



THE ECONOMIC IMPACTS OF COUNTERFEITING AND PIRACY

SUMMARY OF REPORT ON PHASE I

27 March 2007

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Key points

The OECD project on counterfeiting and piracy is being carried out in three phases. This report, on Phase I, covers counterfeiting and piracy involving tangible products, when infringements of trademarks, copyrights, patents or design rights have occurred. Phase II will cover digital piracy which does not involve tangible items, and Phase III will cover all other forms of IPR infringement.

Expanding scope. 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 broadening of the types of products being infringed from luxury items (such as expensive watches and designer clothing) to items which impact on personal health and safety, such as pharmaceutical products, food and drink, personal care items, toys, cigarettes, and automotive parts.

Increasing magnitude. Information on the overall magnitude of counterfeiting and piracy is difficult to obtain. Analysis has therefore focused on international trade, where data, from customs enforcement activities, are more abundant. The data indicate that interceptions by customs authorities are rising in many economies. Part of the increase is due to expanded enforcement, and part is due to an increased volume of counterfeit and pirate products in international trade.

A quantitative analysis of data on customs seizures and international trade suggests that exports of counterfeit and pirated products could account for up to 2% of international trade, or about USD 200 billion, which is higher than the GDP of close to 150 of the world's economies. The estimate, however, is for traded products only; it does not include the value of counterfeit and pirated products which are produced and consumed domestically.

Broadening channels of distribution. Free-trade zones are being used as a platform for expanding counterfeiting and piracy operations. Passing merchandise through zones provides opportunities for parties to manufacture and repackage counterfeit/pirated items and to "sanitise" shipping documents in ways that disguise their original point of manufacture. They also allow parties to essentially establish distribution centres for counterfeit/pirated goods, with little or no IPR-related enforcement actions being taken. In addition, the Internet is providing counterfeiters/pirates with a powerful new tool to sell their products, via auction sites, stand-alone ecommerce sites and email solicitations.

Adverse effects. Trademark and copyright infringement is an illicit business in which criminal networks and organised crime thrive. The items that they and other counterfeiters/pirates produce are often substandard or dangerous, posing health and safety risks to consumers that range from mild inconveniences to life-threatening. Their corrupt activities disrupt civil society, steal market share from legitimate businesses and undermine innovation, which is key to economic growth. The economic gains that some consumers experience by knowingly purchasing lower-priced counterfeit/pirated products need to be considered in a broader context; depending on the product, many consumers do not experience such gains - they are worse off. Governments are also directly affected: tax revenues from are lost and costs are incurred in combating the practices.

Policies and measures. Governments and industry have vigorously expanded efforts to combat counterfeiting and piracy. While these have had positive results, counterfeiting and piracy problems are of growing concern in light of the increasing magnitude and scope of infringement. Improved awareness and enforcement appear to be critical to reversing the trends. Multilaterally, ways to strengthen existing legal and regulatory enforcement frameworks may need to be examined.

Improving information and analysis. Information on counterfeiting and piracy falls far short of what is needed for robust analysis and for policymaking. Priority should be given to (i) improving the collection and communication of information that arises from enforcement activities and (ii) expanding the use of surveys to collect basic information on developments from rights holders, consumers and governments. Far more econometric and related analysis assessing the magnitude and effects of counterfeit and pirated products needs to be carried out; opportunities are particularly promising for enhancing such analysis at the sectoral level.

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 were 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 IP rights 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, (ii) brand value and reputation, and/or (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/pirated products can pose to those who purchase the items.

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

3. Protection of IPR 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 IPR both in national and international contexts in the Uruguay Round, through the Agreement on Trade-Related Aspects of Intellectual Property Rights (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. Internationally the International Chamber of Commerce (ICC) created the Business Alliance to Stop Counterfeiting and Piracy (BASCAP) in 2005 to spearhead a global initiative. And industry has 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 2004-2007 to address issues.

5. Despite these efforts, counterfeiting and piracy continue to grow and 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 one covers infringements of patents, trademarks, copyrights and design rights when they involve tangible products; phase two will cover digital piracy, and phase three will cover all other forms of IPR infringement.

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

8. The work on phase one 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 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/pirated products thinking that they have purchased genuine items, or (ii) knowingly buy lower-priced counterfeit/pirated items. With respect to (ii), the characteristics of the products concerned are a major factor determining the size of the market for the lower-priced items.

