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Are Secondary Considerations Still “Secondary”? An Examination of  
Objective Indicia of Nonobviousness Five Years After KSR

**ARE SECONDARY CONSIDERATIONS STILL “SECONDARY”?:**  
**AN EXAMINATION OF OBJECTIVE INDICIA OF NONOBVIOUSNESS FIVE YEARS AFTER *KSR***  
*by John Paul Putney*<sup>1</sup>

Judge Learned Hand was among the first stout advocates of secondary considerations<sup>2</sup>—also known as objective indicia of nonobviousness—as a necessary safeguard against inherent hindsight bias in determining nonobviousness<sup>3</sup> as part of a necessarily after-the-fact inquiry. The Supreme

Court confirmed the inferential value of secondary considerations in *Graham v. John Deere Co. of Kansas City*,<sup>4</sup> agreeing with Learned Hand that such considerations are “more susceptible [to] judicial treatment than are the highly technical facts often present in patent litigation.”<sup>5</sup> Over forty years later, the Supreme Court reaffirmed the test laid out in *Graham* (including secondary considerations) in *KSR International Co. v. Teleflex Inc.*,<sup>6</sup> leading some observers to speculate that secondary considerations would become a more important inquiry in patent litigation.<sup>7</sup>

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2. Learned Hand referred to secondary considerations as the “history of the art”:

[T]he most reliable test is to look at the situation before and after it appears . . . . Courts, made up of laymen as they must be, are likely either to underrate, or to overrate, the difficulties in making new and profitable discoveries in fields with which they cannot be familiar; and, so far as it is available, they had best appraise the originality involved by the circumstances which preceded, attended and succeeded the appearance of the invention. . . . We have repeatedly declared that in our judgment this approach is more reliable than prior conclusions drawn from vaporous, and almost inevitably self-dependent, general propositions.

*Safety Car Heating & Lighting Co. v. Gen. Elec. Co.*, 155 F.2d 937, 939 (2d Cir. 1946); *see also, e.g., Reiner v. I. Leon Co.*, 285 F.2d 501, 503-04 (2d Cir. 1960); *Lyon v. Bausch & Lomb Optical Co.*, 224 F.2d 530, 535 (2d Cir. 1955); *Picard v. United Aircraft Corp.*, 128 F.2d 632, 636 (2d Cir. 1942); *Textile Mach. Works v. Louis Hirsch Textile Mach.*, 87 F.2d 702, 704 (2d Cir. 1937); *Ruben Condenser Co. v. Aerovox Corp.*, 77 F.2d 266, 268 (2d Cir. 1935). Judge Hand’s strong praise for secondary considerations was animated in part by his contempt for other tests:

When [secondary considerations are] not at hand, we are forced to fabricate a standard as best we can from our naive ignorance; but that is so unsatisfactory an expedient that resort to it should be as sparing as possible. In either case, whether we have evidence, or must grope unguided, those putatively objective principles by which it is so often supposed that invention can be detected are illusion, and the product of unconscious equivocation; the inexorable syllogism which appears to compel the conclusion is a sham.

*B.G. Corp. v. Walter Kidde & Co.*, 79 F.2d 20, 22 (2d Cir. 1935).

3. The nonobvious requirement was codified by Congress in 1952. 35 U.S.C. § 103. The obviousness inquiry supplanted the imprecise common law “invention” inquiry. *See Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17 (1966).

Five years after *KSR*, however, it appears courts are still unclear on how much weight to give secondary considerations as part of the overall obviousness determination, though the Federal Circuit is insistent that objective indicia must be considered if present. At times, the Federal Circuit has viewed secondary considerations as “secondary” in probative value and has been quick to discount evidence of objective indicia as insufficient to tip the scales of nonobviousness. Other Federal Circuit

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4. 383 U.S. 1 (1966).

5. *Id.* at 35-36. The Court specifically mentions “commercial success, long felt but unsolved needs, failure of others, etc.” leaving room for additional considerations. *Id.*

6. 550 U.S. 398 (2007).

7. *See, e.g., Daralyn J. Durie & Mark A. Lemley, A Realistic Approach to the Obviousness of Inventions*, 50 WM. & MARY L. REV. 989, 1004-07 (2008) (“As the legal rules that fight hindsight bias, such as the TSM test, are trimmed back . . . patentees will want to rely more on . . . secondary considerations . . . .”); Amanda Wieker, *Secondary Considerations Should Be Given Increased Weight in Obviousness Inquiries Under 35 U.S.C. § 103 in the Post-KSR v. Teleflex World*, 17 FED. CIR. B.J. 665, 681-83 (2008) (suggesting reasoned decisions based on explicit secondary considerations can avert “obviousness opinions based entirely on . . . vague and imprecise notions of common sense and creativity . . . .”); Natalie A. Thomas, *Secondary Considerations in Nonobviousness Analysis: The Use of Objective Indicia Following KSR v. Teleflex*, 86 N.Y.U. L. REV. 2070, 2090-102 (2011) (examining the effect of *KSR* on subsequent Federal Circuit decisions through early 2010 that involved secondary considerations); Jennifer Nock & Sreekar Gadde, *Raising the Bar for Nonobviousness: An Empirical Study of Federal Circuit Case Law Following KSR*, 20 FED. CIR. B.J. 369, 378-81 (2011) (suggesting that *KSR* made finding an invention obvious easier for patent challengers). *But see* Eli M. Sheets, *Arguing Secondary Considerations After KSR: Proceed with Caution*, 21 FED. CIR. B.J. 1, 16-22 (2011-2012) (suggesting secondary considerations have been relegated to “lame-duck” status following *KSR*).

panels have esteemed secondary considerations as the “most probative and cogent evidence in the record.”<sup>8</sup> As the Federal Circuit wrestles internally with the probative value of objective indicia, practitioners are aware that courts tend to recite and rely on secondary considerations when finding patents nonobvious, but marginalize or disparage them when finding patents obvious and invalid.<sup>9</sup>

Part I of this article reviews the genesis of the nonobviousness requirement by examining its predecessor, the landmark Supreme Court cases interpreting the requirement, and the procedural rules that have shaped the nonobviousness inquiry. Juxtaposed against the development of the inquiry are the shifts in the role of secondary considerations up until KSR.

Part II of this article reviews the Federal Circuit’s treatment of secondary considerations in the five intervening years since the Supreme Court’s decision in KSR and finds that secondary considerations are still often treated as secondary in stature, but with some recent indications of forthcoming change. It next turns attention to the nexus requirement as a flashpoint of interpretive conflict. Looking closely at the established scheme of burden shifting in the nexus inquiry, this article examines the inconsistencies in the application of the rules governing the shifting burdens in post-KSR Federal Circuit case law. In addition, the article notes the opaque distinctions between the nexus tests that serve to obfuscate the nexus inquiry and undermine the probative value of secondary considerations.

Part III of this article concludes by noting a persistent divide on the nexus test and lingering disagreement over the value of secondary considerations in the face of Supreme Court silence on the topic.

## I. SECONDARY CONSIDERATIONS AND THE NONOBVIOUSNESS REQUIREMENT

### A. THE PRECURSOR TO THE NONOBVIOUSNESS REQUIREMENT

Patents are intended “to promote the Progress of Science and useful Arts” by incentivizing innovation through short-term

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8. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983).

9. See 2-5 DONALD S. CHISUM, CHISUM ON PATENTS § 5.05, 5-894 (Matthew Bender ed., 2012).

“exclusive rights” (i.e., a qualified statutory monopoly),<sup>10</sup> thereby affording the inventor a commercial benefit. In 1850, however, the Supreme Court clarified that not every creation would qualify as a patentable invention.<sup>11</sup> Rather, “[a] degree of skill and ingenuity [ ] constitute essential elements of every invention.”<sup>12</sup> Hence, where either element is lacking, a patent is invalid. In *Hotchkiss v. Greenwood*,<sup>13</sup> the Supreme Court affirmed an invalidity finding because the substitution of clay or porcelain knobs for more common door knob materials did not require “more ingenuity and skill . . . than were possessed by an ordinary mechanic acquainted with the business.”<sup>14</sup> Although the inquiry was phrased in terms of “invention” and “inventor,” *Hotchkiss* is the genesis of the concept of nonobviousness, which Congress codified as part of the Patent Act of 1952,<sup>15</sup> unifying and supplanting the more nebulous “invention” standard.<sup>16</sup>

### B. SECONDARY CONSIDERATIONS PRIOR TO § 103

Secondary considerations, too, predate the Congressional codification of the nonobviousness requirement. In *Smith v. Goodyear Dental Vulcanite Co.*,<sup>17</sup> while considering the validity of a patent for artificial teeth sets cast in vulcanized rubber, the Supreme Court reasoned that “[m]ore was needed for [the invention] than simply mechanical judgment and good taste. Were it not so, hard rubber would doubtless[ly] have been used in the construction of artificial sets of teeth, gums, and plates long before [the inventor] applied for his patent.”<sup>18</sup> Moreover, the Court noted “eminent dentists and experts . . . uniformly speak of [the invention] as [new

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10. U.S. CONST. art. I, § 8, cl. 8.

