of patent (notified or not)												
(*)    products				s +(2)	s +(2)							
products subject of patent notified to authority												
products		M +	M +			S +	S +	S +	S +	S +	S +	S +
methods of use			M +			S +		S +			S +	
<b>5 Linkage type of commitment</b>												

a)	<b>Not Grant Mkt Approval to 3<sup>rd</sup> parties to Products</b>									
	subject to patent	S +			S +					
b)	<b>Provide/implement measures in Mkt app. Process of products (Patent not identified to authority)</b>									
	Patent claiming the product	m +	m +	s +		s +	s +	s +	s +	s +
	Patent claiming Methods of use	m +	m +			s +		s +	s +	s +
	<b>Patent identified to authority</b>									
	Covered by patent	m +	m +	s +		s +	s +	s +	s +	S +
	With patent covering Methods of use	m +	m +			s +		s +	s +	S +
	<b>Proviso</b>	M +	M +							
6	<b>Additional measures</b>									
a)	Effective provisional measures, for the expeditious adjudication of disputes		S +	S +						
b)	<b>Transparent system</b>									
	products		S +	S +						
	methods of use		S +	S +						
c)	<b>time&amp; opportunity to seek remedies infringing products</b>		S +	S +						
7	<b>Doha Declaration</b>	F	F	F						F

Notes:

Acronyms for countries contained in footnote N° 12.

S : Refers to 'Shall' type of commitment; compliance mandatory.

M : Refers to 'May' Commitment; compliance optional

RE : Refers to 'reasonable efforts'.

F : Refers to 'Exception' or Flexibility type of provision

+ : Refers to a provision that goes beyond the TRIPs minimum standard of IP protection.

= : Refers to a provision with identical IP protection to that of the TRIPs minimum standard.

- : Refers to a provision with a lower level of protection than equivalent provision in other TA IP chapters.

(\*) : Commitment may be considered equivalent to both situations (2 commitments in relation to those TAs with the distinction 'informed to the authority' made explicit)

(\*\*): NCE refers to a 'new chemical entity'.

Another distinct commitment found in TAs refers to the need to inform patent owners (or make available the relevant information) of the identity of third parties requesting marketing approvals of pharmaceutical products with patents (products and/or methods of use) which have already been approved.

Another commitment found refers to the so-called *linkage* type of provisions. This refers to the link between the marketing approval procedure with patent enforcing. This type of provision varies significantly across TAs. Earlier TAs explicitly prohibit issuing marketing approvals to pharmaceuticals covered by a patent, if the applicant is not the patent owner. Later drafting requires the provision to fall within the marketing approval procedure of appropriate measures in order to prevent the marketing of such products during the patent term. In some cases, this commitment is not compulsory. However, in such cases, a commitment exists to provide for procedures which would enable patent owner to prevent marketing of allegedly infringing pharmaceutical products. Caveats appear across TAs concerning the patents which fall under the rule. In some cases, the commitment applies also to ways patents are used.

Finally, few TAs include a flexibility provision concerning the Doha declaration for public health and patents. This norm consists of a principle allowing countries to take the necessary measures to protect public health. Partly, this provision is found in late TAs as a result of the bipartisan agreement of the US Congress to modify the content of TAs to allow for flexibilities in cases of emergency and public health concerns.

## 6 EXTENT OF PROTECTION BY IP CATEGORY

TAs organised in the way described above allow identifying the topics treated differently across TAs. In turn, this fact enables distinguishing one TA from another with respect to the extent of protection they provide by means of translating their qualitative features into quantitative indicators.

### 6.1 MEASURES OF THE EXTENT OF IP PROTECTION OF US BILATERAL TAs

Table 14 summarise the aggregation of ‘shall +’ commitments derived from the industrial property sections of the IP chapters of TAs, separated according to Protection category. Table 15 shows the decreasing ranking for such aggregates (highest values corresponding to TAs having the smallest set of compulsory commitments) and the Borda Rank for such rankings.

