No. 08-964

IN THE

Supreme Court of the United States

BERNARD L. BILSKI and RAND A. WARSAW,

Petitioners,

v.

JOHN DOLL, Acting Under Secretary of Commerce for Intellectual Property and Acting Director, Patent and Trademark Office,

Respondent.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

BRIEF OF AMICUS CURIAE BOSTON PATENT LAW ASSOCIATION IN SUPPORT OF PETITIONERS

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INTEREST OF AMICUS CURIAE[1]

The Boston Patent Law Association (BPLA) is an intellectual property association that provides educational programs and a forum for the interchange of ideas and information concerning patent, trademark, copyright, and other intellectual property rights. The Association's members serve a broad range of parties who rely upon the patent system: independent inventors, businesses of all sizes, the investment banking and venture capital communities, universities, research hospitals and other non-profit institutions.

The BPLA desires a reliable patent system that fulfills its constitutional role of promoting the progress of the useful arts. It views the decision below as a threat to that role, because it injects instability into the system and quashes critical incentives for innovation, to the detriment of the American economy.

The BPLA takes no position on the eligibility of petitioners' claimed invention for a patent, but urges that this Court vacate the judgment below, and restore a proper rule of patent-eligibility against which petitioners' invention, and other method inventions, can be fairly measured.

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1. No counsel for a party authored this brief in whole or in part, and no such counsel or party made a monetary contribution intended to fund the preparation or submission of this brief. This brief was authored in its entirety by amicus and its counsel. No monetary contribution toward the preparation or submission of this brief was made by any person other than amicus, its members and its counsel. Petitioners and respondent have indicated their consent to the filing of this brief by filing letters with the Clerk of the Court.

SUMMARY OF THE ARGUMENT

The imposition of a machine-or-transformation test on method inventions ruptures the well-founded expectations of inventors, practitioners and investors as to the broad statutory eligibility for patent protection of "any new and useful process." No less significant, the test conflicts with this Court's precedent.

Congress enacted an inclusive test for patent eligibility, recognizing that paradigm-changing inventions come in unpredictable forms and often push existing frontiers. This Court has made similar observations.

As patents are essential for attracting investments in ideas, a narrow test will impede the commercialization of many inventions, especially in such critical areas of our information-based economy as computer software, business methods and medical diagnostics. The resulting harm will likely fall disproportionately on small businesses, discourage investment in them, and inhibit the introduction of useful products and services to the public.

Indeed, it is plain that many celebrated innovations of the past that truly reshaped our world would have been denied full patent protection under the machine-or-transformation test. Where the invention is embodied as a method or a process, an apparatus or system claim does not provide adequate protection. The danger is that method inventions of equal scientific and creative eminence, that may be claimed in pending and future applications, will be rejected for form rather than substance.

The Court should reject the Federal Circuit's machine-or-transformation test, declare that this Court's precedent requires only that a method claim define a new and useful invention (rather than an abstraction) to be patent-eligible subject matter, and remand for application of that rule to the claims at issue. Alternatively, if the Court believes that remand is unnecessary and that Bilski's claims define only a patent-ineligible mental process or fundamental idea—*e.g.*, an abstraction such as the concept of hedging risk, lacking adequate limitation to a specific application—it should strike those claims on that ground while still rejecting the inflexible test enunciated by the Federal Circuit.[2]

ARGUMENT

I. A Patent System that Protects Innovation in All Areas of Technology Preserves the Health of the American Economy.

As the United States has evolved from an agricultural to an industrial economy, and now to an information-based economy, innovation has become increasingly critical to its success.

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2. As discussed below, Sections 102, 103 and 112 of the Patent Act, when properly administered, provide sufficient safeguards against the granting or enforcement of unmeritorious patent claims. Section 101 was not intended to take their place. Thus, the distinction between the useful and the abstract has historically been applied sparingly, and this Court should continue to require that only over-reaching attempts to protect scientific principles and laws of nature, devoid of application to a particular use, be considered abstractions that are not patent-eligible.

Traditionally our patent system has protected innovation in industrial disciplines such as chemistry, mechanics and electronics. In recent decades, however, technological breakthroughs have come more and more in fields, such as software, medical diagnostics and finance, where invention is directed to a method[3] rather than a product or apparatus.

