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FOR SALE. PATENTS. NEVER USED: GAPS IN THE TAX CODE FOR PATENT SALES

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ABSTRACT

Patent sales are an underappreciated means of monetizing patents. Recent blockbuster patent sales indicate heightened demand for patent acquisitions. There is evidence that such patent sales transfer patents to parties more skilled in patent enforcement, reducing litigation. Patent sales also move capital to innovators, which enhance incentives to innovate. But crucially, C corporations do not benefit from advantaged tax treatment. Efforts by other nations to encourage patent use and sales by providing “patent box” preferential tax regimes may provide some guidance for remedying this gap in the tax code.

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INTRODUCTION

In the summer of 2011, the so-called smartphone “patent wars” detonated an atomic bomb.¹ Anticipation had built-up over the fate of the treasure trove of patents from a bankrupt company that once comprised a third of the value of the entire Toronto Stock Exchange.² The portfolio of patents included patents that claimed cutting-edge 4G wireless technology, the next horizon for the smartphone industry.³ Google was considered the most interested bidder; its lack of a strong patent portfolio covering smartphones was widely acknowledged as a major impediment to its mobile ambitions.⁴

The ultimate victors called themselves the “Rockstar” consortium, a fair moniker considering the consortium included such smartphone goliaths as Apple, Microsoft and Research in Motion.⁵ The consortium paid a stunning \$4.5 billion dollars, more than five times Google’s “stalking horse” bid.⁶ It was the biggest patent auction ever.⁷ Weeks later, industry analysts were not completely surprised when Google agreed to purchase Motorola Mobility for \$12.5 billion dollars, Google’s largest purchase ever.⁸

* © Khurram Naik 2012. J.D. Candidate, May 2013, The John Marshall Law School. B.S., Biological Sciences, Carnegie Mellon University. Thanks to my loving wife Amber.

¹ See David Drummond, *When Patents Attack*, GOOGLE OFFICIAL BLOG (Aug. 3, 2011, 2:37 PM), <http://googleblog.blogspot.com/2011/08/when-patents-attack-android.html><http://googleblog.blogspot.com/2011/08/when-patents-attack-android.html>; see also Timothy Q. Delaney & Janet Pioli, *Smartphone Patent Wars: It’s the Operating System*, 2010 ASPATORE SPECIAL REP. 23 (2010) (“While patent suits are nothing new in technology driven industries, the virulence in the smartphone industry stands out. In excess of twenty-five actions were filed in this sector in the past three years.”).

² *The Bigger They Come*, THE ECONOMIST (Jan. 15, 2009), <http://www.economist.com/node/12936533><http://www.economist.com/node/12936533><http://www.economist.com/node/12936533>.

³ Diane Bartz, *U.S. to Approve Google’s Bid for Motorola: Sources*, REUTERS (Feb. 9, 2012, 4:59 PM), <http://www.reuters.com/article/2012/02/09/us-antitrust-telecoms-patents-idUSTRE8182GR20120209>.

⁴ Robert Cyran, *A Patent Fever Over Smartphones*, N.Y. TIMES, Aug. 1, 2011, at B2.

⁵ Kit Chellel, *Malev Liquidation, Nortel U.K. Unit, Danish Banks: Bankruptcy*, BUSINESS WEEK (Feb. 14, 2012, 7:45 AM), <http://www.businessweek.com/news/2012-02-14/malev-liquidation-nortel-u-k-unit-danish-banks-bankruptcy.html><http://www.businessweek.com/news/2012-02-14/malev-liquidation-nortel-u-k-unit-danish-banks-bankruptcy.html>.

⁶ Cyran, *supra* note 4 (“When the gavel came down, a group including Apple and Microsoft, as well as Ericsson, Research in Motion and others, walked off with the portfolio for an unexpected \$4.5 billion.”).

⁷ Chellel, *supra* note 5 (describing the novelty of the auction).

⁸ Matt Richtel & Jenna Wortham, *Motorola’s Identity Crisis*, N.Y. TIMES, August 22, 2011, at B1.

Google acknowledged what many surmised: Google was interested in the substantial patent portfolio Motorola Mobility had amassed.⁹

Blockbuster patent deals continue to rock the technology world. In April, Microsoft agreed to pay AOL more than \$1 billion dollars for patents related to smartphones, almost doubling AOL's market capitalization overnight.¹⁰ Within two weeks, Facebook, recently sued by Yahoo for patent infringement, announced it would pay \$550 million for some of the patents Microsoft bought.¹¹

The smartphone industry is famous for its highly litigious members; it seems nearly every major tech industry company is moving into the smartphone sector and suing nearly everyone.¹² The discussion over the patent wars overwhelmingly focuses on patent litigation as the route to monetizing the patents.¹³ Why is litigation so prevalent in patent monetization?¹⁴ Part of the answer lies with the substantial difficulties in selling and licensing patents.¹⁵ This comment discusses how the current taxation scheme makes sales and licensing less attractive options for monetizing patents, why patent sales ought to be promoted, and explores recommendations to amend the tax code to encourage such sales.

Part I provides background for the reasons why some firms license or litigate in light of their market activities and international scale. Part II explores the role taxes on litigation damages, sales and licenses play in business decisions. Part III makes recommendations to promote patent production and use by reducing taxes on patent sales.

⁹ See *id.* In its announcement of the planned purchase of Motorola Mobility, Google emphasized its interest in the portfolio of over 17,000 patents. *Id.*

¹⁰ See Steve Lohr, *Microsoft's AOL Deal Intensifies Patent Wars*, N.Y. TIMES, Apr. 10, 2012, at B1.

¹¹ See Dina Bass & Brian Womack, *Facebook Paying \$550 Million for Some of AOL's Patents*, BLOOMBERG (Apr. 23, 2012, 6:45 PM), <http://www.bloomberg.com/news/2012-04-23/facebook-pays-550-million-for-some-of-microsoft-s-aol-patents.html>.

¹² See Steve Lohr, *A Bull Market in Tech Patents*, N.Y. TIMES, Aug. 17, 2011, at B1.

¹³ See Papool S. Chaudhari & Reyes Bartolomei Brown, *A Primer On Mobile Phone Patent Litigation: Recent Developments And Practice Tips*, 2010 ASPATORE SPECIAL REP. 23 (2010).

