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CLAREMONT McKENNA COLLEGE

The High Cost and Value of Patents: Finding the Appropriate Balance Between the Rights of the Inventor and the Advancement of Society

SUBMITTED TO

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AND

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FOR

SENIOR THESIS

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Abstract

Property rights are the backbone of Western Civilization. Capitalism can only be successful if individuals feel secure about the ownership of their assets. Patents are the property rights granted to the inventor by the government. Without these rights, inventors will find it extremely difficult monetizing their contributions to society. Thus, in an effort to incentivize innovation and commit society to human progress, our Founding Fathers built our country on a strong set of intellectual property rights.

At the same time, nothing impedes innovation like a monopoly and, in essence, all a patent amounts to is a monopoly, the right to exclude others from monetizing a specific innovation over an extended period of time. Hence, at the margin, patents increase the incentive to create new patentable knowledge, while simultaneously also stifling the dissemination of that knowledge. A good patent system strikes the right balance between innovation and a government-granted, anti-competitive monopoly.

After a 20-year period of an unprecedentedly pro-patent environment in the United States, the value of patents has never been higher. Patents, as opposed to their intended use of incentivizing innovation, are now seen as a form of protection against litigation, and also a weapon to litigate patent infringements to extract license fees and royalty payments from companies who are supposedly in violation of these patents. The pendulum has swung, and patents are now stifling innovation to an extent not conceived of by our Founding Fathers. This thesis will explore the reasons for the extreme increase in the value of patents over the years and will attempt to propose a plan of action to swing the pendulum back where our Founding Fathers originally intended it to be.

Introduction and Current Issues

A patent is simply a property right, an intellectual property right, which gives its owner the right to exclude others from the commercial exploitation of an invention for a period of 20 years from its public disclosure.[1] Property rights are the crux of Western civilization and the most fundamental component of our capitalist society. Our Founding Fathers were staunch advocates of property rights. John Adams famously stated, "property is surely a right of mankind as real as liberty." Samuel Adams expressed a similar sentiment with his belief that, "among the natural rights of the colonists are these: first a right to life, secondly to liberty, and thirdly to property; together with the right to defend them in the best manner they can."

Why do the men who founded our country think of property rights in the same vein as the right to life and liberty? The answer is that without property rights, we can call nothing truly our own. For example, buying a house is a significant investment; however, without property rights, this house could be taken from the owner by the government or any other individual without any reimbursement or explanation. This is an abrogation of our legal claim to the property and makes it far riskier to invest our hard earned dollars if we can't be sure we have lawful title to the house. The same analogy can be used for inventions. It takes a significant investment to create a new invention. One must put time, energy, effort, and significant capital into the development of a new idea. If no intellectual property rights existed, one could simply steal the idea of the inventor without any reimbursement or explanation. Intellectual property rights, specifically

[1] David E. Martin, and Jason O. Watson, "Patent Valuation: Is Fair Market Fair?", 1.

patents, allows inventors a legal claim to their ideas and provides them the opportunity to monetize their inventions, so they can receive an adequate return on their investment.

Patents have been around long before the birth of our country and have been an integral part of our capitalist economy since its inception. Patents have been instrumental in propelling the United States to unprecedented economic growth, establishing America as the preeminent world power. While, as we will soon examine, many disagree with the way the system currently works, there are few that would argue that patents aren't essential for the viability of capitalism and are a fundamental ingredient for innovation to occur.

With technology, software, and biochemistry becoming a larger and more critical part of our domestic and global economy, intangible assets make up a higher percentage of our equity markets then ever before. In the early 1980's, intangible assets accounted for 38% of the fair market value of the S&P 500, but by the turn of the century they were around 85%.[2] Some of the biggest corporations in the world are high-tech companies whose book values are often lower than 10% of their tangible assets.[3] This has led to an increase in the demand for patents. In the last 15 years, the amount of patents applied for worldwide has grown 214%[4]. Over that same time period the amount of patents applied for in the United States of America has grown 225%.[5] As of 2010, there are 2,017,318

[2] Juergan Daum, "The New FASB Rules for Reporting on Intangible Asset - The U.S. versus the European Way," *The New FASB Rules for Reporting on Intangible Asset*, Web, 10 Apr. 2012, <http://www.juergendaum.com/news/11_10_2001.htm>.

[3] Ibid

[4] "Total Number of patent applications by resident and non-resident (1985-2010)," WIPPO Statistical Database, 2011, Mar. 28, 2011

[5] Ibid

patents being enforced in the United States alone.[6] This means that at least one patent is being enforced in the U.S. for every one hundred and fifty U.S. citizens.

Growth in the patent market is largely attributable to the increased valuations assigned to patents in this new information technology age. For example, Google recently bought Motorola Mobility for $12 billion, with nearly $4.5 billion of the purchase price allocated to their patents.[7] Robert Willens, a New York accounting and tax expert surmised that, "the $12.5 billion deal will include $3 billion in goodwill, or the value Google expects to generate from Motorola Mobility's brand, know-how and other intangibles, not including the patents." [8] As such, the only way to determine the value of the patents, since Google acquired the entire company rather than just the patents, was to utilize the income appraisal method, which allocates the acquisition value of the intangible assets between patents and goodwill. The process requires having an appraiser, who is hired by the acquiring company and who is not personally liable for its valuation, subjectively estimating the cash flows these patents (many of them still underdeveloped) might generate from royalties and license fees for a period up to 20 years. The growth rate and discount rate used in this model are not subject to any standardized rules or procedures and are also not audited. While the income approach can be a useful way to measure the value of a patent, the appraisal process is hardly one that should garner a great deal of faith in the assigned value of the patents on the books of Google. Although the valuation of these patents may be exaggerated due to a lack of rigor and

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[6] Ibid

[7] Lynnley Browning and Nanette Rnes, "Motorola Deal Offers Google Tax, Patent Benefits," *Reuters*, Thomson Reuters, 31 Aug. 2011, Web, 10 Apr. 2012, <http://www.reuters.com/article/2011/08/31/us-motorolamobility-google-tax-idUSTRE77U1QX20110831>.

[8] Ibid

standardization in the appraisal process, the astronomical price for Motorola's patents can also be attributable to favorable legislation, court rulings, tax incentives, Financial Accounting Standards Board (FASB) reporting standards, and, generally, very friendly polices of our government and legal system toward patents. The value of Motorola's patents to Google is greatly enhanced because it protects Google's inventions from being infringed upon by its competitors and insulates Google from litigation by other companies claiming that Google has infringed or violated their patents. Because of government favored tax breaks for those who acquire and develop patents, inventors are even further incentivized to use their patents to consolidate a strong market position among their competitors, further increasing the value of their patents. In addition, the FASB rules allow companies to show huge asset accounts for acquired patents on their financial statements.

The United States' strongly pro-patent legal system encourages many other uses for patents not foreseen by the creators of the system. The more than 300,000 patents granted annually are currently being used not only to develop the technology covered by the patents, but are also used to provide new revenue streams through cross licensing or the sale of patents.[9] Through litigation, patent holders are extracting royalty payments in infringement cases, while attempting to prevent competitors from doing the same to them. Companies, like Google, are utilizing patents in the courtroom to keep smaller competitors from entering their markets. The use of patents are increasingly less about

[9] "U.S. GAO - Patents: Information about the Publication Provisions of the American Inventors Protection Act," *U.S. Government Accountability Office (U.S. GAO)*. 20 May 2004, Web, 23 Apr. 2012, <http://www.gao.gov/products/GAO-04-603>.

having a terrific idea and developing that idea into a great product, but now more about the huge financial settlements that can be won in the courtroom. In addition to taking advantage of an easily manipulated appraisal process for acquiring and selling patents to embellish the balance sheets and distort the book value of these companies, patent holders are also taking advantage of the generous tax deductions achieved from unrealistic patent valuations and, therefore, decreasing our country's tax revenue when we need it most.[10]

The foregoing leads to a conundrum inherent in patents. Since patents are simply legal monopolies on inventions or innovations for their inventors, they give patent holders the power to extract profits from other innovators using the technology covered by their patents, giving these other inventors less economic rationale to further innovate and compete in the marketplace. This suggests that stronger patent rights may stifle innovation by giving too much monopoly power to existing patent holders.

All of this suggests that patents are now being used in a variety of ways that were never intended. For example, in the mobile phone and wireless industry, the value of patents are wildly inflated because companies are engaging in litigation to extract license fees or royalties from their competitors or to protect their own revenue streams from companies who might assert a patent infringement case against them. At the root of the problem are companies, such as InterDigital, Inc. (IDCC), that are engaged in the development of patents in the mobile wireless industry. IDCC is coercing significant industry players, such as Samsung, Nokia and Qualcomm, to pay license fees for use of

[10] David E Martin, and Jason O. Watson, "Patent Valuation: Is Fair Market Fair?", 2.

the technology covered by its patents, despite never intending to bring it to market. IDCC will not hesitate to litigate if it's not remunerated for its patent claims. IDCC is making millions from its patents, not by developing its own technologies but by bringing lawsuits against companies who infringe on their patents. This is quite profitable, as the average cost of defending a patent is well in excess of $3 million, causing many companies to settle these lawsuits for significant sums of money.[11]

There are, however, arguments for and against companies such as IDCC, commonly referred to in the industry as patent trolls, who are one of a growing number of firms engaged in these practices. Those who think patent trolls serve a useful role in society make the following argument:

> "A patent confers no positive rights, only negative or exclusionary rights, giving patentees only the right to exclude others from using the patented invention. An essential value-component of a patent arises from the right to demand compensation under threat of litigation-based exclusion. Thus, a patent is merely a license to sue for infringement. A patent's value results from its granted monopoly and depends on a patentee's willingness and ability to enforce the patent. A failure to enforce is equivalent to a valueless patent. The value of a patent, as a monopoly, is related purely to its enforceability as opposed to the technology it protects."[12]

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[11] Jerry Mills, "Patent Litigation Cost Information. How Much Does It Cost to Protect a Patent?" *Baker & Botts L.L.P.*, 14 Aug. 2006, Web, 11 Apr. 2012, <http://www.inventionstatistics.com/Patent_Litigation_Costs.html>.