11. *Hotchkiss v. Greenwood*, 52 U.S. 248, 267 (1850).

12. *Id.*

13. 52 U.S. 248 (1850).

14. *Id.* at 267.

15. Patent Act of 1952, Pub. L. No. 82-593, 66 Stat. 792 (1952). The nonobviousness requirement—codified at 35 U.S.C. § 103—provides: “A patent may not be obtained . . . if the differences between the subject matter [of the patent] and the prior art are such that the subject matter . . . would have been obvious at the time the invention was made to a person having ordinary skill in the art . . . .” 35 U.S.C. § 103(a) (2006).

16. *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 14 (1966).

17. 93 U.S. 486 (1876).

18. *Id.* at 494-95.

and most valuable]”<sup>19</sup> and as having created a “revolution in dental practice, [with] many thousands of operators . . . using it in preference to older devices.”<sup>20</sup> Notwithstanding *Hotchkiss*’ holding that substitution was not “invention,”<sup>21</sup> this combination of long-felt need, commercial success, and industry praise sufficed to “justify the inference that what [the patentee] accomplished was . . . invention.”<sup>22</sup>

Courts, however, gave secondary considerations widely varied treatment.<sup>23</sup> In the Second Circuit, Judge Learned Hand criticized the “misty” nonobviousness requirement as inviting judges “to substitute our ignorance for [] acquaintance with the subject of those who [are] familiar with it.”<sup>24</sup> Nonetheless, he highlighted “sign posts” like long-felt need, failure of others, and commercial success that could guide the inquiry.<sup>25</sup> Conversely, other courts quickly disposed of secondary considerations as “a relevant consideration” “in a close case,” but incapable of validating patents for “device[s] lack[ing] invention.”<sup>26</sup>

#### C. INTERPRETING § 103’S NONOBVIOUSNESS COMMAND: THE GRAHAM ANALYSIS

Enacted in 1952, the nonobviousness requirement, as embodied in § 103,<sup>27</sup> was intended to have a “stabilizing effect and minimize great departures which have appeared in some cases.”<sup>28</sup> In the seminal Supreme Court case on the then-newly-minted nonobvious requirement, *Graham*

*v. John Deere Co. of Kansas City*,<sup>29</sup> the Court laid out a deceptively simple inquiry including three primary considerations: (1) the scope and content of the prior art; (2) differences between the prior art and the claims at issue; and (3) the level of ordinary skill in the pertinent art.<sup>30</sup> The three primary considerations echo the language of § 103.<sup>31</sup>

In addition, the Court cautiously endorsed secondary considerations that “might be utilized” and “may have relevancy” as indicia of nonobviousness.<sup>32</sup> Describing the judiciary as “most ill-fitted to . . . the technological duties [of] patent litigation,”<sup>33</sup> the Court agreed with Judge Learned Hand that objective indicia are “more susceptible [to] judicial treatment.”<sup>34</sup> As a “guard against . . . hindsight,” secondary considerations serve to “resist the temptation to read into the prior art the teachings of the invention in issue.”<sup>35</sup> Despite this lofty proclamation, the Court pithily concluded that the objective indicia in the case at issue were insufficient to “tip the scales of patentability.”<sup>36</sup> The conflicting assessments of secondary considerations in *Graham* failed to definitively settle the question of their evidentiary value, especially as compared to the first three factors of the four-part *Graham* analysis.

#### D. SHAPING THE GRAHAM ANALYSIS WITH THE TSM TEST

In the decades leading up to *KSR*, the Federal Circuit developed a strict standard—the Teaching, Suggestion, Motivation (TSM) test<sup>37</sup>—which it applied “rigorously” to “[guard] against hindsight-based obviousness analysis.”<sup>38</sup> The TSM test required a “clear and particular,” if not

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19. *Id.* at 495.

20. *Id.*

21. *Hotchkiss v. Greenwood*, 52 U.S. 248, 253 (1850).

22. *Smith v. Goodyear Dental Vulcanite Co.*, 93 U.S. 486, 495 (1876).

23. See John F. Duffy, *Inventing Invention: A Case Study of Legal Innovation*, 86 TEX. L. REV. 1, 33-43 (2007) (tracing evolution of the standard of invention); Robert P. Merges, *Commercial Success and Patent Standards: Economic Perspectives on Innovation*, 76 CALIF. L. REV. 803, 817-18 (1988) (outlining divergent standards vis-à-vis evidence of commercial success prior to § 103); see generally ROBERT P. MERGES & JOHN F. DUFFY, PATENT LAW AND POLICY: CASES AND MATERIALS 629-30 (4th ed. 2007).

24. *Reiner v. I. Leon Co.*, 285 F.2d 501, 504 (2d Cir. 1960).

25. *Id.*

26. *Monroe Auto Equip. Co. v. Heckethorn Mfg. & Supply Co.*, 332 F.2d 406, 414 (6th Cir. 1964).

27. The nonobviousness requirement, codified in 35 U.S.C. § 103, was created by the Patent Act of 1952. Pub. L. No. 82-593, 66 Stat. 792 (1952).

28. *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 15 (1966) (citing H.R. Rep. No. 82-1923 (1952), reprinted in 1952 U.S.C.C.A.N. 2394).

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29. 383 U.S. 1 (1966).

30. *Id.* at 16.

31. See 35 U.S.C. § 103.

32. *Graham*, 383 U.S. at 18.

33. *Id.* at 36 (citing *Marconi Wireless Tel. Co. of Am. v. United States*, 320 U.S. 1, 60 (1943)).

34. *Id.* at 35-36.

35. *Id.* at 36.

36. *Id.*

37. The TSM test originated in the Federal Circuit’s predecessor, the United States Court of Customs and Patent Appeals, see *In re Bergel*, 292 F.2d 955, 956-57 (C.C.P.A. 1961), but was developed further by the Federal Circuit in the decades leading up to *KSR*. See *In re Dembiczak*, 175 F.3d 994 (Fed. Cir. 1999); *In re Rouffet*, 149 F.3d 1350 (Fed. Cir. 1998).

38. *Ecolchem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1371 (Fed. Cir. 2000).

“express,” teaching, suggestion or motivation to combine two (or more) references to produce the subject of the patent being challenged.<sup>39</sup> Although not intended to supplant the *Graham* analysis, the TSM test became a dominant method for defining what would have been “obvious at the time the invention was made to a person having ordinary skill in the art”—i.e., the first three of the four *Graham* factors.<sup>40</sup> Successful patent challengers who satisfied the TSM test established a “prima facie” case of obviousness, after which courts turned to the fourth *Graham* factor—secondary considerations—to “rebut” the prima facie obviousness case.<sup>41</sup> While the TSM test gave shape to the primary considerations under the *Graham* analysis, it did not address the probative value of secondary considerations. It did, however, separate objective indicia from the first three factors of the *Graham* analysis, inviting courts to treat them as conceptually distinct even where such distinction could be seen as logically suspect.<sup>42</sup>

E. DEFINING THE EVIDENTIARY VALUE OF OBJECTIVE INDICIA AFTER *GRAHAM*

Objective indicia were mostly considered individually after *Graham* (i.e., each individual secondary consideration was considered separately).<sup>43</sup> Their relative weight, however, remained unclear.<sup>44</sup> Far from having binding effect, several Federal Circuit panels found that

secondary considerations can simply “not be compelling enough”<sup>45</sup> even in “a close [case].”<sup>46</sup> Other panels found that “extensive secondary considerations” may rebut obviousness, at least where the court seems unconvinced a prima facie case exists.<sup>47</sup>

As an additional hurdle to establishing nonobviousness, the Federal Circuit has also imposed a “nexus” requirement that requires parties to connect the evidence of objective indicia (e.g., commercial success) to the merits of the patented subject matter, as opposed to other factors (e.g., a ritzy advertising campaign). This requirement, which was also advocated by Judge Learned Hand,<sup>48</sup> can prove onerous for patent holders to satisfy.<sup>49</sup>

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39. While the references need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability must be “clear and particular.” *In re Dembiczak*, 175 F.3d at 999; *see also* *Motorola, Inc. v. Interdigital Tech. Corp.*, 121 F.3d 1461, 1472 (Fed. Cir. 1997).

40. *See Graham*, 383 U.S. at 18.

41. *Eli Lilly & Co. v. Zenith Goldline Pharm., Inc.*, 471 F.3d 1369, 1379-80 (Fed. Cir. 2006).

42. *See generally* discussion *infra* Part I.F.

43. Courts have considered numerous objective indicia: long-felt need, failure of others, success by others, commercial success, commercial failure, commercial acquiescence (licensing), professional approval, industry skepticism, teaching away, unexpected results, copying, laudatory statements by the infringer, difficulty/ease of PTO process, near-simultaneous invention. *See generally* CHISUM, *supra* note 9, § 5.05.

