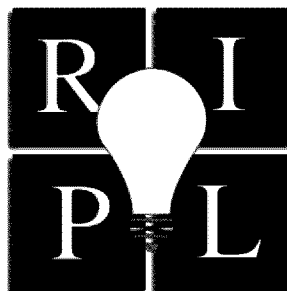


# THE JOHN MARSHALL REVIEW OF INTELLECTUAL PROPERTY LAW



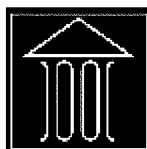
IS *BILSKI* LIKELY THE FINAL WORD ON TAX STRATEGY PATENTS?  
COHERENCE MATTERS

LINDA M. BEALE

## ABSTRACT

The Supreme Court's grant of certiorari in *In re Bilski* presents an opportunity to lay to rest the patent eligibility of tax strategies. A comparison of the core values of the patent and tax systems reveals fundamental conflicts that have gained the attention of tax practitioners, bar associations and Congress. These conflicts are identified by tracing both the development of patentable subject matter and the policy goals of the tax system. This article addresses the future of tax strategy patents in light of *In re Bilski* and analyzes the potential for the Court to deliver guidance that makes clear the ineligibility of tax strategies as patent subject matter.

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IS *BILSKI* LIKELY THE FINAL WORD ON TAX STRATEGY PATENTS?  
COHERENCE MATTERS

LINDA M. BEALE \*

Two decades ago, patents granted by the United States Patent and Trademark Office (“Patent Office”) primarily dealt with routine industrial manufacturing processes and tangible machines.<sup>1</sup> The Federal Circuit’s landmark 1998 decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*<sup>2</sup> found a method for processing data to manage mutual funds through a “hub and spoke” system to be statutory subject matter under 35 U.S.C. § 101.<sup>3</sup> The *State Street* decision appeared to remove any doubt that there ever was an exception to patentable subject matter for business methods that do not involve traditional industrial inventions: methods of conducting business can be patentable processes, the court held, so long as they produce a “useful, concrete and tangible result.”<sup>4</sup> The case revolutionized the types of claims before the Patent Office, resulting in an avalanche of business method and financial transaction applications moving through the system.<sup>5</sup>

Software patents became commonplace. There are numerous patents held by critical businesses operating in the internet world, such as Amazon’s system for purchases of books with a single click,<sup>6</sup> Google’s link analysis algorithm for ranking web pages,<sup>7</sup> and Priceline’s reverse auction procedure for allowing customers to set their own price for travel purchases.<sup>8</sup> Financial business method patents surged.<sup>9</sup>

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\* Associate Professor and Director of Graduate Studies, Wayne State University Law School. I am particularly grateful for comments from Peter Yu and the participants at the Drake-Tundra IP Conference, at which an earlier version of this paper was presented.

<sup>1</sup> Richard S. Gruner, *When Worlds Collide: Tax Planning Method Patents Meet Tax Practice, Making Attorneys the Latest Patent Infringers*, 2008 U. ILL. J.L. TECH. & POL’Y 33, 41 (2008).

<sup>2</sup> 149 F.3d 1368 (Fed. Cir. 1998), *abrogated by In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (en banc), *cert. granted sub nom. Bilski v. Doll*, 129 S. Ct. 2735 (2009).

<sup>3</sup> *Id.* at 1375; *see* 35 U.S.C. § 101 (2006).

<sup>4</sup> *State Street*, 149 F.3d at 1375 (quoting *In re Alappat*, 33 F.3d 1526, 1544 (Fed. Cir. 1994) (en banc)).

<sup>5</sup> *See* John R. Allison & Emerson H. Tiller, *The Business Method Patent Myth*, 18 BERKELEY TECH. L.J. 987, 990–91 (2003) (noting the existence of “software-embodied” business method patents before *State Street* and the surge of business method patents after the decision); *see also* Linda M. Beale, *Tax Shelters and the Tax Minimization Norm: How Does the Patenting of Tax Advice Transform the (Global) Playing Field*, J.L. SOC’Y, Summer 2008, at 29, 32 [hereinafter Beale, *Tax Shelters*] (noting complaints of an “increasingly impenetrable ‘patent thicket’ of complicated, vague and overlapping claims”) (quoting Peter Haapaniemi, *Have We Lost Our Way?*, IP BUS., Spring/Summer 2006, at 4).

<sup>6</sup> *Method and System for Placing a Purchase Order Via a Communications Network*, U.S. Patent No. 5,960,411 (filed Sept. 12, 1997) (issued Sept. 28, 1999).

<sup>7</sup> Amended & Restated License Agreement, Bd. of Trs. of the Leland Stanford Junior Univ.-Google Inc., Oct. 13, 2003 (on file with The John Marshall Review of Intellectual Property Law); *Method for Node Ranking in a Linked Database*, U.S. Patent No. 6,285,999 (filed Jan. 9, 1998) (issued Sept. 4, 2001).

<sup>8</sup> *Purchase & Intercompany Services Agreement*, Walker Asset Mgmt. LP-Walker Digital Corp.-Priceline.com LLC-PricelineTravel, Inc., Apr. 6, 1998 (on file with The John Marshall Review of Intellectual Property Law); *Method & Apparatus for a Cryptographically Assisted Network*

Much to the surprise of most tax attorneys, patents were even granted on a number of tax planning strategies.<sup>10</sup> This explosion of business method patents—in particular, the granting of patents on applications derived from the positive law, such as tax strategy patents—engendered a growing controversy over the nature of the patent system itself within the tax bar, the Patent Office, in Congress and in the courts, reflecting disagreement about the proper role of patent law in an economy in which services and financial transactions have taken on an increasingly significant role.<sup>11</sup> Bar associations, accountancy groups and other tax practitioners have generally viewed the development of tax strategy patents with alarm.<sup>12</sup> The Patent Office at first defended, and then questioned, the broad interpretation of patent eligibility that permits patenting of ideas about how to structure a tax-savings transaction.<sup>13</sup> Congress has wrestled with the question of whether it should intervene in what can be patented with every new technology—man-made life forms in the 1980s, software in the 1990s and business methods in the *State Street* case.<sup>14</sup> In the context of an ongoing consideration of major reforms to the law governing the issuance of patents, Congress proposed an outright ban of patents on tax planning strategies, though it has not yet enacted either a ban in isolation or as part of the reform bill.<sup>15</sup> The Federal Circuit, in the meantime, appeared to do an about-face from its expansive *State Street* interpretation of the Patent Act's scope in a series of opinions dealing with the patent-eligibility of business methods, including *In re Comiskey*,<sup>16</sup> in which the court affirmed the rejection of a patent for a process of

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System Designed to Facilitate Buyer-Driven Conditional Purchase Offers, U.S. Patent No. 5,794,207 (filed Sept. 4, 1996) (issued Aug. 11, 1998).

<sup>9</sup> Allison & Tiller, *supra* note 5, at 990–91; Douglas L. Price, *Assessing the Patentability of Financial Services and Products*, 3 J. HIGH TECH. L. 141, 141–42, 153 (2004).

<sup>10</sup> Linda M. Beale, *Tax Patents: At the Crossroads of Tax and Patent Law*, 2008 U. ILL. J.L. TECH & POL'Y 107, 107 n.3 [hereinafter Beale, *Crossroads*] (citing the ABA Section of Taxation Task Force on Patenting of Tax Strategies, Lists and Examples of Tax Patents and Published Applications, TAXATION, <http://www.abanet.org/tax/patents/home.html> (last visited Sept. 18, 2009) (follow “Listing of Patents Classified as Tax Strategy Patents by PTO” hyperlink; and follow “Listing of Published Tax Patent Applications Classified as Tax Strategy Patents by PTO” hyperlink)).

<sup>11</sup> *See id.* at 107–15 (providing a brief overview of the development of business method and tax strategy patents and the controversy around them); Gruner, *supra* note 1, at 33–40 (describing the disagreement between the intellectual property and tax bars about tax strategy patents).

<sup>12</sup> *See* Alison Bennett, *Sowell Expects U.S. Patent Office to Issue Guidance Curbing Tax Patents*, DAILY TAX REP. (BNA), Jan. 23, 2008, at G8 (noting ABA concern over tax patents); Beale, *Tax Shelters*, *supra* note 5, at 34–35, 35 n.16 (referencing letters from various state bar associations, the AICPA and other materials).

<sup>13</sup> *See* Beale, *Crossroads*, *supra* note 10, at 115–16 (noting Patent Office's assertions, as recently as May 2007, of the importance of issuing tax strategy patents); Bennett, *supra* note 12 (indicating that Sowell expects prohibitions on patents on “tax strategies that are not associated with technology”).

<sup>14</sup> *See, e.g.*, Stephen T. Schreiner & George Y. Wang, *Discussions on Tax Patents Have Lost Focus*, IP LAW 360, July 13, 2006, at 1, [http://www.hunton.com/files/tbl\\_s47Details%5CFileUpload265%5C2423%5CTaxArticle\\_IPLaw360\\_7-21-06.pdf](http://www.hunton.com/files/tbl_s47Details%5CFileUpload265%5C2423%5CTaxArticle_IPLaw360_7-21-06.pdf).

<sup>15</sup> *See*, Beale, *Crossroads*, *supra* note 10, at 116–19 (describing the patent reform initiatives); *see also* Statement of Sen. Carl Levin on Introducing the Stop Tax Haven Abuse Act, TAX NOTES TODAY, Mar. 2, 2009, available at 2009 TNT 45-32 (noting the inclusion in newly proposed tax shelter legislation of section 303, which would prohibit any “tax planning invention” designed to reduce tax liabilities).

<sup>16</sup> 499 F.3d 1365 (Fed. Cir. 2007), *vacated*, 89 U.S.P.Q.2D (BNA) 1641 (Fed. Cir. Jan. 13, 2009) (*en banc*), *amended by* 554 F.3d 967 (Fed. Cir. 2009) (noting that the court acted *en banc* to vacate

mandatory arbitration, and *In re Nuijten*,<sup>17</sup> in which the court held that a transitory propagating signal was too ephemeral to be patentable subject matter, and culminating in *In re Bilski*,<sup>18</sup> in which the court essentially repudiated the *State Street* test and set forth a new “machine or transformation” standard.<sup>19</sup>

The business method patent revolution has now come to a critical point of decision at the Supreme Court, based on the Court’s grant of Bernard L. Bilski’s and Rand A. Warsaw’s petition for certiorari<sup>20</sup> from the adverse decision at the Federal Circuit. This will be the first time that the Supreme Court has addressed the breadth of patent subject matter scope in two decades. The Federal Circuit has been struggling to reconcile and interpret for today’s economy the law of nature/abstract idea limitation on patentability set forth in the trilogy of *Gottshalk v. Benson*,<sup>21</sup> *Parker v. Flook*<sup>22</sup> and *Diamond v. Diehr*,<sup>23</sup> seminal Supreme Court subject matter cases dealing with software that were handed down in the 1970s and early 1980s, during the period before the information technology explosion had reached into the fiber of everyday lives via the internet, cellphones, and laptop computers.<sup>24</sup> The *Bilski* decision represents a sea change in the Federal Circuit’s resolution of the issues involved, making clear that the Court’s conclusions will likely have a far-reaching impact on patent law generally, and tax law in particular, even though the *Bilski* case is not a platform that directly raises the tax planning patent issue.<sup>25</sup>

In previous articles, I have argued that tax strategy patents should not be permitted, based on a number of practice, institutional and policy concerns.<sup>26</sup> This article re-articulates and extends that analysis in the context of the Supreme Court’s acceptance of *certiorari* in *Bilski*. It proceeds in the following steps. Following this general introduction, Part I briefly reviews the Constitutional and legislative context in which tax strategy patents must be considered and the courts’ shifting tests for business method patents. Part II articulates a fundamental concept of tax law, the anti-manipulation value, in its various manifestations, and demonstrates that

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the original opinion and reassigned the opinion to the panel for revision and remanding the module claims and means-plus-function claims requiring use of machines to the Patent Office to consider the subject matter question on those claims).

<sup>17</sup> *In re Nuijten*, 500 F.3d 1346 (Fed. Cir. 2007).

<sup>18</sup> 545 F.3d 943 (Fed. Cir. 2008) (en banc), *cert. granted sub nom. Bilski v. Doll*, 129 S. Ct. 2735 (2009).

<sup>19</sup> *Id.* at 959–60.

<sup>20</sup> *Bilski*, 129 S. Ct. 2735.

<sup>21</sup> 409 U.S. 63, 67, 71–72 (1972) (refusing to permit a patent claim for an algorithm for converting binary coded decimals into pure decimals, because it would preempt the use of a mathematical formula, which is a “basic tool[] of scientific and technological work,” leaving “no [unclaimed] substantial practical application”).

<sup>22</sup> 437 U.S. 584, 594–95 (1978) (holding unpatentable a method of using a computer algorithm to establish an alarm limit in a catalytic conversion system).

<sup>23</sup> 450 U.S. at 192–93 (holding patent-eligible a claim applying a mathematical algorithm in an industrial process to determine proper curing time in a device for curing rubber and thus narrowing the “law of nature” exclusion in cases involving a concrete, practical application).

<sup>24</sup> Joseph M. Barich, *In re Bilski—Recent Developments in Method Claiming*, 2009 U. ILL. J.L. TECH. & POL’Y 251, 253 (2009) (noting the distinct change in technology since the Supreme Court last addressed patentable subject matter).

<sup>25</sup> *See* Petition for a Writ of Certiorari, *Bilski v. Doll*, 129 S. Ct. 2735 (2009) (No. 08-964), 2009 WL 226501.

<sup>26</sup> *See, e.g.,* Beale, *Crossroads*, *supra* note 10, at 112–13, 146–47.

applying patent law to tax strategies flounders on three major fallacies—the invention fallacy, the innovation incentives fallacy, and the public benefit fallacy. Part III then considers whether the *Bilski* “machine or transformation” test is sufficient to block inappropriate patenting of tax strategies. This Part also speculates about the potential for the Supreme Court, in its review of *Bilski*, to strengthen the patent-eligibility test in a way that acknowledges the problematic nature of tax strategy patents. Part IV concludes.