[12] Travis Burchart, "Your Good Will Hunting Moment: Arguing for the Non-Practicing Entity or against the Patent Troll," *LexisNexis*, Web, 22 Apr. 2012,

The counter-argument offered by the majority of inventors and academics in the field is as follows:

> "Patents exist as an incentive to encourage innovation, which in turn favors economic prosperity. They do not provide individual rights worth a monetary value but, instead, are a government creation to foster economic development. Patent trolls purchase patented technology, rather than create it, which means they are not protecting their own innovations. Thus, patent trolls do not support the reasons behind patent creation - encouraging economic growth by encouraging innovation and fostering the introduction of new products into the market. Patent trolls make a business out of suing or threatening to sue and offer neither products nor technology development."[13]

Article 1 section 2 of the United States constitution clearly states that the goal of the patent system is, "to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries," not to promote litigation to reward lawyers and litigants by taking advantage of a tool provided by our Founding Fathers to inventors and innovators to provide them with a protected method of turning their ideas into marketable products. In large part because of the success of patent trolls, patents are highly valued and companies will pay princely sums to utilize them as offensive weapons in litigation, essentially placing a tax on all of those who are attempting to use the patents in the manner they

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<http://www.lexisnexis.com/community/patentlaw/blogs/patentlawblog/archive/2011/08/22/your-good-will-hunting-moment_3a00_-arguing-for-the-non_2d00_practicing-entity-or-against-the-patent-troll.aspx>.

[13] Ibid

were originally intended. Even if the claim is baseless, which they oftentimes are, the legal fees alone are enough to put a small company out of business. Many believe that the original purpose of patents, to promote the public good and to encourage innovation, has been compromised, and, instead, is beginning to have the opposite of their intended effect: stifling innovation rather than incentivizing it.

The answer to this dilemma is not entirely clear. A favorable environment for patent development allows inventors and companies to realize high returns on their R&D costs, providing them a monetary rationale to risk the sizeable upfront costs for their inventions. At the same time, a strong patent rights system can also encourage a proliferation of patents, creating a multitude of powerful monopolies that can keep other smaller companies from entering their markets. It also can perversely incentivize individuals to create patents not to advance their innovations in the marketplace, but simply to use as offensive legal weapons in infringement cases. One way to confront the issue is to reform the system to valuate patents more accurately to reflect their actual fair market value. Considering that 95% of all patents are never fully exploited and have no appreciable business value, and less then 1% of patents are actually litigated, the odds are that we are artificially inflating patents to account for activity that has no real economic value.[14] Determining the value of a patent is highly subjective and may have no bearing on its economic value.

By examining the history, statutory law, GAAP accounting standards, and tax incentives pertaining to patents, this paper will attempt to highlight the problems in our

[14] David E. Martin, and Jason O. Watson, "Patent Valuation: Is Fair Market Fair?" 5.

patent system that are responsible for the astronomical valuations assigned to patents. It will then provide suggestions for reforming our current patent system, bringing about many benefits, such as more accurately displaying the true value of a company on its books, eliminating some of the overly generous tax benefits which minimize badly needed tax revenue for the US, and maximizing the benefits of a patent system that incentivizes innovation and encourages risk-taking and entrepreneurship.

Chapter 1: History

There is some evidence to suggest the history of the patent dates as far back as ancient Greece. In 500 BC, in the Greek city of Sybaris, "encouragement was held out to all who should discover any new refinement in luxury, the profits arising from which were secured to the inventor by patent for the space of a year."[15] There are also accounts of patents being used in the medieval ages, when exclusive rights were granted as a means of generating revenue without taxation.[16] Like much from this time period, documentation was poor, so many consider these claims to be nebulous at best and fraudulent at worst. The first recorded patent was granted to John of Utynam in 1449, giving him a twenty-year monopoly for a glass-making process that had been previously unknown in England.[17]

The Republic of Venice established the first documented patent laws in 1474, making patents a formal means of granting monopolies.[18] These laws formed the basis of modern patent law, as they stipulated that inventions had to be novel and useful.[19] The inventor had exclusive rights for only a limited period of time, and the infringer would be held accountable for damages caused by their infringement.[20] The decree stated: "all new and inventive devices, once put into practice, had to be revealed to the Republic in order

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[15] Charles Anthon, A Classical Dictionary: 1841, page 1273.

[16] "A Brief History of the Patent Law of the United States." *A History of the Patent Law of the United States*, 28 Mar. 2011, Web, 10 Apr. 2012, <http://www.ladas.com/Patents/USPatentHistory.html>.

[17] "Science Thomsonreuters.com," *The History of Patents*, Web, 11 Apr. 2012, <http://ip-science.thomsonreuters.com/support/patents/patinf/patentfaqs/history/>.

[18] "U.S. Patents – A Brief Hirtory," The Business of Patents, 2011, Mar. 28. 2011, http://www.the-business-of-patents.com/us-patents.html

[19] "History of Patents," IP Legal Services, Mar. 28, 2011, http://www.ipprocurement.com/intellectual_property/patents_history.html

[20] Ibid

to obtain the right to prevent others from using them."[21] In 1594, Galileo was granted a patent for a pump after having several other patent applications declined.[22] It is important to note that earliest iterations of patent law did not cover processes, such as curing meat, but simply were used to protect devices like Galileo's pump from other inventors.

England passed the "Statute of Monopolies" in 1624, in response to the abusive practice by monarchs of granting monopolies of certain industries to skilled individuals.[23] This was seen as a way to ensure a high level of production and to increase revenues without enacting unpopular taxes on the general public.[24] Over time, the monarch's practices became more problematic; instead of temporary monopolies on specific imported industries, long-term monopolies took root over more common commodities, including salt and starch.[25] Hence, the statute repealed all past and future patents on monopolies, except those that were granted to new and novel inventions.[26] The statute was the first to define that an invention had to be new in order to receive a patent. The statute gave patents an enforceable life of 14 years. It gave life to a number of new provisions, as stated in section 6 of the Statute of Monopolies:

> "Shall not extend to any letters patents (b) and grants of privilege for the term of fourteen years or under, hereafter to be made, of the sole working

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[21] Mary Bellis. "Patent Law," *About.com Inventors*, Web, 11 Apr. 2012, <http://inventors.about.com/od/patentattorneys/a/patent_law.htm>.

[22] "The Galileo Project | Science | Pump," *The Galileo Project*, 1995, Web, 11 Apr. 2012, <http://galileo.rice.edu/sci/instruments/pump.html>.

[23] Justine Pila (2001), "The common law invention in its original form", Intellectual Property Quarterly (Sweet & Maxwell), 212.

[24] George Ramsey (1936), "The Historical Background of Patents," Journal of the Patent Office Society (Patent and Trademark Office Society), 7.

[25] Justine Pila, "The common law invention in its original form," 213.

[26] G.A Bloxam (1957), "Letters Patent for Inventions: Their Use and Misuse", The Journal of Industrial Economics (Wiley & Sons), 157.

> or making of any manner of new manufactures within this realm (c) to the true and first inventor (d) and inventors of such manufactures, which others at the time of making such letters patents and grants shall not use (e), so as also they be not contrary to the law nor mischievous to the state by raising prices of commodities at home, or hurt of trade, or generally inconvenient (f): the same fourteen years to be accounted from the date of the first letters patents or grant of such privilege hereafter to be made, but that the same shall be of such force as they should be if this act had never been made, and of none other."

The State of Monopolies Act was one of the first laws that codified the use of patents for the benefit of society and was as a major factor in the shift from a feudal system to capitalism. It formed the basis of our modern western patent legal system. Its main purpose was to encourage and incentivize new inventions.

In 1791 the French Revolution led to the creation of patent law in France. The law was based on the ideology that patents were the natural rights of the inventor, and should be granted without examination.[27] As stated in Section 1 of the French Law of 1791, "all new discoveries are the property of the author; to assure the inventor the property and temporary enjoyment of his discovery, there shall be delivered to him a patent for five,

[27] Zorina B. Khan, "An Economic History of Patent Institutions", EH.net, 2010, http://eh.net/encyclopedia/article/khan.patents (accessed March 28, 2011)

ten or fifteen years."[28] The French system put more emphasis on the inventor, as opposed to the English system, which placed more emphasis on society.

Less then 100 years later the industrial revolution led to the creation of an international patent system. Under the Paris Convention, an applicant can file a patent application in any of the Paris Convention member countries within one year of the filing of the first filed patent application.[29] As of 2011, 174 countries have signed the convention. [30]

The United States Constitution was written during the industrial revolution. Mindful of the pro-patent environment in Europe, our Founding Fathers felt the only way for our young country to compete with foreign powers was to provide strong incentives for innovation. The Founding Fathers developed a system somewhere in between the English pro-society model and the French pro-inventor model. American patent law was founded on the belief that the patent system is a contract between the inventor and society at large. The Constitution famously states that patents should, "promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." This pro-patent sentiment permeated throughout much of the late 18th and 19th century. [31]

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[28] "Intellectual Property- Its Meaning and Development in India," *Intellectual Property Law*, Web, 11 Apr. 2012, <http://www.ccjer.org/intellectual-property-its-meaning-and-development-in-india.html>.

[29] "Paris Convention," *United States Patent and Trademark Office*, Web, 1 Apr. 2012, <http://www.uspto.gov/web/offices/pac/mpep/documents/appxp_4.htm>.

[30] "Contracting Parties > Paris Convention (Total Contracting Parties : 174)", World Intellectual Property Organization (WIPO). Retrieved April 1, 2012.

