

THE ECONOMIC COSTS OF COUNTERFEITING AND PIRACY

Report prepared for BASCAP and INTA
Executive Summary

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The International Chamber of Commerce (ICC) works to promote a balanced and sustainable system for the protection of intellectual property. It believes that IP protection encourages innovation and the development of knowledge-based industries, stimulates international trade, and creates a favorable climate for foreign direct investment and technology transfer. ICC launched BASCAP (Business Action to Stop Counterfeiting and Piracy) to connect and mobilize businesses across industries, sectors and national borders in the fight against counterfeiting and piracy. Visit BASCAP on the web at: www.iccwbo.org/bascap



The International Trademark Association (INTA) is a global organization of over 7,000 trademark owners and professionals from over 190 countries. INTA is a not-for-profit membership association dedicated to supporting trademarks and related intellectual property in order to protect consumers and to promote fair and effective commerce. The Association was founded in 1878 and today INTA leads the way in global trademark research, policy development, education and training. More details about INTA and its roles are available at www.inta.org



BASCAP and INTA express appreciation to TECXIPIO for their valuable source data contributions to this report. TECXCIPPIO is an IT company specialized in building scalable solutions to accurately track and analyse worldwide copyright infringements on the internet. www.tecxipio.com

Foreword

When BASCAP commissioned Frontier Economics to do a report in 2011 on the global impact of counterfeiting and piracy, our aim was firstly to build on the seminal work of the OECD to—for the first time ever—undertake a data-based, econometric approach to quantifying the value of counterfeiting and piracy; secondly, we set out to pick up where the OECD left off, by expanding their work to include several categories of counterfeiting and piracy that they did not address. Our findings were somewhat alarming, in terms of the magnitudes, but also the projections of how the problem of counterfeiting and piracy would continue to grow in the years to follow. At that time, Frontier estimated that the total global economic value of counterfeit and pirated goods was as much as \$650 Billion per year, and projected that this figure would grow to almost \$1.8 Trillion by 2015.

As 2015 drew to a close, BASCAP, together with the International Trademark Association (INTA), asked Frontier, to update their report. They have found that counterfeiting and piracy continue to grow at an astounding rate. And, despite increased efforts by the private sector, governments, international government organizations and a growing number of NGOs, the problem is getting worse, not better.

This troubling trend was confirmed last year when OECD/EU IPO issued a report updating their original 2008 report on the level of international trade in counterfeit goods, where they found an 80% increase in counterfeiting between 2008 and 2013.

In developing this report, Frontier has once again collaborated with OECD on methodologies and once again addressed additional impacts of counterfeiting a piracy beyond losses associated with cross border trade in fakes. Additionally, the new Frontier study takes a deeper look into the broader social economic impacts of counterfeiting and piracy.

This report shows that the infiltration of counterfeit and pirated products, or *IP theft*, creates an enormous drain on the global economy – crowding out Billions in legitimate economic activity and facilitating an "underground economy" that deprives governments of revenues for vital public services, forces higher burdens on tax payers, dislocates hundreds of thousands of legitimate jobs and exposes consumers to dangerous and ineffective products.

We commissioned the original Frontier report and this update because we believe that reliable information on the scope, scale, costs and impacts of counterfeiting and piracy is critical for helping policymakers to better understand that the trade in fakes is damaging their economies, threatening the health and safety of their citizens and stifling innovation and creativity.

BASCAP and INTA hope that better information on how counterfeiting and piracy undermine IP, innovation, economic growth and employment, will better enable policymakers to make the fight against IP theft a higher public policy priority – and take the actions needed to prevent the damage inflicted by counterfeiting and piracy.

BASCAP and INTA will continue to explore ways to add further research on this critical issue, and to work together and with other stakeholders to build greater awareness of the enormous costs of counterfeiting and piracy.

EXECUTIVE SUMMARY

Counterfeiting and piracy are highly pervasive across countries and sectors, representing a multi-Billion-dollar industry globally that continues to grow. Measuring the scale of counterfeiting and piracy helps us to understand the size of the problem, and the related social costs. It also helps inform policymakers so that they can target resources appropriately towards combating counterfeiting and piracy.

1.1 Extending the findings of the OECD/EUIPO

Our starting point is the recent work undertaken by the Organization for Economic Cooperation and Development (OECD) and European Union Intellectual Property Office (EUIPO) to measure the extent of piracy and counterfeiting in international trade.¹ The OECD/EUIPO Report builds on a previous, ground-breaking study by the OECD in 2008. Since the publication of the initial report, researchers at the OECD have been able to bring significant enhancements to their research methodology, including improved econometric modelling and more data, including primary data from customs experts.