¹⁴ See Kyle Jensen, *Counting Defendants in Patent Litigation*, PATENTLY-O (Oct. 27, 2010, 4:52 AM), <http://www.patentlyo.com/patent/2010/10/guest-post-counting-defendants-in-patent-litigation.html>. Although the number of patent litigation suits has not risen substantially in the past ten years, the number of defendants to these suits has almost doubled since 2000. *Id.*

¹⁵ See Peter Detkin, *Leveling The Playing Field*, 6 J. MARSHALL REV. INTELL. PROP. L. 636, 640 (2007). Although between one third and one half of all issued patents go to small inventors, the market for individual patent holders is highly inefficient. Patent licensing is far from standardized and requires significant effort to bring both parties to agreement. *Id.*

I. BACKGROUND

A. How Does Taxation of Patents Affect Business Decisions?

Intellectual property is more vital to business growth than ever.¹⁶ With estimates that up to 80% of the value of major corporations derive from intellectual property, economic growth and intellectual property monetization have become virtually synonymous.¹⁷ Because taxation is a key input to business decision-making, understanding the incentives the current tax system create for IP is essential to stimulating innovation.¹⁸

A notable example of the importance of taxation considerations in business comes from none other than Google's \$12.5 billion purchase of Motorola Mobility, which accrued significant tax benefits for Google.¹⁹ Google will benefit from tax deductions and credits for Motorola's net operating losses and research and development costs, with estimates of tax savings of one billion dollars immediately and \$700 million per year until 2019.²⁰

Taxation of business assets has become an international matter. The mobility of capital throughout international companies makes it inevitable that businesses will select jurisdictions that facilitate businesses uses of intellectual property.²¹ The IRS endorses this practice by allowing companies to perform transfer pricing, which enables companies to move patents to low-tax jurisdictions.²² Google, famous for its

¹⁶ Adam Hemlock & Jennifer Wu, *U.S. Antitrust Implications of Patent Licensing*, 52 FED. LAW. 39, 39 (2005) ("The global technology transfer market is estimated to be worth some \$100 billion annually.").

¹⁷ See OCEAN TOMO, <http://www.oceantomo.com/productsandservices/investments/indexes/ot300> (last visited Sept. 28, 2011) (providing an estimate that as recently as 1975 80% of the value of the companies in the S&P 500 resided in tangible assets; twenty five years later, this seems to have inverted).

¹⁸ *Governmental Attempts to Stem The Rising Tide Of Corporate Tax Shelters*, 117 HARV. L. REV. 2249, 2271 n.4 (2004) ("The marketplace rewards companies with lower effective tax rates than their peers, creating a powerful competitive pressure for executives to manage tax liabilities aggressively.").

¹⁹ See Lynnley Browning & Nanette Byrnes, REUTERS (Aug. 31, 2011, 11:19 AM), <http://www.reuters.com/article/2011/08/31/us-motorolamobility-google-tax-idUSTRE77U1QX20110831> ("Google Inc.'s blockbuster acquisition of Motorola Mobility Holdings Inc. will bring an unusual stable of tax and accounting benefits to the search-engine giant, already one of Corporate America's most savvy users of such perks.").

²⁰ *Id.* ("These are deductions which Motorola Mobility has been unable to use because of a faltering business that has failed to generate the revenue against which to offset them. The deductions include those for research and development, tax losses in the United States and abroad, and credits carried over.").

²¹ See Lynnley Browning, REUTERS (Jul. 28, 2011, 12:46 PM), <http://www.reuters.com/article/2011/07/28/us-microsoft-tax-idUSTRE76R5AY20110728> (explaining that although Microsoft is headquartered in the United States, it earned 68% of its income from overseas. As a result of deductions and credits for these overseas activities, Microsoft pays an effective tax rate of just 17.5%).

²² Lynnley Browning & Nanette Byrnes, *supra* note 19.

Under IRS rules on transfer pricing, a legal and controversial financial maneuver governing the prices companies charge their divisions and subsidiaries for goods and services sold between them, Google could shift Motorola's patents to a low-tax

tax strategies and low blended tax, also plans to make use of transfer pricing to minimize the taxation of the patents it acquired in the purchase.²³

B. Litigation, Licensing, or Sales?

The painful truth is that litigation can be an unattractive option for extracting value from a patent.²⁴ Litigation is expensive; a 2009 survey found the median cost of an infringement suit with between \$1 million and \$25 million at stake is \$2.5 million, and more than twice this cost for stakes over \$25 million.²⁵ As if cost alone was an insufficient deterrent, litigation is unpredictable and time consuming.²⁶

Even successful litigants may not come out ahead because the remedies available in litigation may not be very satisfying. Obtaining injunctive relief is more challenging than ever in the wake of *eBay Inc. v. MercExchange, L.L.C.*²⁷ Proving monetary damages in light of the decimation of the default rule of a 25% “reasonable royalty” will likely challenge firms to provide more rigor in valuing their injury.²⁸ Non-practicing entities, which are responsible for a substantial growth in patent infringement suits cannot value their injury based on actual damages because they are not actual competitors.²⁹

However, there are a number of reasons patent holders rely on litigation rather than licensing, even though litigation is an intrinsically less accurate measure of the value of a patent.³⁰ Licensing efforts may cause potential licensees to seek a

jurisdiction. They would have to pay a fair price for their use, but tax experts argue that upfront cost is often well worth the future tax savings. Google could also use a cost-sharing agreement, a form of transfer pricing that governs the development of new patents and technologies.

Id.

²³ *Id.* (“Google could also use a cost-sharing agreement, a form of transfer pricing that governs the development of new patents and technologies.”).

²⁴ See Damon C. Andrews, *Why Patentees Litigate*, 12 COLUM. SCI. & TECH. L. REV. 219, 226–27 (2011). In addition to the cost of legal representation in litigation, the opportunity cost of time is steep; one third of patent cases take more than three years to reach trial from when the case was filed. The steep costs associated with patent litigation affects both plaintiffs and defendants. The deterrence effect of litigation for plaintiffs is significant and encourages resolution of the patent disputes outside of court.

²⁵ *Id.* at 228.

²⁶ Herbert Hovenkamp, Mark Janis & Mark A. Lemley, *Anticompetitive Settlement of Intellectual Property Disputes*, 87 MINN. L. REV. 1719, 1723 (2003) (“The median patent case that goes to trial costs each side \$1.5 million in legal fees, to say nothing of the costs to the company in lost employee time and productivity.”).

²⁷ See *eBay, Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006).

²⁸ See *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1317 (Fed. Cir. 2011) (holding that the 25% default rule for calculating a reasonable royalty is “fundamentally flawed”).

²⁹ See John R. Alison, Mark A. Lemley & Joshua Walker, *Extreme Value or Trolls on Top? The Characteristics of the Most Litigated Patents*, 158 U. PA. L. REV. 1, 26 (2009) (comparing characteristics of patents that have been litigated most frequently to those litigated once and proposing these are valuable patents); see also *Del Mar Avionics, Inc. v. Quinton Instrument Co.*, 836 F.2d 1320, 1326 (Fed. Cir. 1993) (explaining the “general rule” that patentees who are competitors are entitled to lost-profits damages).

³⁰ See Rob Harrison, *Valuing Patents and Litigation*, IP FINANCE (Aug. 20, 2011, 9:41 PM), <http://ipfinance.blogspot.com/2011/01/adieu-25-rule-at-least-in-us-litigation.html>. In light of the

declaratory judgment, which can have devastating consequences for patent holders.³¹ Patent licensing revenue is taxed as ordinary income, and will not likely benefit from any better tax treatment than infringement damages.³² The very premise of licensing is based on the threat of litigation, which means that licensing decisions implicate litigation decisions.

