

Chapter 2. How to update the picture?

Information on the magnitude, scope and trends of counterfeit and pirated trade is critical for understanding the nature of the problems being faced and how the situation is evolving. Information is also essential for designing and implementing effective policies and measures to combat illicit operations. One of the principal objectives of this report is to employ the existing methodologies to further the measurement of the magnitude of counterfeit trade, both overall and in specific sectors.

Data

Following the approach taken in the OECD (2008) and then in the OECD-EUIPO (2016) reports, the analysis in this report is based on two sources of information:

- International trade statistics.
- Customs seizures of infringing products.

Trade statistics

The trade statistics are based on the United Nations (UN) Comtrade database (landed customs value). With 171 reporting economies and 247 partner economies (76 economies in addition to reporting economies), the database covers the largest part of world trade and is considered the most comprehensive trade database available. Products are registered on a six-digit Harmonised System (HS)¹ basis, meaning that the level of detail is high. Data used in this study are based on landed customs value, which is the value of merchandise assigned by customs officials. In most instances, this is the same as the transaction value appearing on accompanying invoices. Landed customs value includes the insurance and freight charges incurred when transporting goods from the economy of origin to the economy of importation.

Seizure data

Data on customs seizures originate from national customs administrations. In each analysed year (2014, 2015 and 2016), the total number of customs seizures of counterfeit and pirated goods worldwide consistently exceeded 130 000. Overall, the unified database on customs seizures of IP-infringing goods includes almost 465 000 observations, as compared to the 428 000 recorded for the 2011-13 period (OECD/EUIPO, 2016).

In terms of data sources, this report relies on customs seizures data received from:

- The World Customs Organization (WCO).
- The European Commission's Directorate-General for Taxation and Customs Union (DG TAXUD).

- United States Department of Homeland Security (DHS) that submitted seizure data from US Customs and Border Protection (CBP), the customs agency of the United States, and from the US Immigration and Customs Enforcement (ICE).

Table 2.1. Datasets on customs seizures

	DG TAXUD	CBP-ICE	WCO
Years covered	2014-16	2014-16	2014-16
Time reporting	Quarterly data	Exact date of seizure	Exact date of seizure
Geographical coverage (number of reporting economies)	European Union	United States	Worldwide (the number of reporting economies varies per year; the total number is 92)
Voluntary reporting?	No	No	Yes
Taxonomy of product categories	35 product categories + other (description of "other available")	HST, 8-digit level	18 product categories with a complementary and exact description of the detained product
Seizure values?	Yes (replacement value)	Yes (replacement value)	Yes (for some economies only; no specific guidelines)

Importantly, DG TAXUD, CBP-ICE and WCO datasets rely on data entries collected and processed by customs officers. These data are primarily designed to improve the work of customs, e.g. prepare risk profiling processes and share national experiences. As with any other administrative data they need careful consideration before application in quantitative analysis.

A detailed analysis of these data revealed a set of limitations. Some of them refer to certain discrepancies between the datasets other to product classification levels or outliers in terms of seized goods or provenance economies. All limitations were thoroughly discussed in the OECD-EUIPO (2016) report and a methodological way forward was proposed for each limitation. This report also relies on the same methodology presented and discussed in the 2016 study and it employs the same solutions to the seizure data limitations.

Methodological and statistical aspects: The GTRIC methodology

The GTRIC² methodology employed in this report relies on the one used in the OECD-EUIPO (2016) study. This methodology in turn followed the one used in the OECD (2008) report. Given the overall data improvements, a set of methodological amendments was made to the 2008 methodology to take advantage of these data improvements. The key amendments are outlined in Table 2.2.

