

# THE INTERNATIONAL THREAT TO INTELLECTUAL PROPERTY RIGHTS THROUGH EMERGING MARKETS

GREG CREER

## INTRODUCTION

Since the fall of communism, new markets have emerged in former communist countries. These countries have been forced to rapidly accept many capitalistic ideas. Free competitive markets and private ownership of property are a couple of radical ideas that these countries are now adopting. However, the idea of copyrights and patents may still be a contradictory concept. Intellectual property rights stretch the definition of private ownership to an extreme, creating a contradiction to free competitive markets. Regardless of this contradiction, ex-communist countries are encouraged to develop strict laws to protect patents and copyrights and rigidly enforce them. For many reasons, these countries are slow to develop enforcement of intellectual property rights and gray markets<sup>1</sup> have emerged. Because of the lack of protection for intellectual property rights, emerging markets create a safety zone for gray market goods in international trade. Those dealing in gray market goods can use these safe havens to lower the cost of producing gray market goods for international export.

No systematic analysis has been done on how emerging markets and gray markets interact. This paper proposes the theoretical basis for how these two markets effect international law. This paper attempts to develop a viable economic model for how gray markets and emerging markets interact, in addition to presenting the problem faced by international law, mainly the enforcement of intellectual property rights for patents and copyrighted goods.

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<sup>1</sup> Gray markets refers to markets where goods are not illegal in and of themselves, but are illegal because of legal restriction based on their production, sale, or use from copyrights and patent restrictions. These goods will be referred to as either gray market, bootlegged, or pirated goods. Examples of gray market goods would be pirated CDs, DVDs, software, pharmaceuticals, genetic material, and other goods that can be counterfeited or copied in violation of intellectual property law. Goods that violate trademark restrictions are also considered gray market goods.

Gray markets are distinguishable from black markets where goods are illegal in and of themselves, such as illegal narcotics.

It should not be expected that this economic model be all encompassing of the issue presented. Certainly, other forms of analysis have been major contributors. This economic model serves only as a basis of analysis for further research and debate.

In Section I, this paper proceeds by giving a basic background on the protection of intellectual property rights and emerging markets. The paper focuses on countries, in particular, Russia and China, that illustrate the problem of gray markets and emerging markets. Section II presents an economic model for gray markets in the global economy. Section III concludes with a critique of current solutions, and proposes possible new solutions based on the economic model.

## SECTION I: BACKGROUND

The background section first briefly discusses the evolution of international treaties to protect intellectual property rights. The section will then look at particular emerging markets and their treatment of intellectual property rights, namely Russia, China, North Korea, and other countries within Asia and Europe.

### A: INTERNATIONAL TREATIES TO PROTECT INTELLECTUAL PROPERTY RIGHTS:

#### *The Berne Convention to TRIPS*

The 1886 Berne Convention created a group of member nations for multilateral protection of literary and artistic works.<sup>2</sup> The Berne Convention provides for any member country to seize infringing copies of a protected work within that country or to seize illegal copies imported from a non-member nation.<sup>3</sup> Local legislation determines how illegal copies may be seized.<sup>4</sup> The Berne Convention also allows for special agreements among

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<sup>2</sup> *The 1995 Agreement Regarding Intellectual Property Rights Between China and the United State: Promises for International Law or Continuing Problems with Chinese Piracy?* 4 TULSA J. COMP. & INT'L L. 169, 170 (1996).

<sup>3</sup> *Id.* at 171.

<sup>4</sup> *Id.*

members nations to allow grants of more extensive rights or exclude provisions of the Berne Convention that conflict with domestic principles.<sup>5</sup> In addition, the Berne Convention has allowed other countries to join as members of the convention and shares the protection and responsibilities accorded to other members.<sup>6</sup> Currently, the Berne Convention is still one of the primary legal mechanisms protecting intellectual property on international markets,<sup>7</sup> although the United States only recently became a member nation.<sup>8</sup>

Besides the Berne Convention, there is also the Universal Copyright Convention, the International Convention for the Protection of Industrial Property of 1883, and the General Inter-American Convention for Trade Mark and Commercial Protection of 1929 that grants reciprocal copyright protection for member nations.<sup>9</sup> These two conventions grant intellectual property rights owners “national” treatment, meaning that member nations will treat owners with the same rights that they would have within their own country.<sup>10</sup> Also, the piracy of copyrighted works, inadequate patent protection and counterfeiting has received significant attention in recent years through bilateral initiatives (with particular emphasis on certain Pacific Rim countries), and in the latest round of multilateral negotiations within the General Agreement on Trade and Tariff or GATT.<sup>11</sup>

The Arrangement of Madrid for the International Registration of Marks of Commerce of 1891, known as the Madrid Arrangement, extends additional international protections to

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<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> Thomas C. Dabney, *Representing the Growing Technology Company Expansion into the International Marketplace*, C364 A.L.I. – A.B.A. 613, 624 (1988).

<sup>8</sup> 1995 Agreement, *supra* note 2, at 176.

<sup>9</sup> Dabney, *supra* note 7, at 634-35.

<sup>10</sup> *Id.*

<sup>11</sup> *Id.* at 623.

holders of intellectual property rights.<sup>12</sup> It provides a central filing procedure through the World Intellectual Property Organization, which then processes the owner's complaint under the WIPO's own rules.<sup>13</sup>

Recently the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) has sought to increase the amount of protection for intellectual property rights.<sup>14</sup> TRIPS brings protection of intellectual property rights into the World Trade Organization's (WTO) dispute resolution system and allows for economic sanctions against countries that fail to protect intellectual property rights in accordance with TRIPS.<sup>15</sup> However, TRIPS is criticized for favoring economically powerful nations, giving few reciprocal gains to less developed countries, and having major adverse consequences to developing countries.<sup>16</sup> Although many industries support various parts of TRIPS,<sup>17</sup> the controversy that surrounds the agreement makes it difficult to determine if it will have a significant impact on reducing worldwide gray market activity.

There are still a great number of concerns for the protection of intellectual property. Establishing intellectual rights faces procedural pitfalls in countries otherwise providing adequate protection, including complex or strict registration requirements.<sup>18</sup> There is also uncertainty in many countries of the coverage of new technologies like computer software, mask works and genetically engineered products.<sup>19</sup> Procedural pitfalls and uncertainty are particularly relevant for countries with emerging markets.

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<sup>12</sup> *Id.* at 625.

<sup>13</sup> *Id.* at 626.

<sup>14</sup> Peter Drahos & John Braithwaite, *Intellectual Property, Corporate Strategy, Globalisation: TRIPS in Context*, 20 WIS. INT'L L.J. 451 (2002).

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> Dabney, *supra* note 7.

<sup>19</sup> *Id.*

B: EMERGING MARKETS AND THEIR TREATMENT OF  
INTELLECTUAL PROPERTY RIGHTS:

*Russia*

Unlike other countries with emerging markets, Russia was once a major world superpower. Because of their former power, the remnants of past economic strength still reside in Russia. This means Russia has many educated people who know how to use and develop technology. As a result, Russia is a source of intellectual property. However, due to the current economic hardship and its past disregard toward private property under communism, Russia is a place where intellectual pirates can thrive.<sup>20</sup>

It is estimated that publishers in Russia lose \$45 million a year to intellectual piracy.<sup>21</sup> In 1997, due to gray markets in Russia, the motion pictures industries estimated losses of \$312 million, audio recordings claim losses of \$165 million and computer software had losses \$400 million.<sup>22</sup>

Historically, Russia has a weak legal tradition for protecting intellectual property. Under the former Soviet Union, there were some formal patent protections, but such protection was almost never used.<sup>23</sup> The Soviet Union did use a certificate of authorship that transformed all intellectual property into “general state property” that gave the state all rights for use of intellectual property.<sup>24</sup> Previously, the Soviet Union granted social recognition and financial benefits to a certificate holder, but those were ideologically different from patents or copyrights and completely

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<sup>20</sup> Don E. Tomlinson, *Intellectual Property in the Digital Age: The Piracy/Counterfeiting Problem and Antipiracy and Anticounterfeiting measures*, 8 CURRENTS: INT'L TRADE L.J. 3, 6 (1999).