The geographic source of patent-derived revenues and consequent taxation also affects patent monetization strategy. Business income taxation is premised upon the location of business activities.³³ This is the reason companies such as Google search for low-tax jurisdictions to hold patents.³⁴ Licensing activities are necessarily based on the location of the licensor.³⁵ This means businesses move their intellectual property assets to low-tax jurisdiction or turn to litigation.³⁶ Jurisdiction for litigation is based on the location of the infringing activities and the defendant. Although litigation gives patent owners the flexibility of a range of locations where they can extract the value of the patent, patent owners may be subject to tax in that location.³⁷

demise of the default rule of a reasonable royalty of 25%, valuing a patent by litigation is even more complicated. Actual licensing from market-based transactions may be useful to determine the value of a given patent.

³¹ See Mark R. Vanegas, *You Infringed My Patent, Now Wait Until I Sue You: The Federal Circuit's Decision in Avocent Huntsville Corp v. Aten International Co.*, 92 J. PAT. & TRADEMARK OFF. SOC'Y 371, 383–84 (2010).

³² This is consistent with the taxation of other business assets. Capital assets that are rented out by a company are treated as ordinary income. Selling businesses assets and meeting the other statutory requirements entitles the taxpayer to capital gains. See *Fawick v. Comm'r of Internal Revenue*, 436 F.2d 655, 660 (6th Cir. 1971). Patent infringement damages are typically treated as ordinary income. *Kurlan v. Comm'r of Internal Revenue*, 343 F.2d 625, 629–30 (2nd Cir. 1965).

³³ Xuan-Thao N. Nguyen, *Holding Intellectual Property*, 39 GA. L. REV. 1155, 1174 (2005) (“Under the business situs theory, intangibles acquire situs for taxation purposes if they have become an integral part of local business.”).

³⁴ Ashley B. Howard, *Does The Internal Revenue Code Provide A Solution To A Common State Taxation Problem? Proposing State Adoption Of § 367(D) To Tax Intangibles Holding Companies*, 53 EMORY L.J. 561, 565 (2004) (“The relative ease of forming intangibles holding subsidiaries and the significant tax benefits received by the parent corporation result in a very popular tax planning structure.”).

³⁵ See Nguyen, *supra* note 33, at 1188–89. The jurisdictional inquiry in an infringement cause of action based on intellectual property is the connection between the infringing defendant and the litigation forum, not the physical, substantial nexus between the intellectual property holder and the forum. Additionally, the in personam jurisdictional inquiry is a due process inquiry, not a Commerce Clause inquiry. It follows that if an out-of-state holder of intellectual property can obtain jurisdiction over a defendant in a forum, that forum may not have a substantial nexus with the intellectual property holder for state tax purposes.

³⁶ Howard, *supra* note 35, at 563. (explaining how companies form intangible holding company to hold intellectual property assets).

³⁷ See Nguyen, *supra* note 33, at 1187–89. The jurisdictional question in an infringement action is whether there is long-arm jurisdiction over a defendant, not on the plaintiff. The plaintiff's residence and contacts with a forum state are not of jurisdictional significance. But even if a plaintiff may claim damages in a particular jurisdiction, there may be a sufficient nexus exists to allow that jurisdiction to tax these damages.

C. The Advantages of Patent Sale—For Some

Patent sales have one key advantage over licensing and litigation: sales do not depend upon proving past infringement by the purchaser.³⁸ Sellers can get immediate cash up-front for their patents, and add license-back provisions if the seller wishes to continue to use the rights.³⁹

Individual inventors have a key advantage over their major corporation competitors when selling patents: unlike C corporations, individual inventors are able to take advantage of a tax code that provides multiple options for obtaining more favorable capital gains treatment rather than ordinary income for the sale of patent assets.⁴⁰

Until 2012, the highest tax bracket for long term capital gains was 15%.⁴¹ The highest bracket for ordinary income for a corporation was 35%.⁴² In historical terms, today's capital gains tax is relatively low.⁴³

The Internal Revenue Code (IRC) provides general capital gain sections, IRC Sections 1221 and 1231.⁴⁴ IRC Section 1221 excludes property held primarily for sale to customers in the ordinary course of the taxpayer's trade or business.⁴⁵ This can exclude those taxpayers that are in the business of creating and selling intellectual property.

Capital assets as defined in IRC Section 1221 also exclude depreciable property used in a trade or business.⁴⁶ These are covered by IRC Section 1231, provided the property has been held longer than the applicable holding period.⁴⁷ If it is held for less than this required holding period, the gain and any payments are treated as ordinary income.

In addition to these methods for reaching capital gain treatment, individual professional inventors, are also eligible for capital gains treatment under IRC Section 1235.⁴⁸ This statute was specifically enacted by Congress to provide individuals in the business of producing intellectual property such as patents the ability to benefit from lower capital gains treatment, rather than subject their income to ordinary income tax.⁴⁹ The benefit is substantial; the current difference between the top bracket of ordinary income and long term capital gains tax is 20%.⁵⁰

³⁸ David Yurkerwich, *Patent Sales and the IP Business Plan*, in LICENSING IN THE BOARDROOM 2008: KEY LICENSING ISSUES FOR SENIOR EXECUTIVES, INTEL ASSET MGMT. 37, 37–38 (2008), <http://www.iam-magazine.com/issues/complete.ashx?g=68bb21ce-9dc8-488c-98be-c4986ef63921>.

³⁹ *Id.*

⁴⁰ 26 U.S.C. § 1221(a)(2) (2012).

⁴¹ *Effects Of Tax Rate Changes After Extensions To Bush Tax Cuts End*, 13 BUS. ENTITIES 42, 43 (2011).

⁴² *Id.*

⁴³ Nancy B. Nichols, William M. Vandenburg & Luis Betancourt, *Bone Up On The Various Tax Planning Implications Of A Bear Market*, 81 PRAC. TAX STRATEGIES 324, 327 (2008).

⁴⁴ 26 U.S.C. § 1221 (2012); *id.* at § 1231.

⁴⁵ 26 U.S.C. § 1221(a)(1).

⁴⁶ *Id.* § 1221(a)(2).

⁴⁷ *Id.* § 1231.

⁴⁸ *Id.* § 1235.

⁴⁹ See William A. Drennan, *Changing Invention Economics By Encouraging Corporate Inventors To Sell Patents*, 58 U. MIAMI L. REV. 1045, 1141–42 (2004). During the Conference Committee debate, one justification offered emphasized the role the patent system had in the rapid

This Congressional action to stimulate intellectual property sales falls short of effectively stimulating intellectual property production because it does not provide corporations the same opportunity to benefit from favorable tax treatment for patent sales. This violates a fundamental principle of taxation: taxpayers in similar situations should be taxed equally.⁵¹ IRC Section 1235 creates a distinction between individuals and corporate entities engaging in the very same business.⁵²

Providing some basic horizontal equity in providing capital gains tax is important for increasing patent liquidity.⁵³ Greater liquidity ensures more accurate pricing for buyers and sellers; the rewards for selling patents make access to individual patents easier.⁵⁴ This reduces the transaction costs of finding valuable patents and promotes efficient use of patents.

A solution for corporations that makes other uses of patents more attractive than litigation is also desirable, especially if it rewards innovation.⁵⁵ The United Kingdom, among other nations, has enacted a “patent box” tax regime that provides lower taxes for income attributable to patents produced in the U.K.⁵⁶ Measures such as these may provide the necessary incentive for corporations to produce patents and innovate based on these rather than seek to litigate. The potential for these regimes is explored in the Analysis.

