



The Impact of Counterfeiting on Governments and Consumers

A REPORT COMMISSIONED BY BASCAP: EXECUTIVE SUMMARY

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An ICC initiative
BASCAP
Business Action to Stop
Counterfeiting and Piracy

BASCAP quest for better information

Better information on the scope, scale, costs and impacts of counterfeiting and piracy is critical to demonstrating the value of intellectual property to the economy and society more generally. Government leaders and influencers with better information on the value of Intellectual Property (IP) and a better understanding of how counterfeiting and piracy undermine IP, innovation, economic growth and employment are better able to prioritize public policy measures to protect IP and to work against the harms of counterfeiting and piracy.

Since counterfeiting operates outside the law, estimating the exact level of counterfeiting and the harm it brings is extremely challenging. Illegal businesses do not report any information on their activities to any government agency and therefore measures of the size of illegal businesses, such as total illegal sales or the income earned by these businesses must be estimated by indirect methods.

For this reason, BASCAP has commissioned a number of expert groups (including this report by Frontier Economics) to examine the issue and to develop methodologies for estimating the economic and social impacts. No one report or approach will yield a complete diagnosis or provide all the answers, but BASCAP is committed to learning from as many sources of expertise as possible.

With respect to this report, the methodology used to calculate these figures is as evidence-based as possible. It is based primarily on publicly available data from reputable sources such as national governments and the OECD, and is supplemented where necessary with data and analysis from industry associations and businesses.

In addition, given the limitations of information on counterfeiting, it has been necessary to make some assumptions. These assumptions have been based as far as possible on existing data. The assumptions used in this report are deliberately conservative both to ensure the findings are not over-stated and also to demonstrate that even on the most conservative set of assumptions, counterfeiting and piracy still impose significant negative effects on governments and consumers.

Executive Summary

Counterfeit and pirated goods can be found in almost every country in the world and in virtually all sectors of the global economy. These products are produced and sold in underground economies or in markets where they go unregulated and escape normal tax and tariff payments. They expose consumers to health, safety and quality risks and impose costs on society at large, in terms of employment, crime and social services.

Since counterfeiting operates outside the law, estimating the exact level of counterfeiting and the harm it brings is extremely challenging. Estimates of the level of counterfeiting vary but all estimates agree that counterfeiting represents a multi-billion Euro industry with hundreds of billions of Euros of counterfeit product moving across the globe every year.

The objective of this report is to develop a model based on publicly available data to estimate the cost to governments and consumers of counterfeit products. This is more than an academic exercise. An accurate measurement of the true costs of counterfeiting and piracy is a key factor in convincing government leaders and ultimately consumers that stronger action is needed to stop the flow of counterfeit goods. In the absence of reliable data, governments and consumers are left to conclude that the problem is not a priority or that it is a problem for the business sector alone to deal with.

Counterfeiting certainly impacts legitimate businesses, causing lost sales, lower profits and loss of brand trust and value. However, in an interconnected economy, consumers and governments also suffer. Governments see lower tax revenues and higher spending on welfare, health services and crime prevention. Consumers receive poorer quality products that are unregulated and unsafe. Moreover, as businesses suffer lower income and damaged brands, they may have to cut jobs and reduce investment leading in turn to lower economic growth.

These wider economic and social effects of counterfeiting and piracy are the primary focus of this report. It is anticipated that this report will help governments to understand that efforts to strengthen IP enforcement regimes should not be considered costs, but rather investments that pay tangible dividends to economic development and society.

Building on the work of the OECD

This study builds on recent work by the OECD to measure the cost of counterfeiting and piracy. The OECD concluded that the value of counterfeited and pirated goods moving through international trade alone equalled US\$200 billion annually. In releasing these findings, the OECD stated, “This total does not include the value of domestically produced and consumed counterfeit and

pirated products and the significant volume of pirated digital products being distributed via the Internet. If these items were added, the total magnitude of counterfeiting and piracy worldwide could well be several hundred billion dollars more.” In addition the OECD explained that counterfeiting and piracy “can have broader economy-wide effects on trade, foreign investment, employment, innovation, criminality, environment [...] and with respect to governments, counterfeiting and piracy have direct effects on tax revenues and government expenditures.”

Taken together, the OECD has delineated four categories of losses, for which they provided estimates for one - counterfeit and pirated goods moving through international trade.