<sup>21</sup> *Id.*

<sup>22</sup> *Id.* It is important to note that these estimates assume that pirated or gray market goods replace purchase of legal good. However, it is very likely that the purchase of gray market goods does not substitute for the purchase of legal goods because consumer may chose only to purchase lower priced gray market goods. See William P. Alford, *Forum: Taiwan and the GATT: Panel Three: Intellectual Property, Trade and Taiwan: A GATT-fly's View*, 1992 COLUM. BUS. L. REV. 97, 99 (1992).

<sup>23</sup> Marina Portnova, *Comment: Ownership and Enforcement of Patent Rights in Russia: Protecting an Invention in the Existing Environment*, 8 IND. INT'L & COMP. L. REV. 505, 508—09 (1998).

<sup>24</sup> *Id.* at 509.

incompatible with standard systems for intellectual property protection.<sup>25</sup>

Currently, Russia is progressing in protecting intellectual property, but this progress is slow.<sup>26</sup> Russia has introduced patent protection laws and overhauling government agencies and courts to provide government enforcement of intellectual property.<sup>27</sup> The main motivation for Russian intellectual property reform has been entry into the WTO.<sup>28</sup> Unfortunately, many of Russia's new legal protections are broad, unclear, and unpredictable.<sup>29</sup> Russia's reform measures leave many intellectual property rights unprotected and defines few concrete methods for actual reparations from intellectual property violations.<sup>30</sup>

In addition to problems with the actual reforms, Russia has a general disregard for the protection of personal property. After 75 years of ignoring intellectual property rights, the Russian legal system has not completely reversed its ideology to protect intellectual property.<sup>31</sup> Several Russian officials and judges still refuse to recognize the use of inventions or ideas without permission as theft.<sup>32</sup> Even some of the most educated Russians do not understand even basic concepts of intellectual property.<sup>33</sup> Russia has accepted intellectual property as part of the WTO, but has not accepted it as part of Russian thinking.<sup>34</sup>

### *China*

China reversed its economic philosophy to accept capitalism.<sup>35</sup> However, China has not accepted all of the legal protections for intellectual property that preceding capitalist countries

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<sup>25</sup> *Id.* at 509-11.

<sup>26</sup> *Id.* at 523.

<sup>27</sup> *Id.* at 524-26.

<sup>28</sup> *Id.* at 524.

<sup>29</sup> *Id.* at 527.

<sup>30</sup> *Id.* at 528.

<sup>31</sup> *Id.* at 533.

<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

<sup>34</sup> *Id.*

<sup>35</sup> Jennifer Fan, *The Dilemma of China's Intellectual Property Piracy*, 4 UCLA J. INT'L. L. & FOREIGN AFF. 207, 207-08 (1999).

currently enforce.<sup>36</sup> China is notorious for gray markets goods. Everything from fake brand name products to DVDs of movies that have barely had a chance to enter theaters can be found on China's vast gray and black markets.<sup>37</sup> One Chinese musician, Na Ying, estimates that out of over three million of her CDs on the international market, two thirds are pirated copies sold on the gray market.<sup>38</sup>

Rampant infringement of intellectual property rights persists in China because of few legal redresses.<sup>39</sup> Reforms in China have brought about some protection for intellectual property owners, but United States businesses alone have been reporting an annual loss of \$14 billion due to piracy.<sup>40</sup> Although China officially reports seizures of millions of counterfeit CDs, DVDs, software, publications, and other pirated goods, Chinese piracy thrives.<sup>41</sup> Factories that produce gray market goods are closed for a while, and then relicensed.<sup>42</sup> Millions of pirated and gray markets goods continue to be exported from China.<sup>43</sup> This has caused many to conclude that the protection of intellectual property is virtually non-existent in China.<sup>44</sup>

Gray markets create many profitable businesses in China. Many Chinese could lose income, or even their livelihood, if gray markets disappeared because of increased enforcement of intellectual property rights.<sup>45</sup> Restrictions on imports create a heavy demand for bootlegged and pirated goods.<sup>46</sup> The gray market is a

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<sup>36</sup> *See id.* at 213.

<sup>37</sup> *See* Mike Langberg, *Hollywood's War on Piracy*, MERCURY NEWS, Oct. 6, 2003, at 1.

<sup>38</sup> Michael Jen-Siu, *New Trademark Laws May Give Plaintiffs a Fighting Chance to Stop Piracy of Intellectual Property Cracking Down on Counterfeits*, S. CHINA MORNING POST, Sept. 22, 2002, at XXX.

<sup>39</sup> Susan Tiefenbrun, *Piracy of Intellectual Property in China and the Former Soviet Union and its Effects upon International Trade: A Comparison*, 46 BUFF. L. REV. 1, 35 (1998).

<sup>40</sup> *Id.*

<sup>41</sup> *Id.* at 36.

<sup>42</sup> *Id.*

<sup>43</sup> *Id.* at 35.

<sup>44</sup> *Id.*

<sup>45</sup> *Id.* at 37.

<sup>46</sup> *Id.*

way of obtaining many goods that are in desperately low supply.<sup>47</sup> China has an economic advantage in gray markets and many local officials support gray markets to ensure that economic advantage is exploited.<sup>48</sup>

Even the very concept of intellectual property rights is in need of protection in China. Ownership of intangible property like a trademark, patent or copyrights is incomprehensible to many Chinese that hold to an old socialist conception that discourages private ownership.<sup>49</sup> Owning property itself is suspect to possible illegalities and disgrace. To steal intellectual property may be no worse than owning it.<sup>50</sup> Several Chinese find nothing wrong with buying or selling pirated goods, and in many parts of China the gray market may be seen as simply the market.<sup>51</sup> Intellectual property is something that the Chinese do not generally recognize.

Restrictions on trade add to the difficulty of protecting intellectual property rights in China. China limits access to its own market by restricting the availability of foreign exchange for imports and by subsidizing exports.<sup>52</sup> China also uses secret rules to manage imports and as a result engages in a host of non-tariff barriers which impede import trade.<sup>53</sup> China keeps many rules on trade secret.<sup>54</sup> Certain products face tight quotas and import controls.<sup>55</sup> Lack of market information, high tariffs, import substitution measures, and unjustified safety and health restrictions all work to prevent imports.<sup>56</sup> The difficulty of importing goods into China increases the incentives for bootlegging and pirating.<sup>57</sup>

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<sup>47</sup> *Id.*

<sup>48</sup> *Id.*

<sup>49</sup> *Id.*

<sup>50</sup> *Id.*

<sup>51</sup> *Id.* at 37-38.

<sup>52</sup> *Id.* at 38.

<sup>53</sup> *Id.*

<sup>54</sup> *Id.*

<sup>55</sup> *Id.*

<sup>56</sup> *Id.* at 39.

<sup>57</sup> See Gerardo Lara, Comment, *The Piracy of American Films in China: Why the U.S. Art Form is not Protected by Copyright Laws in the People's Republic of China*, 2 UCLA J. INT'L L. & FOR. AFF. 343, 356 (1998) (strict import quotas on films into China creates an incentive to pirate films).

