

## Chapter 4. Trade in fakes – The current picture

Broader economic context is needed to generate a set of the relevant, industry- and economy-specific pictures of the magnitude of counterfeit and pirated trade, both worldwide and in specific economies. The raw seizure data as presented in the previous chapter do not take into account the general economic context but can be used as an input in further statistical analysis. This analysis relies on a basic statistical toolbox called GTRIC. It produces counterfeiting-related indices that assign high scores of counterfeiting to provenance economies or industries in two contexts:

- When a given economy is reported to be a source of high values of counterfeit and pirated products in absolute terms or when a given product category can contain high values of counterfeit and pirated products in absolute terms (e.g. in USD).
- When a large share of trade from a given economy is counterfeit and pirated products or a large share of products in a given product category is counterfeit and pirated (in percentage terms).

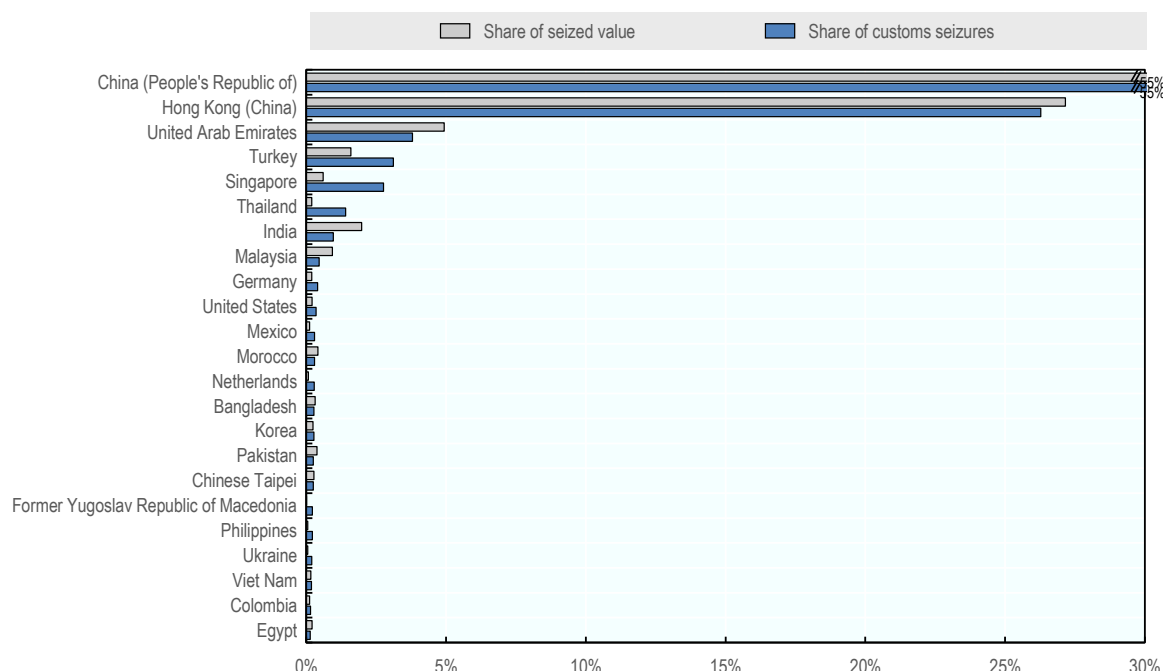
This chapter presents the main results of GTRIC analysis to gauge our understanding of trade in counterfeit and pirated goods. There are three areas of GTRIC analysis:

- Identification of key economies of provenance (GTRIC-e).
- Industry scope of trade in counterfeit and pirated goods (GTRIC-p).
- Estimates of the total value of trade in counterfeit and pirated products.

### Provenance economies

As mentioned in Chapter 3, information developed during this study suggests that virtually any economy can be the provenance of counterfeit and pirated trade, either as places that produce infringing goods or as points of transit through which infringing goods pass. In addition, this scope is being broadened.

However, customs seizures statistics indicate that some provenance economies tend to dominate global trade in counterfeiting and piracy. This is illustrated by Figure 4.1 below, which indicates that, on average, most interceptions originated from a small group of economies. These include China, Hong Kong (China), the United Arab Emirates, Turkey, Singapore, Thailand, India and Malaysia respectively.