## I. PATENTS GENERALLY

### A. *The Patent Right*

Patents are property rights granted to inventors by the government through the agency of the Patent Office.<sup>27</sup>

#### 1. *Constitutional and Legislative Provisions*

The Founders were aware of the potential abuses of the patent right, harking back to the British Statute of Monopolies and the disdain for the royal prerogative to grant burdensome monopolies in respect of everyday necessities.<sup>28</sup> The Founders thus set the patent grant “securing for limited Times to . . . Inventors the exclusive Right to their . . . Discoveries” in the context of a limiting preamble that authorized Congress to “promote the Progress of Science and useful Arts.”<sup>29</sup> The first patent legislation was enacted in 1790, when Congress provided for the granting of a patent to any person who “hath or have invented or discovered any useful art, manufacture, engine, machine, or device . . .”<sup>30</sup> The last major revision was the Patent Act of 1952.<sup>31</sup> When inventors file an application, Patent Office examiners decide whether the invention merits patent protection under the requirements set out by the Patent Act.<sup>32</sup>

The basic requirements are misleadingly straightforward. The patent must fall within one of the four categories of patentable subject matter set by the statute: that is, the patent must claim a new and useful process, machine, manufacture or

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<sup>27</sup> U.S. CONST. art. I, § 8, cl. 8 (granting Congress the power to give inventors exclusive rights to their discoveries for a limited time); 35 U.S.C. § 2(a)(1) (2006) (granting the United States Patent and Trademark Office the responsibility of issuing patents); 35 U.S.C. § 154(a)(1) (defining the rights of a patent holder as “the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States.”).

<sup>28</sup> See *In re Bilski*, 545 F.3d 943, 986 (Fed. Cir. 2008) (en banc), *cert. granted sub nom. Bilski v. Doll*, 129 S. Ct. 2735 (2009).

<sup>29</sup> U.S. CONST. art. I, § 8, cl. 8.

<sup>30</sup> Patent Act of 1790, ch. 7, § 1, 1 Stat. 109, 109–10 (repealed 1793) (current version at 35 U.S.C. § 101). Equivalent language is also present in later Patent Acts. See, e.g., Patent Act of 1793, ch. 11, § 1, 1 Stat. 318–20 (repealed 1836) (current version at 35 U.S.C. § 101); Patent Act of 1870, ch. 230, § 24, 16 Stat. 198, 201 (repealed 1952) (same).

<sup>31</sup> Patent Act of 1952, ch. 950, § 101, 66 Stat. 792, 797 (current version at 35 U.S.C. § 101); 35 U.S.C. §§ 1–376 (tracing revision history).

<sup>32</sup> 35 U.S.C. § 131.

composition of matter.<sup>33</sup> Our focus here, of course, is on patentable processes. A process is defined under the statute as a “process, art or method.”<sup>34</sup> To be patentable, a process must also be “useful,” “novel” and “non-obvious” to a person having ordinary skill in the art.<sup>35</sup> If the Patent Office allows a patent to issue, the owner obtains what is essentially a monopoly right for a term of years to exclude others from making, using or selling the invention without the owner’s permission (such as, upon paying a royalty for the right),<sup>36</sup> so long as the owner informs the public how to make and use the invention.<sup>37</sup>

## 2. Policy Rationales

The United States economy (and, to a large extent, the world economy) is built on the foundation of free-flowing enterprise whereby innovations flourish and bring better solutions to the needs of daily life. Standard economic theory assumes that competition forces providers to meet or improve upon the quality of similar products or services offered by other providers. That ideal of free enterprise, however, depends on a stable legal system that achieves an appropriate sharing of information across the society, so that innovators can build on current knowledge to create new products.<sup>38</sup> The core idea of patents is to create economic incentives that reinforce and make possible this flow of information and innovation.<sup>39</sup> Thus, the concept behind the grant of an exclusive property right is to encourage inventors to invent by ensuring that they are able to enjoy the economic benefit of their inventions for a limited period of time.<sup>40</sup>

At the same time, there is a significant *quid pro quo*—the patent requirement for disclosure of the specifics of the invention.<sup>41</sup> Disclosure is intended to accelerate inventions that are socially useful and made available to the public, even by encouraging additional useful innovations as competitors to the patent holder work

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<sup>33</sup> *Id.* § 101.

<sup>34</sup> *Id.* § 100(b).

<sup>35</sup> *Id.* §§ 101–103 (establishing the utility, novelty, and non-obvious requirements, respectively).

<sup>36</sup> *Id.* §§ 154(a)(1), 261, 271 (granting the right to exclude, granting the right of assignment, and defining liability for infringement of patent, respectively). The term is ordinarily 20 years from the date the patent was filed. *Id.* § 154(a)(2).

<sup>37</sup> *Id.* § 112 (“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 . . . to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.”).

<sup>38</sup> See Andrew A. Schwartz, *The Patent Office Meets the Poison Pill: Why Legal Methods Cannot Be Patented*, 20 HARV. J.L. & TECH. 333, 338 (2007) (“Conventional economic theory predicts that, without government intervention, a society will produce too little technological innovation.”).

<sup>39</sup> See U.S. CONST. art. I, § 8, cl. 8 (granting Congress the power to grant limited monopolies to “promote the Progress of Science and useful Arts”); Schwartz, *supra* note 38, at 339 (describing the required disclosure through patents as “foster[ing] impressive technological advancement”).

<sup>40</sup> See Schwartz, *supra* note 38, at 338 (stating exclusivity encourages innovation by permitting a patentee to “recoup her research and development (“R&D”) costs, and then turn a profit.”).

<sup>41</sup> 35 U.S.C. § 112 (2006).

around the invention.<sup>42</sup> The economics of patents is thus a tradeoff—a monopoly right that provides a financial incentive to inventors, in exchange for the public benefit to be derived from the eventual availability of useful innovations that might not otherwise have been developed so rapidly.<sup>43</sup> While innovation and its presumed benefits are at the heart of the rationale for granting patent rights, there is no requirement in patent law that the invention provide a net increase in societal benefits (aside from whatever benefit there is through the disclosure *quid pro quo*).<sup>44</sup>

### B. Business Method Patents and the Shifting Tests for Patent Eligibility

Because of the policy rationale of fostering innovation, intellectual property experts tend to view patent law as vital to innovation across a wide spectrum of activities, even though patents had been applied almost exclusively to physical technologies (machines, chemical combinations, industrial manufacturing processes) through most of the history of the patent system.<sup>45</sup> Technological changes over the last two decades have “revolutionized the way people do business and the tools they use.”<sup>46</sup> Businesses—especially those that have global connections or use the internet and other electronic commerce centrally in their operations—have developed proprietary models for measuring risk, tracking order status, valuing assets, and carrying out almost any function necessary to their business.<sup>47</sup> Competitive pressures have led many of these businesses to seek protection for these proprietary models at the Patent Office.<sup>48</sup>

As a consequence, the Patent Office and courts are challenged to determine the appropriate scope of patentability based on the scant guidance in the Patent Act and precedents in case law, applied to a diverse range of claims across a spectrum of industries, from pharmaceuticals to information technology, from medical diagnostics to tax strategies. The difference among industries is significant. While few would question the value of the financial incentive afforded by patent law to the development of new drugs for medical treatment, because of the hefty investment and long lead time that is needed to develop such products,<sup>49</sup> the spread of process

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<sup>42</sup> See *Hilton Davis Chemical Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512, 1520 (Fed. Cir. 1995) (describing a competitor design-around to an existing patent as an important public benefit).

<sup>43</sup> Kevin Emerson Collins, *Propertizing Thought*, 60 SMU L. REV. 317, 357–58 (2007) (terming the patent right a “bargain between an inventor and the public”).

<sup>44</sup> See, e.g., Gruner, *supra* note 1, at 56 (citing *AT&T Corp. v. Excel Commc’ns, Inc.*, 172 F.3d 1352, 1353–54 (Fed. Cir. 1999), in which the court acknowledged that the process achieved efficiency in transferring payments from service users to service receivers, but did not address whether there were net societal gains).

<sup>45</sup> See Steven G. Steger, *The Long and Winding Road to Greater Certainty in Software Patents*, 14 CBA RECORD 46, 52 (2000) (“The attraction of patent protection results in greater research investment, no matter what the field of technology.”); Dan L. Burk & Mark A. Lemley, *Is Patent Law Technology-Specific?*, 17 BERKELEY TECH. L.J. 1155, 1158–60 (2002) (summarizing the evolution of patent protection from industrial specific arts to broader technologies).

<sup>46</sup> Kevin M. Baird, Comment, *Business Method Patents: Chaos at the USPTO or Business as Usual?*, 2001 U. ILL. J.L. TECH. & POL’Y 347, 347 (2001).

<sup>47</sup> *Id.* at 347.

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

<sup>49</sup> See Kory D. Christensen, *Recent Developments in the Patent Reform Movement: Potential Benefits and Unintended Consequences*, in UNDERSTANDING PATENT REFORM IMPLICATIONS:



patents to ordinary activities of business people in the conduct of their businesses is worrisome. For example, medical process patents, such as the method-of-diagnosis claim in *Metabolite Laboratories, Inc. v. Laboratory Corporation of America Holdings*,<sup>50</sup> “threaten to complicate medical practice, increase costs, and restrict access to therapeutic and diagnostic procedures.”<sup>51</sup> Opponents of the broad grant of business method patents suggest that the patent law reference to “processes” has been stretched far beyond Congressional intent, from the traditional industrial processes to any form of transaction between parties.<sup>52</sup> Electronic processing further complicates the analysis, with opponents claiming that computers are “nothing more than a rapid non-inventive step for conducting activities that were otherwise conducted in more rudimentary form before a computer or software application was added.”<sup>53</sup> The differences in response of various industries to the expansion of patents led Dan Burk and Mark Lemley to announce that “[t]he patent system is in crisis” with two different patent systems, one serving the pharmaceutical industry fairly well, and another creating havoc in the information technology industry.<sup>54</sup> Notably, they call on the courts to cure the crisis, by tailoring the patent rules on a case-by-case basis to the needs of particular industries.<sup>55</sup>

Business method patents are grants on methods of conducting business, rather than on industrial processes.<sup>56</sup> As the Patent Office itself has noted, business method patents are not an entirely new genre: various patents on automated business data processing were issued even before the twentieth century, including three method and apparatus patents to the predecessor company of International Business Machines (IBM) for tabulating and compiling statistical information.<sup>57</sup> But these process patents surged after the *Diamond v. Diehr*<sup>58</sup> decision appeared to open the door to patentability of processes based on algorithms, as long as there was some machine or transformative process involved,<sup>59</sup> and similar cases in other areas such

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LEADING LAWYERS ON DEFINING KEY ISSUES, INTERPRETING CURRENT PROPOSED LEGISLATION, AND PROJECTING FUTURE DEVELOPMENTS 107, 135 (Aspatore 2009), available at 2009 WL 535243 (“The vast experimentation necessary to generate one market drug is grounded on the drug’s patent protection.” (quoting Eric Williams, Comment, *Patent Reform: The Pharmaceutical Industry Prescription for Post-Grant Opposition and Remedies*, 90 J. PAT. & TRADEMARK OFF. SOC’Y 354, 374 (2008))).

<sup>50</sup> 370 F.3d 1354, 1368 (Fed. Cir. 2005), cert. dismissed, 548 U.S. 124 (2006) (upholding a patent for diagnosing a vitamin deficiency based on observed blood levels of homocysteine).

<sup>51</sup> Aaron S. Kesselheim & Michelle M. Mello, *Medical-Process Patents—Monopolizing the Delivery of Health Care*, 355 NEW ENG. J. MED. 2036, 2036 (Nov. 9, 2006).

<sup>52</sup> See David N. Makous & Mina I. Hamilton, *Patent Law Reform and the Future*, in UNDERSTANDING PATENT REFORM IMPLICATIONS: LEADING LAWYERS ON DEFINING KEY ISSUES, INTERPRETING CURRENT PROPOSED LEGISLATION, AND PROJECTING FUTURE DEVELOPMENTS 21, 25 (Aspatore 2009), available at 2009 WL 535236.

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

<sup>54</sup> DAN L. BURK & MARK A. LEMLEY, *THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT* 1 (Univ. of Chicago Press 2009).

<sup>55</sup> *Id.* at 95–108.

<sup>56</sup> See *In re Bilski*, 545 F.3d 943, 998 (Fed. Cir. 2008) (en banc) (Mayer, J., dissenting), cert. granted sub nom. *Bilski v. Doll*, 129 S. Ct. 2735 (2009).

<sup>57</sup> U.S. PATENT AND TRADEMARK OFFICE, A USPTO WHITE PAPER: AUTOMATED FINANCIAL OR MANAGEMENT DATA PROCESSING METHODS (BUSINESS METHODS) 3 (2000) [hereinafter USPTO WHITE PAPER], <http://www.uspto.gov/web/menu/busmethp/index.html>.

<sup>58</sup> 450 U.S. 175 (1981).

<sup>59</sup> *Id.* at 191–93.

as *Diamond v. Chakrabarty*,<sup>60</sup> in which the Supreme Court upheld a patent on a bio-engineered microbe.<sup>61</sup>

### 1. *The Supreme Court's Statements Of Exclusions From Patentability*

The Supreme Court has not, most lawyers would have said before *In re Bilski*,<sup>62</sup> spoken definitively on business method patents.<sup>63</sup> The *Benson-Flook-Diehr* trilogy<sup>64</sup> had, however, drawn on older case law to set out a broad but ill-defined area of non-patentable subject matter. *Benson* held ineligible for patenting “[p]henomena of nature, though just discovered, mental processes, and abstract intellectual concepts.”<sup>65</sup> *Diehr* varied the terms slightly but similarly recognized an exception to patentability for fundamental principles: “laws of nature, natural phenomena, and abstract ideas” were unpatentable.<sup>66</sup>

The issue, of course, is what application of an abstract idea or fundamental principle is sufficiently particularized so that it will permit patentability. Various phrases or tests have been used by the courts (such as “complete preemption of the field”),<sup>67</sup> but the difficulty of the concept is highlighted in the contrast between *Benson* and *Diehr*, each of which involved the patentability of a claim referencing a mathematical algorithm. The *Benson* Court concluded that a process for converting data in one format (binary coded decimal) to another format (pure binary) by means of a computer-implemented algorithm was not patentable: it involved no transformative application but rather the abstract intellectual concepts and mental processes that “are the basic tools of scientific and technological work.”<sup>68</sup> In contrast, the *Diehr* Court found the use of an algorithm to control timing in the industrial rubber curing process patentable, even though the algorithm itself was not patentable, because it involved the transformation of an article.<sup>69</sup>

The Federal Circuit, as the sole appellate court with jurisdiction over patent cases,<sup>70</sup> has developed, and rejected, a variety of tests as proxies for these broad categories of abstract ideas that are ineligible for patenting, as discussed in the

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<sup>60</sup> 447 U.S. 303 (1980).

<sup>61</sup> *Id.* at 309–10, 318.

<sup>62</sup> 545 F.3d 943 (Fed. Cir. 2008) (en banc), *cert. granted sub nom.* *Bilski v. Doll*, 129 S. Ct. 2735 (2009).

<sup>63</sup> See, e.g., Katherine J. Strandburg, *What Ifs and Other Alternative Intellectual Property and Cyberlaw Stories: What If There Were a Business Method Use Exemption to Patent Infringement?*, 2008 MICH. ST. L. REV. 245, 257 (2008) (noting that the Supreme Court has not directly addressed the patentability of business methods).