**TABLE 14 SUMMARY OF TM PROVISIONS OF BILATERAL US TAs**

US TA	Distinctive Signs-Trademarks				Patent			Data Protection			Total	PP Norms Over Total
	TMs	DNIs	GIs	Total	General	PP	Total	PP	CP	Total		
<b>Jordan</b>	13	0	1	14	26	4	30	12	9	21	<b>65</b>	20%
<b>Singapore</b>	40	3	1	44	11	9	20	10	10	20	<b>84</b>	29%
<b>Chile</b>	18	2	16	36	7	6	13	4	4	8	<b>57</b>	15%
<b>CAFTA-DR</b>	24	2	15	41	19	9	28	24	24	48	<b>117</b>	35%
<b>Morocco</b>	27	2	13	42	25	6	31	8	10	18	<b>91</b>	22%
<b>Australia</b>	24	2	11	37	17	10	27	18	18	36	<b>100</b>	36%
<b>Bahrain</b>	22	2	11	35	24	11	35	9	9	18	<b>88</b>	30%
<b>Peru</b>	26	2	10	38	14	6	20	0	23	23	<b>81</b>	8%
<b>Colombia</b>	26	2	10	38	14	6	20	0	23	23	<b>81</b>	8%
<b>Oman</b>	28	2	14	44	25	12	37	10	9	19	<b>100</b>	31%
<b>Panamá</b>	24	2	15	41	13	6	19	0	18	18	<b>78</b>	7%
<b>Korea</b>	29	2	14	45	25	11	36	7	5	12	<b>93</b>	28%
<b>Min</b>	13	0	1	14	7	4	13	0	4	8	57	
<b>Max</b>	40	3	16	45	26	12	37	24	24	48	117	
<b>Median</b>	25	2	12	40	18	8	28	8	10	19	86	
<b>Average</b>	25	2	11	38	18	8	26	8	13	22	86	
<b>(Max-Min)/Avera</b>	108%	150%	125%	78%	106%	107%	87%	287%	205%	208%	70%	
<b>St Dev/Average</b>	22%	39%	29%	18%	29%	27%	24%	56%	46%	44%	20%	

First of all, the figures indicate that despite the similarities in structure and content found across TAs, there is significant dispersion across TAs on the number of compulsory commitments they contain. The difference between maximum and minimum values found per IP category varies from 100% to almost 300% of the mean number of TA commitments. TM and Patent provisions exhibit the least dispersed range of commitments across TAs. The

largest dispersion of numbers of commitments is found in data protection, particularly those related to pharmaceuticals.

Another salient feature of the comparative analysis of TAs is the considerable weight that IP protection for the pharmaceutical sector has in the aggregate of all industrial property-related-commitments of a compulsory nature. This sector accounts for 7% to 36% of these commitments; those related to data protection exhibit the largest dispersion. This last finding reflects the interest that IP protection for this sector holds for US international IP protection policy. This, tends to reaffirm the pharmaceutical industry's success in agenda-setting in US international policy since the 1980s (Sell (2003), Pugatch (2004)).<sup>40</sup> High dispersion of these commitments may reflect developing countries' concerns in granting IP protection in such sector; some US trading partner countries seem to have been able to prevent increasing protection more successfully than others.

