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# COMMENTS

## FINANCIAL BUSINESS METHOD PATENTS: THE TREND TOWARD INVALIDITY UNDER SECTION 101\*

### I. INTRODUCTION

This Comment examines the patentability of business methods in the financial industry under 35 U.S.C. § 101. Prior to 1998, the financial industry was largely inexperienced in patent law, but that changed drastically when the Federal Circuit handed down its decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*<sup>1</sup> The decision led to an explosion of business method patents in the industry that continued until the Supreme Court pulled back the reins in its seminal 2010 decision *Bilski v. Kappos*.<sup>2</sup> Since *Bilski*, courts have been very uneven in their analyses of patentable processes under § 101 but have consistently reached the same conclusion: the financial business method at issue constitutes a patent-ineligible abstract idea.<sup>3</sup> The legislature has also weighed in on the issue and enacted a new program under the Leahy-Smith America Invents Act of 2011 designed to systematically eliminate low-quality financial business method patents.<sup>4</sup>

With the ambiguous case law and massive patent system overhaul as a backdrop, Part III.A identifies the policy concerns underlying the issue of financial business method patentability, determining that the forward-looking argument that innovation has been stifled—not inspired—by patentability carries the most weight. Part III.B entertains the idea of taking a page out of Europe’s book, which categorically excludes business method patents per se. Part III.C then moves through the critical analysis of courts’ tendency to invalidate financial business method patents, albeit without ever articulating a concrete standard for doing so. Finally, Part III.D examines the implications of the Leahy-Smith America Invents Act of 2011, agreeing with the gentle approach of targeting and eliminating these low-quality patents in an inexpensive and efficient forum, before concluding, simply, that financial business method patents are invalid under § 101.

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\* Elizabeth Bestoso, J.D. Candidate, Temple University Beasley School of Law, 2015. A most sincere thank you to my husband Matt and dog Cubby for putting up with me during the Comment-writing process. Thank you to my mother Cathy and sister Abby for inspiring me every single day, and to the rest of my beautiful family for providing the most incredible support system I could ever ask for.

1. 149 F.3d 1368 (Fed. Cir. 1998), *abrogated by In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008). See *infra* Part II.B.1 for a discussion of *State Street*.

2. 130 S. Ct. 3218 (2010). See *infra* Part II.B.2 for a discussion of *Bilski*.

3. See *infra* Part II.B for a chronology of relevant case law.

4. See *infra* Parts II.C and III.D for a detailed discussion of the Leahy-Smith America Invents Act of 2011 and its implications.

## II. OVERVIEW

This Section begins with an introduction to 35 U.S.C. § 101, the backbone of patent law in the United States, and an understanding of which is required to fully appreciate the nature of business method patentability. “Business method” has never been statutorily or judicially defined.<sup>5</sup> However, the United States Patent and Trademark Office (PTO) has categorized business methods into a

class for apparatus and corresponding methods for performing data processing operations, in which there is a significant change in the data or for performing calculation operations wherein the apparatus or method is uniquely designed for or utilized in the practice, administration, or management of an enterprise, or in the processing of financial data.<sup>6</sup>

This Section proceeds through a chronological analysis of relevant case law concerning these patents, tracking the recent trend toward invalidity, before concluding with recent significant legislative changes.

### A. *The Backbone of Patent Law: Section 101*

In an effort to further the constitutional objective of promoting the progress of the useful arts by encouraging innovation,<sup>7</sup> Congress has created a body of patent law that grants certain exclusive rights to inventors.<sup>8</sup> Under § 101, “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”<sup>9</sup> This sentence has become the backbone of an extraordinarily complicated body of law, particularly with respect to what constitutes a patentable “process” within its meaning.<sup>10</sup> Over time, the United States Supreme Court has carved out a handful of exceptions to patentability under § 101: laws of nature, physical phenomena, and abstract ideas are not patentable.<sup>11</sup> United States courts have long debated how the puzzle pieces of § 101 fit together.<sup>12</sup>

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5. See David Orozco, *Administrative Patent Levers*, 117 PENN ST. L. REV. 1, 11, 13 (2012) (discussing definitions of “business methods” that were never enacted by Congress and the imprecise treatments of business methods by several courts).

6. *Class 705, Data Processing: Financial, Business Practice, Management, or Cost/Price Determination*, U.S. PAT. & TRADEMARK OFF., <http://www.uspto.gov/web/patents/classification/uspc705/defs705.htm> (last visited Mar. 10, 2014).

7. U.S. CONST. art. I, § 8, cl. 8.

8. Patent Act of 1952, Pub. L. No. 82-593, 66 Stat. 792 (codified as amended in scattered sections of 35 U.S.C.); Rajnish Kumar Rai & Srinath Jagannathan, *Do Business Method Patents Encourage Innovation?*, 2012 B.C. INTELL. PROP. & TECH. F. 1, 1 (2012).

9. 35 U.S.C. § 101 (2012).

10. See, e.g., *Bilski v. Kappos*, 130 S. Ct. 3218, 3229–31 (2010) (discussing existing precedents with respect to patentable “processes” but declining to further define what constitutes one).

11. *Id.* at 3225.

12. See, e.g., *MySpace, Inc. v. GraphOn Corp.*, 672 F.3d 1250, 1260 (Fed. Cir. 2012) (describing § 101 jurisprudence as a “murky morass”). See *infra* Part II.B for additional examples.

In cases requiring determination of § 101 subject-matter eligibility, courts typically evaluate a set series of inquiries.<sup>13</sup> First, the court must determine whether the claimed invention falls within one of the four categories of patentable subject matter under § 101: processes, machines, manufactures, and compositions of matter.<sup>14</sup> Second, the court must determine whether the claimed invention qualifies as one of the court-created exceptions to patentable subject matter under § 101: laws of nature, physical phenomena, and abstract ideas.<sup>15</sup> Third, the court must determine whether the claimed invention satisfies the additional requirements of § 101: the invention must be novel, nonobvious, and fully and particularly described.<sup>16</sup> The first and second tests are often looked at simultaneously.<sup>17</sup> Two threshold questions arise in the context of patenting business methods: (1) are business methods within the meaning of “process[es]” under § 101,<sup>18</sup> and (2) do business methods fall within the abstract idea exception to § 101 patentability?<sup>19</sup>

### B. Section 101 Case Law

Case law concerning the patentability of business methods has been both positive<sup>20</sup> and negative,<sup>21</sup> currently trending toward the latter.<sup>22</sup> This Part begins with a case widely credited with spawning an explosion of business method patents and then moves chronologically through Supreme Court and Federal Circuit cases specifically concerning business method patents in the financial industry.<sup>23</sup>

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13. See, e.g., *Bilski*, 130 S. Ct. at 3220–23 (outlining how the Court will proceed through its § 101 analysis).

14. E.g., *id.* at 3225.

15. E.g., *id.*

16. 35 U.S.C. §§ 102, 103, 112 (2012); e.g., *Bilski*, 130 S. Ct. at 3225.

17. E.g., *CLS Bank Int'l v. Alice Corp. (CLS Bank I)*, 685 F.3d 1341, 1353 (Fed. Cir. 2012), *reh'g en banc granted and opinion vacated*, 484 F. App'x 559 (Fed. Cir. 2012), *aff'd en banc*, 717 F.3d 1269 (Fed. Cir. 2013), *cert. granted*, 134 S. Ct. 734 (2013).

18. E.g., *Bilski*, 130 S. Ct. at 3228.

19. E.g., *id.* at 3229–30.

20. See, e.g., *State St. Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1375–76 (Fed. Cir. 1998) (determining that business methods are not categorically excluded as nonpatentable subject matter), *abrogated by In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008). See *infra* Part II.B.1 for a discussion of *State Street*.

21. See, e.g., *Bilski*, 130 S. Ct. at 3229 (determining that “while § 273 appears to leave open the possibility of some business method patents, it does not suggest broad patentability of such claimed inventions”). See *infra* Part II.B.2 for a discussion of *Bilski*.

22. See, e.g., *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, Nos. 12-2501(MAS)(TJB), 12-6960(MAS)(TJB), 2013 WL 3964909, at \*1–2, \*14 (D.N.J. July 31, 2013) (invalidating method patents being asserted against several banks that offer an envelope-free deposit service); *Cardpool, Inc. v. Plastic Jungle, Inc.*, No. C-12-04182 WHA, 2013 WL 245026, at \*4 (N.D. Cal. Jan. 22, 2013) (invalidating a method patent for selling and exchanging gift cards over the Internet); *Graff/Ross Holdings LLP v. Fed. Home Loan Mortg. Corp.*, 892 F. Supp. 2d 190, 197 (D.D.C. 2012) (invalidating a method patent for calculating the price of a fixed income asset and generating a financial report); *OIP Techs., Inc. v. Amazon.com, Inc.*, No. C-12-1233 EMC, 2012 WL 3985118, at \*12 (N.D. Cal. Sept. 11, 2012) (invalidating a method patent for automatic pricing in electronic commerce).

23. See *infra* Part II.B.4 for an analysis of *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012). The *Mayo* case concerns a nonfinancial method patent, but it is nonetheless relevant to financial business method patent jurisprudence.

### 1. The Emergence of Financial Business Method Patents: *State Street*

Historically, business methods were not patented.<sup>24</sup> It was the Federal Circuit's decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* that first brought the patentability of business methods to the forefront of legal debate and led to an explosion of business method patents in the financial industry.<sup>25</sup> In *State Street*, the invention at issue was Signature's method for accounting and administering its mutual funds.<sup>26</sup> State Street, a fellow mutual fund provider, entered licensing negotiations with Signature, but when the negotiations broke down, State Street filed an action for declaratory relief claiming Signature's patent was invalid.<sup>27</sup> State Street won summary judgment at the trial court level only to be overturned by the Federal Circuit Court.<sup>28</sup>

The Federal Circuit held that Signature's business method qualified as patent-eligible subject matter under § 101.<sup>29</sup> Construing § 101 very broadly, the court reasoned that the frequent use of the word "any" in the statute evidenced Congress's intention not to limit subject-matter patent eligibility.<sup>30</sup> Additionally, the court-created exception of an abstract idea could be transformed into patent-eligible subject matter if it were reduced to a practical application and produced a "useful, concrete and tangible result."<sup>31</sup> The court held that the final share price, which resulted from Signature's process of applying a series of mathematical algorithms to data, satisfied the "useful, concrete and tangible result" requirement, making it patent-eligible subject matter under § 101.<sup>32</sup> Moreover, the court laid to rest the "ill-conceived" business method exception<sup>33</sup> and asserted that so-called business methods should be analyzed for patent

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24. *Bilski*, 130 S. Ct. at 3229 (acknowledging that "business method patents were rarely issued until modern times"); see also Douglas L. Price, *Assessing the Patentability of Financial Services and Products*, 3 J. HIGH TECH. L. 141, 143–45 (2012) (discussing the origin and development of the business method exception).

25. See Michael J. Meurer, *Business Method Patents and Patent Floods*, 8 WASH. U. J.L. & POL'Y 309, 319 (2002) (noting the "dramatic rise" in the number of business method patents post-*State Street*); Price, *supra* note 24, at 148, 153 (stating that the *State Street* decision "sent shockwaves through the financial services and e-commerce industries" and "opened the floodgates on business method patents").

26. *State St. Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1370 (Fed. Cir. 1998), *abrogated by In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008).

27. *Id.*

28. *Id.* at 1370, 1377.

29. *Id.* at 1373. Judge Giles Rich, who authored both the Federal Circuit's opinion in *State Street* and the 1952 Patent Act, declared "that business methods, even in their modern software format, had never been proscribed, and had remained viable forms of protection, at least since the Act." Cameron H. Tousi & Ralph P. Albrecht, *Do Business Method Patents Hurt or Help?: A Financial Industry Perspective*, 14 VA. J.L. & TECH. 147, 155 (2009).