**Figure 4.1. Top 25 provenance economies for counterfeit and pirated goods, 2014-16**

The large number of provenance economies of counterfeit and pirated products provides indications of the significance of counterfeiting and piracy in international trade. Developing an economy-specific index that follows the methodology presented in the previous chapter can provide some precision. This is undertaken for all reporting economies by taking into account seizure percentages and trade flows. From this, similarly to the product categories above, a General Trade-Related Index of Counterfeiting for economies (GTRIC-e) is established, which indicates the relative propensity of importing infringing goods from different provenance economies.

Table 4.1 shows the top 25 provenance economies of counterfeit goods for 2014-16, with Hong-Kong (China), China and the United Arab Emirates at the top of the ranking (see Annex B for a complete list). Contrary to raw seizure statistics outlined in Figure 3.1, a high GTRIC-e score implies either that a given economy is reported to be a provenance of high values of counterfeit and pirated products in absolute terms (e.g. USD) or that a large share of total imports from that economy is counterfeit and pirated products.

**Table 4.1. Top 25 provenance economies in terms of their propensity to export counterfeit products**

GTRIC-e, average 2014-16

Provenance economy	Grand total
Hong Kong (China)	1.000
China (People's Republic of)	1.000
United Arab Emirates	0.995
Morocco	0.989
Pakistan	0.955
Turkey	0.946
Panama	0.901
Uruguay	0.859
Bangladesh	0.821
Mauritania	0.753
Djibouti	0.742
India	0.718
Lebanon	0.709
Egypt	0.675
Cambodia	0.567
Syrian Arab Republic	0.561
Bahrain	0.553
Dominican Republic	0.529
Honduras	0.450
Qatar	0.441
Benin	0.424
Jordan	0.413
Sri Lanka	0.410
Malaysia	0.402
Singapore	0.393

*Note:* High GTRIC-e is a weighted value of two sub-components: the value of exports of counterfeit and pirated products from that economy in absolute terms and the share of trade in counterfeit and pirated products from that economy.

In 2011-13, China and Hong Kong (China) were already the provenance economies with the highest propensity to export counterfeit products. Turkey, which has fallen in the ranking between 2011-13 and 2014-16 has been replaced by the United Arab Emirates at the third place in the 2014-16 ranking. The propensity of Morocco and Panama have increased while several countries present in the 2016 study have dropped from the list. This includes, for example, Greece, Nepal and Tokelau. Most likely these economies were more or less significant, seasonal points of transfer on the map of world trade in fakes. They lost their importance either due to the application of effective anti-counterfeiting policies by enforcement authorities in these economies, or due to other factors, such as the evolution of trade flows in general or the emergence of other, more convenient routes of trade in fakes.

It is important to note that GTRIC-e presents key provenance economies of counterfeit trade, i.e. both economies where the actual production of infringing goods is taking place and economies that function as a point of transit through which infringing goods pass. Some of these provenance economies are more important sources of infringing goods than others, because they are important producers of IP-infringing goods or because they are strategic points of transit (see Box 4.1).

#### Box 4.1. Complex routes of counterfeit trade

GTRIC-e presents key provenance economies of counterfeit trade, i.e. economies where the actual production of infringing goods is taking place and economies that function as a point of transit through which infringing goods pass.

Counterfeiters and pirates tend to ship counterfeit products via complex trade routes, using several transit points. This is done for several reasons, including:

