

Means of Transporting Counterfeits to the European Union

Pavel Taraba^{*}, Eva Hoke, Jan Marada

Tomas Bata University in Zlín, Faculty of Logistics and Crisis Management, Studentské nám. 1532, Uherské Hradiště, Czech Republic
 taraba@utb.cz

Online commerce, in particular, the development of electronic platforms, contributes to making counterfeit goods relatively easy to reach customers. Globally, counterfeit goods are on the rise, and intellectual property rights enforcement authorities publicly acknowledge that the quantity of goods seized is only a minimum of what gets to individual markets. The infringement of intellectual property rights is a significant problem, and due attention is also given to this issue in the European Union (EU) pays due attention to it (European Commission). This finding is also evidenced by a study on the production and trade of counterfeit goods, published by the Organization for Economic Co-operation and Development (OECD) and the European Union Intellectual Property Office (EUIPO), mapping the situation in the individual EU Member States.

The main aim of the paper is to characterize and mapping of trends in the means of transporting counterfeits to EU countries between 2014-2018. The current trend of globalization and loosening in international trade gives criminal gangs the possibility of organized crime. These gangs make use of all available transport options (air, road, sea, postal, and others), and it is challenging to trace where counterfeit goods originate. The paper maps trends that occurred throughout the EU, whose market is affected by the transport of counterfeit goods. According to OECD and EUIPO reports, which assess, among other things, the rate of customs seizures of counterfeit goods, most counterfeits originate in East Asia (China, Hong Kong, India).

The paper is divided into four main parts. The introduction section summarizes the results of a literature review of relevant studies (EC, OECD, EUIPO) and papers published in the SCOPUS and Web of Science databases. In the second part of the paper, attention is paid to the results of a comparison of the statistics from 2014-2018 published by the European Commission. The statistics are based on seizures of individual parts of the Community and are provided to the European Commission by the Customs Administrations of the Member States of the European Union. The paper examines the number of cases, articles, and retail value of transporting counterfeits to the EU by air, express, post, rail, road, and sea. To compare the statistics and the graph of transport trends to visualize the number of cases, articles, and retail value of counterfeits concerning means of transport. These trends are mapped in the discussion section. By comparing the statistics, one can get an idea of the current state of the EU market, and based on statistical analysis, are constructed trend graphs. In conclusion, the main problematic aspects of the transport of counterfeits to the European Union are formulated. It is outlined how the transportation of Intellectual Property infringing items is likely to continue.

1. Introduction

The existence of Counterfeits products is a significant crime problem in the twenty-first century. (Pinheiro-Machado, 2018) Most consumers are using the Internet to enter a global marketplace where they can find the best deals on the items that they want most. Unfortunately, many consumers are getting a lot less than they paid for. New technologies enable counterfeiters to make copies of logos and packaging. Many of the counterfeit products look so real that it is tough to identify them. (Berman & Swani, 2010) Without the in-store experience where large stores can manage complicated supply chains, people have little opportunity to verify an item's originality or integrity before purchasing. What's worse, consumers are purchasing counterfeit goods at an alarming rate. Counterfeit products are a nearly \$500 billion industry that, by nature, is difficult to quantify. This number is likely much higher. (Vey & Monari, 2018) Chinese merchants are particularly egregious in this regard, developing cheap knockoffs of famous brands and selling them to unsuspecting customers who are hungry for a good deal. It can be complicated to tell the difference between original and

counterfeit goods, especially when buying an item online. Without a system that can verify a product's originality, avoiding counterfeit goods is more about luck than strategy. (Vey & Monari, 2018)

The meaning of the term Counterfeit can be perceived on several levels. The definition of counterfeits was conducted based on a literature review of papers indexed in the Web of Science database and Scopus. For instance, *counterfeits are defined as products that bear a trademark that is identical to, or indistinguishable from, a trademark registered to another party and that infringe the rights of the holder of the trademark.* A counterfeit is a direct copy, whereas imitation is an indirect copy (Bian et al., 2016). The International Trademark Association (INTA) defines counterfeiting as *the practice of manufacturing, importing/exporting, distributing, selling or otherwise dealing in goods, often of inferior quality, under a trademark that is identical to or substantially indistinguishable from a registered trademark, without the approval or oversight of the registered trademark owner.* (in Lord et al., 2017)

The science community is paid the primary attention to counterfeit in the medicine/pharmaceutical industry. Counterfeit products represent one of the biggest problems of modern medicine (Majchrzak-Lepczyk & Bober, 2016), especially in the context of the pharmaceutical market. (Vardanyan, 2018) Counterfeits medicines products (drugs) represent by substandard quality are common in the market. (Zwar, 2018) The economic cost of inferior quality products in medicine represents a relatively significant loss, mainly for emerging countries (e. i. Tanzania). (Mori et al., 2015) On the other hand, trade with counterfeit clothing brands is analyzed in a pilot study published in the journal indexed in the Scopus database (Dima, Badea & Cristescu, 2017).