[31] "A Brief History of the Patent Law of the United States"

Shortly after the Constitution was drafted, George Washington signed the first U.S. Patent Act. This Act granted to the Secretary of State, the Secretary of War, and the Attorney General the power to grant patents. The Act gave exclusive rights to new, useful, and important inventions, stating that inventions "not before known or used" and "sufficiently useful and important" were entitled to a patent. The law also gave patents an enforceable life of 14 years and required inventors to disclose their findings before being granted a patent. In the original Act, an invention that had been used by the public was not patentable. This stipulation was amended soon after, allowing a significant grace period.[32]

Just three years later, Thomas Jefferson amended the Act to include the definition of patents that we use today, "any new and useful art, machine, manufacture or composition of matter and any new and useful improvement on any art, machine, manufacture or composition of matter." The 1793 Act required that a short description be filed with the application, as well as a written description of the, "invention and of the manner of using or process of compounding the same in such full, clear, and exact terms, as to distinguish the same from all other things before known and to enable any person skilled in the art or science of which it is a part, or with which it is most nearly connected, to make, compound and use the same." The Act also clearly stated that a patented improvement to an existing patent did not give the patent holder rights to the patent that the improvements were based on and vise versa. These rights, initially, were

[32] "U.S. Patents – A Brief History"

only granted to U.S. citizens. In 1800, the 1793 Patent Act was extended to all foreigners who had lived in the United States for at least two years.[33]

In the first 90 years of the 19th century, there were many pro-patent amendments to the Patent Act, as public sentiment regarding patents was extremely favorable. In 1829, the Supreme Court held in *Bedford v. Hunt* that, "between two parties claiming to be the first to invent a particular invention, the patent should be granted to the first to reduce it to practice."[34] Shortly thereafter in 1832, a landmark Supreme Court case, *Grant v. Raymond*, determined that an adequate defense to patent infringement was failure to provide an adequate description of the invention.[35]

In 1839, the Patent Act of 1793 went through a dramatic overhaul in response to the concerns that many patents were granted to inventions that weren't novel. The Patent Act was amended, making it necessary for an inventor to, "particularly specify and point out the part, improvement or combination, which he claims as his own invention or discovery." This revision also established the Patent Office as part of the State Department (it was later moved to the Department of the Interior) and removed all limitations on nationality or residence. In 1839, a grace period of two years was granted to patent holders, and just three years later in 1842, a statute was amended to allow inventions that contain "any new and original design for a manufacture or for printing on a fabric" to be patented. [36]

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[33] "A Brief History of the Patent Law of the United States"
[34] Bedford v. Hunt, 3 F. Cas. 37 (C.C. Mass. 1817)
[35] "A Brief History of the Patent Law of the United States"
[36] Ibid

In 1850, another landmark Supreme Court case, *Hotchkiss V. Greenwood*, determined that an invention must be non-obvious to be patentable. The reasoning behind the decision was that "unless more ingenuity and skill (is applied in the new invention) than were possessed by an ordinary mechanic acquainted with the business, there was an absence of that degree of skill and ingenuity which constitute essential elements of every invention." In 1870, the length of enforcement of patents was extended to 20 years. The United States officially joined the Paris Convention in 1887.[37]

With the economy humming and the industrial revolution booming, patents were very popular and treated very favorably by government, but times were changing. The economy took a turn in the late 19th century, and many blamed big business for playing a role in that. The Sherman Anti-Trust Act was passed in 1890, in response to the anti-competitive practices of the powerful monopolies that were in existence during this time.[38] Patents began to be viewed as tools for powerful vested interests to create monopolies to help big businesses keep small businesses from effectively competing with them. Public perception towards patents began to turn sour.[39] This sentiment was shared in the courts, as more patents than ever were invalidated. In 1893, appeals from the Patent Office were transferred to the newly formed Court of Appeals. It was also determined in this decade that if a foreign patent already existed, an application for a domestic patent for the same invention could be filed if it was done within seven months of the invention,

[37] Ibid
[38] "A Brief History of the Patent Law of the United States"
[39] "U.S. Patents – A Brief History"

and the invention covered by the foreign patent did not originally take place in the United States. [40]

The following century saw an interesting dynamic play out between antitrust laws and the patent system. In 1925, the Patent Office was transferred to the Department of Commerce, and in 1929, the Appellate Review Division of the Patent Office was assigned to the Court of Customs and Patent Appeals. The 1930's and early 40's were the years of the Great Depression and with the economy in precarious health; once again there was a groundswell of ill-feeling toward patents. The courts were ruling against protecting patents for their owners, culminating in the 1941 Supreme Court case, *Cuno Engineering v. Automatic Devices Corporation*, in which it was decided that an invention must "reveal the flash of creative genius not merely the skill of the calling" to be patentable. The two-year grace period was reduced to one year. [41]

1952 was a landmark year for the United States Patent System, as the basic structure for modern patent law as we know it today was developed. In this new system, a patent had only to be non-obvious to ensure that decisions such as *Cuno Engineering v. Automatic Devices Corporation* would not be necessary in the future. The codification also included a definition of infringement, which up until this point had been left to the discretion of the courts. Other changes included relaxing the rules for joint investors to apply for patents, clarifying that a process could indeed be patented, requiring inventors to describe their invention and the basis for any infringement, and banning patents from being partially invalidated. In 1954, patent law was amended "to allow patents for plants

[40] "A Brief History of the Patent Law of the United States."
[41] "A Brief History of the Patent Law of the United States"

that made it clear that cultivated sports, mutants, hybrids and newly found seedlings were patentable." [42]

Pessimism towards the patent system returned in the 1970's as the economy struggled with inflation. This period was marked by strong antitrust enforcement. In 1971, the Supreme Court found that if a patent was held to be invalid after full and fair litigation that finding could be used as a defense in subsequent litigation with respect to that patent even if the parties differed.[43]

The 1980's brought the principles and ideas of Ronald Reagan and the Chicago School of Economics to the forefront, and a friendlier environment toward big business permeated throughout the country. Anti-Trust regulation took a back seat and pro-patent sentiment was in vogue.[44] During this time the Court of Appeals for the Federal Circuit was established in large part to alleviate the lack of consistency in patent cases in the different regional circuits. [45] During the 1970's there was a growing feeling that certain circuits were anti-patent and others pro-patent, so this new court put an end to forum shopping on the matter of patents. The new Court of Appeals, however, had a pro-patent bias, as evidenced by most of its rulings. For example, the new court established that a patent should be presumed valid, unless anyone challenging the validity of a patent could provide clear and convincing evidence to the contrary. This is in contrast to how most civil cases work, where an opposing party must simply establish his case on the balance of probabilities. In 1980, the Supreme Court upheld the patentability of genetically

[42] Ibid
[43] Ibid
[44] "A Brief History of the Patent Law of the United States"
[45] "U.S. Patents – A Brief History"

modified bacterium by declaring, "anything made by man under the sun" should be patentable. Two years later, design patents were increased to 14 years. [46]

In 1994, the TRIPS Agreement was signed by more then 100 nations establishing, for the first time, an international protection regime for intellectual property rights.[47] One of the biggest issues of the 80's and 90's was whether or not software could be patented. The technological boom was just beginning, and tech companies believed their software needed to be patented.[48] The Supreme Court in prior cases had ruled against allowing software to be patentable, as it was thought of as consisting simply of mathematic algorithms, but, in 1981, the Supreme Court opened the door for software products to receive patents when it held that it is possible to obtain a patent for a process that incorporates a computer program. In the 1998 landmark case, *State Street Bank v. Signature Financial*, the Supreme Court ruled that a business method could be patentable if it met all of the criteria laid out for other patentable inventions. [49]

The Leahy Smith America's Invest Act (AIA) was passed by congress and signed into law by President Barack Obama on September 16, 2011. This bill shifts the recognition of patents from a "first-to-invent system" to a "first-to-file system".[50] Prior to this bill the United States was the only major industrialized nation that awarded patents to those who could prove they invented something before someone else's patent was filed. As a result, the U.S. patent system was bogged down by legal disputes and delays as

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[46] "A Brief History of the Patent Law of the United States"
[47] Ibid
[48] "U.S. Patents – A Brief History"
[49] "A Brief History of the Patent Law of the United States"
[50] Chris Dixon, "Summary of New Patent Bill (America Invents Act)," *Summary of New Patent Bill (America Invents Act)* -, 16 Sept. 2011, Web, 10 Apr. 2012, <http://cdixon.org/2011/09/16/summary-of-new-patent-bill-america-invests-act/>.

courts attempted to determine who created an invention first.[51]

The Bill also allows third parties to challenge patents before and after they are granted. This is intended to reduce the post-grant court battles, as it makes it more likely that only higher-quality patents will emerge from the USPTO review process.[52] There will be a nine-month window for challenging a patent on any ground. Review may be granted upon a showing that it is more likely than not that at least one of the challenged claims is unpatentable.

> "The new post-grant review provisions (codified at 35 U.S.C. §§ 321-329) are instituted by petition to the Director by any person "not the patent owner". Post grant reviews cannot be filed anonymously. Post-grant review can be based on an allegation that at least one claim is invalid under any of the provisions of 35 U.S.C. § 282(b) ("Invalidity of the patent or any claim in suit on any ground specified in part II of [Title 35] as a condition for patentability, or . . . Invalidity of the patent or any claim in suit for failure to comply with any requirement of sections 112 or 251 of this title") and should be cancelled (§ 321(b)). A petition under the post-grant review provisions of the statute must be filed within 9 months of the patent grant or issuance of a reissue patent (§ 321(c))." [53]

After the window of post-grant review has passed, patents may be challenged on the basis of patents or printed publications only. Under a new transitional post-grant review

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[51] David Goldman, "Want More Jobs? Fix the Broken Patent System," *CNNMoney*, Cable News Network, 21 June 2010, Web, 10 Apr. 2012, <http://money.cnn.com/2011/06/24/technology/patent_reform_bill/index.htm>.