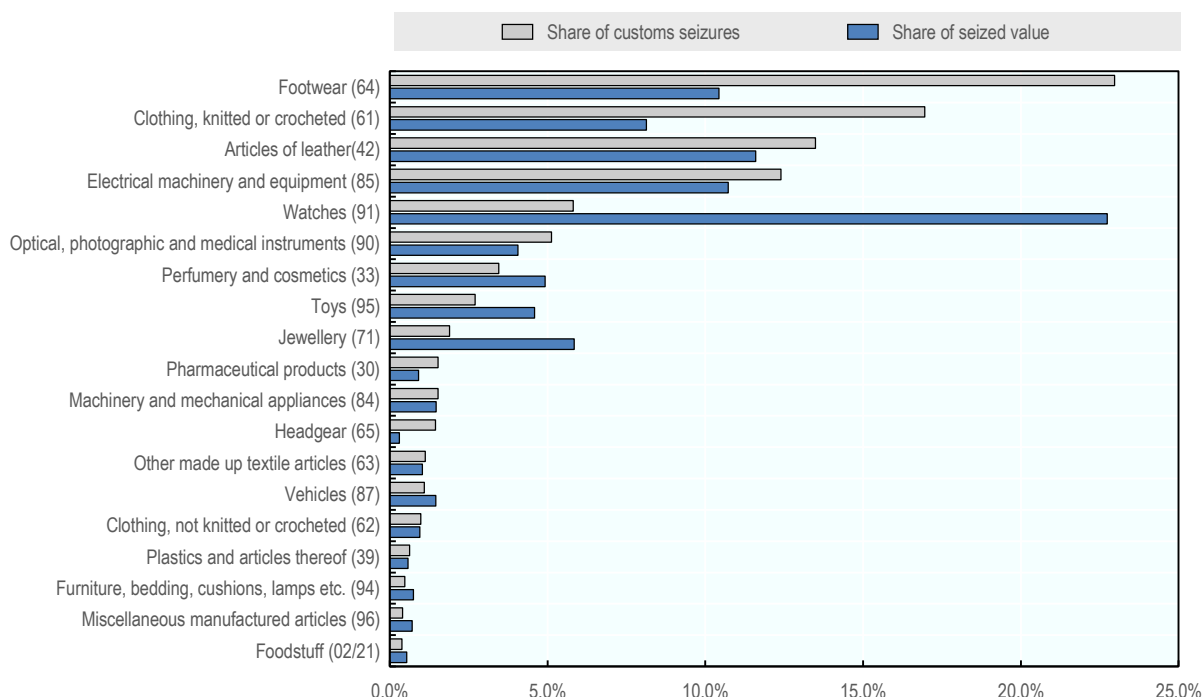
- “Cleansing” of all the documents and camouflaging the original point of production and/or departure.
- Establishing distribution centres for counterfeit and pirated goods (e.g. in free trade zones) and for transshipping them in smaller orders to their final destination points.
- Processing of products, usually in free trade areas, often by adding counterfeit trademarks and/or repackaging or re-labelling goods.

Consequently, in most cases, it is difficult for customs officers to determine the “producing economy”, not only because of document cleansing but also because the actual process of counterfeiting may not take place in the same economy as the production of a given good. A given product may be produced in one economy, and its labelling with counterfeit logos or packaging into trademark-infringing packages may take place in another closer to destination markets and with weaker IP enforcement.

Source: OECD-EUIPO (2017), *Mapping the Real Routes of Trade in Fake Goods*, <https://doi.org/10.1787/9789264278349-en>.

### Impacted industries

As discussed in Chapter 3, the scope of goods that are sensitive to infringement is broad and has broadened (88 of the 96 HS chapters concerned by counterfeiting and piracy, i.e. 92% vs. 80% for the 2011-13 period). However, the intensity of counterfeiting and piracy differs greatly across different types of goods and hence HS categories. This is illustrated in Figure 4.2 below, which indicates that between 2014 and 2016, the interceptions are concentrated in a relatively limited number of chapters.

**Figure 4.2. Top 20 product categories counterfeit and pirated, 2014-16**

To obtain a meaningful measure of the propensity for different types of infringing products to be imported, the weighted average of seizure percentages of infringing goods across importing economies is related to the respective import share, following the methodology outlined in Chapter 3. Based on these relative sensitivities, GTRIC-p establishes the relative likelihood for products in one HS chapter to be counterfeit relative to another. As a result, a general ranking of products with respect to their propensities of being counterfeit is established (see Annex B).

Similarly to GTRIC-e, the good quality of data allows a calculation of GTRIC-p for each year for which seizure data are available (2014, 2015 and 2016). Table 4.2 presents the top 20 sensitive product categories according to their general counterfeiting factor (average values over the analysed years). A high GTRIC-p score implies either that a given product category contains high values of counterfeit and pirated products in absolute terms (e.g. USD) or that a large share of imports from that product category is counterfeit and pirated products.