IPR infringement takes different forms.

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

10. Patents are instruments which individuals, firms or consortia use to protect the new products or processes that they have developed from being copied or used without consideration to the scientists, inventors or engineers involved. Copyrights are protections accorded to parties to protect creative works, such as movies, music, software, written work and the like, from being copied. 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.

Sometimes consumers are victims of counterfeit/pirated products; other times they knowingly support counterfeiting/piracy activities.

11. There are two principal markets for trademark- and copyright-infringing products. In the first (the *primary market*), counterfeiters/pirates infiltrate distribution channels with products that are often substandard. Consumers 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/pirated products that they know are not genuine. Consumers who knowingly purchase counterfeit/pirated products also knowingly support the parties producing and supplying such products, although the true nature of those parties (such as organised crime) 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/pirated article from the genuine item. There is likely to be virtually no 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/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/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/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 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 is not a victimless crime. 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. At the same time, the volume of products being counterfeited/pirated appears to be on the rise.

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/pirates have the upper hand in light of the enormous volume of good 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/piracy, but there are signs that counterfeiters/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/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/pirated are large 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, athletic footwear, caps, socks, boots
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, 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 pads, skin care products, deodorants, toothpaste, dental care products, shaving systems, razor blades; 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, suggest 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 Commission, Japan and Korea. Only 4 of the 50 respondents reported a more limited scope.

The overall magnitude of counterfeiting and piracy is unknown and unknowable – there are, however, signs of growth.

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

18. Seizures by customs officials are rising in many economies, reflecting not only improved enforcement techniques, but also a rising volume of international trade in infringing products. Analysis of the customs data can also provide indications of the magnitude of counterfeit and pirated products in international trade; the results of such an analysis are discussed below.

More is known, and can be known, about the magnitude of counterfeiting piracy in specific sectors.

19. Although there is no one methodology to estimate the overall magnitude of counterfeiting and piracy levels, techniques can be developed on an industry-specific basis, reflecting the specific characteristics of the industry involved and the information that is available for that industry. No one approach would work for all sectors.

Counterfeiting and piracy are taking place in virtually all economies.

20. 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/seized from close to 150 source economies, including 27 of the OECD's 30 member countries. The sources mentioned include those economies where the counterfeiting/piracy are taking place, as well as economies which serve as intermediate shipping points. Covering the top 20 source economies, Asia emerges as the largest source for counterfeit/pirate products, with China 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 is similarly widespread.

21. It is apparent that counterfeit/pirated products are being sold in virtually all economies. The levels appear to be higher in economies where informal, open air markets predominate. Consumption patterns vary, however. 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, but there are exceptions, with particularly serious problems reported in Africa, where substandard counterfeit medicines are contributing to health problems. 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/pirated products are expanding.

22. Counterfeit/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 zones provides opportunities for parties to “sanitise” shipping documents in ways that disguise their original point of manufacture. They also allow parties to essentially establish distribution centres for counterfeit/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.

23. The Internet has provided counterfeiters/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/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/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 ecommerce sites and volume of listings are huge, making it difficult for rights holders and enforcement agencies to identify and move against infringing counterfeiters/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, which have traditionally thrived in small scale informal markets, this represents a major opportunity to expand sales.

Deception -- Utilising readily available software and images on the Internet, counterfeiters/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/piracy.

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

25. 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. Measurement

Information collected by customs authorities makes it possible to estimate the role of counterfeit/pirated products in international trade. Work carried out by the OECD suggests that counterfeit/pirated products may account for up to 2% of world imports (*i.e.*, about USD 200 billion).

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

26. *Measurement experts concluded that efforts should be made to explore how data on customs seizures/interceptions might be exploited to gain insights into the role that counterfeit/pirated products were playing in international trade. A model was subsequently developed which used customs seizure/interception data (adjusted for known biases) to establish an indirect estimation framework.*

27. 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/pirated and (*ii*) the economies that were most likely to be sources of such goods. The results indicated that the likelihoods were highest in the case of (*i*) imports of textiles, articles of leather, and tobacco and (*ii*) imports from Asian economies.

Up to 2% of international trade could be in counterfeit/pirated products.

