

# Chapter 2

## The Global Growth of Counterfeit Trade

### Introduction

Product counterfeiting is a well-known problem, one that has been with us for a very long time. Trademarks go back to ancient times and where there are trademarks counterfeiting soon follows. Recently more attention is being paid to fighting the problem. It would seem the first logical step would be to determine the size of the counterfeit market. But estimating the extent of this illicit trade is a difficult task. First, no direct measurement of counterfeit trade can be undertaken, since by definition this is an illegal activity. Customs seizures are such a small percentage of overall trade that it is impossible to draw conclusions from these statistics. Many organizations, including the US General Accountability Office (2010), have attempted to estimate the size of the counterfeit market and have described the major flaws in every method which tries to put a definite size on it. This chapter examines the history of counterfeiting, reviews the challenges of measurement, and describes the products most often counterfeited and the constituencies hurt by the practice. Finally the chapter describes the seven major drivers of the growth in counterfeit trade.

### History of Counterfeiting

Counterfeiting is not a new business phenomenon and has been affecting trade for at least 2,000 years. Pliny the elder described counterfeit coins as popular collector's items for Romans (Barry 2007). The counterfeiting of coinage was part of the normal exchanges involving smuggling, minting privileges, alchemy, and foreign trade in Genoa in the sixteenth and seventeenth centuries. Goldsmiths, soldiers, bankers, convicts on galleys, and even priests were involved in developing counterfeit coinage. A famous example of counterfeiting occurred in Renaissance France when, over a 10-year period, supporters of the Pope directed parallel minting to

undermine official coinage issued by a Protestant King. Since “official counterfeiting” was reserved for princes the penalties for doing this were rather severe and included being boiled alive (Grendi 1994; Gillard 1990).

But product counterfeiting may even be older. Babylonian and Egyptian priests placed inscriptions from earlier civilizations on monuments to increase their proceeds and legitimacy (Hopkins et al. 2003). The advent of trademarks used to identify manufacturers of particular products certainly created the opportunity for counterfeiting. Some form of trademark has probably been in use since ancient times. Marked pottery appeared in China four to five thousand years ago and Greek vases identified both the maker and also the wholesaler of the item. Merchant’s marks appeared in about the tenth century. These were used to prove ownership of goods. In Japan lumber was marked when tied onto a raft before being sent down river (Ono 1999).

Roman builders indicated the maker of bricks and tiles by stamping an identifying mark on them. Marcus Sestius, a Roman wine merchant, apparently lost a large shipment of branded wine jars when his ship went down off the coast of Marseilles probably in about 230 BCE (Rokicki 1987). During the first three centuries of the Roman Empire oil lamps were made using the FORTIS brand name. Many artifacts with this name have been found which may indicate widespread product copying at the time (International Trademark Association 2007). Pliny also warned of counterfeit opals made of glass (Sidebotham 1986). While there is no record of legal enforcement of trademarks during Roman times it appears that the Romans punished abuses through their commercial institutions (Paster 1969).

During the Middle Ages guilds required craftsmen and merchants to affix marks which distinguished their products from low-quality imitations. The main function of these marks was to assign responsibility for inferior products (Ono 1999). By the thirteenth century trademarks were common in England. In fact a compulsory marking law required that a baker put his mark on every loaf of bread and goldsmiths were required to place marks on their work. During this time trademark infringement became a crime and in some cases rather draconian capital punishment was applied to abusers (Abbott and Sporn 2002). Stolte (1998) identifies the earliest trademark infringement action in England, Sandforth’s Case, heard in 1584. The plaintiff had manufactured woolen clothing marked with the letters J. G. and a sign called a tucker’s handle. The defendant had made similar clothing which were “ill, insufficient and unmerchantable; and deceitfully marked ... J.G.”

In the Aztec Empire some dishonest dealers sold counterfeit cacao beans. Honest sellers divided beans into piles according to their origin. But the counterfeiters used artificial coloring to sell inferior beans or even disguised worthless amaranth dough or avocado seeds with cacao hulls (Rust 1999). Fifteenth century Chinese painters accommodated forgeries by other artists (Alford 1995). In the seventeenth century Domingo Navarette, a Spanish priest, noted the Chinese ability to copy products. He complained that the Chinese had “imitated to perfection whatsoever they have seen brought out of Europe” (The Economist 2003).

Product counterfeiting came to the attention of the US government more than 100 years ago. William Eleroy Curtis (1889), reporting for the government, wrote

“the superiority of American [cotton] goods is so great that the Manchester [England] mills send few goods to South America that do not bear forged American trademarks.” In his report, Curtis quotes a member of the New York law firm of Smith, Hogg and Gardner as having recovered damages and costs in Manchester (UK) “although we have great difficulty in definitely locating the forgeries.”

Of course the United States has not been innocent of piracy. It has been claimed with some accuracy that the Industrial Revolution in the United States began with significant help from an industrial spy, Samuel Slater. The English textile industry grew rapidly based on the invention of the water spinning frame by Richard Arkwright. The British wanted to be sure that this invention never reached America since it was the world’s largest exporter of cotton but had no manufacturing industry of its own. By 1774 it was illegal for an English textile worker to share technological information or to leave the country. Slater, born in England in 1768, started as an apprentice in a cotton mill owned by a former partner of Arkwright and eventually became a supervisor. In America both state governments and entrepreneurs were offering rewards for machines like Arkwright’s. After reading in a Philadelphia newspaper of a £100 bounty paid to the designer of an inferior cloth-making machine, Slater came to New York in 1789. He was able to reconstruct the entire English mill from memory and eventually, with the support of a Rhode Island merchant, built the first water-powered cotton spinning mill in America (BBC 2007; pbs.org 2007). Although creating a system of patents and copyrights was a priority for George Washington, the Patent Act of 1793 did not provide protection for foreign inventors. This meant that an American could copy any product patented in a foreign country and then apply for a US patent (Choate 2005). The same held true for copyright. In the country’s infancy product copying and literary piracy were common. Charles Dickens, visiting the United States in 1842, was irate when he found many pirated copies of his novels in Boston bookstores. After Gilbert and Sullivan suffered a large loss of revenue when a number of successful pirated productions of *H.M.S. Pinafore* opened in the United States, they decided to premiere their next opera, *Pirates of Penzance*, at the Fifth Avenue Theatre in New York in order to be protected by the US copyright law (Gilbert and Sullivan 1960). In nineteenth century America it was common to find counterfeit foreign wines, gloves, and thread (Mihm 2007).

## Measuring the Counterfeit Market

In 2008, the US government estimated the global market value of the counterfeit industry at \$500 billion with a growth rate of 1,700% over the past 10 years (U.S. Customs and Border Protection 2008). The estimates for the size of the worldwide counterfeit goods market seem to have coalesced around \$600 billion annually. In 2012, The IACC reports that “[c]ounterfeiting is a \$600 billion a year problem. In fact, it’s a problem that has grown over 10,000% in the past two decades, in part fueled by consumer demand.” But searching behind this well-worn estimate

reveals a serious problem with this “accepted wisdom.” Estimates of the counterfeit goods market range from as low as \$200–600 billion to as high as \$1 trillion. Since there is little agreement on definitions and serious problems of measurement, it is not really clear what the right number is. Following is a brief examination of this problem.

