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THE ECONOMIC IMPACT OF COUNTERFEITING AND PIRACY

PART IV. EXECUTIVE SUMMARY

The draft report on Phase I of the project on counterfeiting and piracy is being distributed in four parts. Part I provides an overview of the situation worldwide; Part II examines the policies and programmes that governments and industry are pursuing to combat counterfeiting and piracy; Part III contains six sectoral case studies that illustrate different aspects of the problem in detail; Part IV is the Executive Summary.

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COUNTERFEITING AND PIRACY *What we know and what could be done*

Overview: Magnitude and effects of counterfeiting and piracy necessitate strong action

Analysis carried out in this report indicates that international trade in counterfeit and pirated products could have been up to USD 200 billion in 2005. This total does not include 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.

Counterfeiting and piracy are illicit businesses in which criminal networks thrive. The report shows that the items that they and other counterfeiters and pirates produce and distribute are often substandard and can even be dangerous, posing health and safety risks that range from mild to life-threatening. Economy-wide, counterfeiting and piracy undermine innovation, which is key to economic growth.

The magnitude and effects of counterfeiting and piracy are of such significance that they compel strong and sustained action from governments, business and consumers. More effective enforcement is critical in this regard, as is the need to build public support to combat the counterfeiting and piracy. Increased co-operation between governments, and with industry, would be beneficial, as would better data collection.

Main elements of the report

- Analyses the structure of the markets for counterfeit and pirated products; the analysis highlights the importance of distinguishing those consumers who knowingly purchase counterfeit or pirated products, from those who are deceived;
- Assesses the scope of products being counterfeited and pirated;
- Examines the principal factors driving production and consumption;
- Estimates the potential magnitude of counterfeited and pirated goods in international trade, based on a new econometric model;
- Establishes and applies a 17-point framework for assessing the effects of counterfeiting and piracy economy-wide, as well as on rights' holders, consumers and governments;
- Presents a framework for assessing the effectiveness of the policies and related initiatives being pursued to combat counterfeiting and piracy;
- Describes and evaluates the main national and international initiatives being taken by governments and business to combat counterfeiting and piracy;
- Examines in detail the situation in the audio-visual, automotive, electrical components, food and drink, pharmaceutical and tobacco sectors;
- Outlines ways that information and analysis on counterfeiting and piracy could be strengthened; and
- Suggests areas where policies and practices to combat counterfeiting and piracy could be strengthened.

Key findings and recommendations

The report suggests ways to develop information and analysis, and calls on governments to consider strengthening legal and regulatory frameworks, enhance enforcement and deepen the evaluation of policies, programmes and practices.

Market analysis – Critical to developing an effective response

The market for counterfeit and pirated products can be divided into two important sub-markets. In the *primary market*, consumers purchase counterfeit and pirated products believing they have purchased genuine articles. The products are often sub-standard and carry health and safety risks that range from mild to life-threatening. In the *secondary market*, consumers looking for what they believe to be bargains knowingly buy counterfeit and pirated products. The policies and measures to combat counterfeiting and piracy in the two markets differ; it is therefore important to know how much of a threat each poses when considering product-specific strategies.

The study identifies a number of factors that are important to understanding why some products are counterfeited or pirated more frequently than others, and why counterfeiting and piracy are more common in certain parts of the world than others. The factors provide a framework for assessing the *propensity* of a product to be counterfeited or pirated, which can be used to guide quantitative research. They can also be used to suggest areas where government and industry should focus efforts to combat the illicit operations. The propensity framework is applied to the analysis of the six sector case studies included in the report.

Magnitude and scope – Larger than the national GDPs of 150 economies and affecting nearly all product sectors

The study shows that counterfeit and pirated products are being produced and consumed in virtually all economies, with Asia emerging as the single largest producing region. In recent years there has been an alarming expansion of the types of products being infringed, from luxury items (such as deluxe watches and designer clothing), to items that have an impact on personal health and safety (such as pharmaceutical products, food and drink, medical equipment, personal care items, toys, tobacco and automotive parts).

With respect to magnitude, the study notes that promising work has been done in a number of sectors to measure the extent of counterfeiting and piracy, but that much more can and should be done. The situation of each industry is unique, therefore techniques for carrying out such analysis need to be tailored to the sectors concerned.

To date, no rigorous quantitative analysis has been carried out to measure the overall magnitude of counterfeiting and piracy. This report notes the difficulties that would need to be addressed before such an estimate could be made, and then presents a methodology for estimating the role of counterfeiting and piracy in international trade, which is only a part, albeit an important one, of the total picture.

An analysis of international trade data (landed customs value basis¹) was carried out using the methodology; it suggests that up to USD 200 billion of internationally traded products could have been counterfeit or pirated in 2005. This amount is larger than the national GDPs of about 150 economies². The

1. Customs value 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 in transporting goods from the economy of origin to the economy of importation. Further information on valuation is available from the UN Comtrade Database (<http://comtrade.un.org/>)

2. Based on World Bank data for the year 2005.

figure does not, however, include counterfeit and pirated products that are produced and consumed domestically, nor does it include non-tangible 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.

Effects – Broad and profound

The report presents and applies a framework for assessing the effects of counterfeiting and piracy. Included in the analysis are assessments of the (i) general socio-economic effects (on innovation and growth, criminal activities, environment, employment, foreign direct investment, and trade), (ii) effects on rights' holders (on sales volume and prices, brand value and firm reputation, royalties, firm-level investment, costs and the scope of operations), (iii) effects on consumers (health and safety risks and consumer utility) and (iv) effects on government (tax revenues, expenditures and corruption).

The analysis shows that criminal networks and organised crime thrive via counterfeiting and piracy activities. The items that counterfeiters and pirates produce are often substandard, sometimes endangering the lives of those who purchase them. These illicit activities steal market share from legitimate businesses and undermine innovation, with negative implications for economic growth. Bribery associated with counterfeiting and piracy weakens the effectiveness of public institutions at the expense of society at large. Moreover, the savings that consumers may achieve by knowingly purchasing lower-priced counterfeit or pirated products need to be considered in a broader context. Depending on the product, consumers can be worse off. In some cases, consumers seeking to save money may be exposing themselves to health and safety risks when the products concerned are substandard. Governments are also directly affected: tax revenues are foregone and costs are incurred in combating the problem and public institutions are weakened when criminal networks use corruption to facilitate their counterfeiting and piracy activities.

Policies and measures

The report presents an eight-point framework for assessing the effectiveness of policies and measures to combat counterfeiting and piracy, and describes the situation for 12 different economies (Brazil, Canada, China, France, India, Israel, Italy, Japan, Korea, Switzerland, Chinese Taipei and the United Kingdom)³. The analysis indicates that the economies examined appear to have mechanisms in place to combat counterfeiting and piracy and that, in most cases, those mechanisms meet the basic obligations contained in the World Trade Organisation's Agreement on Trade Related Aspects of Intellectual Property (*i.e.*, TRIPS). Within this framework, there has been a general tendency for economies to strengthen civil and criminal sanctions in recent years. In practice, however, enforcement is still viewed by many as inadequate.

Improving efforts to combat counterfeiting and piracy

At the national governmental level, two of the principal challenges in combating counterfeiting and piracy are to: (i) find ways to enhance enforcement and (ii) raise awareness of counterfeiting and piracy issues. More needs to be done to detect and undermine counterfeiting and piracy at the point where infringement originates. Actions are also required to keep the Internet from becoming an even more prominent distribution channel for counterfeit and pirated products. Multilaterally, ways to strengthen the existing framework and practices could be explored. Suggestions mentioned in this regard include strengthening civil and criminal remedies to more effectively redress the harm caused to rights holders, expanding border measures and increasing information disclosure. Furthermore at the governmental level, co-operation with industry and among governments could be strengthened. Finally, development of

3. Additional reports are currently being prepared for Russia, the United States and the European Union.

effective policies and practices would benefit from more regular assessment, through peer review and related examinations.