28. 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/pirated. Further analysis led to the conclusion that up to 2% of international trade could be in counterfeit/pirated products. When applied to world trade in 2005 this represents about USD 200 billion, which is higher than the GDP of

close to 150 of the world's economies. This estimate further implies 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/pirated products, (ii) the high volume of international trade and (iii) the limited ability of customs to screen shipments.

29. The estimate of magnitude should be viewed as a crude indicator, which would greatly benefit from improved information on interceptions/seizures. The customs data used had significant shortcomings as the number of governments providing information was limited and the completeness of the responses varied considerably.

30. It is emphasised that the estimate only relates to international trade in counterfeit/pirated products. It is therefore only a piece, albeit an important one, of the total picture, as a large volume of counterfeit/pirated products never enters into international trade.

V. Effects

Trademark and copyright infringement is an illicit business in which criminal networks and organised crime thrive. The items that they and other counterfeiters/pirates produce are often substandard or dangerous, posing health and safety risks to consumers that range from mild inconveniences to life-threatening. In addition to disrupting civil society, the illegal activities undermine innovation, which is key to economic growth.

The economic gains that some consumers experience by knowingly purchasing lower-priced counterfeit/pirated products need to be considered in a broader context; many consumers not only 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.

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.

31. 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 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.

32. Criminality. 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.

33. 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 5.7 million articles. Given that the number of seized items has grown rapidly in some areas, one can expect the problem to become increasingly severe. *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.

34. 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.

35. Foreign direct investment (FDI). The situation with respect to intellectual property rights is but 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, however, be treated as highly preliminary in nature as it is based on an extremely limited dataset.

36. Trade. Intuitively, it is not clear how counterfeiting and piracy might affect the total volume of an economy's international trade. There may, however, be implications with respect to the structure of trade (*i.e.*, the types of products exported and imported). These relationships 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/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 develop 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.

37. Sales volume and price. Counterfeit/pirated products crowd genuine products out of the market, lowering the market share of the rights holder and 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/pirated product believing it is genuine and (*ii*) sales lost to consumers who knowingly purchase a lower-priced counterfeit/pirated product instead of a genuine article.

38. Brand value and firm reputation. Counterfeit/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. 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.

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

40. Firm-level investment. High levels of counterfeiting and piracy could reduce the incentive of some firms to invest in the development of new product. Only limited empirical work has been carried out on this, however.

41. 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 these costs do not translate into higher quality products – in fact, the opposite may be true. The costs can therefore be considered as a pure social loss.

Costs related to combating counterfeiting and piracy.

Type of costs	Characteristics
Product protection	Products are modified to make them difficult to copy or fake.
Packaging	Special packaging, such as holograms and track and trace technologies, are used to deter counterfeiters/pirates
Litigation	Legal actions are taken against counterfeiters/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/pirated products.

42. *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/pirated products, whether knowingly or unknowingly, (i) are exposed to elevated health and safety risks, and (ii) are generally likely to 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.

43. *Health and safety.*-- Counterfeiters and pirates have limited interest in ensuring the quality 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 could 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 drinks 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. 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 be made of non-active substances altogether or even contain toxic substances. Ailments which could be remedied by genuine products may go untreated or worsen; in some cases this may even

lead to death. Most purchasers of counterfeit pharmaceuticals are likely to be completely unaware that they have been victimised.

44. 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/performance of a counterfeit/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.

45. The situation is more nuanced with respect to parties that knowingly purchase counterfeit/pirated products at low prices. If the quality of such products is high, which tends to be the case with many copyright-infringing articles and may also be the case with many patent-infringing articles, consumer utility could be higher than would be the case for higher-priced genuine articles. If, on the other hand, the quality/performance of the infringing product is lower, consumer value could, under certain circumstances, 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.

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

47. In addition to these short term effects, counterfeit and pirated products can have longer-term implications. On the one hand, prices may be lower if rights owners reduce prices to compete more effectively with counterfeiters/pirates. On the other hand, less innovation by rights holders due to counterfeiting and piracy could translate into slower product development, thereby slowing growth in consumer utility.

Effects of counterfeiting and piracy on government come in the form of (i) lower tax revenues and (ii) the cost of anti-counterfeiting activities.

48. Tax revenues. Tax collection is presumed to be far more effective for rights holders than for 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.

49. 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. 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, significant costs are incurred in handling seized goods.