Attempting to measure the global value of counterfeit products is excruciatingly difficult. This is understandable given the illegal nature of this activity. The only real data are surrogate indicators such as seizures of pirate product by police or Customs authorities. In addition, there is no agreement on factors that should be considered when calculating the scale of counterfeiting. Should the estimate include sales lost by specific brands and at what prices, damage to brand equity, total sales of counterfeits, or some combination of these factors? (Green and Smith 2002). The latest attempt to quantify the counterfeit goods market was completed by the US government’s General Accountability Office (GAO). In developing their information the GAO interviewed government officials, representatives of industry associations, academic institutions, and firms and reviewed several existing documents and studies. The GAO concluded that counterfeit product is a significant problem but “quantifying the economic impact of counterfeit and pirated goods on the US economy is challenging primarily because of the lack of available data” (GAO 2010).

The GAO report focuses on two key assumptions in measuring counterfeit goods—substitution rate and value. The former is the rate at which the buyer is willing to switch from a fake good to the genuine product. If the rate is assumed to be one-to-one, it must be assumed that the fake is nearly identical to the real product, the buyer is paying full price for the fake, and the buyer is not aware of buying a fake. These assumptions are rarely all true at the same time. Value focuses on the level in the production chain at which the good is priced—production cost or retail price for instance.

The GAO found that commonly cited figures for counterfeit products are often attributed to the US government sources such as the Federal Bureau of Investigation (FBI) or the Customs and Border Protection Service (CBP). However, the FBI, when asked about their numbers by the GAO, claimed that they have “no record of source data or methodology” for their estimates and the CBP could not identify the origin of their figures and has informed its staff to discontinue their use (GAO 2010).

Several methods have been used to calculate the size of the counterfeit goods market including extrapolation from counterfeit goods seizures, survey of supply and demand, use of economic multipliers, and even the “rule of thumb.” Each of these methods faces daunting challenges to accuracy and none of these methods can be relied upon.

Some economists even question the idea that there *are* losses associated with counterfeiting. The point is that consumers who buy fakes are a market segment that purchases counterfeit because of their inability to afford the genuine product. Therefore, buyers in that segment do not really represent lost sales. The argument centers on the idea that these consumers would not have bought the genuine product anyway.

The Organization for Economic Cooperation and Development (OECD 2007) states, after an in-depth look at the attempts to measure this market, “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.”

### Negative Effects of Counterfeit Goods

The existence of a large counterfeit market takes its toll in many ways. The harmed constituents are identified in Fig. 2.1. Obviously consumers may be harmed by using inferior products. This damage can be as minimal as the loss of a few dollars or disappointing product performance or as important as serious injury to physical well-being. The World Health Organization (WHO Fact Sheet No. 275) claims that a high percentage of medicines on sale in Africa, parts of Asia and Latin America may be what they call SFFC (Spurious/falsely labeled/falsified/counterfeit) medicines. The US Center for Disease Control states “Overall, global estimates of drug counterfeiting are ambiguous, depending on region, but proportions range from 1% of sales in developed countries to more than 10% in developing countries. In specific regions in Africa, Asia, and Latin America, chances of purchasing a counterfeit drug may be higher than 30%” (Green 2011). In 2010, the United Nations Office on Drugs and Crime cautions the growing concern about counterfeits encroaching on unsuspecting consumers as “[P]roduct counterfeiting is a form of consumer fraud:

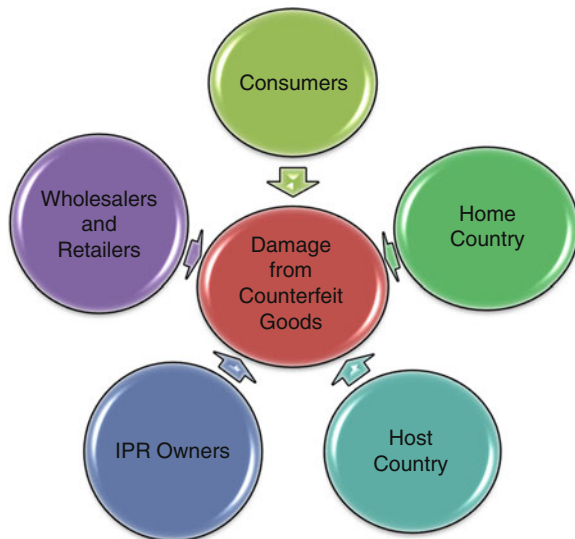


Fig. 2.1 Damage from counterfeit goods market

a product is sold, purporting to be something that it is not. The practice is widespread—products destined for 140 countries were detected in 2008—and poses a serious global challenge. The branding of a product provides implicit quality assurance and a legal line of accountability that consumers have come to take for granted” (United Nations Office on Drugs and Crime 2010, p. 10).

In the past decade, bad news from China emphasized that the problem of counterfeit goods can be a matter of life and death. In less than a week cough syrup containing ethylene glycol was identified as responsible for the deaths of hundreds of people in Panama and the Dominican Republic, toothpaste tainted with the same chemical had been found on three continents (Castle 2007), and a cell phone exploded killing a 22-year-old man in western China. Phone manufacturers, Motorola and Nokia, blamed counterfeit batteries (Barboza 2007). These episodes followed the tainted pet food problem which surfaced in the United States in the spring and summer of 2007.

Overall, the problem of fakes is not just in luxury goods, but an array of illicit products ranging from counterfeit baby formula to fake auto parts have been reported in the media for the past decade. In 2011, *USA Today* claimed that even the US military is not immune to counterfeit goods and reports that “investigators found that counterfeit or suspect electronic parts were installed or delivered to the military for several weapons systems, including military aircraft such as the Air Force’s C-17 and the Marine Corps’ CH-46 helicopter, as well as the Army’s Theatre High-Altitude Area Defence (THAAD) missile defense system.” (*USA Today* 2011, p. 6).

According to the US Customs and Border Protection report for fiscal year 2010, more than \$600,000 in counterfeit bearings was seized during the year. This represented a sevenfold increase in seizures in this product category. A 2010 report by the UN Office on Drugs and Crime mentions the obvious designer products as well as counterfeit auto parts and batteries. The US GAO (2010) also identifies electrical components, household cleaners, and other household goods as examples of counterfeit products which may harm consumers.

Home countries of firms suffering from imitated products lose exports, taxes, and other revenues as well as employment. Even host countries (here identified as the source of the counterfeit goods) while they may experience some short-term gains in consumer welfare will probably eventually suffer a reduction in foreign direct investment since firms may fear their products may be copied once they are manufactured or introduced into a particular market. In addition these host countries may experience a growth in the underground economy, less legitimate employment, more employment at substandard wages, and reduced competitiveness because of a heavy reliance on counterfeit products. There is some evidence that exports will be reduced from countries that are known for substandard goods particularly in pharmaceutical products (OECD 2007d). Host countries also incur a loss of tax revenues and additional costs for anticounterfeiting activities. In some cases corruption is more widespread with the growth of a large counterfeit market.

Both home and host countries may also suffer from environmental effects first from the waste of destroying pirated goods and second because substandard products may have negative effects. For instance, the use of counterfeit fertilizers

caused serious damage and destruction of harvests in large areas in China, Russia, the Ukraine, and Italy (OECD 2007b). Various effects of pirated products can cause risks to public health and even loss of confidence in the governments themselves. In 2010, the United Nations Office on Drugs and Crime (UNODC) supports these concerns stating that “[U]naccountable [counterfeit] products are often dangerous products, and the damage is not just felt in the receiving countries: the producing countries also suffer. Even as the major brands work to improve labor standards and workplace safety at their outsourced manufacturing sites, counterfeit goods producers take advantage of global sweatshops. As licensed manufacturers try to improve their environmental impact standards, counterfeiters enjoy the cost savings of dirty production. In short, anywhere that the international community attempts to establish good practice standards for industry, counterfeiters undercut them” (UNODC 2010, p. 10).