Table 2.2. Improvements as compared to the 2008 and 2013 methodologies

	2008	2016	2019
Time dimension	No (pooled dataset)	Yes (three years, 2011-13)	Yes (six years, 2011-16)
	Based on values of seized goods, numbers of seizures and numbers of seized goods.	Based only on values of seized goods.	Based only on values of seized goods.
	Strong assumptions on:	No strong assumptions made on conversions and on minimal levels of counterfeiting.	No strong assumptions made on conversions and on minimal levels of counterfeiting.
Construction of GTRIC-p and GTRIC-e	<ul style="list-style-type: none"> Conversions from numbers of seizures and numbers of seized goods to values. Minimal levels of counterfeiting in each provenance economy and in each product category. 		
Estimation of total value (fixed point)	Chosen following informal interviews with customs and industry representatives.	Refined after structured interviews and focus groups with customs and other enforcement officials.	Refined further after structured interviews and focus groups with customs and other enforcement officials.

A brief discussion of these key components is presented below and more discussion can be found in the OECD-EUIPO (2016) report. Detailed, technical and methodological notes can be found in Annex A at the end of this report.

Industry overview (GTRIC-p)

The identification of sensitive goods relies on a customs data system that includes the 96 two-digit product modules included in the Harmonised System (HS). In particular, if any of the reporting customs authorities registered a fake good in a given HS category, the whole category is treated as “sensitive”.

GTRIC-p is then constructed in two steps. In the first step, the seizure intensities in each product category are weighted by the respective share of each reporting economy in total imports of these products. This reflects the sensitivity of product infringements occurring in a particular product category, relative to its intensity of imports of particular products by every reporting economy. In the second step, these indices are transformed statistically to take into account a number of known biases related to seizure techniques and propensities for which products in international trade are counterfeit and/or pirated.

The final result, GTRIC-p represents the relative likelihood for products in one category to be counterfeit in comparison with another. Of course, within any category, there could be considerable variation among products and the relative counterfeiting propensities must, therefore, be seen as averages for the hundreds of goods covered by each HS chapter.

Provenance economies (GTRIC-e)

As described in the OECD (2008) and OECD-EUIPO (2016) studies, a provenance economy is an economy detected and registered by any reporting customs agency as a source of any item that has been intercepted in violation of an IP right, whatever the amount or value concerned. In this study, a provenance economy refers to those economies of origin where the actual production of infringing goods is taking place, as well as those economies that function as ports of transit through which infringing goods pass prior to the economy of destination.

Similar to GTRIC-p, the propensity for a given provenance economy is obtained by relating the weighted average of its seizure percentages to its respective import share of its total imports. From this, a GTRIC-e is established along the same lines as GTRIC-p and indicates the relative propensity of importing infringing goods from different provenance economies.

Total counterfeit trade (GTRIC)

The general propensity framework (GTRIC) assigns the relative likelihood of containing counterfeit products to each pair: “product category” and “provenance economy”.

The GTRIC index itself can be represented as a matrix table in which provenance economies are listed across the rows and in which the two-digit HS modules are listed in columns. Each element of the matrix, i.e. the value of GTRIC, denotes the relative propensity of a given provenance economy to export infringing products covered by a given HS module. These propensities can only be interpreted relative to each other and GTRIC itself does not provide any information about the absolute magnitude of counterfeiting and piracy in world trade. Instead, the index should be considered as a tool to aid better appraisal of the problem of counterfeit and pirated trade.

To go one step further and calculate the absolute value of counterfeit and pirated products in international trade, it is important to identify at least one probability of containing counterfeit and pirated products in a given product category from at least one provenance economy. This could be established through surveys or structured interviews with enforcement officials.

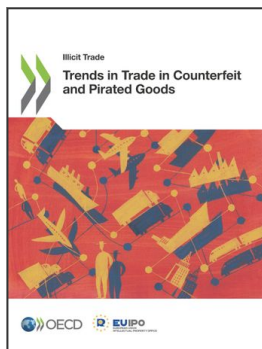
Note

¹ The Harmonised System (HS) is an international commodity classification system, developed and maintained by the WCO.

² General Trade-Related Index of Counterfeiting.

References

- OECD (2008), The Economic Impact of Counterfeiting and Piracy, OECD Publishing, Paris, <https://doi.org/10.1787/9789264045521-en>.
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