Stealing intellectual property may be the best way to get some goods into China, particularly many high-technology products that are easily pirated but difficult to import.<sup>58</sup>

The lack of incentive and concern to enforce intellectual property rights in China has led to skepticism about China's ability to abide with international trade agreement that protect intellectual property rights.<sup>59</sup> In 1995, the United States Trade Representative (USTR) threatened China with sanctions under Special 301 of The Trade Act of 1988.<sup>60</sup> As a result, China has taken some action to halt CD export piracy.<sup>61</sup> Certainly, intellectual property right owners in China are becoming more active in trying to aggressively enforce patents and copyrights.<sup>62</sup> However, skepticism of China's compliance still persisted, and so, the USTR passed steep, one-hundred percent tariffs on \$1.08 billion of Chinese imports, in hopes that China would take further action to protect intellectual property rights.<sup>63</sup>

The WTO, TRIPS and Dispute Settlement Understandings (DSU) have also been proposed as ways in which other countries might be able to get stronger enforcement of intellectual property rights within China.<sup>64</sup> However, the only method of enforcement under WTO, TRIPS and DSU is unilateral sanctions.<sup>65</sup> These sanctions may further the problems of piracy and bootlegging in China. If it is harder for Chinese to obtain intellectual property goods legally from other countries, then there will be more demand on gray markets to provide sanctioned goods. To even further the problem, China's large market makes it difficult for many countries to maintain sanctions, recognizing that sanctions may only exclude domestic industries from large potential

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<sup>58</sup> See *id.* at 357 ("Piracy will continue to provide American films to the Chinese public").

<sup>59</sup> Tiefenbrun, *supra* note 39, at 39.

<sup>60</sup> *Id.*

<sup>61</sup> *Id.* at 39.

<sup>62</sup> Yahong Li, Pushing for Greater Protection: The Trend Toward Greater Protection of Intellectual Property in the Chinese Software Industry and the Implications for Rule of Law in China, 23 U. PA. J. INT'L. ECON. L. 637, 638 (2002).

<sup>63</sup> Tiefenbrun, *supra* note 39, at 41.

<sup>64</sup> *Id.*

<sup>65</sup> *Id.* at 43.

gains within Chinese markets.<sup>66</sup> If only sanctions are used to stop intellectual property violations, Chinese gray markets could boom with China's rapidly growing economy.

### *North Korea*

North Korea recently proposed establishing economic zones as an experiment with capital markets. These economic zones will theoretically help North Korea in a transition from a communist state to free-market economy, similar to China's reform.<sup>67</sup> Established with the help of China, these economic zones hope to improve North Korea's economy with respect to foreign trade.<sup>68</sup> With North Korea recently declaring itself as a nuclear power,<sup>69</sup> North Korea may have increased bargaining power within the international community. At this moment, it is unknown if the international community would have any impact on how North Korea establishes these new economic zones or what impact they may have on international trade in gray market goods.

Certainly, the possibility of North Korea becoming more open in international trade will eventually bring concerns about intellectual property. If North Korea does become a more significant player in international trade, than North Korea and its new economic zones could create a new stronghold for gray markets.

### *Other Countries in Asia and Europe*

Much of the developing world could become a threat to copyrights and patents. Asia, in particular, is gaining the technology needed to efficiently produce gray markets goods.<sup>70</sup> Asia's standard of living also seems to be increasing, creating greater demand for products that can be produced on the gray

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<sup>66</sup> *Id.* at 44.

<sup>67</sup> *North Korea to set up special economic zone, open historic sites*, AGENCE FRANCE PRESSE, Aug. 11, 2002, at XXX.

<sup>68</sup> *Id.*

<sup>69</sup> Johanna McGeary, *Look who's got the bomb*, ABIX: AUSTRALASIAN BUS. INTELLIGENCE, Oct. 28, 2002, 52-54.

<sup>70</sup> *See Statement of Jeffrey Raikes Group Vice President Microsoft Corporation Before the Senate Committee on Foreign Relations*, 107th Cong. (Feb. 12, 2002) [hereinafter *Raikes*].

market.<sup>71</sup> With countries like India and Indonesia that have massive populations, even a small demand for gray market goods could generate huge amounts of illegal revenues. By itself, India's software industry reports losses of \$245 million to gray markets.<sup>72</sup>

It is also important to note that newly industrialized nations in Asia, like Japan, South Korea, and Singapore, have strict protections for intellectual property rights.<sup>73</sup> These countries might be classified with countries like the United States that currently seek protection of intellectual property. Other countries, like Thailand, are seeking to increase their ability to enforce intellectual property rights.<sup>74</sup>

Other areas of the world, such as Africa and South America, lack some of the technology needed to produce gray market goods and they also have poorer markets that may reduce supply and demand for gray market goods.<sup>75</sup> However, some countries in South America, such as Brazil or Chile, have the potential for rapid economic growth that could create a demand for gray market goods.<sup>76</sup> Plus, these countries can still serve as a haven to export gray market goods to other countries.<sup>77</sup> The jungles of South America provide the perfect haven for a million-dollar replicator in a pig farm to produce thousands of illegal CDs per day.<sup>78</sup>

Many of the former Soviet and communist countries in Europe are also potential emerging markets that could create additional problems in protecting intellectual property rights.

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<sup>71</sup> See *Committee on House Appropriations Subcommittee on Foreign Operations, Export Financing and Related Programs*, 108th Cong. (Mar. 26, 2003) (opening statement of Thelma J. Askey Director U.S. Trade and Development Agency).

<sup>72</sup> *\$245-Million Loss Due to Piracy, Says IDC*, INDIAN BUS. INSIGHT 7 (Aug. 6, 2002).

<sup>73</sup> See Tomlinson, *supra* note 20, at 6-7.

<sup>74</sup> Bamrung Amnatcharoenrit, *Intellectual Property—Private companies step up own efforts to fight piracy*, BANGKOK POST, Feb. 19, 2002, at P1.

<sup>75</sup> See Paul Taylor, *International: Fears of a Two Tier Infobahn: World May Split Into Haves and Haves-nots*, FIN. TIMES (London), May 13, 1996, at 4.

<sup>76</sup> *Cf. Floating with an Anchor*, THE ECONOMIST, Jan. 29, 2000, at XXX (short explanation of economic growth in Brazil, Chile, and Mexico).

<sup>77</sup> See Edward Iwata, *Increases in Software Piracy Could Blight Financial Future*, USA TODAY, Aug. 1, 2001, at B1.

<sup>78</sup> *Id.*

Eastern European countries could serve as alternative markets for gray market goods if countries, like Russia, become more effective at enforcing intellectual property rights. As Eastern Europe's economic capabilities expand, these countries increase the geographical boundaries in which gray markets can flourish.

Even Western Europe has been impacted by copyright and patent piracy. Piracy levels have increased among EU countries.<sup>79</sup> Italy, Spain, and Greece have been affected by piracy, with levels of 25%, 30% and 50% of pirated products (CDs) respectively on the domestic market.<sup>80</sup> Even states with very low rates, such as Belgium, Denmark, Germany, Sweden and the United Kingdom, report significant increases in pirated goods.<sup>81</sup>

Pirated goods, sold on gray markets, are even worse in Eastern Europe.<sup>82</sup> The Czech Republic, Poland, Lithuania, Estonia and Latvia have piracy levels as high as 60% to 90% of the market.<sup>83</sup> These do not include Internet piracy, another major source of copyright and patent infringements.<sup>84</sup> Overall, it is estimated that gray markets cost Europe over two billion Euro a year and has increased unemployment by 200,000 jobs.<sup>85</sup>

Penalties do not seem to be sufficiently dissuasive. Pirated copies are sometimes seized, but such confiscations are not followed by court judgments.<sup>86</sup> Pirates take advantage of the weaknesses and inconsistencies of the measures set in place by the Member States and have established "havens" within European countries where they can avoid punishment.<sup>87</sup> The profits from counterfeiting are also used to support organized crime and produce the funds to support more piracy and other criminal activities.<sup>88</sup>

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<sup>79</sup> *Intellectual Property, Rightholders' Lobbies Join Forces to Combat Piracy*, EUR. REP., Oct. 30, 2002.