[52] Ibid

[53] "Patent Docs," *: AIA Overview: Post-grant Review Provisions*, 20 Oct. 2011, Web, 10 Apr. 2012, <http://www.patentdocs.org/2011/10/aia-overview-post-grant-review-provisions.html>.

process that applies to certain business-method patents, only parties who have been sued for infringement or otherwise charged with infringement (the recipient of a cease-and-desist letter, for example), may petition for review.[54] The bill allows the Patent Office to set its own fees, making it cheaper for smaller companies to file and more expensive for larger companies or those seeking more complex patents. This move helps the office raise the revenue it needs to hire the staff necessary to reduce its long backlog.[55]

As discussed previously in the introduction and as we will soon examine, the environment for patents is extremely favorable. More types of inventions are patentable than ever before. Patents have a legal life of 20 years, and the courts now enforce patent infringement cases more vigorously than they did in the past. As we will soon see, financial and tax accounting for patents has also been very favorable, providing additional incentives for inventors to innovate. But if history has told us anything, the tides will turn, and with the economy in disarray since 2008, the patent system has already begun to find itself under fire again. With the bidding frenzy for patents as evidenced recently with Google's acquisition of Motorola, leading to extremely high prices for patents, it might be prudent to ask if the pendulum has swung too far in favor of patents, as the sheer numbers of patents that have been recently approved is creating a plethora of government-granted monopolies that actually stifle innovation. The AIA Bill may be the start of a complete overhaul of our patent system to meet the needs of a fast-paced, technology-driven society in the 21st century.

[54] Chris Dixon, "Summary of New Patent Bill (America Invents Act)"
[55] David Goldman, "Want More Jobs? Fix the Broken Patent System."

Chapter 2: Patent Law

The United States Constitution is the framework for the all the laws enacted by Congress. Under our system, any law deemed unconstitutional can be invalidated in a court of law. In Article I, Section 8 of the United States Constitution, authorization of the patent system is given to Congress, stating: "Congress is [t] o promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." Congress lays out the provisions of patent law in Title 35 of the United States Code (U.S.C.). With the authority it is given from this constitutional provision, Congress created the United States Patent and Trademark Office (USPTO) as an agency of the U.S. Department of Commerce "to grant patents for the protection of inventions and to register trademarks and advise on issues pertaining to intellectual property rights."[56] A patent is currently defined by the USPTO as an intellectual property right granted by the Government of the United States of America to an inventor, giving him the right "to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States for a limited time in exchange for public disclosure of the invention when the patent is granted."[57]

Section 101 of Title 35 defines what is patentable as, "whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the

[56] "General Information Concerning Patents," *United States Patent and Trademark Office*, Nov. 2011, Web, 10 Apr. 2012, <http://www.uspto.gov/patents/resources/general_info_concerning_patents.jsp>.
[57] Ibid

conditions and requirements of this title. Usefulness in this connection refers to the condition that the subject matter has a useful purpose and also includes operativeness, that is, a machine that will not operate to perform the intended purpose would not be called useful, and therefore would not be granted a patent."

Title 35 section 102 states that patents are only issuable to inventions that are novel and not obvious. It states if, "(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent," or "(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country more than one year prior to the application for patent in the United States, it is not patentable." As the language suggests, an item qualifies as novel if it is new or unusual in an interesting way. According to title 35 section 103, items are deemed to be not obvious if a person having ordinary skill in the art would not be able to conceive of the innovation independently.

Inventions can fit into three different patent categories: "utility patents, which may be granted to anyone who invents or discovers any new and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof; design patents, which may be granted to anyone who invents a new, original, and ornamental design for an article of manufacture; and plant patents, which may be granted to anyone who invents or discovers and asexually reproduces any distinct and new

variety of plant."[58] As stated in the previous chapter, an important development occurred in the patentability of software in 1981, when the U.S. Supreme Court made it possible to obtain a patent for a process that incorporates a computer program.[59] In the past, the software industry had a difficult time patenting ideas because they couldn't meet the novel and non-obvious guidelines, and, as a consequence, software was considered to be too abstract an idea to be patentable.[60] In 1998, another landmark Supreme Court case made it legal to patent business processes, although this was extremely challenging to defend in infringement cases.[61]

The requirements for patents are broad, allowing nearly anything to be patented except the laws of nature, natural phenomena, and abstract ideas. Section 102 of U.S.C. 35 explains the circumstances in which a patent should not be granted:

> "A person shall be entitled to a patent unless,
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

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[58] "Patents," *United States Patent and Trademark Office*, 26 Jan. 2012, Web, 11 Apr. 2012, <http://www.uspto.gov/patents/index.jsp>.

[59] Kenneth W Clarkson, Roger LeRoy Miller and Frank B Cross, *Business Law Text and Cases,* Twelfth Ed. Mason: South – Western Cengage Learning, 160.

[60] Ibid, 160

[61] Ibid, 161

(c) he has abandoned the invention, or

(d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States, or

(e) the invention was described in - (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language; or

(f) he did not himself invent the subject matter sought to be patented, or

(g)(1) during the course of an interference conducted under section 135 or section 291, another inventor involved therein establishes, to the extent permitted in section 104, that before such person's invention thereof the invention was made by such other inventor and not abandoned, suppressed, or concealed, or (2) before such person's invention thereof, the invention

> was made in this country by another inventor who had not abandoned, suppressed, or concealed it. In determining priority of invention under this subsection, there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other."

The patent application must include a description of how the invention works. In order to ensure that full disclosure is met, the inventor, if relevant, must provide models, drawings, and take an oath. Descriptions must be clear and not open-ended. The first paragraph of 35 U.S.C Section 112 describes these requirements:

> "The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention."

When determining if a patent is patentable, the burden of proof lies with the patent office, not the person registering the patent.[62] Thus, the period in which a patent is

[62] "Patent Examination – USPTO," *PageBox*, Web, 11 Apr. 2012, <http://pagebox.net/exam1.html>.

defendable begins on the date the application is filed. Pursuant to section 154 of U.S.C. 35, patents granted for inventions are protected for 20 years from the date of filing or 17 years from the issue date (the longer term applying), while section 365 of U.S.C 35 asserts that patents granted for design are protected for 14 years. A year after the protection period has ended, the patent is dissolved and the item protected by the patent enters the public domain. Historically, patents were granted to the first person to invent the item, not the first person to register that item. Due to the Leahy-Smith America Invents Act (AIA), this will change on March 16, 2013, when the first to file will be awarded patents over the first person to invent.[63]

With the explosion of patents in recent years, the United States Patent Office is currently processing over 300,000 patent applications annually.[64] This has increased the amount of time it takes to review a patent application. The pendency or application period has increased from 20.8 months in 1996 to 26.6 months in 2003.[65] Patents aren't free for inventors, and the fees associated with applying for a patent are substantial. The government brought in nearly $1.15 billion in 2001 from patent fees alone.[66]

Patent law is mostly determined by case law, meaning that the rulings in prior cases determine the scope of protection enjoyed by patents. Patent cases are heard in federal court, and the appeals process is heard in the Court of Appeals for the Federal Circuit. The Supreme Court is the highest court, and all the lower courts must follow its

[63] Chris Dixon, "Summary of New Patent Bill (America Invents Act)"
[64] David E Martin, and Jason O. Watson, "Patent Valuation: Is Fair Market Fair?", 2.
[65] Ibid 2
[66] Ibid 2

rulings.[67]

A patent is an exclusionary right, since a patent's value to its holder is the right to exclude others from making, using or selling his idea. As stated in 35 U.S.C. 271, patent infringement occurs when anyone, "…without authority makes, uses, offers to sell, or sells any patented invention, within the United States, or imports into the United States any patented invention during the term of the patent therefore, infringes the patent." Patent infringement is protected under tort law, which is designed to compensate those who have been subject to wrongful acts.[68] Patent infringement can occur even if the patented asset hasn't been put into commerce and/or not all features or parts of the product are copied or infringed upon.[69]

A patent holder can request damages resulting from lost royalties, profits, injunctions, and, in some cases, the reimbursement of attorney's fees from the infringer.[70] If the court determines that the infringement was willful, (premeditated and intentional), the court can triple the amount of damages awarded to the plaintiff.[71] In 2006, the United States Supreme Court ruled that patent holders were not entitled to permanent injunction against future infringement, unless a patent holder can prove that it has suffered irreparable injury and the public interest would be served by the granting of a permanent injunction.[72] This ruling gave more discretion to the courts. According to section 154 of U.S.C. 35, a patent holder is only eligible to receive damages if they can prove that the

[67] "A Brief History of the Patent Law of the United States", 116.
[68] Kenneth W. Clarkson, Roger LeRoy Miller and Frank B Cross, *Business Law Text and Cases,* Twelfth Ed. Mason: South – Western Cengage Learning, 28.
[69] Ibid, 161
[70] Ibid, 161
[71] Ibid, 161
[72] Ibid, 161

infringing activities occurred after the publication of the patent application, the patented claims are substantially identical to the claims in the published application, and the infringer had "actual notice" of the published patent application. The burden of proof is on the defense in a patent infringement case. Typically a patent infringer's defense is through a counterattack in which the actual validity of the patent is questioned.

Nearly anything that is manmade is now patentable, so long as it is useful, non-obvious, and new. Patents are easily acquirable, as the payment of the fee and the filling of the description of the invention gives the patent holder the legal right to their invention even before it is deemed enforceable by the USPTO. Once the patent is sold and acquired by the new holder, it is an extremely powerful tool in litigation. If a patent is judged to have been infringed upon, the infringer can be liable for up to three times the value of damages and legal fees, and can receive an injunction to cease and desist from pursuing such activities and receiving any revenue related to that patent. Because of pro-patent legislation and court cases biased in favor of patent holders, an environment has ensued which is very hostile to the infringer, thus creating the circumstances that have allowed the value of patents to rise to levels never seen before.