II. ANALYSIS

Patent litigation is currently a more attractive means of monetizing patents than is desirable. This section will analyze the effects of tax policy on business decisions concerning the sale, licensure or litigation of their patents.

growth of the industrial economy, and the historical neglect of the individual inventor in contributing to the patent system.

⁵⁰ 26 U.S.C. § 11(b) (2012); 26 U.S.C. § 1(h). The current difference between the top ordinary income tax bracket (35%) and the top long-term capital gains tax bracket (15%) is 20%.

⁵¹ See David Elkins, *Horizontal Equity as a Principal of Tax Theory*, 24 YALE L. & POL'Y REV. 43, 62–63 (1990) (suggesting that horizontal equity is rooted in the Constitution, because the Fourteenth Amendment provides for equal protection under the law.); see also Brian Galle, *Tax Fairness*, 65 WASH. & LEE. L. REV. 1323, 1328 (2008) (“Horizontal equity ‘can be defended as an essential feature of the revenue function of taxation.’”).

⁵² IRC 1235 has other limitations that narrow the scope of the benefit it offers. Only the statutorily defined “holder” of the patent may benefit from the favorable capital gains treatment. The holder is defined as the actual inventor. See 28 U.S.C. § 1235(a).

⁵³ See Drennan, *supra* note 49 at 1148–49. Promoting patent sales by decreasing corporate inventor’s tax liability may provide significant benefits for patent innovation. These include improving economic efficiency, encouraging innovation by allowing firms to focus on their core business, and moving capital to firms producing inventions.

⁵⁴ See Xuan-Thao Nguyen & Jeffrey A. Maine, *Equity And Efficiency In Intellectual Property Taxation*, 76 BROOK. L. REV. 1, 31–32 (2010). Potentially desirable transfer includes assignment to private firms for commercial exploitation or donations to public charities.

⁵⁵ *Id.* at 50.

⁵⁶ See HM TREASURY, CONSULTATIONS & LEGISLATION, PATENT BOX, http://www.hm-treasury.gov.uk/consult_patent_box.htm (last visited Oct. 19, 2011) (“The Patent Box will encourage companies to locate the high-value jobs and activity associated with the development, manufacture and exploitation of patents in the UK.”).

A. Facilitating Patent Sales by Lowering Taxation Can Reduce Litigation.

Reducing taxes on patent sales will likely stimulate such sales.⁵⁷ A recent empirical study estimated that 13.5% of all patents are traded at least once.⁵⁸ Measuring commercial importance by using patent citations reveals that highly cited patents are traded substantially more.⁵⁹ This suggests that more valuable patents in fact get traded more, and sheds light on the robust mechanism for allocating patents to those who value them most.⁶⁰ Individual inventors and small corporations are the most active sellers, selling 16.2% and 17.5% of their patents, respectively, while large corporations sell just 10.5%.⁶¹

The scale of patent sales is modest compared to the scale of patent litigation and licensing. The licensing market is estimated at \$100 billion as of 2003.⁶² The median damages for patent litigation in the telecom sector between 1995 and 2007 was \$31.4 million.⁶³ But the market in 2009 for patent sales was merely \$1.2 billion.⁶⁴

This may be because patent sales are complicated due to the difficulties in patent valuation.⁶⁵ Part of the difficulty arises in valuing individual patents because firms often use bulk as a signal of the value of a patent portfolio.⁶⁶ Taxing patent

⁵⁷ See Drennan, *supra* note 49, at 1050–51. This claim derives from basic economic theory. In short, if the marginal cost of production of goods claimed by the patent goes down, the price of the product will go down, enhancing consumer welfare. Reducing taxes on capital gains produces this effect by reducing the cost of acquisition. Reducing taxes on licensing will not have the same effect unless the reduction in the taxes more than offsets any cost of licensing by producers.

⁵⁸ Carlos J. Serrano, *The Dynamics of the Transfer and Renewal of Patents*, 41 RAND J. OF ECON. 686, 686 (2010) (“As we show here, the market for patents is large. For instance, 13.5% of all granted patents are traded at least once over their life cycle and this number is higher when weighted by patent citations.”).

⁵⁹ *Id.* at 692 (“Second, when we weight the rates of transfer by the importance of the patent, as measured by patent citations received, the rates increase substantially, especially for small innovators and individual owners (unassigned patents and private inventors).”).

⁶⁰ *Id.* at 687 (“The contribution of our theory is to introduce the possibility of arrival of opportunities for surplus-enhancing transfer, which may lead to alternative potential owners having greater valuation for a patent than the current owner.”).

⁶¹ *Id.* at 692.

⁶² See Gary M. Hoffman, *Licensing for Strategic Objectives*, in HANDLING INTELL. PROP. ISSUES IN BUS. TRANSACTIONS 2003, at 1061, 1066 (PLI Pats., Copyrights, Trademarks, & Literary Prop. Course, Handbook Ser. No. 740, 2003), available at WL, 740 PLI/Pat 1061. Revenue from licensing, litigation and settlement of patent suits increased from \$3 billion on 1980 to \$100 billion in 2003..

⁶³ See Anne Kelley, *Practicing in the Patent Marketplace*, 78 U. CHI. L. REV. 115, 115–16 (2011). Median damages in the software industry is \$8.5 million.

⁶⁴ *Id.*

⁶⁵ See Aleksandar Nikolic, *Securitization of Patents and its Continued Viability in Light of the Current Economic Conditions*, 19 ALB. L.J. SCI. & TECH. 393, 412–14 (2009). The dominant approaches to valuation are based on income stream, market value or cost of acquisition. Each method may produce a different result, and even within a type of approach different values result from the numerous assumptions required. Establishing market value for patents is particularly challenging for new companies or determining the present value of future royalty income.

⁶⁶ See Colleen V. Chien, *From Arms Race to Marketplace: The Complex Patent Ecosystem And its Implications for the Patent System*, 62 HASTINGS L.J. 297, 308 (2010) (“According to the infamous “ruler” methodology, ‘you would bring your stack and you’d bring a ruler, and you’d put each stack next to each other and you’d take a ruler and you measure the relative heights of the stack. And some algorithm would tell you the number.’”). In sectors where cross-licensing is a popular means of

sales as ordinary income only adds more friction to the sales and decreases interest in purchasing patents.

Some commentators have raised concerns that making patents easier to acquire will in fact promote litigation.⁶⁷ This would be particularly likely if the sales are to firms such as NPEs, with business models that emphasize litigation for profit.⁶⁸ Indeed, there is reason to believe that NPEs already make up a larger percentage of patent sales than before.⁶⁹ It is also true that such firms' primary business model often depends upon litigation for profit.⁷⁰ This leads many to conclude that the current level of participation in the secondary market by NPEs has brought excessive litigation.⁷¹ These NPEs end up merely extracting economic rents rather than contributing to the net innovation in the nation.⁷² Some go so far as to suggest firms selling patents ought "not [to] sell arms to terrorists" by selling to patent assertion firms.⁷³

However, notwithstanding the presence of such firms, litigation might be even more prevalent without patent buyers. Another explanation for the current state of the market is that firms have been slow to realize the importance of extracting value from the extraordinary supply of IP now underlying commerce.⁷⁴ With this in mind, litigation could be even higher if market participants were interested in monetizing patents but varied in their skill in enforcing patents.⁷⁵

resolving disputes over patent boundaries, increasing patent portfolio size is a common means of improving bargaining power.