Our information-based economy is sustained primarily by small businesses, proven generators of technological innovation. According to the Small Business Administration, independent businesses having fewer than 500 employees "represent more than 99 percent of American companies, create 60 to 80 percent of net new jobs, employ half of the U.S. private work force, and generate half of the private gross domestic product."[4]

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3. The focus of the decision below was the patent-eligibility of inventions expressed as methods or processes. The drafter of a patent application frequently has available a range of claim types that can define the invention. However, some inventions cannot be adequately protected except by method claims. Such claims are uniquely important to protect broad ideas, where restricting them to particular implementations slights the creative contribution. Consider, for example, a method of communicating wirelessly by generating a radio wave at a selected frequency and varying some property of that wave in accordance with information to be transmitted. The true scope of the invention cannot be protected by defining the tubes, transistors and circuits for one, two or several embodiments of apparatus that can be employed, as there will always be another embodiment that can be conjured up to avoid infringement of apparatus claims. The inventive concept lies in the methodology, and method claims are needed to protect it.

4. U.S. Small Business Administration Office of Advocacy, The Office of Advocacy: The Voice for Small

(Cont'd)

Although large businesses obtain a majority of patents in this country, small businesses receive 13 to 14 times more patents per employee than their large counterparts.[5] The most telling statistic, perhaps, is that a patent from a small business is more than twice as likely to be found among the top one percent of most cited patents than is a patent from a large business. In other words, small businesses are far more likely than their larger counterparts to generate patents with the broadest and most technically important contributions:

> Small firm patents outperform large firm patents on a number of impact metrics including growth, citation impact, patent originality, and patent generality. These metrics have been used for decades to measure the innovativeness of firms, labs, and agencies. The metrics have been validated and shown to correlate with increases in sales,

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(Cont'd)

Business in Government (2006), *available at* http://www.sba.gov/ADVO/brochure06.pdf; *accord* Kathryn Kobe, The Small Business Share of GDP, 1998-2004 (2007), *available at* www.sba.gov/advo/research/rs299tot.pdf.

5. CHI Research, Inc., Small Serial Innovators: The Small Firm Contribution to Technical Change, Small Business Administration (2003), *available at* www.sba.gov/advo/research/rs225tot.pdf; *see also* Anthony Breitzman & Diana Hicks, An Analysis of Small Business Patents by Industry and Firm Size (2008), *available at* http://www.sba.gov/advo/research/rs335tot.pdf; Derek Leebaert, *How Small Businesses Contribute to U.S. Economic Expansion*, Econ. Persp., Jan. 2006, at 3, *available at http://www.america.gov/media/pdf/ejs/ 0106.pdf*.

> profits, stock prices, inventor awards, and other positive outcomes. *This suggests that the patents of small firms in general are likely to be more technologically important than those of large firms.*[6]

Small businesses, moreover, are far more likely than big businesses to rely on patents to protect their business methods.[7]

The patent is a small business's *sine qua non* for the commercialization and protection of new inventions. It is the indispensable magnet for investors.[8] The patent is also the only shield that a small business can use to ward off an often larger competitor who would otherwise copy its inventions.[9] Instead, because of the patent shield, the competitor is thereby itself compelled to innovate and compete fairly with the small business.

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6. Breitzman & Hicks, *supra*, at iii (emphasis added).

7. Small businesses own 19.4 % of all internet business method patents, but own only 10.7 % of all patents. John R. Allison & Emerson H. Tiller, *Internet Business Method Patents*, *in* Patents in the Knowledge-Based Economy 259 (Wesley M. Cohen & Stephen A. Merrill eds., 2003), *available at* http://www.nap.edu/catalog/10770.html.

8. *See*, *e.g.*, Ronald J. Mann, *The Role of Patents in Venture-Backed Software Start-Ups*, Acad. Advisory Council Bull., Apr. 2007, at 1, 5, *available at* http://www.pff.org/issues-pubs/ip/bulletins/bulletin2.1softwareventurepatents.pdf (explaining that patents play a "role of considerable importance" for investments in software-based start-up companies).

9. *See id.*

This distinctive attribute of patents has long been extolled:

> But if we never needed, or do not now need, patents as bait for inventors, we may still need them, in some instances, as a lure to investors. . . . [I]ndustrial history discloses that [giant] corporations, at times and to some extent, have been prodded into undertaking such research and into developing improvements because of the threat of competition from occasional "outsiders," armed with patent monopolies, and supplied with funds by a few private enterprisers. Thus, paradoxically, monopoly may evoke competition: The threat from patent monopolies in the hands of such "outsiders" may create a sort of competition—a David versus Goliath competition—which reduces the inertia of some huge industrial aggregations that might otherwise be sluggish.