<sup>64</sup> See *Gottschalk v. Benson*, 409 U.S. 63, 67–71 (1972); *Parker v. Flook*, 437 U.S. 584, 588–96 (1978); *Diamond v. Diehr*, 450 U.S. 175, 181–93 (1981).

<sup>65</sup> *Benson*, 409 U.S. at 67.

<sup>66</sup> *Diehr*, 450 U.S. at 185, 191–93.

<sup>67</sup> See *Diehr*, 450 U.S. at 187 (indicating that respondent’s “process admittedly employs a well-known mathematical equation, but they do not seek to *pre-empt* use of that equation.”) (emphasis added).

<sup>68</sup> *Benson*, 409 U.S. at 67, 71–72.

<sup>69</sup> *Diehr*, 450 U.S. at 184–85 (1981) (“Transformation and reduction of an article ‘to a different state or thing’ is the clue to the patentability of a process claim that does not include particular machines.” (quoting *Benson*, 409 U.S. at 70)).

<sup>70</sup> 28 U.S.C. § 1295 (2006).

following sections. These tests, however, have not been particularly successful in providing consistent guidance to the scope of the patent law.<sup>71</sup>

## 2. *Freeman-Walter-Abele Test*

The *Freeman-Walter-Abele* test derives from a trio of cases concerning software patents.<sup>72</sup> In the *Abele* case, a claim to process data for a graphic display of variances of data from average values was held ineligible, but a dependent claim was patent-eligible because it involved the transformation of physical data (X-ray attenuation data of bones) into a visual depiction.<sup>73</sup> The test considered whether the claimed invention was nothing more than the algorithm itself and thus unpatentable under the *Benson-Flook-Diehr* trilogy, or whether it was applied to or limited by physical elements or process steps that rendered it patentable.<sup>74</sup>

The Federal Circuit eviscerated the physical element requirement of the *Freeman-Walter-Abele* test in *Alappat*, in which it concluded that the use of a general purpose computer was sufficient to render an algorithm patentable.<sup>75</sup> *State Street* simply rejected the test as having little relevance to determining patent-eligible subject matter.<sup>76</sup>

## 3. State Street's "Concrete, Useful Or Tangible Result" Test

The Federal Circuit in *State Street* repudiated any "business method" exception to statutory subject matter,<sup>77</sup> as well as the *Freeman-Walter-Abele* test,<sup>78</sup> to hold that the invention of a mutual fund pricing system using an algorithm to apply the partnership tax rules to calculate a daily share price for a "hub and spoke" partnership structure was patentable.<sup>79</sup> The decision below had rejected patentability, on the basis that the claimed invention was nothing more than a series

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<sup>71</sup> For a general discussion of patent eligibility under section 101, see 1 DONALD S. CHISUM, CHISUM ON PATENTS § 1.01–1.03 (2008).

<sup>72</sup> *In re Freeman*, 573 F.2d 1237, 1245 (C.C.P.A. 1978) (setting forth a two-pronged test: (1) "whether the claim directly or indirectly recites an 'algorithm,'" and (2) "whether in its entirety [the claim] wholly preempts that algorithm."), *abrogated by* *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (en banc), *cert. granted sub nom. Bilski v. Doll*, 129 S. Ct. 2735 (2009); *In re Walter*, 618 F.2d 758, 767 (C.C.P.A. 1980) (adding the concept, from *Benson* and *Parker v. Flook*, 437 U.S. 584 (1978), that post-solution activity could not save an abstract claim that "is not applied in any manner to physical elements or process steps"), *abrogated by In re Bilski*, 545 F.3d 943; *In re Abele*, 684 F.2d 902, 907 (C.C.P.A. 1982) (emphasizing the need to relate the application of the algorithm to physical elements or process steps), *abrogated by In re Bilski*, 545 F.3d 943.

<sup>73</sup> *In re Abele*, 684 F.2d at 907–09.

<sup>74</sup> *Id.* at 905–07.

<sup>75</sup> *In re Alappat*, 33 F.3d 1526, 1544–45 (Fed. Cir. 1994) (finding the computer a "specific machine to produce a useful, concrete, and tangible result"), *abrogated by In re Bilski*, 545 F.3d 943.

<sup>76</sup> *State St. Bank & Trust Co. v. Signature Fin. Group*, 149 F.3d 1368, 1374 (Fed. Cir. 1998), *abrogated by In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (en banc), *cert. granted sub nom. Bilski v. Doll*, 129 S. Ct. 2735 (2009).

<sup>77</sup> *Id.* at 1375 ("We take this opportunity to lay this ill-conceived exception to rest.").

<sup>78</sup> *Id.* at 1374.

<sup>79</sup> *Id.* at 1373, 1375.

of mathematical functions that could be done with calculator and a filing system.<sup>80</sup> The appellate court instead focused on the “practical utility” of the invention—it produced a “useful, concrete and tangible result” by transforming data, through a machine, to a final share price.<sup>81</sup>

*State Street* involved a “means plus function” claim;<sup>82</sup> however, the decision was extended shortly thereafter by *AT&T Corp.*, in which the Federal Circuit held patentable even non-machine-based process claims for using switching mechanisms to record data for billing purposes.<sup>83</sup>

A flurry of business method patents followed.<sup>84</sup> The Patent Office issued its “white paper” on business method patents shortly after the *State Street* decision, asserting a long history of business method patents—at least on mechanical products related to financial paper (*e.g.*, a 1799 patent for detecting counterfeit notes; an 1815 patent for preventing counterfeiting; and an 1889 patent for the Hollerith manual punch card machine for tabulating business data).<sup>85</sup> As one commentator noted, the decision “spark[ed] a new cottage industry for financial institutions. What was once considered a secondary offering—a competitor taking another’s major offering and plagiarizing the structure—is now considered patent infringement by many firms.”<sup>86</sup> Information technology patents surged.<sup>87</sup> One might say the decision spurred an avalanche of innovation, proving that the patent law had made it into the 21<sup>st</sup> century.

It seemed a short step from *State Street* to the view that “pure” business methods (without computer applications) covering engineered financial products and tax strategies could be patented. ABA meetings suddenly had sessions on tax patents where practitioners discussed everything from the ethical implications under Circular 230 to the nitty-gritty of searching for existing patents on a tax planning technique.<sup>88</sup> The holder of a patent on a grantor trust “technology” involving stock options (“the SOGRAT patent”) actually undertook infringement litigation,<sup>89</sup> and the

<sup>80</sup> *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 927 F. Supp. 502, 515 (D. Mass. 1996), *rev’d*, 149 F.3d 1368, *abrogated by In re Bilski*, 545 F.3d 943.

<sup>81</sup> *State Street*, 149 F.3d at 1374–75.

<sup>82</sup> *Id.* at 1371–72 (finding the specific structure for performing the function in the specification); *see* 35 U.S.C. § 112 (2006).

<sup>83</sup> *AT&T Corp. v. Excel Commc’ns Mktg., Inc.*, 172 F.3d 1352, 1357–58, 1361 (Fed. Cir. 1999), *abrogated by In re Bilski*, 545 F.3d 943.

<sup>84</sup> Allison & Tiller, *supra* note 5, at 990–91; Price, *supra* note 9, at 141–142, 153.

<sup>85</sup> USPTO WHITE PAPER, *supra* note 57, at 3.

<sup>86</sup> Scott J. Bornstein & Barry J. Schindler, *A Look at the Past, Present and Future of Tax Reform*, in UNDERSTANDING PATENT REFORM IMPLICATIONS: LEADING LAWYERS ON DEFINING KEY ISSUES, INTERPRETING CURRENT PROPOSED LEGISLATION, AND PROJECTING FUTURE DEVELOPMENTS 51, 62 (Aspatore 2009), *available at* 2009 WL 535238.

<sup>87</sup> *See supra* notes 6–10 and accompanying text.

<sup>88</sup> *See* Beale, *Crossroads*, *supra* note 10, at 108–10 (describing the increasing foment at the ABA Tax Section over tax strategy patents).

<sup>89</sup> Establishing & Managing Grantor Retained Annuity Trust Funded By Nonqualified Stock Options, U.S. Patent No. 6,567,790 (filed Dec. 1, 1999) (issued May 20, 2003). The patent holder sued John Rowe, then CEO of Aetna Insurance Company, for infringement, *Wealth Transfer Group LLC v. Rowe*, No. 3:06CV00024 (AWT) (D. Conn. Jan 6, 2006); but the case was settled for an undisclosed sum. *See* Jack Cathey et al., *Tax Patents Considered*, J. ACCT. (July 2007), <http://www.aicpa.org/pubs/jofa/jul2007/cathey.htm>.

tax world woke up to the intrusion of patent law into the rarefied world of complex tax structured transactions and general tax minimization planning.

#### 4. The “Technological Arts” Requirement

Much of the current explosion of “pure” business method patents, including tax strategy patents, may be due to the short-lived (as far as precedential value) *Lundgren* decision by the Board of Patent Appeals & Interferences (the “Board”).<sup>90</sup> The application claimed a method for compensating managers who accomplish stated goals referencing comparison firms and included no mention of a computer or any other device.<sup>91</sup> An initial Board review considered the claim patent-eligible as “a practical application of shifting of physical assets to the manager;” but a reconsideration at the examiner level again rejected the patent because it was merely “an abstract idea which is not associated with or connected to any technological art.”<sup>92</sup> As Judge Smith noted in dissent, “the term ‘technological arts’ should be construed to mean nothing more than a threshold nexus to some field of technology to fall within the constitutional mandate.”<sup>93</sup> Nonetheless, the Board reversed, finding that there was no “technological arts” requirement for patentability, and that a “concrete, useful or tangible result” was sufficient, in itself, to satisfy the statutory subject matter requirement.<sup>94</sup>

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<sup>90</sup> *Ex parte Lundgren*, 76 U.S.P.Q.2D (BNA) 1385, 1431–32 (B.P.A.I. Sept. 28, 2005).

<sup>91</sup> *Id.* at 1385–86.

<sup>92</sup> *Id.* at 1386 n.1.

<sup>93</sup> *Id.* at 1388 (Smith, J., dissenting). In a prescient dissent that foreshadowed both the coming surge of “pure” business method patents and the need for further judicial action, Judge Smith pointed out that the cases cited approvingly by the majority had “either specifically recited machines or were clearly performed in an environment that was an accepted science or technology” and that the result “opens the floodgate for patents on essentially any activity which can be pursued by human beings.” *Id.* at 1389.

<sup>94</sup> *Id.* at 1387. The Board stated that no “technological arts” test was established by previous cases, citing *In re Musgrave*, 431 F.2d 882, 893 (C.C.P.A. 1970) (finding steps that include mental processes can be patented if the process is “in the technological arts so as to be in consonance with the Constitutional purpose”); *In re Toma*, 575 F.2d 872, 877–78 (C.C.P.A. 1978) (in a claim for a method of computer translation between languages, stating that the claim is a method of operating a machine which is in the technological arts, as required by *Benson*); and *Ex parte Bowman*, 61 U.S.P.Q.2d (BNA) 1669, 1671 (B.P.A.I. June 12, 2001) (in a non-precedential opinion, affirming rejection of an application for a method of valuing intangible assets based on its failure to require any technological arts, a constitutionally imposed limitation). For a generally supportive discussion of the *Lundgren* decision, see John A. Squires & Thomas S. Biemer, *Patent Law 101: Does a Grudging Lundgren Panel Decision Mean that the USPTO is Finally Getting the Statutory Subject Matter Question Right?*, 46 IDEA 561, 561–62 (2006). The *Lundgren* Board is selective in the way it quotes *Toma*—the *Toma* court clearly affirmed the technological arts requirement rather than rejecting it as implied.

### 5. *Bilski's "Machine Or Transformation" Test*

In late September 2007, the Federal Circuit in *In re Comiskey*<sup>95</sup> re-imposed a technological requirement in rejecting patentability for a method of mandatory arbitration.<sup>96</sup> The court appealed to the long-settled law that disembodied abstract ideas are not patentable,<sup>97</sup> noting that "it is established that the application of human intelligence to the solution of practical problems is not in and of itself patentable."<sup>98</sup> The decision thus directly challenged the interpretation of *State Street* as providing a much broader view of patentability.

#### a. *The Bilski opinion*

The *Bilski* patent claim involved a method of hedging commodity transactions through steps requiring first that a transaction be initiated between a commodity provider and consumer, and then that an appropriate third party be identified so that a second transaction can be initiated between the commodity provider and a market participant with an offsetting risk position to the original counterparty.<sup>99</sup> The patent examiner rejected the claim as dealing with patent-ineligible subject matter, and the Board upheld the rejection.<sup>100</sup> After an initial argument before a three-judge panel at the Federal Circuit level (just weeks after the *Comiskey* decision),<sup>101</sup> the appellate court *sua sponte* ordered an *en banc* hearing and requested briefing on a series of questions addressing the appropriate standard for determining whether a process is patent-eligible under the statute.<sup>102</sup>

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<sup>95</sup> 499 F.3d 1365 (Fed. Cir. 2007), *vacated*, 89 U.S.P.Q.2D (BNA) 1641 (Fed. Cir. Jan. 13, 2009) (en banc), *amended by* 554 F.3d 967 (Fed. Cir. 2009).

<sup>96</sup> *Id.* at 1380–81. A case decided at the same time dealt primarily with manufactures rather than processes but similarly refused to find patentability in disembodied claims. *In re Nuijten*, 500 F.3d 1346, 1356–57 (Fed. Cir. 2007) (rejecting a claim for reducing signal distortions introduced by inclusion of a 'watermark' and noting that the fact that the claim could be embodied by conventional means did not make it patent-eligible).

<sup>97</sup> *In re Comiskey*, 499 F.3d at 1376 ("[A] principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right." (quoting *LeRoy v. Tatham*, 55 U.S. 156, 175 (1852))).

<sup>98</sup> *Id.* at 1379.

<sup>99</sup> See Energy Risk Management Method, U.S. Patent Application No. 08/833,892 ("Bilski Application").

<sup>100</sup> *Ex parte Bilski*, No. 2002-2257, 2006 WL 5738364, at \*1, 30 (B.P.A.I. Sept. 26, 2006), *aff'd sub nom. In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008).

<sup>101</sup> See *In re Bilski*, 264 Fed. App'x 896 (Fed. Cir. 2008) (oral argument heard on October 1, 2007); *In re Comiskey*, 499 F.3d 1365 (decision issued on September 20, 2007).

<sup>102</sup> *In re Bilski*, 264 Fed. App'x at 897. The en banc order called for briefing on the following questions:

1. Whether claim 1 of the 08/833,892 patent application claims patent-eligible subject matter under 35 U.S.C. § 101?
2. What standard should govern in determining whether a process is patent-eligible subject matter under section 101?
3. Whether the claimed subject matter is not patent-eligible because it constitutes an abstract idea or mental process; when does a claim that contains both mental and physical steps create patent-eligible subject matter?

