

IPR-related Statistics in WTO Trade Policy Reviews

By Peter Lunenborg*

Introduction

The World Trade Organization (WTO)'s main disciplines concern trade in goods, trade in services and intellectual property rights (IPRs). These three topics are within the purview of their respective Councils, pursuant to Article IV.5 of the Marrakesh Agreement Establishing the WTO (WTO Agreement): "There shall be a Council for Trade in Goods, a Council for Trade in Services and a Council for Trade-Related Aspects of Intellectual Property Rights (hereinafter referred to as the "Council for TRIPS"), which shall operate under the general guidance of the General Council."

Under the WTO Trade Policy Review Mechanism set out in Annex 3 of the WTO Agreement, WTO Members are regularly subject to Trade Policy Reviews (TPRs) whose goal is *inter alia* greater transparency in, and understanding of, the trade policies and practices of Members.

The review process is based on a Member's self-assessment report ("Government Report") and the WTO Secretariat report. The form and length of a Government Report is in principle determined by the Member under review.¹ Secretariat reports follow a more systemic approach whereby certain information elements are included in certain Chapters, sections and subsections of the report. This results in a degree of harmonization enabling cross-

Abstract

The WTO Secretariat Trade Policy Review (TPR) report is an important tool for a WTO Member which synthesizes objective trade-related information in a single document and enables the monitoring of developments in trade. Relevant statistics are therefore an important element of a TPR report.

Currently the practice of using statistical information on intellectual property rights (IPRs) across TPRs is not uniform. This Policy Brief surveys the use of IPR-related statistics in WTO TPRs with a view to exploring possible harmonization and inclusion of common information elements in future TPRs. Harmonized information would provide a baseline for comparison between countries and across time for a single country with respect to the level of IPR protection and immediate benefits derived from the creation of and trade in IPRs.

Les rapports d'examen des politiques commerciales élaborés par le Secrétariat de l'OMC constituent un outil important pour les membres de l'Organisation qui permettent de synthétiser dans un document unique des informations objectives liées au commerce et ainsi d'en suivre l'évolution. L'inclusion dans ces rapports de statistiques pertinentes apparaît donc essentiel.

La pratique actuelle en ce qui concerne les informations statistiques relatives aux droits de propriété intellectuelle figurant dans les rapports d'examen des politiques commerciales n'est pas uniforme. Le présent rapport sur les politiques dresse un panorama de leur utilisation en vue d'explorer les possibilités d'harmonisation et d'inclusion dans les rapports à venir d'éléments d'information communs. L'objectif est de faciliter la comparaison entre pays et la comparaison dans le temps du niveau de protection des droits de propriété intellectuelle mis en place dans un pays en particulier, et des bénéfices immédiats qui résultent de la création et du commerce de ses droits.

El informe de Examen de las Políticas Comerciales (EPC) elaborado por la Secretaría de la OMC es una herramienta importante para un Miembro de la OMC que sintetiza en un solo documento información objetiva relacionada con el comercio y permite la supervisión de los avances en este ámbito. Por consiguiente, unas estadísticas relevantes son un elemento importante de un informe de EPC.

Actualmente, la práctica de utilizar información estadística sobre los derechos de propiedad intelectual (DPI) en los EPC no es uniforme. En este informe sobre políticas se valora el uso de estadísticas relacionadas con los DPI en los EPC de la OMC con miras a explorar la posible armonización e inclusión de elementos comunes de información en futuros EPC. Una información armonizada proporcionaría una referencia para realizar comparaciones entre países – y a lo largo del tiempo en un solo país – con respecto al nivel de protección de los DPI y los beneficios inmediatos fruto de la creación y el comercio de los DPI.

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Member comparison and comparison in time for the same Member.

Statistical information on trade in goods, trade in services and investment

The WTO Secretariat Trade Policy Review (TPR) report is an important document for a WTO Member which synthesizes objective trade-related information in a single document and enables the monitoring of developments in trade. Relevant statistics are therefore an important element of a TPR report.

With respect to trade in goods and services, TPRs contain the following statistical information under the heading “Developments in Trade and Investment” (often Section 1.3 of the Secretariat TPR report):

- Evolution of merchandise exports (total) and imports (total) since last TPR
- Main destinations for merchandise exports
- Main suppliers of goods
- Sectoral shares in/composition of merchandise exports as well as imports
- Evolution of services exports since last TPR
- Composition of services exports and imports
- Major trading partners for trade in services

More detailed statistics on goods and services can be found in Chapter 4 of TPRs, ‘Trade Policies by Sector’.