Picard v. United Aircraft Corp., 128 F.2d 632, 642-43 (2d Cir. 1942) (Frank, J., concurring). This competitive tension between small businesses with patents and large businesses with market power engenders innovations that might otherwise have never come into being.

When patent rights are diminished, these systemic benefits are eroded. The lower court's new rule has already been widely cited to exclude from patent eligibility innovative methods that would previously have been protected. If patentees and investors doubt

that the patent laws protect the fruit of their efforts, which increasingly take the form of method inventions, then why labor or invest at all? If a giant corporation knows that patent rights are unavailable or offer only narrow protection, why respect the ownership claim of a smaller competitor? Robust patent protection of information-based technologies is essential to maintaining the innovation engine that is American small business.

II. The Machine-or-Transformation Test Calls the Patentability of Many Landmark Inventions Into Question.

The Federal Circuit has imposed an arbitrarily rigid test that conflicts with Congressional intent, this Court's precedent, and the settled expectations of the creative and investment communities. In re *Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008) (adopting the machine-or-transformation test). This test subverts scientific and economic incentives.

Innumerable inventions over the decades have been protected by method claims that are neither apparatus-tied nor transformation-reciting. Some were pivotal discoveries of far-reaching economic and social consequence. Had the Federal Circuit's "machine-or-transformation" requirement prevailed at the time, these inventions would likely not have earned patent protection and their proven capacity to beneficially shape our world would likely not have been realized.

Such effects may not have been intended by the Federal Circuit, but they are the ineluctable result of

the machine-or-transformation test.[10] The following are examples of issued but expired patents for momentous inventions that, experience and common sense dictate, should be eligible for patent protection.

Few would expect that foundational inventions in FM radio would fall outside the patent system. Yet, consider U.S. Patent No. 1,342,885, granted to Edwin Armstrong, the so-called father of FM radio, for inventing a process which was rapidly adopted in nearly all radio communication, and remains to this day a standard approach used in radios, TVs, cell phones and other wireless devices. It involves converting, or shifting, the received radio signal from its broadcast frequency to a lower, so-called "intermediate" frequency for processing. This dramatically reduces the cost of receivers, and simplifies receiver design. Claim 1 of the Armstrong patent reads:

> 1. The method of amplifying and receiving high frequency electrical oscillatory energy which comprises, combining the incoming energy with locally generated high frequency continuous oscillations of a frequency differing from said incoming energy by a third readily-amplifiable high frequency, converting the combined energy by suitable means to produce said readily-amplifiable high frequency oscillations, amplifying the third said high frequency oscillations, and detecting and indicating the resulting amplified oscillations.

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10. We note in Section III below some of the untoward results of decisions which rely on *Bilski*'s narrow view of patent eligibility.

Claim 1 does not recite a machine or apparatus and therefore does not meet the machine prong of the test. The claim involves a series of "combining," "amplifying" and "converting" steps. But these steps are performed on "energy" (*i.e.*, a signal), and therefore this claim would ill-qualify for protection under the transformation prong of the test because no "article" is transformed. *See In re Nuijten*, 500 F.3d 1346, 1356 (Fed. Cir. 2007) (holding that signals are transitory and intangible, and therefore do not qualify as "manufactures" or "articles"). Yet it is clear that the claim is directed to the operations of a radio receiver—an invention made by man—and, as such, would conventionally be understood to be eligible for patent protection.[11]

The vast field of information and signal processing extends, of course, beyond radio, to such diverse areas of endeavor as television, the Internet, computing, control systems, image processing and medical imaging, not to mention kitchen appliances, automobiles and countless other devices.

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11. Similarly, claim 2 of U.S. Patent No. 4,200,770 to Martin Hellman, et al., for "Cryptographic Apparatus and Method" and claim 5 of U.S. Patent No. 3,959,770, to Louis Schaefer for a "Method and Apparatus for Error Compensation in Multichannel Systems" would fail the present *Bilski* test. The Hellman patent covers the so-called public key encryption system, an invention of immense significance to the world of data communication, effectively making possible secure communications for modern e-commerce and other types of transactions. While a transformation of data arguably occurs, that data could as easily represent English language text as a voltage measured in a circuit. Hence, the transformation appears not to satisfy the *Bilski* criterion. The Schaefer patent is directed to a system for detecting and compensating for errors introduced by imperfect transmission channels. Without error-correction techniques, there could be little useful digital information transmission.