30. *State St.*, 149 F.3d at 1373; see also *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980) (arguing that the use of the word "any" in § 101 clearly demonstrated that Congress "contemplated that the patent laws would be given wide scope").

31. *State St.*, 149 F.3d at 1373 (quoting *In re Alappat*, 33 F.3d 1526, 1544 (Fed. Cir. 1994), *abrogated by In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008)).

32. *Id.*

33. *Id.* at 1375. The 1908 decision in *Hotel Security Checking Co. v. Lorraine Co.*, 160 F. 467 (2d Cir. 1908), and several subsequent cases had created a presumption that business methods were an exception to the otherwise broad patentability granted by § 101. *Orozco*, *supra* note 5, at 11–12; *Rai & Jagannathan*, *supra* note 8, at 2–3.

eligibility in the same manner as any other “process.”<sup>34</sup>

After *State Street*, “[t]he knee-jerk reaction by many in the financial services industry, who were neophytes in patent law, was to just patent everything,”<sup>35</sup> leading to an explosion of business method patents in the industry.<sup>36</sup> The Supreme Court declined to review *State Street*, and the tangible-result test remained the law of the land until 2008.<sup>37</sup>

## 2. Spotlight on the Abstract Idea Exception: *Bilski*

In 2008, the Federal Circuit rejected *State Street*’s tangible-result test for “process” patentability in favor of the machine-or-transformation test, which requires that “(1) [the claimed process] is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.”<sup>38</sup> In *Bilski v. Kappos*, the reigning seminal case in this area of law, the Supreme Court affirmed the Federal Circuit’s decision on appeal but declared that the machine-or-transformation test was not the exclusive test for patentability of a “process” under § 101.<sup>39</sup> At issue was a method for hedging the risk of price fluctuations in the commodities and energy markets that the PTO had deemed patent-ineligible subject matter.<sup>40</sup> Three arguments were put forth in support of the PTO’s determination: (1) the claimed process failed the machine-or-transformation test; (2) a method of conducting business is not patentable; and (3) the claimed process constituted a mere abstract idea.<sup>41</sup> The Supreme Court was only persuaded by the third argument.<sup>42</sup>

The Court dismissed the first argument by holding that the machine-or-transformation test, despite being a “useful and important” tool, was not the sole test for determining the patentability of a “process” under § 101—although the Court also declined to expand on what another appropriate analytical framework might look like.<sup>43</sup> As to the second argument, the Court held that business methods are not categorically patent ineligible.<sup>44</sup> The Court reasoned, simply, that § 101 made a “process” patentable, and § 100(b) defined “process” as including a “method.”<sup>45</sup> Moreover, § 273(a)(3) permitted an alleged infringer of a method patent to assert a defense of prior use, and, for purposes of the defense, “method” was defined as “a method of doing or conducting business.”<sup>46</sup> The Court reasoned that although the definition was limited to a prior-use

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34. *State St.*, 149 F.3d at 1375–77.

35. Price, *supra* note 24, at 155.

36. Meurer, *supra* note 25, at 319; Price, *supra* note 24, at 153, 155.

37. *State St. Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 525 U.S. 1093 (1999). See *infra* Part II.B.2 for a discussion of the Federal Circuit’s rejection of the tangible-result test in *Bilski*.

38. *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008), *aff’d on other grounds sub nom. Bilski v. Kappos*, 130 S. Ct. 3218 (2010).

39. *Bilski v. Kappos*, 130 S. Ct. 3218, 3227 (2010).

40. *Id.* at 3223–24.

41. *Id.* at 3223.

42. *Id.* at 3231.

43. *Id.* at 3227.

44. *Id.* at 3228.

45. 35 U.S.C. § 100(b) (2012); *Bilski*, 130 S. Ct. at 3228.

46. *Bilski*, 130 S. Ct. at 3228 (quoting 35 U.S.C. § 273(a)(3) (2010)).

defense, it expressly contemplated the existence of business method patents, clarifying that a business method was simply one form of “process” patentable under § 101.<sup>47</sup> Thus, business methods were, at least as a textual matter, patentable under § 101.<sup>48</sup> Having addressed this threshold inquiry of patentability, the Court turned to the abstract idea argument.<sup>49</sup>

Relying on the precedents set in *Gottschalk v. Benson*,<sup>50</sup> *Parker v. Flook*,<sup>51</sup> and *Diamond v. Diehr*,<sup>52</sup> the Court held that the algorithm used for hedging risk at issue—like the algorithms at issue in both *Benson* and *Flook*—was an unpatentable abstract idea because hedging risk constitutes “a fundamental economic practice” and allowing the patent would preempt the use of the fundamental practice across the industry.<sup>53</sup> The Court failed to articulate an actual abstract idea test and declined to go any further in defining what constitutes a patentable “process” under § 101.<sup>54</sup>

All nine Justices unanimously agreed in judgment that the claimed business method was not patentable.<sup>55</sup> However, the four Justices who joined in a separate concurring opinion would have reasoned differently: “[t]he wiser course would have been to hold that petitioners’ method is not a ‘process’ because it describes only a general method of engaging in business transactions—and business methods are not patentable.”<sup>56</sup> In his § 101 analysis, Justice Stevens reasoned that the term “process” within the meaning of the Patent Act does not have ordinary meaning, as the majority thought,<sup>57</sup> but rather required looking to the history of patent law for context.<sup>58</sup>

Noting the lack of business method patents in early England, early and developmental America, and modern America,<sup>59</sup> Justice Stevens concluded that a

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47. *Id.*

48. *Id.*

49. *Id.* at 3229.

50. 409 U.S. 63 (1972). *Benson* held that the process of converting decimals into binary code was unpatentable because it constituted an abstract idea or “fundamental truth” that, if patented, would wholly preempt the use of the algorithm. 409 U.S. at 67–72.

51. 437 U.S. 584 (1978). *Flook* held that the process of monitoring catalytic conversion conditions in the oil-refining industry was unpatentable because it constituted an abstract idea and that limiting the patent to a particular field did not overcome the exception. 437 U.S. at 589–90.

52. 450 U.S. 175 (1981). *Diehr* limited the *Benson* and *Flook* holdings by explaining that while an abstract idea could not itself be patented, the application of one “to a known structure or process may well be deserving of patent protection” based on the invention as a whole. 450 U.S. at 187.

53. *Bilski*, 130 S. Ct. at 3230–31 (citation omitted).

54. *Id.* at 3231; see also Donald S. Chisum, *Weeds and Seeds in the Supreme Court’s Business Method Patents Decision: New Directions for Regulating Patent Scope*, 15 LEWIS & CLARK L. REV. 11, 15 (2011) (noting that the Court’s “reasoning [was] sparse and palpably unpersuasive. . . . [and] merely refers to its own opaque precedent”).

55. Justice Kennedy penned the majority opinion and was joined by Chief Justice Roberts and Justices Thomas, Alito, and Scalia, though Justice Scalia excepted himself from two parts. *Bilski*, 130 S. Ct. at 3223. Justice Stevens authored an opinion joined by Justices Ginsburg, Breyer, and Sotomayor, that concurred in judgment but dissented from the majority’s decision to uphold business method patents. *Id.* at 3231–32 (Stevens, J., concurring).

56. *Id.* at 3232.

57. *Id.* at 3237.

58. *Id.* at 3239.

59. See *id.* at 3239–42 (discussing the rarity of business method patents in England under the Statute of

business method was not a patentable “process” under § 101.<sup>60</sup> Justice Stevens criticized the majority for falling back on the abstract idea exception and for failing to articulate what exactly an unpatentable abstract idea was, leaving confusion in its wake.<sup>61</sup>

The majority opinion in *Bilski* clarified that, at least as a textual matter, business methods can constitute “process[es]” within the meaning of § 101 but held that the particular financial business method at issue did not constitute such a process because it was an abstract idea.<sup>62</sup> The Court did not articulate what, exactly, an abstract idea is, or provide any sort of framework for analyzing whether a business method constitutes one.<sup>63</sup> The Court merely confirmed that the machine-or-transformation test remained an “important clue” and encouraged the Federal Circuit to continue fashioning new limitations.<sup>64</sup> By cautioning against broad application of its ruling,<sup>65</sup> the Court also ensured that subsequent disputes over business method patents would take the form of lengthy, fact-intensive case studies.<sup>66</sup> With minimal guidance, the Federal Circuit took the baton and attempted to formulate an abstract idea test.<sup>67</sup>

### 3. Post-*Bilski* Federal Circuit Decisions: Invalid, Invalid, Invalid!

The Federal Circuit invalidated the financial business method patent at issue in three of the following four cases, which it decided after *Bilski* and before the Supreme Court’s reexamination of method patents in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*<sup>68</sup> The lone exception, *Ultramercial, LLC v. Hulu, LLC (Ultramercial I)*,<sup>69</sup> was promptly vacated after the Supreme Court handed down *Mayo* and ultimately reheard in 2013.<sup>70</sup> Despite the arguable consistency in outcome—a

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Monopolies); *id.* at 3242–45 (pointing out that the “useful arts” originally sought to be protected by patent law did not include the fields of business and finance); *id.* at 3245–46 (recounting cases in which the courts “consistently rejected patents on methods of doing business”); *id.* at 3247 (explaining that recent changes to § 101 “did not alter the scope of a patentable ‘process’”).

60. *Id.* at 3250.

61. *Id.* at 3236.

62. *Id.* at 3228, 3231 (majority opinion) (alteration in original).

63. See Susan J. Marsnik & Robert E. Thomas, *Drawing a Line in the Patent Subject-Matter Sands: Does Europe Provide a Solution to the Software and Business Method Patent Problem?*, 34 B.C. INT’L & COMP. L. REV. 227, 322 (2011) (criticizing *Bilski* for “provid[ing] neither a clear rule nor a prohibition on the patenting of naked business methods”).

64. *Bilski*, 130 S. Ct. at 3227, 3231.

65. See *id.* at 3229 (adopting a narrow holding rather than a “categorical rule[.]” with “wide-ranging and unforeseen impacts”).

66. See Darin Snyder et al., *Supreme Court Holds Business Methods May Be Patentable*, MONDAQ BLOG (June 30, 2010), available at 2010 WLNR 22538980 (arguing that the *Bilski* decision “guarantees that the law in this area will continue to develop on a case-by-case basis, rather than by judicially-created bright-line rules or categorical exclusions”). For example, see *infra* notes 99–107 and accompanying text for a discussion of *Fort Properties, Inc. v. American Master Lease LLC*, 671 F.3d 1317 (Fed. Cir. 2012).

67. *E.g.*, *Cybersource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371–73 (Fed. Cir. 2011).

68. 132 S. Ct. 1289 (2012).

69. 657 F.3d 1323 (Fed. Cir. 2011), vacated *sub nom.* *WildTangent, Inc. v. Ultramercial, LLC*, 132 S. Ct. 2431 (2012).