44. The *Ecolochem* court noted that *Graham* named only three secondary considerations (commercial success, long-felt need, failure—or lack thereof—of others) and proceeded to give the “most weight” “in the instant case” to the three named indicia, even though additional widely-recognized indicia were also present: copying, teaching away, and simultaneous invention. *Ecolochem v. S. Cal. Edison Co.*, 227 F.3d 1361, 1380 (Fed. Cir. 2000).

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45. *Arkie Lures, Inc. v. Gene Larew Tackle, Inc.*, 119 F.3d 953, 960 (Fed. Cir. 1997).

46. *Ecolochem*, 227 F.3d at 1381.

47. *Eli Lilly & Co. v. Zenith Goldline Pharm., Inc.*, 471 F.3d 1369, 1380 (Fed. Cir. 2006).

48. *See* *Textile Mach. Works v. Louis Hirsch Textile Mach.*, 87 F.2d 702, 704 (2d Cir. 1937) (“[Objective indicia are] the best test when . . . available. But it is a dangerous test to apply, and will lead one astray unless jealously watched.”), *aff’d*, 302 U.S. 490 (1938).

49. *See* discussion *infra* Part II.B.

F. *KSR* AND THE REBUKE OF THE  
FEDERAL CIRCUIT

In the lead up to *KSR*, the TSM test drew ample criticism from observers who linked an overly strict application of the test to a decline in the standard of patentability.<sup>50</sup> Affirming the continued relevancy of the *Graham* factors (including secondary considerations “where appropriate”), in *KSR International v. Teleflex Inc.*,<sup>51</sup> the Supreme Court “reject[ed] the rigid [TSM] approach” which failed to allow for “common sense.”<sup>52</sup> As for objective indicia, the Court, much as it did in *Graham*, pithily concluded: “[The patentee] has not shown . . . any secondary factors to dislodge the [obviousness] determination . . . .”<sup>53</sup> Quickly disposing of the objective indicia, the Court again passed on the opportunity to provide instruction on how much weight to afford objective indicia.

Shortness of shrift, however, did not deter some commentators from predicting a rise in the importance of secondary considerations in the obviousness inquiry for patentees.<sup>54</sup> Indeed, many commentators agreed that *KSR* made obviousness easier to establish by lowering the threshold to establish a prima facie case of obviousness.<sup>55</sup>

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50. See, e.g., NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMY, A PATENT SYSTEM FOR THE 21ST CENTURY 87-94 (Stephen A. Merrill, Richard C. Levin & Mark B. Myers eds., 2004) (asserting the law of obviousness needs to change); FEDERAL TRADE COMMISSION, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITIONS AND PATENT LAW AND POLICY 8-15 (2003), available at <http://www.ftc.gov/os/2003/10/innovationrpt.pdf> (noting numerous commentators critical of the law of obviousness); Katherine J. Strandburg et al., *Law and the Science of Networks: An Overview and an Application to the “Patent Explosion,”* 21 BERKELEY TECH. L. J. 1293, 1329–38 (2006) (attributing a “patent explosion” to the decline of patentability standards); Arti K. Rai, *Intellectual Property Rights in Biotechnology: Addressing New Technology*, 34 WAKE FOREST L. REV. 827, 833 (1999) (noting lowered obviousness bar for biotechnology); Robert W. Harris, *The Emerging Primacy of “Secondary Considerations” as Validity Ammunition: Has the Federal Circuit Gone Too Far?*, 71 J. PAT. & TRADEMARK OFF. SOC’Y 185, 201 (1989) (suggesting a trend towards favoring patentability). But see Lee Petherbridge & R. Polk Wagner, *The Federal Circuit and Patentability: An Empirical Assessment of the Law of Obviousness*, 85 TEX. L. REV. 2051 (2007); Gregory N. Mandel, *Patently Non-Obvious: Empirical Demonstration that the Hindsight Bias Renders Patent Decisions Irrational*, 67 OHIO ST. L.J. 1391 (2006).

51. 550 U.S. 398 (2007).

52. *Id.* at 415-21.

53. *Id.* at 426.

54. See sources cited *supra* note 7.

55. See Jennifer Nock & Sreekar Gadde, *Raising the Bar for Nonobviousness: An Empirical Study of Federal Circuit Case Law Following KSR*, 20 FED. CIR. B.J. 369, 378-81 (2011) (suggesting

Patentees would naturally become more reliant on secondary considerations to rebut.

Interestingly, the TSM test persists in the aftermath of *KSR*. Noting that only the rigid TSM test was expressly rejected, the Federal Circuit has, at times, applied a more flexible version of the test.<sup>56</sup> Moreover, Federal Circuit panels continue to contextualize the obviousness inquiry in terms of a prima facie case of obviousness, looking to secondary considerations only as rebuttal evidence to an obviousness case. Thus, even without mentioning the TSM test by name, it continues to influence the obviousness inquiry.

To the extent the TSM test continues to reinforce shaping the obviousness inquiry as a two-pronged test (i.e., prima facie case of obviousness and secondary considerations rebuttal), its persistence post-*KSR* presents two issues. First, the diverse set of commonly accepted “secondary considerations” is not analytically analogous. In other words, while commercial success is clearly circumstantial evidence (operating by inference), unexpected results are much less clearly so because their probative value derives almost exclusively from the state of the art at the time of the discovery.<sup>57</sup> Nonetheless, the procedural structure encouraged by the remnant TSM test relegates both to a distinct rebuttal class.

Second, to the extent objective indicia reveal, as Learned Hand suggested, the “history of the art”—i.e., the heart and soul of the *Graham* analysis—to separate them out into a distinct category is artificial and can be problematic, even if procedurally expedient. Doing so invites

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impact of *KSR* made finding an invention obvious easier for patent challengers); Janice M. Mueller, *Chemicals, Combinations, and “Common Sense”: How the Supreme Court’s KSR Decision Is Changing Federal Circuit Obviousness Determinations in Pharmaceutical and Biotechnology Cases*, 35 N. KY. L. REV. 281, 285-86 (2008) (observing that *KSR* seemingly makes obviousness easier to establish); Diane Christine Renbarger, Note, *Putting the Brakes on Drugs: The Impact of KSR v. Teleflex on Pharmaceutical Patenting Strategies*, 42 GA. L. REV. 905, 908-09 (2008) (suggesting *KSR* may have heightened the nonobviousness standard for pharmaceutical inventions).

56. See *Cordis Corp. v. Medtronic Ave, Inc.*, 511 F.3d 1157, 1172 (Fed. Cir. 2008) (citing *Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1357 (Fed. Cir. 2007)), supplemented sub nom. *Cordis Corp. v. Boston Scientific Corp.*, 275 F. App’x 966 (Fed. Cir. 2008); see also *Comaper Corp. v. Antec, Inc.*, 596 F.3d 1343, 1352 (Fed. Cir. 2010) (citing *Ortho-McNeil Pharm. Inc. v. Mylan Labs. Inc.*, 520 F.3d 1358, 1364-65 (Fed. Cir. 2008) and *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1362 (Fed. Cir. 2007)).

57. See *Novo Nordisk A/S v. Caraco Pharm. Labs.*, 775 F. Supp. 2d 985, 1007 (E.D. Mich. 2011).

courts to make the precise error the Federal Circuit repeatedly overturns: coming to a decision about obviousness before meaningfully weighing secondary considerations.

G. FAILURE TO CONSIDER SECONDARY CONSIDERATIONS IS REVERSIBLE ERROR

The qualified language of *Graham* does not mandate that courts consider objective indicia.<sup>58</sup> Established in 1982,<sup>59</sup> and charged with appellate jurisdiction for virtually all patent claims,<sup>60</sup> the Court of Appeals for the Federal Circuit clarified early on: “evidence rising out of the so-called ‘secondary considerations’ must always when present be considered en route to a determination of obviousness . . . .”<sup>61</sup> Consistently portraying the *Graham* analysis as a four-part test, the Federal Circuit is hawkish when it comes to lower courts’ decisions that have ignored secondary considerations.<sup>62</sup> Even where courts explicitly consider secondary considerations, but do so only after reaching a “conclusion” on obviousness, they may be overturned.<sup>63</sup> Even if the *Graham* court’s “tip the scales” language seemed ambivalent, the Federal Circuit clarified: “[Secondary

considerations are] to be considered as part of all the evidence, *not just when the decisionmaker remains in doubt after reviewing the art.*”<sup>64</sup> To ignore such evidence would be “jurisprudentially inappropriate.”<sup>65</sup>

Nevertheless, various Federal Circuit panels have used disparate language in portraying the role of secondary considerations in the *Graham* analysis and, in some cases, seemingly applied different standards.<sup>66</sup> Casting the obviousness inquiry in terms of a prima facie obviousness determination—a preliminary status as opposed to a more settled “conclusion” or “finding”—requiring a rebuttal of secondary considerations (likely a remnant of the TSM test, albeit without mentioning it by name), some cases continue to weigh the three primary considerations to determine if the patent challenger has made out a prima facie case of obviousness before moving on to consider evidence of objective indicia.<sup>67</sup>

The Federal Circuit reiterated the appropriate standard very recently in *In re Cyclobenzaprine*, seeking to clarify concededly “inconsistently articulated” standards vis-à-vis secondary considerations that may have “understandably” confused some.<sup>68</sup> The *Cyclobenzaprine* court mildly chastised a district court for reaching an obviousness “finding” prior to considering secondary considerations, phrasing the legal error as improperly “shifting the burden of persuasion to [the patentee].”<sup>69</sup> The panel laid out a litany of cases that expressly directed courts to “consider all objective evidence before reaching an obviousness conclusion.”<sup>70</sup> Turning then to cases that phrased the “obviousness analysis in terms of a ‘prima facie’ case which must then be ‘rebutted’ by the patentee,”<sup>71</sup> the court insisted

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58. *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17 (1966). The language of *Graham* is indisputably permissive and not imperative: “secondary considerations . . . might be utilized . . . [They] may have relevancy.” *Id.*

59. Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25 (1982).