Chapter 3: GAAP Accounting For Patents

The Financial Accounting Standards Board (FASB) promulgates the Generally Accepted Accounting Principles (GAAP), which compose the standards U.S. corporations must meet when reporting their financial statements. Under GAAP, patents are a sub-classification of intangible assets. Intangible assets are assets (not including financial assets) that lack physical substance. [73] Intangible assets fall into one of two categories: identifiable or unidentifiable. Identifiable intangible assets include patents, copyrights, trade names, trademarks, secret formulas, licenses, etc.[74] Unidentifiable intangible assets refer to goodwill, which is "an asset representing the future economic benefits arising from other assets acquired in a business combination or an acquisition by a not-for-profit entity that are not individually identified and separately recognized."[75] Intangible assets generally result from legal or contractual rights, which do not have physical substance. Intangible assets are extremely hard to value because there is a higher level of uncertainty regarding their future benefits, their value is subject to wide fluctuations and they typically have indeterminate lives.[76] Due to the challenges presented when valuing intangible assts, the financial accounting for them can be quite tricky. Investors looking at a set of financial statements may or may not see a value assigned to patents owned by a particular company. In some instances, the financial

[73] "Intangible Assets," *GASBB*, Web, 19 Apr. 2012, <http://www.gasb.org/cs/ContentServer?c=GASBContent_C&pagename=GASB%2FGASBContent_C%2FProjectPage&cid=1176156650414>.

[74] David E Martin, and Jason O. Watson, "Patent Valuation: Is Fair Market Fair?", 1.

[75] "350 Intangibles—Goodwill and Other 30 General Intangibles Other than Goodwill," Accounting Standards Codification, 2012, Mar. 25, 2012, https://asc.fasb.org/subtopic&trid=2144471&nav_type=left_nav&analyticsAssetName=_left_nav_subtopic

[76] Teresa Gordon, *Intangible Assets and Goodwill*, *Plant, Property & Equipment and Intangible Assets*, University of Idaho, Web, 1 Apr. 2012, 7.

statements reflect values associated with patents, and other times they do not. On other occasions, financial statements will exhibit the cost or value of patents as expensed or amortized, and, sometimes, they don't show either.[77]

There are two ways a company can obtain patents. They can either internally develop them or they can acquire the patent from an unrelated party. The two have vastly different effects on a company's balance sheet. [78] Included in the FASB codification is language that states the, "costs of internally developing, maintaining, or restoring intangible assets that are not specifically identifiable, that have indeterminate lives, or that are inherent in a continuing business or nonprofit activity and related to an entity as a whole, shall be recognized as an expense when incurred." [79] The associated costs incurred from internally developing a patent are considered to be research and development costs and are never included in the cost basis of the patent; instead, they are recorded as operating expenses when incurred. Accordingly, the research and development costs related to patents are an offset to income in the period when the costs were incurred. [80] The rationale for expensing rather than capitalizing these costs is that the uncertainty in identifying the extent and timing of the future benefits of these expenditures is mere guesswork. Hence, the research and development costs incurred in the development of patents, and all intangible assets for that matter, are not reflected as

[77] Nils Hùegh-Krohn, "Accounting for Intangible Assets in Scandinavia, the UK, the US, and by the IASC: Challenges and a Solution," *The International Journal of Accounting*, 248.

[78] "350 Intangibles—Goodwill and Other 30 General Intangibles Other than Goodwill,"

[79] Ibid

[80] Nils Hùegh-Krohn, "Accounting for Intangible Assets in Scandinavia, the UK, the US, and by the IASC: Challenges and a Solution", 243.

an asset on the balance sheet.[81]

In contrast to the research and development costs incurred in the process of developing a patent, the legal, documentation, and registration fees associated with a patent are carried as a capitalized intangible asset on the financial statement of a company and are amortized over the expected useful technological or economic life of the patent, which can't exceed the legal life of a patent (20 years). If the legal defense of a patent is unsuccessful, legal costs resulting from the litigation are expensed.[82] The rationale for capitalizing the legal costs for successfully defending a patent is the same as the rationale used to require the purchaser of a patent from an unrelated party to capitalize the cost of the patent. The price paid by a company for a patent is considered protection against future litigation arising from claims of infringement. The company has technically not acquired the technology, but has acquired the right to protect the patent from infringement. The legal costs incurred in the patent application process can be viewed much like an asset purchase. The patent is simply an asset, which has received protective rights against infringement from a national or regional patent office. Therefore, legal costs are considered similarly to acquiring a patent, as they are necessary to establish the validity of the patent; as such, they are capitalized once the patent has been granted. If the patent application is later rejected or abandoned, these legal costs are then expensed and written off. It is also necessary to periodically evaluate the patent for impairment. The capitalized costs for a patent must be written down to zero if it becomes

[81] Ibid

[82] "Accounting Principles I: Intangible Assets," *Get Homework Help with CliffsNotes Study Guides*, Web, 12 Apr. 2012, <http://www.cliffsnotes.com/study_guide/Intangible-Assets.topicArticleId-21081,articleId-21080.html>.

unenforceable due to obsolescence or failure to pay maintenance fees.

Appraising the patent is not necessary when patents are developed internally. However, patent valuations will be necessary in the event of a sale of the business, potential purchase of another business with self-developed patents, actual sale or purchase of a self-developed patent resulting from divorce actions, estate taxation, gifting, bankruptcy actions and/or tort actions, and enticing investors.[83]

If a patent is acquired, either independently or as a part of a group of assets acquired in the purchase of another company, the purchase price (cost allocated to the patent) is recorded as an intangible asset on the balance sheet of the purchasing company. It is then amortized at the lesser of the useful technical and economic life of the patent or the legal life of the patent, which is 20 years. According to the FASB's standards, "an intangible asset that is acquired either individually or with a group of other assets shall be recognized." [84]

For accounting purposes, a patent can either be acquired in a group, individually, through a business combination, or as a defensive asset. If patents are acquired individually or in a group, the codification language states that, "the cost of a group of assets acquired in a transaction other than a business combination or an acquisition by a not-for-profit entity shall be allocated to the individual assets acquired based on their

[83] "Patent Valuation from the CPA's Viewpoint," *Neifeld IP Law, PC, Patent Attorneys Located Near the US Patent Office*, 18 Apr. 2004, Web, 12 Apr. 2012, <http://www.neifeld.com/pubs/grutter041404patentcafe.htm>.

[84] "350 Intangibles—Goodwill and Other 30 General Intangibles Other than Goodwill"

relative fair values and shall not give rise to goodwill." [85] The FASB also states that,

> "Intangible assets that are acquired individually or with a group of assets in a transaction other than a business combination or an acquisition by a not-for-profit entity may meet asset recognition criteria in FASB Concepts Statement No. 5, Recognition and Measurement in Financial Statements of Business Enterprises (recognizing them as separate costs to be capitalized on the balance sheet and amortized over their useful or legal life), even though they do not meet either the contractual-legal criterion or the separability criterion (for example, specially-trained employees or a unique manufacturing process related to an acquired manufacturing plant). Such transactions commonly are bargained exchange transactions that are conducted at arm's length, which provides reliable evidence about the existence and fair value of those assets. Thus, those assets shall be recognized as intangible assets." [86]

When a patent is used as a defensive intangible asset (an intangible asset acquired without the intention of actively using the asset, but instead to hold (lock up) the asset to prevent others from obtaining access to the asset, other than an intangible asset that is used in research and development activities), it shall be accounted for as a separate unit of accounting. [87] "Such, a defensive intangible asset shall not be included as part of the cost of an entity's existing intangible asset(s)." [88] While buyers of defensive intangible

[85] Ibib
[86] "350 Intangibles—Goodwill and Other 30 General Intangibles Other than Goodwill"
[87] Ibid
[88] Ibid

assets have historically assigned little value to defensive intangibles assets, the guidance within SFAS 157 (ASC 820) and SFAS 141 (R) (ASC 805) requires the buyer to measure the defensive intangible asset at a fair value that considers the highest and best use of the asset. In essence, all patents that are acquired must be capitalized on the balance sheet at their fair market value and amortized over the shorter of either its useful or legal life.[89]

It should be noted that the International Financial Reporting Standards (IFRS) for patents are for the most part fairly similar to US GAAP accounting except for a few notable differences. For example, the R&D costs for both accounting methods with respect to internally generated patents are expensed in the early stages, but development costs are capitalized under IFRS when the patent has moved to a later development stage and is deemed to be economically viable.[90] There is an exception for certain software expenses which are expensed under IFRS, not unlike the treatment it would receive under US GAAP.[91] Patents that are acquired from other companies are capitalized at their fair market value under both systems and amortized over their useful economic lives.[92] The impairment or the writing down of the asset because its fair market value is deemed to be less than its book value is for the most part the same under both accounting methods; however, under IFRS an impairment charge can be reversed if the economic value of the asset has positively changed.[93] As to US GAAP, reversals of this kind would never be permitted.[94] Fortunately, the treatment of finite intangible assets, such as patents, has in

[89] Bryan Benoit, "Avoiding the Patent Storm," *Intellectual Asset Management*, 40.
[90] *Comparison between U.S. GAAP and International Financial Reporting Standards*, Rep. 1.2st ed. Grant Thornton LLP, 2008, 27.
[91] Ibid 27
[92] Ibid 28
[93] Ibid 29
[94] Ibid 27

most instances converged under the two accounting systems.

The most challenging aspect of accounting for patents is valuing what they are worth, and, therefore, the amount that should be capitalized on the balance sheet.[95] The FASB describes the rules pertaining to valuation as follows:

> "Assets are recognized based on their cost to the acquiring entity, which generally includes the transaction costs of the asset acquisition, and no gain or loss is recognized unless the fair value of noncash assets given as consideration differs from the assets' carrying amounts on the acquiring entity's books.
>
> Asset acquisitions in which the consideration given is cash are measured by the amount of cash paid, which generally includes the transaction costs of the asset acquisition. However, if the consideration given is not in the form of cash (that is, in the form of noncash assets, liabilities incurred, or equity interests issued), measurement is based on either the cost which shall be measured based on the fair value of the consideration given or the fair value of the assets (or net assets) acquired, whichever is more clearly evident and, thus, more reliably measurable.
>
> Acquiring assets in groups requires not only ascertaining the cost of the asset (or net asset) group but also allocating that cost to the individual assets (or individual assets and liabilities) that make up the

[95] "Proposed Statement of Financial Accounting Standards," *Www.fasb.org*, Financial Accounting Standards Board, 2009.