70. *WildTangent, Inc. v. Ultramercial, LLC*, 132 S. Ct. 2431, 2431 (2012). See *infra* notes 154–56 for a discussion of the Federal Circuit’s rehearing of *Ultramercial I*.

seventy-five percent invalidation rate—the Federal Circuit was uneven in its application of the machine-or-transformation test and abstract idea analysis.<sup>71</sup>

*Cybersource Corp. v. Retail Decisions, Inc.*<sup>72</sup> was one of the first cases involving a business method patent that the Federal Circuit decided after *Bilski*. At issue was a method for detecting fraudulent credit card transactions made over the Internet.<sup>73</sup> Armed with the machine-or-transformation test as “a useful and important clue” and the ability to develop “other limiting criteria,”<sup>74</sup> the court found Cybersource’s patent invalid.<sup>75</sup>

First, the court determined that Cybersource’s claimed method failed the machine-or-transformation test because it was not performed on a machine at all, and “[t]he mere collection and organization of data regarding credit card numbers and Internet addresses [was] insufficient to meet the transformation prong of the test.”<sup>76</sup> Second, with a lack of clear guidance from the Supreme Court, the court determined that Cybersource’s invention was an unpatentable abstract idea.<sup>77</sup> The court held that a mere mental process, an application of human intelligence, was an unpatentable abstract idea.<sup>78</sup> The court reasoned that Cybersource’s claimed steps of (1) matching credit card transactions to IP addresses, (2) creating a map of credit card numbers, and (3) determining the validity of the transaction could be processed “in the human mind, or by . . . using a pen and paper.”<sup>79</sup>

Like the *Bilski* Court, the *Cybersource* court failed to clearly define “abstract idea” but ultimately determined that the financial business method at issue constituted one.<sup>80</sup> It reaffirmed that the machine-or-transformation test would remain an important piece of the puzzle in § 101 analysis.<sup>81</sup> However, by thereafter concluding only that processes that can be completed with “a pen and paper”—i.e., without a machine—should not survive an abstract idea challenge, the court did little to provide any additional guidance as far as abstract ideas were concerned.<sup>82</sup>

Unlike its decision only a month prior in *Cybersource*, the Federal Circuit determined that the invention at issue in *Ultramercial I* was not “so manifestly abstract” as to render it patent ineligible under § 101.<sup>83</sup> This case was the first (and

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71. See *infra* notes 72–107 and accompanying text for a discussion of the Federal Circuit’s uneven application of the machine-or-transformation and abstract idea test.

72. 654 F.3d 1366 (Fed. Cir. 2011). The first decision by the Federal Circuit post-*Bilski* to pass upon the abstract idea exception was *Research Corp. Techs. v. Microsoft Corp.*, 627 F.3d 859 (Fed. Cir. 2010). However, the invention at issue in *Research Corp.* was not financial in nature; thus, the case is not included for in-depth discussion in this Comment.

73. *Cybersource*, 654 F.3d at 1367.

74. *Id.* at 1369–70 (quoting *Bilski v. Kappos*, 130 S. Ct. 3218, 3227, 3231 (2010)).

75. *Id.* at 1371.

76. *Id.* at 1370.

77. *Id.* at 1373.

78. *Id.* at 1371–72.

79. *Id.* at 1372–73.

80. *Id.* at 1373.

81. *Id.* at 1369.

82. *Id.* at 1372.

83. *Ultramercial, LLC v. Hulu, LLC (Ultramercial I)*, 657 F.3d 1323, 1330 (Fed. Cir. 2011) (quoting



would remain one of the only) since *Bilski* in which the Federal Circuit upheld the § 101 patent eligibility of a financial business method.<sup>84</sup> At issue was Ultramercial's patented process for enabling Internet users to utilize advertisements as currency to purchase certain copyrighted material.<sup>85</sup>

The Federal Circuit declined to apply the machine-or-transformation test, noting that it “ha[d] far less application to the inventions of the Information Age.”<sup>86</sup> Relying on the *Bilski* Court's interpretation of § 101 and noting that the statute itself served as “merely a threshold check” on patentability,<sup>87</sup> the Federal Circuit also declined “to define ‘abstract’ beyond the recognition that th[e] disqualifying characteristic should exhibit itself *so manifestly* as to override the broad statutory categories of eligible subject matter.”<sup>88</sup> The court held that the claimed method survived the unarticulated abstract idea inquiry because it constituted a “practical application” of the otherwise abstract idea of monetizing advertisements and copyrighted material.<sup>89</sup>

*Ultramercial I* marked a wide departure from the Federal Circuit's approach in *Cybersource* in that it de-emphasized the use of the machine-or-transformation test and characterized the abstract idea exception very broadly. The case would not be followed, and, in fact, it would be vacated and remanded to the Federal Circuit for reconsideration in light of the Supreme Court's forthcoming decision in *Mayo*.<sup>90</sup>

Four months after its anomalous decision in *Ultramercial I*, the Federal Circuit returned to a more *Cybersource*-like approach when it decided *Dealertrack, Inc. v. Huber*.<sup>91</sup> The case involved a computer-aided method of processing automotive credit applications electronically.<sup>92</sup> The invention consisted of a central processor receiving credit data from car dealers seeking car loans for their customers, converting the data into the proper format for each individual bank application, forwarding the reformatted application to each bank, receiving a response from each bank, and notifying the dealers of the responses.<sup>93</sup> On appeal, the Federal Circuit found Dealertrack's method claim invalid as an abstract idea.<sup>94</sup>

As in *Cybersource*, the Federal Circuit first looked to the machine-or-transformation test, noting that the district court had found that the use of a general

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Research Corp. Techs. v. Microsoft Corp., 627 F.3d 859, 869 (Fed. Cir. 2010)), *vacated sub nom.* WildTangent, Inc. v. Ultramercial, LLC, 132 S. Ct. 2431 (2012).

84. See Christian LaForgia, Note, *One Claim, One Statutory Class of Invention: How the Machine-or-Transformation Test Impacts Indefinite Analysis*, 38 RUTGERS COMPUTER & TECH L.J. 117, 130–36 (2012) (describing the lower federal courts' response to *Bilski*).

85. *Ultramercial I*, 657 F.3d at 1324.

86. *Id.* at 1327.

87. *Id.* at 1326.

88. *Id.* at 1327 (emphasis added) (quoting *Research Corp. Techs.*, 627 F.3d at 868).

89. *Id.* at 1328.

90. WildTangent, Inc. v. Ultramercial, LLC, 132 S. Ct. 2431, 2431 (2012). See *infra* notes 154–56 and accompanying text for a discussion of the Federal Circuit's rehearing of *Ultramercial I*.

91. 674 F.3d 1315 (Fed. Cir. 2012).

92. *Dealertrack*, 674 F.3d at 1317.

93. *Id.*

94. *Id.* at 1333–35.

purpose computer did not satisfy the machine prong of the test.<sup>95</sup> Moving on to the abstract idea exception, the court found that Dealertrack's claimed invention amounted to nothing more than the "fundamental concept" of a clearinghouse and that permitting a patent on the invention would "foreclose innovation in th[at] area."<sup>96</sup> Moreover, the court held, neither adding the language "computer aided" to the claim nor limiting its application to the car loan industry provided a meaningful enough limitation to survive a challenge of patent-ineligible subject matter under § 101.<sup>97</sup>

*Dealertrack* succeeded where *Cybersource* did not in going beyond the machine-or-transformation test—the court emphasized that the foreclosure of all future innovation in a particular field was an important consideration in evaluating abstractness, consistent with the Supreme Court's analysis in *Bilski*.<sup>98</sup> However, also like the *Bilski* Court, the Federal Circuit failed to go any further in articulating a workable framework for analyzing the abstract idea exception.

*Fort Properties, Inc. v. American Master Lease LLC*<sup>99</sup> followed on the heels of *Dealertrack* and came to a similar conclusion.<sup>100</sup> At issue was an investment tool that minimized tax liability for users who bought and sold real estate properties by systematically recognizing whether a seller's real estate portfolio qualified for certain tax breaks.<sup>101</sup> This time, the Federal Circuit approached the abstract idea analysis by launching into a direct comparison between the method at issue in *Bilski* and other similar cases and the method at issue here.<sup>102</sup> The court held that, like the investment tool in *Bilski*, the real estate investment tool at issue was an unpatentable abstract idea.<sup>103</sup> The patentee argued that the invention was transformed from abstract to patentable by the fact that it was tied to the physical world through its involvement of real property, deeds, and contracts.<sup>104</sup> The court quickly rejected that argument by pointing out that the invention at issue in *Bilski* also had ties to the physical world but that the invention as a whole was an abstract idea.<sup>105</sup> Finally, relying on *Cybersource* and *Dealertrack*, the court held that the claims reciting computer implementation of the tool did not do enough to impose meaningful limits on the scope of the idea; thus, it did not survive the abstract idea exception.<sup>106</sup>

*Fort Properties* was a fact-intensive case study that was decided based on comparisons to earlier cases in which claimed inventions were found to be patent ineligible under § 101.<sup>107</sup> Courts were therefore left once again without a concrete test

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95. *Id.* at 1332.

96. *Id.* at 1333.

97. *Id.*

98. *Id.* See *supra* Part II.B.2 for a discussion of *Bilski*.

99. 671 F.3d 1317 (Fed. Cir. 2012).

100. *Fort Props.*, 671 F.3d at 1324.

101. *Id.* at 1318–19.

102. See *id.* at 1320–22 (comparing the method at issue to the methods discussed by courts in *Bilski*, *Diehr*, *Flook*, and *Benson*).

103. *Id.* at 1324.

104. *Id.* at 1322.

105. *Id.*

106. *Id.* at 1323–24.

107. *Id.* at 1320–24.

to apply to inventions suspected of being abstract ideas—that is, at least until the Supreme Court took another crack at method patents in *Mayo*.

#### 4. The Supreme Court Reexamines Method Patents: *Mayo*

Although not concerning a financial business method, *Mayo* is nonetheless relevant as the only Supreme Court case to examine method patents post-*Bilski*. In *Mayo*, the Supreme Court reexamined the Federal Circuit’s upholding of the validity of a patent claiming a process for applying the natural relationship between a drug’s concentration in the blood and the likelihood that a certain dosage would be ineffective or harmful to the patient to aid doctors in their determination of appropriate dosage levels.<sup>108</sup> The Supreme Court unanimously overruled the Federal Circuit, holding that the patent claims merely described a law of nature, and the claims did not “add *enough* to their statements of the correlations to allow the processes they describe[d] to qualify as patent-eligible processes that *apply* natural laws.”<sup>109</sup>

The Court relied on the principles behind the three court-created exceptions to patentable subject matter under § 101: laws of nature, natural phenomena, and abstract ideas.<sup>110</sup> The Court opined that the three exceptions are the “basic tools of scientific and technological work”;<sup>111</sup> thus, granting a monopoly would stifle innovation much more so than promote it.<sup>112</sup> Unlike the Court in *Bilski*, the Court did articulate a new test in *Mayo*: to transform an otherwise unpatentable law of nature into a patent-eligible *application* of one, the law of nature must be combined with an “inventive concept.”<sup>113</sup> This “inventive concept” must consist of additional steps that ensure that the practical application of the law of nature amounts to more than a patent on the law of nature itself.<sup>114</sup> The steps cannot be “well-understood, routine, [or] conventional[ly] . . . engaged in by researchers in the field.”<sup>115</sup>

Finally, the Supreme Court had articulated something more concrete, albeit not on the specific topic of the abstract idea exception. The new “inventive concept” standard for transforming a law of nature into a patentable application of one can easily be transferred to the abstract idea exception (and the natural phenomena exception, for that matter): the application of an abstract idea may be patentable provided it is combined with some “inventive concept.”<sup>116</sup> Although courts would still be left to determine what constituted an abstract idea in the first place, *Mayo* shed a little more light on how the exception might be overcome.

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108. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1296 (2012).

109. *Id.* at 1297.

110. *Id.* at 1293.

111. *Id.* (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)).

112. *Id.*

113. *Id.* at 1294 (quoting *Parker v. Flook*, 437 U.S. 584, 594 (1978)).

114. *Id.*

115. *Id.*

116. *Id.*; see also *Cardpool, Inc. v. Plastic Jungle, Inc.*, No. C-12-04182 WHA, 2013 WL 245026, at \*9 (N.D. Cal. Jan. 22, 2013) (relying on *Mayo* as the “suitable framework for evaluating the application of an abstract idea in a patent”).