- ▣ Category 1: counterfeit and pirated goods moving through international trade.
- ▣ Category 2: value of domestically produced and consumed counterfeit and pirated products.
- ▣ Category 3: the significant volume of pirated digital products being distributed via the Internet.
- ▣ Category 4: broader economy-wide effects.

More work must be done to estimate the economic and social impacts in each of these categories, as even the OECD’s estimates will need to be revised upwards to reflect more recent national customs agency statistics indicating a rise in border seizures over the figures used by the OECD in 2007. For example, seizures of counterfeit and pirated products are for some countries now twice the levels highlighted in the OECD reports. And while studies have been done to indicate that digital piracy and Internet sales of counterfeits may account for another US\$200 billion, little research has heretofore gone into estimating the value of domestically produced and consumed counterfeit and pirated products.

This report addresses Category 4 and investigates the impacts of counterfeiting and piracy on several – but not all – of the ‘broader economy-wide effects’, such as employment, lost tax revenues and higher government spending. It also assesses the impact of counterfeiting on consumers in terms of the health and safety risks they are exposed to and the increased levels of crime they face.

Given the measurement difficulties noted earlier, a new approach was needed to calculate these additional costs and impacts. The methodology used for this report is based upon an economic model that analyses the negative impact of counterfeiting and piracy on government receipts and expenditures, and the potential harm caused to consumers in two economies: Mexico and the UK; and across four sectors: luxury goods, pharmaceuticals, food and beverages and software. We then extrapolate these findings to illustrate the potential costs and impact across all G20 countries.

1.1 Key findings

Counterfeiting and piracy are estimated to cost G20 governments and consumers over €100 billion every year. The G20 economies lose approximately €62 billion in tax revenues and higher welfare spending, €20 billion in increased costs of crime, €14.5 billion in the economic cost of deaths resulting from counterfeiting and another €100 million for the additional cost of health services to treat injuries caused by dangerous fake products. Finally, a number of G20 economies may be missing out on higher FDI as a result of concerns over IPR enforcement. That lost investment could give rise to additional tax losses of more than €5 billion across the G20. It should be noted that these estimates are for the G20 countries, and only address a portion of economic damages governments and consumers may experience.

Counterfeiting also has a big impact on employment across the G20 economies. The analysis suggests that approximately 2.5 million jobs have been destroyed by counterfeiting and piracy – alternatively, if counterfeiting and piracy could be eradicated or seriously reduced, up to 2.5 million jobs could be created in the legitimate economies of the G20. It should also be noted that these estimates do not include secondary impacts on employment that may well be experienced by suppliers, retailers and other sectors in the supply chain.

While it is likely that many of those who lost their jobs have gone on to find reemployment, the personal and family trauma associated with even temporary unemployment should not be lightly discounted. For example, people may quickly get into arrears on mortgages or personal debts, have difficulty paying medical expenses (as benefits are often linked to employment) or be forced to relocate to find alternative employment. Even when workers do find new jobs, they are likely to pay less. Moreover, our estimates suggest that 160,000 workers will fail to find new jobs, with devastating consequences for their personal financial situations and harmful consequences for government as welfare bills rise and taxes fall.

- Counterfeiting and piracy cost the G20 economies approximately €62 billion annually in lost tax revenues and higher welfare spending. This is based on the analysis showing the cost in the UK of €4.1 billion and in Mexico of €1.4 billion.
- For the G20 overall, the economic and social costs of crime increases by more than €20 billion for every 1 % increase in the crime rate caused by the trade in counterfeit and pirated goods. In the UK a 1% increase in crime costs society approximately €1.7 billion, while in Mexico a 1% increase in crime leads to costs of €290 million.

- The economic cost of lives lost to counterfeiting and piracy can add up to €14.5 billion each year across the G20 economies, not including a cost for additional health services caused by dangerous fake products of more than €100 million each year.
- Lost taxes associated with lower FDI could be more than €5 billion per year. This is based on estimates of tax losses for Mexico of over €500 million.
- In the UK 380,000 jobs are destroyed as a result of counterfeiting with 31,000 workers unlikely to be able to find reemployment. In Mexico 480,000 jobs are destroyed with 26,000 unlikely to find alternative employment.

1.2 Analytical approach

We have developed an economic model to estimate the costs of counterfeiting to governments and consumers. The model is based on a combination of publicly available data and assumptions.

The publicly available data is from reputable sources such as national governments and the OECD, and is supplemented where necessary with data and analysis from industry associations and businesses. The data relates to industry output and shares, profitability, employment, taxation and welfare payments.