While the underlying "hardware" will embody some of the advances achieved in these areas, often it is a "method" where an invention resides: whether a way to send more information over a given bandwidth (*e.g.*, more channels on a TV cable or fiber); a more efficient means to store data; or a process for transmitting information securely. The invention in these instances is not in the machine but in the process or algorithm[12] followed by the machine. Obtaining patent coverage only for the hardware embodiments of inventions like these, but not for the process itself, often fails to protect the inventions adequately. To establish that certain parties are direct infringers, method claims are required.

A more modern example than FM radio comes from the world of wireless communications. Qualcomm's U.S. Patent No. 4,901,307, issued in 1990, discloses the CDMA (carrier-division, multiple access) technology that is at the heart of the dominant cell phone transmission standard in use in this country. While much of the claim set is devoted to apparatus claims, there is also a significant group of method claims, beginning at claim 33:

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12. This use of the term "algorithm" is distinct from its use in prior decisions of this Court, where it refers to *mathematical* algorithms. *See Gottschalk v. Benson*, 409 U.S. 63, 65 (1972). When referring to algorithms that are ineligible because they define pure, unapplied, mathematical procedures, we would suggest use of the adjective "mathematical" inasmuch as the general use of the term "algorithm" refers to a series of steps, not necessarily mathematical steps.

> 33. In a spread spectrum multiple access communication system . . . a method for providing high system user capacity . . . comprising the steps of:
>
> *providing* a plurality of system user addressable narrow band information *signals*;
>
> *converting* said plurality of system user addressable narrow band information *signals* into . . . wide band code-division-spread-spectrum communication signals;
>
> *transmitting* said plurality of code-division-spread-spectrum communication *signals* between system users;
>
> *receiving*, at each respective system user, . . . code-division-spread-spectrum communication *signals* . . . ;
>
> *providing* for each respective system user an increase in system user realized average *signal power* . . . ; and
>
> *converting*, at each respective system user, received address corresponding code-division-spread-spectrum communication signals into corresponding user addressable information *signals*.

(emphasis added).

Manifestly, this claim does not recite steps that are tied to a specific machine or apparatus. As in the FM radio patent, this claim requires the manipulation of signals. But signals are not articles, *see Nuijten*, 500 F.3d at 1356, and

the plain language of the machine-or-transformation test would place in doubt the patent-eligibility of this claim. Over the past decade, CDMA technology has been one of the backbones of the cellular communications industry. The fact that such technology could now be ineligible is a telling indictment of the *Bilski* test's incapacity to accommodate emerging innovations.

Inventions in the fields of medical diagnostics and treatments will also be thwarted by the machine-or-transformation requirement. One such example is U.S. Patent No. 4,459,286, titled "Coupled Haemophilus Influenzae Type B Vaccine." The inventor, Maurice Ralph Hilleman, is hailed as the most prolific vaccine scientist of the twentieth century by the National Inventors Hall of Fame. He was singled out for "saving more lives than any other scientist" and was inducted into that prestigious body in 2007 with a citation to the '286 patent.[13]

Claim 6 of that patent reads:

> 6. A method of treating mammalian species which comprises administering to said species an immunologically effective amount of a composition comprising a polysaccharide/protein conjugate which comprises H. influenza type b polysaccharide and a T-cell-stimulating N. meningitidis serotype outer membrane protein, said polysaccharide and protein being coupled through 6-aminocaproic acid, and a member of the group consisting of a

13. Invent.org, Hall of Fame, Maurice Ralph Hilleman, http://www.invent.org/hall_of_fame/339.html (last visited Aug. 4, 2009).

> pharmaceutically-acceptable carrier, an adjuvant, and a pharmaceutically-acceptable carrier and adjuvant.

This claim does not, within its bounds, recite the performance of any type of transformation. It simply requires "administering" a composition. There may be a transformation that results, in the animal subject receiving the treatment, but such transformation does not occur in the claimed method *per se*, as a result of which the "post-facto" activity does not fall within the Federal Circuit's test. Furthermore, there is no machine or apparatus in this claim. A polysaccharide/protein conjugate is a composition of matter or a manufacture, but it is not a machine or apparatus. Accordingly, this famed invention—and numerous others that have been claimed in analogous fashion—is also vulnerable to attack under the new test.[14]

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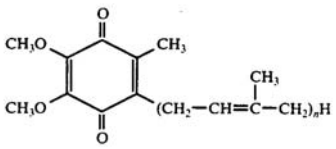
14. Also susceptible is claim 1 of U.S. Patent No. 4,068,003, which is typical of many patents that claim methods of treatment of disease using previously existing compounds (which may or may not be patented in their own right). Claim 1 recites:

> 1. A method for the treatment of myasthenia which comprises administering to a human suffering from myasthenia a therapeutically effective amount of Coenzyme Q having the formula:



wherein n is an integer from 7 to 10.