**TABLE 15 RANKINGS OF COMPULSORY COMMITMENTS OF BILATERAL US-TAS**

	Marks				Patents			Data protection			Total		Negotiation Duration
	TM	GI	DNI	Total	Patent no PP	Patent PP	Total	PP	CP	Total	Aggre gate Borda		
<b>Jordan</b>	1	1	1	1	17	1	14	10	3	8	2	7	3
<b>Singapore</b>	17	1	17	15	2	7	4	8	6	7	6	8	5
<b>Chile</b>	<b>2</b>	<b>17</b>	<b>2</b>	3	<b>1</b>	<b>2</b>	2	<b>4</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>16</b>
<b>El Salvador</b>	4	10	2	7	7	7	8	12	12	12	12	9	8
<b>Guatemala</b>	4	10	2	7	7	7	8	12	12	12	12	9	8
<b>Honduras</b>	4	10	2	7	7	7	8	12	12	12	12	9	8
<b>Nicaragua</b>	4	10	2	7	7	7	8	12	12	12	12	9	8
<b>Costa Rica</b>	4	10	2	7	7	7	8	12	12	12	12	9	12
<b>Morocco</b>	14	7	2	14	14	2	15	6	6	3	8	15	13
<b>Australia</b>	4	5	2	4	6	14	7	11	8	11	10	5	7
<b>Dominican Republic</b>	4	10	2	7	7	7	8	12	12	12	12	9	1
<b>Bahrain</b>	3	5	2	2	13	15	16	7	3	4	7	5	2
<b>Peru</b>	12	3	2	5	4	2	4	1	10	9	4	3	14
<b>Colombia</b>	12	3	2	5	4	2	4	1	10	9	4	3	15
<b>Oman</b>	15	8	2	15	14	17	18	9	3	6	11	<b>17</b>	4
<b>Panama</b>	4	10	2	7	3	2	3	1	8	4	3	2	17
<b>Korea</b>	16	8	2	17	14	15	17	5	2	2	9	16	6

The extent of IP protection in TAs is highly correlated across IP categories, as reflected by paired mean difference test results for rankings of the number of compulsory WTO-TRIPs+ commitments between different IP categories. Table 18 (in the annex) reports these results. Other than TM and DNI, the difference in rankings of all pairs can not be significantly distinguished from zero. These results indicate that TAs are coherent in either containing comparatively few or many compulsory commitments across IP categories. These results indicate that US partners did not differ significantly in their relative interest in IP protection for different IP categories, but rather that they either differ in their ability to negotiate and accept IP protection provisions for all IP categories or in their

<sup>40</sup> Nonetheless, the US pharmaceutical industry has denounced being under 'assault', despite the international expansion of IP protection rules, in view of legal domestic developments occurring in the US market (Kuhlik (2004)).

overall interest for IP protection. The data does not provide the means for identifying the underlying factors driving differences on the extent of IP protection across TAs.

The indexes reveal that Chile is the US TA partner that has agreed the lowest number of compulsory IP protection commitments at the aggregate level, both according to the Borda ranking<sup>41</sup> and the ranking of the total number of commitments. On the other end of the spectrum, the agreement with the greatest extent of IP protection appears to be that of Oman according to the Borda ranking, CAFTA-DR and the aggregate number of compulsory commitments. The TA with the lowest aggregate ranking has twice as many compulsory commitments as the TA with the minimum number of such obligations (117 v/s 57). US-Oman TA contains systematically lower rankings across categories, which suggest that such agreement overall contains the highest extent of IP protection. Similarly the Chile-US TA has the lowest number of compulsory commitments for most categories (except for GIs, which contain the highest number of norms). The US-CAFTA-DR TA, contains a considerable number of compulsory commitments regarding data protection.

The duration of the negotiations appear to be negatively and significantly correlated with the Borda Rankings, patent rankings (aggregated and disaggregated by subcategories) and data ranking for pharmaceuticals, as reported in Table 16. These findings suggest that extensive negotiations on the provisions related to pharmaceuticals and patents concluded with fewer commitments in these domains the longer the negotiations lasted. This feature confirms that IP protection for the pharmaceutical sector raised serious concerns and apprehensions for developing countries. They struggled to fend off commitments in this domain in extensive negotiations, apparently with some degree of success.