We have based the assumptions used in the model on existing data and analysis where possible and have in all cases made the assumptions used as conservative as possible. The main body of the report sets out in detail the assumptions used in the analysis, the basis of those assumptions, and the impact that they have on our analysis. Over time, we hope that if this approach is implemented by policymakers and other stakeholders, the reliance on assumptions in developing estimates can be substantially reduced.

It is important to note that the model captures only the direct effects of counterfeiting on governments and consumers. It does not include any multipliers or attempt to estimate the wider employment or taxation effects that counterfeiting may give rise to.

The model has been developed so that it can be used by national governments, independent agencies, industry sector associations or any other bodies seeking to identify and examine the costs and impacts of counterfeiting. The model is designed, therefore, as a tool to be implemented on a country by country and industry by industry level; it is also expandable to analyze and estimate impacts on a regional or international basis.

In developing this model – and to demonstrate the usefulness of this approach -- we have applied the model to four sectors in two countries. The sectors chosen for analysis were luxury goods, pharmaceuticals, food and beverages and software. The countries chosen for analysis were the UK and Mexico.

The sectors were chosen on the grounds that they are representative of the types of sector in which counterfeiting is likely to occur, and because these sectors make up a substantial element of economic activity in both the UK and Mexico.

The UK and Mexico were chosen as they represent two large G20 countries, but two that differ enormously. The UK as a more developed economy is primarily a recipient of counterfeit products. Mexico, as a less developed economy, is a recipient of counterfeit products, but also may be exposed to other costs as a source of counterfeit products. For example, producing countries may suffer a loss of foreign direct investment over time as investors see a lack of evidence of government protection of intellectual property.

1.3 **Headline findings - UK**

Applying our methodology to the four sectors (luxury goods, pharmaceuticals, food and beverages and software) in the UK we find that counterfeiting costs the government €500 million in lost taxes and higher welfare payments. This is made up of losses in sales tax, corporation tax and income tax and by increases in benefit payments.

To extrapolate these findings to the total UK economy, we based our estimate on the fact that these four industries account for 6% of UK GDP. However, we also accounted for the fact that these four sectors may be more prone to counterfeiting than the economy as a whole.¹ With this as the base, a conservative estimate of the cost for the UK economy as a whole could be in the order of €4.1 billion. For comparison, this is equivalent to 2.5% of total UK government tax receipts.

Another relevant comparison is the fact that €4.1 billion in lost tax revenue and increased welfare spending is more than 1.5 times what the UK currently spends in total on Customs activity. It also represents just less than half the UK's overseas aid commitment in 2010.

Because firms producing legitimate products lose sales to counterfeits, counterfeiting also has a big impact on employment. Approximately 15,000 jobs in the UK in the four sectors have been destroyed by the impact of counterfeits.

¹ A simple scaling up from the four sectors to the economy as a whole would suggest a loss to government of approximately €8.2 billion. To account for the fact that the industries under consideration might be more prone to counterfeiting than the economy as a whole, the loss to government was discounted by 50%.

Alternatively, up to 15,000 jobs could be created if counterfeiting and piracy could be eradicated or significantly reduced. The impact of these losses on the government's tax receipts and benefit payments are captured above. While it is likely that many of those who lost their jobs have gone on to find reemployment, it is important to emphasise that even temporary unemployment can cause significant difficulties for those workers unfortunate enough to be made unemployed. Moreover, our estimates suggest that 1,200 workers will fail to find new jobs.

It is important to note again that these figures relate only to the four sectors we have analysed. A conservative estimate for the UK economy as a whole would be in the order of 380,000 jobs destroyed, and almost 31,000 workers unlikely to be able to find new jobs.

The links between counterfeiting and other forms of criminal activity are becoming better identified. There is widespread evidence that the huge profits from counterfeiting are used to fund other criminal activities. Obviously, we cannot measure this effect directly. However, even taking the most modest assumption that counterfeiting could be responsible for raising the UK crime rate by just 1%, the economic and social cost of crime in the UK would increase by €1.7 billion. This figure captures the cost imposed on the criminal justice system as well as other social costs such as the cost of lives lost (homicides) and the cost of insurance and security to protect against crime.

The €1.7 billion in additional cost represents more than 80% of total expenditures on the courts service in the UK and almost 5% of total expenditure on the criminal justice system in the UK.