On the European level is pay great attention to this issue. With intellectual property rights is dealing the European Union (EU) via (European Commission). This attention is also evidenced by a study on the production and trade of counterfeit goods, published by the Organization for Economic Co-operation and Development (OECD) and the European Union Intellectual Property Office (EUIPO), mapping the situation in the individual EU Member States. (OECD/EUIPO, 2019) EUROPOL monitors criminal issues of Counterfeits' impact on EU citizens' safety. (OHIM-Europol, 2015)

The term counterfeit used in this paper refers to the definitions used by the Organization for Economic Co-operation and Development and the European Union Intellectual Property Office. *Counterfeits are a tangible goods that infringe trademarks, design rights or patents; and the term "pirated" to describe tangible goods that infringe copyright. Counterfeits has a negative impact on the sales and profits of affected firms, as well as broader adverse effects on the economy as well as public health and safety.* (OECD, 2008, OECD/EUIPO, 2016, OECD/EUIPO, 2019)

The main aim of the paper is to characterize and mapping of trends in the means of transporting counterfeits to EU countries between 2014-2018.

2. The Economic Impact of Counterfeiting

There are three main points related to the trade in counterfeit products:

1. reduction in volumes of manufactured trade in recent years, 2. rapid growth of trade in small parcels, and 3. strengthening of the role of Free Trade zones. (OECD/EUIPO, 2019) Strong growth in trade in small parcels continued beyond 2013. (OECD-EUIPO, 2018) Free Trade zones represent areas that offer benefits based upon physical location with specific benefits for organizations within the zone (e. i. duty-free area Jafza in the UAE). (Siroën and Yücer, 2014)

The strong impact has counterfeiting and piracy to Enterprises mainly registered in these EU countries: France, Switzerland, Italy, Germany, (and the United Kingdom). (OECD/EUIPO, 2019) Small-medium enterprises (SME) are the most critical catalyst for economic growth. (Henderson & Weiler, 2010) 99 % of all companies are from the SME segment in the European Union and the USA (Bhaird, 2010).

China, Hong Kong (China), India, the United Arab Emirates, and Singapore together exported more than 73% counterfeits in 2016. The share of counterfeit and pirated goods in the global trade of counterfeits between 2013 and 2016 has increased (OECD/EUIPO, 2019) The results of OECD/EUIPO study from 2019 show that in 2016 counterfeit and pirated goods amounted to as much as 3.3% of world trade - USD 509 billion. (OECD/EUIPO, 2019) Besides, imports of counterfeit and pirated products into the EU amounted to as much as EUR 121 billion (USD 134 billion), which represents up to 6.8 % of EU imports, against 5 % of EU Imports in 2013. (OECD/EUIPO, 2019, OECD/EUIPO, 2016)

The top categories of detained articles were cigarettes, which accounted for 15% of the overall amount of delayed articles. This category was followed by toys (14%), packaging material (9%), labels, tags, and stickers (9%), and clothing (8%). Products for daily personal use in the home, such as body care articles, medicines, toys, and electrical household goods, accounted for nearly 37% of the total number of detained articles. (European Commission, 2019) More than 94% of the value of global trade in fake goods was represented by the top 20 product categories in 2016. (OECD/EUIPO, 2019) Also, top 10 product categories (foodstuff;

pharmaceuticals; perfumery and cosmetics; articles of leather and handbags; clothing and textile fabrics; footwear; jewelry; electronics and electrical equipment; optical, photographic and medical apparatus; toys and games) together constitute 63% of the global trade value of counterfeit and pirated products estimated in 2016 (USD 284 billion of the worldwide estimate of USD 461 billion). (OECD-EUIPO, 2017)