**Table 4.2. Top 20 industries with respect to their propensities to suffer from counterfeiting**

GTRIC-p, average, 2014-16

Harmonised System (HS) category	GTRIC-p
Perfumery and cosmetics (33)	1.000
Articles of leather; handbags (42)	1.000
Clothing, knitted or crocheted (61)	1.000
Footwear (64)	1.000
Watches (91)	1.000
Toys and games (95)	1.000
Other made-up textile articles (63)	0.992
Tobacco (24)	0.977
Headgear (65)	0.977
Miscellaneous manufactured articles (96)	0.964
Jewellery (71)	0.936
Optical, photographic and medical apparatus (90)	0.856
Musical instruments (92)	0.811
Knitted or crocheted fabrics (60)	0.645
Umbrellas (66)	0.641
Electrical machinery and electronics (85)	0.635
Clothing and accessories, not knitted or crocheted (62/65)	0.592
Furniture (94)	0.500
Tools and cutlery of base metal (82)	0.474
Ceramic products (69)	0.422

*Note:* The GTRIC-p score is a weighted index of two sub-components: the values of counterfeit and pirated products in absolute terms in a given product category and the share of trade in counterfeit and pirated products in that product category. For a full description of HS codes, see Table B.5 in Annex B.

Between 2011-13 and 2014-16, the list of top 20 industries that suffer from counterfeiting has slightly changed. In 2011-13, the top 3 included watches, leather goods and headgear. In 2014-16, the relevant changes come from the increase of propensity to suffer from counterfeiting of industries such as perfumery and cosmetics, toys and clothing, knitted or crocheted.

## Estimating the total value of trade in counterfeit and pirated products

### *Methodology*

While the GTRIC does not give a direct measure of the overall magnitude of counterfeiting and piracy in world trade, it establishes relationships that can be useful. Specifically, the GTRIC matrix can be used to approximate international trade in counterfeit and pirated goods.

For each good coming from a given provenance economy, GTRIC assigns a probability of it being counterfeit, relative to the most intensive combination of product and provenance economy. In theory, the absolute number of counterfeit trades for one provenance economy-product can be integrated into the corresponding cell of the GTRIC matrix to yield the total value of world trade in counterfeit and pirated products (see Annex B for more details).

However, determining this total value is currently impossible for two main reasons: first, the clandestine and dynamically changing nature of counterfeit trade makes any measurement exercise extremely difficult and highly imprecise; and second, operational data from customs offices are in most cases strictly confidential.

Nevertheless, the GTRIC matrix can be employed to gauge the “ceiling” value for international trade in counterfeit and pirated goods. As in the OECD/EUIPO (2016) report, this approach is taken by establishing an upper limit of counterfeit trade (in percentages) from the key provenance economies in product categories that are most vulnerable to counterfeiting. These values are called “fixed points”.

The last step in the analysis is to depart from relative intensities of counterfeiting to gauging of absolute values of counterfeit and pirated products in international trade. To do this, at least one probability of containing counterfeit and pirated products in a given product category from at least one provenance economy must be identified. Importantly, this identification must be based on information other than customs seizure data, given the several methodological biases that these data suffer from.

In the 2008 study, this fixed point was determined based on *ex ante* assumptions that were debated with industry and enforcement representatives. At the time, this was the best possible methodological approach given the poor data quality.

For the analysis presented in the OECD-EUIPO (2016) study, a set of confidential and structured interviews with customs officials were carried out. These interviews resulted in a large number of detailed quantitative and qualitative sets of information on customs operations that in turn allowed this report to determine the upper limit of the absolute number of imported counterfeit and pirated goods. Eventually, the fixed point was set at 27% for HS64 (footwear) from China.

For the present study, the fixed point used in the OECD-EUIPO (2016) study was re-examined based on a focus group meeting and on interviews with customs officials from several EU member countries. These interviews confirmed that the fixed point picked for the analysis presented in the OECD-EUIPO (2016) study still holds. Consequently, this fixed point was also used in the present analysis.

Of course, such a fixed point does not imply that, on average, 27% of footwear exported from China is counterfeit: it represents the upper level of a potential trade in counterfeits, meaning that within the HS64 category imported from China by some EU members, the share of counterfeits was reaching 27% in some years. This result could then be extrapolated onto the yearly trade flows, which would give a basis to be applied to GTRIC. Consequently, the results presented in this study refer to the upper possible limit of trade in counterfeit and pirated goods.