In summary, conservative estimates suggest that counterfeiting costs the UK:

- €4.1 billion in lost taxes and higher welfare spending;
- 380,000 jobs destroyed with 31,000 individuals unlikely to be able to find new jobs; and
- €1.7 billion for every 1% increase in crime caused by counterfeiting.

1.4 **Headline findings - Mexico**

In Mexico counterfeiting across the four sectors (luxury goods, pharmaceuticals, food and beverages and software) costs the government approximately €145 million per year. This loss is made up of losses in sales tax, corporation tax and income tax.

The four sectors account for approximately 8% of Mexican GDP. On conservative estimates, the total revenue impact for the Mexican government could be in the order of €1.4 billion or 1% of government tax receipts. This is

equivalent to 30% of what Mexico spends in pre-primary education or 10% in secondary education.

As with the UK, the impact of counterfeiting also affects employment. Across the four industries approximately 10,000 jobs have been destroyed with around 500 individuals unlikely to be able to find new jobs. Looking at the economy as a whole, the number of jobs destroyed is likely to exceed 480,000 with 26,000 of those who have lost their jobs unlikely to be able to find new jobs.

As well as losing tax receipts from Mexico-based companies as a result of counterfeiting, the Mexican government may also be missing out on significant tax payments from multinationals that would invest in the Mexican economy if there was stricter IPR enforcement. Technologically intensive sectors are the most likely to lose out on key technology transfer and foreign direct investment.

If better IPR enforcement could create the conditions that would attract foreign direct investment, this would have a clear impact on the output of the Mexican economy and on productivity. Estimates from recent academic work on the determinants of FDI suggest that for developing countries exports could increase by as much as 20% as a result of better IPR enforcement. For Mexico that would suggest an increase in total economic output of 11%. Even if we were to assume that Mexican output increased by only a more modest 2% in technologically intensive sectors, government tax receipts would still increase by around €520 million.

The cost to the economy and society of crime linked to counterfeiting is also significant in Mexico. If criminal activities linked to counterfeiting were to cause the crime rate to increase by just 1%, the total cost of crime in Mexico would increase by over €290 million.

In summary, conservative estimates suggest that counterfeiting costs Mexico:

- €1.4 billion in lost taxes and higher welfare spending;
- €520 million of tax losses from lost FDI;
- 480,000 jobs destroyed with 26,000 unemployed individuals unlikely to be able to find new jobs; and
- €290 million for every 1% increase in crime caused by counterfeiting.

1.5 Illustrative findings – G20

This study has also considered what these findings could imply at a G20 level, deriving assumptions from the more focussed research conducted on the UK and Mexico.

Obviously, more accurate results would be generated by implementing the methodology for each of the G20 countries. However, to illustrate the potential

magnitude of the impact on government and consumers, we have extrapolated the findings of our analysis from the UK and Mexico to the G20.

Estimated on this basis, total estimated tax losses and increased expenditure across the member economies of the G20 could be in the order of €14 billion for the four sectors (luxury goods, pharmaceuticals, food and beverages and software) studied. Applying this approach to the G20 economies in their entirety, suggests that each year governments must find approximately €62 billion in order to cover tax losses and higher welfare spending.

For the four sectors analysed, around 540,000 jobs have been destroyed with 34,000 individuals who have lost their jobs unlikely to be able to find new jobs. For the G20 economies approximately 2.5 million have been destroyed, with 160,000 individuals unlikely to find re-employment. Again, it is important to emphasise that even temporary unemployment can cause significant difficulties for those workers unfortunate enough to be made unemployed.

The links between counterfeiting and other criminal activities may also be leading to substantial costs for the G20 governments and their citizens. For the G20 as a whole, the economic and social costs of crime increase by over €20 billion for every 1% increase in the crime rate caused by counterfeiting.

Finally, counterfeit products are unregulated and unsafe. Every year thousands of consumers living and working in countries throughout the G20 suffer accidents and injuries as a result of unregulated counterfeit products. Many, if not most, of these products have been purchased unwittingly by consumers. Unfortunately, 3,000 consumers lose their lives every year as a result of their exposure to dangerous counterfeit products (primarily through counterfeit food and medicines). On conservative assumptions, the economic cost of lives lost to counterfeiting can add up to €14.5 billion each year across the G20 economies.

Accidents and ill-health relating to counterfeiting also put a strain on health services across the G20. While there are few good sources of information on the total incidence of accidents and ill-health caused by counterfeiting, even the most modest assumptions suggests that across the G20 the costs to the health services are likely to exceed €100 million.