China is the key producer of counterfeit goods. Ninth of ten, all categories analyzed in Mapping the Real Routes of Trade in Fake Goods report. (OECD-EUIPO, 2017) India is the biggest producer of fake pharmaceuticals. Several East Asian economies – including India, Thailand, Malaysia, Pakistan, and Viet Nam are essential producers in many sectors. Turkey represents an essential producer of fake leather goods, foodstuffs, and cosmetics. (OECD-EUIPO, 2017) North Macedonia was the primary provenance for counterfeit alcoholic beverages. EU customs saw a high number of fake watches, mobile phones, and accessories, ink cartridges and toners, CDs/DVDs, labels, tags and stickers from Hong Kong, China. The main source for computer equipment was India, Cambodia for cigarettes and Bosnia and Herzegovina for packaging material. (European Commission, 2019)

3. Methodology

Literature review based on and papers published in the SCOPUS and Web of Science databases between 2015 and 2020. In the Scopus database were searched these main terms (counterfeits + transport) in Article, abstract, keyword, or authors fields. There were found no paper in 2020, 1 paper in 2019, 5 papers in 2018, 2 papers in 2017, 2 papers in 2016, and five more papers in 2015. Nevertheless, only four papers were relevant. In the Web of Science Core Collection were searched these main terms (counterfeits transport) in Topic, Title, or Publication name fields. There were found one paper in 2020, 4 papers in 2019, 4 papers in 2018, 3 papers in 2017, 1 paper in 2016, and 3 papers in 2015. Five papers from this database were relevant for the paper.

Analysis of relevant studies on the European level (EC, OECD, EUIPO). Mainly these studies were analyzed:

- European Commission (2019), Report on the EU customs enforcement of intellectual property rights: Results at the EU border, 2018,
- OECD/EUIPO (2019), Trends in Trade in Counterfeit and Pirated Goods,
- OECD-EUIPO (2018), Misuse of Small Parcels for Trade in Counterfeit Goods: Facts and Trends,
- OECD-EUIPO (2017), Mapping the Real Routes of Trade in Fake Goods
- EUIPO-Europol (2017) Situation Report on Counterfeiting and Piracy in the European Union,
- OECD-EUIPO (2016), Trade in Counterfeit and Pirated Goods: Mapping the Economic Impact,
- OHIM-Europol (2015), 2015 Situation Report on Counterfeiting in the European Union, OECD (2008), The Economic Impact of Counterfeiting and Piracy,
-
- Methodological procedure:
 1. Mapping and visualizing of the number of cases, and retail value of counterfeits concerning means of transport (air, express/courier, post/mail, rail, road, and sea/vessel).
 2. Comparison of the number of cases, and retail value of transporting counterfeits to the EU by air, express/courier, post/mail, rail, road, and sea/vessel according to the statistics from 2014-2018 published by the European Commission.
 3. Trends in the number of cases, and retail value of transporting counterfeits in the European Union by selected means of transport.
 4. Formulation of the main issues of the transport of counterfeits to the European Union.

4. Findings

Based on the analysis of relevant studies on the European level (EC, OECD, EUIPO), primary the study of European Commission: Report on the EU customs enforcement of intellectual property rights: Results at the EU border, 2018 and study Trends in Trade in Counterfeit and Pirated Goods issued by OECD/EUIPO were mapping and visualizing the number of cases, and retail value of counterfeits concerning means of transport (air, express/courier, post/mail, rail, road/vehicle, and sea/vessel).

The figures below depict the year-on-year comparison of the method of transporting counterfeits to the European Union between 2014-2018 by the number of cases (figure 1) and the value of seized articles (figure 2). A review of data highlighted that the mail/post is the dominant mean of transport related to the number of cases. The number of the mail/post cases was 73,299 in 2014 and 46,660 in 2018 (on average, it was 73,261 articles). 77% of seizures worldwide concerned postal shipments in 2018, and in 2014 it was 67%.