> group. The cost of such a group is determined using the concepts described in the preceding two paragraphs. The cost of a group of assets acquired in an asset acquisition shall be allocated to the individual assets acquired or liabilities assumed based on their relative fair values and shall not give rise to goodwill. The allocated cost of an asset that the entity does not intend to use or intends to use in a way that is not its highest and best use, such as a brand name, shall be determined based on its relative fair value." [96]

On June 30, 2001, SFAS 141 became the standard requirement used to account for acquisition transactions in the United States. Under these new standards, buyers are no longer able to account for transactions under any method other than the purchase method of accounting (recognizing acquired assets on the balance sheet at their fair market value). [97] As a result, it is now required that professional appraisers and valuation consultants determine the value of each of the assets purchased in a transaction, including patents. It is the buyer's responsibility to prepare a detailed report, which states the concluded value of each of the intangible assets acquired. The buyers must consult an appraiser and have an auditor review the final report to ensure that it is in compliance with GAAP. In regards to patents, these reports typically include information regarding the licensing agreements; comparable licensing transactions, expected future sales covered by patented technologies, and royalty rates. [98]

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[96] "Proposed Statement of Financial Accounting Standards," *Www.fasb.org*, Financial Accounting Standards Board, 2009.

[97] Bryan Benoit, "Avoiding the Patent Storm," *Intellectual Asset Management*, 38.

[98] Bryan Benoit, "Avoiding the Patent Storm," *Intellectual Asset Management*, 38.

The approaches appraisers mostly take to value patents are similar to those used by investment bankers when they value businesses. Appraisers will use what's known as the market approach, the income approach, and/or the cost approach to value patents. [99] The market approach is a relative valuation based on comparable intellectual property transactions. The income approach is an analysis of the premium profits or excess earnings associated with the intellectual property. Finally, the cost approach is an analysis of the cost to develop the intellectual property. [100] These methods have been defined by the FASB, IRS, SEC, and have held up through various challenges in the courts. Typically the cost approach is not widely used, because the estimated value of a patent far exceeds the cost of obtaining one. It is also extremely difficult to use the market approach, as the terms of intellectual property transactions are not typically disclosed to the public. [101] This leaves the income approach as the most relied upon method for valuing patents and most other intangible assets for that matter. There are several variations to the income approach, such as the profit-split method, return on asset method, excess operating profit method, relief from royalty method, and the comparative margin analysis.[102]

Under GAAP, the valuation process is broken down into three distinct steps: data collection, review and analysis, and reporting. Data collection typically includes interviews with company management and will focus on the different ways the acquired intangible assets will be used. [103] Under the income method, management typically

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[99] Bryan Benoit, "Avoiding the Patent Storm," *Intellectual Asset Management*, 40.
[100] Ibid 40
[101] Ibid 40
[102] Ibid 40
[103] Ibid, 40.

provides revenue forecasts by product line and an estimate of the percentage of product revenue that is assumed to be assigned to the patent portfolio. The revenue applicable to the patent is then discounted at a determined rate of return and its present value is the assumed value of the patent. This data is examined and reviewed by the appraisers who may revise and modify management's model. [104] A lawyer and auditor are generally present throughout this process. It is important to note that there is currently no one set of standards that are used when valuing a patent. As long as an appraiser and auditor sign off on the valuation, it is considered adequate.[105]

After the patent's useful life and value have been determined, it is included on the books at the close of the deal. The patent must be tested for impairment annually over the life of its amortization schedule and must be written down if found to be impaired. [106] The FASB Standards Codification states:

> "An intangible asset that is subject to amortization shall be reviewed for impairment in accordance with the Impairment or Disposal of Long-Lived Assets Subsections … an impairment loss shall be recognized if the carrying amount of an intangible asset is not recoverable and its carrying amount exceeds its fair value. After an impairment loss is recognized, the adjusted carrying amount of the intangible asset shall be its new accounting basis. Subsequent reversal of a previously recognized impairment loss is

[104] Ibid, 40.
[105] Ibid, 40.
[106] "Proposed Statement of Financial Accounting Standards"

prohibited."[107]

The GAAP accounting standards, as set by the FASB, are fair, even conservative, when determining the value of a patent internally or in-house. The cost of developing the patent is typically expensed as incurred, and an asset account is only created to reflect the actual cost of maintaining the patent, such as incurring legal fees to defend the validity of the patent in court. In contrast, when a patent is acquired, it is given a highly subjective value that goes on the balance sheet as a capital asset. The patent's value is found using many very subjective assumptions that typically results in highly inflated estimates, which are transferred to the balance sheet far in excess of the cost that would have been reported had the patent been developed in-house. Under GAAP accounting, acquiring patents receives very favorable treatment, and companies are highly incentivized to engage in these transactions.

[107] "Proposed Statement of Financial Accounting Standards"

Chapter 4: Tax Accounting For Patents

When preparing the books for a company's tax return, the accounting for patents is substantially different than it is for financial reporting purposes. For instance, when developing a patent internally or in-house, the research and development costs are tax deductible and expensed, reducing taxable income as these costs are incurred.[108] Unlike for financial reporting purposes where legal fees and costs related to obtaining a patent are capitalized and amortized, in tax accounting, the legal fees and cost of obtaining the patent from the USPTO are included in the research and development costs as expenses and deducted on the tax return. This is explained in the relevant portion of 26 CFR § 1.174-2 below:

> "(a) In general. (1) The term research or experimental expenditures, as used in Section 174, means expenditures incurred in connection with the taxpayer's trade or business, which represent research and development costs in the experimental or laboratory sense. The term generally includes all such costs incident to the development or improvement of a product. The term includes the costs of obtaining a patent, such as attorneys' fees expended in making and perfecting a patent application."

Interestingly, the tax code gives patent holders the option to either deduct or capitalize research and development expenditures. The taxpayer can either deduct the cost as a current business expense by subtracting it from the company's net income in either the

[108] Antonio Tapia, "Are Patent Fees Tax Deductible? What Does a Patent Attorney Need to Know about the Internal Revenue Code?" *Tactically Relevant, Patently Entertaining,* 19 Nov. 2010, Web, 10 Apr. 2012, <http://tacticalip.com/2010/11/19/are-patent-fees-tax-deductible/>.

year it was incurred or the year it was paid, or it can be deducted over a period of years by amortizing it over it's legal life. If you elect to amortize the patent, it must be done over at least 60 months.[109] Obviously, most taxpayers expense and deduct these expenses immediately to take advantage of the favorable tax treatment. The tax accounting for these costs is explained in the relevant portion of 26 CFR 1.174-1:

> "Section 174 provides two methods for treating research or experimental expenditures paid or incurred by the taxpayer in connection with his trade or business. These expenditures may be treated as expenses not chargeable to capital account and deducted in the year in which they are paid or incurred (see Sec. 1.174-3), or they may be deferred and amortized (see Sec. 1.174-4). Research or experimental expenditures, which are neither treated as expenses nor deferred and amortized under Section 174 must be charged to capital account."

For tax accounting purposes, the costs incurred in an unsuccessful patent application are treated the same as the costs incurred for a successful patent application.[110]

When a patent is acquired, the acquirer is entitled to deduct amortization expenses ratably over 15 years.[111] As stated in the tax code, "A taxpayer shall be entitled to an amortization deduction with respect to any amortizable Section 197 intangible (patents). The amount of such deduction shall be determined by amortizing the adjusted basis (for

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[109] "Publication 535 (2011), Business Expenses," *Internal Revenue Service*, Web, 10, Apr. 2012, <http://www.irs.gov/publications/p535/ch07.html>.

[110] "CA75300 - Patents: Expenses: Fees," *Patents: Expenses: Fees*, Web, 12 Apr. 2012, <http://www.hmrc.gov.uk/manuals/camanual/ca75300.htm>.

[111] "26 USC Â§ 197 - Amortization of Goodwill and Certain Other Intangibles," *26 USC Â§ 197*, Web, 10 Apr. 2012, <http://www.law.cornell.edu/uscode/text/26/197>.

purposes of determining gain) of such intangible ratably over the 15-year period beginning with the month in which such intangible was acquired."[112] While this may seem less favorable than the tax treatment for developing a patent internally or in-house, it is somewhat misleading because the price paid for a patent in the marketplace can be significantly more than the cost of developing the patent, providing for substantial amortization expenses that can be deducted on the tax return. As previously stated, valuations for the fair market value of patents are predicated on using highly subjective assumptions and typically are grossly exaggerated. This can lead to substantial tax deductions for the acquirer of a patent. For example, on August 15, 2011, Google acquired Motorola for $12.5 billion.[113] While Motorola Mobility reported an amortized value of $176 million for its intangible assets as of July 2, 2011, it is estimated that Google valued Motorola's patents at 4.5 billion, a massive tax windfall for Google.[114]

When a company sells a patent, the net proceeds from the sale are recognized as capital gains for tax purposes. In addition, it receives favorable tax treatment for capital gains, even if the company did not hold the patent for the one-year required holding period.[115] When determining the gain on the sale of a patent, the adjusted basis of the patent is reduced by any amortization that has been deducted on the tax return.[116] The taxable income from the sale of patent rights or patent applications can be spread over three years, including the year of sale.[117] However, under Section 197, if you sell a patent

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[112] Ibid
[113] Lynnley Browning and Nanette Rnes, "Motorola Deal Offers Google Tax, Patent Benefits."
[114] Ibid
[115] "Publication 544 (2011), Sales and Other Dispositions of Assets," *Internal Revenue Service*, Web. 12, Apr. 2012, <http://www.irs.gov/publications/p544/ch02.html>.
[116] Ibid
[117] Ibid

for a loss, it is not tax deductible; but if you have another patent or other Section 197 intangible on the books, you may increase the adjusted basis of that asset by a like amount, thereby deferring that taxable income until its disposition.[118]