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

50. 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 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 robust analysis and for policymaking. Priority should be given to (i) improving information that is available from enforcement activities (i.e., customs and related 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/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.

I. Improving information on counterfeiting and piracy.

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).

51. Current knowledge on product infringement activities is weak and 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 maximise 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 countries, 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.

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

52. 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.

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

Box 2. -- Key elements of WCO reporting framework

- Detailed description of the products involved;
- Date of seizure/interception;
- Retail 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.

54. 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/seized.

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

55. The effects that substandard counterfeit/pirated products have on the health and safety of consumers are poorly documented and tend to be anecdotal in nature. 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/pirated products. All stakeholders should be provided with a means to contribute to the data collection (i.e., including government, rights holders and consumers).

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

56. 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.

57. 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.

58. 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 basis over time.

- *Consumer surveys* can be used to develop information on the experience that the consumers have had with counterfeit/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/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/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/piracy situation in different economies.
- *Surveys of governments* can similarly serve as a tool through which information on the counterfeiting/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.

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

60. *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/piracy to examine the conditions under which consumers will opt for counterfeit/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/pirated products.

II. Strengthening analysis of counterfeiting and piracy

Assessing the factors driving production and consumption of counterfeit/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.

61. A product's characteristics play an important role in determining the extent to which it is produced and 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/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.

62. *Direct approaches* rely on the use of infringement data in estimating the total magnitude or 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/pirated items) can be estimated. In such instances, counterfeit/pirated production is derived by subtracting genuine production from the total. The software industry has used such an approach in its work.

63. 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.

64. 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 problems are of growing concern in light of the increasing magnitude and scope of infringement.

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 in place to combat counterfeiting and piracy could be explored.

Industry has targeted its efforts and resources on deploying and developing technological solutions to undermine infringing activities. It has also grouped itself at sector, cross-sector, national and global levels to develop a common and unified response to counterfeiting and piracy at the policy level, enhancing communication to governments and the wider public.

I. Intergovernmental initiatives

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

65. 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 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.

66. As indicated, the basic multilateral rules governing IPR are established in the WTO's TRIPS Agreement. Under the 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 commercialisation of imported products that infringe trademarks and copyrights are required.

67. 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, suggesting that there may be areas in which WTO disciplines could be strengthened. Consideration could be given, for example, to: (i) expanding civil remedies in ways that would increase the cost to infringing parties; (ii) expanding the scope of border measures to cover exports as well as goods in transit or transshipment; (iii) expanding the scope of the application of criminal sanctions; and (iv) requiring that certain types of information related to counterfeiting and piracy be made available to the public.

II. National initiatives

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/piracy issues. More may need to be done to undermine counterfeiting/piracy at the point where infringement takes place; once goods are moving in domestic or international trade, detection becomes far more difficult.

68. 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/piracy are not sufficiently penalised for their actions when they are caught.

69. 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/piracy activities at the points where infringement takes place. 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.

70. 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/pirated products pose to their health and safety, and consumers and counterfeiters/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 OECD Member and non-Member economies has identified eight key areas requiring the attention of policymakers.

71. 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.

72. 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.

73. 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 country, the proceeds from IP crime can be recovered and used to finance additional enforcement activities.

74. 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. Some governments have carried out well publicised targeted enforcement operations against specific 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).

75. International co-operation. -- Counterfeiting and piracy is a global problem which needs be addressed on a co-operative basis for best results. Most economies participate in international fora 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.

76. 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 /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.

77. Programme evaluation.-- 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.

78. 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.

III. 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.).

79. 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, 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/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/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

80. Many industries have developed specific activities to assist in uncovering and dealing with counterfeiting and piracy. The International Federation of Wines and Spirits (FIVA) is an example of international industry co-operation, while the Automotive Brand Protection Coalition located in Dubai is a regional example. The creation of a central reference point allows the industry to share resources, information and experience, as well as providing a central focus for interaction with government and enforcement authorities. These industry groups also carry out surveillance, investigation and prosecution of producers and sellers of counterfeited and pirated goods.

81. 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

82. 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.

Technology

83. With respect to technology, 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. Technologies being employed to do so 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 the technologies have been effective, the ability of counterfeiters/pirates to adapt and undermine efforts is significant.

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

84. One of the key challenges that counterfeiters/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.