⁶⁷ See *id.* at 352.

⁶⁸ *Id.* ("Because of this, some have called on companies "not [to] sell arms to terrorists," that is, to exclude patent-assertion entities from their patent sales." (citing Matthew Fawcett & Jeremiah Chan, *March of the Trolls: Footsteps Getting Louder*, 13 INTELL. PROP. L. BULL. 1, 10 (2008))).

⁶⁹ Kelley, *supra* note 63, at 188.

The bulk of the buying in the patent marketplace is by NPEs, which may be thought of more broadly as 'financial buyers.' Sales to financial buyers represent more than 60 percent of the total market value of all transactions and more than 75 percent of the transactions in the marketplace.

Id.

⁷⁰ See Alison, Lemley & Walker, *supra* note 29, at 32 ("While they account for only about 16% of the once-litigated patents, they represent over 80% of the suits filed involving the most-litigated patents and own more than 50% of the most-litigated patents themselves.").

⁷¹ See *id.* at 31. Patent reform debates often center on "patent trolls".

⁷² See FED. TRADE COMM'N, THE EVOLVING IP MARKETPLACE: ALIGNING PATENT NOTICE AND REMEDIES WITH COMPETITION, 2011 WL 838912, at *5 (2011). If a patent holder sues a practicing entity, and the cost of switching technology is sufficiently high, the practicing entity may find its lowest cost choice is to pay the patent holder. The royalties obtained from the threat of injunction capture not only the market value of the patented invention but also part of the costs that the infringer would accrue to switch to a non-infringing substitute. This latter component is the "hold-up" value of the patent. It can be argued that as a matter of policy, this hold-up value may be overcompensation of the patentee's injury. Such rent-seeking behavior is a deadweight loss to the market, thereby inhibiting innovation.

⁷³ See Fawcett & Chan, *supra* note 68, at 20. One perspective calls for companies to factor in the "troll threat" into their relationships with patent transfer intermediaries and actively thwart NPEs from obtaining their patents. If such actions is successfully coordinated among industries that wish to minimize the impact of NPEs, this can cut off a major avenue of patent acquisitions for such firms.

⁷⁴ See Chien, *supra* note 66, at 302-08.

⁷⁵ See Alberto Galasso, Mark Schankeran & Carlos J. Serrano, *Trading and Enforcing Patent Rights* 2 (Nat'l Bureau of Econ. Research, Working paper No. 17637, 2011),

There is some evidence that historically, patent transfers were motivated by comparative advantages in *marketing* or *product development*.⁷⁶ But today, an empirical study suggests that market transfers may instead be best explained as allocations to those most skilled at *enforcing* patents.⁷⁷ Rather than increasing litigation, patent market transfers have in fact reduced litigation.⁷⁸ The empirical study exploited the very lack of horizontal equity between individuals and corporate patent owners to identify any endogenous effects of trade on litigation.⁷⁹ Because both licensing and litigation are taxed as ordinary income, tax considerations do not lead firms to favor either source of income. But choosing between litigating and selling patents will be affected by the capital gains treatment of patent sales.

The authors' findings reveal that patent taxation has a significant impact on the frequency of litigation.⁸⁰ Crucially, sales from individuals to other individuals did not reduce the likelihood of litigation of those patents, but sales to firms with larger patent portfolios did. This is consistent with other evidence that firms that benefit from economies of scale of patent enforcement actually reduce the incidence of litigation.⁸¹

B. The Patent Box Movement Reflects the Importance of Taxes on Patent Production and Use.

Perhaps the strongest endorsement of the importance of intellectual property taxation considerations is found in the efforts by governments of high-GDP nations, such as the United Kingdom, to encourage firms to develop and hold intellectual property domestically. In 2009, the U.K. government announced it will offer a tax break called a "patent box".⁸² This followed similar measures such as those implemented in the Netherlands and Luxembourg in 2007 and followed by Belgium

<http://www.nber.org/papers/w17367>. This may result if there are firms that seek defensive portfolios in order to avoid litigation or if the acquiring firm has an economy of scale in enforcing patents.

⁷⁶ See *id.* at 7. Traditionally, patent sales were viewed as beneficial where firms may benefit from vertical specialization or comparative advantages in marketing or manufacture.

⁷⁷ *Id.* at 3 ("Second, we find that changes in patent ownership reduce the likelihood of litigation for patents originally owned by individual inventors, *on average*. This implies that enforcement gains dominate commercialization gains (and the effects of any patent trolling activity) in the market for such patents.").

⁷⁸ See *id.* at 1.

⁷⁹ See *id.* at 2. To study the causal effect of trading on litigation, the authors exploited a provision in U.S. tax law that enabled them to use variation in capital gains tax rates across states and over time as a means of teasing out the effects of change in patent ownership on litigation.

⁸⁰ See *id.* at 29. The impact on taxation in the authors' study was used in part to find the causal impact of patent trading on litigation. As they note, market-based allocations presumably occur because they increase the surplus generated by the patented innovations. It follows then, if patent sales are to be encouraged, providing capital gains taxation is of prime importance.

⁸¹ See *id.* at 6. The authors also found that holding the buyer's portfolio size constant, litigation risk increased when the traded patent is a better fit in the buyer's existing portfolio. This is reflects the increased commercialization gains of such transfers.

⁸² See Rachel Griffith & Helen Miller, *Patent Boxes: An Innovative Way to Race to the Bottom*, VOX (Jun. 30, 2011), <http://www.voxeu.org/index.php?q=node/6706>. The name "patent box" derives from the "box" companies would elect to check off on their tax forms.

and Spain in 2008.⁸³ Unlike research and development credits, which directly incentivize patent production, patent box regimes aim to promote use of patents in a particular jurisdiction.⁸⁴

These patent box regimes are direct responses to the increase in intellectual property mobility and efforts by companies to move intellectual property assets to tax-friendly jurisdictions.⁸⁵ Although some nations provide similar measures for other forms of intellectual property including trademarks and copyrights, the U.K. is notably only providing tax incentives for patents, indicating that it is particularly patents that provide economic growth.⁸⁶

Providing low taxes for revenue derived from patents is crucial to the UK's patent scheme.⁸⁷ Although other patent box providers have lower effective taxes, the U.K. decided 10% taxes on revenues would provide a sufficiently strong incentive to retain companies. The U.K.'s existing corporate tax rate is 26%, which is already lower than the federal tax rate of 35% in the U.S.⁸⁸ The U.K. patent box measure is effective for patents first commercialized after November 29, 2010.⁸⁹

The UK's tax scheme will have some administrative costs to ensure fair application. The UK's tax scheme depends on attributing profits to patents. To do so, it will provide a methodology for determining what percentage of a corporation's profits is attributable to the patents it owns.⁹⁰ This includes determining a hypothetical royalty rate to determine what the company would have to pay if the company had to license the patent.⁹¹ The UK, like the Netherlands and Luxembourg, include capital gains from sales of patents as eligible income.⁹² These provisions reflect the importance these nations assign patent sales in facilitating innovation and economic growth.