<sup>80</sup> *Id.*

<sup>81</sup> *Id.*

<sup>82</sup> *See id.*

<sup>83</sup> *Id.*

<sup>84</sup> *Intellectual Property, Rightholders' Lobbies Join Forces to Combat Piracy*, *supra* note 79.

<sup>85</sup> *Id.*

<sup>86</sup> *Id.*

<sup>87</sup> *Id.*

<sup>88</sup> *Id.*

In 2001, reports published by the European Commission claim that some 95 million fraudulent articles were intercepted at the European Union's external borders.<sup>89</sup> The estimated cost was more than two billion Euros and is a 900% increase in the number of objects confiscated since 1998.<sup>90</sup> Counterfeiting and piracy has become so pervasive that it affects every sector of economic activity.<sup>91</sup>

Anything that can be bought or sold attracts the interest of counterfeiters. Focusing on quantity more than quality, many gray market goods are mass-produced ordinary objects that can easily escape detection.<sup>92</sup> The production of many gray market goods, CDs (audio, games, software), DVDs and cassettes are rapidly increasing in Europe. Over 40 million objects were intercepted in 2001, which is a 349% increase over 2000 and an increase of 15,330% over 1999.<sup>93</sup> These gray market goods come from all over the world. European officials estimate that of counterfeit or pirated products intercepted at the European Union borders, 23% originated in Thailand, 18% in China, 8% in Turkey, 5% in Hong-Kong, 4% in Czech Republic, 3% in Taiwan, 3% in the USA and 36% in other countries.<sup>94</sup>

## SECTION II: ECONOMICS OF GRAY MARKETS IN THE GLOBAL ECONOMY

Before any analysis of the law can take place, there must be an understanding of what the law governs. If the law is trying to govern gray markets, then it is necessary to understand gray markets. Much of the literature in this area has avoided setting forth an economic model of how gray markets work. Proposing a model, particularly an economic model, is asking for criticism. Yet, even an imperfect model is closer to a clearer understanding of the real world, rather than having only vague ideas that lead to a confusing analysis. Ideally, the model should be criticized and

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<sup>89</sup> *Intellectual Property, Rightholders' Lobbies Join Forces to Combat Piracy, supra* note 79.

<sup>90</sup> *Id.*

<sup>91</sup> *Id.*

<sup>92</sup> *Id.*

<sup>93</sup> *Id.*

<sup>94</sup> *Id.*

then that criticism can either refine the model or create a better understanding of the problem. Therefore, the following model is proposed as a simple starting place to better understand the issues surrounding international law and gray markets.

#### A. ECONOMICS OF INTELLECTUAL PROPERTY

The basic block in this model is the concept that copyrights and patents are established monopolies.<sup>95</sup> When an individual or company is granted a copyright or patent, then the intellectual property can now be excluded from competitors and consumers.<sup>96</sup> The owner of the copyright or patent can then market the good, free of competitive forces that would drive the price down towards the market equilibrium.<sup>97</sup>

The monopolist plays by a different set of economic rules than free market capitalists. In a free market, competition drives down the price to an equilibrium where the demand for a good will equal the cost.<sup>98</sup> The monopolist can ignore competition's effects and set the price at a point where marginal cost is equal to marginal revenue, meaning that the monopolist can afford to set a higher price than the free market price equilibrium.<sup>99</sup> Simply stated, the monopolist will set the price where they can maximize gains, and because there is no competition.<sup>100</sup> That price will be higher than the free market price, and therefore, generate

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<sup>95</sup> Although there are some disputes over whether owners of intellectual property have monopoly. Some prefer to argue that it is a property right that the owner refuses to sell. This argument is not very persuasive and can be generally dismissed. *See Also*, James Boyle, Symposium: *Cruel, Mean, or Lavish? Economic Analysis, Price Discrimination and Digital Intellectual Property*, 53 VAND. L. REV. 2007, 2017-18 (2000).

<sup>96</sup> *Id.* at 2012.

<sup>97</sup> An important sub-point here is that in order to maintain a monopolistic position, intellectual property right owners must also have some control over the product after sale. This usually means placing a restriction on alienability over the property or placing use controls to constrain the number of individuals that can benefit from the property without paying the copyright or patent owner. This is very common in the computer software and entertainment industries where licenses and ownership agreement try to prevent sharing or, occasionally, even reselling the property. *See id.* at 2011.

<sup>98</sup> *See* WALTER NICHOLSON, MICROECONOMIC THEORY: BASIC PRINCIPLES AND EXTENSIONS 13 (17th ed. 1998) (1972).

<sup>99</sup> *See id.* at 548.

<sup>100</sup> *See id.*

greater gains for the monopolist.<sup>101</sup> In this economic model, it is essential to understand that the price is set in a rational way to maximize gains, and that gains are greater for a monopoly than in the free market.<sup>102</sup>

Monopolies are granted through copyrights and patents because creating intellectual property requires large fixed cost and low variable cost, implying low marginal cost.<sup>103</sup> Without a monopoly, market competition would drive prices down to a point where it would be impossible to recover the initial fixed cost and still be profitable.<sup>104</sup> New technologies have dramatically decreased the marginal cost, mainly the cost of reproduction, for many patented and copyrighted goods.<sup>105</sup> One of the most prevalent new technologies that have decreased marginal cost is the advent of digitalization. This has made reproduction easy and virtually costless by collapsing the copying and transmitting intellectual property into one activity.<sup>106</sup> In many cases, the marginal costs are so insignificant that the intellectual property is a non-rival good.<sup>107</sup> Therefore, a monopoly is required through a patent or copyright to regain the initial fixed costs.<sup>108</sup>

A good example to illustrate this part of the model is the developmental drug industry. Millions of dollars are poured into

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<sup>101</sup> *See id.*

<sup>102</sup> *See id.*

<sup>103</sup> JEAN TIROLE, *THE THEORY OF INDUSTRIAL ORGANIZATION* 307-08 (1988).

<sup>104</sup> Shubha Ghosh, *Turning Gray into Green: Some Comments on Napster*, 23 *HASTINGS COMM. & ENT. L.J.* 563, 567 (2001).

<sup>105</sup> *See Lara, supra* note 57, at 359-61.

<sup>106</sup> Keith Aoki, Symposium: *SURVEYING LAW AND BORDERS: (Intellectual) Property and Sovereignty: Notes Toward a Cultural Geography of Authorship*, 48 *STAN. L. REV.* 1293, 1334 (1996).

<sup>107</sup> Non-rival goods are goods where the consumption of the good by one person does not preclude the consumption of the same good by another. One example would be a song, one person listening to a song does not prevent another person from listening to the same song. *See also, Richard Cornes & Todd Sandler, The Theory of Externalities, Public Goods, and Club Goods* 8 (2d ed. 1996).

<sup>108</sup> There are also some intellectual property that is non-excludable, meaning that there is no reasonable method of preventing consumption. An example would be a cooking recipe. Once the recipe is known, an infinite number of consumers can use the same recipe. Intellectual property that is non-excludable is generally best kept secret. *See also, id.* at 8-9.

the development of a new drug, generating huge initial cost.<sup>109</sup> However, once the new drug is developed, it may only cost a few cents to reproduce.<sup>110</sup> Therefore, in a competitive market, competitors could “free-ride” off the million dollars required to produce the initial drug, because they only need to pay the cost of reproduction.<sup>111</sup>

DVDs, CD, books, and other copyrighted and patented goods are also examples of goods that have high initial cost but very low marginal or reproduction cost.<sup>112</sup> Enforcement of a monopoly through copyrights and patents is vital to protect innovation by ensuring that companies or individuals can recover their initial costs for these goods.<sup>113</sup> It is feared that, without government protection of copyrights and patent, millions of ideas and artistic works would be driven out of the market because no individual would have an incentive to risk developing an idea into a product that could be easily stolen and mass produced by another.<sup>114</sup> For these reasons, most countries are fairly protective of patented and copyrighted goods. However, gray markets exist

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<sup>109</sup> See Jaclyn L. Miller, *Drug Price Competition and Patent Term Restoration Act: The Elimination of Competition between Drug Manufacturers*, 5 DEPAUL J. HEALTH CARE L. 91, 103 (2002).