While the WTO does not contain an agreement on foreign direct investment (FDI), TPRs usually contain the following in Section 1.3:

- Foreign direct investment (inflow) (total) since last TPR
- Main sources for FDI
- Inward FDI stock, by main sectors or by functional category

- Outward FDI (total, by main destination, by main sectors)

Statistical information on IPRs in the “Developments in Trade and Investment” section of the TPRs is sparse. Intellectual property is sometimes treated as an item within services trade (‘Charges for the use of intellectual property’), for instance in the TPRs of EU (2020), Argentina (2021) and China (2022). In most TPRs however, no such information is included.

Statistical information on IPRs can mostly be found in Section 3.3.7 on Intellectual Property Rights.

Statistical information on IPRs in Section 3.3.7 of the TPR report

For this policy brief a sample of ten recent TPRs were surveyed concerning developed and developing country Members. This sample could be regarded as representative of current TPRs (see Table 1 below).

Statistical information on IPRs is usually located within Section 3.3.7 on intellectual property rights within Chapter 3 ‘Trade Policies and Practices by Measure’. It is often the first subsection called ‘Overview’. Nonetheless, the practice across TPRs is not uniform. In India’s 2021 TPR, statistical information can be found in Section 3.3.7.4 on ‘Trends in IPRs’. In Japan’s 2020 TPR, Section 3.3.7.1 is called ‘Features and IP strategy’ instead of ‘Overview’. In EU’s 2020 TPR, while the statistical information was included directly in the beginning of Section 3.3.7 the subsection heading ‘Overview’ appears to be missing. In Argentina’s 2021 TPR, some statistics could be retrieved within various subsections under Section 3.3.7. Guyana’s 2022 Trade Policy Review report does not include any statistical information on IPRs.

Taking all surveyed TPRs together, statistical information is centered around the following elements (Annex I provides more details):

- a) The number or value of intellectual property (IP) assets (or their creation)

Table 1: Surveyed TPRs

WTO Member	Year	WTO document reference	Section with IPR statistics and heading name
Guyana	2022	WT/TPR/S/422/Rev.1	Section 3.3.7 (no subsections)
Mauritius	2022	WT/TPR/S/417/Rev.1	Section 3.3.7.1, ‘Overview’
China	2022	WT/TPR/S/415/Rev.1	Section 3.3.7.1, ‘Overview’
Argentina	2021	WT/TPR/S/412/Rev.1	In various subsections
Viet Nam	2021	WT/TPR/S/410/Rev.1	Section 3.3.7.1, ‘Overview’
India	2021	WT/TPR/S/403/Rev.1	Section 3.3.7.4, ‘Trends in IPRs’
Indonesia	2021	WT/TPR/S/401/Rev.1	Section 3.3.7, ‘Intellectual property rights’
Japan	2020	WT/TPR/S/397/Rev.1	Section 3.3.7.1, ‘Features and IP strategy’
European Union	2020	WT/TPR/S/395/Rev.1	Section 3.3.7 (subsection without dedicated heading)
United States	2019	WT/TPR/S/382/Rev.1	Section 3.3.7.1, ‘Overview’

- b) Residency/nationality of IPR holders
- c) Participation in trade in IPRs
- d) Presence of IP intensive industries / economic importance of IPRs
- e) Innovation ability (enablers for the creation of IPRs)

The number or value of IP assets (or their creation). These are essentially akin to production and stock statistics in the area of goods or services. The following statistics were included in one or more TPRs:

- total registrations (and/or filings or applications) of IPRs during a time period for different IPR categories including patents, trademarks, industrial designs, layout designs related to semiconductor integrated circuits, copyrights² and/or plant varieties
- total number of IPRs in force, such as patents or protected geographical indications (GIs)

This information was (partially) included in the TPRs of Argentina, India and Viet Nam. The other surveyed TPRs do not seem to have information about the number or value of IP assets (or their creation).

Residency/nationality status of IPRs. The same TPRs which include information about the creation or stock of IPRs contain information on residency or nationality status of IPRs. The information sources used in the Secretariat report are national authorities. This would suggest that if information on IP asset (creation) or residency/nationality status of IPRs is not provided by national authorities, the WTO Secretariat would not include such information in the TPR.