60. 28 U.S.C. § 1295 vests the Federal Circuit with “exclusive jurisdiction” over most matters arising under patent law. However, where the patent claims arise as counterclaims by a defendant, other Courts of Appeals may adjudicate patent counterclaims. *See Holmes Grp., Inc. v. Vornado Air Circulation Sys. Inc.*, 535 U.S. 826, 833-34 (2002).

61. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983).

62. *See, e.g., TriMed, Inc. v. Stryker Corp.*, 608 F.3d 1333, 1344 (Fed. Cir. 2010) (reversing lower court for the second time for “summarily dismiss[ing] evidence of secondary considerations” and ordering reassignment to another judge). However, failure to cite secondary considerations, alone, may not be reversible error where they “cannot overcome the strong evidence of nonobviousness.” *See Stamps.com Inc. v. Endicia, Inc.*, 437 F. App’x 897, 905 (Fed. Cir. 2011), *reh’g denied* (Aug. 1, 2011); *Brown & Williamson Tobacco Corp. v. Philip Morris, Inc.*, 229 F.3d 1120, 1131 (Fed. Cir. 2000).

63. *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1075 (Fed. Cir. 2012) (reversing the district court because it reached a “conclusion” regarding obviousness before explicitly considering—and rejecting—the objective indicia evidence proffered by the patentee), *reh’g en banc denied* (Jul. 25, 2012) [hereinafter *In re Cyclobenzaprine*].

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64. *Stratoflex*, 713 F.2d at 1538 (emphasis added).

65. *Id.*

66. *See, e.g., Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors USA, Inc.*, 617 F.3d 1296, 1302-05 (Fed. Cir. 2010).

67. *Id.* at 1304.

68. *In re Cyclobenzaprine*, 676 F.3d at 1075.

69. *Id.*

70. *Id.* at 1076 (citing *Ruiz v. A.B. Chance Co.*, 234 F.3d 654 (Fed. Cir. 2000); *Cable Elec. Prods. v. Genmark, Inc.*, 770 F.2d 1015 (Fed. Cir. 1985); *Simmons Fastener Corp. v. Ill. Tool Works, Inc.*, 739 F.2d 1573 (Fed. Cir. 1984); *Richardson-Vicks Inc. v. Upjohn Co.*, 122 F.3d 1476 (Fed. Cir. 1997); *Rockwell Int’l Corp. v. United States*, 147 F.3d 1358 (Fed. Cir. 1998); *Kan. Jack, Inc. v. Kuhn*, 719 F.2d 1144 (Fed. Cir. 1983)).

71. *In re Cyclobenzaprine*, 676 F.3d at 1076 (citing *Innovention Toys, L.L.C. v. MGA Entm’t, Inc.*, 637 F.3d 1314, 1323 (Fed. Cir. 2011); *Transocean Offshore Deepwater*

that such cases “should not be interpreted as establishing a formal burden-shifting framework” for three reasons: (1) the fact that objective indicia are considered last is not outcome-determinative in those cases; (2) the “prima facie”/“rebuttal” courts have generally clarified that fact finders must consider all evidence before reaching a determination; and (3) U.S. Supreme Court precedent does not support such a reading.<sup>72</sup>

Although the *Cyclobenzaprine* court accurately observes that failure to consider secondary considerations is a reversible error, there is more to the story. Lurking behind the concern of improper “burden-shifting” is the Federal Circuit’s internal struggle to define the evidentiary value of secondary considerations.

## II. SECONDARY CONSIDERATIONS IN THE WAKE OF *KSR*: CONFLICTING APPROACHES

### A. WEIGHING THE *GRAHAM* FACTORS POST-*KSR*

A careful examination of Federal Circuit cases following *KSR* through June 2012<sup>73</sup> reveals that, more often than not, secondary considerations were summarily dismissed as insufficient<sup>74</sup> or undercut through a stringent interpretation of the nexus requirement.<sup>75</sup> Nonetheless, the requirement to consider objective indicia remains intact. So, while secondary considerations must be considered

and occasionally enjoy lavish praise from the court,<sup>76</sup> they rarely, if ever, seem to persuade the court to go against a prima facie obviousness determination based on the first three *Graham* factors. In practice, courts tend to recite and rely on secondary considerations when finding patents nonobvious, but marginalize or disparage them when finding patents obvious and invalid.<sup>77</sup>

While the trend suggests secondary considerations are still “secondary” in probative value, there are exceptions.<sup>78</sup> In May 2012, the Federal Circuit decided *Mintz v. Dietz & Watson, Inc.*<sup>79</sup> The opinion included a lengthy exposition extolling the importance of secondary considerations in safeguarding against hindsight bias in after-the-fact inquiries—all en route to remanding to the district court.<sup>80</sup> Likening the obviousness inquiry to “walk[ing] a tightrope blindfolded,” the *Mintz* court describes secondary considerations as “powerful tools” that “help inoculate the obviousness analysis against hindsight,” and which “help [the court] turn back the clock and place the claims in the context that led to their invention.”<sup>81</sup> In its remand, the court ironically added: “In light of the following section . . . [finding no infringement], this court leaves to the district court to decide whether any further proceedings are necessary.”<sup>82</sup> The claim-dispositive finding of non-infringement did not deter the panel from taking advantage of the opportunity to make clear that objective indicia are highly probative of nonobviousness.

*In re Cyclobenzaprine*<sup>83</sup> also envisioned a more persuasive role for secondary considerations. The intellectual thrust of *Cyclobenzaprine*, however, is telling. The court painstakingly

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*Drilling, Inc. v. Maersk Contractors USA, Inc.*, 617 F.3d 1296, 1305 (Fed. Cir. 2010); *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1327 (Fed. Cir. 2008); *Eli Lilly & Co. v. Zenith Goldline Pharms., Inc.*, 471 F.3d 1369, 1380 (Fed. Cir. 2006); *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1311 (Fed. Cir. 2006); *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1325 (Fed. Cir. 2004); *WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1359 (Fed. Cir. 1999).

72. *In re Cyclobenzaprine*, 676 F.3d at 1077-79.

73. For a complete list of cases reviewed, see Appendix, available in the online version of this article at [www.ipbrief.net](http://www.ipbrief.net). See also Natalie A. Thomas, *Secondary Considerations in Nonobviousness Analysis: The Use of Objective Indicia Following KSR v. Teleflex*, 86 N.Y.U. L. REV. 2070 (2011) (examining effect of *KSR* on subsequent Federal Circuit decisions through early 2010 that involved secondary considerations).

74. See, e.g., *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1371 (Fed. Cir. 2011) (“A strong case of *prima facie* obviousness . . . cannot be overcome by a far weaker showing of objective indicia of nonobviousness.”); *Geo. M. Martin Co. v. Alliance Mach. Sys. Int’l LLC*, 618 F.3d 1294, 1306 (Fed. Cir. 2010) (concluding the objective evidence of nonobviousness would “fail to make a difference” in light of strong evidence of obviousness).

75. See, e.g., *Wm. Wrigley Jr. Co. v. Cadbury Adams USA LLC*, 683 F.3d 1356, 1362-65 (Fed. Cir. 2012).

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76. See, e.g., *Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1377-79 (Fed. Cir. 2012) (expounding at length the value of objective indicia as a safeguard against hind-sight bias).

77. See CHISUM, *supra* note 9.

78. See, e.g., *Mintz*, 679 F.3d 1372 (expounding at length the value of objective indicia as a safeguard against hind-sight bias); *In re Cyclobenzaprine*, 676 F.3d 1063, 1083-84 (Fed. Cir. 2012) (holding secondary considerations “support a nonobviousness finding”); *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*, 655 F.3d 1364, 1375-76 (Fed. Cir. 2011) (indicating secondary considerations are probative); *Rolls-Royce, PLC v. United Techs. Corp.*, 603 F.3d 1325, 1339-40 (Fed. Cir. 2010) (finding secondary considerations persuasive).