Chief Judge Michel's opinion for the court, in a 12-9 decision, reiterated the *Benson-Flook-Diehr* teaching on process patents that fundamental principles are unpatentable, as illustrated in the rejection of the *Comiskey* claim for a system of mandatory arbitration as merely setting forth unpatentable mental processes dependent on human intelligence.<sup>103</sup> Furthermore, the court said, *Benson* and *Diehr* both relied on a machine-or-transformation ("M/T") test that was consistent with early Supreme Court precedent: claims must either be tied to a particular machine or transform a particular article to a different state or thing.<sup>104</sup> Accordingly, the court concluded that the M/T test should be treated as the "definitive test" for analyzing process claims.<sup>105</sup>

Although *Bilski* did not overrule *State Street*, it cast doubt on its reasoning, engendering considerable uncertainty about the treatment of many business method patents.<sup>106</sup> Understanding this M/T test, and its implications for business method and tax strategy patents, is therefore essential. The court acknowledged the difficulty of using a bright-line test to cover all potential innovative developments that should be eligible for patenting, admitting that *Benson* had been "initially equivocal in first putting forward this test."<sup>107</sup> Noting *Diehr's* later description of the test as "the clue" to patentability,<sup>108</sup> the *Bilski* court apparently concluded that the Supreme Court had come to view the test as more definitive over time. It is likely the court was influenced by the history of shifting tests as proxies for understanding what claims represented fundamental principles that were not patentable and its view that the M/T test had not fallen short in dealing with process claims over the two decades since *Diehr*.<sup>109</sup> While "future developments in technology and the sciences may present difficult challenges to the machine or transformation test, . . . [a]t present, . . . we see no need for such a departure."<sup>110</sup> At the same time, the court refused to impose a "categorical exclusion" applicable to all business

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4. Whether a method or process must result in a physical transformation of an article or be tied to a machine to be patent-eligible subject matter under section 101?
  5. Whether it is appropriate to reconsider *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998), and *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352 (Fed. Cir. 1999), in this case and, if so, whether those cases should be overruled in any respect?

*Id.*

<sup>103</sup> *In re Bilski*, 545 F.3d at 952–55, 964–65.

<sup>104</sup> *Id.* at 954.

<sup>105</sup> *Id.* at 954–55, 960.

<sup>106</sup> *Id.* at 959–60 (concluding that the "useful, concrete and tangible result" inquiry is inadequate.); see *id.* at 998 (Mayer, J., dissenting) (arguing that *State Street* should be overruled).

<sup>107</sup> *Id.* (discussing the hedging in the case law); see also *id.* at n.11 (noting the United States Supreme Court's use of the phrase the "clue" to describe the M/T test).

<sup>108</sup> *Id.* at 956.

<sup>109</sup> As suggested by one of the amicus briefs, one could consider there to be a rebuttable presumption that the M/T test is the definitive approach to process patents. Under this view, some new process might qualify in the future—e.g., using psychokinesis to vulcanize rubber or wash out a stable—but such a process does not yet exist. See Supplemental Brief of Amicus Curiae Center for Advanced Study & Research on Intellectual Property of the University of Washington School of Law for Hearing en banc Supporting Affirmance at 25, *In re Bilski*, 264 Fed. App'x 896 (Fed. Cir. 2008) (No. 2007-1130), 2008 WL 1842264.

<sup>110</sup> *In re Bilski*, 545 F.3d 943, 956 (Fed. Cir. 2008) (en banc), cert. granted sub nom. *Bilski v. Doll*, 129 S. Ct. 2735 (2009).

method patents.<sup>111</sup> The court may well have thought that such a ban, unlike the adoption of the M/T test as the proper articulation of subject matter eligibility, would undercut the Court's approach of reserving flexibility for unexpected new processes.<sup>112</sup>

Because the *Bilski* claim is not tied to a machine, there is little discussion of the machine prong of the test. Interestingly, in the section where the court sets out the M/T test, however, it suggests that *Benson* was a difficult case: the algorithm required operation on a digital computer (so one might have thought it would have satisfied the "machine" prong of the test), but it was nonetheless ineligible subject matter because the algorithm had no utility other than operating on a computer.<sup>113</sup>

In critically important language for the understanding of the applicability of *Bilski* to tax strategy patents, the court states that the "main aspect of the transformation test . . . is what sorts of things constitute 'articles'"<sup>114</sup>:

Purported transformations or manipulations simply of public or private *legal obligations or relationships*, business risks, or other such abstractions cannot meet the test because they are not physical objects or substances, and they are not representatives of physical objects or substances.<sup>115</sup>

The court seems clearly to have in mind *physical or chemical* transformations that would not include the kind of tax strategy patents, like the SOGRAT patent, that have been the subject of so much controversy among tax practitioners.<sup>116</sup>

The court suggests two limiting corollaries to the M/T test. First, a field-of-use limitation is not sufficient to overcome the problem of preempting a fundamental principle.<sup>117</sup> That is, attempting to limit the use of a formula to a particular technological environment *that is not essential to the claim* would not be sufficient to circumscribe a mental process claim and render it patentable. Second, nominal use of a machine or transformation cannot transform an unpatentable claim based on a fundamental principle into a patentable process: "the recited machine or transformation must not constitute mere 'insignificant postsolution activity.'"<sup>118</sup> The court also instructs on the proper approach to the subject matter analysis: subject matter is considered separately from the other requirements for patentability (whether a claim is novel or non-obvious is irrelevant to the subject matter inquiry) and looks at the claim as a whole, not each step individually.<sup>119</sup>

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<sup>111</sup> *Id.* at 960.

<sup>112</sup> *Id.* at 960 n.23 (adhering instead to the principles set forth by the Supreme Court).

<sup>113</sup> *Id.* at 955 n.9.

<sup>114</sup> *Id.* at 962.

<sup>115</sup> *Id.* at 963 (emphasis added).

<sup>116</sup> See *supra* note 89 and accompanying text.

<sup>117</sup> *In re Bilski*, 545 F.3d at 957.

<sup>118</sup> *Id.*

<sup>119</sup> *Id.* at 958.



*b. The Dyk concurrence*

In a concurring opinion, Judge Dyk expounds upon the constitutional limitations.<sup>120</sup> He traces the British crown's abuse of grants of monopoly rights and the development of the Statute of Monopolies, which he considers to have been an important guide to Congress on the appropriate scope of patents in its enactment of the early patent legislation.<sup>121</sup>

*c. The Mayer dissent*

Judge Mayer minces no words in indicating that methods of structuring commercial transactions merit no protection under the patent system, which "is intended to protect and promote advances in science and technology."<sup>122</sup> Business methods do not apply natural laws, but reflect innovative entrepreneurial activity.<sup>123</sup> Since business methods provide competitive advantages, they do not need the innovation incentive that underlies patent granting.<sup>124</sup> Their costs are much smaller than the costs of scientific advances, and their rewards are grossly disproportionate. Often the public suffers, rather than benefiting, due to increased costs passed on in prices.

Affording patent protection to business methods lacks constitutional and statutory support, serves to hinder rather than promote innovation and usurps that which rightfully belongs in the public domain.<sup>125</sup>

*d. The Rader dissent*

Judge Rader is similarly frustrated with the majority's failure to announce a simple "abstractness rule"—the only limits on patentability are inventions that embrace natural laws and abstract ideas.<sup>126</sup> Hedging is a fundamental economic practice that is facially abstract.<sup>127</sup> Accordingly, Rader suggests that the court should have resolved the entire case with a single sentence: "Because *Bilski* claims merely an abstract idea, this court affirms the Board's rejection."<sup>128</sup>

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<sup>120</sup> *Id.* at 966 (Dyk, J., concurring).

<sup>121</sup> *Id.* at 966–76 (noting that current law derives from the 1793 and 1790 acts, which built on a "keen understanding of English patent practice," especially the limits on subject matter related to the Crown's abuses and the passing of the Statute of Monopolies).

<sup>122</sup> *Id.* at 998 (Mayer, J., dissenting).

<sup>123</sup> *Id.* at 1003.

<sup>124</sup> *Id.* at 1005.

<sup>125</sup> *Id.* at 998.

<sup>126</sup> *Id.* at 1012–13 (Rader, J., dissenting).

<sup>127</sup> *Id.* at 1013.

<sup>128</sup> *Id.* at 1011 (accusing the majority of residing in the Stone Age because it "links patent eligibility to the age of iron and steel at a time of subatomic particles and terabytes.").

*e. The Newman dissent*

At the opposite end of the spectrum, Judge Newman sees the court as failing to tie its interpretation of the Patent Act to the new “knowledge economy” and the innovations that have been instrumental in “economic growth and societal change,” resulting in reduced innovation incentives and upsetting of “settled expectations” under the pre-*Bilski* interpretations of the law.<sup>129</sup> Judge Newman argues that the court’s “exclusion of process inventions is contrary to statute, contrary to precedent, and a negation of the constitutional mandate.”<sup>130</sup> She condemns Judge Dyk’s reliance on English patent law to limit the scope of patentable processes, and raises the specter of uncertainty in interpreting the “meaningful limits” corollary or whether software for a general purpose computer can be considered “tied to a particular machine.”<sup>131</sup> These are undoubtedly the same questions that tax practitioners have as they ponder whether *Bilski* will effectively ban all tax strategy patents that are not, at the least, written as machine-dependent claims (means plus function).<sup>132</sup>

## II. THE FUNDAMENTAL CONFLICT BETWEEN TAX AND PATENT LAW

Tax practitioners have a number of concerns about patents on tax strategies, but many of them are perhaps provincial concerns about our own increased burdens of practice—worry that our field of activity will be taken over by patent lawyers, worry that we will lose revenues because of the new expense for patent royalties.<sup>133</sup> Practice that focuses on deferred compensation plans, estate taxes, deferred real estate exchanges—areas where there are a number of patents—now means conducting at least some due diligence to discover whether the tax strategy under consideration has been captured by a patent.<sup>134</sup> Any area of tax may be faced with new ethical considerations, as even the licensing agreements for patented tax strategies may come under the Treasury’s rules for practice before the Internal Revenue Service.<sup>135</sup> Those concerns are real, but they are the kind of concerns that

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<sup>129</sup> *Id.* at 976–77 (Newman, J., dissenting).

<sup>130</sup> *Id.* at 976.

<sup>131</sup> *Id.* at 984–89, 994.

<sup>132</sup> *See id.* at 994.

<sup>133</sup> *See, e.g.,* Steve Seidenberg, *Crisis Pending: Can a patent on a legal strategy prevent a client from taking your advice? The courts may soon decide*, 93 A.B.A. J. 42, May 2007, at 42, 42, 46–47; Bernard Wolfman, *Patenting Tax Strategies*, 2008 TAXES 39, 40 (same); Paul Devinsky et al., *Whose Tax Law Is It?*, LEGALTIMES, Oct. 16, 2006, <http://www.legaltimes.com> (same).

<sup>134</sup> *See, e.g.,* Dennis I. Belcher & Dana G. Fitzsimons Jr., *Tax Planners—Beware of Patented Estate Planning Techniques*, PROBATE & PROPERTY, Nov.–Dec. 2006, at 24, 27 (listing concerns of providing tax advice when faced with potential infringement issues).

<sup>135</sup> *See* Jeremiah Coder, *Practitioners Discuss Intersection of Tax Patents, Ethics*, 117 TAX NOTES 114, 114 (2007). I first raised this concern at the 2007 annual meeting of the Tax Section of the American Bar Association and again at the 2007 fall meeting, based on the fact that many applications do (and licensing agreements implementing granted patents under those applications could be expected to) make direct statements about the federal income tax consequences of engaging in a transaction. ABA TAX SECTION ANNUAL MEETING: ADMINISTRATIVE PRACTICE PANEL 2–8 (2007); *cf.* U.S. Patent No. 6,292,788, *Methods and Investment Instruments for Performing Tax-Deferred Real Estate Exchanges* (filed Dec. 3, 1998) (issued Sept. 18, 2001) (creating financial instruments that “are eligible for tax-deferred treatment under .sectn.1031 of the Internal Revenue

any changing profession must face. The more worrisome issues are ones that run to the heart of the formative policies of the tax system, which are discussed in this Part. In an earlier article, I discussed the specific concerns in considerable detail and will not reiterate the full panoply of problems inherent in tax strategy patents here.<sup>136</sup> My goal here is to highlight the concerns that derive from core tax values and show how those conflict with core values in the patent law.

### A. *The Tax Anti-Manipulation Value*

In my scholarship, I have attempted to delineate the ways that traditional tax policy goals impose limitations in different contexts, such as the intersection of tax and financial reporting rules or the development of hyper-literal textual interpretations to justify participation in shelter transactions intended to generate artificial losses to reduce tax liabilities.<sup>137</sup> No matter what the context, two tax policy concerns—fairness and structural coherence—are centrally important in determining the proper approach.<sup>138</sup> Those same concerns are important in considering the interrelationship between the patent law and tax law.<sup>139</sup>

#### 1. *Fairness And The Anti-Manipulation Value*

The objective of a tax system is to raise revenues to support the government in a way that will be acceptable to taxpayers and that will reinforce, rather than disrupt, the democratic polity. Accordingly, tax law must satisfy the basic requirements of distributive justice—it must allocate the tax burden in a way that those bearing the burden can perceive as fair, and it must pay special regard to those who find themselves vulnerable because of limited resources. Although there is significant disagreement among tax scholars about the details of a fair tax system and even about the major parameters that should describe it, most agree that fairness concerns limit the demands that can be made on those in the lower income distributions and permit more substantial demands on those in higher income

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Code.”), *invalidated by* Fort Props, Inc. v. Am. Master Lease, LLC, 609 F. Supp. 2d 1052, 1056 (C.D. Cal. 2009) (stating that claims “only transform or manipulate legal ownership interests in real estate.”).

<sup>136</sup> See Beale, *Crossroads*, *supra* note 10, at 129–46 (highlighting substantial commentary by both academics and practitioners about the harms from patenting of tax strategies).

<sup>137</sup> This section is an expansion of my earlier work on fairness and the anti-manipulation norm. See Linda M. Beale, *Book-Tax Conformity and the Corporate Tax Shelter Debate: Assessing the Proposed Section 475 Mark-to-Market Safe Harbor*, 24 VA. TAX REV. 301, 303–06 (2004) [hereinafter Beale, *Book-Tax Conformity*]; see also Linda M. Beale, *Congress Fiddles While Middle America Burns: Amending the AMT (and Regular Tax)*, 6 FLA. TAX REV. 811, 818–25 (2004) (discussing the traditional concepts of horizontal and vertical equity and the Musgrave-Kaplow exchange).