The impact of the machine-or-transformation test on drug development and *in vitro* diagnostics (*i.e.*, laboratory testing) can only be detrimental. Patent protection for new tests, new drugs and new uses of known drugs (whether or not already approved for a primary use) is needed in many instances to justify the outsize expenses and risk in the process of conducting clinical trials and securing FDA approval. There is no indication the Federal Circuit contemplated this consequence.

These examples show that numerous claims associated with epochal inventions would not have satisfied either prong of the machine-or-transformation test—thus demonstrating this Court's wisdom in not making such a test the measure of patent-eligibility and the Federal Circuit's clear error in doing so.

III. The Lower Court's Ruling Has Already Sown Doubt and Inconsistency As to What Methods are Patent Eligible.

The Patent and Trademark Office's own appellate tribunal, the Board of Patent Appeals and Interferences, cannot figure out how to construe the machine-or-transformation test. Contradictory and arbitrary decisions are issuing from that body already. In one case, the Board decided that a "computerized method performed by a data processor" was not eligible because the data processor was "nothing more than a general purpose computer," which does not qualify as "a *particular* machine or apparatus" under the Federal Circuit's test. *See Ex parte Gutta*, No. 2008-3000, 2009 WL 112393 (B.P.A.I. Jan. 15, 2009). By this reasoning,

computer-implemented inventions are singled out for exclusionary treatment, ignoring the central role of computers in modern technology.[15]

Surprisingly, the implications of the machine-or-transformation test extend to statutory classes of inventions other than methods, such as machines, articles of manufacture and chemical compositions, even though this Court has never applied either prong of the test to any other statutory class. For example, one panel of the Board, in another post-*Bilski* case, upheld a computer program product claim as patent-eligible because "[i]t has been the practice for a number of years that a [claim] of this nature be considered statutory at the USPTO as a product claim." *Ex parte Bo Li*, No. 2008-1213, 2008 WL 4828137, at *5 (B.P.A.I. Nov. 6, 2008). Yet another panel disallowed a computer-program product claim because the machine-or-transformation test purportedly necessitated the rejection. *See Ex parte Cornea-Hasegan*, No. 2008-4742, 2009 WL 86725 (B.P.A.I. Jan. 13, 2009).

In one of several post-*Bilski* federal court decisions, the Northern District of California likewise held that *Bilski* required the rejection of a method claim for

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15. The Federal Circuit had sought to leave for another day what a "particular" machine or apparatus is, and what constitutes a requisite "tie." In the meantime, however, Patent Examiners are making up the rules as they go. The same goes for some district court judges. *See*, *e.g.*, *DealerTrack*, *Inc. v. Huber*, No. 06-2335, 2009 WL 2020761, at *3-4 (C.D. Cal. July 7, 2009) (observing that the Federal Circuit did not apply its own test to the facts of *Bilski* and relying on Board of Patent Appeals and Interferences decisions to clarify the test).

verifying the validity of a credit card transaction over the Internet. *See CyberSource Corp. v. Retail Decisions, Inc.*, No. 04-03268, 2009 U.S. Dist. LEXIS 26056 (N.D. Cal., Mar. 27, 2009). The *CyberSource* judge observed that, absent intervention by this Court, "[t]he closing bell may be ringing for business method patents, and their patentees may find they have become bagholders." *Id.* at *34.

The Eastern District of Texas, by contrast, took a more cautious approach in *Versata Software, Inc. v. Sun Microsystems, Inc.*, No. 06-358, 2009 WL 1084412 (E.D. Tex. Mar. 31, 2009), and denied a motion for judgment on the pleadings, holding that its "interpretation of *Bilski* is not so broad [as defendant argued]." *Id.* at *1. The court explained that the Federal Circuit declined to adopt a broad exclusion over software or any other such category of subject matter beyond the exclusion of claims drawn to fundamental principles and noted that the process claim at issue is not, in any event, a software claim. *See id.*

These helter-skelter rulings disrupt settled expectations built upon the Federal Circuit's *en banc* opinion of fifteen years ago that a programmed general purpose computer is patent-eligible because it "in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software." In re *Alappat*, 33 F.3d 1526, 1545 (Fed. Cir. 1994) (*en banc*). The Federal Circuit's machine-or-transformation test now heaps doubt on years' worth of applications and patents on

computer-implemented inventions.[16] Decision-makers in the Patent and Trademark Office and even the district courts believe that *Bilski* overruled the *Alappat* decision, although the Federal Circuit said no such thing.