While the OECD study has been able to provide insights into the situation, the report also notes that the information base needs to be strengthened. Governments, business and other interested stakeholders could do a far better job collecting and analysing information that is essential for designing and implementing effective strategies for combating counterfeiting and piracy. The report identifies a number of ways that this could be done, including: *(i)* establishing a common approach for collecting enforcement data; *(ii)* developing a reporting framework to document the health and safety effects of counterfeit and pirated product; *(iii)* making more extensive use of surveys to provide insights into the markets for counterfeit and pirated products; and *(iv)* increasing co-operation between governments and business.

Improved information would enable more far-reaching analyses to be carried out on the magnitude and effects of counterfeiting and piracy on economies. In turn, this would provide governments and other stakeholders with a firmer basis for developing more informed and effective policies and programmes to combat the illicit practices.

SUMMARY

I. Background

The OECD was asked to prepare a fact-finding report on counterfeiting and piracy which would (i) analyse developments and trends; (ii) assess the effects on stakeholders; (iii) describe and assess the policies and measures government and industry have been taking to combat the illicit practices and (iv) provide in-depth reviews in key affected sectors.

What are counterfeiting and piracy?

1. Counterfeiting and piracy are terms used to describe a range of illicit activities linked to intellectual property rights (IPR) infringement. The work that the OECD is conducting focuses on the infringement of IPRs described in the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS); it includes trademarks, copyrights, patents, design rights, as well as a number of related rights.

What are the key concerns?

2. Counterfeiting and piracy are longstanding problems which are growing in scope and magnitude. They are of concern to governments because of (i) the negative impact that they can have on innovation, (ii) the threat they pose to the welfare of consumers and (iii) the substantial resources that they channel to criminal networks, organised crime and other groups that disrupt and corrupt society. They are of concern to business because of the impact that they have on (i) sales and licensing, (ii) brand value and firm reputation, and (iii) the ability of firms to benefit from the breakthroughs they make in developing new products. They are of concern to consumers because of the significant health and safety risks that substandard counterfeit and pirated products could pose to those who consume the items.

What have governments and industry been doing to address the problem?

3. Protection of IPRs is an issue to which governments and industry have assigned higher priority in recent years. This is reflected in the actions that they have taken in a number of areas. Multilaterally, governments established an agreed framework for recognising and enforcing IPRs both in national and international contexts in the Uruguay Round through TRIPS. In addition, governments, working with industry, have been working through international institutions, such as the World Intellectual Property Organisation (WIPO), Interpol and the World Customs Organisation (WCO), to improve enforcement. Counterfeiting and piracy issues are also being addressed in the context of the G8 summit meetings, with the aim of developing more effective global solutions.

4. Industry has similarly stepped up efforts to combat counterfeiting and piracy, through sector-specific groups, as well as through more broadly based industry alliances. The International Chamber of Commerce (ICC), for example, created the Business Alliance to Stop Counterfeiting and Piracy (BASCAP) in 2005 to spearhead a global initiative. Industry has also co-operated closely with governments to improve enforcement, taking an active role in organising the three Global Congresses on counterfeiting and piracy that were held in 2004, 2005 and 2007 to address issues.

5. Despite these efforts, counterfeiting and piracy remain a problem for all economies.

What work is the OECD carrying out?

6. Much of the information and analysis that is available on counterfeiting and piracy is fragmentary, making it difficult for stakeholders to assess the situation in a comprehensive and coherent fashion. The lack and poor quality of information also complicate the development of policies to effectively combat counterfeiting and piracy.

7. To address these shortcomings, OECD governments, with the support of industry, agreed that the OECD should undertake a major project, to be carried out in three phases, each of which would conclude with the preparation of a report on findings. Phase I largely covers infringements of patents, trademarks, copyrights and design rights when they involve tangible products and, to a lesser extent, infringements of patents and design rights. Phase II will cover digital piracy, and Phase III will cover other forms of IPR infringement.

How has the OECD carried out its work on phase one of the project?

8. The work on Phase I was undertaken in co-operation with governments, industry and other international organisations active in IP. Technical meetings on measurement were organised with experts in co-operation with WIPO in October 2005, with a follow-up meeting in January 2006. WCO circulated a questionnaire to customs officials worldwide to help develop critical information on the significance of counterfeit and pirated products in international trade. Further information was developed through questionnaires that were sent to government officials in OECD and a number of non-OECD economies and through questionnaires that were circulated to industry, with the assistance of the OECD's Business and Industry Advisory Committee (BIAC). Meetings were organised with the music, movie, pharmaceutical and automotive industries to review drafts and/or develop additional information. Other industries contributed through written comments and related exchanges of information.

II. The markets for counterfeit and pirated products

Counterfeiters and pirates target products where profit margins are high, taking into account the risks of detection, the potential penalties, the size of the markets that could be exploited and the technological and logistical challenges in producing and distributing products.

On the demand side, consumers either: (i) unwittingly buy counterfeit or pirated products thinking that they have purchased genuine items, or (ii) knowingly buy lower-priced counterfeit or pirated items. The degree to which consumers knowingly buy counterfeit or pirated products depends on the characteristics of the products concerned. For example, consumers who would knowingly purchase counterfeit garments without any hesitation may have no interest in purchasing counterfeit pharmaceutical products.

IPR infringement takes different forms

9. Trademarks are used by producers to distinguish their products from competing products. They generally create expectations with respect to the quality and characteristics of the products concerned, and therefore serve as an important informational tool that consumers use to evaluate different products. Improper use of a trademark compromises or destroys its value to producers and consumers.

10. Copyrights are the rights given to authors of creative works, such as movies, music, software and written work. A patent is an instrument that enables the holder to exclude unauthorised parties from making, using, offering for sale, selling or importing a protected product as well as a product obtained using a patented process. Design rights concern the ornamental or aesthetic aspect of an article.

Infringements undermine the ability of rights holders to recover their investment costs and/or otherwise benefit from their innovative or creative work. Patent and design right infringement are not addressed in the Phase I report.

Sometimes consumers are unaware that they are purchasing counterfeit or pirated products; other times they knowingly support counterfeiting or piracy activities.

11. There are two principal markets for trademark- and copyright-infringing products. In the first (the *primary market*), counterfeiters and pirates infiltrate distribution channels with products that are often substandard. Consumers unwittingly purchase these products, thinking that they are genuine. In fact, they have been deceived.

12. The *secondary market* involves consumers who, under certain conditions, are willing to purchase counterfeit or pirated products that they know are not genuine. Consumers who knowingly purchase such products are also aware that they are supporting the parties producing and supplying them, although the true nature of those parties (such as organised crime and/or terrorist operations) may not be apparent to the consumer.

13. The size of the secondary market depends in large part on the difference in the price of the counterfeit or pirated article from the genuine item. There is likely to be virtually no secondary market demand for counterfeit and pirated products if they are priced at the same level as genuine items, but demand could be significant if the counterfeit or pirated product is sold at a substantial discount. The size of the secondary market also depends on the characteristics of the product involved. For example, the willingness to knowingly buy a low-priced counterfeit pharmaceutical product is likely to be far less than the willingness to purchase a low-priced pirated CD. Finally, demand is also affected by socio-economic factors, which differ among economies.

Supply and demand of counterfeit products are driven by a number of factors.