The tax system is extremely favorable for patents. It allows the taxpayer to push all tax deductions and expenses related to patents into the current year. Moreover, all R&D expenses charged to patents are deductible and expensed in the year in which they are incurred. Unlike financial accounting, the tax code allows the costs of actually obtaining a patent from the PTO, as well as the maintenance and legal fees incurred as a result of holding the patent to be included with the R&D expenses and deducted immediately, instead of being capitalized and amortized on the tax return. The patent holder is highly incentivized to develop and/or acquire patents because they can be included in the capital asset accounts for financial reporting purposes; while at the same time, the tax accounting rules allows the patent holder to favorably deduct these costs on their tax return. Acquired patents are typically appraised at very high values that are included on the capital accounts on the company's balance sheet, and, thereupon, generate very large amortization expenses, providing huge tax deductions for the patent holder. Furthermore, they are amortized over 15 years, instead of their 20-year legal life as required under GAAP accounting. Finally, when a patent is sold, it is treated as a capital gain even if the asset was not held for one year. This can be a windfall for the taxpayer, as capital gains are taxed at a very preferable rate of 15%, and because the gain can be deferred until the asset is sold, it allows the seller to have some control over the

[118] Ibid

timing of the gain or loss.[119] Because of the tremendous appreciation in the prices for patents in recent years, they are almost always sold at a substantial gain. The tax treatment for these gains is very favorable for patent holders. It is not hard to understand, considering the very generous tax accounting rules for patent holders, why companies like Google are incentivized to acquire companies like Motorola, which has a treasure trove of highly valuable patents.

[119] William Perez, "Capital Gains Tax Rates," *About.com Tax Planning: U.S.* Web, 12 Apr. 2012, <http://taxes.about.com/od/capitalgains/a/CapitalGainsTax_4.htm>.

Chapter 5: Solutions and Recommendations

After examining the statutory law, financial and tax reporting standards for patents, it is quite evident that the current system is favoring patent holders in an unhealthy manner. The patent system, as it is presently constructed, has resulted in many unintended consequences and does not adequately address, for example, the challenges and issues that have arisen regarding software patents in the last 20 years. The high valuations attributed to patents, most notably in the software industry, have led to what the media, in a number of high profile cases, has dubbed, "the Patent Wars." Major Fortune 500 companies like Apple, Google and Microsoft are using patents as defensive and offensive strategic weapons to keep others from competing in their space, and to protect themselves from litigation. These corporations are acquiring patents for billions of dollars simply to insulate themselves from competition and to protect them from infringement claims in the future, in essence inhibiting innovation in the industry.

The current environment is even more problematic for small businesses, which don't have the resources to protect themselves from claims of patent infringement and are having to spend extensive time, energy and money defending their inventions in court. Losing the right to an invention, or having an injunction declared against one of their products, can oftentimes jeopardize the very existence of these companies.

The problem is further magnified by what is now commonly referred to as "patent trolls," companies or individuals that create or acquire patents simply to use them to sue other companies for infringement. They have no intention of bringing their inventions to market; instead, their only goal is to profit from their patents through litigating their

claims in court. These trolls prey on both big and small businesses. The patent wars, mostly occurring in the tech industry, have brought to light many of the problems inherent in our patent system. The system is now less focused on innovation and is being manipulated to generate profits for companies engaged exclusively in the practice of using their patents to extort monetary settlements from revenue-generating corporations.

Although the system isn't functioning properly, patents are still necessary in a free market economy, as the capacity to monetize your ideas or inventions, without an effective patent system, would cease to function. Fortunately, it is still possible to repair and modernize the current system to meet the needs of a 21st century economy. By amending statutory law, reforming the tax and financial reporting requirements for valuing patents and making several changes to the tax code, the abusive practices with regard to patents can be ameliorated and the extensive use of litigation to prevent companies from executing their ideas can be curtailed.

The problems with the patent system start with the United States Patent Trade Office (USPTO). The office doesn't receive sufficient funding from Congress, although due to the passage of the America Invents Act (AIA), the USPTO will be able to set its own fees in the near future and keep the revenues it generates from these fees.[120] Currently, because of a lack of funding and staffing, they are backlogged with over 700,000 patents waiting to be reviewed. Consequently, the average wait time for a patent approval is over three years.[121] This is a huge problem considering patents are not fully

[120] Christopher Mims, "How Congress Just Failed to Fix America's Broken Patent System - Technology Review," *Technology Review*, 13 Sept. 2011, Web, 12 Apr. 2012, <http://www.technologyreview.com/blog/mimssbits/27160/>.

[121] Martin, David E., and Jason O. Watson, "Patent Valuation: Is Fair Market Fair?"

serviceable until completion of the filling process. Once a patent is reviewed, the USPTO generally doesn't spend more than 20 hours on average for each patent.[122]

> "The United States Patent and Trademark Office (USPTO) Manual of Patent Examining Procedure (MPEP) §904.01(c) stipulates that an examiner must search not only in art units where the claim is classified but also in all analogous arts. This presents a workflow challenge for an examiner seeking to perform a "complete" search, as under the definition in MPEP §719.05(1)(a-c) this requires a review of all the patents in the class or subclass. Constraint of the breadth called for in the §904.01(c) guidance is applied in the §904.02 section where a searcher is encouraged to make a "reasonability" test to the breadth of a search. Given that §904.01(c) is derived from the statute, the subjective modification called for in §904.02 could be a fruitful place to apply oversight and scrutiny to establish whether the discretion exercised by the examiner has unnecessarily avoided potentially relevant art. The statutory breadth is reapplied under cases of interference proceedings and reexamination." [123]

Unbelievably, the examiner is expected to make sure the application complies with all patent laws, reviews all relevant documents contained in the patent filling and determines if the commercial application of the products covered by the patent is authorized under the law all in a matter of 20 hours.[124] This is obviously not feasible, as evidenced in 2000 when a second pair of eyes test was implemented on a small number of patent

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[122] Ibid

[123] The United States Patent and Trademark Office, "Manual of Patent Examining Procedure (MPEP)", 8th Edition, May 2004 Revision, <http://www.uspto.gov/web/offices/pac/mpep/>

[124] David E Martin, and Jason O. Watson, "Patent Valuation: Is Fair Market Fair?", 2.

applications, and thereupon the percentage of patents approved went from 85% to 17%.[125]

The USPTO must receive greater funding to hire more employees to review the huge backlog of patent applications to ensure that only the patents that are meritorious are approved and that the many frivolous patents in the system are deposed of in a timely manner. This will eliminate a great deal of the litigation currently winding its way through the system, because many of the patents currently in dispute are stuck in the USPTO waiting for review, leaving the courts as the only apparatus to evaluate the validity of the patents. Because patent fees amount to about $2.5 billion a year, a self-funded patent office that is authorized by Congress to keep these fees would have the resources to review patent applications in a timely manner.[126] Fortunately, the AIA just passed by Congress last year has instituted this sensible reform and allows for the USPTO to cease relying upon Congressional appropriations to fund its operations.[127] It is the hope that this law will enable the USPTO to have the resources to eliminate the enormous backlog of patent applications and employ a second eye test for all patents, dramatically decreasing the number of enforceable patents in circulation.[128] An effective and productive USPTO would be a huge first step in helping to resolve the current patent crisis, hopefully causing a meaningful reduction in the 45 million patents clogging our courts, which would allow inventors to focus on bringing their products to market

[125] Ibid

[126] "Earned Revenue," *United States Patent and Trademark Office*, 3 Jan. 2012, Web, 12 Apr. 2012, <http://www.uspto.gov/about/stratplan/ar/2011/mda_06_01_03.html>.

[127] David Goldman, "Patent Reform Bill Passes House Vote, Nears Completion"

[128] "Patent Docs"

without the distraction of litigation.[129]

Although there may be a diminution of tax revenue to the government if the USPTO is allowed to keep all of the patent fees and Congress filled the remaining gap with taxpayer dollars, a number of proposals will be advanced later in this chapter to offset this loss of tax revenue by decreasing the tax deductions patent holders now enjoy. Even without prohibiting some of these deductions, additional tax revenue could be realized from a reduction in patent litigation through the implementation of many of these reforms, which will correspondingly reduce the deductible legal fees companies incur by engaging in these lawsuits. It has been theorized that millions of jobs could be created if the patent system was streamlined and modernized, meaning even more tax revenue will be collectable. This assertion is supported by a recent Social Science Research Network Study, which found that 76% of startup executives said patents are essential to obtain venture capital funding, and the Harvard Business Review, which recently called the USPTO "the biggest job creator you never heard of," because of its critical role in issuing patents to startups, "the primary source of almost all new net job growth in America."[130]

In addition to reducing the likelihood that frivolous patents will be granted because of a burdened USPTO, the system also needs to change in order to eliminate the unfair asymmetry between the relative burdens imposed on the plaintiff and the defendant in a patent litigation.[131] As it now stands, this asymmetry means the plaintiff need only file a case, while the defendant must spend considerable money and time defending the

[129] David E. Martin, and Jason O. Watson, "Patent Valuation: Is Fair Market Fair?", 2.
[130] David Goldman, "Want More Jobs? Fix the Broken Patent System"
[131] Bob Warfield, "Radical Surgery to Fix Software Patents," *SmoothSpan Blog*, 21 Aug. 2011, Web, 10, Apr. 2012, <http://smoothspan.wordpress.com/2011/08/21/radical-surgery-to-fix-software-patents/>.

lawsuit.[132] The cynical use of the civil justice system to force companies to settle these expensive lawsuits needs to be addressed in an equitable manner. One way to do this is by adopting the British system of having the plaintiffs pay for the defendants' legal costs if they don't prevail in court.[133] Furthermore, if the plaintiff wins, he should not be awarded punitive damages, which can be up to three times the amount of the damages regardless of the circumstances.