**TABLE 16 BILATERAL CORRELATIONS BETWEEN RANKINGS OF DURATION OF NEGOTIATION AND RANKINGS OF N° OF IP COMMITMENTS**

<b>Ranking</b>	<b>Pearson Correlation</b>	<b>Significance (bilateral)</b>	<b>N</b>
Total Aggregate	-0.375	0.152	16
Borda (using category aggregates)	-0.463 *	0.071	16
Borda (using sub categories only)	-.578**	0.019	16
Trademarks Aggregate	-0.137	0.612	16
Patent Aggregate	-.659***	0.005	16
Data Aggregate	-0.139	0.608	16
TM	-.027	0.920	16
GI	0.386	0.140	16
DNI	-0.206	0.443	16
Patent (no PP)	-.614**	0.011	16
Patent (PP)	-.668***	0.005	16
Data (PP)	-.591**	0.016	16
Data (CP)	0.266	0.320	16

\*\*\* Significant at less than 1%

\*\* Significant at less than 5%

\* Significant at less than 10 %

<sup>41</sup> This relative position emerges by computing the Borda ranking using IP category aggregates (trademarks, patents, data) or disaggregated rankings.

No clear relationships can be found between IP protection commitment rankings with relative income per capita rankings (built from Table 2). The latter appear significantly correlated with pharmaceutical patent protection and negatively correlated with rankings on data protection for chemicals (see Table 19 in the annex).

## **7 CONCLUSIONS**

In the last decade the US negotiated and concluded TAs that included extensive chapters of IP protection norms with several countries, mostly from the developing world. The US engaged in these negotiations with small economies with mostly little or modest resident patent activity (excepting Korea) and small scale trademark activity. These features indicate an asymmetry of bargaining power between negotiating partners, where the US appeared as the strongest party likely to impose its interests in such negotiations: higher IP protection standards.

The agreed TA rules add new protection benchmarks to those agreed at the multilateral level less than a decade before the start of negotiations. The analysis shows gross similarities in the structure and content of the agreements. Generally speaking, TAs contain rules with higher protection standards than minimum WTO-TRIPs standards for the categories analysed. TAs stipulate new categories of IP protection (Domain Names on the Internet and Regulated Products) compared to WTO-TRIPs. Nonetheless they are linked to traditional categories. The domain names provisions aim at enhancing international trademark protection in a sphere not previously regulated. The regulated products provisions aim at increasing IP protection for specific economic sectors (pharmaceuticals and agrochemicals) by means of specific patent and data protection rules. TA compulsory commitments are of a varied nature, although a non-insignificant fraction is directly related to the pharmaceutical industry. This fact confirms the reported ability of the pharmaceutical industry in setting the agenda of US international policy on IP protection. The latter was confirmed in spite of the change of political tide experienced in 2007 by the US in its Congress, when a bipartisan congressional agreement led the executive branch to redraft TAs commitments related to the pharmaceutical industry for later TAs.

The analysis of the content of the TAs show that although similarities in structure and content across TAs are notable, there appear to be significant differences in IP protection provided by different TAs. Chile is the US partner which reached an IP agreement containing the lowest number of compulsory commitments, whereas CAFTA-DR and Oman are the partners which agreed to the largest set of compulsory commitments to protect IP. Additionally, the measures show that a significant portion of the norms analysed consists in provisions related to the pharmaceutical sector, which confirms reports on the ability of such industry to set a US international IP protection policy agenda. Additionally, the analysis finds a negative correlation between the number of compulsory commitments included in a TA with the length of negotiations, particularly for commitments related to the pharmaceutical industry and patents. This finding suggests discrepancies of views between partners in the domain of IP protection for the

pharmaceutical industry. These seemingly opposing views appear to have extended negotiations in order to reduce the number of commitments on the topic. Countries that resisted norms in those domains seem to have negotiated vigorously, and to some extent successfully, to stave off such commitments.

Differences attained in the extent of protection have economic and institutional implications for the corresponding parties committing to such standards. Such differences go beyond patent and pharmaceutical provisions. Understanding the factors explaining the ability of developing countries to reduce the extent of overall IP protection is an important area of inquiry. Differences across TAs reveal the work of diverse interests and forces in the negotiation process. Thus, this essay draws attention to the need for advancing in the research agenda that aims at explaining differences in IP protection attained through bilateral negotiations between parties of asymmetric negotiating power and level of economic development.