14. On the supply side, the products counterfeiters and pirates choose to exploit depend on (i) the nature of the market for the product concerned, (ii) the technological and distribution challenges associated with an undertaking and (iii) the risks involved. On the demand side, consumers who knowingly buy counterfeit or pirated products are influenced by (i) the characteristics of the products concerned, (ii) personal values and beliefs, and (iii) risks and logistical factors.

Summary table of drivers for counterfeit and pirate activities

Counterfeit or pirate supply	Knowing demand for counterfeit or pirated products
Driving factors	Driving factors
Market characteristics High unit profitability Large potential market size Genuine brand power	Product characteristics Low prices Acceptable perceived quality Ability to conceal status
Production, distribution and technology Moderate need for investments Moderate technology requirements Unproblematic distribution and sales High ability to conceal operation Easy to deceive consumers	Consumer characteristics No health concerns No safety concerns Personal budget constraint Low regard for IPR
Institutional characteristics Low risk of discovery Legal and regulatory framework Weak enforcement Non-deterrent penalties	Institutional characteristics Low risk of discovery and prosecution Weak or no penalties Availability and ease of acquisition Socio-economic factors

III. The situation in counterfeiting and piracy

Counterfeiting and piracy are not victimless crimes. The scope of products has broadened from luxury watches and designer clothing to include items which impact directly on personal health and safety -- including food, pharmaceutical products and automotive replacement parts.

The infringing products are being produced and consumed in virtually all economies, with Asia emerging as the single largest producing region. Enforcement authorities have stepped up efforts to intercept counterfeit items in international commerce, but counterfeiters and pirates have the upper hand in light of the enormous volume of goods being legitimately traded and the ease with which counterfeit and pirated items can be concealed.

The difficulty in breaking into established supply chains has helped to limit counterfeiting and piracy, but there are signs that counterfeiters and pirates are successfully expanding operations. The Internet has provided an important new platform for increasing sales. Criminal networks and organised crime are playing a major role in counterfeiting and piracy operations; they are attracted to the relatively high profits to be made and the relatively light penalties that could be applied if their operations were detected.

The scope of products being counterfeited and pirated is broad and expanding.

15. Evidence compiled from customs and other enforcement activities and research carried out by industry and research organisations indicates that the types of products being counterfeited and pirated are numerous and growing. The growth has been accompanied by a notable shift from high-value luxury items (upscale watches, designer clothing, expensive perfumes) to common products. With respect to luxury items, counterfeiters are producing a broader range of products, some of which are marketed as high-quality “replicas”.

An illustrative list of products subject to IP infringement

Industry sector	Examples of products subject to IP infringement
Apparel, footwear and designer clothing	T-shirts, hats, jerseys, trousers, footwear, caps, socks
Audio-visual, literary and related copyrighted work	Music, motion pictures, TV programmes, (CDs DVDs), software, books, computer/video games
Automotive	Scooters, engines, engine parts, body panels, air bags, windscreens, tires, bearings, shock absorbers, suspension and steering components, automatic belt tensioners, spark plugs, disc brake pads, clutch plates, oil, filters, oil pumps, water pumps, chassis parts, engine components, lighting products, belts, hoses, wiper blades, grilles, gasket materials, rings, interior trim, brake fluid, sealing products, wheels, hubs, anti-freeze, windshield wiper fluid
Chemicals/pesticides	Insecticides, herbicides, fungicides, non-stick coatings
Consumer electronics	Computer components (monitors, casing, hard drives), computer equipment, webcams, remote control devices, mobile phones, TVs, CD and DVD players, loudspeakers, cameras, headsets, USB adaptors, shavers, hair dryers, irons, mixers, blenders, pressure cookers, kettles, deep fryers, lighting appliances, smoke detectors, clocks
Electrical components	Components used in power distribution and transformers, switchgears, motors and generators, gas, and hydraulic turbines and turbine generator sets, relays, contacts, timers, circuit breakers, fuses, switchgears, distribution boards and wiring accessories, batteries
Food, drink and agricultural products	Fruit (kiwis), conserved vegetables, milk powder, butter, ghee, baby food, instant coffee, alcohol, drinks, candy/sweets, hi-breed corn seeds
Personal accessories	Watches, jewellery, glasses, luggage, handbags, leather articles
Pharmaceuticals	Medicines used for treating cancer, HIV, malaria, osteoporosis, diabetes, hypertension, cholesterol, cardiovascular disease, obesity, infectious diseases, Alzheimer's disease, prostate disease, erectile dysfunction, asthma and fungal infections; antibiotics, anti-psychotic products, steroids, anti-inflammatory tablets, pain killers, cough medicines, hormones, and vitamins; treatments for hair and weight loss.
Tobacco	Cigarettes, cigars, and snuff
Toiletry and other household products	Home and personal care products, including shampoos, detergents, fine fragrances, perfumes, feminine protection products, skin care products, deodorants, toothpaste, dental care products, shaving systems, razor blades; shoe polish; non-prescription medicine
Other	Toys, games, furniture, sporting goods (such as basket balls and golf clubs), stickers, dyed and printed exotic fabrics, belt buckles, decals, flags, lighters, tabletops, flowers, plant cuttings, qualification certificates, abrasive tools, sanitary products (bath tubs, wash basins, toilets), tableware (plates, bowls, cups)

16. The survey of customs officials, who deal with IP crime on a daily basis, suggests that the scope is growing. More than half of respondents indicated that the range of infringing products in international trade has expanded over the past 5 years, with 26% indicating that the expansion has been rapid. Those

citing rapid expansion include the United States, whose reported scope was already large, the European Union, Japan and Korea. Only 4 of the 50 respondents reported a more limited scope. These were Angola, Panama, Slovak Republic and Zimbabwe.

Counterfeiting and piracy are taking place in virtually all economies

17. Information provided by government authorities and industry worldwide suggests that counterfeiting and piracy are taking place in virtually all economies. Data provided by customs officials indicated that products had been intercepted from close to 150 source economies, including 27 of the OECD's 30 member countries. The sources mentioned include those economies where the counterfeiting and piracy are taking place, as well as economies that serve as intermediate shipping points. Covering the top 20 source economies, Asia emerges as the largest source for counterfeit and pirated products, with China as the single largest source economy.

Seizures of imported counterfeit and pirated products from the top 20 source economies

Region of top 20 source economies	Number of source economies in region	Seizures (% of total)
Asia (excl. Middle East)	12	69.7
Middle East	2	4.1
Africa	2	1.8
Europe	2	1.7
North America	1	1.1
South America	1	0.8
Top sources	20	79.2

Note: The seizure percentages are based on trade-weighted data from 19 reporting economies.

Consumption of counterfeit and pirated products is similarly widespread

18. It is apparent that counterfeit and pirated products are being sold in virtually all economies. The levels appear to be higher in economies where informal, open-air markets predominate. However, consumption patterns vary. The Middle East, for example, is a principal market for counterfeit *automotive parts* with significant volumes of counterfeits also consumed in Europe and North America. Consumption of counterfeit *tobacco* products seems more widespread, with developing economies in Latin America, Africa and Asia seeming to have relatively high levels. Effective controls on the distribution of *pharmaceutical* products have sharply limited the distribution of counterfeit products in many economies. There are, however, serious problems with substandard counterfeit medicines in some economies, notably in Africa. Problems with counterfeit medicines are also evident in Europe and North America, with a significant number of seizures reported. Counterfeit *electrical components, food and beverages* and *toiletries and household products* are similarly appearing in markets worldwide, with Africa, Asia and Latin America frequently mentioned as key regional markets. Piracy of *music, movies* and *software* appears to be significant in all economies.