The OECD/EUIPO Report estimates that trade in counterfeit and pirated products accounted for as much as 2.5% of the value of international trade, or \$461 Billion, in 2013.² Notably, this figure represents an increase of more than 80% over the OECD's findings in 2008.

Our report seeks to quantify the global value of counterfeiting and piracy and related economic and social costs. As revealing as the OECD/EUIPO Report is, its focus is on one specific aspect of counterfeiting and piracy: the international trade of counterfeits across borders.

We therefore draw on and extend the OECD/EUIPO Report to include additional types and impacts of counterfeiting and piracy that are delineated, but not quantified, in their analysis. Specifically, this study quantifies three additional categories of losses: (i) the value of domestically produced and consumed counterfeit goods, (ii) the value of digital piracy, and (iii) wider economic impacts. Our approach and analysis is a follow-on study from our 2011 report for BASCAP, which built on the OECD's 2008 analysis.

Our analysis consists of the following four dimensions.

- **Quadrant 1: Internationally traded counterfeit and pirated goods.** We reprise the OECD/EUIPO's recent estimates of the value of counterfeit and pirated physical goods in international trade. This captures the value of counterfeit goods that cross international borders. We also develop projections of this value to 2022.

¹ OECD/EUIPO (2016), Trade in Counterfeit and Pirated Goods: Mapping the Economic Impact, OECD Publishing, Paris. Available at: <http://dx.doi.org/10.1787/9789264252653-en>. (hereinafter "OECD/EUIPO Report")

² Ibid.

- **Quadrant 2: Domestically produced and consumed counterfeit and pirated goods.** We estimate the value of domestically produced and consumed counterfeit and pirated goods using the findings of the OECD/EUIPO Report as a starting point. This captures the value of counterfeits that are produced and consumed within the borders of a country.
- **Quadrant 3: Piracy distributed through the Internet, mainly by peer-to-peer (P2P) sharing and streaming.** We estimate the value of digital piracy in film, music, and software, which is not captured in the OECD/EUIPO Report as it is based on physically traded goods. Our analysis draws on industry data and studies.
- **Quadrant 4: Wider economic and social impacts.** Building on the magnitudes calculated in quadrants 1-3, we measure related economic and social impacts of counterfeiting and piracy. Specifically, we:
 - Develop an econometric estimate of the impact of counterfeiting and piracy on foregone economic growth.
 - Present effects of the displacement by counterfeiting and pirating activities of legitimate activities on employment, FDI, and sales tax revenues.
 - Estimate costs of criminality related to counterfeiting and pirating activities

1.2 Key findings

Our analysis shows that the scale of counterfeiting and piracy globally is large, that it has grown since previous estimates, and that this growth is expected to continue. Our estimates of these values across all four quadrants are shown in Table 1.S below.

We estimate that the value of international and domestic trade in counterfeit and pirated goods in 2013 was **\$710 - \$917 Billion**. We estimate that, in addition to this, the global value of digital piracy in movies, music and software in 2015³ was **\$213 Billion**.

We estimated wider economic costs associated with the effects of counterfeiting and piracy on the displacement of legitimate economic activity. This estimate also provides a starting point for inferring fiscal losses. We also estimated the effects of counterfeiting and piracy on Foreign Direct Investment (FDI) and crime. The results are reported in Table 1 below.

³ Digital piracy is calculated from 2015 data, which is the most recently available data

Table 1. Summary of estimates of counterfeiting and piracy

Quadrant	Estimate	2013	2022 (forecast)
1	Total international trade in counterfeit and pirated goods	\$461 Billion	\$991 Billion
2	Total domestic production and consumption of counterfeit pirated goods	\$249 - \$456 Billion	\$524 - \$959 Billion
3	Digital piracy in movies, music and software	\$213 Billion	\$384 - \$856 Billion
	- Digital piracy in film	\$160 Billion	\$289-644 Billion
	- Digital piracy in music	\$29 Billion	\$53-117 Billion
	- Digital piracy in software	\$24 Billion	\$42-95 Billion
	Total value of counterfeit and pirated goods	\$923 Billion – 1.13 Trillion	\$1.90 - \$2.81 Trillion
4	Wider economic and social costs		
	- Displacement of legitimate economic activity	\$470-\$597 Billion	\$980-\$1244 Billion
	- Estimated reduction in FDI	\$111 Billion	\$231 Billion
	- Estimated fiscal losses	\$96-\$130 Billion	\$199-\$270 Billion
	- Estimated costs of crime	\$60 Billion	\$125 Billion
4	Total Wider economic and social costs	\$737-\$898 Billion	\$1.54 - \$1.87 Trillion
	Estimated employment losses	2-2.6 million	4.2-5.4 million
	Foregone economic growth in OECD 2017	\$30 Billion to \$54 Billion	