### 5. Post-*Mayo* Federal Circuit Decisions: Indecision 2012–13

After the Supreme Court handed down *Mayo*, the Federal Circuit split on the following pair of financial business method patent cases, finding the patent in the first case, *CLS Bank International v. Alice Corporation (CLS Bank I)*,<sup>117</sup> potentially valid, and the patent in the second case, *Bancorp Services, L.L.C. v. Sun Life Assurance Co. of Canada (U.S.)*,<sup>118</sup> invalid. The Federal Circuit worked hard in *Bancorp* to reconcile its holding with the earlier *CLS Bank I* decision but to little avail: *CLS Bank I*—the only case in which the Federal Circuit upheld the patent eligibility of a financial business method since *Ultramercial I*—was vacated on October 9, 2012,<sup>119</sup> and the patent at issue was ultimately declared invalid upon rehearing on May 10, 2013.<sup>120</sup> The *Ultramercial I* rehearing, however, would not conclude in a declaration of invalidity.<sup>121</sup>

In *CLS Bank I*, the Federal Circuit came down with a decision seemingly inconsistent with the recent Supreme Court cases because it upheld the eligibility of a patent with claims directed to the method of using an intermediary to hedge settlement risk by way of a computerized trading platform.<sup>122</sup> In its analysis, the court turned to the abstract idea exception first and pointed out the irony that “the ‘abstract ideas’ test” was itself too abstract to discern.<sup>123</sup> Construing the exception narrowly,<sup>124</sup> the court attempted to synthesize a test through recent case analysis: an abstract idea is a “fundamental truth”<sup>125</sup> or a “disembodied mathematical concept”<sup>126</sup> that must exhibit itself “manifestly”<sup>127</sup> and “pre-empt”<sup>128</sup> the industry so as to foreclose innovation<sup>129</sup> in order to disqualify a method from patentability.<sup>130</sup> Put another way,

117. 685 F.3d 1341 (Fed. Cir. 2013), *reh’g en banc granted and opinion vacated*, 484 F. App’x 559 (Fed. Cir. 2012), *aff’d en banc*, 717 F.3d 1269 (Fed. Cir. 2013), *cert. granted*, 134 S. Ct. 734 (2013). See *infra* notes 150–53 and accompanying text for a summary of the rehearing.

118. 687 F.3d 1266 (Fed. Cir. 2012).

119. *CLS Bank Int’l v. Alice Corp.*, 484 F. App’x 559 (Fed. Cir. 2012).

120. *CLS Bank Int’l v. Alice Corp. (CLS Bank II)*, 717 F.3d 1269, 1287, 1292 (Fed. Cir. 2013), *cert. granted*, 134 S. Ct. 734 (2013).

121. See *Ultramercial, Inc. v. Hulu, LLC (Ultramercial II)*, 722 F.3d 1335, 1354 (Fed. Cir. 2013) (“[T]his court reverses the district court’s dismissal of Ultramercial’s patent claims for lack of subject matter eligibility and remands for further proceedings.”).

122. *CLS Bank I*, 685 F.3d at 1343, 1356.

123. *Id.* at 1348–49. “The abstractness of the ‘abstract ideas’ test to patent eligibility has become a serious problem, leading to great uncertainty and to the devaluing of inventions of practical utility and economic potential.” *Id.*

124. *Id.* at 1348 (citing 35 U.S.C. §§ 102, 103, 112 (2012)) (reasoning that the novel, nonobvious, and particularly disclosed requirements of Title 35 did enough to weed out those inventions unworthy of a patent after a broad inquiry into subject-matter eligibility; thus, only a narrow application of the three court-created exceptions was necessary).

125. *Bilski v. Kappos*, 130 S. Ct. 3218, 3230 (2010).

126. *In re Alappat*, 33 F.3d 1526, 1544 (Fed. Cir. 1994), *abrogated by In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008).

127. *Research Corp. Techs. v. Microsoft Corp.*, 627 F.3d 859, 868 (Fed. Cir. 2010).

128. *Bilski*, 130 S. Ct. at 3231.

129. See *CLS Bank I*, 685 F.3d at 1350 (“[N]o one is entitled to claim an exclusive right to a fundamental truth or disembodied concept that would foreclose every future innovation in that art.”).

130. *Id.* at 1349–50.

Unless the single most reasonable understanding is that a claim is directed to nothing more than a fundamental truth or disembodied concept, with no limitations in the claim attaching that idea to a specific application, it is inappropriate to hold that the claim is directed to a patent ineligible “abstract idea” under 35 U.S.C. § 101.<sup>131</sup>

In its application, the court first clarified that the invention’s implementation on a computer did not automatically render it patent eligible.<sup>132</sup> While computer implementation would likely satisfy the machine-or-transformation test, it does not necessarily save the invention from invalidity as an abstract idea.<sup>133</sup> However, the court concluded that the computer-implemented claims in this case “cover[ed] the practical application of a business concept in a specific way,” were limited in an integral way, and did not preempt other innovation because other methods for consummating exchanges were still available.<sup>134</sup> Thus, the court held that the method was not patent ineligible under the § 101 threshold inquiry and left the validity determination up to the remaining provisions of Title 35.<sup>135</sup>

Notably, the dissent argued that the majority’s decision “creat[ed] an entirely new framework that in effect allow[ed] courts to avoid evaluating patent eligibility under § 101 whenever they so desire.”<sup>136</sup> Moreover, the dissent argued, the majority completely disregarded the Supreme Court’s clear guidance in *Mayo* to apply an “inventive concept” test.<sup>137</sup> The dissent noted the inconsistency with recent precedent and feared the effect the majority’s opinion would have on the district courts and litigants alike.<sup>138</sup>

On October 9, 2012, the Federal Circuit granted CLS Bank’s petition for rehearing—vacating its July ruling and agreeing to reconsider the case en banc.<sup>139</sup> The court specifically requested that the parties identify the appropriate test, in their opinions, to determine if a computer-implemented method falls under the abstract idea exception to patentability and invited amicus briefs.<sup>140</sup> One of the likely reasons behind granting the rehearing was the holding’s seeming inconsistency with the following case.<sup>141</sup>

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131. *Id.* at 1352.

132. *Id.* at 1355 (citing *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012)).

133. *Id.* at 1353, 1355.

134. *Id.* at 1355–56.

135. *Id.* at 1356. The court reasoned that the novel, nonobvious, and particularly disclosed requirements of Title 35 could then weed out those inventions unworthy of a patent. *Id.* at 1348 (citing 35 U.S.C. §§ 102, 103, 112 (2012)).

136. *Id.* at 1356 (Prost, J., dissenting).

137. *Id.* at 1357 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1294 (2012)). The majority downplayed the applicability of the Supreme Court’s decision in *Mayo* by pointing out that it did not contemplate the abstract ideas exception directly. *Id.* at 1348 (majority opinion).

138. *Id.* at 1359 (Prost, J., dissenting) (opining that there was nothing to distinguish the case from the precedents rendering opposite results set in *Benson*, *Bilski*, *Mayo*, and *Dealertrack*—thus reconciling the standards would be difficult for district courts and litigants).

139. *CLS Bank Int’l v. Alice Corp.*, 484 F. App’x 559, 559 (Fed. Cir. 2012).

140. *Id.*

141. *See* Petition for Rehearing En Banc at 10, *CLS Bank I*, 685 F.3d 1341 (Fed. Cir. 2012) (No. 2011-1301) (arguing that the majority’s opinion cannot be reconciled with *Bancorp*).

In *Bancorp*, the Federal Circuit reviewed a patent claiming computerized methods of tracking the value of life insurance policies so as to maintain a stable value.<sup>142</sup> Bancorp, the patentee, contended that its method did not constitute only an abstract idea because it was limited to being performed on a computer.<sup>143</sup> Sun Life, the alleged infringer, argued that the computer was nothing more than a post-solution activity making the process more efficient—but not necessarily patent eligible.<sup>144</sup> Agreeing with the lower court’s determination that the claimed invention did not satisfy either prong of the machine-or-transformation test,<sup>145</sup> the court concluded that the computer was being used merely for calculations and computations, which was not sufficient to overcome the abstract idea exception by imposing meaningful limits on the scope of its claims.<sup>146</sup> The court stated, “[t]o salvage an otherwise patent-ineligible process, a computer must be *integral* to the claimed invention, facilitating the process in a way that a person making calculations or computations could not.”<sup>147</sup>

The court attempted to distinguish its *CLS Bank I* holding by emphasizing the “significant part” the computer played in the performance of the claimed invention at issue in that case by noting its “very specific application”—termed the inventive concept by the *Bancorp* court<sup>148</sup>—in a likely effort to reconcile *CLS Bank I* with *Mayo*’s inventive concept test.<sup>149</sup> The Federal Circuit, however, ultimately was not persuaded by its own rhetoric in *CLS Bank I*, as evidenced by its later decision to vacate the holding, rehear the case en banc, and ultimately take the opposite position.

In the rehearing of *CLS Bank International v. Alice Corp. (CLS Bank II)*,<sup>150</sup> the 135-page decision was splintered into five separate opinions, establishing no majority reasoning or test for determining what constitutes an abstract idea. The only agreement among the en banc panel came in the form of a one-paragraph per curiam opinion holding that CLS Bank’s patent for the computerized method of using an intermediary to hedge settlement risk was directed to patent-ineligible subject matter under § 101 and therefore invalid.<sup>151</sup> The decision sparked a tidal wave of criticism due to its failure to articulate the test it set out to create,<sup>152</sup> and a petition for certiorari was granted on December 6, 2013.<sup>153</sup>

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142. *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Canada (U.S.)*, 687 F.3d 1266, 1269 (Fed. Cir. 2012).

143. *Id.* at 1274, 1276–77.

144. *Id.* at 1274, 1276.

145. *Id.* at 1278.

146. *Id.*

147. *Id.* (emphasis added) (citing *SiRF Tech., Inc. v. Int’l Trade Comm’n*, 601 F.3d 1319, 1333 (Fed. Cir. 2010)).

148. *Id.* at 1280 (emphasis omitted) (quoting *CLS Bank I*, 685 F.3d 1341, 1355 (Fed. Cir. 2012), *reh’g en banc granted and opinion vacated*, 484 F. App’x 559 (Fed. Cir. 2012), *aff’d en banc*, 717 F.3d 1269 (Fed. Cir. 2013), *cert. granted*, 134 S. Ct. 734 (2013)).

149. See *supra* Part II.B.4 for a discussion of *Mayo*’s inventive concept test for determining if the application of an otherwise unpatentable exception makes it patentable.

150. 717 F.3d 1269 (Fed. Cir. 2013), *cert. granted*, 134 S. Ct. 734 (2013).

151. *CLS Bank II*, 717 F.3d at 1273.

152. *E.g.*, *Attorneys Discuss Impact of CLS Bank Decision*, LAW360 (May 13, 2013 10:29 PM), <http://www.law360.com/articles/441200/attorneys-discuss-impact-of-cls-bank-decision>.

153. *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 734 (2013).

Further adding to the confusion was the Federal Circuit's rehearing of *Ultramercial, Inc. v. Hulu, LLC (Ultramercial II)*.<sup>154</sup> Although *Ultramercial I*'s holding that a patent for monetizing Internet advertisements to purchase copyrighted material did not constitute a patent-ineligible abstract idea was surprising at the time, the *Ultramercial II* holding reaffirming as much was perhaps more surprising in its departure from a now even longer trail of § 101 invalidity decisions. Chief Judge Rader penned the majority opinion, which, like *Ultramercial I*, de-emphasized the machine-or-transformation test<sup>155</sup> and reiterated the use of § 101 as a mere "'coarse' gauge" of eligibility,<sup>156</sup> again without articulating a coherent standard. The Supreme Court's impending review of *CLS Bank II* may clear up some of the confusion.<sup>157</sup>

### C. The Legislature Responds

Amid the confusion in the Federal Circuit, the legislature addressed the business method patent issue in the most comprehensive overhaul of the U.S. system of patent laws in more than a century.<sup>158</sup> The Leahy-Smith America Invents Act of 2011 (AIA) was signed into law on September 16, 2011, by President Barack Obama.<sup>159</sup> The AIA made two significant changes in the business method patent arena: (1) it removed the definition of "method" under § 273,<sup>160</sup> and (2) it established a new program for determining the validity of financial business method patents.<sup>161</sup>

Section 273 was previously amended under the First Inventor Defense Act<sup>162</sup> shortly after the Federal Circuit handed down its decision in *State Street*.<sup>163</sup> It created a new limited defense of prior art for alleged infringers of method patents.<sup>164</sup> For purposes of the defense, "method" was defined as "a method of doing or conducting business."<sup>165</sup> The AIA amended § 273 by removing the definition of "method;"<sup>166</sup> a definition that the *Bilski* Court heavily relied on to reach its conclusion that business methods could be patentable "process[es]" under § 101, at least as a textual matter.<sup>167</sup>

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154. 722 F.3d 1335 (Fed. Cir. 2013). See *supra* Part II.B.3 for a discussion of *Ultramercial I*.