Distribution channels for counterfeit and pirated products are expanding

19. Counterfeit and pirated products, previously largely distributed through informal markets, are infiltrating legitimate supply chains, with products now appearing on the shelves of established shops. Internationally, free trade zones, which are areas where international traders can store, assemble and manufacture products that are moving across borders with minimal regulation, are of increasing concern. Passing merchandise through such zones provides opportunities for parties to "sanitize" shipping

documents in ways that disguise their original point of manufacture. They also allow parties to essentially establish distribution centres for counterfeit and pirated goods, with little or no IPR-related enforcement actions being taken. Within the zones, goods can be repackaged with counterfeit trademarks, prior to being exported to other economies, and place of origin can be falsified to reduce enforcement scrutiny at their destination.

20. The Internet has provided counterfeiters and pirates with a new and powerful means to sell their products via auction sites, stand-alone e-commerce sites and email solicitations. The online environment is attractive to counterfeiters and pirates for a number of reasons, including the relative ease of deceiving consumers and the market reach (Box 1).

Box 1 Factors driving use of the Internet by counterfeiters and pirates

Anonymity -- The ease with which counterfeiters and pirates can conceal their true identity sharply limits the risk of detection.

Flexibility -- It is possible for a counterfeiter or pirate located anywhere in the world to establish online merchant sites quickly. Such sites can also be taken down easily or, if necessary, moved to jurisdictions where IPR legislations and/or enforcement are weak.

Size of market -- The number of e-commerce sites and volume of listings are huge, making it difficult for rights holders and enforcement agencies to identify and move against infringing counterfeiters and pirates. With respect to auction sites alone, the firm eBay recorded 596 million new listings in the second quarter of 2006 (eBay, 2006). The possibility of marketing a small number of infringing products multiple times can further undermine enforcement efforts.

Market reach -- The Internet provides sellers with a means to reach a global audience at low cost, around the clock. For counterfeiters and pirates, who have traditionally thrived in localised, often informal, markets, this represents a major opportunity to expand sales.

Deception -- Utilising readily available software and images on the Internet, counterfeiters and pirates can easily create sophisticated and professional looking web sites that are highly effective in deceiving buyers. Misleading or contrived ratings of consumer experiences with Internet vendors can further complicate matters by creating a false sense of security among purchasers. Finally, the infringing products may be sold alongside legitimate articles, which can facilitate deception.

Criminal networks and organised crime are playing a significant role in counterfeiting and piracy

21. The high profitability of many counterfeiting and piracy activities which in some cases exceeds the “profitability” of illegal drug trades, low risk of detection and relatively light penalties have provided counterfeiters and pirates with an attractive environment for the illegal activities. The groups involved in counterfeiting and piracy include mafias in Europe and the Americas and Asian “triads”, which are also involved in heroin trafficking, prostitution, gambling, extortion, money laundering and human trafficking. To address the situation, Interpol created an Intellectual Property Crime Action Group in July 2002, to help combat trans-national and organised intellectual property (IP) crime by facilitating and supporting cross-border operational partnerships. Some governments have also established bilateral operational partnerships in border enforcement and criminal investigations.

22. In addition to the established link between counterfeiting and piracy and organised crime, Interpol has highlighted a disturbing relationship of counterfeiting and piracy with terrorist financing, with IP crime said to be becoming the preferred method of financing for a number of terrorist groups. The links take two basic forms:

- *Direct involvement*, where the terrorist group is implicated in the production or sale of counterfeit goods and remit a significant portion of those funds for the activities of the group. Terrorist organisations with direct involvement include groups which resemble or behave like organised crime groups.
- *Indirect involvement*, where sympathisers involved in IP crime provide financial support to terrorist groups via third parties.

IV. Magnitude

Quantitative analysis carried out by the OECD indicates that the volume of tangible counterfeit and pirated products in international trade could be up to USD 200 billion. This figure does not, however, include counterfeit and pirated products that are produced and consumed domestically, nor does it include the significant volume of pirated digital products that are 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.

While the overall magnitude of counterfeiting and piracy cannot be easily measured, estimates of the role that counterfeit and pirated products are playing in international trade are possible

23. The overall degree to which products are being counterfeited and pirated is unknown, and there do not appear to be any methodologies that could be employed to develop an acceptable overall estimate. The clandestine nature of many counterfeiting and piracy activities, the general lack of indicative data and the difficulty in detecting counterfeit and pirated products contribute to difficulties in this regard. Analysis has therefore focused on international trade, where data, from customs authorities, are more abundant.

24. A model was developed using customs interception data (adjusted for known biases) to establish an indirect estimation framework. Running the model resulted in the development of two sets of data which established (i) the product categories in international trade that were most likely to be counterfeit or pirated and (ii) the economies that were most likely to be sources of such goods.

Up to USD 200 billion of international trade could have been in counterfeit or pirated products in 2005

25. The two sets of data were then combined to develop a matrix indicating the relative likelihoods that imports of specific products from specific economies would be counterfeit or pirated. Further analysis based on a combination of this matrix and international trade data (landed customs value basis) led to the conclusion that up to USD 200 billion of that trade could be in counterfeit or pirated products. This amount is larger than the national GDPs of about 150 economies around the world. The value of actual customs interceptions is far below this, which means that customs authorities are only intercepting a small fraction of the actual trade in counterfeit and pirated products; this is not unexpected in light of the (i) difficulty in detecting counterfeit or pirated products, (ii) the high volume of international trade, and (iii) the limited ability of customs to screen shipments.

26. The report emphasises that the estimate only relates to international trade in counterfeit or pirated products. It is therefore only a part, albeit an important one, of the total picture, as a large volume of counterfeit and pirated products never enters into international trade. The figure does not include counterfeit and pirated products that are produced and consumed domestically, nor does it include the significant volume of pirated digital products that are being distributed via the Internet. If these items were added, the overall magnitude of counterfeiting and piracy worldwide could well be several hundred billion dollars more than the USD 200 billion cited. The report also notes that the estimate of the magnitude could be enhanced through improved information on interceptions, from a greater number of economies.

V. Effects

Counterfeiting and piracy are illicit activities in which criminal networks and organised crime thrive. The items that they and other counterfeiters and pirates produce are often substandard or even dangerous, posing health and safety risks to consumers that range from mild to life-threatening. The illegal activities undermine innovation, which is key to economic growth.

The economic gains that some consumers experience by knowingly purchasing lower-priced counterfeit or pirated products need to be considered in a broader context; many consumers do not experience such gains, they are worse off.

The effects of counterfeiting and piracy are more pronounced in developing economies, which is where infringing activities tend to be highest, due, in part, to relatively weak enforcement. If unaddressed, weak enforcement is an issue that could affect relations with trading partners.

27. The report describes the effects that counterfeiting and piracy have economy-wide, as well as the effects on rights holders, consumers and governments. Data limitations preclude quantification of most of these effects. With improved data, further analysis could be carried out, and the report provides suggestions on how this could be done in certain key areas.

Counterfeiting and piracy have economy-wide effects: (i) innovation is undermined, (ii) criminal networks gain financially, (iii) the environment is negatively affected, (iv) workers are worse off. Moreover, in countries where counterfeiting and piracy is widespread, (v) foreign direct investment may be lower and (vi) the structure of trade may be affected

28. ***Innovation and growth.*** Innovation has long been recognised as a main driver of economic growth, through the development and exploitation of ideas for new products and processes. Innovators protect these ideas through patents, copyrights, design rights and trademarks. Without adequate protection of these intellectual property rights, the incentive to develop new ideas and products would be reduced, thereby weakening the innovation process. The risks are seen as particularly high for those industries in which the research and development costs associated with the development of new products are high compared to the cost of producing the resulting products. Pharmaceutical products are a case in point. Counterfeiting and piracy, to the extent that they undermine the efforts of innovators, can therefore have important adverse effects on research and, eventually, growth.