79. 679 F.3d 1372 (Fed. Cir. 2012).

80. *Id.* at 1378-80.

81. *Id.* at 1378-79.

82. *Id.* at 1380.

83. 676 F.3d 1063 (Fed. Cir. 2012). See discussion *supra* Part I.G.

reasserts the long-standing rules regarding the applicable burdens of proof, production, and persuasion, as well as the standard of proof.<sup>84</sup> While a passing reading suggests the court is concerned about lower courts' failures to consider objective indicia, a more careful analysis suggests the court is trying to correct inconsistent applications of the standards in the context of the nexus requirement. This is so because the nexus requirement has become the instrument of choice for judicial analyses that undermine the probative value of secondary considerations. While courts have (and continue to) summarily dismiss objective indicia as "insufficient" to rebut a "strong" prima facie obviousness case, more often they find the link between the proffered evidence of secondary considerations and the patent subject is either nonexistent, tenuous, or uncertain and, thus, evidence of the secondary considerations can be steeply discounted.

As the Federal Circuit works out the probative weight of objective indicia in the face of Supreme Court silence, the linchpin often lies in the nexus requirement. The contrasting approaches to the nexus requirement result in decidedly different appraisals of the probity of objective indicia. Thus, marked conflict in the Federal Circuit jurisprudence on the burdens of proof, persuasion, and production, alongside (at best) opaque distinctions between the various nexus tests, perpetuates contrasting appraisals of secondary considerations.

## B. THE NEXUS REQUIREMENT

Unlike the first three *Graham* factors, secondary considerations are circumstantial evidence and shed light on the inquiry through inferences that can be drawn from the underlying facts. Thus, commercial success (the most common secondary consideration) allows us to infer that the invention is nonobvious because, were it obvious, someone else would have invented it to capture the economic benefit. However, commentators have noted that commercial success may derive from several factors such as a aggressive marketing, ritzy advertising, dominant market position, etc.<sup>85</sup> From

a logical standpoint, four conditions are necessary for the inference to hold true: (1) the commercial success was due to the patented invention; (2) the inventor knew the likelihood of commercial success before reaching the invention; (3) other prospective inventors also had this information and sought to take advantage; and (4) the actual inventor was first-in-time to succeed by an appreciable time margin.<sup>86</sup>

Learned Hand likewise warned against incautiously relying on evidence of objective indicia.<sup>87</sup> The nexus requirement that the Federal Circuit has developed, however, involves an intricate dance wherein some of the oft-conflated burdens of production, persuasion, and proof switch back and forth between patentee and challenger.<sup>88</sup>

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805, 860 (1988).

86. *Id.* at 812 (citing Edmund W. Kitch, *Graham v. John Deere Co.: New Standards for Patents*, 1966 SUP. CT. REV. 293, 331-32, reprinted in 49 J. PAT. OFF. SOC'Y, 282-83 (1967)).

87. *Ruben Condenser Co. v. Aerovox Corp.*, 77 F.2d 266, 268 (2d Cir. 1935).

While it is always the safest course to test a putative invention by what went before and what came after, it is easy to be misled. Nothing is less reliable than uncritically to accept its welcome by the art, even though it displaced what went before. If the machine or composition appears shortly after some obstacle to its creation, technical or economic, has been removed, we should scrutinize its success jealously; if at about the same time others begin the same experiments in the same or nearby fields, or if these come to fruition soon after the patentee's, the same is true. Such a race does not indicate invention. We should ask how old was the need; for how long could known materials and processes have filled it; how long others had unsuccessfully tried for an answer. If these conditions are fulfilled, success is a reliable touchstone.

*Id.*

88. The "slipperiest" term of art—burden of proof—encompasses two separate concepts:

- (1) Burden of production (indicating which party must come forward with evidence at a given point);
- (2) Burden of persuasion (indicating which party loses if the evidence is balanced).

In addition, the concept of "standard of proof" specifies:

[The] degree of certainty by which the fact finder must be persuaded of a factual conclusion to find in favor of the party bearing the burden of persuasion. In other words, the term "standard of proof" specifies how difficult it will be for the party bearing the burden of persuasion to convince the jury of the facts in its favor.

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84. *In re Cyclobenzaprine*, 676 F.3d at 1075-80.

85. Robert P. Merges, *Commercial Success and Patent Standards: Economic Perspectives on Innovation*, 76 CAL. L. REV.

C. THE NEXUS TANGO: SHIFTING  
BURDENS OF PRODUCTION,  
PERSUASION, AND PROOF

In *Crocs, Inc. v. International Trade Commission*,<sup>89</sup> the Federal Circuit affirmed the long-standing rule that “[a] prima facie case of nexus is made when the patentee shows both that there is commercial success, and that the product that is commercially successful is the invention disclosed and claimed in the patent.”<sup>90</sup> A patentee therefore enjoys a presumption of nexus if the commercially successful product is the patented invention.<sup>91</sup> Of course, “[the patentee] carries the

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Microsoft Corp. v. i4i Ltd. P’ship, 131 S. Ct. 2238, 2245 & n.4 (2011) (internal citations omitted).

89. 598 F.3d 1294 (Fed. Cir. 2010).

90. *Id.* at 1310-11 (citing *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995)); see also *Ecolochem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1377 (Fed. Cir. 2000) (citing *J.T. Eaton & Co. v. Atl. Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997)).

91. Where the subject of the patent is only a component of the commercially successful product (i.e. not co-extensive with the product), “the patentee must show prima facie a legally sufficient relationship between that which is patented and that which is sold.” *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). Traditional proof of a prima facie nexus in the context of a patented subcomponent of a commercially successful product includes “evidence that the patented feature yields comparative advantages” or “evidence that the patentee and its competitors consistently used the patented feature while varying other features.” *CHISUM*, *supra* note 9, § 5.05. Here again, however, the law is opaque and reflects the conflict in the co-extensive context. See *Hearing Components, Inc. v. Shure Inc.*, 600 F.3d 1357, 1374-75 (Fed. Cir. 2010) (holding that substantial evidence supported a jury’s verdict of nonobviousness where patent owner showed the necessary nexus by evidence that “the licensing fee for a covered product was more than cut in half immediately upon the expiration of the patent.”); *Winner Int’l Royalty Corp. v. Wang*, 202 F.3d 1340, 1350-51 (Fed. Cir. 2000) (finding a prima facie nexus by relying on a survey that indicated “a statistically significant percentage of customers viewed the [patented subcomponent] as being of more value to them, and reported that the [component] was the very reason they purchased the device . . . and was the reason they were willing to pay more . . . than for one without it”). *But see Krippez v. Ford Motor Co.*, 750 F. Supp. 2d 938, 948 (N.D. Ill. 2010) (finding it “difficult to calculate the worth of a specific [component],” but concluding that the accused infringer’s inclusion of the component in the product, advertising of that specific feature, and subsequent commercial success of the product sufficed to show the required nexus, *rev’d on other grounds*, 667 F.3d 1261 (Fed. Cir. 2012), *reh’g denied* (Mar. 12, 2012); *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000) (presuming a nexus where the commercially successful merchandise “encompasses the claimed features” as well as unclaimed features). Interestingly, in this non-coextensive context, evidence of copying buttresses evidence of commercial success. See *Hughes Tool Co. v. Dresser Indus., Inc.*, 816 F.2d 1549, 1556 (Fed. Cir. 1987) (holding patented O-ring seal—a subcomponent of a commercially successful oil and gas well drilling bit—that was continuously copied by competitors, while other features were

burden of demonstrating that the ‘thing . . . that is commercially successful is the invention disclosed and claimed in the patent.’”<sup>92</sup>

Once the presumption is established, “the burden of coming forward with evidence in rebuttal shifts to the challenger.”<sup>93</sup> Thus, the challenger may rebut the presumption by producing evidence “attributing these secondary considerations to causes other than the claimed invention” sufficient to “make a convincing case that those [other factors] indeed were the likely cause of the success.”<sup>94</sup> The challenger may also attempt to prove the commercial success flows from *unclaimed* features or, alternatively, features that are readily available in prior art.<sup>95</sup> In the absence of such evidence, the presumption stands.<sup>96</sup>

If the challenger comes forward with evidence that suggests the commercial success derived not from the merits of the patented invention, but rather from other factors, then the court must consider all the evidence (including rebuttal evidence from the patentee) and determine if the challenger has met the “clear and convincing evidence” standard of proof in order to carry their

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not, gave “rise to an inference that there is a nexus between the patented feature and the commercial success”). *But see Media Techs. Licensing, LLC v. Upper Deck Co.*, 596 F.3d 1334, 1339 (Fed. Cir. 2010) (“Commercial success . . . even if unexpected, is not part of the ‘unexpected results’ inquiry. An unexpected result must arise from combining prior art elements; commercial success is a separate inquiry from unexpected results.”), *cert. denied*, 131 S. Ct. 305 (2010).