<sup>138</sup> See *infra* Part II.A.1–2.

<sup>139</sup> See *infra* Part II.B.1–3.

distributions.<sup>140</sup> This consensus is based upon the relative ability of each group to bear the burden.<sup>141</sup>

A corollary of this fairness criterion is a need to treat taxpayers consistently. Persons who are similarly vulnerable should be similarly protected from paying too large a share of the tax burden. Persons who are similarly advantaged with resources should face similar demands to pay. Stated more broadly, consistent treatment of taxpayers that are similarly situated creates a “minimal benchmark for a distributively just system by favoring tax provisions that do not add to inequality among taxpayers.”<sup>142</sup> In addition, distributive justice is enhanced by “[p]rogressive measures (such as the progressive rate structure in the federal income tax)” that increase the tax burden on those with greater resources.<sup>143</sup> This redistributive value helps sustain democratic institutions, where unequal power and status attributable to unequal wealth can destabilize consensual decision-making by providing special access to government actors.<sup>144</sup> The demand for consistency and redistribution places substantial value on a tax law in which no one is in a position to manipulate the numbers to avoid or lessen their tax burden. To honor the anti-manipulation value, for example, high-income taxpayers should not have the ability to hide their assets to avoid taxation (e.g., by moving assets offshore in complicated trust arrangements that make it hard to trace the assets to the owners) and they should not be able to enter into complex transactions that purport to reduce their tax burden without having reduced their economic burden (e.g., by creating an artificial loss to offset their tax liabilities).

## 2. *Structural Coherence And The Anti-Manipulation Value*

Structural coherence is a statutory construction doctrine that imbues the tax system with integrity as a means of enforcing consistent interpretations across the spectrum of interested parties and provisions, in light of discoverable overarching principles.<sup>145</sup> As a normative concept, structural coherence expects that Congress will draft tax provisions with the whole Code in mind—i.e., that each provision will be set within a proper context so that it will add functionally to the coherence of the Code. (There are exceptions, of course, as when Congress chooses to enact exceptions or tax expenditure provisions that cannot be integrated into a coherent whole.) Taxpayers and their advisers are likewise expected to approach their understanding of the requirements of the tax law from a position of seeking structural coherence. Tax concepts are interpreted in terms of their place within the full body of tax law, and have meanings that are specific to that context.<sup>146</sup> Interpretations of tax provisions in application to a particular context are anchored in the underlying

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<sup>140</sup> *Id.* at 359–61; Paul R. McDaniel & James R. Repetti, *Horizontal and Vertical Equity: The Musgrave/Kaplow Exchange*, 1 FLA. TAX REV. 607 (1993) (noting that vertical equity demands “an ‘appropriate’ pattern of differentiation among unequals.”).

<sup>141</sup> Beale, *Book-Tax Conformity*, *supra* note 137, at 359–61.

<sup>142</sup> *Id.* at 359.

<sup>143</sup> *Id.* at 359–60.

<sup>144</sup> *Id.* at 360.

<sup>145</sup> *Id.* at 364–65 (introducing the concept of structural coherence).

<sup>146</sup> *Id.*

purposes and presumptions of those provisions and of the Code in general.<sup>147</sup> Accordingly, “both textualist interpretations of tax rules that focus on plain meaning without regard to the place of a provision in the overall tax structure and freewheeling interpretations based on a particular judge’s approach disregard structure coherence.”<sup>148</sup> That mutual demand for coherence establishes the appropriate scope for tax enforcement: tax administrators should pursue taxpayers who have filed returns based on aggressive interpretations of Code provisions that distort the application of the tax system to their particular situation to achieve a tax advantage.

It should be readily demonstrable that the anti-manipulation value underlies the coherence-reinforcing interpretive approach just as it does the fairness criterion. The tax system cannot achieve structural coherence if taxpayers “game the system.”<sup>149</sup> Taxpayers who intentionally pursue aggressive, hyper-literal interpretations of a provision by taking it out of context of the underlying purposes for which it was enacted have engaged in a manipulation of the positive law for their own benefit that violates the demand for a search for structural coherence. Tax advisers who design structures to capture loopholes in the coverage of tax provisions that exist because Congress had not foreseen the kind of transactions or activities that the tax adviser is arranging are guilty of manipulating the tax law for their clients’ benefit.

### *B. Three Fallacies*

The anti-manipulation value permits us to highlight two fallacies about the applicability of patent law to tax planning in the context of a democratic polity: the innovation incentives fallacy,<sup>150</sup> and the public benefit fallacy.<sup>151</sup> A third fallacy, the invention fallacy,<sup>152</sup> follows from adopting a similar structurally coherent approach to the patent law.

#### *1. The Innovation Incentives Fallacy*

The primary argument for an expansive view of patent-eligible subject matter is the innovation incentive.<sup>153</sup> The spread of patent law to the full panoply of human endeavors is cast as an inherent good whereby the patent law monopoly right

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<sup>147</sup> *Id.*

<sup>148</sup> *Id.*

<sup>149</sup> *Id.* at 367 (“A tax system cannot be structurally coherent if the subsystems within it can be gamed or combined in unintended ways to avoid tax liability.”).

<sup>150</sup> See *infra* Part II.B.1.

<sup>151</sup> See *infra* Part II.B.2.

<sup>152</sup> See *infra* Part II.B.3.

<sup>153</sup> See *In re Bilski*, 545 F.3d 943, 977 (Fed. Cir. 2008) (en banc) (Newman, J., dissenting) (noting that the United States Supreme Court has consistently confirmed patentable-eligible subject matter as “providing a broadly applicable incentive to commerce and creativity”), *cert. granted sub nom. Bilski v. Doll*, 129 S. Ct. 2735 (2009).

provides necessary economic encouragement to invention in every sphere.<sup>154</sup> This is, quite simply, evidence of an innovation incentives fallacy.

Tax advisers are pushed—by real demands of business to reach into new areas, by clients who want to do that at the least tax cost, by reputational competitiveness, and by their own personal ambitions—to develop innovative tax structures. In fact, innovation in tax avoidance techniques is the bread and butter of the prestigious tax bar.

The pendulum actually swings far too one-sidedly towards tax minimization innovations. Tax lawyers tend to take reducing the tax burden as a mandate, and the litigation-oriented ethical requirement of “zealous advocacy” as permission or again as a mandate to develop innovative tax transactions that aggressively apply tax law provisions to garner tax savings. The corporate tax shelter surge throughout the 1990s provides ample evidence that there is no lack of innovation (or incentives to innovate) among tax advisers.<sup>155</sup>

The addition of patent incentives directly undermines the tax anti-manipulation value by encouraging innovation in tax planning that results in a distortion of the tax rules, inconsistent application of the rules to similarly situated taxpayers, inappropriate pressures on tax attorneys to aggressively pursue shelter design, and significant revenue loss to the Treasury. Patents on tax planning add one more incentive that pushes the tax bar to analyze the tax law for loopholes, now in search not only of a particular way to structure a particular business transaction for a particular client, but for a “cookie-cutter deal” that can be put on the shelf to grab a share of what would otherwise have gone to tax revenues for royalty fees. Tax patents thus conflict directly with the developing set of rules to curb tax manipulation by demanding broader information reporting and penalizing promotion of shelter deals.<sup>156</sup>

Patents on tax-structured transactions are simply not the same as, say, patents on seat belts, even though both types of patents have an impact on the ability of individuals using the patented product to comply with the law. Seat belts, for example, are frequently required by law because legislators have concluded that riders simply cannot ride safely without seat belts in today’s car-hog world.<sup>157</sup> That positive law context, however, is irrelevant to their patentability—the law is neither a component of the seat belt innovation, nor relevant to the utility of the device. If a new model belt with distinctive features is slightly less safe than other existing

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<sup>154</sup> See, e.g., Robert A. Meyers, *Standards—An Important Patent Portfolio Licensing Opportunity*, in *ADVANCED LICENSING AGREEMENTS* 2009, 335, 335 (PLI 2009) (“[S]ociety benefits tremendously when inventors are well rewarded by a system in which inventions are publicized through the exclusionary right awarded by a patent.”); Gruner, *supra* note 1, at 53–57 (setting out three reasons why objections to tax innovation are “misguided”—tax reduction, assistance to taxpayers in tax avoidance, and patent rewards for economic transfers without increased social utility); see also E. Anthony Figg, *Keeping Current with the Chair: Should the Patent Laws Exempt Certain Innovation from Patent Eligibility?*, *IPL NEWSL.*, Summer 2006, at 3 (arguing that the focus should be on “incentive for innovation, investment, and prompt disclosure of new ideas”).

<sup>155</sup> Beale, *Book-Tax Conformity*, *supra* note 137, at 351–54 (describing the reduction in effective tax rates for corporations due to use of tax shelters and alternative minimum tax system strategies).

<sup>156</sup> *Id.* at 303–04 (noting efforts to penalize tax shelters and broaden disclosure requirements).

<sup>157</sup> See, e.g., 625 ILL. COMP. STAT. 5/12-603.1 (2008) (requiring driver and passenger to use safety belts in the state of Illinois).

models but more convenient to use (and therefore more likely to be used regularly) because it exploits a new attaching device, it may be patentable.<sup>158</sup> It will be up to users to make the choice between added safety or added convenience, or up to jurisdictions to disallow models that do not satisfy a minimum safety standard. Either way, however, the development has actually *furthered* the purpose of the seat belt law (providing additional devices that satisfy a minimal standard of improving safety).<sup>159</sup> Similarly, if a new model belt is many times better than the old, it will be patentable even if there is no practical choice other than paying for the new or riding unsafely. The public is disadvantaged by the cost of the choice but benefited on balance by the added safety.<sup>160</sup> In both the convenient and safer innovations, the patent law's innovation incentive serves the purpose of the seat belt requirement in the first place—saving lives.<sup>161</sup>

With tax strategy patents, it is just the opposite. The tax law is directly relevant, as a component of the way the tax-advantaged transaction or financial instrument functions.<sup>162</sup> The existence of the patented tax planning strategy does not further the tax law with which it is connected, such as by incentivizing compliance with provisions or informing the public about the way the tax laws work so that they will be able to apply the law appropriately.<sup>163</sup> Rather, it directly contravenes the tax law by establishing a way to manipulate provisions to serve tax-avoidance objectives that may conflict directly with the underlying congressional purpose. The public at large is not served by tax avoidance innovation, since it

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<sup>158</sup> See *id.* (indicating that producing the best product, in this case the safest, is not a requirement to obtain a patent).

<sup>159</sup> See, e.g., 625 ILL. COMP. STAT. 5/12-603 (requiring sellers of motor vehicles to provide seatbelts, meeting Department established specifications).

<sup>160</sup> *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 10–11, (U.S. 1966) (“[T]he underlying policy of the patent system [is] that ‘the things which are worth to the public the embarrassment of an exclusive patent,’ . . . must outweigh the restrictive effect of the limited patent monopoly.” (quoting Letter from Thomas Jefferson to Isaac M’Pherson (Aug. 13, 1813), *in* VI THE WRITINGS OF THOMAS JEFFERSON: BEING HIS AUTOBIOGRAPHY, CORRESPONDENCE, REPORTS, MESSAGES, ADDRESSES AND OTHER WRITINGS, OFFICIAL AND PRIVATE, 1790–1826 181 (H. A. Washington ed., 1859))).

<sup>161</sup> See U.S. CONST. art. I, § 8, cl. 8 (granting Congress the power to grant limited monopolies to “promote the Progress of Science and useful Arts,”); 83d Gen. Assem., H. Deb., at 211–12 (Ill. 1984) (statement of Representative John Cullerton) (stating that the use of seat belts will save lives).

<sup>162</sup> The *State Street* patent, for example, directly references the partnership allocation regulations under I.R.C. § 704. Data Processing System for Hub & Spoke Financial Services Configuration, U.S. Patent No. 5,193,056 col.2 l.3–11, 34–47 (filed Mar. 11, 1991) (issued Mar. 9, 1993). Similarly, the patent application for a like-kind exchange directly references I.R.C. § 1031, the Code provision providing non-recognition. Methods and Investment Instruments for Performing Tax-Deferred Real Estate Exchanges, U.S. Patent No. 6,292,788 (filed Dec. 3, 1998) (issued Sept. 18, 2001).

<sup>163</sup> The statements here may not apply to tax return preparation software or other types of software that “translates” tax law into a more comprehensible and applicable format that can take taxpayer data and make determinations about compliance with clearly understood provisions of the law. The former perhaps should be patentable, if other similar compliance software is patentable. See, e.g., Fully-Automated System for Tax Reporting, Payment & Refund, U.S. Patent No. 6,202,052 (filed May 7, 1998) (issued Mar. 13, 2001). The latter may fall short under the public benefit fallacy, since they are patents that restrict taxpayers from following required law without paying a royalty to a private party. See *infra* Part II.B.2.

reduces monies going into the fisc by sidetracking them to the pockets of patent holders. Such innovation directly challenges the anti-manipulation value.

## 2. *The Public Benefit Fallacy*

Patent law recognizes only one axis for measuring the social utility of the patent process—the quid pro quo benefit of disclosure as an aid to use of innovations and acceleration of workarounds to patented innovations.<sup>164</sup> In contrast, the public benefits of the tax laws are a defining feature—taxation without adequate institutional justification creates dissent and discord. This inherent conflict between the way patent and tax law systems are justified is the basis for the public benefit fallacy.

The institutional concerns arising out of the patenting of tax planning methods are many.<sup>165</sup> Perhaps most important is the potential for patent trolls to monopolize areas of the laws, directly thwarting Congressional intent in setting economic, social and fiscal policy and damaging the coherence of the tax system.<sup>166</sup> Any newly enacted tax provision may be relevant to many types of transactions, but Congress may have enacted the provision with a particular use in mind. Enactments may spur the proverbial “race to the patent office” for related transactions, leading to a few major players holding key patents over large areas of the law. Congressional intent—whether it be to raise taxes and discourage certain conduct or to lower taxes to stimulate the economy—will be thwarted, and a portion of the taxes intended for the fisc, or the benefit intended for the taxpayer, will be redirected to the benefit of the patent holder.<sup>167</sup> This use of patents to turn a general purpose law into a rent-producing provision on behalf of the patent holder runs afoul of the anti-manipulation value and could end up discouraging compliance.

Moreover, the possibility of filing for a patent on a tax planning method will likely negatively impact professional relationships among tax attorneys, accountants and government officials.<sup>168</sup> These groups work together collectively through bar associations and other venues to develop better understandings of the tax rules and the potential structural gaps where coherence falters. Tax patents will deter public dialogue among tax professionals, thus constraining even further the flow of information already impeded by trade secrets, and limiting the collective development of structurally coherent theories.<sup>169</sup> Worse, tax patents will add to the competitive pressures on tax professionals that already embellish the tax

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<sup>164</sup> 35 U.S.C. § 112 (2006); see Schwartz, *supra* note 38, at 338 (stating exclusivity encourages innovation by permitting a patentee to “recoup her research and development (“R&D”) costs, and then turn a profit.”).