For purposes of this book we will center on the losses to the owners of the intellectual property. Obviously these firms may suffer loss of revenues from royalties, sales, and profits as well as increased costs for policing and fighting pirates. These costs may reduce organizational growth. In addition they may suffer from declining customer loyalty through brand dilution. Because of widespread copying, some firms may cut their investments in research and development thereby decreasing innovation. Underwriters Laboratories (UL) summarizes the loss to genuine manufacturers as:

Legitimate manufacturers invest in research and development, quality materials, and manufacturing processes, and they work to meet the conformity assessment schemes of their markets. They work to build brand recognition and to foster goodwill with their end users. The counterfeiters that are their direct competition rely on stealing their brand names and profiting from their goodwill and reputations resulting in the following:

- Direct loss of sales.
- Loss of goodwill.
- Irreparable damage to corporate brand/reputation.
- Trademark dilution.
- Costs of protecting and enforcing their intellectual property rights (IPR). (“The Impact of Counterfeiting,” 2012, pp. 4–5).

Smaller firms face displacement of management time from growing the business to fighting the counterfeiters. Legitimate wholesalers and retailers are also harmed by counterfeit goods. First they lose revenue to the fakes. But these channel members may also be put in a difficult position when consumers ask for repairs or replacement of counterfeit products. The end result may be a loss of confidence in these middlemen and ultimately in the brand.

One additional cost must be considered. Counterfeiting is a major funding source for organized crime and terrorist organizations. The EU Organised Crime Threat Assessment (Europol 2011) identifies Chinese organized crime groups as particularly active in the production and distribution of “counterfeit cigarettes, shoes, toys, and pharmaceuticals.” Other groups identified as the beneficiaries of counterfeit products are the Real Irish Republican Army (Real IRA), the Kurdistan Workers’

Party (PKK), Hezbollah, Hamas, and al Qaeda and those who perpetrated the Madrid train bombings in 2004 (US Department of Homeland Security 2008; “Counterfeit goods linked” 2007; Anti-Counterfeiting Amendments 2004; Willson 2009). The first report on transnational crime conducted by the UNODC (2010) claims that, “[M]ost organized crime problems today [2010] seem to be less a matter of a group of individuals who are involved in a range of illicit activities, and more a matter of a group of illicit activities in which some individuals and groups are presently involved: strategies aimed at the groups will not stop the illicit activities if the dynamic of the market remain unaddressed” (p. 5).

Thus, either criminal organizations or individuals can provide a portfolio of products and services that range from human trafficking and narcotics to counterfeit goods. Indeed, UNODC (2010) provides separate analyses on trafficking in persons; smuggling of migrants; cocaine; heroin; firearms; environmental resources (e.g., wildlife taken from Africa); counterfeit products; maritime piracy; and cyber-crime. Overall, illicit traders can diversify activities and can ultimately reinvest profits from one of their illicit business units, such as counterfeit goods, to fund another such as human trafficking.

*The Economist* (2008) advised brand holders to “look for the silver lining” of piracy. Companies can find out which songs are most popular by determining those most often shared on peer-to-peer networks. Or a software firm may establish itself as the standard since the initially used pirated software creates a future market for the real thing. But even this article advises that IPR owners should fight for their rights despite the fact that sometimes they can use the counterfeit product to their advantage.

## The Growth of the Counterfeit Goods Market

There is no doubt the counterfeit market is growing but it is not clear what the real magnitude is. In 1982 the International Trade Commission estimated the worldwide sales of counterfeit goods at \$5.5 billion (Abbott and Sporn 2002). Since that time many estimates of world counterfeit goods markets have been made. In 1984 the International Anti-Counterfeiting Coalition estimated the worldwide market at \$25–30 billion (Stern 1985). By 1996 the *Economist* even found a source that gauged the market at \$1 trillion. In 2001 the International Chamber of Commerce estimated that 5–7% of world trade was in counterfeit goods and that the counterfeit market was worth \$350 billion. This 5–7% figure initially was used by the Chamber in 1997 which even then called the percentage only a “general assumption” (Bialik 2007). As the OECD report (2007c) politely puts it “the metrics underlying the ICC estimates are not clear.” The OECD report says that the ICC estimates “reflect judgments that are not supported by clear data.” In 2006, the US government estimated the global market value of the counterfeit industry at \$500 billion with a growth rate of 1,700% over the past 10 years (Intellectual Property Rights, 2006). As we have seen, most estimates seem to agree on the \$500–600 billion range (IACC 2007;



Punch 2005). It is assumed that this estimate includes all forms of IPR violations involving both products and services and sales within and across country borders.

The OECD (2007c) put the worldwide volume of tangible counterfeit *products* at about \$200 billion, an amount larger than the GDPs of 150 countries. However even the OECD estimates are based on incomplete information. The OECD (2007d) itself says, “available information on counterfeiting and piracy falls far short of what is needed for robust analysis and policymaking” and the organization makes a series of detailed recommendations for the improvement of data collection. According to Bialik (2007) the OECD’s estimate was originally extrapolated from Customs seizures based on reports from 45 countries who responded to requests for data with enough information to be useful for analysis. A recent attempt to quantify the counterfeit goods market was completed by Frontier Economics. They estimate value of the worldwide counterfeit product market at \$465–650 billion in 2008 (Frontier Economics 2011). Their approach is based on Customs seizure ratios developed by the OECD. But that approach raises many questions.

The amount of counterfeit product intercepted by Customs services around the world is a tiny percentage of the overall estimate of the worldwide counterfeit goods market. The OECD (2007c) gives the value of seizures by Customs services in 35 countries reporting this particular data at about \$769 million in 2005, representing 0.01% of total imports for these countries. Nevertheless, the received data were extrapolated to the non-responding countries. Researchers used a factor of 5% for frequently pirated goods in countries where there are a large number of pirates. Using this factor, researchers calculated a total of \$100 billion then doubled that number to account for “statistical variability in their model” (Bialik 2007). The OECD (2009) updated their work at the end of 2009 claiming that the total had reached \$250 billion and accounted for 1.95% of world trade in 2007. The update uses the same methodology but adjusts for increasing world trade. Yet searching “OECD counterfeit goods report” on Google results in about 70,000 hits, most of which are unquestioningly repeating either the earlier \$200 billion or the later \$250 billion figure.

Another example of this may be found in information provided by Havoscope. This organization puts forth an extremely precise global estimate for counterfeit and piracy of \$657.76 billion (Havoscope 2012) and estimates the total availability of counterfeit products in the United States at \$225 billion. However even a cursory review of this organization’s website reveals problems with the numbers. Estimates are developed from published resources such as newspapers and government studies. The organization also states that “the manner in which the original source determined the figure is not always available” and “the numbers will include a high level of uncertainty. A majority of the figures will be based on estimates and will be difficult to verify.”

In Canada the cost of counterfeiting was estimated at \$30 billion annually. This figure, used repeatedly by many, including the US Ambassador David Wilkins in a March 2007 speech, originated with the Royal Canadian Mounted Police (RCMP) in 2005. Careful research by Geist (2007), Chair of Internet and E-Commerce Law on the University of Ottawa Law Faculty, revealed that the \$30 billion number was

derived from two main sources: an IACC claim that 20% of the Canadian market is made up of counterfeit product and an estimate that 3–4% of Canadian two-way trade consists of counterfeit product given by the chief economist for the Canadian Manufacturing and Exporters Association in 2005. Geist (2012) recently repeated his doubts about this number. The recent OECD estimate placing the total for global counterfeiting at \$250 billion certainly calls into doubt the formerly accepted \$30 billion Canadian figure since Canadian trade accounts for less than 3% of world trade (Geist 2012).