92. *J.T. Eaton*, 106 F.3d at 1571 (citing *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988)).

93. *Crocs, Inc.*, 598 F.3d at 1311 (citing *Demaco*, 851 F.2d 1387).

94. *Id.*; see also *Ecolochem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1378 (Fed. Cir. 2000).

95. *In re Huai-Hung Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) (“Where the offered secondary consideration actually results from something other than what is both claimed and *novel* in the claim, there is no nexus to the merits of the claimed invention.”); see also *Sjolund v. Musland*, 847 F.2d 1573, 1582 (Fed. Cir. 1988) (“[A]ll the evidence was to the effect that [the invention’s] commercial popularity was due to . . . a feature not claimed. Thus, the jury was not entitled to draw the inference that the success of [the device] was due to the merits of the claimed invention. Nor could the jury, from the bare evidence of units sold and gross receipts, draw the inference that the popularity of the [device] was due to the merits of the invention.”); *In re Vamco Mach. & Tool, Inc.*, 752 F.2d 1564, 1573, 1577 (Fed. Cir. 1985) (noting that, because success may be due entirely to improvements or modifications made by others, commercial success must flow from the functions and advantages disclosed or inherent in the patent specification to be relevant).

96. *Crocs, Inc.*, 598 F.3d at 1311.

burden of persuasion.<sup>97</sup> The *Cyclobenzaprine* court, pointing to the Supreme Court's recent decision in *Microsoft Corp. v. i4i Ltd. Partnership*,<sup>98</sup> clarified that “clear and convincing evidence”—meaning “every reasonable doubt should be resolved against [the challenger]”<sup>99</sup>—governs the entire validity dispute and the burden of persuasion never leaves the challenger.<sup>100</sup> In sum, the challenger bears “the heavy burden”<sup>101</sup> of proving beyond “every reasonable doubt” that the subject of the patent did not even contribute to the commercial success of the product.<sup>102</sup> If the challenger fails to win this uphill battle, the patentee may rely on evidence of commercial success, however probative, to support a finding of nonobviousness.

Further complicating the footwork of the nexus tango, patentees often elect to offer evidence of objective indicia including evidence that a nexus exists. After all, the patentees are seeking to *rebut* any possible prima facie case of obviousness. Additionally, trial courts often impose discovery obligations on patentees to be the first to produce such evidence. Moreover, under Federal Rule of Evidence 611(a),<sup>103</sup> patentees may also be required to present this evidence as part of their case in chief. Nonetheless, these realities do not alter who bears the burden of persuasion (the challenger), or the standard of proof (clear and convincing evidence).<sup>104</sup>

#### D. CONFLICT WITHIN THE FEDERAL

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97. *Microsoft Corp. v. i4i Ltd. P'ship*, 131 S. Ct. 2238, 2246 (2011) (citing *Radio Corp. of Am. v. Radio Eng'g Labs.*, 293 U.S. 1, 8 (1934)); see also *In re Cyclobenzaprine*, 676 F.3d 1063, 1078 (Fed. Cir. 2012) (citing *i4i*, 131 S. Ct. at 2242) (applying “clear and convincing evidence” standard of proof in the obviousness inquiry).

98. *i4i*, 131 S. Ct. at 2246.

99. *Id.* at 2247 (quoting *Mumm v. Jacob E. Decker & Sons*, 301 U.S. 168, 171 (1937)).

100. See *In re Cyclobenzaprine*, 676 F.3d at 1078 (Fed. Cir. 2012) (citing *i4i*, 131 S. Ct. at 2242) (applying “clear and convincing evidence” standard of proof in the obviousness inquiry).

101. *i4i*, 131 S. Ct. at 2246.

102. *Ecolochem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1378 (Fed. Cir. 2000) (“[The challenger] had the burden of disproving that the [subject of the patent] contributed to the success of the invention, and its own brief undermines its argument, by conceding the benefits of . . . [the subject of the patent].”).

103. Rule 611(a) affords wide discretion and encourages the court to “exercise reasonable control over the mode and order of . . . presenting evidence so as to: (1) make those procedures effective for determining the truth; [and] (2) avoid wasting time . . . .” FED. R. EVID. 611(a).

104. *In re Cyclobenzaprine*, 676 F.3d 1063, 1078 & n. 5 (Fed. Cir. 2012).

CIRCUIT OVER APPLYING THE  
STANDARD

Unfortunately, the Federal Circuit has not always been pellucid on burden shifting in the objective indicia nexus tango. Just months after the *Crocs* decision, another Federal Circuit panel in *Western Union Co. v. MoneyGram Payment Systems, Inc.*,<sup>105</sup> took a different tack: “[o]ur case law clearly requires that the patentee must establish a nexus between the evidence of commercial success and the patented invention.”<sup>106</sup> The *MoneyGram* court overturned the lower court’s JMOL in favor of the patentee (Western Union), which largely relied on objective indicia.<sup>107</sup> Despite conceding that “[the patentee] had been transferring billions of dollars” through its patented “formless money transfer systems,”<sup>108</sup> the *MoneyGram* court found no prima facie nexus but, rather, held that Western Union (the patentee) “failed to present any relevant evidence proving a nexus.”<sup>109</sup> The court seemed to place the burden of persuasion squarely on the patentee, but then found the evidence lacking. Ironically, the court conceded that Western Union introduced testimony from an employee “explaining how the [patented] system . . . enabled dramatic growth of Western Union’s business.”<sup>110</sup> But conspicuously absent was discussion of evidence submitted by the challenger to rebut a presumption of nexus, suggesting the court never applied the presumption.

The *MoneyGram* court cited *In re Huang*,<sup>111</sup> where the court affirmed a holding of obviousness by the Patent and Trademark Office (PTO). It is worth noting that the patent prosecution context is different from the litigation context; the former inquiry is about patentability, the latter about validity.<sup>112</sup> Moreover,

the prosecution-patentability context involves different shifting burdens.<sup>113</sup> Nonetheless, the *Huang* court noted that “[commercial] success is relevant in the obviousness context only if there is proof that the sales were a direct result of the unique characteristics of the claimed invention—as opposed to other economic and commercial factors unrelated to the quality of the patented subject matter.”<sup>114</sup> Once again, the court noted that “many units . . . sold” and, because the units were the subject of the patent, there was no issue with respect to being coextensive.<sup>115</sup> But the court found no prima facie nexus.<sup>116</sup> Rather, it required “some factual evidence that demonstrates the nexus between the sales and the claimed invention—for example, an affidavit from the purchaser explaining that the product was purchased due to the claimed features.”<sup>117</sup> This higher burden applied by the *Huang* court likewise animated the *MoneyGram* court, rightly or wrongly, to impose a higher burden on the patentee.

Another recent case, *Wm. Wrigley Jr. Co. v. Cadbury Adams USA LLC*,<sup>118</sup> illustrates the ongoing conflict. The *Wrigley* case involved a storied chewing gum maker’s patent for a “cooling system” (a combination of menthol with another chemical) that provides its chewing gums with an enhanced cooling sensation. Wrigley’s competitor, Cadbury, was concerned about losing market share after a series of internal reports examined Wrigley’s formula and found it superior. Cadbury, the reports revealed, decided to copy several aspects of the formula, including the superior cooling system. Examining the evidence of commercial success raised by Wrigley, the majority agreed that Wrigley had “not established a sufficient nexus . . . [b]ecause the evidence does not show that the success of Wrigley’s product was directly attributable to [the patented combination].”<sup>119</sup> The majority’s opinion is devoid of discussion about the presumption of nexus, a point the dissent criticizes.<sup>120</sup> The dissent also

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105. 626 F.3d 1361 (Fed. Cir. 2010).

106. *Id.* at 1372-73 (citing *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996); *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995)).

107. *Id.* at 1373-74.

108. *Id.* at 1372.

109. *Id.* at 1373.

110. *Id.*

111. 100 F.3d 135 (Fed. Cir. 1996).

112. The *MoneyGram* court seems to conflate these two contexts, but other panels have taken a similar approach. *See, e.g., Wm. Wrigley Jr. Co. v. Cadbury Adams USA LLC*, 683 F.2d 1356 (Fed. Cir. 2012) (discussed in depth *infra* Part II.E.); *Tyco Healthcare Grp. LP v. Mut. Pharm. Co., Inc.*, 642 F.3d 1370, 1372-73 (Fed. Cir. 2011); *Iron Grip Barbell Co., Inc. v. USA Sports, Inc.*,

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392 F.3d 1317, 1322 (Fed. Cir. 2004).

113. *In re Cyclobenzaprine*, 676 F.3d 1063, 1080 & n.7 (Fed. Cir. 2012).

114. *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996).

115. *See* discussion *supra* note 91.

116. *In re Huang*, 100 F.3d at 139-40.

117. *Id.* at 140.

118. 683 F.3d 1356 (Fed. Cir. 2012).

119. *Id.* at 1364.