29. ***Criminal activities.*** Counterfeiting and piracy transfer economic rents to parties which are often engaged in a variety of illegal activities, including tax evasion and drug trafficking. It can be assumed that a portion, possibly a large portion, of the rents is eventually used to sustain further criminal activity, in a corrupt and organised manner.

30. ***Environment.*** Counterfeiting and piracy can have negative effects on the environment. *Firstly*, the growing volume of seized goods raises environmental issues since destruction can be a costly process that creates considerable waste. In 2005, for example, the European Union alone seized 76 million articles. *Secondly*, substandard counterfeit products can have environmentally damaging consequences. A case in point is the chemical industry, which has documented cases where the use of counterfeit fertilizers caused serious damage to the environment. The destruction of harvests in large areas in China, Russia, Ukraine and Italy has been cited as examples.

31. ***Employment.*** Counterfeiting and piracy affect employment at two levels: economy-wide and in affected sectors. Economy-wide, jobs shift from rights holders to infringing parties. The shift has implications for the welfare of employees as working conditions in clandestinely run illicit activities are often far poorer than those prevailing in recognised firms that value their employees higher and adhere to

health, safety and other regulatory norms. The pharmaceutical industry provided compelling evidence of the appalling conditions under which some counterfeit products were being manufactured. At the sectoral level, a number of assessments have been made of the jobs lost due to counterfeiting and piracy or, alternatively, the jobs that would be created if piracy levels declined.

32. **Foreign direct investment (FDI).** The situation with respect to intellectual property rights is one of many factors considered by firms who are investing abroad. For some industries, the level of counterfeiting and piracy may be relatively important, whereas in others it may be a minor consideration. The relationship was tested in an econometric analysis carried out by the OECD. It found that FDI from Germany, Japan and the United States was relatively higher in economies with lower rates of counterfeiting and piracy. However, additional results of the econometric test suggest that counterfeiting and piracy serve only a limited role in explaining FDI behaviour. The analysis should be treated as highly preliminary in nature as it is based on an extremely limited dataset. Much more work must be done before any precise conclusions can be drawn.

33. **Trade.** The relationships between counterfeiting and piracy and the volume and structure of international trade were examined econometrically. The results found no correlation with respect to trade volumes, but there were indications that counterfeiting and piracy influenced the types of goods imported and exported: economies with relatively high counterfeiting and piracy rates tended to export lower shares of products where health and safety concerns could be high. This was in particular the case for pharmaceutical products. As above, the results should, however, be treated with caution as they are based on limited data.

Rights holders experience: (i) lower sales volume and prices; (ii) damaged brand value and firm reputation; (iii) lower royalties, (iv) less incentive to invest in new products and processes, (v) higher costs, because of spending on efforts to combat counterfeiting and piracy, and (vi) potential reduction in the scope of their operations

34. **Sales volume and price.** Counterfeit and pirated products crowd genuine products out of the market, lowering the market share of the rights holder, putting downward pressures on prices. In the case of trademark- and copyright- infringing items, the loss in market share has two components (i) sales lost to consumers who purchase a counterfeit or pirated product believing it is genuine and (ii) sales lost to consumers who knowingly purchase a lower-priced counterfeit or pirated product instead of a genuine article.

35. **Brand value and firm reputation.** Counterfeit or pirated products may damage the brand image and reputation of firms over time. For instance, those consumers who believed they were buying a genuine article when in fact it was a fake, will be likely to blame the manufacturer of the genuine product if the fake does not fulfil expectations, thus resulting in a loss of goodwill. If consumers never discover that they were deceived, they may be reluctant to buy another product from that manufacturer and may communicate dissatisfaction to other potential buyers. The proliferation of counterfeit versions of luxury goods can make the genuine articles less desirable to their traditional consumers. These effects were reflected in responses to the OECD industry questionnaire by respondents from the consumer electronics, information and computer, electrical equipment, food and drink, luxury goods, sportswear, automotive parts and accessories and pharmaceutical industries.

36. **Royalties.** Royalties are the proceeds gained by IPR holders for permitting other parties to exercise such rights. Infringement deprives the rights holders of these proceeds.

37. **Investment**. High levels of counterfeiting and piracy could reduce the incentive of some firms to invest in the development of new products and processes. However, only limited empirical work has been carried out on this.

38. **Costs of combating counterfeiting and piracy**. As indicated below, rights holders incur a variety of costs when combating counterfeiting and piracy. It should be noted that, because these costs are remedial in nature, these do not translate into higher quality products, product innovation or other enhancements and can therefore be considered pure social loss.

Costs related to combating counterfeiting and piracy

Type of costs	Characteristics
Product protection	Products are modified to prevent or make them difficult to copy or fake.
Packaging	Special packaging, such as holograms and track and trace technologies, are used to deter counterfeiters and pirates
Litigation	Legal actions are taken against counterfeiters and pirates.
Investigations and research	Investigations are carried out to track down counterfeiting activities.
Co-operation with governments	Resources are used to provide technical and other types of support to governments.
Awareness	Initiatives are taken to raise the awareness of stakeholders of developments and issues.
Liability	To build good will, firms may settle claims arising from counterfeit or pirated products.

39. **Scope of operations**. Counterfeiting and piracy can affect the scope of a firm's activities. Respondents to the OECD industry survey mentioned instances where reduced profitability and losses in brand value had driven companies out of business or reduced their scale of operations.

Consumers acquiring counterfeit or pirated products, whether knowingly or unknowingly, (i) may be exposed to elevated health and safety risks, and (ii) could experience lower consumer utility due to generally lower quality of infringing products. The consumer utility situation is nuanced for consumers who knowingly purchase infringing products; some will gain, others will lose

40. **Health and safety**. Counterfeiters and pirates have limited interest in ensuring the quality, safety or performance of their products. This increases the potential of negative effects on consumers. Concerns about this appear frequently in the responses to the OECD surveys. The industries where health and safety effects tend to occur include: automotive, electrical components, food and drink, chemicals, toiletry and household products, pharmaceuticals and tobacco products.

- In the **automotive sector**, inferior replacement parts falsely carrying the brand name of trusted manufacturers have been problematic. Counterfeit brake pads, hydraulic hoses, engine and chassis parts, suspension and steering components and airbag mechanisms are among the items that have been counterfeited. In some instances the deficiencies found in these products seriously impair the safety of vehicles.
- In the **electrical components sector**, counterfeit circuit breakers have been found to be calibrated wrongly or to be constructed using low quality materials. Such deficiencies have caused fires and fatal electric shocks.

- In the *food and drink sector*, few people would knowingly purchase counterfeit food or drink products, due in part to the potential health risks involved. Such risks range from general discomfort, to serious illness and even death. As discussed in the sectoral assessment, this has been the case for poorly distilled raw spirits and fake baby formula.
- In the case of *pharmaceuticals*, trademark-infringing products may include correct ingredients in incorrect quantities or may be composed according to a wrong formula. Products can furthermore contain non-active or even toxic ingredients. Ailments which could be remedied by genuine products may go untreated or worsen; in some cases this may lead to death. Most purchasers of counterfeit pharmaceuticals are likely to be completely unaware that they have been victimised.