Researching the size of the counterfeit market reveals that the same numbers from very few sources are repeated over and over. In truth it is virtually impossible to determine the real size of the worldwide counterfeit product market. But despite the uncertainty of measurement methods, it appears that product counterfeiting is significant and growing (GAO 2010; OECD 2009; Croxon 2007; UNECE 2007; ICE 2007; IACC 2007; EC-europa 2009).

## Effects on the United States

There is some confusion as to the true effect of counterfeit product upon US firms. As long ago as 1994 estimates of the US losses stood at \$200 billion per year (Nill and Shultz 1996). The US Customs Service estimated that the US economy was losing between \$200 and \$250 billion per year and a total of 750,000 American jobs because of product counterfeiting (ICE 2007). It is not clear whether these figures are meant to refer to lost sales on a worldwide or domestic basis. Since many US firms achieve up to 50% of their sales in overseas markets, it seems reasonable to believe that this figure most likely includes all worldwide sales. Certainly in order to agree with the latest OECD estimate of \$250 billion on a worldwide basis, the effect on the US markets would have to be far smaller.

Over the years the US Customs has generally increased the number of counterfeit product seizures. The graph below shows the dollar volume of seizures made from 1997 through 2011 (Fig. 2.2).

In 1997 the US Customs stopped about \$38 million worth of counterfeit products. Seizures increased to \$99 million in 1999 and then declined in 2000 and 2001 only recovering to \$99 million once again in 2002. Customs made counterfeit product seizures in 2006 valued at about \$155 million. The dollar amount of seizures had continued to increase, moving up to nearly \$200 million in 2007, over \$273 million in 2008 but slipping to about \$178 million in 2011 (US Customs and Border Protection 2011).

The growth in the number of counterfeit product seizures is certainly commendable but an earlier study by the GAO (2007) suggests that the percentage of the US market accounted for by counterfeit product may be much smaller than has been previously thought. Inspecting 287,000 randomly selected shipments from 2000 to 2005 the GAO found counterfeiting violations in only 0.06%. The GAO also stated that Customs seizures in 2005 amounted to only 0.0017% of the value of goods in

**Fig. 2.2** US Customs Seizures (US\$ million).  
*Source:* US Customs and Border Protection (2011)



product categories likely to be subject to counterfeit. The GAO analyzed all products imported into the United States and developed a list of IP-related product categories. For 2005 imports of these products totaled approximately \$555 billion. This list was based on products where IP-related seizures had been made over the last 5 years. It hardly seems possible that the US level of counterfeit goods would reach nearly 40% of all imported IP-related products which would be the case if the \$200 billion figure for U.S. losses from counterfeits is used.

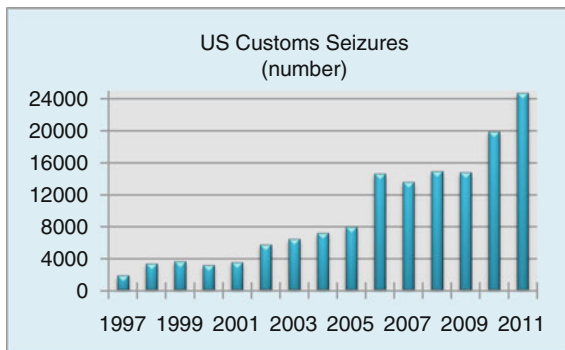
Recently, the *number* of seizures has been increasing (US Customs and Border Protection 2011). In 1997 Customs stopped 1,943 shipments of pirated goods. This increased to more than 3,000 in 1998 and moved steadily up to over 8,000 in 2005. The number of shipments intercepted held steady in the 14–15,000 range from 2006 to 2009 and then increased to about 20,000 in 2010 and nearly 25,000 in 2011. This can clearly be seen in the graph below. Since the total dollar value of seizures has decreased while the number of shipments intercepted has increased, it is obvious that the average value of an IPR seizure dropped significantly, from \$17,566 in 2009 to \$7,180 in 2011 (Fig. 2.3).

The earlier GAO study raises questions about the usability of the Customs seizure data as an indicator of the size and growth of the counterfeit market. First it appears that enforcement varies widely between ports with some ports finding 100 times the amount of counterfeit products as other ports. Only ten ports accounted for a quarter of seizure value and 84% of penalty cases since 2001. The pressure to move products through ports and airports is very high especially since imports had grown from about \$1.2 trillion in 2001 to about \$1.7 trillion in 2005, and shipments filed with Customs up about 25% over the same period.

## Products Counterfeited

Products that are most vulnerable to product counterfeiting fall into four categories according to Jacobs et al. (2001):

**Fig. 2.3** US Customs Seizures (Number).  
*Source:* US Customs and Border Protection, 2011



- Highly visible, high volume, low tech products with a well-known brand names such as toothpaste and chocolate.
- High-priced, high-tech products such as computer games, CDs, DVDs, auto and airplane parts.
- Exclusive prestige products such as clothing, apparel, and perfume.
- Intensive R&D, high-tech products such as pharmaceuticals and some industrial products.

More contemporary research indicates that the types of products being counterfeited are expanding. The OECD (2007) found a shift from high-value luxury items to common products and an expansion of the range of pirated luxury products. Their list of products subject to intellectual property infringement includes all the product types identified by Jacobs et al. but also chemicals and pesticides, electrical components, food and drink and agricultural products, tobacco products, furniture, sporting goods, and a variety of other items including qualification certificates. In the OECD study (2007d) 13 countries reported that the scope of products counterfeited was expanding rapidly and 16 other countries said the range was expanding steadily.

Naim (2005) also supplies an exhaustive list. He identifies the Chery QQ, made in China, as an automobile which has the look and feel of the Chevrolet Spark. He also describes forgeries of American-made sewer pumps and Italian valves. Hopkins et al. (2003) tell of counterfeit aircraft bolts as well as helicopter blades.

In the United States, types of products seized vary from year to year but wearing apparel and footwear have often topped the list since 1982. Pirate optical media, computers, and pharmaceuticals are nearly always among the most frequently seized products. The total value of confiscated cigarettes has appeared in the top ten for the past 2 years. The table below describes the latest US government seizures by value (Table 2.1).

Recent data from the European Union show similar product patterns. EU Customs reported the value of seized product (designated as “detentions” by the European Commission) at €1,110,052,402 for 79,112 cases. Seizures included over €200 million in clothing and accessories, €166 million in various types of shoes, approximately €100 million in bags, wallets and purses, €94 million in watches, and €76

**Table 2.1** FY 2011 top IPR commodities seized

Commodity	Domestic value (\$)	% of total
Consumer electronics	38,992,613	22
Footwear	25,562,613	14
Pharmaceuticals	16,848,192	9
Optical media	15,567,059	9
Wearing apparel	14,755,599	8
Perfume/cologne	9,456,208	5
Watches/parts	8,435,256	5
Cigarettes	8,183,993	5
Computers/hardware	7,814,457	4
Toys/electronic games	7,597,367	4
All other commodities	25,419,276	14
Total FY 2011 domestic value	178,322,633	
Number of seizures	24,792	

Source: US Customs and Border Protection

million in mobile phones and accessories. Nearly €125 million in counterfeit cigarettes was seized in 2010 (European Commission 2011a, 2011b, 2011c, 2011d).