⁸³ See HM TREASURY & HM REVENUE & CUSTOMS, CORPORATE TAX REFORM: DELIVERING A MORE COMPETITIVE SYSTEM 18 (2011), available at http://www.hm-treasury.gov.uk/d/corporate_tax_event_slides.pdf. The motivation of various countries to initiate these measures was to prevent offshoring of intellectual property assets.

⁸⁴ JIM SHANAHAN, IS IT TIME FOR YOUR COUNTRY TO CONSIDER A "PATENT BOX"?, PWC'S GLOBAL R&D TAX SYMPOSIUM ON DESIGNING A BLUEPRINT FOR REDUCING THE AFTER-TAX COST OF GLOBAL R&D 4 (2011), available at http://download.pwc.com/ie/pubs/2011_is_it_time_for_your_country_to_consider_the_patent_box.pdf.

⁸⁵ HM TREASURY & HM REVENUE & CUSTOMS, *supra* note 83, at 13. The purpose of the patent box is "[t]o enhance the competitiveness of the UK tax system, recognising that patents are mobile and that multinational groups have a choice as to where to locate ownership and activity."

⁸⁶ HM TREASURY & HM REVENUE & CUSTOMS, CONSULTATION ON THE PATENT BOX 22 (2011), available at http://www.hm-treasury.gov.uk/d/consult_patent_box.pdf ("The Government is focusing on patents because they have a particularly strong link to high- tech Research and Development (R&D) and manufacturing activity.").

⁸⁷ *Id.* at 6 ("The regime should include both patent licence income and patent income embedded in the sale proceeds of a patented product, in order to make the Patent Box competitive for the widest range of businesses.").

⁸⁸ HM REVENUES & CUSTOMS, RATES OF CORPORATION TAX (2011), available at http://www.hmrc.gov.uk/stats/corporate_tax/rates-of-tax.pdf.

⁸⁹ See HM TREASURY & HM REVENUE & CUSTOMS, *supra* note 86, at 7.

⁹⁰ *Id.* at 19 ("Valuing individual patents using an arm's length standard is likely to impose an excessive administrative burden and the Government therefore intends to adopt a largely formulaic approach.").

⁹¹ Alison L. Maxwell, *The UK Patent Box Proposal: How Does it Measure Up?* (Jul. 27, 2011), <http://www.dlapiper.com/the-uk-patent-box-proposal-how-does-it-measure-up/>.

⁹² *Id.*

C. The Patent Box Movement Supplies Missing Incentives in Patent Production and Use.

The patent system is essentially a social contract designed to reward innovators with exclusive rights when they provide full disclosure of the invention to the public.⁹³ The system awards patent holders with an exclusive right for a period of time designed to capture the rewards for their efforts.⁹⁴ But if inventors in fact are unable to capture the benefit they produce, they will be underincentivized to produce patents.

There are reasons to think patent holders are underincentivized. The research and development of patents produce positive externalities.⁹⁵ Economist William Nordhaus identifies as “the alchemist fallacy” the notion innovators extract the full private value of the social benefit of their contributions.⁹⁶ In a 2005 study, Nordhaus concluded that innovators only capture 4% of the social surplus from such innovation.⁹⁷

In the face of market failures such as these, policy makers can modify tax regimes. The tax code may be modified to provide incentives to compensate for market failures. For instance, because the U.S. recognizes that individual workers obtaining more education collectively produce positive externalities, the government provides subsidies and tax credits for certain education expenses.⁹⁸ Because patent-based innovation produces similarly positive benefits, benefits only partially captured by inventors in a free market system, tax incentives seem to be well-suited to stimulate such innovation.

Patent box regimes provide a solution for such market failures. Research and development credits help bring patents into fruition and minimize the risks in doing so, but patent boxes take the crucial step of providing incentives to develop uses for these patents.⁹⁹ These are superior to general tax cuts in that they provide specific

⁹³ Scott Paper Co. v. Marcalus Mfg. Co., 326 U.S. 249, 255 (1945).

⁹⁴ See Robert P. Greenspoon & Catherine M. Cottle, *Don't Assume a Can Opener: Confronting Patent Economic Theories with Licensing and Enforcement Reality*, 12 COLUM. SCI. & TECH. L. REV. 194, 197 (2011). Although there are varying reasons offered for the underlying mechanism that motivates inventors to seek patents, what is common to them is that individuals or entities are wealth-seeking rational actors.

⁹⁵ ROBERT D. ATKINSON & SCOTT ANDES, THE INFO. TECH. & INNOVATION FOUND., PATENT BOXES: INNOVATION IN TAX POLICY 4 (2011), available at <http://www.itif.org/files/2011-patent-box-final.pdf>.

⁹⁶ William D. Nordhaus, *Schumpeterian Profits and the Alchemist Fallacy* 4 (Yale Working Papers on Economic Applications and Policy, Discussion Paper No. 6, 2005), <http://www.econ.yale.edu/ddp/ddp00/ddp0006.pdf>.

⁹⁷ *Id.* at 17.

⁹⁸ Elkins, *supra* note 51, at 48.

⁹⁹ See ATKINSON & ANDES, *supra* note 95, at 7. Research and development (R&D) tax credits are effective direct stimulants of innovation because they offset the cost of research activities and reduce the risk to firms for engaging in such costly experiments. Patent boxes have a similar effect by a different mechanism; instead of reducing the cost of R&D, they increase the payoff to successful experiments. Such measures make investments in innovation attractive, particularly in early-stage companies.

incentives to innovate.¹⁰⁰ A company that can earn a million dollars from refining an existing product or developing a new innovation should be indifferent between the two. But if in developing the new innovation the firm benefits from lower taxes, the company now has incentive to innovate.¹⁰¹ This brings innovators closer to being sufficiently incentivized to innovate, and the social benefits are substantial.

D. An Incomplete Tax Code.

A tax code is designed for a number of goals, including ease of administration, horizontal equity, and economic efficiency.¹⁰² But even factoring in these constraints, the current tax code falls short by providing only limited means of rewarding patent innovation.

IRC Section 1235 rewards individual inventors with capital gains treatment of sales but does not provide C corporations the same benefit, underincentivizing crucial market participants.¹⁰³ The provision is relatively strict in what patent transfers qualify, and applies only to a transfer of “all substantial rights” to a patent, which precludes, for instance, geographic limitations on use of the patent.¹⁰⁴ Finally, it is only available to the statutorily defined “holder” of the patent, which must be an individual.¹⁰⁵ Provisions such as IRC Section 1235 focus exclusively on rewarding transferors. But the tax code does not provide incentives for acquirers of patents; these parties are subject to a number of depreciation rules that so vary they may fairly be described as irrational.