<sup>165</sup> For a view of the many institutional issues, both domestic and global, that arise because of the patenting of tax advice, see Beale, *Crossroads*, *supra* note 10, at 138–44.

<sup>166</sup> *Id.* at 138.

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

<sup>168</sup> See *id.* at 141–43.

<sup>169</sup> *Id.* at 143.



minimization norm.<sup>170</sup> That, too, will press against coherent interpretations, as tax professionals strive to create a name for themselves as innovators who can successfully patent ideas for structuring tax-advantaged deals.<sup>171</sup> Innovations in tax do not serve the public good, and these pressures on the tax bar directly conflict with the anti-manipulation value underlying the tax laws.

Finally, tax patents directly counter the anti-manipulation value, by providing direct incentives to tax advisers to develop ways to provide particularized tax treatment to their licensees. Differential access to advice about complying with the tax laws already exists, to be sure, but it is not based on a monopoly grant to particular individuals and it is not absolute. Patents, in contrast, are government-granted property rights that permit holders to license or not, as they see fit.<sup>172</sup> If a patent holder does not make a tax planning strategy available, and that strategy is the only way to engage in a particular type of transaction in a tax-efficient way, the grant of the patent collides head on with the anti-manipulation value, resulting in loss of respect for the system.

The failure of patent law to take into account the impact that issuance of a patent may have on institutional, professional and justice concerns means that the public benefit of disclosure promised by the patent bargain is shallow indeed when measured against the core values that are lost on the granting of tax planning method patents.

### 3. *The Invention Fallacy*

The innovation fallacy argues that the patent emphasis on encouraging innovation in new fields is overdrawn—indeed, our current financial crisis and economic recession arose in large part because of the overwrought ability of financial institutions to engineer financial products like credit default swaps, proprietary valuation models determining value at risk, and other tools that allowed them to conduct business as though systemic risk had been relegated to the past. At the least, the merit of innovation in tax—where similar economic incentives push practitioners to aggressively challenge the limits of textual provisions by devising new loopholes to shelter taxes—is highly questionable and directly challenges the anti-manipulation value at the heart of fairness and structural coherence considerations.

But beyond the issue of utility of innovation in tax planning techniques, the question arises whether the type of innovation that is represented by tax patent claims—elaboration of new methods to do a business transaction that harnesses the tax code for tax benefits (*e.g.*, the method for carrying out a section 1031 like-kind

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<sup>170</sup> See *id.* at 144 (arguing tax advisors already compete on their ability to deliver tax minimization strategies and that the availability of patents creates a “lopsided emphasis on planning at the cost of the tax system.”).

<sup>171</sup> *Id.* at 143 (noting that due to the new pressures to innovate, firms will be less likely to call into question their individual interpretations of the code).

<sup>172</sup> See U.S. CONST. art. I, § 8, cl. 8 (granting Congress the power to give inventors exclusive rights to their discoveries for a limited time); 35 U.S.C. § 154(a)(1) (2006) (defining the rights of a patent holder as the “right to exclude others from making, using, offering for sale, or selling the invention throughout the United States.”).

exchange with deedshares that was invalidated in *Fort Properties, Inc. v. American Master Lease, LLC*<sup>173</sup> or a new method of implementing the calculations required by the tax code (*e.g.*, the partnership allocation rules harnessed in *State Street*)—should even be considered “inventions” under the Constitution and Patent Act.<sup>174</sup> The Supreme Court spoke directly to this issue in respect of “laws of nature” when it decided *Parker v. Flook*<sup>175</sup> in 1978:

The rule that the discovery of a law of nature cannot be patented rests, not on the notion that natural phenomena are not processes, but rather on the more fundamental understanding that they are not the kind of ‘discoveries’ that the statute was enacted to protect.<sup>176</sup>

The positive law enacted by human legislatures, of course, is not “discovered” since it is published and available for all to find.<sup>177</sup> Although the elaboration of a “new” interpretation of particular provisions of positive law as they may apply to a particular human undertaking might be considered “discoveries,” in a broad sense, they should be treated on a par with the discovery of a law of nature as something not within the patent statute.

In a recent article, Andrew Schwartz arrived at the same conclusion by considering the patent law from the perspective of seeking structural coherence as a means of determining the scope of statutory provisions.<sup>178</sup> He outlines a strong argument that legal methods, such as tax planning methods, cannot be considered encompassed within the patent law because the patent law is restricted to “inventions,”<sup>179</sup> which by its terms are innovations that harness the laws of nature to specific, useful ends.<sup>180</sup> First, the patent law actually disregards all positive law other than the patent law itself—an invention, if within the scope of the patent law’s eligibility requirements, can be patented *whether or not it is legal under other positive law*.<sup>181</sup> Because tax strategies harness the positive tax laws to determine the structure of transactions designed to achieve tax savings, they cannot then also claim the benefit of the patent law.<sup>182</sup> Second, legal methods do not benefit from the

<sup>173</sup> 609 F. Supp. 2d 1052 (C.D. Cal. 2009).

<sup>174</sup> See *In re Bilski*, 545 F.3d 943, 998 (Fed. Cir. 2008) (en banc) (Mayer, J., dissenting), *cert. granted sub nom. Bilski v. Doll*, 129 S. Ct. 2735 (U.S. 2009) (“The patent system is intended to protect and promote advances in science and technology, not ideas about how to structure commercial transactions.”).

<sup>175</sup> 437 U.S. 584 (1978).

<sup>176</sup> *Id.* at 593.

<sup>177</sup> 35 U.S.C. §§ 101–02 (2006); see *Flook*, 437 U.S. at 593.

<sup>178</sup> Compare Schwartz, *supra* note 38, at 355–57 (tracing a consistent definition of invention internationally and historically), with Beale, *Book-Tax Conformity*, *supra* note 137, at 364 (arguing for interpretation of tax rules in view of the overall structure of the tax system). Schwartz, of course, did not describe his approach to interpretation of the patent law as a structural coherence hermeneutics, but I would argue that structural coherence is the underlying rationale for each of his conclusions about patentability of legal methods.

<sup>179</sup> Schwartz, *supra* note 38, at 357–58.

<sup>180</sup> *Id.* at 356 (quoting *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948)).

<sup>181</sup> *Id.* at 358.

<sup>182</sup> *Id.* at 366 (arguing that patent law protects inventions that “utilize or harness a law of nature for human benefit, and thus excludes from its scope legal methods which, by definition, utilize or harness positive law.”).

disclosure quid pro quo of the patent grant, because legal methods are uncertain until they have been publicly approved by the appropriate regulator or a court.<sup>183</sup> Accordingly, legal methods are not inventions, and are not patentable, simply because the patent law cannot take account of the structural elements—legal obligations and relationships—out of which they are built and a patent grant cannot provide the quid pro quo at the heart of the patent bargain.<sup>184</sup>

### III. IS *BILSKI* A SATISFACTORY RESOLUTION

It is clear that the anti-manipulation value is at odds with both the patent purpose (encouraging innovation) and the presumed patent benefit (making inventions available more quickly to the public). Moreover, the consistent observance in Supreme Court cases of a demarcation between patentable inventions and unpatentable abstractions suggests that the Court would not view tax strategy planning steps as patentable inventions. This is reinforced by the inherent contradiction between the utter disregard for positive law reflected in the irrelevance of illegality to the patentability of a claim and the necessity of treating a positive law claim as the patentable process itself if tax strategies are indeed patentable.<sup>185</sup> Accordingly, a coherent interpretation of the patent statute, along the lines of the coherent-reinforcing approach to tax law interpretation discussed in Part II, requires that the patent grant not be interpreted to extend to tax strategy patents.

#### A. *Uncertainties in the Application of the Bilski M/T Test to Tax Strategy Patents*

If the Bilski M/T test survives Supreme Court review, will it be sufficiently vigorous to result in a ban on tax strategy patents? This Part addresses two areas of concern—the machine-prong workaround, and the apparent tangibility criterion.

##### 1. *The Categorization Problem And The Machine-Prong Workaround*

The transformation prong of the M/T test, at least as phrased by the *Bilski* court, does not appear to permit most (perhaps all) tax strategy patents.<sup>186</sup> Most tax strategy patents deal with determinations of amounts of payments or allocations of income from one party to another or with the structuring of transactions.<sup>187</sup> There is no physical matter to be transformed, or representation of physical matter, other

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<sup>183</sup> *Id.* at 371.

<sup>184</sup> *Id.*

<sup>185</sup> See Schwartz, *supra* note 38, at 365.

<sup>186</sup> See *In re Bilski*, 545 F.3d 943, 961 (Fed. Cir. 2008) (en banc), *cert. granted sub nom. Bilski v. Doll*, 129 S. Ct. 2735 (2009) (citing *Gottshalk v. Benson*, 409 U.S. 63, 70 (1972)) (“The machine-or-transformation test is a two-branched inquiry; an applicant may show that a process claim satisfies § 101 either by showing that his claim is tied to a particular machine, or by showing that his claim transforms an article.”).

<sup>187</sup> See, e.g., Establishing & Managing Grantor Retained Annuity Trusts Funded By Nonqualified Stock Options, U.S. Patent No. 6,567,790 (filed Dec. 1, 1999) (issued May 20, 2003).

than the physical transformation that takes place with any human activity.<sup>188</sup> The *Bilski* statement that purported transformations of legal obligations or relationships cannot satisfy the M/T test seems to definitively leave tax strategy patents off the table.<sup>189</sup> That language strikes a resonant chord with many who view the State Street decision as having given “process” an overbroad meaning applicable to almost any form of human transaction or interaction.<sup>190</sup>

But how does that caveat regarding the unpatentability of legal relationships interact with the possibility of “applying” fundamental principles in a machine? The lack of clarity about the machine prong is significant.<sup>191</sup> The technological change represented by the use of computers as a “means” for process claims may present “nothing more than a rapid non-inventive step for conducting activities that were otherwise conducted in more rudimentary form before a computer or software application was added.”<sup>192</sup> And the patent bar’s response in the immediate period after the *Bilski* decision suggested that workarounds would be fairly simple—“as long as you add the words “on a computer” to a claim, then you’re all good.”<sup>193</sup>

Even though *Bilski* might be read to suggest that mere computerization of a tax strategy may not be enough to convert an unpatentable mental process into a patentable claim,<sup>194</sup> two Board decisions (decided prior to *Bilski* but after *Comiskey*) seem to draw an untenable distinction on the machine prong.<sup>195</sup> In *Langemyr*, a patent claim requiring mathematical manipulations of data on a single general purpose computer was held ineligible subject matter.<sup>196</sup> Being tied to the use of a computer (rather than slow human calculations) was not sufficient to make it patentable.<sup>197</sup> This meshes with *Bilski*’s “insignificant post-solution activity” corollary: a general purpose computer, without more, is mere computer implementation that cannot permute ineligible subject matter into a patentable claim.<sup>198</sup> The second case, *Ex parte Wasynczuk*, involved a process claim that

<sup>188</sup> See *Bilski*, 545 F.3d at 963 (“Purported transformations or manipulations simply of public or private legal obligations or relationships, business risks, or other such abstractions cannot meet the test because they are not physical objects or substances, and they are not representative of physical objects or substances.”).

<sup>189</sup> *Id.*

<sup>190</sup> See e.g., Makous & Hamilton, *supra* note 52, at 25 (describing processes as having been “expanded into essentially any form of transaction”).

<sup>191</sup> See *In re Bilski*, 545 F.3d at 962 (“We leave to future cases the elaboration of the precise contours of machine implementation, as well as the answers to particular questions, such as whether or when recitation of a computer suffices to tie a process claim to a particular machine.”).

<sup>192</sup> Makous & Hamilton, *supra* note 52, at 25.

<sup>193</sup> Michael Masnick, *Is There Still A Big Loophole For Software And Business Method Patents?*, TECHDIRT, Oct. 31, 2008, <http://www.techdirt.com/articles/20081030/1647512692.shtml>; see *In re Alappat*, 33 F.3d 1526, 1544–45 (Fed. Cir. 1994) (finding the computer a “specific machine to produce a useful, concrete, and tangible result”), *abrogated by In re Bilski*, 545 F.3d 943.

<sup>194</sup> *In re Bilski*, 545 F.3d at 952 (“Phenomena of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.” (quoting *Gottshalk v. Benson*, 409 U.S. 63, 67 (1972))).

<sup>195</sup> *Ex parte Langemyr*, 89 U.S.P.Q.2D (BNA) 1988, 1997–98 (B.P.A.I. May 28, 2008); *Ex parte Wasynczuk*, 87 U.S.P.Q.2D (BNA) 1826, 1827–28 (B.P.A.I. June 2, 2008).

<sup>196</sup> *Ex parte Langemyr*, 89 U.S.P.Q.2D at 1997–98.

<sup>197</sup> *Id.* at 1998.

<sup>198</sup> *In re Bilski*, 545 F.3d at 957 (“[I]nsignificant post-solution activity will not transform an unpatentable principle into a patentable process.” (quoting *Diamond v. Diehr*, 450 U.S. 175, 191–92 (1981))).

required the use of two computers with different operating languages, acting in series on a set of data.<sup>199</sup> The Board acknowledged that the claims were merely creating mathematical representations of physical systems.<sup>200</sup> The mere fact that two separate physical computing devices were necessary was treated as establishing a process that was tied to a particular apparatus, not simply a generic computing device for performing the steps. The claim therefore was eligible subject matter.<sup>201</sup>

Accordingly, the ability of patent applicants to tie tax planning to particularized machines becomes important: *Comiskey* acknowledges the difficulty of determining whether a process is tied to an apparatus or whether the apparatus is merely a nominal recitation, and that difficulty leads the panel in its amended opinion to send the “module” claims back to the Patent Office for consideration of the potential patentability based on use of a machine.<sup>202</sup> Yet *Ex parte Cornea-Hasegan*, a non-precedential Board decision after *Bilski*, relied on the *Bilski* “insignificant post-solution activity” and “meaningful limits” limitations to reject a claim for performing mathematical computations that required the use of a general purpose processor.<sup>203</sup> The *Bilski* caveats about insignificant post-solution activity therefore suggest these patents would not be easy to achieve, but they might be feasible. Patent attorneys appear to view the machine prong as the primary workaround to any potential *Bilski* restriction, as evidenced by continuing emphasis that claimants should “disclose (and claim) interaction with a computer in every patent application that is not a pure mechanical device.”<sup>204</sup> And the efficacy of a test is only as good as the examiners that apply it to the individual patent applications.<sup>205</sup>

## 2. The Apparent Tangibility Criterion And The Uncertainty Regarding Software

As commentators have noted, the *Bilski* court’s various allusions to physical objects or physical steps is difficult to analyze and hard to justify normatively.<sup>206</sup> The

<sup>199</sup> *Ex parte Wasynczuk*, 87 U.S.P.Q.2D at 1827–28.