155. See *Ultramercial II*, 722 F.3d at 1342 (finding that "[c]learly, a process need not use a computer, or some machine, in order to avoid 'abstractness'").

156. *Id.* at 1339 (quoting *Research Corp. Techs. v. Microsoft Corp.*, 627 F.3d 859, 869 (Fed. Cir. 2010)).

157. *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 734 (2013).

158. See Press Release, U.S. Patent & Trademark Office, Historic Patent Reform Implemented by U.S. Patent and Trademark Office (Sept. 17, 2012), available at <http://www.uspto.gov/news/pr/2012/12-59.jsp> (describing numerous provisions of the Leahy-Smith America Invents Act of 2011 and calling the Act the most significant reform in more than a century).

159. Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) [hereinafter AIA].

160. AIA § 5.

161. AIA § 18.

162. First Inventor Defense Act of 1999, Pub. L. No. 106-113, § 4302, 113 Stat. 1501 (1999).

163. See *supra* Part II.B.1 for a discussion of *State Street*.

164. First Inventor Defense Act of 1999 § 4302.

165. *Id.*

166. AIA § 5.

167. See *Bilski v. Kappos*, 130 S. Ct. 3218, 3228–29 (2010) (concluding that the definition for method contained in § 273(a)(3) was evidence that "a business method is simply one kind of 'method' that is, at least in some circumstances, eligible for patenting under § 101").

Thus, the *Bilski* Court's argument that "federal law *explicitly* contemplates the existence of at least some business method patents" no longer holds true under § 273 as amended.<sup>168</sup>

The Transitional Program for Covered Business Method Patents (the Program), another AIA provision, addresses financial business method patents directly and became effective on September 16, 2012.<sup>169</sup> Under the Program, an individual who has been charged with patent infringement may petition the PTO for a post-grant review proceeding to determine the validity of the financial business method patent the individual is charged with having infringed.<sup>170</sup> The Program makes the cheaper option of requesting review by the PTO available to many more alleged infringers by eliminating time limitations on bringing a post-issuance challenge.<sup>171</sup> Moreover, the burden of proof to establish the invalidity of a financial business method patent is lower at the PTO,<sup>172</sup> resulting in more alleged infringers having a cheaper and easier option to defend themselves. Additionally, courts that would otherwise begin wading through the "murky morass" of § 101 analysis<sup>173</sup> to determine the patent's subject-matter eligibility under § 101 may instead stay any pending action until the PTO reaches a decision on validity in its post-grant review.<sup>174</sup>

### III. DISCUSSION

Amid the ambiguous § 101 case law and changing legislative landscape, the validity and survival of financial business method patents hang in the balance. This Section examines both the backward-looking and forward-looking policy concerns underlying the issue of business method patentability in the financial industry.<sup>175</sup> It

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168. *Id.* at 3228 (emphasis added); AIA § 5.

169. AIA § 18. "Covered business method patent" is defined as "a patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions." *Id.* § 18(d)(1).

170. *Id.* § 18(a)(1).

171. *Orozco*, *supra* note 5, at 27. The traditional statutory procedure for the post-grant review of a patent requires that the petition be filed within nine months of the patent having been granted. 35 U.S.C. § 321(c) (2012). However, Congress explicitly stated that the nine-month time limitation would not apply to challenges against Covered Business Method Patents. *See* AIA § 18 (a)(1)(A) ("Section 321(c) of title 35, United States Code . . . shall not apply to a transitional proceeding."). Moreover, the new Program is retroactive, meaning that patents issued prior to the Program going into effect are still eligible to be challenged under the provision. *Orozco*, *supra* note 5, at 27.

172. In court, a patent is presumed valid under 35 U.S.C. § 282, and the party asserting that it is invalid must prove as much by "clear and convincing evidence." *Voter Verified, Inc. v. Election Sys. & Software, Inc.*, 745 F. Supp. 2d 1237, 1251 (M.D. Fla. 2010). On the other hand, the challenger of a covered business method patent at the PTO must show only that the "patent is more likely than not invalid," i.e., by a preponderance of evidence, which constitutes a lower threshold than the clear and convincing evidence required in court. 157 CONG. REC. S7413 (daily ed. Nov. 14, 2011) (letter from Sen. Lamar Smith concerning business method patents).

173. *MySpace, Inc. v. GraphOn Corp.*, 672 F.3d 1250, 1260 (Fed. Cir. 2012).

174. AIA § 18(b); *see also* *Market-Alerts Pty. Ltd. v. Bloomberg Finance L.P.*, 922 F. Supp. 2d 486, 489–90 (D. Del. 2013) (staying an infringement suit concerning a financial business method patent before the PTO even granted review).

175. *See infra* Part III.A for a discussion of policy concerns in business method patentability in the



proceeds through an analysis of Europe's bright-line ban on naked business method patents and what the United States may be able to learn from it before discussing the validity of financial business method patents as a practical matter, with an emphasis on the courts' tendency to strike them down as abstract ideas.<sup>176</sup> Finally, this Section discusses what can be inferred from Congress's overhaul of the patent system, including a strong disapproval of financial business method patents' continued proliferation, and it concludes that financial business methods constitute patent-ineligible subject matter under § 101.<sup>177</sup>

#### A. *Policy Concerns*

It is generally agreed that the patent system is primarily designed to inspire innovation by providing incentives to and protection for those who spend valuable time and resources developing inventions that benefit us all.<sup>178</sup> This incentivizing goal needs to be balanced against the risk of creating monopolies and preempting others from using general principles by granting overly broad patents.<sup>179</sup> The courts have long wrestled with striking that balance,<sup>180</sup> and, in the absence of clear guiding principles, the patent system in general has come under fire.<sup>181</sup>

Business method patents in particular have become the star of the patent system debate.<sup>182</sup> Critics have generally aligned into two camps: (1) those who believe that the patentability analysis should be steeped in historical context (backward-lookers)<sup>183</sup> and (2) those who believe patent law needs to adapt itself to inventions of the modern world

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financial industry.

176. See *infra* Part III.C for a discussion of the validity of business method patents in light of the practical reality that courts tend to disfavor them.

177. See *infra* Part III.D for a discussion of the implications of Congress's revamping of the patent system.

178. Andres Sawicki, *Better Mistakes in Patent Law*, 39 FLA. ST. U. L. REV. 735, 741 (2012); see also Rai & Jagannathan, *supra* note 8, at 2 (arguing that patent protection is necessary to encourage innovators to "invest in research and development"). But see Eric E. Johnson, *Intellectual Property and the Incentive Fallacy*, 39 FLA. ST. U. L. REV. 623, 624 (2012) (arguing that the incentive theory is mistaken and that "the primary rationale underpinning intellectual property law has become hollow").

179. *Bilski v. Kappos*, 130 S. Ct. 3218, 3228 (2010).

180. See, e.g., *id.* (declining "to take a position on where that balance ought to be struck").

181. See, e.g., Sawicki, *supra* note 178, at 744–49 (discussing the many mistakes made by the patent system). One crowdsourcing company has even sprung up that has made it its business to assist alleged patent infringers in defending themselves by arming them with research and information tending to invalidate the patents they are accused of infringing. See *Increasing Patent Quality*, ARTICLE ONE PARTNERS, <https://www.articleonepartners.com/what-we-do> (last visited Mar. 10, 2014) ("Article One increases the efficacy of finding information that informs patent quality by using the crowd, technology and connectivity.").

182. See, e.g., Ricardo Bonilla, Comment, *A Patented Lie: Analyzing the Worthiness of Business Method Patents After Bilski v. Kappos*, 43 TEX. TECH L. REV. 1285, 1318 (2011) (arguing that *Bilski* highlighted "business methods' fragile place in the world of patent law"); Lois Matelan, Note, *The Continuing Controversy Over Business Methods Patents*, 90 J. PAT. & TRADEMARK OFF. SOC'Y 125, 147 (2008) (concluding that "there are widely-recognized flaws with the USPTO's current practices"); Orozco, *supra* note 5, at 8 (identifying business method patents as having caused "an inordinate measure of concern").

183. Justice Stevens's concurring opinion in *Bilski v. Kappos* is a prime example of the backward-looking philosophy. *Bilski*, 130 S. Ct. at 3231–57 (Stevens, J., concurring).

(forward-lookers).<sup>184</sup> The two are not mutually exclusive, and additional concerns that do not easily fit into either category abound, but the distinction is an important piece of the business method patent puzzle.

### 1. The Backward-Lookers

Backward-lookers rely heavily—if not exclusively—on the historical treatment of business method patents in their analyses and do not support their patenting.<sup>185</sup> Because business methods were not historically patentable, backward-lookers reason that the legislature could not have contemplated their inclusion under § 101.<sup>186</sup> They believe that the statutory construction canon of interpreting a word by its “ordinary, contemporary, common meaning,” as the *Bilski* majority did,<sup>187</sup> is not the appropriate approach to § 101, which was “developed against a particular historical background.”<sup>188</sup> Although the text of § 101 does little to inform what qualifies as a patentable process, the word “process,” they argue, has come to have a very distinct meaning in patent law: history tells us that when the term was used in the 1952 Patent Act, it was not intended to include any *way* of doing anything.<sup>189</sup>

Backward-lookers argue that the backward-looking values of precedent, stability, and consistency in the law are better served by relying on the “historical and constitutional moorings” of any particular body of law.<sup>190</sup> To combat forward-looking arguments that post-Industrial Age inventions require the development of new standards to fit the new advancements, some backward-lookers have argued that the preexisting § 101 analytical framework is not only sufficient to address new and growing technologies, but that it is superior in its reliability versus “rendering cautious decisions based on future unimagined and unimaginable technological

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184. Federal Circuit Chief Judge Rader is a forward-looker: fearing a test that “preclude[es] patent protection for tomorrow’s technologies.” *In re Bilski*, 545 F.3d 943, 1015 (Fed. Cir. 2008) (Rader, J., dissenting), *aff’d on other grounds sub nom. Bilski v. Kappos*, 130 S. Ct. 3218 (2010). He construes § 101 very broadly, characterizing it as a “coarse eligibility filter.” *Research Corp. Techs. v. Microsoft Corp.*, 627 F.3d 859, 869 (Fed. Cir. 2010). He argues that a test requiring ties to the physical world is impractical today, post-Industrial Age, due to advances in technology and other inventions capable of “transform[ing] our lives without physical anchors.” *In re Bilski*, 545 F.3d at 1015 (Rader, J., dissenting). However, even though Chief Judge Rader’s record indicates his willingness to generally deem business method patents within the purview of § 101, his track record is not as strong when reduced to financial business method patent cases. *Compare, e.g., Research Corp.*, 627 F.3d at 868 (upholding the validity of a method for halftone imaging), *with, e.g., In re Bilski*, 545 F.3d at 1013 (Rader, J., dissenting) (noting that the hedging strategy at issue was “a classic example of abstractness”).

185. *See, e.g., Bilski*, 130 S. Ct. at 3232 (Stevens, J., concurring) (advocating an approach that would “restore patent law to its historical and constitutional moorings”).

186. *Id.* But see Paul E. Schaafsma, “The Case for Financial Product Patents: What the Supreme Court Got Right and Wrong in *Bilski v. Kappos*, and a Suggestion for a Reasonable Line on Business Method Patents”, 92 J. PAT. & TRADEMARK OFF. SOC’Y 398, 414 (2010) (“[O]ne of the inconvenient truths that undermine financial patent opponents is the existence of early English and U.S. patents on financial innovation.”).