IV. This Court Has Recognized That Section 101 Broadly Defines Patent-Eligible Subject Matter, Which is Not Subject to a Narrow or Rigid Test.

Section 101 of the Patent Act defines the boundaries of patent eligibility as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

35 U.S.C. § 101. The language of the statute is broad, covering *any* new and useful process, as this Court has consistently recognized. The only so-called exception—that natural phenomena or abstract ideas are ineligible—is but a recognition that scientific principles are not "new and useful" when they "reveal[] a relationship that has always existed." *Parker v. Flook*,

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16. Prior to the *Bilski* decision, the USPTO had given clear guidance to its examiners as to the kinds of claims for computer-implemented inventions that it understood to pass muster under Section 101. *See* Examination Guidelines for Computer-Related Inventions, 61 Fed. Reg. 7478, 7481-86 (Feb. 28, 1996). Now, its Board is struggling to find a consistent reading of the Federal Circuit decision. That struggle exposes how problematic the decision is.

437 U.S. 584, 593 n.15 (1978). This Court has never replaced the broad text of Section 101 with a narrow or rigid test for eligibility, and it should not do so here.

Reviewing the many so-called "bad" patents issued by the Patent and Trademark Office, one may doubt whether broad eligibility best achieves the innovation-promoting goals of the patent system.[17] But Section 101 addresses only whether a process is eligible subject matter for a patent; the process must also satisfy other statutory requirements such as novelty and nonobviousness to be patentable. Particularly in light of this Court's reaffirmation of a broad and flexible test for obviousness in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), many previously-granted "bad" patents may be invalidated under Section 103.

The PTO's allowance rate has already plummeted without resort to a narrowing construction of Section 101. Furthermore, if Section 101 is problematic in its unambiguous breadth, this Court has recognized that Congress is the competent and constitutionally appropriate institution to address such policy concerns.

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17. Many criticisms of business method patents focus on perceived differences between them and other patents issued by the PTO, and harbor a fallacious assumption that business method patents are "weaker" or "less valuable" than other patents. In a statistical sampling, Internet business method patents cited a mean of 23 prior art references whereas all other patents cited only 15 prior art references. This statistic suggests that Internet business method patents are examined in view of more prior art references and therefore undergo more scrutiny than other patents. Thus, the casual claim that business methods make "bad" patents is unsupported by the numbers. *See* Allison & Tiller, *supra*, at 268.

A. The machine-or-transformation test is inconsistent with the text of the statute as interpreted by this Court.

Under Section 101, "any new and useful process" is eligible for patent protection, so long as it satisfies the additional statutory requirements of patentability such as novelty and nonobviousness. Recognizing the breadth of patent-eligible subject matter, this Court has explained that Congress "plainly contemplated that the patent laws would be given wide scope." *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980); *see also id.* at 309 (noting that "Congress intended statutory subject matter to 'include anything under the sun that is made by man'").

The text of the statute is clear, and nothing in Section 101 or this Court's precedent suggests that a process may be "new and useful" only if it "is tied to a particular machine or apparatus" or "transforms a particular article into a different state or thing." *Bilski*, 545 F.3d at 954. Indeed, the machine-or-transformation test is a narrowing departure from Section 101's permissive definition of patent-eligible subject matter, and the Federal Circuit has thereby turned the law upside down, making touchstones of eligibility into requirements.

Laws of nature, natural phenomena, and abstract ideas (*e.g.*, in the guise of mathematical algorithms) are not eligible under Section 101. *Diamond v. Diehr*, 450 U.S. 175, 185 (1981). They are excluded because scientific truths are not new and useful—they have "always existed," waiting to be discovered, and should be free for all to use. *Flook*, 437 U.S. at 593 n.15. This

Court has never held that Section 101 requires a narrower test than is prescribed by its text: If a process is new and useful, it is eligible subject matter. But if instead a process defines a law of nature, which has always existed but has only recently been discovered, it is not eligible. Only a useful *application* of a law of nature is eligible.