Source: Frontier estimates based on OECD 2013 data on counterfeiting in international trade, and UN trade and GDP data to derive estimates for domestic production and consumption. Data for Piracy based on latest industry sources (2015).

We find significant effects on the job market through the displacement of legitimate economic activity by counterfeiting and piracy. We estimate net job losses in 2013 to lie, globally, between 2 and 2.6 million, and we project net job losses of 4.2 to 5.4 million by 2022.

We also estimated the effects of changes in the incidence of counterfeiting and piracy on economic growth. Our econometric model, estimating the impact of changes in the intensity of counterfeiting and piracy on economic growth, suggests that a percentage point reduction in the intensity of counterfeiting and piracy would be worth between \$30 Billion to \$54 Billion in 2017 for the 35 OECD countries.

Table 1 also reports forward projections out to the year 2022.

Our forward projections begin with OECD/EUIPO's estimates of international trade in counterfeit and pirated goods, augmented by forecasts of growth in import volumes and the ratio of customs seizures to real imports. Using these, we forecast that the value of trade in counterfeit and pirated goods could reach **\$991 Billion** by 2022.

We carry out a similar exercise to illustrate how the size of domestic production and consumption of counterfeit and pirated goods may change over time. We use data on recent and forecast rates of growth in global trade and GDP, and projected growth in the rate of counterfeiting. Using this approach, we forecast that the value of domestically produced and consumed counterfeit and pirated goods could range from **\$524 - \$959 Billion** by 2022.

Applying the methodology used in our previous study, we combine two different approaches to project digital piracy into the future. The first approach assumes that digital piracy will maintain its share of total counterfeiting and piracy over time. The second approach assumes that digital piracy grows proportionally to global IP traffic. Combining these two approaches, we forecast that the value of digital piracy in movies, music and software could reach from **\$384 - \$856 Billion** by 2022.

1.3 Analytical approach

As recognised in the OECD/EUIPO Report, the estimation task is necessarily complicated by the fraudulent nature of counterfeiting, which relies on the activity being hidden from view. The OECD/EUIPO Report addresses this challenge via an innovative analytical approach that uses data on customs seizures. Individual sectors have also relied on surveys to understand the scale of counterfeiting and piracy that they face, as well as collecting data on the prevalence of counterfeiting and piracy as part of their routine IP enforcement activities.

To estimate the scale and impacts of counterfeiting and piracy, we use and build on the OECD/EUIPO Report, bringing in additional publicly available data from reputable sources such as the UN Statistics Division. We have drawn on industry data to develop our estimates of digital piracy. Throughout our analysis, we have engaged closely with relevant sector bodies to ensure that our approach is robust and the data sources are reliable.

To account for the significant uncertainty around the value of counterfeiting and piracy, we use conservative assumptions in our estimates, and provide ranges for our estimates. The main report sets out the data sources and assumptions used in detail, and the impact of the assumptions made on the interpretation of our analysis.

1.4 Agenda for future research

It is important to continue to highlight the scale of the challenge posed by counterfeiting and piracy globally. We believe that a number of next steps are important, including the following.

- Further research into the prevalence of counterfeiting and piracy of physically traded goods that don't cross borders. Our analysis infers the prevalence of domestically produced and consumed counterfeits using the OECD/EUIPO analysis of internationally traded counterfeits. Further research would help ensure more precise estimates of the scale of domestic counterfeiting in future.
- The digital piracy landscape is changing rapidly. Further data collection and analysis to understand the scale of growing forms of digital piracy (e.g. gaming, copyright infringing user generated content, TV series) would help policymakers to better address policies to the problem of digital piracy.
- Further analysis of and improvements to the customs seizures data that underlies the OECD/EUIPO analysis would be beneficial, for example in helping policymakers build up a picture of how prevalence of counterfeiting in different sectors and geographies varies year on year.