187. *Bilski*, 130 S. Ct. at 3226 (quoting *Diamond v. Diehr*, 450 U.S. 175, 182 (1981)).

188. *Id.* at 3238 (Stevens, J., concurring).

189. *Id.* at 3239.

190. *Id.* at 3232; *see also* N.Y. Trust Co. v. Eisner, 256 U.S. 345, 349 (1921) (opining that “a page of history is worth a volume of logic”).

developments.”<sup>191</sup> Forward-lookers take quite a different approach.

## 2. The Forward-Lookers

Forward-lookers believe that § 101 must be malleable to accommodate modern-day inventions.<sup>192</sup> They are more difficult than backward-lookers to categorically identify as either supporters or detractors of business method patentability, as forward-looking arguments can cut both ways.<sup>193</sup> In any event, the specific question to be answered in this Part is what precluding the patenting of financial business methods would do to the industry.

Because incentivizing innovation is the primary goal of patent law, forward-lookers tend to focus on whether granting business method patents does more to help or hurt innovation in the financial industry.<sup>194</sup> Historically, financial firms openly imitated each others’ products and practices and got along just fine in so doing.<sup>195</sup> After the Federal Circuit’s decision in *State Street*, however, companies in the industry—otherwise inexperienced in patent law—went berserk and began patenting everything for fear of being excluded from practicing their methods.<sup>196</sup> The flood of patents led to new problems in the financial industry, including the rise of patent trolls and increased litigation.<sup>197</sup> Indeed, the litigation rate on financial business method patents has been found to be twenty-seven to thirty-nine times higher than that of patents as a whole.<sup>198</sup> Patent trolls and financial firms alike have wielded their patents as weapons, using them to threaten patent litigation (which tends to be far more expensive than other forms of litigation) to secure hefty licensing fees.<sup>199</sup>

This new predicament raises the following question: if we were to simply level the playing field amongst financial firms by eliminating financial business method patents, what would result? Some forward-lookers argue that we only have to look as far back as pre-*State Street* to answer that question: the industry would likely be just fine.<sup>200</sup> Historically, “the lack of legal protection has not prevented the introduction of

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191. Marsnik & Thomas, *supra* note 63, at 323.

192. See *supra* note 184 for a discussion of how Chief Judge Rader exemplifies those who believe patent law needs to be forward-looking and adaptable to inventions of the modern world.

193. Compare Rai & Jagannathan, *supra* note 8, at 13 (discussing the negative impacts low-quality business method patents have on innovation), with Schaafsma, *supra* note 186, at 404 (arguing that modern financial innovation demands patent protection as incentive).

194. This analysis is limited to the financial industry. See Rai & Jagannathan, *supra* note 8, at 8 (stating that “[t]he relationship between patents and innovation is . . . industry specific and varies across industries”).

195. Price, *supra* note 24, at 153, 157.

196. See *id.* at 155 (noting business product patent application increases of 700% in the years following the *State Street* decision).

197. See Orozco, *supra* note 5, at 9–10 (pointing out that patent trolls—entities who buy up patents but do not actually practice the inventions—can “wreak havoc” when they acquire business method patents); Price, *supra* note 24, at 157 (noting the increase in patent litigation and nuisance suits).

198. Josh Lerner, *The Litigation of Financial Innovations* 4 (Harvard Bus. Sch., Working Paper No. 09-027, 2008), available at <http://www.hbs.edu/faculty/Publication%20Files/09-027.pdf>.

199. See, e.g., Orozco, *supra* note 5, at 15 (identifying the two social costs unique to business method patents as “patenting overly broad claims and using a patent to extract an unfair settlement”).

200. See Brian P. Biddinger, *Limiting the Business Method Patent: A Comparison and Proposed Alignment of European, Japanese and United States Patent Law*, 69 *FORDHAM L. REV.* 2523, 2552 (2001)

important product innovations (such as a multitude of financial instruments) and process innovations (such as trading platforms and pricing algorithms) in the financial industry.”<sup>201</sup> Trade secret law would still be available to protect valuable financial innovations,<sup>202</sup> and the grind and expense of increased litigation, which has stifled innovation and competition in the industry,<sup>203</sup> would dissipate.

The financial industry is not the only one to have witnessed a slowing of innovation due to increased litigation—the software industry has been suffering the consequences of a patent war for the last few years.<sup>204</sup> Excessive patent litigation has taken start-ups hostage, forcing them to spend their money defending infringement claims instead of reinvesting in the business and innovating.<sup>205</sup> Apple’s former general counsel has even remarked, “[w]hen patent lawyers become rock stars, it’s a bad sign for where an industry is heading.”<sup>206</sup> Financial firms appear to be headed down the same road.

On the other side of the debate, some forward-lookers argue that if we preclude business method patents in the financial industry, financial firms would be free to copy their competitors’ inventions without shouldering the cost and burden of developing the invention on their own, leading to decreased incentive to expend their own resources innovating.<sup>207</sup> Moreover, copiers would have the ability to “cherry pick[]” only the new financial inventions that have already proven successful by their competitors, also reducing the incentive to risk time and money of their own and be the first to market with a product that may ultimately fail.<sup>208</sup> Investors would ultimately suffer the consequences of decreased innovation in the financial services industry in the form of

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(arguing that the financial industry “has always been a substantially emulative industry that may not be compatible with the constraints created by patent monopolies”). U.S. financial companies may actually be at an economic disadvantage compared to their international counterparts due to the patentability of business methods in the United States. *Id.* The global impact of U.S. patentability of business methods is beyond the scope of this Comment, but for an excellent discussion of the issue, see *id.* at 2545–47.

201. Bronwyn H. Hall et al., *Financial Patenting in Europe* 8 (Nat’l Bureau of Econ. Research, Working Paper No. 14714, 2009), available at [http://www.nber.org/papers/w14714.pdf?new\\_window=1](http://www.nber.org/papers/w14714.pdf?new_window=1).

202. See Brian H. Lawrence, Comment, *Clarifying Patent Law’s Role in Financial Service: Time to Settle the “Bill”ski?*, 22 FED. CIR. B.J. 319, 338 (2012) (identifying the benefits of employing trade secrecy as “tacit knowledge and reputational advantage”). *But see* Touse & Albrecht, *supra* note 29, at 170–71 (pointing out the drawbacks of trade secret law in the financial industry, which include “risk of loss due to independent invention and reverse engineering”).

203. See Orozco, *supra* note 5, at 9–10 (pointing out the negative effect of business method patents on competition amongst rapidly developing businesses).

204. See Charles Duhigg & Steve Lohr, *The Patent, Used as a Sword*, N.Y. TIMES, Oct. 8, 2012, at A1 (recounting the story of a software start-up business owner who was strong armed by a larger, patent-holding company and ultimately forced to sell).

205. See *id.* (discussing the “destructive arms race” to patent broad software concepts). “One consequence of all this litigation . . . is that patent disputes are suffocating the culture of start-ups that has long fueled job growth and technological innovation.” *Id.*

206. *Id.*

207. See Schaafsma, *supra* note 186, at 418 (identifying the costs associated with developing new financial products as “legal, accounting, regulatory, and tax advice; time spent educating issuers, investors, and traders; investments in computer systems for pricing and trading; and capital and personnel commitments to support market making”).

208. *Id.* at 419.

fewer new and diverse investing options.<sup>209</sup>

Such claims, however, have remained largely unsubstantiated,<sup>210</sup> and the cost of innovation as an incentive suppressant can also cut the other way.<sup>211</sup> Patent prosecution, licensing negotiations, and patent litigation are also costly to a financial industry that had never budgeted for such expenses prior to *State Street*.<sup>212</sup> We must also deal with the social costs of effectively granting a monopoly in the industry,<sup>213</sup> including inflated prices<sup>214</sup> and decreased variety for consumers.<sup>215</sup> And if financial business method patents are ultimately invalidated by the courts—as they tend to be<sup>216</sup>—perhaps they are not worth granting in the first place.<sup>217</sup> Such is Europe’s approach.

### B. *The European Model*

Business methods per se are categorically excluded from patentability by the European Patent Office (EPO).<sup>218</sup> Patentability in Europe is governed by the Convention on the Grant of European Patents Article 52.<sup>219</sup> Article 52(1) grants patent protection for “any inventions which are susceptible of industrial application, which are new and which involve an inventive step.”<sup>220</sup> Article 52(2) lists exceptions to

209. See *id.* (arguing that society as a whole would “lose the benefit of new, innovative products”).

210. See Lawrence, *supra* note 202, at 334–37 (outlining empirical studies that have generally found that the rise of business method patents in the financial industry has not led to an increase in innovation).

211. See, e.g., Hall et al., *supra* note 201, at 9 (noting that “[u]ncertainty over patent validity [in the financial sector] reduces the incentives to invest in innovation”).

212. See Price, *supra* note 24, at 157 (arguing that “[t]he overall effect to corporations in the industry has been an increase in costs” due to the new need for the services of patent attorneys, increased patent litigation expenses, and nuisance suits).

213. Sawicki, *supra* note 178, at 741; see also Price, *supra* note 24, at 154 (questioning whether patent protection and its creation of monopolies should be allowed considering how vital business methods are to the economy).

214. See Rai & Jagannathan, *supra* note 8, at 2 (noting that the granting of limited monopolies allows innovators to sell their inventions at higher prices than a competitive market would tolerate).

215. See *id.* (explaining that granting monopolies “adversely impacts consumer welfare”).

216. See *supra* Part II.B for a discussion of the following examples: *CLS Bank II*; *Bancorp Services, LLC v. Sun Life Assurance Co. of Canada (U.S.)*; *Fort Properties, Inc. v. American Master Lease LLC*; *Dealertrack, Inc. v. Huber*; and *CyberSource Corp. v. Retail Decisions, Inc.* See also generally *Content Extraction & Transmission LLC v. Wells Fargo Bank*, Nos. 12-2501(MAS)(TJB), 12-6960(MAS)(TJB), 2013 WL 3964909 (D.N.J. July 31, 2013) (invalidating method patents being asserted against several banks that offer an envelope-free deposit service); *Cardpool, Inc. v. Plastic Jungle, Inc.*, No. C-12-04182 WHA, 2013 WL 245026 (N.D. Cal. Jan. 22, 2013) (invalidating a method patent for selling and exchanging gift cards over the Internet); *Graff/Ross Holdings LLP v. Fed. Home Loan Mortg. Corp.*, 892 F. Supp. 2d 190 (D.D.C. 2012) (invalidating a method patent for calculating the price of a fixed income asset and generating a financial report); *OIP Techs., Inc. v. Amazon.com, Inc.*, No. C-12-1233 EMC, 2012 WL 3985118 (N.D. Cal. Sept. 11, 2012) (invalidating a method patent for automatic pricing in electronic commerce).

217. See Sawicki, *supra* note 178, at 750 (noting how costly “false positives”—patents granted that should not have been—are to society).

218. See Chisum, *supra* note 54, at 36 (noting that the European Patent System “expressly excludes patent claims to business methods”).