The court below mistook a *sufficient* condition for eligibility under Section 101 to be a *necessary* one. *Gottschalk v. Benson*, 409 U.S. 63 (1972), on which the Federal Circuit primarily relied, stands only for the familiar principle that "one may not patent an idea." *Id.* at 71 (explaining its holding "in a nutshell"). Yes, the *Benson* Court invoked the machine-or-transformation test, but it did so only to provide "the clue" to eligibility *in that case*, that is, a sufficient condition, not a necessary condition in all cases. *See id.* at 70.

The Court's more recent decision in *Diehr* resolves all doubt on this score. *Diehr* explains that *Benson* "stand[s] for no more than these long-established principles," that "laws of nature, natural phenomena, and abstract ideas" are unpatentable. *Diehr*, 450 U.S. at 185. Indeed, the *Benson* Court itself rejected the notion that the machine-or-transformation test is essential to the Section 101 inquiry. 409 U.S. at 71 (dismissing the argument that "a process patent must be either tied to a particular machine or apparatus or must operate to change articles or materials to a 'different state or thing'").

This Court's recent decisions in the patent domain confirm that the capacious criteria for patent eligibility

are not to be replaced with formulaic tests, even if doing so would, in the eyes of some, improve the patent system. Thus, the *KSR* Court rejected the Federal Circuit's "rigid approach" to obviousness under the teaching, suggestion, or motivation (TSM) test in favor of a "functional approach" that better fit the open-ended terms of the statute. *KSR*, 550 U.S. at 415. The TSM test and the machine-or-transformation test are the product of honorable efforts to understand and apply key terms in the Patent Act, but they share the flaw of instituting the type of "rigid and mandatory formulas" that this Court disfavors. *Id.* at 419. This Court has consistently disallowed tests that reduce broad or flexible patent doctrines to such rigid formulas. *See*, *e.g.*, *MedImmune*, *Inc. v. Genentech*, *Inc.*, 549 U.S. 118, 132 n.11 (2007) (rejecting the "reasonable apprehension of suit" test in favor a less rigid, traditional approach to declaratory judgment jurisdiction); *eBay Inc. v. MercExchange*, *LLC*, 547 U.S. 388 (2006) (rejecting an automatic grant of injunctive relief in favor of traditional equitable balancing).

Even the court below recognized that the rigid machine-or-transformation test might not adapt well to changing technology. *Bilski*, 545 F.3d at 956. But rather than retreat from its test, the Federal Circuit explained that "the Supreme Court may ultimately decide to alter or perhaps even set aside this test to accommodate emerging technologies." *Id.* In other words, the Federal Circuit not only recognizes that its rigid test is not required by the statutory language—since the test may admittedly be set aside—but envisions that this Court will "update" the statute's meaning to best effectuate the purposes of the Patent Act over time. Such updating

is not within the judicial role, and indeed, this Court has not strayed from its consistent interpretation of Section 101's text. The test for eligibility is broad, but also simple: Any new and useful process is patent-eligible subject matter.

B. If Section 101's broad provision of eligibility leads to bad patents, Congress, not the courts, should amend the statute.

Many in the media and academia have argued that the patent system is broken because the PTO has issued patents on how to dust a room, use a laser pointer to play with a cat, or the like. But for at least two reasons, this Court should not respond to the system's perceived shortcomings (which have little, if anything, to do with the subject-matter eligibility question) by imposing a rigid test for patent-eligible subject matter.

First, Section 101 addresses only eligibility, and the Patent Act includes several other requirements of patentability that can filter out "bad" patents. For example, inventions must be novel and nonobvious to warrant patent protection. *See* 35 U.S.C. §§ 102, 103; *see also Diehr*, 450 U.S. at 190 ("The question therefore of whether a particular invention is novel [or nonobvious] is 'wholly apart from whether the invention falls into a category of statutory subject matter.'"). This Court's recent decision in *KSR* elevates the nonobviousness requirement to a broader, more flexible form, and *KSR* may prove to be an invaluable tool for separating the wheat from the chaff. There is no need to "fix" the patent system by stretching the meaning of an unambiguous text to create an unnecessary filter.

Second, as this Court has recognized, it is Congress's role to remedy any deficiencies in Section 101.[18] *See Chakrabarty*, 447 U.S. at 317

> [W]e are without competence to entertain these arguments [concerning the hazards of a broad reading of Section 101]. . . . The choice we are urged to make is a matter of high policy for resolution within the legislative process after the kind of investigation, examination, and study that legislative bodies can provide and courts cannot.