Software is particularly vulnerable to copying. According to the most recent Business Software Alliance (BSA) study more than 40% of software used worldwide is pirated. Such widespread copying amounts to \$59 billion in annual losses from counterfeiting according to the software industry (BSA/IDC 2011e). In a recent case Microsoft, working with the US and Chinese authorities, built the “largest [software] counterfeiting case in history” against a criminal ring believed to have accounted for more than \$2 billion in counterfeit Microsoft product from 2003 to 2008. Eleven members of the ring were convicted, receiving prison terms of 1½–6½ years (Microsoft 2010).

The growth of counterfeit pharmaceuticals, the so-called SFFC drugs, has taken a heavy toll. Almost one decade ago, a healthy 22-year-old Argentinean woman was given iron injections to cure her mild anemia. In December 2004 she died of liver failure. It was determined that she had been given a toxic counterfeit but the authorities were unable to determine the source of the product because of falsified paperwork. A recall was begun but the fragmented distribution system made it impossible to take the entire harmful product off the market.

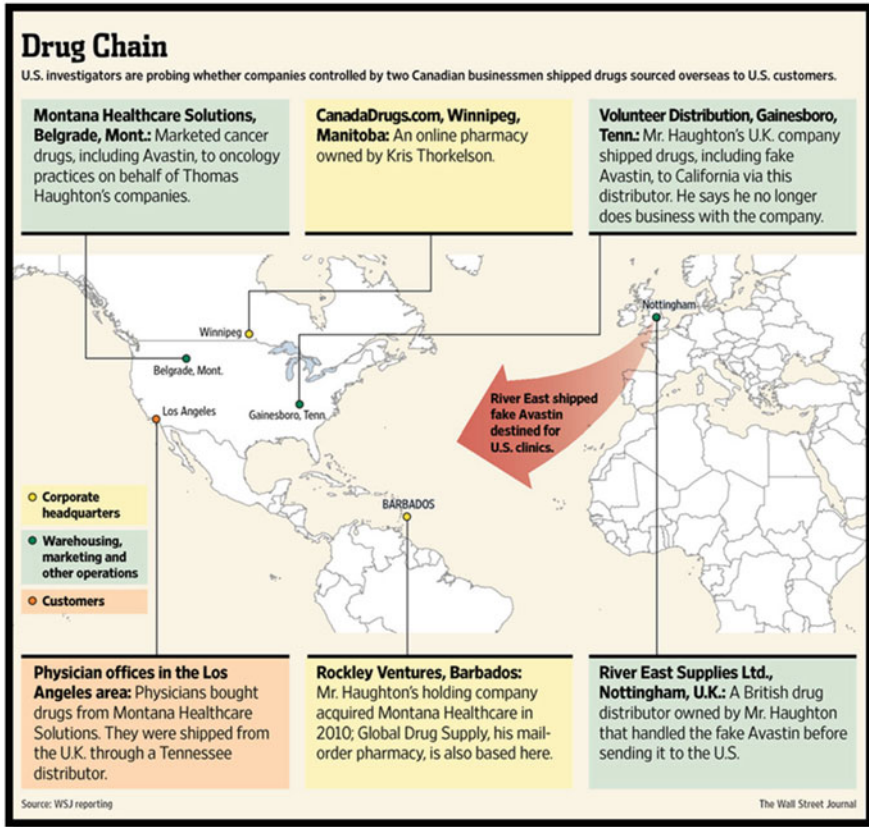
In 2008, the blood thinner Heparin was found to have counterfeit active ingredients sourced from Changzhou SPL in China. In this case, this ingredient was replaced by a substitute, eventually resulting in as many as 81 deaths. Baxter, the firm which sold the drug in the US, faced 740 lawsuits and eventually sold the division that produced the drug. In 2009, a Chinese antidiabetic medicine containing six times the normal active ingredient was blamed for the deaths of two people. In 2012, *The Wall Street Journal* reported the problem of a counterfeit cancer-treating drug, Avastin®, distributed by way of Canadian Internet pharmacies on a trade route that, “illustrated the circuitous path that pharmaceuticals can take before reaching consumers. Wherever the counterfeit Avastin® was manufactured—possibly China—investigators

are examining a zigzagging route that may have taken the product through Turkey and Egypt before it was sold to Swiss and Danish wholesalers and then to Mr. Haughton's [a Canadian citizen] UK wholesaler, River East Supplies Ltd" (Weaver et al. 2012, p. 9). The myriad of distribution points (both physical and virtual) used in the recent case is illustrated in Fig. 2.4.

## Large and Small Firms Affected

Both large and small firms are fighting against unauthorized copying of their products. An example on the smaller end is ABRO, a private branding auto-parts distributor. The firm has built its sales to \$180 million and offers more than 600 products under the ABRO brand name. Peter Baranay, president and chief executive of the firm, is aggressive in fighting against counterfeiters, spending about \$1 million per year to do so. They claim success in fighting counterfeiters in China, Pakistan, India, and Saudi Arabia (Morton 2011). Another small firm that faced counterfeiting was Heelys, a manufacturer of sneakers that incorporate wheels in the heel. When first introduced the product took off with sales increasing over 250% to about \$188 million by first quarter 2007. At the time, Heelys employed less than 50 people, and had arranged for manufacture of their products in South Korea and China. As a result one Korean firm was selling a one-wheel roller shoe called "Heatys" (Phillips 2007; Heelys, Inc 2007a, 2007b). Since 2002 Heelys has been fighting counterfeits in China. Despite a ruling from the Chinese government that two factories were violating Heelys' patents, a year passed before the government took action. Moreover, this delay was followed by minimal corrective action, amounting to confiscation of just a few cases of counterfeit shoes and a promise not to make any more copies (Yung 2006).

At the other end of the scale is Starbucks, a firm with more than \$12.2 billion in sales and nearly 150,000 employees (NY Times 2012). Starbucks has been fighting to protect its trademark around the world. In Russia the firm regained its right to use its brand after a favorable ruling against a "trademark squatter." Anyone visiting Shanghai will see not only a number of Starbucks locations, but also copycats of every kind. One Shanghai coffee house was using the name Xingbake, a clever knockoff of the Starbucks name. In Pinyin "xing" means star, and "bake," pronounced bah-kuh, sounds like bucks. Thus, the coffee house name replicated the Starbucks brand name using a combination of Chinese characters and sound. Starbucks sued in 2003, asserting that its trademark had been registered in China since 1996. In early 2006, a Shanghai court ordered Xingbake Café to discontinue the use of their version of the Starbucks name, and required that it pay Starbucks' 500,000 Yuan, equivalent to about \$62,000, in damages. This was the first ruling of its kind under a 2001 Chinese law (Noon 2006). Few firms have been successful in legal proceedings in China. The Walt Disney Co. was the first to receive damages when a Beijing Court ruled in 1999 against Chinese companies for their production of children's books based on Disney's animated films. Disney received a \$77,000



**Fig. 2.4** Estimated trade routes of fake Avastin®. *Source:* Weaver, C., Whalen, J., & Faucon, B. (March 7, 2012). Drug distributor is tied to imports of fakes. *The Wall Street Journal*

judgment (Faison 1995). Nike, a \$30 billion firm, has also been fighting counterfeits for years. A few years ago, the German Customs Department seized what could have been the largest cache of counterfeit goods—one million pairs of phony Nike sneakers, in a total of 117 shipping containers worth nearly \$500 million (“Counterfeit Sneakers” 2006). After breaking up a large counterfeit market for their products in the Ukraine, Procter & Gamble found that 43% of hair care products and 23% of laundry products branded with their name were actually counterfeit (UNECE 2007).