<sup>110</sup> *Id.* at 104.

<sup>111</sup> *See id.*

<sup>112</sup> See Jeanmarie Lovoi, Note, *Competing Interests: Anti-Piracy Efforts Triumph under TRIPS but New Copying Technology Undermines the Success*, 25 BROOKLYN J. INT'L L. 445, 475 (1999) (example of how cheap CD copying equipment asserts the risk of large-scale digital piracy).

<sup>113</sup> *See id.* at 458 (artist will be unable to recover their investment in time, energy, research, and development tactics).

<sup>114</sup> It should also be noted that government try to have an optimum level of protection over intellectual property rights because over protection would also destroy new innovation because creators of intellectual property could then profit from minimal innovation for an indefinite amount of time. Having limited protection or loss of protection over a certain amount of time, forces intellectual property owners to create new intellectual property as the old property losses protection. The exact level of protection that each country should provide will vary with each countries national policy preferences. See Note, *Tackling Global Software Piracy Under Trips: Insights From International Relations Theory*, 116 HARV. L. REV. 1139, 1146-47 (2003).

despite most country's attempts to protect intellectual property rights.<sup>115</sup>

Demand for gray markets exist because gray market goods create a paradox of incentives at the individual level. People may theoretically want to protect intellectual property to preserve the incentives for owners of intellectual property to produce more intellectual property.<sup>116</sup> However, individuals also want to "free ride" by taking advantage of cheaper, gray market goods with the assumption that others will respect intellectual property.<sup>117</sup> Many people are comfortable with breaking intellectual property laws because of the individual justification that a single infraction will not hurt owners of intellectual property.<sup>118</sup> Unfortunately, when the individual justifications are aggregated, individual property rights are destroyed.<sup>119</sup>

Gray markets add another dimension to the model. If it is cheap enough to reproduce a copyrighted or patented product and sell it on a market for a profit, then it stands to reason that somebody will try it. How someone makes a profit depends on how the patent or copyright affects the market. Some patented and copyrighted goods are priced high enough in a legitimate market that gray market products can under price them and still be profitable.<sup>120</sup> This can be the case for medicines, entertainment products like CDs and DVDs, trademarks, and brand-

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<sup>115</sup> Cf. Edward Iwata, *Increases in Software Piracy Could Blight Financial Future*, USA TODAY, Aug. 1, 2001, at 1B (refers to unsuccessful attempts to shut down piracy operations).

<sup>116</sup> See Nicholas Imparato, *Intelligent Enterprise Piracy and the Great American Public—Most people Believe in Protecting Intellectual Property, but are They Practicing What They Preach?* INTELLIGENT ENTER, Mar. 8, 2002, at 18.

<sup>117</sup> See *id.*

<sup>118</sup> See *id.*

<sup>119</sup> Another way at looking at how individual incentives hurt intellectual property rights is to consider the problem as a prisoner dilemma. Everyone benefits if intellectual property rights are enforced because increased incentive for innovation. However, if individual countries can avoid the cost of enforcing intellectual property rights within their own borders through reliance on other countries enforcement of intellectual property then there is the possibility of reaching an equilibrium in which no country enforces intellectual property rights. See William J. Aceves, *Institutionalist Theory and International Legal Scholarship*, 12 AM. U. J. INT'L L. & POL'Y 227, 242-43 (1997).

<sup>120</sup> See Shubha Ghosh, *Pills, Patents, and Power: State Creation of Gray Markets as a Limit on Patent Rights*, 53 FLA. L. REV. 789, 790 (2001).

based goods.<sup>121</sup> CDs and DVDs are particularly cheap to reproduce (about ten cents per copy) and have encouraged very large and profitable gray markets for CDs and DVDs all over the world.<sup>122</sup>

Copyrights and patents can also make a good scarce in a market by restricting supply. Gray market goods can supply the excess demand created by the short supply of legitimate goods.<sup>123</sup> This is the case for some medicines, custom products, or entertainment products not yet released.

## B. CRIME AND GRAY MARKETS: INTELLECTUAL PIRATES AS RATIONAL ACTORS

Gray markets cannot be easily closed or regulated because they are essentially criminal institutions. Criminals, who knowingly violate intellectual property laws, supply the gray markets. Therefore, no analysis of gray markets would be complete without some model of criminal behavior.

Although criminal behavior, in general, is difficult to model, the particular type of crime associated with gray market is rationally based.<sup>124</sup> Gray market goods are not sold out of rebellion, gratification, emotional outbreaks, or insanity. Gray market goods are sold for profits and therefore profits are the rational motivation for gray markets.<sup>125</sup> Therefore, gray markets are an economic crime that can be rationally and economically modeled, showing a system of incentives. Referencing behavioral economist Gary S. Becker theories, a rational crime can be determined to be a function of expected gains and expected

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<sup>121</sup> *Id.*

<sup>122</sup> Lydia Polygreen, *Pirating of CD's and DVD's Takes a Dangerous Turn*, NY TIMES, Nov. 21, 2002, at 1B3.

<sup>123</sup> Shubha Ghosh, *Turning Gray into Green*, *supra* note 104, at 571.

<sup>124</sup> Although this paper assumes that gray markets thrived on rationally based behavior, there is an element of less rational, violent crimes that has been increasing within gray markets. Polygreen, *supra* note 122.

<sup>125</sup> Producers of gray market goods also exploit comparative advantages that arise. See Gene M. Grossman & Carl Shapiro, *Foreign Counterfeiting of Status Goods*, 103 Q.J. ECON. 1, 84 (Feb. 1988).

costs.<sup>126</sup> As long as the expected gain from the crime is greater than the expected cost, the law will be violated.<sup>127</sup>

When gains from crime exceed cost on a relatively consistent basis, like in any market, entrepreneurs enter. These entrepreneurs usually take the form of intellectual pirates, counterfeiters or, more essentially, organized crime.<sup>128</sup> Particularly for copyright and patent violations, some level of organization is required for long term profitability.<sup>129</sup> Similar to any business, organized crime will seek out resources and methods to reduce risks and costs, and increase gains, even if this means operating in several different countries.<sup>130</sup> International cooperation in organized crime is already well established for illegal drugs, smuggling, and host of other illegal activities.<sup>131</sup> Operating in gray markets, selling illegally copied or manufactured goods could be a natural extension for a diversifying mob.<sup>132</sup>

Assuming organized crime is rational, it is possible to theorize about the expected gains and cost for participation in gray markets.<sup>133</sup> Part of expected gain is considering the probability that the crime will be successful, and likewise, part of expected cost is the possibility of being caught and convicted by the state.<sup>134</sup> For gray market goods, part of the expected gain is being

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<sup>126</sup> Gary S. Becker, *Nobel Lecture: The Economic Way of Looking at Behavior*, J. OF POL. ECON., 101, 385-409 (1993). Although a complete explanation of Becker's theory would not be practical here, it can basically be summarized as criminals being rational. Criminal take into consideration expected cost and benefit based off of risk and this can be summarize as  $\text{Crime} = E(B) - E(C)$  with  $E(B)$  equaling expected benefits and  $E(C)$  equaling expected cost which would include the probability of being caught multiplied by the cost of punished for the crime.

<sup>127</sup> *Id.* at 391-92.