Flook, 437 U.S. at 595 ("Difficult questions of policy concerning the kinds of [computer] programs that may be appropriate for patent protection and the form and duration of such protection can be answered by Congress on the basis of current empirical data not equally available to this tribunal."). Because the machine-or-transformation test departs from the unambiguous text of the statute and governing precedent, this Court should not follow the Federal Circuit's narrowing approach even if it harbors doubts about the expansiveness of Section 101 as written.

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18. The existence of "business method" patents has not escaped congressional notice. Indeed, in response to *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998), and its progeny, Congress amended the Patent Act to address questions relating to business method patents. *See, e.g.*, 35 U.S.C. § 273(a)(3). Despite the existence of such patents (and calls for their extinction) for over a decade, Congress has repeatedly—and, we submit, wisely—declined to revisit the scope of patentable subject matter.

C. The patent eligibility of petitioners' claims turns on whether the abstract concept of hedging is applied to a particular use.

Managing risk in commercial transactions appears to be "useful" in the abstract. To be deemed useful under Section 101, however, claims must not be directed to laws of nature, natural phenomena, or abstract ideas. Thus, one must weigh whether Bilski and Warsaw's claims run afoul of the prohibition on abstract ideas. The BPLA believes this is a close call, not because a risk management method that relies on hedging is automatically abstract under Section 101, but because the specific wording of petitioners' claims may warrant exclusion.

Claim 1 is limited to hedging risk in commodity consumption transactions only in its preamble. The body of the claim does not refer to consumption risk. A preamble term not referenced in the body of the claim typically is not considered limiting. *See*, *e.g.*, *Schumer v. Lab. Computer Sys.*, *Inc.*, 308 F.3d 1304, 1310 (Fed. Cir. 2002). The claims at issue are therefore arguably directed to an abstract idea divorced from any particular application. If so, such claims do not define statutory subject matter under this Court's precedent, but are a generic statement of the concept of hedging. *See Benson*, 409 U.S. at 67 ("Phenomena of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.").

The distinction between ineligible abstract ideas and patent-eligible processes depends on *application*. *See id.* (explaining that eligibility "must come from the

application . . . to a new and useful end."). An abstract idea must be applied to a particular use to be patentable, and it is the application, not the idea itself, that may be protected. By contrast, where an applicant seeks to patent the idea itself, he thereby purports to monopolize the concept, unconstrained by a particular application to a new and useful end. Claims that depend on human judgment for their application, or claims directed to an idea that cannot be separated in principle from the steps necessary to implement it, are probable casualties of the bar on patenting abstract ideas.

The claims at issue are susceptible of varied readings and, without the written description and drawings (which are not public information), one could fairly conclude that they define nothing more than the general idea of hedging investments by balancing risk positions. The claims lack instruction as to how to identify participants with a "counter-risk position" or how to "initiat[e] a series of transactions" to balance risk. *See Bilski*, 545 F.3d at 949.

As written (and notwithstanding any concrete embodiments that may have been disclosed and that might have supported narrow, non-preemptive claims), the claimed steps are not concrete steps for a particular application; they require human judgment. They are even more abstract than the algorithm for calculating alarm limits in *Flook*, which was at least directed to the narrower domain of signaling inefficiency or danger in the operation of a catalytic converter. *See Flook*, 437 U.S. at 585.

Because the steps in Bilski and Warsaw's claims could describe any hedging process, they may fairly be seen as attempting to preempt the very concept of hedging. The preamble's reference to the hedging of commodity consumption risk appears to be immaterial to an assessment of what is being claimed.

On the other hand, a specific method for hedging risk, according to a defined process that does not require the exercise of human judgment, could very well be patent eligible, whether or not that method depends on computers or other apparatus. As long as a fundamental principle is not thereby preempted, there is no reason that the invention cannot qualify as a "new and useful process" under Section 101. The eligibility of the hedging method for a patent turns, in the end, on the details of the application's disclosure or the prosecution history, and cannot be determined in a vacuum. The BPLA urges the Court to vacate the lower court's decision and remand for further consideration of Bilski and Warsaw's process under a broad test for subject matter eligibility.

CONCLUSION

For the foregoing reasons, the Court should reject the lower court's machine-or-transformation test and reaffirm that courts must weigh relevant facts to determine if a method claim defines an eligible invention or an ineligible abstraction.

Respectfully submitted,

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