41. **Consumer utility.** The value or satisfaction that consumers derive from a product is based in large measure on the quality of the products and/or its performance, taking the price paid for the product into account. When the quality and/or performance of a counterfeit or pirated product is inferior to a genuine product, consumer utility is decidedly lower for those individuals who pay full price, believing the product that they have purchased is genuine. A consumer who unknowingly pays full price for a low quality counterfeit computer component that does not operate properly, for example, gains far lower value than someone who purchases a genuine component operating according to expectations.

42. The situation is more nuanced with respect to parties that knowingly purchase counterfeit or pirated products at low prices. If the quality of such products is high, consumer utility could be higher than would be the case for higher-priced genuine articles. However, if the quality and/or performance of the infringing product is lower, which is generally the case with counterfeit products, consumer utility could be lower. A low quality counterfeit watch that does not keep accurate time, and that wears out quickly may bring consumers less utility than an original, even though the counterfeit was purchased at a fraction of the price of the original .

43. It should be noted that while consumers who knowingly purchase counterfeit or pirated products know the price at which the counterfeit or pirated product is being sold, their ability to assess the quality of most counterfeit or pirated products is seriously limited; this explains why it not possible to asses utility at the time of purchase. In the event consumers have misjudged, they have little recourse as warranties and money-back guarantees are not generally offered for counterfeit or pirated products.

44. In addition to these short term effects, counterfeit and pirated products can have longer-term implications. Prices may be lower, for example, if rights owners reduce prices to compete more effectively with counterfeiters and pirates. Furthermore, less innovation by rights holders due to counterfeiting and piracy could translate into slower product development, thereby slowing growth in consumer utility. Finally, some rights holders could abandon markets altogether because of counterfeiting and piracy.

Effects of counterfeiting and piracy on government come in the form of (i) lower tax revenues, (ii) the cost of anti-counterfeiting activities, including responding to public health and safety consequences and (iii) corruption

45. **Tax revenues.** Tax collection is presumed to be far more effective from rights holders and their licensees than from counterfeiters and pirates. Potential losses include corporate income taxes, sales or value added taxes, excise taxes, import tariffs and social insurance charges. The revenue losses are particularly high in sectors such as tobacco and alcohol, where excise taxes are high and smuggling of counterfeit products to avoid those taxes is widespread.

46. ***Cost of anti-counterfeiting activities.*** The costs of counterfeiting and piracy to governments include those associated with customs and related law enforcement agencies and the resources required to process judicial proceedings. Significant costs are also incurred in handling and disposing of seized goods. Moreover governments often commit resources to initiatives to combat counterfeiting and piracy, such as increasing awareness of the problem domestically and internationally and co-operating with other governments to improve enforcement. Finally, governments often bear costs associated with addressing the consequences of counterfeiting on public health and safety. Criminal networks sometimes seek to reduce disruption of their distribution channels and the risk of punishment for their unlawful activities through bribery or extortion of government officials. Such actions weaken the effectiveness of public institutions at the expense of society at large.

The effects of counterfeiting and piracy are more pronounced in developing economies, which is where infringing activities tend to be highest

47. The magnitude of counterfeiting and piracy tends to be higher in developing economies, which means that the effects discussed above are likely to be more pronounced. The higher levels are partly explained by the relatively weak enforcement regimes in many of the developing economies. If unaddressed, weak enforcement is likely to affect not only domestic interests but also bilateral and multilateral relations with trading partners.

VI. Improving information on counterfeiting and piracy and strengthening analysis

Information on counterfeiting and piracy falls far short of what is needed for rigorous analysis and for policymaking. Priority should be given to (i) improving information that is available from enforcement activities (i.e. customs and other law enforcement agencies) and (ii) expanding the use of surveys to collect basic information on developments from rights holders, consumers and governments.

Improved and expanded information will enhance opportunities for developing sector-specific approaches for estimating the magnitude of counterfeiting and piracy and the effects on stakeholders. Such approaches should provide clear explanations of the methodologies employed and the underlying assumptions; transparency is key. Outcomes should be evaluated in terms of reasonableness and, wherever possible, be subjected to sensitivity analysis to determine how variations in key assumptions affect outcomes.

1. Improving information on counterfeiting and piracy

In order to develop comprehensive anticounterfeiting and antipiracy strategies, stakeholders need to work together to develop statistics that are: (i) collected systematically (i.e. regularly over time), (ii) comparable (i.e. consistent across economies and, to the extent possible, across sectors) and (iii) comprehensive (i.e. drawing on multiple sources)

48. There is a strong need for developing additional information on the magnitude, scope and effects of the phenomenon, both on the national/global level and in individual sectors. To maximize the value and usability of such information, it is crucial that the data be:

- *Systematically collected:* Assessments of developments and trends in counterfeiting and piracy require that data be collected regularly over time.
- *Comparable:* Consistent data collection is essential for ensuring data comparability across companies, sectors, and economies. The current study faced several challenges due to inconsistent measurement procedures across economies, which consequently made data compilation time consuming and of limited value for carrying out analysis.

- *Comprehensive*: Efforts to develop basic information should be comprehensive, drawing on as many different points of measurement as possible. In developing information on magnitude and scope, for example, key stages for potential data collection would include points of production, distribution, sales, and consumption.

49. Good information on product infringement would provide a solid basis for establishing the scope of counterfeiting and piracy, and could be a key input for assessing the magnitude and effects of counterfeiting and piracy. Currently available data sources are deficient due to inconsistency and incompleteness.

Enforcement data could be improved significantly; a common reporting framework is needed

50. The reporting framework developed by customs agencies through the World Customs Organization offers one of the most promising ways forward for improving information on infringement. The framework establishes the parameters for reporting on intercepted products (Box 2).

Box 2. – Key elements of WCO reporting framework

- Detailed description of the products involved.
- Date of interception.
- Value of the product.
- Quantity of the product (number of items or weight, etc.).
- Type of IPR infringement (patent, trademark, copyright, etc.).
- Origin of product.
- Routing of product (from origin to destination).
- Type of concealment (if relevant); and
- Detection method.

51. With relatively few modifications, the framework could be transformed into a template that could be used (i) by other law enforcement agencies to record IP crime, and (ii) by industry to compile related information. The WCO's Harmonised System, for example, provides a coded nomenclature for over 5,200 items; utilising this, at the detailed, six-digit level would provide much needed specificity about the products being intercepted. Work currently underway at Interpol to develop an information base should also be considered as it may provide further ideas for refining the framework.

A reporting framework needs to be developed to document the health/safety effects of counterfeit and pirated products

52. The effects that substandard counterfeit or pirated products have on the health and safety of consumers need to be documented more systematically and extensively. One step forward would be to develop a reporting platform, as is suggested above in the case of enforcement. To this end, codes could be introduced in the International Classification of Diseases to enable the tracking of the harm caused by counterfeit or pirated products. All stakeholders should be provided with a means to contribute to the data collection (i.e. including government, rights holders and consumers). The World Health Organisation (WHO), through its recently developed Rapid Alert System, offers a solid point of departure for work in this area.

Surveys could be used far more extensively to develop insights into the situation in counterfeiting and piracy situation

53. Surveys of consumers, rights holders, intermediate suppliers, and governments are a potentially rich source for various types of information on counterfeiting and piracy. They can be used for gathering information on the scope, magnitude, and effects of counterfeiting and piracy, and they can be used for

developing information on attitudes, behaviours and perceptions, and adjusting strategies to combat the problem.

54. The strength of surveys is their flexibility in the sense that they can be designed to provide information on a wide range of quantitative and qualitative factors. However, they are sensitive to the way questions are constructed and rely on the willingness of respondents to provide accurate responses – this could be a concern regarding sensitive information such as unlawful behaviour or industry secrets and/or interests. Surveys must therefore be well designed and targeted in a manner that will provide information on those characteristics that are key to the analysis. A clearly defined and measurable research objective is thus critical.