<sup>128</sup> See Joseph E. Ritch, Comment, *They'll Make You an Offer You Can't Refuse: A Comparative Analysis of International Organized Crime*, 9 TULSA J. COMP. & INT'L L. 569, 571 (Spring 2002). This does not exclude the possibility that many dealings in gray markets are not part of criminal organizations. However, there must be some form of organization operating gray markets for gray markets to be a market and not several insolated incidents of theft.

<sup>129</sup> See Raikes, *supra* note 70.

<sup>130</sup> Grossman & Shapiro, *supra* note 125, at 84.

<sup>131</sup> See Iwata, *supra* note 77, at B1.

<sup>132</sup> See *id.*

<sup>133</sup> Grossman & Shapiro, *supra* note, 125, at 80.

<sup>134</sup> *Id.* at 85.

able to sell the pirated goods to enough people to make it profitable.<sup>135</sup> Certainly, having an established gray market helps to boost the probabilities of successful patent and copyright violations.<sup>136</sup> The costs decrease by having gray markets that are not monitored or the state not enforcing copyright and patent laws.<sup>137</sup>

### C. ORGANIZED CRIME AND EMERGING MARKETS

Organized crime may need little more incentive to engage in supplying and selling gray market goods, but emerging markets, such as those in China and Russia, might increase the gains from participation in gray markets. The pirating of intellectual property in emerging markets is already evident.<sup>138</sup> These countries have less developed legal systems for catching criminals, particularly those sophisticated enough to be organized or pirating high tech intellectual property.<sup>139</sup> Countries that are hungry for rapid economic growth may be less willing to focus on protecting intellectual property and be more concerned with bringing new products and ideas into the country.<sup>140</sup> Gray markets may facilitate the national development goals by giving immediate access to protected property.<sup>141</sup> In sum, countries with emerging market have more of an incentive to ignore, if not support, organized crime that produces and sells gray market goods because of the added benefits to their economy.<sup>142</sup>

Countries with emerging markets create safe havens for gray market goods. In countries with emerging markets, already established markets have little to no monitoring or enforcement of

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<sup>135</sup> See *id.* at 85-87.

<sup>136</sup> See *id.*

<sup>137</sup> See *id.* at 84.

<sup>138</sup> See John Healey, *Web's Film, Music Pirates Sail Free From Copyrights*, L.A. TIMES, June 6, 2002, at A1.

<sup>139</sup> See Andrew Evans, *Taming the Counterfeit Dragon: The WTO, TRIPS and Chinese Amendments to Intellectual Property Laws*, 31 GA. J. INT'L & COMP. L. 587, 611 (2003).

<sup>140</sup> See Tomlinson, *supra* note 20, at 7.

<sup>141</sup> See Ghosh, *supra* note 120, at 826-27.

<sup>142</sup> See Fan, *supra* note 35, at 218 (examples of incentives within the Chinese government to ignore intellectual property rights).

patents and copyrights.<sup>143</sup> Organized crime would be free to produce mass quantities of gray market goods, like patented drugs, DVDs and CDs, and then market these goods with little worry that state officials will take action against them.<sup>144</sup> Furthermore, using the developing country as a base, the criminal organization can then export gray market goods to other countries to increase their market share. Of course, having to smuggle these goods into another country increases the overall operation risks.<sup>145</sup> However, if risk can be reduced or eliminated in a particular country, then the criminal organization as a whole has a fair level of security and can reasonably be expected to export gray market good to exploit the increased gains associated with a larger market.

Using a country as a safe haven, criminal organizations would have several risk-avoidance techniques to increase profit. Criminal organizations might rationally expect that a certain amount of exported products be confiscated or destroyed, but as long as the implied costs do not outweigh the gains from exporting, they will continue to export.<sup>146</sup> Being able to take advantage of poorly regulated domestic gray markets could help offset losses from exportation because domestic sales could stabilize revenue and profits.<sup>147</sup>

The key for successfully exporting gray market goods is to have a safe haven, a base of operation where production and markets can make generate revenue, even without exports. With a firm base in an emerging market, smuggling gray market goods to developed markets or elsewhere becomes, not a necessity, but a way to increase profitability. Without the safe haven found within emerging markets, the probabilities of being caught, shut down, or other factors that would affect production costs, would be considerably higher.

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<sup>143</sup> See Grossman & Shapiro, *supra* note 125, at 84.

<sup>144</sup> See *id.*

<sup>145</sup> See *id.* at 85.

<sup>146</sup> See *id.*

<sup>147</sup> See *id.* at 85-86.

### SECTION III: PROBLEMS FACING THE PROTECTION OF INTELLECTUAL PROPERTY

Shutting down gray markets is not easy.<sup>148</sup> Although the United States has worked aggressively to stop the pirating of intellectual property, trying to stop the pirating of intellectual property creates a collective action problem.<sup>149</sup> Garnering international cooperation can be difficult, especially if the benefits are not equitable to all involved. Everything from sovereignty issues to economic concerns could arise in a debate to get global protection of intellectual property.<sup>150</sup> Cultural, historical, and moral issues always seem to be a popular way of framing problems with international cooperation.<sup>151</sup> Even though there are alternative ways to approach this issue, an economic approach towards weaknesses in cooperative efforts to protect intellectual property may yield practical solutions.

One of the major problems for global protection of intellectual property is how uneven its benefits can be. Intellectual property rights are to establish a monopoly for a single individual or company.<sup>152</sup> With a possible exception for large multinational companies, most holders of intellectual property will not be citizens of every country for which their property can be pirated. Particularly with new technology, like the Internet, owners of copyrights and patents must have protection on a vast global scale, which includes oversea emerging markets.

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<sup>148</sup> Ghosh, *supra* note 123, at 572.

<sup>149</sup> A collective action problem refers the problem of getting cooperation when individual benefits and free rider incentives out-weigh the social or collective benefits. In this case, the collective action problem arises because individual countries do not necessarily receive equal benefits from the protection of intellectual property, even if it is assumed that the world as a whole would be better off with the protection of intellectual property. See Dan M. Kahan, *Symposium Trust Relationships Part 1 of 2: Trust, Collective Action, and Law*, 81 B.U.L. REV. 333 (2001).

<sup>150</sup> Ghosh, *supra* note 120, at 828.

<sup>151</sup> Cf. Michael B. Gunlicks, *A Balance of Interests: The Concordance of Copyright Law and Moral Rights in the Worldwide Economy*, 11 FORDHAM INTELL. PROP., MEDIA AND ENT. L.J. 601 (2001) (explanation of how moral and cultural difference in the worldwide legal structure has contributed to the difficulties of enforcing intellectual property rights).

<sup>152</sup> See TIROLE, *supra* note 103, at 307-08.

Owners have another problem. The theories that the protection of intellectual property generates social benefits by encouraging innovation rest on a principle of generalization. From a normative perspective, innovation is generally good, however, specific innovation may be good, bad, or neither. The difficulty in valuing a particular innovation makes it difficult to determine if patenting or copyrighting that innovation would generate a social benefit that would outweigh the social and individual cost of protecting the innovation. Debates over the patenting of life-saving pharmaceuticals center on whether the value of future innovation outweighs the cost of people dying while legitimate markets slowly decrease prices.

The social cost of protecting intellectual property will certainly be considered by countries seeking rapid economic growth. Governments may want to develop their emerging markets by simply looking the other way when pirates steal the intellectual property of other countries.<sup>153</sup> Widespread piracy of property within a country could spur economic growth and even become a measure of economic progress.<sup>154</sup> A country with successful piracy could accumulate more sophisticated intellectual products in a shorter time than by using government programs to develop new intellectual products.<sup>155</sup> Emerging markets in countries like China, Thailand, and Korea, may depend on their government to simply not discourage theft of intellectual property in order to spur economic growth.<sup>156</sup>

One hope is that a system of reciprocity could develop an incentive for countries to protect intellectual property. This might be difficult if some countries do not possess much in terms of intellectual capital and property, and therefore lack the incentive to spend resources to protect intellectual property.<sup>157</sup> Also, some countries may be less capable of enforcing intellectual property laws because of insufficient resources or incentives.<sup>158</sup> Even

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<sup>153</sup> Tomlinson, *supra* note 20, at 7.