Participation in trade in IPRs. This commonly refers to the 'charges for use of IPRs' item of a country's balance-of-payments, which provides information about receipts, payments, and net receipt (receipts minus payments) for the use of IP. This type of statistics was included in the TPRs of China, Japan, Mauritius and United States, but not in the other five surveyed TPRs.

In some TPRs a single year was chosen, in other TPRs a longer time frame, for instance 10 years from 2010 to 2019 in the case of China's 2022 TPR. In some TPRs, the data is more granular and is split up by type of IPR. Terminology across TPRs is not entirely consistent. For instance, in China's 2022 TPR, 'export of fees' presumably represents receipt for the use of IP, where 'import of fees' represents the payment for the use of IP.

Data sources used differ as well, ranging from the WTO Data Portal, the Organisation for Economic Cooperation and Development (OECD) or national authorities.

At present, the WTO Data Portal (succeeded by the WTO Stats Portal³) does not seem to contain this information and limits itself to commercial services which

does not encompass trade in IPRs. It is also noted that the World Bank maintains a dataset on the charges for the use of IPRs but none of the surveyed TPRs used that as reference.⁴

Presence of IP intensive industries / economic importance of IPRs. This type of statistics quantifies to some extent the importance of IPRs for the country. There is no common methodology to define 'IP intensive industries' and Members may tend to overstate the economic importance of IP. Statistics used might relate to the presence of IP in goods export, value added of IP intensive industries, their share in gross domestic product (GDP), employment, wages and IP revenue (for the government). This type of information was particularly present in the TPRs of EU, US and Japan (all developed country Members) but not in other surveyed TPRs.

Innovation ability (enablers for the creation of IPRs). This type of statistics provides information about the innovation environment in a country. This could include information of government research and development (R&D) expenditure. In some instances, the WTO Secretariat also made use of composite indicators such the World Intellectual Property Organization (WIPO) innovation index and the indicator 'Innovation capability' in the World Economic Forum (WEF) Global Competitiveness Report. Both indicators try to capture in a single number the ability of a country to innovate or create IPRs, such as the number of scientific publications, R&D expenditure, and diversity of workforce. This type of information was included in three out of nine surveyed TPRs: China, United States and Viet Nam.

Findings and recommendations

The amount and type of IPR-related statistics vary significantly across TPRs. The most important basic statistical information on IPRs is not always included, in particular on the amount and creation of IPRs domestically and their associated nationality as well as information on trade in IPRs. In the case of Foreign Direct Investment⁵, information about stocks and flows is often included, but in the case of IPRs less so.

Harmonized information would provide a baseline for comparison between countries and across time for a single country with respect to the level of IPR protection and immediate benefits derived from the creation of and trade in IPRs. Bolstering IPR-related statistics and their harmonization across the WTO Secretariat's Trade Policy Review reports is therefore called for.

Ideally, a TPR should provide insights on the extent to which implementation of the WTO TRIPS Agreement contributes to the stated objectives, in particular whether IPR protection *inter alia* leads to technological innovation, the transfer and dissemination of technology or higher social and economic welfare (see Article 7 TRIPS Agreement).

As a start and at the minimum, each IPR should contain the IPR-related statistics: 1) Statistics related to participation in trade in IPRs; and 2) Statistics on the

number or value of IP assets (and their creation) and their residency/nationality status. These IPR-related statistics should be included in each WTO Secretariat's TPR report, in particular Section 3.3.7:

- 1) Information related to participation in trade in IPRs:

The Secretariat report should include into TPRs information on charges for the use of IPRs (receipts, payments and net receipts) for a time period of 10 years or a time period starting from the year used in the last TPR to year with latest available data. If data is available, split it up by type of IPR.

Where possible, make use of the same dataset for each TPR. If data provided by national authorities is more detailed or up-to-date than the dataset commonly referred to, make use of such data as well for the Secretariat report.

Furthermore, data on charges for the use of IPRs should be published in WTO Stats, the successor to the former WTO Data Portal.

- 2) The number or value of IP assets (or their creation) and their residency/nationality status

National authorities are encouraged to make use of the template in Table 2 below concerning statistics on the creation and stock of IPRs, for inclusion in the Government Report. The WTO Secretariat should also make use of this template when gathering information for the Secretariat Report.