55. To enhance their value, surveys should be standardised to the extent possible. The standardisation would greatly facilitate cross-country and cross-sector analysis. Assessments of trends would furthermore be possible if the surveys were conducted systematically over time.

- **Consumer surveys** can be used to develop information on the experience that the consumers have had with counterfeit and pirated products and the effects, whether they purchased them knowingly or were deceived. Such surveys also provide a means to develop insights into the (i) types, frequency and quantity of counterfeit or pirated products that consumers have knowingly purchased; (ii) factors driving the purchases; and (iii) means through which the products were purchased. Finally, consumer surveys can also be used to develop information on consumer attitudes and perceptions.
- **Surveys of rights holders** can be used to develop information on: (i) the counterfeiting and piracy situation overall, as well as in different product markets; (ii) the effects that counterfeiting and piracy are having on sales, investment, costs, brand value, etc. (iii) the actions that industry is taking to combat the counterfeiting and piracy; and (iv) the counterfeiting and piracy situation in different economies.
- **Surveys of governments** can similarly serve as a tool through which information on the counterfeiting and piracy situation can be developed. Conducted at regular intervals, they can provide insights into how policies and programmes are evolving, and provide a means for tracking the effectiveness of those policies and programmes in the economies concerned. Eventually such surveys could provide inputs that could be used as a basis for strengthening international dialogue. They could also serve as a catalyst for improving domestic and international polices.

Sampling and economic experiments could also be used in some instances to provide a fuller picture of counterfeiting and piracy

56. *Sampling* can be used to develop insights into the magnitude of counterfeiting or piracy of specific products. As it is relatively expensive, its use is often limited to investigative work that is carried out in targeted markets.

57. *Economic experiments* are sessions that are carried out with individuals and/or groups to develop insights into behaviour. They can be used in the case of counterfeiting or piracy to examine the conditions under which consumers will opt for counterfeit or pirated products in lieu of genuine articles. They are a promising technique that could be used to quantitatively assess the strength of the factors driving knowing consumption of counterfeit or pirated products.

2. *Strengthening analysis of counterfeiting and piracy*

Assessing the factors driving production and consumption of counterfeit and pirated products can generate insights into the types of products that are most likely to be infringed, and the economies where such products are most likely to be produced and consumed, and lead to more efficient and effective strategies

58. The characteristics of counterfeit and pirated products play an important role in determining the extent to which they are consumed in primary and/or secondary markets. Similarly, institutional factors play an important role in determining the extent to which production and consumption take place in different economies. Carrying out assessments of the factors (or drivers), even on a qualitative, non-empirical basis, can generate insights into the counterfeiting and piracy situation in different products and in different economies. In the case of product-specific assessments, results can also (i) suggest how approaches to measuring magnitude should be structured, and (ii) indicate areas where efforts to combat counterfeiting and piracy should be focused. In the case of the assessments of economies, results can help to identify ways to strengthen the effectiveness of policies to combat counterfeiting and piracy.

Direct and indirect approaches can be used to estimate the magnitude of counterfeiting and piracy in specific product areas. Effects on prices, profits and sales volume can be measured econometrically, provided sufficient information on the markets concerned is known

59. *Direct approaches* rely on the use of infringement data in estimating the total magnitude of counterfeiting and piracy, or related information that can serve as proxies; the music and movie industries have used this technique. *Indirect approaches* are used where total production or consumption of a product (including counterfeit or pirated items) can be estimated. For example, counterfeit or pirated production can be derived by subtracting genuine production from the total. The software industry has used such an approach in its work.

60. Effects on prices, profits and sales volume can be measured econometrically, provided sufficient information on elasticities and the operation of the primary and secondary markets for counterfeit and pirated products are known.

Economic analysis should be expanded; such analysis needs to adhere to a number of basic principles

61. Far more econometric and related analysis can and should be done to improve understanding of (i) the magnitude of counterfeiting and piracy and (ii) effects economy-wide, and on rights holders, consumers and governments. Opportunities for doing so are particularly promising at the sectoral level. The approaches that are used to carry out such analysis should adhere to a number of key principles: (i) assumptions should be spelled out; (ii) economic arguments should be clearly elaborated; (iii) to the extent possible, outcomes should be tested for reasonableness, using alternative estimation approaches; (iv) sensitivity analysis should be carried out to provide indications of potential variability of the results; and (v) details on the approaches used should be shared with interested parties, with a view towards expanding and improving future analysis.

VII. **Efforts to combat counterfeiting and piracy**

Both governments and industry have been actively engaged in expanding efforts to combat counterfeiting and piracy in international and national contexts. While the efforts have had positive results, counterfeiting and piracy levels remain high.

Governments have strengthened legal frameworks, enforcement efforts and have launched awareness-raising

initiatives. Improved enforcement appears essential to reduce illegal activities further and well-publicised enforcement actions have a role in reversing the trend. Improving the situation may also require governments to strengthen their legal regimes yet further, possibly increasing the civil and criminal sanctions that apply to IP crime. Actions may also be needed to keep the Internet from becoming a more prominent distribution channel for infringing items. Multilaterally, ways to strengthen the existing framework and practices to combat counterfeiting and piracy could be explored.

Industry has come together at the sector, cross-sector, national and global levels to develop common and unified responses to counterfeiting and piracy. Initiatives have been aimed at improving policy, providing technical assistance and enhancing awareness. It has also begun to devote effort to developing technological solutions to undermine infringing activities.

1. Governmental initiatives

Governments have been working with each other through trade agreements and multilateral organisations to strengthen IP protection

62. Intergovernmental initiatives have included the establishment of a comprehensive multilateral legal framework within the World Trade Organisation (WTO), as well as co-operation in a number of specific fields. On the enforcement front, the World Intellectual Property Organisation (WIPO), Interpol and the World Customs Organisation have all developed specific programmes to improve enforcement of IPRs. In the area of health, the World Health Organisation (WHO) is supporting specific initiatives to undermine the counterfeiting of medicines. Issues have also been addressed in the G8, and as part of a Global Congress that several multilateral institutions have organised with industry support.

There may be scope for strengthening multilateral disciplines

63. As indicated, the basic multilateral rules governing IPR are established in the WTO's TRIPS Agreement. Under that Agreement governments are obliged to ensure that intellectual property rights can be enforced under their laws and that penalties for infringement are sufficient to deter violations (Box 3).

Box 3. Minimum standards set by TRIPS for IP enforcement

- Civil proceedings: judicial instruments must be available to right holders, such as injunctions, damages, evidence, right of information and provisional measures.
- Criminal proceedings: members have to provide for criminal proceedings for commercial scale trademark and copyright infringement.
- Border measures: measures to prevent the commercialization of imported products that infringe trademarks and copyrights are required.

64. In addition to the TRIPS Agreement, many regional and bilateral agreements contain provisions on IPR. In a number of cases, the obligations contained in these agreements go beyond those contained in TRIPS. The actions that have been taken suggest that there may be scope for enhancing disciplines. Consideration could be given by governments, for example, to: *(i)* strengthening civil and criminal remedies to more effectively redress the harm caused to IPR holders; *(ii)* expanding the scope of border measures to cover exports as well as goods in transit or transshipment; and *(iii)* requiring that certain types of information related to counterfeiting and piracy be made available to the public.