<sup>154</sup> *Id.*

<sup>155</sup> See Cataline Cosovanu, *Piracy, Price, Discrimination, and Development: The Software Sector in Eastern Europe and other Emerging Markets*, 31 *AIPLA Q.J.* 165, 187-88 (Spring 2003).

<sup>156</sup> See Tomlinson, *supra* note 20, at 6-8.

<sup>157</sup> See *id.* at 8.

<sup>158</sup> See *id.*

industrialized countries, like the United States, have a difficult time thwarting violations of intellectual property rights because the high level of technological sophistication required to stop piracy and other forms of intellectual theft.<sup>159</sup> Therefore, this hope may initially require reciprocity in more ways than simply signing a mutual agreement that each nation will respect each other's property rights.

To protect intellectual property, some of the benefits from gains in countries with heavy interest in intellectual property must be transferred to those countries with less interest, whether directly or indirectly, so that these countries will have a greater incentive to protect intellectual property. Russia may need more support in enforcing intellectual property.<sup>160</sup> China may need more enforcement of and ideological support for intellectual property.<sup>161</sup> North Korea may need public education on the concept of intellectual property.<sup>162</sup> Other countries in Asia, Europe, or elsewhere may need help with economic development before any concerns about intellectual property can even be considered.

Some countries may not have the technological capabilities to enforce certain types of intellectual property. The irony with this problem is that countries may not be able to upgrade electronic or other technology needed to protect intellectual property rights from gray market piracy because of the extra financial burden placed by patents and copyrights on acquiring the protective technologies.<sup>163</sup> The protection of some specific intellectual property may aid the continuation of gray markets.

#### A: CRITIQUE OF CURRENT THINKING ABOUT PROTECTING INTELLECTUAL PROPERTY

##### *Negative Effects of Sanctions*

Thinking about how the incentives are structured between the countries to protect intellectual property rights is vital. Ignoring the incentive structures may lead to perverse results

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<sup>159</sup> Keith Aoki, *(Intellectual) Property and Sovereignty: Notes Toward a Cultural Geography of Authorship*, 48 STAN. L. REV. 1293, 1352 (1996).

<sup>160</sup> See Portnova, *supra* note 23, at 523-24.

<sup>161</sup> See Tiefenbrum, *supra* note 39, at 37.

<sup>162</sup> Cf. Aoki, *supra* note 159, at 1341-42.

<sup>163</sup> Cosovau, *supra* note 155, at 167.

where those seeking to protect their intellectual property might find it more difficult. For example, the United States, through OFAC, placed severe restrictions on intellectual property transactions between the U.S. and Yugoslavia.<sup>164</sup> Because of the economic embargo and restriction on payments to individuals within Yugoslavia, many U.S. corporations trying to protect their intellectual property within Yugoslavia found their attempts frustrated by the U.S. sanctions regulated by OFAC.<sup>165</sup> In this case, sanctions increased protection to gray markets by making it more difficult for U.S. companies to protect their patent, trademark and copyright assets during the embargo.<sup>166</sup> In addition, OFAC may have unwittingly created a safe haven in Yugoslavia for the growth of intellectual property abuse.<sup>167</sup>

Trade sanctions have always been subjected to economic criticism and using trade sanctions for protecting intellectual property rights is no different.<sup>168</sup> Inflicting sanctions on a country for failure to protect intellectual property will create demand shortages that the gray markets will rush to meet.<sup>169</sup> Sanctions boost profitability in gray markets and encourage more people and resources to be committed to gray market activities.<sup>170</sup> This economic incentive, combined with differing philosophies about the necessity of intellectual property rights, allow international sanctions to become the very mechanism by which gray markets can grow and thrive.

The example in Yugoslavia only adds to what has already been discussed about sanctions in Russia, China, and other parts of the world.<sup>171</sup> Trade sanctions only effect the states where gray markets exist, but do not effect the gray market, which is at least partially outside of state control. Trade sanctions do not have an

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<sup>164</sup> Keith Stolte, *Hands Off Intellectual Property Rights*, 4 J. INTELL. PROP. L. 25, 38-40 (1997).

<sup>165</sup> *Id.* at 38-39.

<sup>166</sup> *Id.* at 39-40.

<sup>167</sup> *Id.* at 40.

<sup>168</sup> See Steve Charnovitz, *Rethinking WTO Trade Sanctions*, 95 A.J.I.L. 792, 814-15 (October 2001).

<sup>169</sup> See *id.* at 816.

<sup>170</sup> See *id.* Thinking of gray markets as a private industry, trade sanctions may provide fortuitous protection to gray markets. See *id.*

<sup>171</sup> See *infra* pp. 6-13.

economically adverse effect on gray markets, and may even encourage them by increasing demand for gray market goods and possibly limiting legal remedies for intellectual property owners.<sup>172</sup>

Although economists have warned about the harm created by sanctions for years, sanctions are particularly devastating to holders of intellectual property because of the increased individual incentive for piracy. Sanctions will affect the supply of legitimate imports or exports in a country. If sanctions decrease the supply of legitimate exports of intellectual property goods from a country, then there will be an increase in demand for pirated goods from the sanctioned country, because of the shortage in supply of legitimate goods created by the sanction.<sup>173</sup> Conversely, if sanctions decrease the supply of imported intellectual property into a country, then there will be increased local demand for pirated goods to fill the shortage in supply of legitimate intellectual property.<sup>174</sup>

### *Education and Disclosure*

Next to sanctions, many international scholars recommend increased education as a way to protect intellectual property rights. This solution rests on the assumption that demand for gray market goods, particularly in lesser-developed countries, would decrease if people understood the harm caused by buying gray market goods, like pirated software, CDs, or DVDs.<sup>175</sup> Certainly, increased education about some products has decreased consumer demand. A good example is education about cigarettes. People learn that cigarettes expose people to health risks like lung cancer, and then demand for cigarettes theoretically decrease.<sup>176</sup> This is because the health risk becomes a hidden cost

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<sup>172</sup> See *infra* pp. 27-28.

<sup>173</sup> Cf. Stolte, *supra* note 164, at 38-40.

<sup>174</sup> See *id.*

<sup>175</sup> See Matthew C. Mousley, Notes, *Peer-to-Peer Combat: The Entertainment Industry's arsenal in its war on Digital Piracy*, 48 VILL. L. REV. 667, 687-88 (2003).

<sup>176</sup> See Michael Hoefges, *Protecting Tobacco Advertising under the Commercial Speech Doctrine: The Constitutional Impact of Lorillard Tobacco Co.*, 8 COMM. L. & POL'Y 267, 286 (Summer 2003).

that the public was not aware of.<sup>177</sup> However, the hidden cost in gray markets is much different than for cigarette markets.

More education on intellectual property could certainly increase awareness of the social cost of intellectual theft.<sup>178</sup> Intellectual theft destroys the incentives for innovations that drive intellectual progress.<sup>179</sup> These social costs can be well understood and accepted, but understanding the social cost of gray markets alone may not necessarily decrease demand for gray market goods. With cigarettes, there is an implied individual cost (i.e. smoke cigarette and get lung cancer), however, gray markets do not inflict many individual cost.