<sup>200</sup> *Id.* at 1833.

<sup>201</sup> *Id.* at 1833–34.

<sup>202</sup> 554 F.3d 967, 979–80 (Fed. Cir. 2009) (discussing post-solution activity). The court noted that the module claims may require the use of a machine “under the broadest reasonable interpretation.” *Id.* at 981.

<sup>203</sup> *Ex parte Cornea-Hasegan*, 89 U.S.P.Q.2d (BNA) 1557, 1559–61 (B.P.A.I. Jan. 13, 2009).

<sup>204</sup> Dennis Crouch, *In re Ferguson (Answers to Frequently Asked Questions FAQ)*, PATENTLY-O, (Apr. 15, 2009, 11:51 CST) (on file with The John Marshall Review of Intellectual Property Law) (discussing a profit-sharing arrangement whereby a shared marketing force received some of the profit from software developed by an inventor in return for marketing and support); accord *In re Ferguson*, 558 F.3d 1359 (Fed. Cir. 2009) (citing *In re Bilski*, 545 F.3d 943, 960 n.18 (Fed. Cir. 2008) (en banc), cert. granted sub nom. *Bilski v. Doll*, 129 S. Ct. 2735 (U.S. 2009)) (distinguishing the claims at issue in *State Street*, which tied a method to a computer, and in *Bilski*, which failed to satisfy the “machine” element of the machine-or-transformation test).

<sup>205</sup> See C. Alan Fu, *Annual Review of Law and Technology: I. Intellectual Property: B. Patent: 1. Prosecution History Estoppel: Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 18 BERKELEY TECH. L.J. 117, 132 (2003).

<sup>206</sup> See MJ Edwards & Donald Steinberg, *The Implications of Bilski: Patentable Subject Matter in the United States*, 49 IDEA 411, 426 (2009) (“[P]atentability arguments relying on ‘physical steps’ present in the claims are uncertain under *Bilski*.”); Kevin Collins, *An Initial Comment on In re Bilski: Tangibility Gone Meta*, PATENTLY-O, Nov. 1, 2008, at 3 (on file with the

court suggests that a transformation must either act on a physical object or present a representation of a physical object, and ties that to its statement regarding the inappropriateness of granting patents for “purported transformations” of “legal obligations or relationships.”<sup>207</sup> Data representing a physical object are eligible subject matter (visual depiction of X-ray attenuation data of bones), but data representing intangible information is not (a process of graphically displaying variances in data from average values), because the former is a transformation of “raw data into a particular visual depiction of a physical object,” even though there has been no transformation of the underlying physical object itself.<sup>208</sup>

At the same time, the court goes out of its way to address what it calls “a possible misunderstanding” about its *Comiskey* decision discussion of physical steps.<sup>209</sup> Physical steps may not be sufficient to satisfy the test.<sup>210</sup> At the same time, a claim without physical steps may be appropriately tied to a machine or achieve a transformation so as to satisfy the test.<sup>211</sup> Nonetheless, “a claimed process wherein *all* of the process steps may be performed entirely in the human mind is obviously not tied to any machine and does not transform any article into a different state or thing. As a result, it would not be patent-eligible.”<sup>212</sup>

This distinction raises further questions for tax-related patents. Many tax practitioners, even some who object strenuously to tax planning patents for reasons similar to those I have set forth in Part II, think it is reasonable for patents to be offered on programs that provide tax computational assistance—*e.g.*, programs like TurboTax that permit individual taxpayers to enter data so that the program can compute the application of the tax laws to the data and generate appropriate return information. But most of us do not think that Goldman Sachs should be able to patent a new version of a contingent liability tax shelter generating artificial losses to reduce clients’ tax liabilities.<sup>213</sup> Tax software may satisfy the machine prong of the patent eligibility requirements, although it appears that tax software could suffer from the fate of not being tied to anything other than a general purpose computer unless it is claimed with a specific instrument—say, a hand-held device for

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John Marshall Review of Intellectual Property Law) (asserting that *Bilski’s* transformation test makes arguably unsustainable distinctions between physical and intangible data with the result that both the process and the type of article that is transformed by the process must be considered in determining patentability). Collins notes the lack of normative justification for distinguishing between manipulation of physical data (bone structure) and manipulation of data on intangibles (age, height, incomes, etc.). Collins, *supra*.

<sup>207</sup> *In re Bilski*, 545 F.3d at 963 (“Purported transformations or manipulations simply of public or private legal obligations or relationships, business risks, or other such abstractions cannot meet the test because they are not physical objects or substances and they are not representatives of physical objects or substances.”).

<sup>208</sup> *Id.* (“So long as the claimed process is limited to a practical application of a fundamental principle to transform specific data, *and the claim is limited to a visual depiction that represents specific physical objects or substances*, there is no danger that the scope of the claim would wholly pre-empt all uses of the principle.”) (emphasis added).

<sup>209</sup> *Id.* at 960.

<sup>210</sup> *Id.* at 960–61.

<sup>211</sup> *Id.* at 961.

<sup>212</sup> *Id.* at 961 n.26 (emphasis added).

<sup>213</sup> *Id.*; *see, e.g.*, I.R.S. Notice 2000-44, 2000-2 C.B. 255, 255 (Sept. 5, 2000) (identifying “Son of Boss” shelters that inflate partnership basis as listed transactions for purposes of the reportable transaction rules).

calculating tax liability.<sup>214</sup> The tax shelter, on the other hand, should not be patentable under the machine prong of the test, even if it is designed to have steps that run on a computer. The reason is that the determinations are ones that can be made by any person with knowledge of the tax laws, by applying the tax laws through mental processes to the applicable intangible data (corporate taxpayer, individual taxpayer, income, expenses, losses, etc.). The tax shelter should also be patent-ineligible under the transformation prong, under the explicit language denying patentability to manipulations of legal obligations or relationships.<sup>215</sup> Furthermore, such tax shelters clearly would not satisfy this “tangibility criterion”: the data are either intangible data reflecting tax attributes (income, expenses, losses, entity status) that are entered appropriately into an algorithm to produce the corresponding tax liability, or they are structured transaction information that resemble the *Bilski* claim itself (matching a transaction with a hedging transaction and ensuring implementation between the appropriate counterparties).

Most tax practitioners, myself included, have been concerned that it would be difficult to define a problematic tax strategy in ways that would contrast it with a useful computer-implemented program for tax liability determinations. If *Bilski* holds—and neither type of claim constitutes a transformation nor is tied to a particular machine—then neither type is patent-eligible and the problem doesn’t arise. Our concern about tax strategy patents is resolved. But if the Supreme Court on appeal creates a more-nuanced test intended to ensure that software and perhaps some business methods are patent-eligible, there will likely be ongoing categorization problems for tax-related patents between useful computerization of tax calculations and unpatentable steps for structuring tax transactions.

### *B. The Bilski Decision at the Supreme Court*

Given the many political and technical difficulties in moving an appropriate patent law reform through Congress, many commentators have asserted that the courts are in fact the appropriate arbiters of patent doctrine from a “structural, historical, and institutional perspective.”<sup>216</sup> The state of patent law today is clearly in flux: even after the *Comiskey* and *Bilski* decisions, there are still patent applications under consideration for pure tax structuring techniques.<sup>217</sup> It may be that such flux is beneficial, as the common law system grapples with changing

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<sup>214</sup> See *Ex parte Langemyr*, 89 U.S.P.Q.2D (BNA) 1988, 1997–98 (B.P.A.I. May 28, 2008) (finding mathematical manipulations of data on a single general purpose computer ineligible subject matter).

<sup>215</sup> *Id.* at 963.

<sup>216</sup> Craig Allen Nard, *Legal Forms and the Common Law of Patents* 53 (Case Western Reserve Univ. Sch. of Law Case Research Paper Series in Legal Studies, Working Paper No. 09-18, 2009), available at <http://ssrn.com/abstract=1396679>.

<sup>217</sup> See, e.g., *USPTO Publishes Patent Application for Method Enabling Native American Tribal Investment*, TAX NOTES TODAY, Apr. 27, 2009, available at 2009 TNT 78-77 (claiming a business method for deferring corporate income tax by using an LLC taxed as a partnership as a pass-through entity allowing investment in tribal corporations). I was aware of this type of tax shelter as early as 1998, when it was discussed among tax professionals.

technology and needs.<sup>218</sup> But the Supreme Court's grant of certiorari suggests that there will be a more definitive decision, one way or another, from that Court.

The outcome will be important for the tax system, and other industries, as evidenced by the wide range of amicus curiae briefs—both for and against the *Bilski* approach to patentability—at the *en banc* hearing of *Bilski* and in support of the *Bilski* petition for certiorari.<sup>219</sup> For some, the patent system is a critical spark to innovative developments, but for others, “patents seem more like a hindrance that yields little benefit.”<sup>220</sup> For tax, the inherent conflict between the goals of tax policy and the goals of the patent system mean that there is clearly a strong detriment to the patentability of tax planning methods. *Bilski* represents an opportunity for the Court to clarify the types of activities that are outside the scope of the patent law, but the outcome is clearly uncertain.

### 1. *Bilski Reversed—A Worrisome Development For Tax Practice*

The Supreme Court's recent foray into patent law suggests that it considers bright-line tests inappropriately rigid and limiting.<sup>221</sup> If that logic is applied here, it may be that the Court will simply reverse *Bilski* under a broader reading of the patent law. It may choose to reinstate the extraordinarily broad *State Street* patentability standard based on a worry about a gruesome parade of horrors if

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<sup>218</sup> See, e.g., John M. Golden, *The Supreme Court as “Prime Percolator”: A Prescription for Appellate Review of Questions in Patent Law*, 56 UCLA L. REV. 657, 674, 716 (2009) (suggesting the value of the Supreme Court acting as a disruptor, rather than settler, of the common law of patents and that the Court should provide “general but malleable guidance”). But cf. Brief of Amicus Curiae Borland Software Corporation in Support of Petitioner at 5–6, *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (en banc), cert. granted sub nom. *Bilski v. Doll*, 129 S. Ct. 2735 (2009) (No. 08-964), 2009 WL 585758 (urging the Supreme Court to clarify the law because of “seemingly perpetual inconsistencies in the jurisprudence of patent eligibility”).

<sup>219</sup> See *Bilski v. Doll*, 129 S. Ct. 2735 (2009) (listing more than thirty amicus briefs). Compare e.g., Brief of Koninklijke Philips Electronics N.V. as Amicus Curiae in Support of Petitioners at 3, *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (en banc), cert. granted sub nom. *Bilski v. Doll*, 129 S. Ct. 2735 (2009) (No. 08-964), 2009 WL 559338 [hereinafter Brief of Koninklijke] (arguing that *Bilski* “is overreaching, works an unnecessary sea change in deep-rooted principles of patent law, and will necessitate a massive revaluation of America’s intangible technology assets.”), with e.g., Brief of Amici Curiae Consumers Union, Electronic Frontier Foundation, and Public Knowledge for Hearing En Banc at 4, *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (en banc), cert. granted sub nom. *Bilski v. Doll*, 129 S. Ct. 2735 (2009) (No. 08-964), 2008 WL 1842260 (“[G]ranted applications such as *Bilski*’s encourages rent-seeking on human thought and behavior.”).

<sup>220</sup> Donald L. Rhoads, *Key Concepts in Patent Reform*, in UNDERSTANDING PATENT REFORM IMPLICATIONS: LEADING LAWYERS ON DEFINING KEY ISSUES, INTERPRETING CURRENT PROPOSED LEGISLATION, AND PROJECTING FUTURE DEVELOPMENTS 89, 90 (Aspatore 2009), available at 2009 WL 535241 (indicating that technology, electronics, and financial services companies may find their businesses negatively impacted “by people who did not make a material contribution to the art”). Perhaps the two fields most interested in the outcome of Supreme Court review are software and tax. Neither requires a particular machine nor transforms a particular article to a different state. *Id.*

<sup>221</sup> See Erika Arner, *Ten Reasons the Supreme Court Should Take In re Bilski*, PATENTLY-O, April 1, 2009, <http://www.finnegan.com/resources/articles/articlesdetail.aspx?news=f4add0a8-8f07-4475-9838-f1ae0755baf4>; cf. *KSR Int'l Co. v. Teleflex, Inc.* 550 U.S. 398, 419–20 (2007) (rejecting the Federal Circuit’s “teaching, suggestion or motivation” test for nonobviousness as too rigid).



process patents are limited, as so many *amici* argued (i.e., the threat that software companies will move offshore, financial innovation will grind to a halt, etc.).<sup>222</sup> The likely result would be a renewed race to the Patent Office for new (and old) “inventions” in tax.<sup>223</sup>

Reversal would raise the specter of all of the concerns outlined by the tax bar over the years since *State Street* was decided as outlined in Part II, above and in my earlier articles on this topic. In fact, if the Court gives its apparent blessing to a broad view that any useful method of conducting human activities can be patented, it is likely that there would be a surge not only in tax patents but also in patents on other legal processes such as tort law or contract law. One could imagine patent claims for strategies for arguing tort cases or steps for working through a contract negotiation—materials that constitute the heart of many legal case books and scholarly journal articles.

It is undoubtedly safe to predict, therefore, that a revival of the extraordinarily broad *State Street* patentability standard would cause other doctrinal levers to come into play to prohibit or, at the least, severely restrict the availability or power of tax planning patents. The Treasury Department would surely continue its development of the patented transaction provision in the reportable transaction regulations to require reporting for patented tax planning.<sup>224</sup> Bills were already introduced in the 110<sup>th</sup> Congress in both the House and Senate to ban tax strategy patents, and other bills would have provided a resolution by mimicking the medical procedure patent restriction to limit remedies for tax strategy patent infringement.<sup>225</sup> Strengthened by the wealth of discussion among tax professionals in response to *State Street*, *Bilski* and the ongoing patenting of tax strategies, Supreme Court reinstatement of the *State Street* test might well permit Congress to find the institutional wherewithal to

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<sup>222</sup> See Brief of Koninklijke, *supra* note 219, at 14.

<sup>223</sup> Beale, *Crossroads*, *supra* note 10, at 139.

<sup>224</sup> See Notice of Proposed Rulemaking, REG-129916-07 RIN 1545-BG76, 72 Fed. Reg. 54615, 5461 (Sept. 26, 2007) (proposing disclosure of “patented transactions” under the reportable transaction regulations). See generally I.R.C. §§ 6011, 6111 (West 2008) (setting forth a regime governing reporting and penalties in connection with potentially abusive tax shelters, along with regulations promulgated thereunder); ABA Members Comment on New Reportable Transaction Category for Patented Tax Strategies, TAX NOTES TODAY, Feb. 22, 2007, available at 2007 TNT 36-12 (commenting on the operation of disclosure rules for patented tax transactions). (The author participated in drafting the ABA comments.)