120. *Id.* at 1369-70 (Newman, J., dissenting).

notes that internal Cadbury records indicated that “[Wrigley’s] cooling technology was positively correlated with increased overall liking and also with flavor and cooling intensity at [five] minutes and ten minutes”<sup>121</sup> and also identified the patented combination as “key drivers for liking.”<sup>122</sup> While the *Wrigley* opinion could be read as suggesting that commercial success must be due *only* to the patented invention, it seems, rather, the court sought unequivocal evidence showing the commercial success was *specifically and directly attributable* to the patented subject.<sup>123</sup> In other words, the evidence must demonstrate the patented component was a but-for cause of commercial success. Notwithstanding the “positive correlat[ion],”<sup>124</sup> the *Wrigley* majority interpreted the list of factors cited in the internal Cadbury reports as all being possible contributors to commercial success, but none (including the patented combination) as being a necessary condition.

The *Wrigley* majority also suggests the commercial success nexus is lacking because “the evidence does not show” that the commercial success was due to Wrigley’s patented combination, as opposed to another similar combination, which the majority deemed prior art.<sup>125</sup> To the extent the majority opinion suggests that showing the nexus requires showing that your product was successful *and* that it would not have been successful if you used the prior art technology, the majority could have cited (but did not) to *In re Huai-Hung Kao*:<sup>126</sup> “if it is not established that the [subject of the patent] . . . causes commercial success where the prior art [ ] would not, then it will be difficult to show

the required nexus.”<sup>127</sup> The *Wrigley* majority concluded that prior art disclosed the effect of combining menthol with another chemical similar to Wrigley’s patented combination.<sup>128</sup> This “prior art” was the subject of an earlier Cadbury patent. The majority therefore looked to Wrigley for evidence of unexpected results significantly above and beyond the known effect and for evidence that the unexpected results drove the commercial success.<sup>129</sup> Here again, however, the evidence pointed to a variety of factors (e.g., higher sweetener levels, gum base, filler levels, etc.), potentially only some of which may have driven commercial success.<sup>130</sup> In the eyes of the majority, Wrigley failed to prove that the unexpected difference between using Cadbury’s chemical and using their own was a necessary condition to the commercial success of Wrigley’s gums.

Moving through each nexus inquiry, the *Wrigley* majority unmistakably requires compelling evidence from the patentee, suggesting the majority shifted the burden of proof to the patentee<sup>131</sup> and seemingly applied the “clear and convincing evidence” standard of proof as well. Thus, much like the *MoneyGram* court, the *Wrigley* majority portrays the shifting burdens of proof vis-à-vis the commercial success nexus as an uncomplicated two-step (first the challenger, then the patentee), rather than an artful tango with oscillating burdens.

#### E. THE NEXUS TEST(S)?

The Federal Circuit has not always made clear distinctions between the nexus test for the various types of objective indicia.<sup>132</sup> Indeed, there is significant overlap. For example, in the context of a commercially successful product with a patented subcomponent (i.e., the non-coextensive context), evidence of consistent

121. *Id.* at 1369.

122. *Id.*

123. *Id.* at 1363-64 (majority opinion) (“Wrigley has not established a sufficient nexus . . . [where] Cadbury’s internal study of Wrigley’s product showed that it differed . . . in *several ways that could have contributed* to the commercial success of Wrigley’s gum. [Thus,] the evidence does not show that the success of Wrigley’s product was *directly attributable* to [the patented combination].”)

124. *Id.* at 1369 (Newman, J., dissenting).

125. *Id.* at 1363-64 (majority opinion).

126. 639 F.3d 1057 (Fed. Cir. 2011). Although *In re Huai-Hung Kao* is an appeal from the PTO obviousness determination (i.e. the patent prosecution or “patentability” context), the *Wrigley* majority seems to apply the precise principle. Moreover, the *Moneygram* court, among others, has pointed to patent-prosecution cases as illustrative of law in the litigation or “validity” context. See cases cited *supra* note 112.

127. *In re Huai-Hung Kao*, 639 F.3d at 1069.

128. *Wrigley*, 683 F.3d at 1362.

129. *Id.* at 1363. The overlap of unexpected results and commercial success is not unique. See discussion *infra* Part II.E.

130. *Wrigley*, 683 F.3d at 1363-64.

131. The dissent (Newman, J.) accuses the majority of improperly shifting the burden. See *id.* at 1367-68 (Newman, J., dissenting).

132. *But see* Media Techs. Licensing, LLC v. Upper Deck Co., 596 F.3d 1334, 1339 (Fed. Cir. 2010), *cert. denied*, 131 S. Ct. 305 (2010) (“Commercial success . . . even if unexpected, is not part of the ‘unexpected results’ inquiry. An unexpected result must arise from combining prior art elements; commercial success is a separate inquiry from unexpected results . . .”).

copying of the patented feature, while varying other features, gives rise to the inference that a nexus exists between the patented subcomponent and the commercially successful product.<sup>133</sup>

Thus, evidence of targeted copying may buttress evidence of commercial success. While untargeted copying (i.e., wholesale duplication) might not give credence to evidence of commercial success in the non-coextensive context, it is unclear whether it would be probative of evidence of a different secondary consideration—namely, copying. Here, again, *Wrigley* is illustrative of the distinction (or lack thereof) between the nexus tests.

Like commercial success, evidence of copying also requires evidence of a nexus.<sup>134</sup> Furthermore, “[n]ot every competing product that arguably falls within the scope of a patent is evidence of copying. Otherwise every infringement suit would automatically confirm the nonobviousness of the patent.”<sup>135</sup> The “factual determination as to what the exact reason for the copying was” is the heart of the copying nexus.<sup>136</sup> Furthermore, “copying requires the replication of a specific product . . . demonstrated either through internal documents, direct evidence . . . or access to, and substantial similarity to, the patented product (as opposed to the patent).”<sup>137</sup> In addition, evidence of failed attempts by the accused infringer to develop the patented invention (or an equivalent) will increase the weight given to copying as evidence of nonobviousness,<sup>138</sup> but “the patentee [need not] prove that the customer knew of and desired every attribute set out in the patent document.”<sup>139</sup> Finally, “the purpose of

considering copying as a secondary consideration in the context of obviousness is not to read the law of trade secrets into patent law.”<sup>140</sup> As a result, the extent of copying is relevant to the obviousness inquiry only to the extent it (1) reveals a substantially similar product, and (2) the reason for the copying was related to the merits of the claimed invention (as opposed to other reasons).

The *Wrigley* majority affirmed the district court’s summary judgment against Wrigley (the patentee) despite evidence, including a series of internal records, indicating blatant copying by Cadbury (the accused infringer).<sup>141</sup> Once again, the majority agreed with the district court that Wrigley “had failed to establish the requisite nexus between [the] copying and the merits of the claimed invention.”<sup>142</sup> In the majority’s view, because Cadbury “sought to reformulate its products to match Wrigley’s products, [including not just the patented cooling system, but also the sweeteners and their respective levels],” the evidence of copying suggested an industry with rampant wholesale copying, but did not infer the cooling system was nonobvious.<sup>143</sup>

The *Wrigley* majority does not seem to dispute that Cadbury sought to create a substantially similar product—the first prong of the copying nexus test. Rather, because Cadbury copied several elements of the Wrigley product, the majority suggests Cadbury’s reason for copying—the second prong of the copying nexus test—reflected the “accepted practices in the industry” and not necessarily a desire to duplicate the merits of the claimed invention.<sup>144</sup> The majority’s concern over erroneously inferring nonobviousness based on evidence of copying is not new. While the Federal Circuit has observed that evidence of “wholesale copying” combined with “repeated failures” “could be determinative on the issue of obviousness,”<sup>145</sup> as early as 1985, the Federal Circuit questioned the inferential power of evidence of copying<sup>146</sup> and more recently

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133. *Hughes Tool Co. v. Dresser Indus. Inc.*, 816 F.2d 1549, 1556 (Fed. Cir. 1987) (holding patented O-ring seal—a subcomponent of a commercially successful oil and gas well drilling bit—that was continuously copied by competitors, while other features were not, gave rise to an inference that “there is a nexus between the patented feature and the commercial success”). See generally discussion *supra* note 91.

134. *Ecolochem Inc. v. S. Cal. Edison Co.* 227 F.3d 1361, 1380 (Fed. Cir. 2000) (citing *In re GPAC*, 57 F.3d 1573, 1580 (Fed. Cir. 1995) (“[M]ore than the mere fact of copying by an accused infringer is needed to make that action significant to a determination of the obviousness issue.”)).

135. *Iron Grip Barbell Co. Inc. v. USA Sports Inc.*, 392 F.3d 1317, 1325 (Fed. Cir. 2004).

136. *Ecolochem*, 227 F.3d at 1380.

137. *Iron Grip*, 392 F.3d at 1325 (internal citations omitted).

138. *Dow Chem. Co. v. Am. Cyanamid Co.*, 816 F.2d 617, 622 (Fed. Cir. 1987). Thus, evidence of failure by others—a distinct secondary consideration of its own—may buttress evidence of copying.