219. Convention on the Grant of European Patents art. 52, Oct. 5, 1973, 1065 U.N.T.S. 255.

220. *Id.* art. 52(1).

patentability, which include “mathematical methods[,] . . . methods for . . . doing business, and programs for computers.”<sup>221</sup> Article 52(3) clarifies that patent protection will not be extended to inventions covered by Article 52(2) that are claimed “as such”;<sup>222</sup> that is to say, Article 52(2) explicitly denies patent protection to business methods per se.<sup>223</sup>

While business methods per se are not patentable, their *application* may be, provided they satisfy the “industrial” requirement of Article 52(1).<sup>224</sup> It is the “industrial application” requirement that separates Europe’s patent system from that of the United States.<sup>225</sup> The EPO narrowly construes “industrial” as essentially meaning “technical”;<sup>226</sup> thus, the EPO does not grant patents directed to business methods that are not implemented on a computer.<sup>227</sup> Even the ones that are implemented on a computer typically fail under the EPO’s scrutiny because they “do not produce technical effects (e.g.,) because they solve a business problem rather than a technical one).”<sup>228</sup> Although there is uncertainty over the precise definition of “technical,”<sup>229</sup> some financial inventions have been found to satisfy the requirement,<sup>230</sup> and the patenting of financial inventions in Europe has increased in recent history.<sup>231</sup> However, it remains challenging for the EPO to draw a bright line between such patentable “technical” inventions and unpatentable “‘pure’ business methods” in the financial sector.<sup>232</sup> Accordingly, “financial patents are far less likely to be granted than other patents” by the EPO, and, even when granted, their validity is challenged at a significantly higher rate than that of other patents.<sup>233</sup>

Although the European model does not necessarily “provide[] a solution to the U.S. business method . . . conundrum,”<sup>234</sup> it is preferable to the muddled abstract idea standard that has developed in recent American jurisprudence. The European model tends to stop low-quality patents at the door, saving millions of dollars in needless litigation costs and offering some margin of predictability and consistency in the industry. It is the EPO, not the courts, that applies the standard at the outset.<sup>235</sup> The

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221. *Id.* art. 52(2)(a), (c).

222. *Id.* art. 52(3).

223. Rai & Jagannathan, *supra* note 8, at 6.

224. *Id.*

225. *Id.*

226. *Id.*; see also Marsnik & Thomas, *supra* note 63, at 272–76 (providing an in-depth discussion of the origins of Europe’s “technical” requirement).

227. Marsnik & Thomas, *supra* note 63, at 320.

228. *Id.* at 278.

229. *Id.* at 320.

230. See Hall et al., *supra* note 201, at 32 (identifying payment technologies linked to hardware devices as an example of a financial invention that yields technical effects).

231. See *id.* at 3–4 (explaining results of EPO patent analysis that showed an increase in software patents during the 1990s). Interestingly, although patenting of financial inventions in Europe has increased in recent history, the largest share of financial patent applications was filed by U.S. applicants, which “doubtless reflects the impact of the State Street decision.” *Id.* at 19–20.

232. *Id.* at 32.

233. *Id.* at 25–26.

234. Marsnik & Thomas, *supra* note 63, at 320.

235. *Id.* at 268–71.

more systematic approach taken by the EPO has allowed European businesses to operate without the crushing weight of uncertainty felt by U.S. companies post-*Bilski*. The categorical elimination of financial business method patents could be the first step to a more predictable approach to the U.S. business method patent problem and would align the U.S. model more closely with that of Europe.<sup>236</sup> However, a categorical elimination of business method patents is precisely what the Supreme Court declined to hold in *Bilski*.<sup>237</sup>

### C. Patentability as a Textual Matter Versus Patentability as a Practical Matter

Some expected *Bilski* to be the death of business method patents,<sup>238</sup> and if Justice Stevens had had his way it would have been,<sup>239</sup> but the Court declined to swing the axe altogether and instead launched business method patents, particularly those of the financial variety, into an awkward state of purgatory.<sup>240</sup> *Bilski* clearly held that, as a textual matter, business methods could be “process[es]” within the meaning of § 101 and thus could not be categorically excluded from patentability.<sup>241</sup> However, the Court also held that the financial business method patent at issue was invalid under § 101 because it constituted an abstract idea.<sup>242</sup> Courts have consistently held that financial business methods are unpatentable abstract ideas ever since.<sup>243</sup> Although the *Bilski* Court held that business methods may not be categorically excluded by the threshold inquiry of patentability (a textual analysis of § 101),<sup>244</sup> perhaps financial business methods are categorically excludable by the second—and often simultaneous—inquiry of patentability. This inquiry involves a practical analysis of whether the claimed invention falls under one of the court-created exceptions because it is an *inherently* abstract idea.<sup>245</sup>

It is difficult to say if financial business methods are inherently abstract with certainty because the *Bilski* Court failed to provide any concrete guidance on determining whether a given financial business method is abstract and therefore patent ineligible under § 101.<sup>246</sup> Section 101 analysis has largely remained rooted in the

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236. Indeed, “[t]he Supreme Court missed the opportunity to bring U.S. patent law closer to that of the EPO by failing to resurrect the moribund business method patent exclusion that the CAFC nullified in *State Street Bank*.” *Id.* at 326.

237. *Bilski v. Kappos*, 130 S. Ct. 3218, 3228 (2010).

238. See Snyder et al., *supra* note 66 (noting that some had hoped the Court would end business method patents in *Bilski*).

239. *Bilski*, 130 S. Ct. at 3232 (Stevens, J., concurring).

240. See Snyder et al., *supra* note 66 (suggesting that the *Bilski* decision leaves the status of business method patents to be decided on an uncertain case-by-case basis).

241. *Bilski*, 130 S. Ct. at 3228 (alteration in original).

242. *Id.* at 3230.

243. See *supra* note 216 for examples of cases where the court held financial business methods to be unpatentable as abstract ideas.

244. *Bilski*, 130 S. Ct. at 3228. See *supra* Part II.C and *infra* Part III.D for arguments that the *Bilski* Court’s textual analysis of § 101 was undone by the AIA.

245. *Contra* Mark A. Lemley et al., *Life After Bilski*, 63 STAN. L. REV. 1315, 1317 (2011) (“No class of invention is inherently too abstract for patenting.”).

246. See *supra* Part II.B.2 for a discussion of the abstract idea exception as articulated in *Bilski*.

physical world—consisting of (1) the machine-or-transformation test and (2) the ever-elusive abstract idea test.<sup>247</sup> In many of its decisions, the Federal Circuit has applied a so-called abstract idea test that is virtually indistinguishable from the machine-or-transformation test. In *Cybersource*, after applying the machine-or-transformation test, the Federal Circuit concluded that, because the invention could be performed using “a pen and paper,” it constituted an abstract idea. The new abstract idea standard sounded substantially similar to the machine prong of the machine-or-transformation test. In *CLS Bank I*, the Federal Circuit made the machine requirement even more pronounced by applying the “meaningful limit” test of abstractness, which requires that a machine impose meaningful limits on the scope of the invention.<sup>248</sup> Moreover, *Bancorp* incorporated the “meaningful limits” test and clarified that the machine must be “integral” to the claimed process, seemingly bringing the abstract idea analysis full circle back to the machine prong of the machine-or-transformation test.<sup>249</sup> The Federal Circuit has not successfully articulated and applied a sound abstract idea test, and, in an attempt to avoid using the machine-or-transformation test exclusively, which the Supreme Court shook its finger at in *Bilski*, it has merely come up with new language that has the same practical effect.<sup>250</sup>

The courts, the PTO, and litigants have all continued to rely heavily on the machine-or-transformation test.<sup>251</sup> Indeed, the PTO provides guidance to its personnel with respect to determining patent eligibility of business methods, and the number one factor weighing against eligibility is “[n]o recitation of a machine or transformation (either express or inherent).”<sup>252</sup> Moreover, the machine-centric holdings of *CLS Bank I* and *Bancorp* prompted one law firm to issue a bulletin recommending that patent litigators “focus on the relationship between the business method and the computer, devices and algorithms used in performing the method [going forward].”<sup>253</sup> When courts have moved beyond the machine-or-transformation test—or language that has the same practical effect, as the case may be—only by melding together some key phrases from recent § 101 cases can they continue through the abstract idea analysis.<sup>254</sup>

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247. See, e.g., *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1332–33 (Fed. Cir. 2012) (noting the lower court’s determination that the claimed invention failed the machine-or-transformation test before concluding that it also failed because it constituted an abstract idea).

248. *CLS Bank I*, 685 F.3d 1341, 1351 (Fed. Cir. 2012), *reh’g en banc granted and opinion vacated*, 484 F. App’x 559 (Fed. Cir. 2012), *aff’d en banc*, 717 F.3d 1269 (Fed. Cir. 2013), *cert. granted*, 134 S. Ct. 734 (2013).

249. *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Canada (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012).

250. See *supra* Parts II.B.3 and II.B.5 for an analysis of cases in which the Federal Circuit has failed to articulate a workable framework for determining whether a claimed invention constitutes an unpatentable abstract idea.

251. See Lemley et al., *supra* note 245, at 1316 (stating that after *Bilski*, the machine-or-transformation test has become the “presumptive starting point” in patentability analysis).

252. 101 METHOD ELIGIBILITY QUICK REFERENCE SHEET, U.S. PATENT & TRADEMARK OFFICE, [http://www.uspto.gov/patents/announce/bilski\\_qrs.pdf](http://www.uspto.gov/patents/announce/bilski_qrs.pdf).

253. Ian G. DiBernardo et al., *Patentability of Business Methods: Decoding the Federal Circuit’s CLS and Bancorp Decisions*, STROOCK SPECIAL BULL., Aug. 23, 2012, at 1, 5.

254. E.g., *OIP Techs., Inc. v. Amazon.com, Inc.*, No. C–12–1233 EMC, 2012 WL 3985118, at \*16–17 (N.D. Cal. Sept. 11, 2012) (drawing principles for use in the abstract idea analysis from cases dealing with §



The resulting muddled standard has increased the propensity to invalidate financial business method patents, as it has created many more zip cords than the machine-or-transformation test alone.<sup>255</sup> Even when a business method survives the machine-or-transformation test, it can be invalidated as an abstract idea for, e.g., “foreclos[ing] innovation”<sup>256</sup> in the field or for being too “well-understood, routine, [or] conventional.”<sup>257</sup>

The bottom line is that regardless of which test is used, the Federal Circuit has consistently come to the same conclusion: the financial business method at issue fails the patent-eligible subject-matter requirement of § 101 because it constitutes an abstract idea.<sup>258</sup> The only two cases that upset this pattern were both vacated and reheard, with one ultimately concluding in the invalidation of the financial business patent at issue<sup>259</sup> and the other remaining a bit of an anomaly under § 101 jurisprudence.<sup>260</sup> Rather than drawing a bright line and declaring financial business methods patent-ineligible subject matter under § 101 because they are *inherently* abstract ideas—whether or not they are carried out on a machine—the courts have continued to analyze the low-quality patents on a case-by-case basis by utilizing a laundry list of ambiguous tests.<sup>261</sup> The courts’ “reluctance to act emphatically is likely due to the legislative nature of the requested decision. The task of drawing patent

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101). The United States District Court for the Northern District of California synthesized recent § 101 jurisprudence as follows, casting a spotlight on the muddled—and lengthy—nature of the abstract idea standard:

First, a patent may not simply restate laws of nature or abstract ideas (*e.g.*, mathematical formulas, basic principles of risk management, etc.), or apply them in some rudimentary fashion; instead, the invention must add some ‘innovative concept’ to ‘transform[] the process into an inventive application of the formula[, idea, or law of nature].’ Second, while the [machine-or-transformation test] is an important clue for determining patent eligibility, the test does not ‘trump’ the law of nature or abstract idea exclusion. Third, when analyzing a patent’s claimed elements, the use of a computer is not itself sufficient to satisfy either the [machine-or-transformation test] or the eligibility analysis more generally. Fourth, an abstract idea or law of nature even if limited to one field of application (*e.g.*, hedging in energy markets) is still patent ineligible. And finally, as an extension of the field-of-use principle described above, a patent need not preempt an entire field in order to be ineligible; rather, the question is whether ‘upholding the patents would risk *disproportionately* tying up the use of the underlying [abstract ideas or] natural laws, inhibiting their use in the making of further discoveries.

*Id.* at 12 (citations omitted).

255. *See, e.g., CLS Bank I*, 685 F.3d 1341, 1355 (Fed. Cir. 2012) (stating that while computer implementation of a method would likely satisfy the machine-or-transformation test, it does not necessarily save the invention from invalidity as an abstract idea), *reh’g en banc granted and opinion vacated*, 484 F. App’x 559 (Fed. Cir. 2012), *aff’d en banc*, 717 F.3d 1269 (Fed. Cir. 2013), *cert. granted*, 134 S. Ct. 734 (2013). *See supra* Part II.B.5 for further discussion of *CLS Bank I*.