<sup>225</sup> See, e.g., Patent Reform Act of 2007, H.R. 1908, 110th Cong. § 10 (2007) (making “tax planning methods” unpatentable, but excepting tax preparation software or other methods of preparing tax or information returns); Stop Tax Haven Abuse Act, S. 681, 110th Cong. § 303 (2007) (including a ban on “tax shelter patents” that are “designed to minimize, avoid, defer, or otherwise affect the liability for Federal, State, local, or foreign tax”). Similar “stop tax haven abuse” legislation including a tax planning patent ban has been introduced in the 111th Congress in both Houses. See H.R. 1265, 111th Cong. § 303 (2009) (making tax planning inventions unpatentable, but excepting “tax preparation software and other tools or systems used solely to prepare tax or information returns”); S. 506, 111th Cong. § 303 (2009) (same). Various organizations have provided commentary urging Congress to take action on the patenting of tax strategies. See, e.g., AICPA Supports Tax Strategy Patent Amendment Added to Patent Reform Bill, 87 THE CPA LETTER 9, Sept. 2007, at 1, available at [http://www.aicpa.org/download/cpaltr/2007\\_09/sept07.pdf](http://www.aicpa.org/download/cpaltr/2007_09/sept07.pdf).

enact a free-standing ban on tax strategy patents or to move the ban through the larger patent reform effort.<sup>226</sup>

If Congress does step in to ban tax strategy patents, it may ban the patenting of any tax planning method in a straightforward provision that would be easily enforceable. It may, however, limit the ban to tax strategies that constitute tax avoidance shelters or permit tax return preparation software patents but not other machine-implemented tax planning patents.<sup>227</sup> In the latter case, the categorization problem will remain. Just as the Internal Revenue Service and Congress have struggled to articulate the judicial doctrine of economic substance applied to define illicit tax shelters in a way that distinguishes them from acceptable tax minimization strategies in determining tax liability for particular taxpayers, it will be difficult for the Patent Office to distinguish between the banned problematic tax strategies and the permitted useful computerization of tax information to assist tax planners.<sup>228</sup>

## 2. *Bilski Affirmed—An Invitation To Clever Patent Attorneys*

If one considers the Supreme Court's actions in recent patent cases dealing with other areas of the patent law, it might be more reasonable to assume that the Court has agreed to review *Bilski* in order to make it clear that the *State Street* decision, with its implication of patent-favorable handling of almost any claimed step-by-step process to accomplish a useful end, went too far.<sup>229</sup> The Court had hinted, as early as its *Benson* decision, that Congress should take action on the patentability question regarding intangible innovations.<sup>230</sup> Perhaps because Congress has not acted, recent Court opinions have “weakened patentees” and appeared “to reign in the Federal Circuit on patent-favorability.”<sup>231</sup> Accordingly, a likely outcome at the Supreme

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<sup>226</sup> The formation of a broad coalition of consumer organizations, financial planners, and groups concerned with taxpayer rights has increased pressure for Congress to act. The coalition has written key members of the House of Representatives to urge passage of a tax patent ban on the grounds that it is unlikely that the Supreme Court will decide the *Bilski* case in a way that will prevent further issuance of tax strategy patents, thus requiring a legislative solution. See Letter from Barry Melancon, President and Chief Executive Officer, American Institute of Certified Public Accountants, et al. to Representative John Conyers, Jr., et al. (Oct. 20, 2009) (on file with The John Marshall Review of Intellectual Property Law) (supporting passage of the Boucher-Goodlatte bill, H.R. 2584).

<sup>227</sup> See, e.g., S. 506, 111th Cong. § 303; H.R. 1265, 111th Cong. § 303 (making tax planning inventions unpatentable, but excepting “tax preparation software and other tools or systems used solely to prepare tax or information returns.”).

<sup>228</sup> See S. 506, 111th Cong. § 303 (listing multiple exceptions to a proposed ban of tax method patents).

<sup>229</sup> See, e.g., *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 419–20 (2007) (rejecting the Federal Circuit's “teaching, suggestion or motivation” test for nonobviousness as too rigid).

<sup>230</sup> *Gottshalk v. Benson*, 409 U.S. 63, 67, 73 (1972) (“[C]onsidered action by the Congress is needed.”).

<sup>231</sup> Michael Guntersdorfer, *The Death of State Street?*, 9 WAKE FOREST INTELL. PROP. L.J. 61, 73 (2009) (discussing *KSR* and *eBay, Inc. v. MercExchange LLC*, 547 U.S. 388 (2006), among others); see also Ben Hattenbach, *The Changing Face of Patent Law: Globalization Meets Legislative and Judicial Activism*, in UNDERSTANDING PATENT REFORM IMPLICATIONS: LEADING LAWYERS ON DEFINING KEY ISSUES, INTERPRETING CURRENT PROPOSED LEGISLATION, AND PROJECTING FUTURE DEVELOPMENTS 35, 47 (Aspatore 2009), available at 2009 WL 535237 (indicating that the Court had “reawakened from a long dormancy”).

Court is an affirmation of the Federal Circuit's M/T test, or at the least, an indication that there should be a strong presumption in favor of that test, a position argued by amicus curiae Software & Information Industry Association at the Federal Circuit.<sup>232</sup>

That result would radically change the debate on patentable subject matter for tax strategy patents (and many business method patents) and would bring about a systemic change in the kinds of processes that can be patented. The *Bilski* court categorically rejected the technological arts test because of its presumed ambiguity.<sup>233</sup> After all, some *amici* indicated that financial engineering and economically based claims are technological fields similar to other applied sciences,<sup>234</sup> while others made clear that only science and mathematics-based inventions could be considered technological arts.<sup>235</sup> Yet the test announced by the *Bilski* court does look very much like a technological arts test—especially the language about transforming physical objects or representations of physical objects.<sup>236</sup>

Under the M/T test, business method patents generally would be much harder to attain, and software patents would perhaps be generally unavailable.<sup>237</sup> The M/T test will likely make it much more difficult for patents to issue on tax planning methods that set forth the human activities that must be undertaken to structure a transaction or create a legally valid financial instrument. The Court's affirmation of the M/T test would therefore be supportive of the tax anti-manipulation value.

Will clever drafting circumvent this apparent line on patentable subject matter? As Judge Mayer noted in his dissent, clever drafting can transform “nearly every process claim . . . to include a physical transformation,” such as the inclusion of a meter to record consumption for *Bilski*'s hedging transactions.<sup>238</sup> One can assume that large companies that have had patents in information technology and similar fields, like Philips Electronics, will attempt nonetheless to develop workarounds for their patent needs.<sup>239</sup>

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<sup>232</sup> Brief of Amicus Curiae Software & Information Industry Association in Support of Neither Party and Affirmance of the Decision Below at 3, *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (en banc), cert. granted sub nom. *Bilski v. Doll*, 129 S. Ct. 2735 (U.S. 2009) (No. 08-964), 2008 WL 1842262.

<sup>233</sup> *Id.* at 960.

<sup>234</sup> See, e.g., Brief for Amicus Curiae American Institute of Certified Public Accountants in Support of Appellee at 11, 24, *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (en banc), cert. granted sub nom. *Bilski v. Doll*, 129 S. Ct. 2735 (U.S. 2009) (No. 08-964), 2008 WL 1842274.

<sup>235</sup> See, e.g., Brief of Amicus Curiae International Business Machines Corp. in Support of Neither Party at 11, *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (en banc), cert. granted sub nom. *Bilski v. Doll*, 129 S. Ct. 2735 (U.S. 2009) (No. 08-964), 2008 WL 1842284.

<sup>236</sup> See supra note 115 and accompanying text.

<sup>237</sup> See, e.g., John F. Duffy, *The Death of Google's Patents?*, PATENTLY-O, July 21, 2008, at 2 (on file with The John Marshall Review of Intellectual Property Law) (indicating that Google's PageRank patent might be invalid under the M/T test).

<sup>238</sup> *In re Bilski*, 545 F.3d at 1008 (Mayer, J., dissenting). At some level, every human activity involves a physical transformation: time passes, energy is consumed, and those who engage in a transaction go from a state of not being in a particular transaction to a state of being participants in the transaction. See *id.* The language about legal relationships in *In re Bilski* is clearly intended to indicate that the statute does not encompass these types of physical transformations, but the possibility of describing even human mental activity in such terms makes clear the difficulty in drawing lines for process patents.

<sup>239</sup> See Brief of Koninklijke, supra note 219, at 3 (arguing that *Bilski* “is overreaching, works an unnecessary sea change in deep-rooted principles of patent law, and will necessitate a massive reevaluation of America's intangible technology assets.”).

This expectation of circumvention by clever drafting, however, seems somewhat of a stretch. The *Bilski* court's "field of use limitation" and *Diehr*'s language that ineligibility "cannot be circumvented by attempting to limit the use of the formula to a particular technological environment" explicitly reject attempts to tie a claim nominally to a technological field.<sup>240</sup> Similarly, the insufficient post-solution activity limitation goes to this point.<sup>241</sup> Token use of technology or nominal limitations intended to gain patentability should not to be respected by the Patent Office or courts. Furthermore, for many tax planning method patents, it may be harder to invent appropriate physical transformations that could be implemented or to limit the claim to a machine. Dollar flows (whether income or outgo) need not be measured on a physical meter, since most financial transactions are conducted electronically. Unless the actual physical activity that is undertaken to enter into a structured transaction is taken into account, it appears that it would be hard to come within the physical transformation prong. Merely adding a general processor to accumulate data or apply a mathematical algorithm would appear to invoke the post-solution activity limitation.<sup>242</sup>

The lack of clarity about the machine implementation prong of the test, however, will leave the tax bar in uncertainty about the potential for tax planning method patents based on means-plus drafting to require machines and the patent bar busy attempting to work around the limitation.

### 3. *Bilski Modified—A Paradigm Shift*

Given the thirty years of experience since its opinions in the *Benson-Flook-Diehr* trilogy, the Court may concede the lack of any need to retain flexibility for new technologies (like psychokinesis) and adopt the M/T test with its supporting corollaries as the appropriate method for determining patentability of process claims.<sup>243</sup> Assuming that the surge of legal method and other new types of patents have captured its attention, it may also be ready to provide further guidance on drawing the appropriate line between excluded subject matter and patentable subject

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<sup>240</sup> *Diamond v. Diehr*, 450 U.S. 175, 191 (1981) (citing *Parker v. Flook*, 437 U.S. 584, 599 (1978)).

<sup>241</sup> *In re Bilski*, 545 F.3d at 957 n.14 (discussing *In re Schrader*, 22 F.3d 290, 294 (Fed. Cir. 1994) (holding that a simple recodation step in the middle of a claimed process incapable of imparting patent eligibility)).

<sup>242</sup> *Id.* at 957 (quoting *Diamond v. Diehr*, 450 U.S. 175, 191–92 (1981)) ("Insignificant post-solution activity will not transform an unpatentable principle into a patentable process."). On August 24, 2009, the Patent Office issued interim examination instructions for evaluating subject matter eligibility under 35 U.S.C. § 101 in view of *In re Bilski*. Those guidelines explicitly provide that simple recitation of a computer to carry out a process will be insufficient if there are no steps implemented on the computer to make it a special purpose computer and reiterate the "meaningful limit" and "insignificant extra-solution activity" corollaries set forth in the *Bilski* decision. Interim Examination Instructions for Evaluating Subject Matter Eligibility under 35 U.S.C. §101. (August 24, 2009) (distributed by Andrew H. Hirshfield, Acting Deputy Commissioner for Patent Examination Policy), available at [http://www.uspto.gov/web/offices/pac/dapp/opla/2009-08-25\\_interim\\_101\\_instructions.pdf](http://www.uspto.gov/web/offices/pac/dapp/opla/2009-08-25_interim_101_instructions.pdf).

<sup>243</sup> See *supra* note 109 and accompanying text (discussing the psychokinesis example in the Wasyng School of Law amicus brief).

matter. The *Bilski* case presents an ideal platform for an expansive opinion tying together the Court's precedential decisions on mental processes, abstract ideas, and the Constitutional limitation to the "useful Arts."

Ideally, the Court will step up to that stage in recognition of the invention fallacy for claims like Bilski's and in doing so deliver guidance that buttresses arguments against patentability for tax planning methods.<sup>244</sup> For example, it would be reasonable for the Court to clarify that its statement that "anything under the sun made by man"<sup>245</sup> is eligible to be patented was intended to address the technological arts as historically understood and should not be read to encompass non-scientific fields such as economics and finance. Further, the Court could—and should—acknowledge the correctness of the *Bilski* court's treatment of legal obligations and relationships as abstractions plainly ineligible for patenting. In that context, the court could expand on the meaning of the traditional exclusion for mental processes and abstract ideas to make clear that legal advice, such as the steps necessary to undertake a tax-advantaged transaction structure, cannot be patented because it is premised on utilizing positive law.

If the Court takes such an approach, it will achieve a significant paradigm shift in the patent law. The subject matter expansion set in motion by the Federal Circuit's *State Street* decision will come to a much deserved halt, and legal advice will once again not be eligible for patenting. Innovation will not cease, but the inappropriate rent-seeking from patents in areas of the law that have traditionally been off-limits to the patent process will.

#### CONCLUSION

Patentability determinations have undergone considerable turmoil over the last few decades as the Federal Circuit moved towards a looser standard for patentability. The *State Street* decision let the gates down, creating a surge of patents in areas that had never been considered eligible before, such as tax planning strategies. The Federal Circuit's *Bilski* decision slowed this patent binge to a crawl, giving various participants an opportunity to assess the long tradition of patents for technological breakthroughs and the claims for patentability of "any thing under the sun made by man."<sup>246</sup> Tax and patents do not go well together, and *Bilski* provides an opportunity to put the idea of legal method patents to rest once and for all. When the Supreme Court hears the case, it may reverse *Bilski* and leave Congress no choice but to enact legislative exclusions to the patent laws. It is likely, however, that it will instead affirm *Bilski* and it may even announce new guidance that clarifies the nonapplicability of patent law to legal methods. This article has explored the patent law, and found the course leading to *Bilski* well supported in the Court's precedent. Similarly, relying on the underlying goals of the tax system has demonstrated the incompatibility between tax and patent law. Ultimately, both will be served best if

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<sup>244</sup> See *supra* Part II.B.3.

<sup>245</sup> See *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980) (citing S. REP. NO. 1979, 82d Cong. § 5 (1952)).

<sup>246</sup> See *supra* Part I.B.5.

the Court takes this opportunity to restate the limitations of the patent law and reinforce the understanding that legal relationships are not patentable.