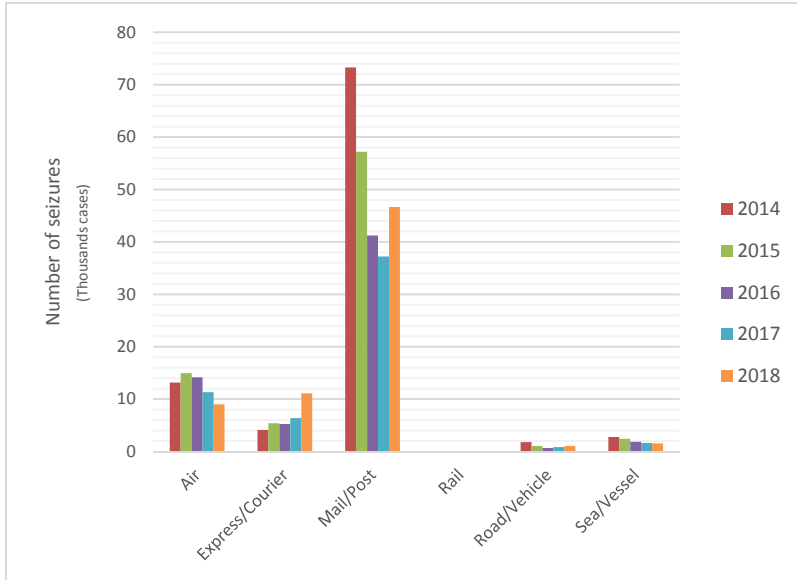


Figure 1 – Number of seizures by means of transport, 2014-2018 (Authors according to European Commission, 2019)

The value of counterfeit goods appears to be a very volatile item. The transport of counterfeits by sea dominates here. In 2014 was value of seized articles transported by the sea/vessel more than 317 million EUR and in 2018 more than 390 million EUR (average between 2014 and 2018, 321 million EUR). The value of the seizure articles transporting by air was 107 million EUR in 2014 and 92 million EUR in 2018 (on average, it was more than 126 million EUR). The peak was in 2016 when value of seizures articles transported by air was more than 186 million EUR.

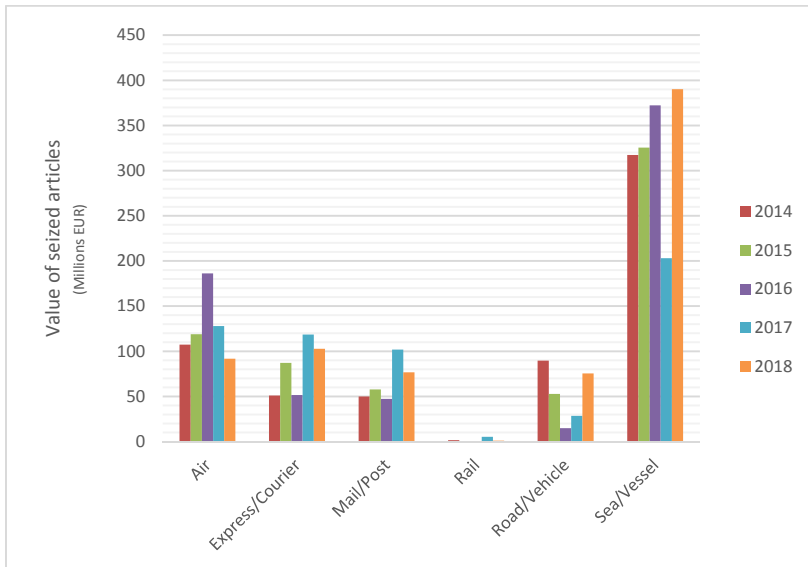


Figure 2 – Value of seized articles by means of transport, 2014-2018 (Authors according to European Commission, 2019)

Trends in means of transporting counterfeits to the European Union are discussed in this part. The European Commission published the primary data set in Report on the EU customs enforcement of intellectual property rights: Results at the EU border, 2018.

The figures below depict trends in the method of transporting counterfeits to the European Union between 2014-2018 by the number of cases (figure 3) and the value of seized articles in a million EUR (figure 4). The amount of counterfeit goods transported by sea/vessel has a downward trend. This phenomenon can be

explained by the more precise work of the customs authorities of the Community countries, where it can be assumed that many of the ways through which counterfeit goods arrive in the EU are covered.

The number of cases generally have a downward trend, except for express/courier mean of transport. There is an upward trend in express/courier shipments in the number of cases. Express/courier shipments on the global scale of international trade are increasing, so this trend only copies the behavior of consumers (E-commerce, Internet purchases) and the related practice of counterfeiters. On the other hand, the downward trend is the number of cases detected by mail/post or sea/vessel. This phenomenon may be due to the preferences of customers or decreasing prices of courier/express services. Counterfeiters try to avoid well-protected ports and favor much more viable express/courier transport. Random checks by Customs of the articles will never detect all counterfeit products. For this reason, counterfeiters choose to transport in this form.