At the national level, two of the principal challenges in combating counterfeiting and piracy are to (i) find ways to enhance enforcement and (ii) raise awareness of counterfeiting and piracy issues. More may need to be done to undermine counterfeiting and piracy at the point where infringement originates; once goods enter domestic or international trade, the task becomes far more difficult

65. Most economies appear to have the legal and regulatory mechanisms in place to adequately combat counterfeiting and piracy. Enforcement, however, is viewed by many as weak; a common criticism is that the resources devoted to IPR enforcement are insufficient and that those who engage in counterfeiting and piracy are not sufficiently penalised for their actions when they are caught.

66. As resource challenges are likely to persist, governments may need to consider focusing enforcement activities on operations which will have the greatest impact, such as disruption of counterfeiting and piracy activities at the points where infringement originates (place of manufacture, point of importation). Once items move into domestic or international trade, the chances for detecting illicit items are greatly reduced. Stopping infringing activities at the source is however not always possible; this is why efficient border enforcement procedures are also essential.

67. Raising awareness is an important aspect of combating counterfeiting and piracy and needs to be pursued vigorously. Consumers should be adequately informed about the growing threat that substandard counterfeit and pirated products pose to their health and safety, and consumers and counterfeiters and pirates should be aware about the legal consequences of infringing IPRs or knowingly purchasing infringing products. Raising awareness could also have beneficial effects on consumer attitudes and behaviour towards counterfeiting and piracy.

A review of the situation in a number of OECD Member and non-Member economies has identified eight key areas requiring the attention of policymakers

Co-ordination. A number of ministries and related government bodies are generally involved in administering and enforcing IPRs. Effective co-ordination appears to be the key to strengthening planning and enforcement. Most economies surveyed in the report have promoted co-ordination, either by designating lead agencies, or by setting up special interagency working groups on IP protection.

Policy. A clear policy on IP enforcement that contains concrete elements can provide the impetus needed to improve outcomes. However, only a few of the economies surveyed in the report have established detailed, measurable plans.

Legal and regulatory framework. The legal and regulatory framework provides the parameters within which enforcement can be pursued. While the frameworks used by economies resemble each other in key respects, there are some important differences. In some countries, the consumer of infringing products can be charged with a criminal offence; also, in one economy, the proceeds from IP crime can be recovered and used to finance additional enforcement activities.

Enforcement. A good legal and regulatory framework is essential for combating counterfeiting and piracy, but it is not sufficient. Enforcement is critical. Most of the economies surveyed have increased the resources devoted to enforcement in recent years. Some have created specialised IP units and IP courts to enhance effectiveness. To increase impact, some have launched well-publicised domestic campaigns aimed at disrupting counterfeiting and piracy activities. A number of countries allow customs authorities to check infringing goods destined for export, transit and transshipment, or to act upon their own initiative (*ex officio*).

International co-operation. Counterfeiting and piracy is a global problem which needs to be addressed on a co-operative basis for best results. Most economies participate in international forums such as WTO, WIPO or WCO. Some economies surveyed have been active at the bilateral or regional level, providing training and engaging in joint enforcement activities.

Awareness. It is important for consumers, rights holders and government officials (i) to be aware of the counterfeiting and piracy problem, (ii) to understand what the effects are economy-wide as well as on individual stakeholders, and (iii) to know what concerned parties can do to combat counterfeiting and piracy activities. A number of economies have developed far-reaching training and education programmes. Increasing awareness has also included the development of information through surveys. Finally, some economies have conducted media campaigns and prepared exhibitions to heighten awareness.

Programme evaluation and measurement. To help monitor progress and respond to the changing nature of counterfeiting and piracy, policies and programmes need to be reviewed regularly. A number of governments have developed regular monitoring or reporting schemes and have published findings; many regularly collect and disseminate statistical information providing insights into the situation.

Industry co-operation. Government co-operation with industry is essential, as i) right holders have the technical expertise to distinguish counterfeits from original products, and ii) industry may have additional information regarding the functioning of distribution channels. Efforts to step up cooperation are underway, although they could benefit from being further increased.

2. *Industry initiatives*

Industry efforts to combat counterfeiting and piracy include (i) supporting research and analysis of issues related to counterfeiting and piracy, (ii) promoting awareness; (iii) pursuing IPR violators in courts; (iv) supporting government efforts to combat counterfeiting and piracy; and (v) taking action to make it harder for pirates and counterfeiters to copy and market their products (i.e. through technology, etc.)

68. Efforts being taken by industry to combat counterfeiting and piracy are being pursued at the firm and sector levels, as well as across sectors. A number of cross-sector initiatives have an important international dimension (Box 4).

Box 4.-- **BASCAP**

The Business Alliance to Stop Counterfeiting and Piracy, which was launched in early 2005 under the auspices of the International Chamber of Commerce, is one of the more recent and comprehensive global initiatives launched by industry. It seeks to bring firms together to pursue a more unified approach to combating counterfeiting and piracy. Its efforts include the creation of platforms for exchanging information on the counterfeiting and piracy situation in different economies and sectors, and for sharing information on effective brand protection techniques. It also seeks to provide stakeholders with improved information on the efforts being taken to address issues, with a view towards enhancing co-ordination. At the same time, research projects are being carried out to provide more effective methods for evaluating the counterfeiting and piracy situation in different economies. On the public policy front, efforts are being made to more effectively communicate the economic and social costs of counterfeiting and piracy to governments and the general public.

A 2007 BASCAP Global survey on Counterfeiting and Piracy revealed that industry efforts have mainly focused on initiatives to develop technologies to combat infringement. Resources have also been directed to aiding enforcement and improvising awareness, but to a lesser extent.

Collaboration and co-operation

69. Many industry groups and associations have developed specific activities to assist in uncovering and dealing with counterfeiting and piracy. Such groups provide central reference points that allow the industry sectors to share resources, information and experience, as well as providing a focus for interaction with government and enforcement authorities. Additionally, some of these industry groups also carry out surveillance, investigation and prosecution of producers and sellers of counterfeited and pirated goods.

70. Firms have recognised the importance of co-operation with government and with each other to strengthen enforcement efforts. In areas where counterfeit and pirated goods are being produced, this co-operation extends to supporting the activities of police in locating facilities and carrying out raids. With respect to imported items, industries are co-operating with customs and other enforcement authorities to identify and intercept counterfeited and pirated goods. In both cases, most industry sectors take an active interest in subsequent civil action and prosecution.

Training and awareness

71. Increased education of public officials, customs and law enforcement officers and consumers is an important aspect of industry efforts to combat counterfeiting and piracy. This kind of education is designed to increase the effectiveness of investigative efforts and prosecutions, and discourage consumers from buying counterfeited and pirated goods.

Authentication Technologies

72. It has become easier for counterfeiters and pirates to deceive consumers through high quality packaging and/or through fake products that are virtually impossible to distinguish from authentic merchandise. In the case of trademark infringement, brand owners are constantly looking for cost-effective ways to provide retailers and end-users with a means to determine whether the products they have purchased are authentic. A number of companies are developing technologies to facilitate authentication and/or detection of genuine vs. fake products. The technologies generally take two basic forms – those that are used to authenticate products and those that are used to track and trace the movement of products through supply chains. While a range of these technologies have been introduced in the last several years, their broad use and success has been limited by a variety of factors, including the ability of counterfeiters and pirates to adapt or copy the technologies.

Improving supply chain management should be an integral part of industry initiatives to combat counterfeiting and piracy

73. One of the key challenges that counterfeiters and pirates face is distribution of their products. Rights holders can help to limit the extent to which this occurs by vigorously overseeing the movement of their products from production centres to retail sites. There is a related need to work actively with suppliers, distributors, retailers and consumers to encourage them to be vigilant in acquiring items.