III. PROPOSAL

There is strong evidence that taxation is a significant factor in the decision to license, sell or litigate patents. To the extent that patent litigation is currently more common than desirable, measures that make patent sales more attractive means of monetizing patents are desirable. At the same time, there is considerable interest in finding measures to stimulate the economy. Policymakers have expressed an

¹⁰⁰ See HM TREASURY & HM REVENUE & CUSTOMS, *supra* note 83, at 17. The U.K. Government, for instance, was concerned that general reductions in corporate tax would be too expensive.

¹⁰¹ See ATKINSON & ANDES, *supra* note 95, at 7.

¹⁰² See Nguyen & Maine, *supra* note 54, at 3–7 (Discussing the tradeoffs and the relationship between these motives.).

¹⁰³ See 26 U.S.C. § 1221 (2012). Patents must be capital assets to qualify for preferential capital gains treatment. Patents held by corporations are likely characterized as inventory and therefore excluded from the definition of capital assets.

¹⁰⁴ See, e.g., *Kueneman v. Comm’r of Internal Revenue*, 628 F.2d 1196, 1200 (9th Cir. 1980). To qualify for capital gains treatment, patent holder’s monopoly right to make, use, and sell the patented invention throughout the United States during life of the patent and right to exclude others from doing so must be transferred and, in context of a geographical transfer, it must include all areas of the United States in which the patented invention has potential value.

¹⁰⁵ See 26 U.S.C. § 1235.

interest in incentivizing patent production and concomitant business innovation.¹⁰⁶ It may be that both goals may be effectuated by the same modification to the tax code.¹⁰⁷

A. Corporations Should be Eligible for Capital Gains Taxation on Patent Sales.

Congress should take note that the same motivations to encourage capital flows to innovators that led to granting individual patent owners with capital gains treatment for patent sales under IRC Section 1235 applies to C corporations. It seems there is demand from the market for such a change.¹⁰⁸ If the most valuable patents are those that are most likely to be sold, this suggests that patents are not necessarily best used by the original inventors. As a society, we collectively benefit when those who value patents most are able to obtain them, and use these patents to develop new products¹⁰⁹. The gap in patent sales between individual inventors and C corporations suggests that there are at least some differences in the calculus of selling patents between these groups. The ability to benefit from capital gains taxation is a likely source of friction.¹¹⁰

One objection to the plan to decrease impediments to patent sales is that NPEs may acquire patents more easily, resulting in an increase in litigation. Following implementation of such a tax incentive, it can be reevaluated by Congress to see if it is producing the intended effect of stimulating patent innovation. Ultimately, Congress is charged with selecting policies that promote innovation¹¹¹. Encouraging

¹⁰⁶ See L. Gordon Crovitz, *We Need an Immigration Stimulus*, WALL ST. J., Apr. 27, 2009, at A13. In advocating for reform to make immigration to the United States easier, one commentator observed the outsized effect immigrants have in producing intellectual property that builds business. Multibillion companies founded by immigrants include Yahoo, eBay and Google. Half of Silicon Valley start-ups were founded by immigrants, an increase from 25% a decade ago, and started 25% of all venture capital-backed firms. Immigrants employ 450,000 workers in the U.S. A recent study commissioned by the Kaufmann Foundation found that immigrants are 50% more likely to start businesses than other Americans.

¹⁰⁷ See ATKINSON & ANDES, *supra* note 95, at 4. Many neoclassical economists would express disfavor at using the tax code to incentive certain business activities, relying on their efforts to point to the benefit of markets in increasing collective well-being. But other economists support such measures with their own body of research pointing that companies do not capture the whole benefit of the research they conduct, leaving them underincentivized to produce valuable research.

¹⁰⁸ *The liquidity of innovation*, THE ECONOMIST (OCT. 20, 2005), <http://www.economist.com/node/5015365>.

¹⁰⁹ *A market for ideas*, THE ECONOMIST (OCT. 20, 2005), <http://www.economist.com/node/5014990>. The value of creating mechanisms to enhance liquidity to allocate patent rights by licensing and sales is comparable to the development of the banking and insurance industries.

¹¹⁰ See Xuan-Thao Nguyen & Jeffrey A. Maine, *Acquiring Innovation*, 57 AM. U. L. REV. 775, 810–11 (2008). An additional gap in the tax code that may favor the increase in patent sales is the lack of tax incentives for acquisition of intellectual property. As firms specialize and the market segments development of particularized intellectual property, firms more than ever seek to acquire intellectual property developed by other firms to create innovative products they could not otherwise have otherwise. Deductions to individual and corporate inventors for capitalized development costs are only available to developers of the intellectual property itself.

¹¹¹ See James F. McDonough, *The Myth of the Patent Troll: An Alternative View of the Function of Patent Dealers in an Idea Economy*, 56 EMORY L.J. 189, 221–23 (2006). Arguably, patent market

patent licensing by offering taxes comparable to the current capital gains would make sales, another route to monetizing patents other than litigation¹¹².

B. The United States Should Introduce Its Own Patent Box Taxation Scheme to Provide Incentives for Innovative Uses of Patents.

Intellectual capital is the lifeblood of the modern corporation¹¹³. A substantial concern at a time when the economy is particularly weak is that such capital will move to lower-taxed jurisdictions. A patent box scheme provides companies that innovate and produce economic growth the proper incentives to develop intellectual capital domestically.

Although a number of other nations have implemented patent boxes, the United States can improve upon these earlier efforts. The time is certainly imminent. The prime importance of patent litigation, licensing and sales to fast-growing areas such as telecom and mobile telephony is the bellwether for the role patents will play in such an economy. If firms have been slow to recognize the value of intellectual property assets, the law has been even slower to respond to this demand.¹¹⁴

Selecting an appropriate level of taxation for a patent box scheme is necessarily complicated because it implicates the intersection of policies behind taxation and granting intellectual property. Nevertheless, some basic suggestions are offered here for implementing such a scheme in the U.S.

The U.S. must compete with other nations, particularly those of similar economic profiles such as the U.K. Corporate taxation is starkly different in the U.K. and the U.S.; the U.S. has almost 10% higher corporate income taxes, not even including state income tax. A 10% patent box tax on income derived from intellectual property such as the U.K. will implement would make the U.S. competitive on an international scale.¹¹⁵ In a nation such as the U.S. that taxes global income domestically, a patent box scheme provides the ideal incentives to retain and innovate using intellectual property domestically.¹¹⁶

participants such as NPEs operate in furtherance of the Constitution. Since the Patent clause is Article I, Section 8 calls for Congress to “promote the progress” of “useful arts”, but the term progress is not self-defining.

¹¹² The government will need to explore what rate balances the need for tax revenue with the goal of fostering growth, and can look to other nation’s tax regimes. HM TREASURY & HM REVENUE & CUSTOMS, *supra* note 83, at 18 (“The Government wants to provide an effective incentive to create and retain patents in the UK but believes it is not necessary to match the rates offered by other countries. A 10% rate strikes a good balance between affordability and competitiveness.”).