139. *Diversitech Corp. v. Century Steps Inc.*, 850 F.2d 675,

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679 (Fed. Cir. 1988).

140. *Shuffle Master, Inc. v. MP Games LLC*, 553 F. Supp. 2d 1202, 1230 (D. Nev. 2008).

141. *Wm. Wrigley Jr. Co. v. Cadbury Adams USA LLC*, 683 F.3d 1356, 1364 (Fed. Cir. 2012).

142. *Id.* at 1363.

143. *Id.* at 1364.

144. *Id.*

145. *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1285 (Fed. Cir. 2000).

146. The *Wrigley* majority’s view seems very reflective of the

dubbed it “only equivocal evidence of non-obviousness.”<sup>147</sup> Like most objective indicia, the weight to be accorded lies in the strength of the nexus. Nonetheless, the majority seems to conflate the test of a commercial success nexus with that of a copying nexus (assuming, of course, there is a distinction).

While the Federal Circuit has weighed whether widespread copying of a patented subcomponent is evidence of a nexus between the patented feature and the commercial success,<sup>148</sup> it has not done so in the context of evidence of copying, perhaps because that proposition is logically untenable. When an industry copies a patented subcomponent (while varying other features), it gives rise to an inference that a nexus between the patent subject and evidence of commercial success exists.<sup>149</sup> But it does not follow that industry-wide copying of all or many of the features (i.e., not “varying other features”) of a product is direct evidence that the commercial

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concerns expressed in *Cable Electric*:

Rather than supporting a conclusion of obviousness, copying could have occurred out of a general lack of concern for patent property, in which case it weighs neither for nor against the nonobviousness of a specific patent. It may have occurred out of contempt for the specific patent in question, only arguably demonstrating obviousness, or for the ability or willingness of the patentee financially or otherwise to enforce the patent right, which would call for deeper inquiry. Even *widespread copying could weigh toward opposite conclusions, depending on the attitudes existing toward patent property and the accepted practices in the industry in question. It is simplistic to assert that copying per se should bolster the validity of a patent.*

*Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1028 (Fed. Cir. 1985) (emphasis added), *overruled en banc on other grounds* by *Midwest Indus., Inc. v. Karavan Trailers, Inc.*, 175 F.3d 1356 (Fed. Cir. 1999); *see also* *Vandenberg v. Dairy Equip. Co.*, 740 F.2d 1560, 1567 (Fed. Cir. 1984) (finding copying was an admission of mechanical superiority, but “not strong evidence of nonobviousness,” notwithstanding protracted failure to design a similar non-infringing device).

147. *Geo M. Martin Co. v. Alliance Mach. Sys. Int’l, LLC*, 618 F.3d 1294, 1305 (Fed. Cir. 2010) (citing *Ecolchem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1380 (Fed. Cir. 2000)).

148. *See Hughes Tool Co. v. Dresser Indus. Inc.*, 816 F.2d 1549, 1556 (Fed. Cir. 1987) (holding patented O-ring seal—a subcomponent of a commercially successful oil and gas well drilling bit—that was continuously copied by competitors, while other features were not, gave rise to an inference that “there is a nexus between the patented feature and the commercial success”). *See generally* discussion *supra* note 91.

149. *Hughes Tool*, 816 F.2d at 1556. *See generally* discussion *supra* note 91.

success is therefore totally unrelated to the patented feature (i.e., a commercial success nexus is lacking). Moreover, it does not follow that the reasons for copying—the second prong of the copying nexus test—did not include the merits of the claimed invention. In fact, no Federal Circuit panel has expressed the test for the copying nexus in this way—until *Wrigley*, that is. In this sense, *Wrigley* could be seen as breaking new ground or, depending on how you look at it, perpetuating a long-standing divide (or lack thereof) between the nexus tests.

The *Wrigley* majority’s lack of distinction between the nexus tests (e.g., for commercial success, copying, long-felt need, etc.) could be interpreted to mean the nexus test is functionally equivalent for all types of objective indicia with only minor variations, rather than a separate test for each objective indicia. If the nexus inquiry is but one test, the *Wrigley* majority’s demand for a more direct and convincing showing<sup>150</sup> to establish a prima facie copying nexus in a non-coextensive context may be apposite. On the other hand, even if there is but one unified nexus inquiry, the *Wrigley* majority’s position could be seen<sup>151</sup> as contravening Federal Circuit precedent<sup>152</sup> vis-à-vis the nexus requirement in the non-coextensive context.<sup>153</sup>

In sum, the contrasting approaches to the nexus requirement facilitate disparate appraisals of the probative value of objective indicia. Panels that apply the nexus presumption and hold

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150. *See Winner Int’l Royalty Corp. v. Wang*, 202 F.3d 1340, 1350-51 (Fed. Cir. 2000) (finding a “prima facie nexus” by relying on a survey that indicated “a statistically significant percentage of customers viewed the [patented subcomponent] as being of more value to them, and reported that the [component] was the very reason they purchased the device . . . and was the reason they were willing to pay more . . . than for one without it . . .”). *See generally* discussion *supra* note 91.

151. The dissent (Newman, J.) certainly accuses the majority of “depart[ing] from the routine correct law of obviousness . . . .” *Wm. Wrigley Jr. Co. v. Cadbury Adams USA LLC*, 683 F.3d 1356, 1367 (Fed. Cir. 2012) (Newman, J. dissenting).

152. *Krippelz v. Ford Motor Co.*, 750 F. Supp. 2d 938, 948 (N.D. Ill. 2010) (finding it “difficult to calculate the worth of a specific [component],” but concluding that the accused infringer’s inclusion of the component in the product, advertising of that specific feature, and subsequent commercial success of the product sufficed to show the required nexus), *rev’d on other grounds*, 667 F.3d 1261 (Fed. Cir. 2012), *reh’g denied* (Mar. 12, 2012); *see also* *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000) (presuming a nexus where the commercially successful merchandise “encompasses the claimed features” as well as unclaimed features). *See generally* discussion *supra* note 91.

153. *See generally* discussion *supra* note 91.

challengers to the standard of proof, paying close attention to which party bears what burden, can easily come to a different conclusion vis-à-vis secondary consideration than panels that do not pay as close attention. Thus, marked conflict in the Federal Circuit jurisprudence on the burdens of proof, persuasion, and production alongside opaque distinctions between the various nexus tests, perpetuates contrasting appraisals of secondary considerations.

### III. CONCLUSION

Although very recent cases hint at room for change, that clear pattern following *KSR* sees a rather “unpersuasive” role for objective indicia. Far from routinely dispositive, secondary considerations garner significant attention when the initial prima facie obviousness determination is weak, suggesting courts take a “tip the scales” approach to objective indicia. Moreover, even where patentees bring mountains of evidence of objective indicia, courts have employed a rigid interpretation of the nexus requirement to whittle down the evidence to a proverbial molehill. The TSM test, whether explicitly invoked (and “flexibly” applied) or not, continues to give shape to the judicial inquiry on nonobviousness by outlining the process as a prima facie obviousness determination (based on the primary considerations) requiring a rebuttal of secondary considerations. Given the current trends, it seems secondary considerations are still “secondary” in status in the wake of *KSR*.

The inferential probity of objective considerations is not unassailable, and the universally approved nexus requirement can be an important check. But divergent strains of conflicting case law undermine the bedrock principle of *stare decisis* and are the ilk of poor legal policy. While the Supreme Court’s decision in *i4i*<sup>154</sup> probably should have settled more questions about the proper burdens in the patent litigation context, it failed to unify the Federal Circuit’s approach in the context of secondary considerations and the nonobviousness inquiry. As the conflicting approaches to secondary considerations persist, the opportunity presents itself to clarify the legal standard vis-à-vis the nexus requirement. *Wrigley* is such an opportunity

because the case highlights the conflict over the rules governing the parties’ burdens and the distinctions (if any) between the nexus tests; both of which, in conjunction, obfuscate the nexus inquiry.<sup>155</sup> No matter whether the Supreme Court views the proper nexus test as a burden-switching tango or a basic two-step, resolving the inconsistency with some finality would fulfill a tremendously vital role of law from a public policy standpoint.

Given the persistent conflict, it seems the Federal Circuit bench is not of one mind on these questions, casting doubt on the usefulness of an en banc review. Moreover, *Wrigley* presents a swath of objective indicia, affording the Supreme Court the opportunity to finally give more instruction as to the weight accorded to secondary considerations and how that should factor into a nonobviousness analysis.<sup>156</sup> By taking that opportunity, the Court could also ameliorate the persisting influence of the TSM test, flexibly applied or not, which perpetuates the suspect notion of inherent analytical distinctions between primary and secondary considerations, as well as the procedurally expedient, but error-inducing structure of the inquiry.

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154. *Microsoft Corp. v. i4i Ltd.*, 131 S. Ct. 2238, 2245 (2011).

155. *See Wrigley*, 683 F.3d at 1356.

156. *Id.*