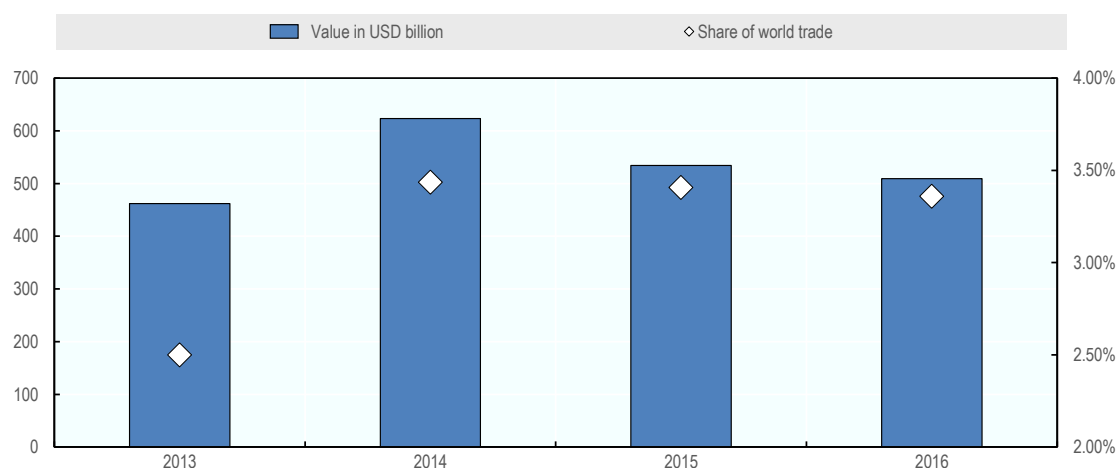
## Results

The best estimates of this study, based on the data provided by customs authorities, indicate that counterfeit and pirated products accounted for as much as USD 509 billion in world trade in 2016. The term “as much as” is crucial in this context as it refers to the upper boundary of counterfeit trade. This number implies that as much as 3.3% of total world trade in 2016 was in counterfeit and pirated products.

World trade and its structure are very dynamic, especially in the post-crisis period, so this percentage cannot be directly applied to values for other years. In addition, this amount does not include domestically produced and consumed counterfeit and pirated products.

The share of counterfeit and pirated goods in the global trade of fakes has increased since 2013 (Figure 4.3). However, world trade in genuine goods has declined after 2014, so that the global value of trade in fakes has barely increased.

**Figure 4.3. Estimates of global trade in counterfeit and pirated trade, 2013-16**



As suggested by the previous descriptive statistics, while virtually all economies can be the provenance of counterfeit and pirated goods, some provenance economies tend to dominate global counterfeiting and piracy. Results suggest that 5 economies, namely China, Hong Kong (China), India, the United Arab Emirates and Singapore together exported almost 73% of fake goods traded worldwide in 2016 (Table 4.3).

**Table 4.3. Estimates of main provenance economies for counterfeit and pirated goods, 2016**

Provenance economy	Share in world export of fakes (%)	Value of fake exports (USD billion)
China	47.0	239.0
Hong Kong (China)	16.4	83.2
India	3.4	17.4
United Arab Emirates	3.0	15.5
Singapore	2.6	13.1

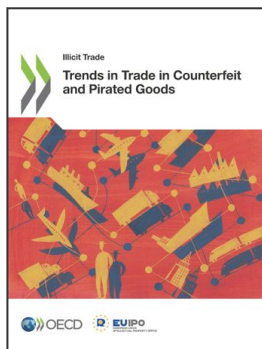
In addition, while the scope of counterfeit and pirated products has broadened over the past 5 years, the top 20 product categories (over 96 HS chapters) account for more than 94% of the value of global trade in fake goods in 2016 (Table 4.4).

**Table 4.4. Estimates of main counterfeit and pirated product categories, 2016**

HS product category	Share in global trade of fake goods (%)	Value of fake exports (USD billion)
Electrical machinery and electronics (85)	35.0	138.0
Jewellery (71)	12.6	49.8
Optical, photographic, medical apparatus (90)	6.7	26.7
Clothing, knitted or crocheted (61)	6.3	24.8
Machinery and mechanical appliances (84)	5.0	19.7
Footwear (64)	3.5	13.9
Clothing and accessories, not knitted (62)	3.4	13.6
Toys and games (95)	3.0	11.8
Furniture (94)	2.9	11.5
Vehicles (87)	2.5	10.0
Articles of leather; handbags (42)	2.1	8.5
Other made-up textile articles (63)	2.0	8.1
Foodstuffs (02-21)	1.6	6.2
Plastic and articles thereof (39)	1.5	6.1
Perfumery and cosmetics (33)	1.4	5.4
Miscellaneous manufactured articles (96)	1.2	4.6
Pharmaceutical products (30)	1.1	4.4
Watches (91)	1.1	4.2
Knitted or crocheted fabrics (60)	0.7	2.6
Tobacco (24)	0.6	2.3

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