¹¹³ See Jay Yarow, *HTC Pays Microsoft \$5 Per Android Phone, Says Citi*, BUSINESS INSIDER (May 27, 2011, 8:59 AM), <http://www.businessinsider.com/htc-pays-microsoft-5-per-android-phone-2011-5>. For instance, controlling patents for products used in a wide range of products can have enormous benefits. Microsoft reportedly earns \$5 per HTC Android based device, which translates to billions of dollars in royalties.

¹¹⁴ HM TREASURY & HM REVENUE & CUSTOMS, *supra* note 86, at 22 (“This restriction will also apply where any other associated company acquires the trade or assets of the company which has previously opted out of the Patent Box.”).

¹¹⁵ HM TREASURY & HM REVENUE & CUSTOMS, *supra* note 83, at 18.

¹¹⁶ See David Kocieniewski, *U.S. Business Has High Tax Rates But Pays Less*, N.Y. TIMES, May 2, 2011, at A1. The United States is unique in trying to tax multinational corporations on their foreign earnings, but it enables these same companies to avoid these taxes indefinitely by keeping

Some features of the U.K. patent box reveal the particular challenges associated with implementing a patent box here. The U.K. government must determine what portion of profits derived from the sale of products is attributable to any underlying patents. Such valuation raises obvious challenges. But HM Treasury provides a formulaic approach that reduces the administrative burden of asking companies to develop arms-length valuations and in turn have the government review these. But due to the costs of providing this valuation, the patent box is an opt-in scheme in the U.K; in order to avoid gaming the system, the U.K. does not allow companies to opt in for five years if they opt out.¹¹⁷

The United States may also wish to avoid the high transaction costs associated with such calculations by providing flat percentages with presumptive attributable profits. But it may be best to leave companies to supply their own proof of revenues attributable to patents and determine if it is worth the effort.

Tax considerations are very important, and often crucial determinants in making business decisions about where to exploit patents and create jobs.¹¹⁸ Global competitiveness in tax efficiency increases pressure on corporate officers to seek the best global places to develop and house their intellectual property.¹¹⁹ Inevitably, any changes in policy must be evaluated for their equity, to avoid creating loopholes and opportunities for regulatory capture.¹²⁰ HM Treasury developed an incremental public consultation that made the goals of the patent box scheme clear and solicited proposals on implementing the framework.¹²¹ Likewise, the U.S. has the opportunity to ensure open discussion on the merits and means of accomplishing such a tax system.

profits overseas. This encourages companies to use creative accounting to allocate profits to low-tax jurisdictions and continue to invest these profits out of the United States.

¹¹⁷ HM TREASURY & HM REVENUE & CUSTOMS, *supra* note 86, at 22 (“This restriction will also apply where any other associated company acquires the trade or assets of the company which has previously opted out of the Patent Box.”).

¹¹⁸ *The Impact of International Tax Reform on U.S. Competitiveness: Hearing Before the Subcomm. on Select Revenue Measures of the Comm. on Ways and Means*, 109th Cong. 20–32 (2006) (statement of Craig R. Barrett, Ph.D., Chairman of the Board, Intel Corp., Santa Clara, California). Then-CEO of Intel Craig Barrett testified to Congress in 2006 on the effect of tax considerations on capital intensive industries such as the semiconductor industry.

As a result of this change in the competitive environment, a critical issue we must now consider when deciding where to locate a new wafer fabrication plant is that it costs \$1 billion dollars more to build, equip, and operate a factory in the U.S. than it does outside the U.S. The largest portion of this cost difference is attributable to taxes.

Id.

¹¹⁹ See Griffith & Miller, *supra* note 82. One principal issue is that firms can allocate income to offshore entities in lower-tax jurisdictions, which erodes the tax base for the domestic government.

¹²⁰ See generally, C. Scott Hemphill, *Paying For Delay: Pharmaceutical Patent Settlement As A Regulatory Design Problem*, 81 N.Y.U. L. REV. 1553 (2006). When large firms seek to ensure challenges for new entrants to maintain profits, such firms can quickly find regulatory bodies their friends rather than enemies. By embracing and influencing such agencies, they can develop anti-competitive policies. This is the essence of regulatory capture. By exercising patent protection, such industries can facilitate such exclusion. One notorious example is the “pay-for-delay” patent litigation settlements in the pharmaceutical industry. There, patent holding drug companies have paid generic manufacturers to delay entering the market, to the tune of billions of dollars.

¹²¹ HM TREASURY & HM REVENUE & CUSTOMS, *supra* note 86, at 8 (identifying a three-stage procedure for accepting comments from the public on a patent box tax scheme).

An advantage of implementing a tax that lowers the cost of sales makes it easier for firms to choose corporate structure. In an era where market segmentation has grown with specialization, firms need the flexibility to choose to vertically integrate or specialize as needed.¹²² Firms choosing to specialize and benefit from capital gains taxation in selling patents will free up capital that can be used to reinvest in more specialized innovation.¹²³

IV. CONCLUSION

Patent litigation is a common but expensive and unpredictable means of monetizing patents.¹²⁴ The lack of a growth-oriented tax code for patent sales makes litigation more attractive than desirable. Moving patent assets to those who value them most would reduce litigation rather than increase it, and encourage innovation that creates economic growth.¹²⁵ Congress should provide the same capital gains tax provided to corporate owners as is available under IRC Section 1235. An ideal means of implementing this change is through the creation of a patent box tax regime, which would offer low tax on income derived from patent uses.

¹²² See Drennan, *supra* note 49, at 1159–60 (discussing the economics of production and whether reducing taxes impacts economic efficiency). Since a patent grants an exclusive right for a particular invention, this necessarily raises the price of production of that product by disabling competition. But if that right is reallocated to an entity that can innovate and develop products at a lower cost than the current patent holder, the public as a whole benefits. If firms vary in their skill and desire to focus on production, patents may be efficiently allocated to the party that has the lowest production costs by a market. Facilitating these market transactions by lowering taxes benefits the public.

¹²³ See *id.* at 1160. When Thomas Edison was 22, he developed an improvement on the “ticker” machine used in the financial industry. Edison could have made the business decision to develop this market and license the product. Instead, he sold the machine for \$40,000 and reinvested that substantial capital into the Menlo Park research complex, where the light bulb, phonograph, motion pictures and myriad other inventions developed. Reinvesting capital to focus on innovation can have dramatic effects, with positive spillover effects for the public.

¹²⁴ See David L. Schwartz, *Courting Specialization: An Empirical Study of Claim Construction Comparing Patent Litigation Before Federal District Courts and the International Trade Commission*, 50 WM. & MARY L. REV. 1699, 1701 (2009). Because of recent Supreme Court decisions, district court judges claim constructions are subject to de novo review. Federal district court judges often have limited backgrounds and expertise in patent law. Consequentially, their efforts at claim construction suffer from high reversal rates from the Court of the Federal Circuit.

¹²⁵ See Drennan, *supra* note 49, at 1148–49. Although it may seem at first that reducing taxes on patent sales may reduce total tax revenue from patent sales, if aggregate sales significantly increase, total revenue may in fact increase. Further, if the patents are allocated to producers with lower costs and thereby are able to provide lower costs to purchasers, concomitant increases in sales of the products will increase tax revenue.