A particularly brazen case of counterfeiting was discovered in Summer, 2011 (BBC 2011). An American visiting Kunming, China found three fake Apple stores. The décor and staff mimicked the genuine stores and the workers even believed they were working in one. After launching an investigation, Chinese authorities eventually found 22 of these unauthorized stores.

Apparently this is a common occurrence in the PRC. A few years ago, managers at the Tokyo headquarters of NEC learned that pirated keyboards, CDs, and DVDs

were on sale in Beijing and Hong Kong. All the products were branded NEC. After a 2-year investigation in cooperation with governments in China, Taiwan, and Japan, the company discovered that pirates were attempting to set up a complete company bearing the NEC brand. This operation included the involvement of more than 50 electronics factories in China, Hong Kong, and Taiwan. Some of the factories even had phony NEC signs out front and used official-looking packaging, as well as warranty and service documents. The pirates manufactured a range of 50 products to imitate the company's entire product portfolio. Some of the factories had official-looking documents which they insisted gave them a license to manufacture NEC goods (Lague 2006).

## Reasons for the Growth of Counterfeit Goods

A number of reasons have been given for the growth in the counterfeit goods market. These driving forces are shown in the figure below (Diagram and this section adapted from our primary research and UNODC TOCTA Report 2010; Staake et al. 2012; "Why Fakes are Booming" 2008; OECD 2007d; Harvey 1987; Hopkins et al. 2003; Naim 2005; Nill and Shultz 1996; Jacobs et al. 2001; Morris and Stevens 2007; Parloff 2006; Punch 2007; Stern 1985; Thomas 2007) (Fig. 2.5).

There are seven major driving forces behind the worldwide growth of counterfeit goods. These can be identified as low cost high technology which results in low investment and high profits; globalization and lower trade barriers; consumer complicity; expansion of channels and markets; powerful worldwide brands; weak international and national enforcement, and finally high tariffs and taxes. Each of these is explored in the following sections.

### ***Low Cost High Technology = Low Investment, High Profits***

Pirates avoid all the usual costs related to creating and marketing a product, including research and development, advertising, and warranty service. They also avoid the costs of meeting health and safety, quality control, and minimum wage regulations. Staake et al. (2012) point out that some counterfeiters experience high costs licit manufacturers do not face. According to their analysis product seizures are the major costs impacting these pirates. Nevertheless, without the start-up and overhead costs of legitimate manufacturers counterfeiting may be vastly profitable. These researchers estimate counterfeiters experience margins two-thirds higher than licit manufacturers with no tax burden applied to the profits.

Many products can be manufactured with easily purchased high technology equipment that is widely available at reasonable prices. And technological developments in modeling, printing, and scanning make it easy to make convincing copies through reverse engineering. According to *Fortune*, manufacturers themselves have





Fig 2.5 Reasons for the growth of counterfeit goods trade

shared technology and know-how including designs, molds, specifications, and trade secrets with various subsidiaries, licensees, contractors, and subcontractors in markets all across the world and therefore “it’s extremely hard to police global supply chains, and IP is leaking out through 1,000 cracks.” In the fashion industry pirates can buy one copy of a genuine product, take it apart and using scanning equipment, develop patterns which allow them to make almost perfect fakes (Parloff 2006). Dr. Frederick Mostert (2008), past president of the International Trademark Association, describing digital fakes in a *Financial Times* supplement says, “every product known to mankind can, and is, being perfectly copied.” He describes personally witnessing software and scanners which allowed reverse engineering of highly complicated watches.

One example of the rapid reduction in cost for technology is computer equipment, which formerly was priced out of the grasp of most pirates, and is now available at a fraction of the cost. Doms (2003) shows the cost of computer equipment declining between 14 and 17% annually from 1991 to 2000. This makes copying of DVDs and CDs quite simple and inexpensive. This computer equipment, combined with high quality digital printers, also makes it easy to imitate genuine trademarks and packaging. Counterfeiters have also improved their ability to reproduce holograms and other sophisticated genuine identifying marks. Searching the Internet will give a pirate many sources for manufacturing equipment. Purchasing software

to help in manufacturing is also easy with some of it even available on the counterfeit market. Since manufacturing is driven by software, getting the right CD allows pirates to make a clone that looks right but uses lower grade materials.

The decline in the cost of communications is also a boon to pirates. For instance, Doms (2003) estimates the cost of cell phones fell an average of 17% from 1983 to 1997. The Internet also allows pirates to keep in contact with their distribution outlets at very low cost and with high security.

Of course, the lowest investment of all is faced by subcontractors who engage in “split runs,” a term used by Chris Israel, former US Coordinator for International Intellectual Property Enforcement. This means making legitimate products under contract to brand holders by day and then either high quality overruns or poor quality imitations by night after the official shutdown of the factory. These so-called third shift products (USITC 2011), even if they are indistinguishable from genuine products, are most definitely counterfeit by our definition and have been found to be so in some courts.

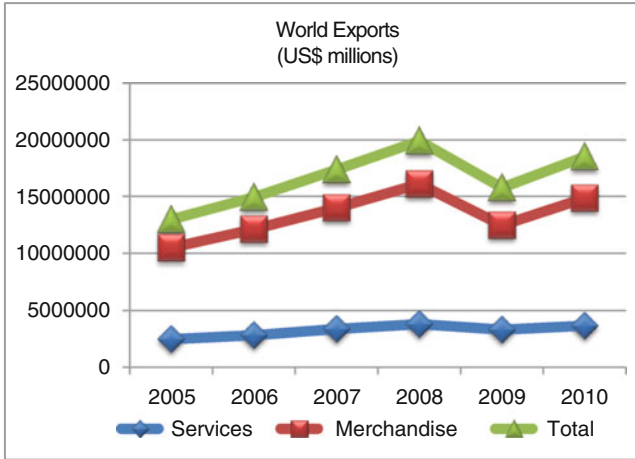
### ***Globalization and Lower Trade Barriers***

The rapid growth of world trade through the opening of markets, coupled with the reduction of barriers to financial and merchandise flows, has certainly opened opportunities for product pirates. The sheer volume of imports in many countries makes it almost impossible for Customs Services to interdict phony products. According to Deutsche Bank Research (2011) more than 25 million containers flowed through each of the ports of Shanghai and Singapore, ten million through Rotterdam and more than five million through Los Angeles in 2009. Between 1990 and 2008 total container throughput grew at an average annual rate of 10%. In 2011, Maersk, a leading shipper with an estimated 14.4% of container-fleet capacity, predicted more than an 8% growth in the global container market (Leach 2011).

The advent of NAFTA and the closer cooperation within the European Union means fewer checks on products flowing across borders. Just since 1999, according to the World Trade Organization (2012), annual world trade in goods and services has doubled from less than \$6 trillion to about \$19 trillion in 2010 (Fig. 2.6).

During the same time, the average tariff applied to imports by developing countries declined from 16.5% in 1996 to less than 10% in 2011, and in the most developed countries the average tariff declined from 5.3 to 2.7% over the same period (World Bank 2011).

Free-trade zones can serve as safe havens for counterfeiters. There are now about 3,000 in about 135 countries (Shah 2010). The OECD (2007e) reports that free trade zones and free ports are used by counterfeiters in three different ways. First, products are shipped into the free-trade areas and then re-exported. This allows the pirates to engage in “origin laundering” whereby the true origin of these products is obscured or erased by moving them through a number of ports and sometimes altering the documentation accompanying the shipments. Second, unfinished products



**Fig. 2.6** Annual world trade. *Source:* World Trade Organization

may be shipped to these free-trade areas for further processing including adding counterfeit trademarks or labels or repackaging. Finally, free-trade areas are used for manufacturing pirate goods.