It is also essential that a patent is not automatically assumed to be valid by virtue of a submitted patent application. In a litigation the court must start with the assumption that the patent is valid despite the fact that probably only one person has spent, on average, about 20 hours reviewing the patent, and that others who may have legitimate issues with the validity of the application are not provided an avenue to dispute the legitimacy of the patent.[134] Only hearing from the applicant during the application stage should not preclude the patent holder from having to defend the legality of the patent in court.[135] The USPTO almost never hears an adversarial position during the review stage, so why should the patent holder not have the burden to defend the validity of the patent in court.[136] If the assumption of the validity of a patent claim is equally applicable to both the plaintiff and the defendant in court, it may inhibit the number of cases now being adjudicated.

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[132] Ibid

[133] Marie Gryphon, "Civil Justice Report 11 | Greater Justice, Lower Cost: How a "Loser Pays" Rule Would Improve the American Legal System," *Manhattan Institute*, 11 Dec. 2008, Web, 12 Apr. 2012, <http://www.manhattan-institute.org/html/cjr_11.htm>.

[134] "So How Do We Fix The Patent System?" *Techdirt,* Web, 10 Apr, 2012, <http://www.techdirt.com/articles/20110819/14021115603/so-how-do-we-fix-patent-system.shtml>.

[135] Ibid

[136] Ibid

The "independent invention defense" is another proposal, if adopted, which would have a beneficial effect in reducing frivolous patent claims. Under this approach, if it can be shown multiple independent innovations, similar to the invention covered by the patent, occurred around the same time the patent was submitted to the USPTO, the innovation should be deemed non-obvious and, thus, not patentable. The patent system is supposed to protect inventors, not block similar innovations independently created coincident to the approval of the patent.[137] Even in copyright law (generally seen as more strict than patent law) there's a defense based on independent creation.[138] If one has independently developed an invention and hasn't copied another patent or was completely unaware of a duplicative patent, it's specious to claim an infringement had been perpetrated against the patent holder. To use this defense in court should greatly curtail the number of patent disputes plaguing our civil justice system and should diminish the number of frivolous patents, which has created an environment that has imposed unnecessary and unfair burdens on inventors.

An attempt must also be made to stop patent "trolls" from obtaining patents simply to litigate, with no intention of fully developing their ideas and bringing them to market. It would be advantageous, at the very least, if companies were required to actualize their patentable inventions within at least two or three years and compel them to license their inventions to their competitors at strictly defined rates for the remainder of the patent term. In addition, there should be a limit on the amount of damages awarded to patent holders, who have not advanced their patents in the marketplace, if they were to

[137] Ibid
[138] Ibid

prevail in court.[139] Also, if a patent holder sells a patent to a company that has a certain percentage of their patents not commercially employed in the marketplace, the patent holder should not be allowed to receive the favorable capital gains treatment from the sale. This would incentivize these patent holders to partner with companies that were in a position to exploit the patent, instead of hoping to extract a monetary reward through litigation. Several countries, such as the UK, Germany, Australia and Japan, already have these laws, stipulating that patent holders are required to license their patents at commercially viable rates if they don't manufacture the products within a certain amount of time.[140]

The commercial popularity of software in the last twenty years has transformed the way patents are used. The current patent system is not designed to account for the pervasive use of software applications in the ever-changing and fast-paced software industry. The majority of the high profile patent wars and much of the controversy regarding the patent system is centered on this industry. Because software is unlike other technologies, patent law should delineate software from other types of business patents. Unlike drug companies that need long patent windows due to clinical testing or physical processes, where massive investment in tools and factories are necessary, software and business method inventions are typically quick to market and cost far less relatively speaking.[141] Thus, it should be required for these patents to have a lifespan of 5 years as opposed to 20 years. This would drastically reduce their value, creating less incentive for

[139] Nilay Patel, "The 'broken Patent System': How We Got Here and How to FixÂ it," *The Verge*, 11 Aug, 2011, Web, 12 Apr, 2012, <http://www.theverge.com/2011/08/11/broken-patent-system/>.

[140] Ibid

[141] Jeff Bezos, "O'Reilly News & Commentary," *Bezos and O'Reilly Spearhead Call for Patent Reform*, 3 Sept, 2000, Web, 10 Apr, 2012, <http://oreilly.com/news/amazon_patents.html>.

patent holders to engage in so-called “patent wars”. Lower-valued patents would have a number of ramifications. For example, in addition to diminishing the temptation to initiate lawsuits to attempt to profit from this dubious gambit, the reduced valuations would mean lower reported book values for these types of intangible assets on a company’s books as well as less tax benefits generated for the company. Considering much of the increase in the number of patents applied for is from the software industry, these changes should drastically decrease the amount of patents in the system, providing substantial relief to the USPTO.

Much of the GAAP financial reporting requirements for patents are entirely appropriate. R&D expenditures should be expensed when incurred, and all costs for obtaining a patent, either for filling or acquiring, should be capitalized on the balance sheet. Legal fees should also be capitalized. The only issue raised in this paper with the financial reporting system for patents is that the valuation process for acquiring patents is subjective at best and can be fraudulent at worst. We need a more conservative system that ensures more reasonable assumptions are used in the appraisal process for patents. A more prudent and conservative system will lead to a more accurate portrayal of a company’s book value, resulting in diminished tax benefits for the company, while significantly driving down the value of patents for “patent trolls” and other litigious players in the industry. Reforming the appraisal process and lowering the value of patents, to reflect the current reality of the vast majority of patents having minimal or no value, will reduce many of the incentives that cause companies to place absurdly high prices for the acquisition of these patents. The overly generous provisions for patents now

residing in the financial reporting and tax accounting standards have contributed to the problem .

Placing a quantitative value on intellectual property is no easy task. When a company purchases another company, it is very difficult to distinguish the value of the patents. Considering very few patents have much worth, it is important that the valuation process and assessment for the patents is accurately reflected to investors as well as the IRS. The income approach is the most common method to measure the value of patents and is, incidentally, not that much different from the methodologies used to value most other financial instruments. Even though the cost and the market value procedures for appraising patents have their problems, inasmuch as they are rarely used anymore, the focus of the recommendations in this paper for reforming the appraisal process will be to offer various suggestions to simply standardize the income approach along with requiring more oversight.

When calculating the value of a patent based on the income approach, it is important that assumptions, such as growth rates and discount rates, are based on an in-depth understanding of the nature and size of the market, whether the patent has been reviewed and held enforceable by the USPTO, the competitive advantages of the particular patent, the length of time before new inventions come to market, and the costs and the legal expenses of maintaining and enforce the patent. A realistic cash flow projection and a discount rate that takes into account the risk in exploiting the patent is necessary. In essence, the discount rate should consider the profitability, growth potential, strength of technology, investment risks, market size, impact on overall

revenues and costs, changing economic conditions, negotiating power of prior participants, exclusivity, and geographic or other limitations.[142]

Oftentimes companies use the generous "25% Rule" to determine what the royalty rates will be from the use of their patents.[143] The rule states that a court should set the rate at 25% of the total profits that would be earned from the serviceability of the patent.[144] Such a simplistic formula makes no sense, as the royalty revenue for patents can fluctuate widely depending on a variety of factors, such as differences in the classification of a company's expenses, the percentage of COGS that is fixed, investment risk, the effect licensing has on revenues, the degree of exclusivity the patent provides, and the competition inherent in the market.[145]

The income approach can only work when appraisers make conservative assumptions that they can defend. Therefore, it is imperative that professionals other than the appraiser are involved in the process and will fact-check all the assumptions to make sure their accurate and conservative. Accountants and industry experts should be required to approve and sign off on the appraisal. Another simple reform that would be very effective would be to make the professionals who participated in the valuation of the patent financially liable for any misrepresentation in value because of errors for which they were responsible . Also, if a patent is deemed to be overvalued by the IRS or in the courts, the company should not be allowed to deduct the cost of acquiring the patent, and anyone guilty of infringing on the patent should only be required to pay a minimal fine.

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[142] "Steps In Valuing Intellectual Property," *STEPS IN VALUING INTELLECTUAL PROPERTY*, 2003, Web, 12 Apr, 2012, <http://www.fulcrum.com/valuing_intellectual_property.htm>.

[143] Ibid

[144] Ibid

[145] Ibid

While reforming the system for appraising acquired patents will fix many of the problems regarding the issues of accurately reflecting the true book value of these patents, there are still some changes that should be made to the tax code to curb the generous tax benefits accorded to patents. Above all, the tax benefits relating to the cost for any acquired patent, where the underlying invention was not developed and suitably marketed within a two or three-year period, should all be recaptured at the end of the period. It would also be preferable to have the costs incurred for acquiring a patent that is later held invalid in court to be deemed non-deductible, and have the holder required to reimburse previous tax deductions. Furthermore for tax accounting purposes, patents should be amortized at their legal life, 20 years, as opposed to the more favorable 15 in the tax code now. The final change, which should be adopted, is to require a one-year holding period before the proceeds from a sold patent can be recognized as long-term capital gains. Inasmuch as every other type of capital asset is subject to the one-year holding rule, it is not unreasonable that patents and other types of intellectual property should be held to the same standard. The rationale for the one-year holding period is to incentivize long-term investment, and since there is no reason why patents should be not viewed as a long-term investment, it is not clear why the one-year holding period would not be appropriate for patents.

By reforming the USPTO, eliminating the inequitable procedures for patents in the courts; limiting the monetary rewards for obtaining patents for only litigation purposes; creating a separate protected life span for software and other business process patents; amending the appraisal process to provide a greater level of scrutiny and a more careful examination of the procedures for valuating patents; penalizing offenders who

misrepresent the book value and tax benefits derived from their patents; and making several meaningful revisions to the tax code, it will be possible once again to fashion a patent system which rewards and incentivizes innovation. These sensible reforms would ameliorate a patent system not presently functioning as it was intended and, hopefully, swing the pendulum back to where Thomas Jefferson intended it to lie, at the intersection of the rights of the inventor and for the advancement and betterment of society.

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