There is risk in buying goods on the gray market. The quality of goods cannot always be verified and warranties are non-existent.<sup>180</sup> However, knowing everything that is bad about gray markets may not significantly decrease the demand on gray markets.<sup>181</sup> Many individual preferences may accept the risks associated with purchasing many gray market goods. The demand for gray markets thrives off the paradox of incentives within individuals. This paradox exists as long as the benefits of buying gray markets goods exceeds the individual cost, with no consideration of the social cost.<sup>182</sup> Thus, more education is unlikely to change individual incentives.<sup>183</sup>

Certainly, this rational explanation may explain why many educated Russians continue to violate intellectual property rights. But, education about intellectual property in Russia,

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<sup>177</sup> See *id.*

<sup>178</sup> See Mousley, *supra* note 175, at 687-88.

<sup>179</sup> See Ghosh, *supra* note 148, at 567.

<sup>180</sup> See Grossman & Shapiro, *supra* note 125, at 81-82.

<sup>181</sup> See Mousley, *supra* note 175, at 688.

<sup>182</sup> Many people who purchase or sell pirated and gray market goods consider their action no more serious than driving a few miles over the speed limit. Even though the penalties could be much more severe than a speeding ticket, many individuals do not consider it to be a serious legal violation. See, Fraser Powell, *Why I've Stopped Sharing Music*, CNN, July 14, 2003, at <http://www.cnn.com/2003/TECH/internet/06/27/music.sharing.column/index.html> (last visited July 14, 2003).

<sup>183</sup> Although individual incentives will be the same, severe punishment of violators may deter others such as in the music industries billion dollar suit against Princeton student Daniel Peng. This suit caused many students to wipe their hard drives and temporarily stop pirating music. *Id.*

China, or other emerging markets may hit other problems; people in other countries may simply disagree. Education is not brainwashing. Brainwashing would be effective in reducing demand for gray market goods because then taste, preferences, and incentives could all be correctly modified. Unfortunately, education does not alter taste, preferences, or incentive. Education can only give more information that alters decisions based on taste, preferences, and incentives. This is why many individuals within developing countries can disagree about protecting intellectual property because their taste, preferences and incentives will not change by education.

Another problem with education is that, even if individuals are effectively brainwashed into respecting intellectual property rights, individuals do not always know if the goods they are buying are legitimate goods or gray market goods. Technological innovation has allowed illegal replications to be indistinguishable from authentic goods.<sup>184</sup> One solution is to increase the amount of disclosures and monitoring of shipped goods.<sup>185</sup> Greater monitoring and more disclosures would increase the cost for smuggling, and therefore may decrease this activity.<sup>186</sup> However, increased monitoring would also increase the cost of shipping legitimate goods and possibly reduce the overall volume of trade.<sup>187</sup> Also, more disclosure in shipping would increase administrative cost in customs regulation.<sup>188</sup>

Those who advocate for increased disclosure, also make the following naïve assumptions: those who violate intellectual property rights would, either accidentally or purposely, make honest disclosures; and that custom regulators could be sufficiently trained or equipped to know when one of thousands of products was in violation of intellectual property law.

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<sup>184</sup> Tomlinson, *supra* note 20, at 5.

<sup>185</sup> RAJ BHALA, INTERNATIONAL TRADE LAW: THEORY AND PRACTICE 1248-49 (2001).

<sup>186</sup> See Ritch, *supra* note 128, at 599.

<sup>187</sup> See Timothy Skud, Symposium: *Free Trade Areas: The Challenge and Promise of Fair vs. Free Trade, Customs Procedures as the Residual Barriers to Trade*, 27 LAW & POL'Y INT'L BUS. 969, 979 (1996).

<sup>188</sup> See *id.*

### *International Treaties*

The WTO, TRIP, GATT and other international treaties have established some form of international intellectual property protection.<sup>189</sup> Unfortunately, international treaties have also been the least effective method for protecting intellectual property rights.<sup>190</sup> The main flaw in current treaties and negotiations to protect intellectual property rights is the lack of a global enforcement mechanism.<sup>191</sup> Current treaties allow retaliation in the form of sanctions against countries that are not in compliance with the agreement. As already discussed, sanctions are not a mechanism to destroy gray markets. In addition to ineffective enforcement, Russia, China, and many other countries have demonstrated that compliance with the conditions of the WTO and actually protecting intellectual property rights are two different things.<sup>192</sup> For intellectual property holders, ineffective enforcement of international law can be blamed on ineffective enforcement within domestic law.<sup>193</sup>

However, as ineffective as international treaties may be, these are the only devices that have the potential of overcoming the problems related to the protection of intellectual property. The mere fact that political opposition can be overcome to create an international treaty to protect intellectual property, suggests that an effective solution to globally protect intellectual property may be possible.

### *Possible Solutions*

Any solution for protecting intellectual property rights and limiting gray markets will require changing individual and national incentives. Because gray markets already work outside regulation and the law, changing incentives to protect intellectual property rights will be a difficult task. The solution will also need

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<sup>189</sup> Tomlinson, *supra* note 20, at 8

<sup>190</sup> *Id.*

<sup>191</sup> *Id.*

<sup>192</sup> *Id.*

<sup>193</sup> *Id.*

to overcome political opposition. This paper proposes three potential solutions that could be more effective than the current methods, but are in no way ideal or perfect.

The first possible solution is to create an international dispute venue or international court to enforce intellectual property rights and eliminate the safe haven created within emerging markets. This court would need to rely on domestic courts to preserve resources and avoid jurisdictional disputes. For this international court to be effective, every country would need to sign an international agreement to create the court, and then surrender enough sovereignty to the court to allow it to function. If enough power were given to this court, then owners of intellectual property would have an international body that could globally enforce property rights. An international court could create a minimum level of enforcement for property rights and thereby restrict the activity of gray markets by reducing safety zones.

Creating an international court would be an extreme solution and probably face insurmountable political opposition. However, the universal level of protection that this would provide, increasing the probability that gray market activity could be discovered and prosecuted, would then raise the expected cost for supplying gray market goods.

Another solution would be to allow countries with emerging global markets to tax imports of intellectual property on the condition that the additional revenue would be used to protect intellectual property by increased enforcement. Similar to having an international court, this solution focuses on increasing the expected cost for supplying gray market goods and eliminating possible safe havens. This solution would also be politically more palatable than giving power and jurisdiction to an international court. It also provides a mechanism for countries with emerging markets to finance the protection of intellectual property. However, political processes could abuse allowances for taxing intellectual property to provide trade protectionism or to fungibly finance goals other than protecting intellectual property. Simply determining which countries would be allowed to tax imports of intellectual property might be politically impossible. Large and powerful countries, like Russia or China, allowed tax imports of intellectual property from the United States would almost certainly meet opposition.

The final solution would also be politically difficult. Those countries that possess larger amounts of intellectual property could subsidize the protection of intellectual property within countries with emerging markets. These subsidies could create a system to provide financing and technology from enforcing intellectual property rights to countries like Russia, China, North Korea, or other emerging markets. International financing for enforcement would give these countries an incentive to protect intellectual property. Technology transfers could be used to reduce the demand for gray markets and ideally give countries the technological capabilities to enforce intellectual property rights. Subsidies could be a powerful incentive for governments to avoid creating safe havens for gray markets. Also, subsidies for the protection of intellectual property could be worked through current international institutions like the IMF or WorldBank, which could reduce some political opposition.

### **CONCLUSION**

The simple economic model outlined in this paper shows that emerging markets create a serious problem for protecting intellectual property. Because of the lack of protection for intellectual property rights, emerging markets create a safe haven for gray markets goods in international trade. Those dealing in gray market goods can use these safe havens to lower the cost of producing gray markets goods for international export.

There is no obvious solution to fixing the problem of emerging markets and gray markets. This paper offers criticism and proposes solutions to the problem but is in no manner conclusive. Most of this paper is highly theoretical and therefore, requires additional empirical evidence for support. Supplemental research, analysis, and debate must be performed before a final solution will be found.