An important seizure revealed that large amounts of counterfeit drugs were supplied through a complex arrangement using a free-trade zone known as Jebel Ali in Dubai, United Arab Emirates (UAE). This free-trade zone, the oldest in the Emirates, handles 11 million containers each month (Shah 2010). The drugs were originally manufactured in China, sent through Hong Kong to the free-trade zone in Dubai to Britain then the Bahamas and finally back to Britain where the products were mailed to customers with UK postage. They were sold on an Internet site which made American customers believe they were buying medicines from a Canadian website. The sheer size of Jebel Ali makes it extremely difficult to track down counterfeit product. In addition there is a “murky line of authority” for rooting out counterfeits there (Bogdanich 2007).

The free flow of financial resources has also been helpful to counterfeiters since it is relatively easy for them to launder profits from pirate operations and to move investment and therefore production from one country to another. Exchange controls have been reduced or eliminated in most countries. The growing wire transfer industry including Western Union and even the expanding use of ATM cards make it easier for counterfeiters to move their funds to the most advantageous markets. Chaudhry and Stumpf (2010) assert that, “[A] key issue that has been ignored by most anti-counterfeiting studies is money: how to stop the cross-border flow of funds needed to make this illicit trade solvent. The trade in fakes requires massive amounts of funds that are facilitated across borders. Middlemen involved in the money supply chain are potential targets to choke the flow of illicit goods.” (pp. 311–312).

## ***Consumer Complicity***

There is a great deal of evidence to suggest that consumers are all too willing to purchase counterfeit products even when they know the products are fake. Cultural differences can account for the popularity of counterfeiting. In a study of consumer willingness to obtain fake pharmaceutical and/or movies in Brazil, Russia, India, China, or the United States, we found varying levels of complicity for movies and pharmaceuticals (Chaudhry et al. 2011a, b). For example, Russian consumers had an 80 and 11% willingness to obtain illicit movies and pharmaceuticals respectively. Some years ago the *Journal of Commerce* (1999) reported that IPR is a Western concept and IPR infringement is not seen as morally wrong in China. This will be explored in more detail in Chap. 9.

In an early study, Tom et al. (1998) found that consumers are willing to purchase counterfeit goods for a variety of reasons, including a perception of the counterfeit to be as good as the authentic version; support of the counterfeit market as a means of expressing anti-big-business sentiment; and lax attitudes about the legal protection of intellectual property. Many analysts have attempted to generate a descriptive profile of a consumer who knowingly engages in illicit trade. Variables such as gender, age, ethnicity, occupation, and level of income have been assessed for decades with inconsistent results. For example, Eisend and Schuchert-Güler (2006) found that both demographic (e.g., age, education, income) and psychographic variables (e.g., willingness to take risks) identify consumers that were more receptive to fake goods. However, in one of our recent studies (Chaudhry et al. 2011a, b) we found that antecedents with the greatest impact on consumer attitudes towards and decisions/intentions to obtain fakes are product (i.e., price and quality) and purchase situation/mood. In contrast, demographics and national origin were poor predictors of complicity (p. 235).

Research completed by the authors revealed that, in markets where a firm was experiencing the most difficult counterfeit problems, over two-thirds of managers interviewed believed that consumers were willing to purchase a counterfeit good. We asked managers to rate the importance of specific product attributes that might be used by a consumer to determine whether a good was counterfeit or legitimate.

According to the managers we surveyed, consumers are fairly sophisticated. They can tell by price and by where they purchase the product whether it is legitimate or counterfeit. In any event consumers are quite willing to purchase counterfeits (Table 2.2).

This important subject is reviewed in depth in Chap. 5.

## ***Expansion of Channels and Markets***

With the growth of world trade, manufacturers have penetrated many markets which they were unable to serve only a few years ago. The emergence of an affluent class in Brazil, Russia, India, and China (BRIC countries) offers huge new markets for

**Table 2.2** Product attributes used to determine authenticity

Product attribute	Importance in determining product authenticity (% choosing)
Price	88
Point of purchase	88
Slight difference in brand name	75
Packaging	56
Quality	50
Warranty	38
Anticounterfeiting label	31

*Sources:* Adapted from Chaudhry, P., Peters, J., Zimmerman, A., & Cordell, V. (2008). Evidence of managerial response to the level of consumer complicity, pirate activity, and host country enforcement of counterfeit goods: An exploratory study. *Multinational Business Review*, 17(4), 32

products with well-known global brands. Counterfeiters have three major distribution outlets to customers: established retail shops, informal channels such as “flea markets,” sidewalk vendors and clandestine shops, and of course the Internet.

While it is difficult for pirates to gain any real market share in well-established retail outlets, research suggests that the sale of counterfeit product through this channel is increasing. Although a British Home Office survey found that 44% of the businesses in three high-crime areas had been offered counterfeit goods in the year prior to the survey, generally it is most likely that legitimate retailers selling counterfeit products are not aware that the products are illegitimate (UNODC 2010).

A more common distribution method for fake products is through informal channels. A walk along Canal Street in New York City, Santee Alley in Los Angeles or Nanjing Lu in Shanghai will reveal a number of street vendors selling every kind of pirated product. Flea markets around the world feature branded products at impossible prices. On a recent trip to Shanghai one of the authors was able to spot fake Calloway golf clubs right next to counterfeit Docker shorts, being sold openly all in the same market. Toth (2007) describes a harrowing experience searching for counterfeit handbags in New York’s Chinatown, being admitted to back room and basement “retail outlets.” In the case of auto or aircraft parts, health and beauty aids, pharmaceuticals and even wearing apparel, the sheer complexity of distribution makes it easy for counterfeiters to intervene at some step to substitute copies for the real thing.

The Internet has provided an irresistible opportunity for pirated product. This channel allows a producer of counterfeit products to reach a nearly unlimited worldwide audience with his offers. Although it is extremely difficult to measure the size of this market *The Economist* estimated (2003) \$25 billion in counterfeit goods was traded online annually. Virtually every type of product is now sold across the Internet and consumers have gained more confidence when using this channel. *Internet World Stats* (IWS) estimates that as of December 2011 there were more than two billion Internet consumers in the world with a global penetration rate of nearly 33% (Internet World Stats 2011). One brazen site claiming to sell “replicas” is called

cannyouseethedifference.com. It features knock-off Rolex watches, Gucci handbags, and Tiffany earrings. Photos of the real products are positioned next to the fakes with the question posed by the site itself: “can you see the difference?”

The OECD (2007) gives five major reasons for pirates’ attraction to the Internet:

- *Anonymity*—it is easy for counterfeiters to conceal their true identities and lower the risk of detection.
- *Flexibility*—pirates can easily establish an online site then take it down or move it within 24–48 h to markets where IPR enforcement is weak.
- *Market size*—the sheer number of e-commerce sites and listings makes it very difficult for IPR owners and enforcement agencies to find and take action against pirates.
- *Market reach*—the Internet allows sellers to reach a huge global audience at low cost 24 h a day.
- *Deception*—widely available software and images on the Internet make it easy for pirates to create “clone” websites that look almost exactly like the brand holders’ official sites.