For the G20 as a whole therefore our analysis suggests that counterfeiting costs governments and consumers:

- approximately €62 billion annually in lost tax revenues and higher welfare spending;
- approximately 2.5 million jobs destroyed across the G20 countries with potentially as many as 160,000 individuals unlikely to find re-employment;
- €20 billion for every 1 % increase in the crime rate caused by the trade in counterfeit and pirated goods; and

- €14.5 billion each year as a result of the 3,000 deaths linked to counterfeit products, not including a cost for additional health services caused by dangerous fake products of more than €100 million each year.

1.6 Recommendations

We have identified a number of key learnings and policy implications over the course of the study. These recommendations relate both to further data collection and analytical work that is required to improve the accuracy of estimates of harm caused by counterfeiting and some policy implications that emerge from the findings.

Recommendations for improving the evidence base

1. Improve the quality and scope of data relating to counterfeiting.

- **Data on consumer responses to counterfeiting:** We need greater information on the level of consumption of counterfeit products, the extent to which customers are knowingly purchasing counterfeit products, the drivers of purchasing such products and the degree to which consumers are substituting away from genuine products.
- **Health and safety effects of counterfeiting:** Governments collected only limited data on deaths associated with counterfeiting and almost no data on accidents and injuries associated with counterfeit products. Given the unsafe and unregulated nature of these products it is vital that better information is collected so that the public can be warned of the dangers, and also so that policy makers can have greater visibility of the costs counterfeiting is imposing.
- **The links between counterfeiting and other forms of crime:** Our study has demonstrated that even small increases in the crime rate can impose very high costs for society. Again, it is important that the relationship between counterfeiting and other forms of crime becomes better understood.
- **IPR protection and FDI:** Research into this area has demonstrated that developing countries may be losing out on substantial FDI as a result of a reputation for poor IPR enforcement. However, further work is required to fully flesh out and analyse the links between IPR enforcement and FDI in developing countries.

2. Work with policy makers and stakeholders to refine the methodology set out in this study.

This study was completed in a relatively short space of time. We believe it provides a helpful starting place for measuring the effects on governments and consumers of counterfeiting. However, we would hope that over time feedback from policymakers and other stakeholders will help to refine and improve the methodology.

3. Implement the methodology in other sectors and countries.

So far, this approach has been implemented for four sectors in the UK and Mexico. Results for the UK and Mexico economy as a whole and for the G20 have been extrapolated from these findings. In order to improve the robustness and accuracy of the findings, it will be necessary to implement this methodology for a wider set of sectors and countries.

4. Carry out a cost-benefit analysis of regulatory responses to counterfeiting.

This study has identified substantial negative effects of counterfeiting for both consumers and government. It has not, and was not intended to, carry out a cost-benefit analysis of regulatory options for reducing counterfeiting. We suggest that this would be a valuable next step in the analysis

Policy recommendations

As discussed above the focus of our work has been on quantifying the negative impacts of counterfeiting rather than analysing the potential cost effectiveness of regulatory responses. However, a number of implications can be drawn from our work in terms of potential policy responses:

5. Stepping up enforcement is likely to pay for itself.

While a full cost-benefit analysis of regulatory actions to reduce counterfeiting would be required, the evidence in this report strongly suggests that such actions would be net beneficial. In the UK, for example, losses to government are more than double total expenditure on Customs activity. This doesn't account for the additional costs to society of higher crimes and deaths, accidents and ill-health. This suggests that greater enforcement activities that lead to even small reductions in levels of counterfeiting are likely to be net beneficial.

6. The penalties associated with counterfeiting should be reviewed.

The potential cost of crime associated with counterfeiting could be between 5 and 10% of total expenditure on the criminal justice system. This suggests that stepping up the penalties associated with counterfeiting and the Courts' ability to deal effectively with IPR infringement cases could be net beneficial. We suggest that policy makers should consider whether Courts are adequately equipped to deal with these types of cases

and whether the penalties associated with counterfeiting and IPR infringements are proportionate to the harm they cause.

7. Policymakers should consider the potential benefits of improving IPR enforcement in developing economies.

It has often been suggested that IPR enforcement retards progress in developing countries, and that such countries simply cannot afford to crack down on IPR enforcement. However, the analysis we have reviewed suggests that this may not be the case, and that developing economies may be missing out on vital FDI and technology transfer because of their limited approach to IPR enforcement

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