The time period covered for creation of IPRs would be the last 10 years or a time period starting from the year used in the last TPR to year with latest available data.

Endnotes:

¹ See Rules of Procedure for Meetings of the Trade Policy Review Body, WTO document WT/TPR/6/Rev.4, paragraph 15.

² Copyright protection does not depend on registration but in some Members registration is optional or recommended.

³ Located at <https://stats.wto.org/>.

⁴ World Bank Open Data, indicator "Charges for the use of intellectual property, payments (BoP, current US\$)", <https://data.worldbank.org/indicator/BM.GSR.ROYL.CD>.

⁵ It is noted that WTO has a relatively modest agreement on trade-related investment measures which does not deal with FDI as such and investment does not have its own Council under the General Council (unlike the TRIPS Council for intellectual property rights).

⁶ Total IPR assets means the IPRs currently in force which have been created during as well as before the review period.

⁷ Footnote 287 in Indonesia's TPR report (WTO document WT/TPR/S/401/Rev.1) does not clearly provide the sources for the definition of 'IPR-intensive goods' and figures on net trade.

Table 2: Creation of IPR assets during review period and total IPR assets⁶

Type of IPR (where applicable)	Registrations / grants (number) during review period		Total IPR assets in year x (number)	
	Nationals / residents	Non-nationals / non-residents	Nationals / residents	Non-nationals / non-residents
Patents				
Trademarks				
Industrial designs				
Layout designs related to semiconductor integrated				
Copyrights				
Plant varieties				
Geographical Indications				

Annex I: IPR-related statistics included in Secretariat TPR reports

IPR statistics included in WTO TPRs in the IPR overview Section (often Section 3.3.7.1)	Information	Information source	Examples of usage in TPRs
The number and value of IP assets	Total number of patents in force	National authorities	India 2021
	Total registered trademarks	National authorities	India 2021
	Number of protected GIs	National authorities	Viet Nam 2021, India 2021, Argentina 2021
	Total registrations of industrial designs	National authorities	India 2021
	Total registrations of layout designs related to semiconductor integrated circuits	National authorities	India 2021
	Total registrations of copyrights	National authorities	India 2021
	Total registrations of plant varieties	National authorities	India 2021
	Rate of domestic patent filings per million people	National authorities	Viet Nam 2021
	Patents applied for and granted	National authorities	Argentina 2021
Residency/nationality status of IPRs	Share of national applicants in national patent filings	National authorities	Viet Nam 2021
	Number of patent applications submitted by, and the number of patents granted to nationals (increase in %)	National authorities	Viet Nam 2021
	Share of non-residents in patent applications or registrations	National authorities	India 2021, Argentina 2021
	Share of non-residents in industrial design applications or registrations	National authorities	Argentina 2021
	Share of non-residents in trademark applications or registrations	National authorities	India 2021, Argentina 2021
	Number / share of foreign GIs protected	National authorities	India 2021
Participation in trade in IPRs	Exports and imports of fees for the use of IP (2010-2019)	WTO Data Portal	China 2022, Mauritius 2022
	Receipts, payments and net receipt of fees for the use of IP for 2017	National authorities	US 2019
	Charges for the use of IP and net exports/receipt	OECD	Japan 2020
	Share of charges for the use of IPR in total services exports	National authorities	Japan 2020
	Charges for the use of IP, n.i.e., 1996-2018 by type of IPR (industrial property, copyrights, other)	National authorities	Japan 2020
	Charges for the use of IP by sector	OECD	Japan 2020
	Net trade (imports) of IPR-intensive goods ⁷	WTO Secretariat	Indonesia 2021
Presence of IP intensive industries / economic importance of IPRs	Presence of IP in goods export	National authorities	US 2019
	Value added of IP intensive industries, their share in GDP, employment, wages	National authorities	US 2019, EU 2020
	IP revenue, 1996-2018	National authorities	Japan 2020
	IP revenue, 2014-2019 (revenue from IP applications received by the Directorate General of Intellectual Property)	National authorities	Indonesia 2021
Innovation ability / enablers for creating IPRs	WEF Global Competitiveness Report	WEF	China 2022
	WIPO innovation index	WIPO	China 2022, Viet Nam 2021, Indonesia 2021
	Total funding for federal R&D and main recipient agencies	National authorities	US 2019

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