Auction sites like eBay are popular venues for counterfeit product. Although there is some controversy related to the actual number, one source claims eBay is now host to more than 150 million listings at any given time (Power Sellers 2012). By some estimates eBay accounts for about 15% of Internet fraud which results in an estimated \$32 million in annual losses (Berntsen 2010). One way to measure this is to look at the number of designer items for sale on sites like eBay. The truth is major designers rarely sell their products across the Internet nor do they license others to sell online. The inability of buyers to look carefully at these items makes it easy to sell fakes. Tiffany & Co. filed suit against eBay claiming that only 5% of Tiffany items for sale on the auction site were genuine (Punch 2005). Tiffany also claimed that eBay had a financial interest in looking the other way when it comes to counterfeit products sold on their site. The US courts did not agree with Tiffany, finding that eBay was not liable for trademark infringement that occurred on their site (Leu 2011).

Counterfeit drugs are an especially troubling aspect of Internet sales. Some Internet pharmacies are legitimate but there are many which provide prescription drugs just for the asking. In many cases these drugs are counterfeit. They may not produce the curative effects of the real thing or in the worst case they may do untold harm.

### ***Powerful Worldwide Brands***

Globalization has made it possible to develop truly global brands. Brands such as Coca-Cola, Apple, Chanel, and Google are recognized all over the world and have become hugely valuable assets. For instance, the world’s most valuable brand is Coca-Cola and is worth about \$72 billion. IBM’s brand is valued at about \$70 billion

and not far behind are Microsoft and Google each of which is worth over \$50 billion. Each of these brands and many others have been subject to extensive counterfeiting (“Best Global Brands” 2011). One 2009 study looking at the impact of counterfeiting on consumers’ brand relationships in India and Thailand stated that “consumers are drawn to premium brands in part because of the exclusivity and connotation of prestige associated with them. These characteristics are also the reason such brands are attractive targets of counterfeiting” (Commuri 2009).

Consumers in Shanghai, London, Mumbai, and Moscow are now completely familiar with these brands. As described above these consumers want these brands but many cannot afford to purchase the legitimate items. This has given rise to suppliers who fill the need for products with famous brands at much lower prices.

### ***Weak International and National Enforcement***

The risk of starting a counterfeit products business is rather low in many countries for one very good reason: weak enforcement of intellectual property regulations.

US laws such as the Tariff Act of 1930, the Lanham Act, the Trademark Counterfeiting Act of 1984, and the Stop Counterfeiting in Manufactured Goods Act of 2006 are all designed to provide some form of legal recourse for the owners of intellectual property through civil and criminal law penalties in the United States. In addition, the NAFTA treaty, The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) in the World Trade Organization (WTO), and the Scrivener regulations of the European Union are international measures implemented to encourage protection of intellectual property rights. For a detailed discussion of these multilateral trade agreements, see Chaudhry and Walsh (1995, 1996).

Although there are a number of national laws and international agreements designed to protect intellectual property rights, according to Chaudhry and Walsh (1996), “legal remedies available to the victims of counterfeited or pirated goods historically have been inadequate.” Recent attempts to strengthen anti-pirating activities on the Internet have resulted in widespread public criticism. The proposed US laws Stop Online Piracy Act (SOPA) and the Protect Intellectual Property Act (PIPA) were so widely disliked that the US Congress decided not to go ahead with a vote on either. A similar international measure the Anti-Counterfeiting Trade Agreement (ACTA) is also facing worldwide protests (Jolly 2012).

A recent example of the relationship between penalties and profits was revealed when three men were arrested for selling phony Procrit, a very expensive drug which is a clear liquid. The men simply filled vials with water, then packaged them using genuine-looking boxes, labels, and inserts. Although the men were convicted, their sentences were less than they would have received for selling illegal narcotics (A Crime with Huge Profits 2012).

Naim (2005) attributes the lack of enforcement to government fiscal restraint imposed by the demands of the global capital markets. Since investors are “turned off” by large government deficits, these governments have had to cut funding to law

enforcement. In addition these governments cannot compensate their civil servants adequately leaving them no alternative but to accept bribes from counterfeiters and to limit their enforcement activities. The extreme example of this is the so-called failed state, where criminal elements can capture the government. The recent worldwide financial crisis has only increased the strain on government budgets and has probably necessitated reductions in anticounterfeiting activities.

The descriptions in an earlier part of this chapter of the problems faced by ABRO, Heelys, Disney, and Starbucks in China and the paltry fines levied on the pirates reinforce the idea that the rewards of counterfeiting far outweigh the potential penalties.

### ***High Tariffs and Taxes***

We have seen how lowering trade barriers has increased trade, creating opportunities for counterfeit product to be made in one country and exported to others. At the same time, while it may seem counterintuitive, high tariffs and taxes can create opportunities for counterfeiters as well. These extra costs price consumers out of certain markets especially in less developed countries. In the case of disease-curing drugs, consumers may be aware that products are available and they are obviously highly motivated to get these products. Where governments have placed artificial price controls or import duties on these drugs counterfeiters may step in to supply the demand, offering far less effective or even dangerous products at affordable prices. According to Morris and Stevens (2007) combined total duties and taxes on retail medicines in 11 developing countries in 2003 ranged from 24% in Mexico to 55% in India. Many high-tariff countries have a serious problem with counterfeit medicines and the authors state “it is unlikely that this is entirely coincidental.”

Highly taxed products such as alcohol and cigarettes often show a direct relationship between the level of taxation and the extent of counterfeit product available. In Ireland, where cigarette excise taxes were raised sharply between 2000 and 2009, the inflow of contraband products increased to 25% of the market over the same period (ITIC 2011).

The same logic may be applied to branded luxury goods where extensive advertising and highly visible retail outlets create demand but high prices deter most consumers from purchasing the products. This umbrella is one counterfeiters will most happily step under where investment and potential penalties are limited and rewards are significant.

### **Conclusions**

Although product counterfeiting is certainly not a new phenomenon, much more attention is being paid to it in recent years. As we have seen counterfeit products may go back more than 2,000 years and punishment for infringement at least 700



years. Products which can be classified as counterfeit are those made without authorization from the owners of IPR (trademarks and patents and copyrights) associated with those products.

The measurement of the counterfeit market is fraught with difficulty. Given the illegal nature of the activity no direct measurement is possible. Compounding the problem is defining what exactly is being measured. Is it sales lost and should it be calculated based on current retail prices? Or should damage to brand equity be added? Those making the estimates, such as the OECD and the International Trade Commission, readily admit their methodologies leave much to be desired. Nevertheless the global value of counterfeit products at \$600 billion seems to have gained acceptance. Some see the number as much higher and claim that 5–7% of world trade is in counterfeit. Since the actual seizures by Customs agencies around the world represent approximately 1/10 of 1% of total imports, one must say the true number is not known with any confidence today.

Products counterfeited at one time were limited to high-priced, high-tech, highly visible branded and intensive R&D products. But today nearly every consumer and industrial product is subject to counterfeiting. The existence of a counterfeit goods market damages consumers as well as home and host countries, the owners of the intellectual property both large and small, and their associated wholesalers and retailers. There is evidence that organized crime and terrorist organizations are using the proceeds from counterfeit products to finance their activities. As we have seen, counterfeit drugs exact a tragic toll upon the often uneducated users. There are seven main drivers of the growth of counterfeit goods, many associated with the reduction in the cost of high technology and the increasing openness provided by globalization. The Internet has afforded counterfeiters a nearly unlimited market, low-cost communications, and the means for avoiding detection. Weak enforcement of both national and international intellectual property protections has made counterfeiting a low-risk market entry strategy.