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## 9 ANNEXES

**TABLE 17 SITUATIONS INHERENT TO DATA PROTECTION PROVISIONS AND THEIR RELATINSHIP TO ROWS IN TABLES**

PP/CP	NCE	OCE-NU	NPP/NCP	N° Situations where		
				Commitment apply (1)	N° Rows criterion (2)	Difference between (1) and (2)
1	1	1	0	2	3	-1
1	1	0	0	1	2	-1
1	0	0	0	1-2	1	0 ;1
1	0	1	0	1	2	-1
0	0	0	0	0	0	0
0	1	1	1	2	3	-1
0	1	0	1	1	2	-1
0	0	1	1	1	2	-1
0	0	0	1	1-2	1	0;1

The numbers one of this table indicate cases where the corresponding expression reflected in the column title is used explicitly in an TA. Conversely, zeros indicate absences of reference to such expressions in the TA.

**TABLE 18 MEAN DIFFERENCES FOR RANKINGS OF AGGREGATED SHALL COMMITMENTS OF BILATERAL US TAS**

Related Differences	t-test	DoF	Sig. (bilateral)
---------------------	--------	-----	------------------

	Mean	Standard Dev.	Mean Error			
ra_TM - ra_DNI	3,417	3,260	0,941	3,630	11	0,004
ra_TM - ra_GIs	0,083	5,616	1,621	0,051	11	0,960
ra_TM - ra_Patent	0,000	5,081	1,467	0,000	11	1,000
ra_TM - ra_PP_patent	0,667	4,376	1,263	0,528	11	0,608
ra_TM - ra_PP_Data	-0,083	5,696	1,644	-0,051	11	0,960
ra_TM - ra_CP_Data	0,167	5,167	1,492	0,112	11	0,913
ra_Patent - ra_PP_patent	0,667	4,499	1,299	0,513	11	0,618
ra_Patent - ra_PP_Data	-0,083	3,655	1,055	-0,079	11	0,938
ra_Patent - ra_CP_Data	0,167	5,573	1,609	0,104	11	0,919
ra_PP_patent - ra_PP_Data	-0,750	3,934	1,136	-0,660	11	0,523
ra_PP_patent - ra_CP_Data	-0,500	6,053	1,747	-0,286	11	0,780
ra_PP_Data - ra_CP_Data	0,250	5,578	1,610	0,155	11	0,879
ra_GIs - ra_Patent	-0,083	5,384	1,554	-0,054	11	0,958
ra_GIs - ra_PP_Data	-0,167	5,540	1,599	-0,104	11	0,919
ra_GIs - ra_CP_Data	0,083	5,485	1,583	0,053	11	0,959
ra_signs - ra_pats	0,000	4,348	1,255	0,000	11	1,000
ra_signs - ra_data	-0,083	5,501	1,588	-0,052	11	0,959
ra_pats - ra_data	-0,083	5,485	1,583	-0,053	11	0,959

**TABLE 19 BIVARIATE CORRELATIONS OF RANKINGS**

Ranking GDPPC_US & Ranking of	Pearson Correlation	Sig. (bilateral)	N	Ranking GDPPC_US & Ranking of	Pearson Correlation	Sig. (bilateral)	N
Duration of Negotiation	-0,182	0,488	17	DNI	0,423	0,091*	17
Marks	0,171	0,511	17	Patent (no PP)	-0,171	0,512	17
Patents	-0,010	0,971	17	Patent (PP)	,537	0,026**	17
Data	-0,385	0,127	17	Data (PP)	-0,257	0,319	17
Aggregate	-0,207	0,426	17	Data (CP)	-,493	0,044**	17
Borda (aggregate)	-0,132	0,615	17	TM	0,297	0,247	17
Borda (disaggregate)	0,246	0,341	17	GI	-0,183	0,482	17

\*\*\* Significant at less than 1%

\*\* Significant at less than 5%

\* Significant at less than 10%