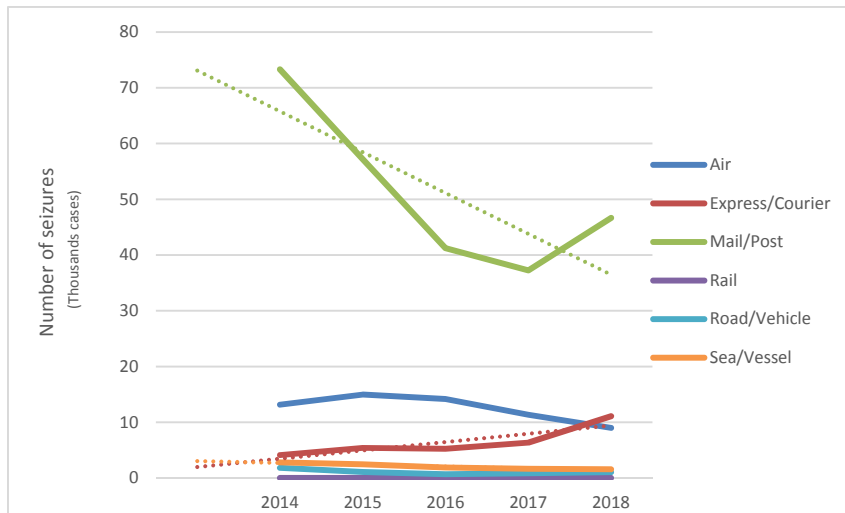


Figure 3 – Trend in number of seizures by means of transport (Authors according to European Commission, 2019)

The graph of trend in value of seized articles depicts that counterfeit shipments by sea/vessel have an upward trend, despite the downward trend in number of seizure articles. This phenomenon may be due to counterfeiters' efforts to counterfeit the most luxurious expensive brands by the sea/vessel. Another increasing trend in value of seized articles by means of transport is value of counterfeit goods arriving by the express/courier or mail/post. It is a well-known fact that the Customs administrations of the Community countries capture only a minimum of the total quantity of counterfeit goods.

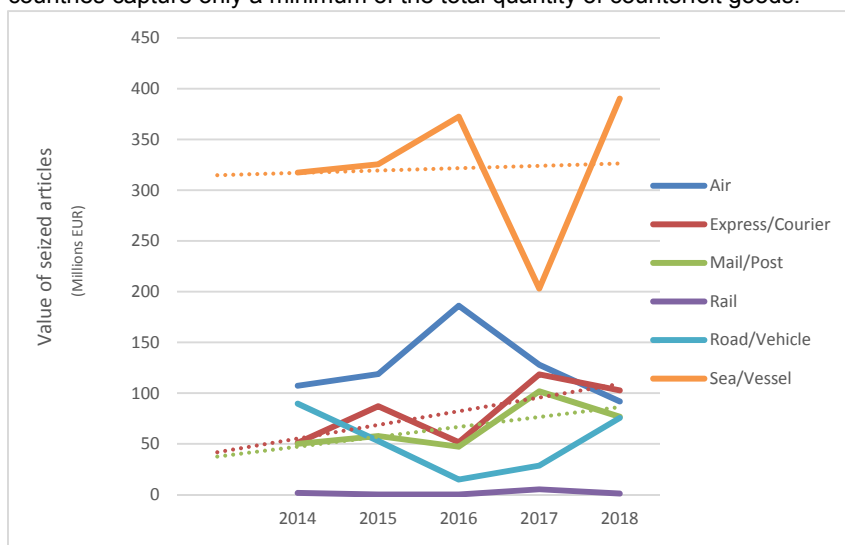


Figure 4 – Trend in value of seized articles by means of transport (Authors according to European Commission, 2019)

5. Conclusions

In conclusion, are formulated the main issues of the transport of counterfeits to the European Union supported by quantitative results.

Between 2014 and 2018, 70% of cases concerned postal shipments (255,612 in total). Air transport and express/courier transport followed, with slightly more than 17% (62,633 in total) and 9% (32,248 in total) of cases, respectively. 3% of cases are represented by the sea/vessel means of transport (5,457 in total). Other conveyance modes of counterfeit products, such as products carried by pedestrians or by road, rail, reported negligible shares.