256. *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012).

257. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1294 (2012).

258. *See supra* note 216 for examples of cases where the court held financial business methods to be unpatentable as abstract ideas.

259. *CLS Bank II*, 717 F.3d 1269, 1273 (Fed. Cir. 2013).

260. *Ultramercial II*, 722 F.3d 1335, 1354 (Fed. Cir. 2013).

261. *See, e.g., OIP Techs., Inc. v. Amazon.com, Inc.*, No. C–12–1233 EMC, 2012 WL 3985118, at \*12 (N.D. Cal. Sept. 11, 2012) (drawing many factors from previous cases to be considered when determining the patentability of financial business methods).

subject-matter boundaries is a policy decision that the courts have been uncomfortable making.”<sup>262</sup>

*D. America Invents Act: A Step in the Right Direction*

The legislature had to step in, and step in it did in the form of the AIA.<sup>263</sup> By removing the definition of “method” under § 273 and establishing a new program for determining the validity of financial business method patents, the legislature has sent a clear signal that, like the courts, it is interested in limiting—if not completely eliminating—financial business method patents.

Some have argued along the same lines as the *Bilski* majority that § 273’s definition of “method” as “a method of doing or conducting business” was a clear indication that Congress contemplated business methods to be within the purview of § 101.<sup>264</sup> Many more, however, have argued along the lines of Justice Stevens’s concurrence in *Bilski* that the First Inventor Defense Act,<sup>265</sup> which added the definition, was a mere “stopgap measure” that Congress hastily put into place to curb a growing problem in the business community after *State Street*.<sup>266</sup> In any event, the legislature could have acquiesced to the Supreme Court’s interpretation but, in a bold move, chose instead to correct it almost immediately by removing the definition of “method” from § 273,<sup>267</sup> signaling that the Supreme Court got it wrong in *Bilski*—that the legislature never intended to make business methods patentable processes under § 101.

The legislature sent an even stronger message with the Program, which expressly and unequivocally targets financial business method patents.<sup>268</sup> Indeed, former

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262. Marsnik & Thomas, *supra* note 63, at 324.

263. See Jeff Kettle, *Congress Giveth and Taketh Away: A Look at Section 18 of the America Invents Act and the Review of Business Method Patents*, 94 J. PAT. & TRADEMARK OFF. SOC’Y 201, 204 (2012) (citing Section 18 of the AIA as Congress’s response to uncertainty about the correct test for assessing the patentability of business methods).

264. *Bilski v. Kappos*, 130 S. Ct. 3218, 3228 (2010); see also, e.g., Schaafsma, *supra* note 186, at 415 (arguing that Congress could have instead responded to *State Street* by declaring business method patents ineligible under § 101 but did not).

265. See *supra* Part II.C for a discussion of the First Inventor Defense Act.

266. *Bilski*, 130 S. Ct. at 3232 (Stevens, J., concurring); see also, e.g., Leslie M. Hill, Note, *Prior User Defense: The Road to Hell Is Paved with Good and Bad Intentions*, 10 FED. CIR. B.J. 513, 540 (2002) (arguing that support for the First Inventor Defense Act “was a reaction to the post-*State Street* panic by businesses maintaining business methods as trade secrets under the belief that these methods were not patentable”); Peter S. Menell, *Forty Years of Wondering in the Wilderness and No Closer to the Promised Land: Bilski’s Superficial Textualism and the Missed Opportunity to Return Patent Law to Its Technology Mooring*, 63 STAN. L. REV. 1289, 1303–04 (2011) (disputing the *Bilski* Court’s interpretation of the § 273 definition of “method” as contemplating patentable subject matter under § 101 because the definition was expressly limited to § 273 only); Meurer, *supra* note 25, at 336 (arguing that the expansion of the prior art defense was in fact “a desirable, if indirect, way to minimize the number of business method patents”); Gary W. Smith, *Patenting Business Methods in Cyberspace: 2B or Not 2B*, 45 BOS. B. J. 12, 28 (2001) (arguing that the First Inventor Defense Act was “a direct response to *State Street* and the spate of business [] method and e-commerce related patent litigation which ensued”).

267. AIA, Pub. L. No. 112-29, § 5, 125 Stat. 284 (2011) The AIA was not Congress’s first time targeting business method patents. See Orozco, *supra* note 5, at 22–27 (detailing the chronology of legislative proposals addressing business methods).

268. See *supra* Part II.C for a more detailed discussion of the Program.

Chairman of the House Judiciary Committee Lamar Smith has explained that the purpose behind the Program is to weed out the “low-quality business method patents” that were issued after *State Street* in the most inexpensive and efficient manner possible.<sup>269</sup>

The first petition to review a patent’s validity was filed with the PTO on the very day the Program went into effect, and the PTO’s decision to grant the petition set the tone for how the Program will be administered.<sup>270</sup> In its ruling, the PTO made clear that the Program was intended to and does accept validity challenges based on the abstract idea exception of § 101.<sup>271</sup> Moreover, the definition of “covered business method patent,” which requires that the claimed method correspond to “a financial product or service,”<sup>272</sup> will be construed very broadly: “The term financial is an adjective that simply means relating to monetary matters.”<sup>273</sup> Lastly, the ruling illustrated the disparity between the burden of proof required in court and the burden of proof required by the PTO. Where the District Court of the Eastern District of Texas had already found in favor of the patentee and awarded millions of dollars in infringement damages, the PTO, in granting the alleged infringer’s petition for review, found that it had sufficiently demonstrated that the patent was “more likely than not unpatentable under 35 U.S.C. §[] 101.”<sup>274</sup> Moreover, on June 11, 2013, the PTO invalidated the patent, establishing that the Program has teeth and provides an effective way for companies accused of infringement to challenge the asserted patents.<sup>275</sup> That the Program appears poised to ensnare many proverbial fish in its net can hardly be disputed.<sup>276</sup>

The legislature did not explicitly eliminate business methods patents from the financial industry as some had hoped it would.<sup>277</sup> Instead, the legislature decided on a gentler phaseout approach and tucked it in behind the groundbreaking and highly publicized first-to-file provision.<sup>278</sup> The first-to-file provision’s publicity largely

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269. 157 CONG. REC. S7413 (daily ed. Nov. 14, 2011) (letter from Sen. Lamar Smith concerning business method patents).

270. Michelle K. Holoubek, *United States Patent and Trademark Office (USPTO) Issues First Decision Instituting Covered Business Method Patent Review (CBM)*, NAT’L L. REV. (Mar. 2, 2013), <http://www.natlawreview.com/article/united-states-patent-and-trademark-office-uspto-issues-first-decision-instituting-co>.

271. *SAP America, Inc. v. Versata Dev. Grp., Inc.*, No. CBM2012-00001, 2013 WL 5947661, at \*13–14 (B.P.A.I. Jan. 9, 2013).

272. AIA § 18(d)(1).

273. *SAP America*, 2013 WL 5947661, at \*10. The PTO rejected the patent owner’s argument that its patent directed to a method for organizing pricing data was not covered because it did not relate to services offered by a financial company. *Id.*

274. *Id.* at \*14.

275. *SAP America Inc. v. Versata Dev. Grp. Inc.*, No. CBM2012-00001, 2013 WL 3167735, at \*1 (B.P.A.I. June 11, 2013).

276. See Matthew K. Blackburn, *Covered Business Method Review: An Important Tool*, LAW360 (June 10, 2013, 12:03 PM), <http://www.law360.com/articles/444207/covered-business-method-review-an-important-tool> (discussing the advantages of covered business method review).

277. See, e.g., Lawrence, *supra* note 202, at 321 (“Congress should enact legislation that eliminates business method patents from financial services.”).

278. See, e.g., Jeffrey Waldin, *Institutions React to the Leahy-Smith America Invents Act*, INFOEDGE

overshadowed the new post-grant review program and its implications for financial firms; however, those that reacted publicly can hardly be said to have blanched at it.<sup>279</sup> Patent lawyers, on the other hand, have infiltrated a new market in the financial space and will be hard pressed to give up their lucrative new careers.<sup>280</sup> They will argue that the legislature has merely kicked the can down the road, shifting the question from, what constitutes an abstract idea?, to, what constitutes a financial business method patent?<sup>281</sup> But the legislature<sup>282</sup> and the PTO<sup>283</sup> have already answered the latter question more clearly than the courts have answered the former.<sup>284</sup> Thus, while the legislature did not explicitly exclude financial business methods from patentability, the post-grant review program it introduced may just have that practical effect: as the PTO invalidates one financial business method patent after another, it will be less inclined to grant new applications, and financial firms may be deterred from filing new applications altogether.<sup>285</sup>

#### IV. CONCLUSION

The purpose of this Comment is not so much to propose a solution to the abstract idea conundrum as it is to point out a fact that may save financial firms, the PTO, and courts some valuable time and resources: financial business method patents are invalid. Both backward-looking and forward-looking arguments justify as much: business method patents were generally unheard of in the financial industry prior to *State Street*, and the post-*State Street* influx has led to increased litigation instead of increased innovation. The courts have been invalidating them one by one under a mixed bag of standards that have consistently yielded the same result: the financial business method at issue constitutes a patent-ineligible abstract idea.<sup>286</sup> The legislature provided a not-

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(Dec. 7, 2011), <http://infoedge.infoedglobal.com/technology-transfer/institutions-react-to-the-leahy-smith-america-invents-act/> (reacting only to the first-to-file provision).

279. See, e.g., Letter from Jeffrey G. Knoll, Exec. Vice President & Corporate Counsel, Cummins Allison, to the Comm'r for Patents & Dir. of the U.S. Patent & Trademark Office, U.S. Patent & Trademark Office (Apr. 9, 2012), available at [http://www.uspto.gov/aia\\_implementation/comment-cummins-allison.pdf](http://www.uspto.gov/aia_implementation/comment-cummins-allison.pdf) (stating that Cummins Allison "fully embraces the intention and objectives of the draft [post-grant review] rules").

280. For example, the American Intellectual Property Law Association was one of a small minority of groups that filed an amicus brief in the *CLS Bank I* case in support of the patentee, arguing that the financial business method patent at issue was valid. Brief for American Intellectual Property Law Ass'n as Amicus Curiae Supporting Alice Corp., *CLS Bank I*, 685 F.3d 1341 (Fed. Cir. 2012) (No. 2011-1301).

281. See Robert D. Swanson, *Section 101 and Computer-Implemented Inventions*, 16 STAN. TECH. L. REV. 161, 174 (2012) ("[D]elineating the lines between subject areas is exceedingly difficult. . . . Just as the courts have struggled to define an abstract idea, the same would happen with per se subject matter exclusions. The strategy of categorically excluding inventions has the effect of kicking the can down the road without providing additional clarity.").

282. See *supra* note 169 for the legislature's definition of "covered business method patent."

283. See *SAP America, Inc. v. Versata Dev. Grp., Inc.*, No. CBM2012-00001, 2013 WL 5947661, at \*10 (B.P.A.I. Jan. 9, 2013) (ruling that any method relating to monetary matters falls within the program's scope).

284. See *supra* notes 254–55 and accompanying text for an example of how muddled the common law standard has become.

285. Cf. Sean B. Seymore, *The Presumption of Patentability*, 97 MINN. L. REV. 990, 994 (2013) (arguing that a more robust examination process generally deters "those with low-quality inventions" from filing).

286. E.g., *Bilski v. Kappos*, 130 S. Ct. 3218, 3230 (2010).

so-subtle clue that it too disapproved of the high number of low-quality business method patents saturating the industry when it enacted the AIA. The gentle approach of continuing to weed out these patents one by one but in a cheaper and more efficient forum may effectively conclude in a categorical elimination of financial business method patents. Time will tell.