Between 2014 and 2018, 49% of the value of seized articles concerned sea/vessel shipments (1,608 million EUR in total). Air transport and express/courier transport followed, with slightly more than 20% (632 million EUR in total) and 13% (411 million EUR in total) of total value respectively. 10% of total value was represented by post/mail (334 million EUR in total) and 8 percent by Road/Vehicle means of transport (262 million EUR in total). Other conveyance modes of counterfeit products, such as products carried by pedestrians or by rail, reported negligible shares.

Over the years, postal, express, and air transport have remained the most important means of transportation in terms of the number of cases detained. In contrast, sea transport by the container is the primary means of transport for the number of articles. The findings show that the number of articles is going down even if the value is rising. That might be caused by an effort of counterfeiters trying to counterfeit more valuable products. From an economic point of view in the European Union plays a significant role in Small-medium enterprises. It is necessary to protect mainly SMEs against the negative impact of counterfeits products.

The main aim of the paper was to characterize and mapping of trends in the means of transporting counterfeits to EU countries between 2014-2018. Additionally, the paper showed actual trends in the logistics of counterfeit products and showed how much money European economics lost in the period 2014-2018.

Acknowledgments

This research was supported by the Grant Agency Academia aureal, project GA/16/2019.

References

- Bian X., Wang K. Y., Smith A., Yannopoulou N., 2016, New insights into unethical counterfeit consumption, *Journal of Business Research*, 69(10), 4249–4258.
- Bhaird C. M., 2010, *Resourcing Small and Medium Sized Enterprises*, Springer Verlag, Berlin, D.
- Henderson J., Weiler S., 2010, Entrepreneurs and job growth: probing the boundaries of time and space, *Economic Development Quarterly*, Vol. 24. No. 1. pp. 23 – 32. doi: 10.1177/0891242409350917.
- Mori A., Meena, E., Kaale E., 2018, Economic cost of substandard and falsified human medicines and cosmetics with banned ingredients in Tanzania from 2005 to 2015: a retrospective review of data from the regulatory authority, *BMJ Open*, 8:e021825. doi:10.1136/bmjopen-2018-021825.
- OECD (2008), *The Economic Impact of Counterfeiting and Piracy*, OECD Publishing, Paris, <doi.org/10.1787/9789264045521-en> accessed 19.03.2020.
- OHIM-Europol (2015), 2015 Situation Report on Counterfeiting in the European Union. Report on the EU customs enforcement of intellectual property rights: Results at the EU border, 2018, 2019, Luxembourg: Publications Office of the European Union, <ec.europa.eu/taxation_customs/sites/taxation/files/2019-ipr-report.pdf> accessed 19.03.2020.
- OECD-EUIPO (2016), *Trade in Counterfeit and Pirated Goods: Mapping the Economic Impact, Illicit Trade*, OECD Publishing, Paris, <doi.org/10.1787/9789264252653-en> accessed 19.03.2020.
- OECD-EUIPO (2017), *Mapping the Real Routes of Trade in Fake Goods, Illicit Trade*, OECD Publishing, Paris, <doi.org/10.1787/9789264278349-en> accessed 19.03.2020.
- OECD-EUIPO (2018a), *Misuse of Small Parcels for Trade in Counterfeit Goods: Facts and Trends, Illicit Trade*, OECD Publishing, Paris, <doi.org/10.1787/9789264307858-en> accessed 19.03.2020.
- OECD-EUIPO (2018b), *Trade in Counterfeit Goods and Free Trade Zones: Evidence from Recent Trends, Illicit Trade*, OECD Publishing, Paris/EUIPO, <doi.org/10.1787/9789264289550-en> accessed 19.03.2020.
- OECD/EUIPO (2019), *Trends in Trade in Counterfeit and Pirated Goods, Illicit Trade*, OECD Publishing, Paris/European Union Intellectual Property Office. <doi.org/10.1787/g2g9f533-en> accessed 19.03.2020.
- Siroën J-M., Yücer A., 2014, *Trade Performance of Free Trade Zones*, Working Papers DT/2014/09, DIAL.
- Vey A., Monari A., 2018, *How blockchain can help the fight against counterfeit goods*, LSE Business Review, UK.