No. 08-964

IN THE

Supreme Court of the United States

BERNARD L. BILSKI AND RAND A. WARSAW,
Petitioners,

v.

JOHN J. DOLL, ACTING UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND ACTING DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE,
Respondent.

On Writ of Certiorari to the United States Court of Appeals for the Federal Circuit

BRIEF OF *AMICUS CURIAE* LEGAL ONRAMP IN SUPPORT OF NEITHER PARTY

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INTEREST OF *AMICUS CURIAE*

Legal OnRamp (LOR) is a law-centered social networking website.[1] LOR was founded in 2007 by the law firm Orrick, Herrington & Sutcliffe, Mark Chandler, General Counsel of Cisco Systems, and attorney Paul Lippe, currently Legal OnRamp's CEO. LOR's goal is to enable attorneys to connect and share legal knowledge on a virtual, worldwide basis, whether they are in-house counsel or private practitioners. LOR's membership includes more than 9,300 individual attorneys, more than 4,300 of whom practice as in-house attorneys for businesses. The members represent all types of legal practice, from the largest companies, including several leading U.S. banks and major corporations, to the smallest law firms.

LOR's primary function is to keep its private practice and in-house users connected daily so that the two groups can share legal information of interest to both. As such, LOR uses many features common to other social networking sites, including message boards, "walls" for posting messages, closed group functions, and open forums for discussion and document sharing. The site also includes a marketplace where in-house counsel can receive project-specific bids for legal work from firms.

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[1] Pursuant to Supreme Court Rule 37.6, *amicus* Legal OnRamp affirms that no counsel for a party authored this brief in whole or in part, no counsel or party made a monetary contribution intended to fund the preparation or submission of this brief, and no person other than *amicus*, its members, or its counsel made a monetary contribution to the preparation or submission of this brief. Letters reflecting counsel for the petitioner's and counsel for the respondent's blanket consent to the filing of *amicus* briefs have been filed with the Clerk's office.

Some of the most active areas of LOR are its forums and groups. There, members may participate by asking and answering questions, offering advice to others, and discussing topics of interest to them. Because of the high level of engagement in the LOR community, there are often high quality practical and theoretical legal discussions occurring in its forums. Many of these discussions involve topics important to the business interests of LOR's corporate members.

The patentability of business methods is a significant issue for LOR's corporate members. Many of these members practice in the fields of software, financial services, telecommunications, information technology, and more. In each field, the participating corporate members have concerns regarding the appropriate coverage of patent claims and the breadth of patentable subject matter. Many of LOR's members would be profoundly affected by a ruling affirming the reasoning of the Court of Appeals for the Federal Circuit, or by a ruling in favor of the patentability of claims to purely abstract business methods. Accordingly, LOR seeks affirmation of the judgment below, but on different grounds. LOR's members have an interest in this case because appropriate guidance from the Court will provide them with increased certainty regarding the patentability of their future innovations and the conduct of their businesses.

STATEMENT OF CASE

The United States Patent and Trademark Office rejected the claims of Petitioners' U.S. Patent Application Serial No. 08/833,892 as not directed to patent-eligible subject matter under 35 U.S.C. § 101. The Board of Patent Appeals and Interferences sustained

the rejection.[2] On appeal to the Court of Appeals for the Federal Circuit Petitioners argued that the examiner erroneously rejected the claims and that the Board erred in upholding that rejection. The Federal Circuit sitting *en banc* affirmed the decision of the Board, concluding that Petitioners' claims are not directed to patent-eligible subject matter, and in doing so, sought to clarify the standards applicable in determining whether a claimed method constitutes a statutory "process" under § 101.

Claim 1 of Petitioners' patent application, which is considered to be representative of Petitioners' patent claims for the purpose of the issues addressed in this brief, reads as follows:

A method for managing the consumption risk costs of a commodity sold by a commodity provider at a fixed price comprising the steps of:

> (a) initiating a series of transactions between said commodity provider and consumers of said commodity wherein said consumers purchase said commodity at a fixed rate based upon historical averages, said fixed rate corresponding to a risk position of said consumer;
>
> (b) identifying market participants for said commodity having a counter-risk position to said consumers; and
>
> (c) initiating a series of transactions between said commodity provider and said market participants at a second fixed rate such that said series of market participant transactions

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[2] *Ex parte Bilski*, No. 2002-2257, 2006 Pat. App. LEXIS 51, 2006 WL 5738364 (B.P.A.I. Sept. 26, 2006).

> balances the risk position of said series of consumer transactions.

For the purposes of this brief, Petitioners' claim 1 is also considered to be representative of a "pure business method" patent claim. As used herein the term "pure business method" means a way of conducting a commercial activity that can be readily implemented without the use of a computer or other machine and does not involve any transformation of anything from one state to another. Further, a "pure business method patent" is directed to an abstract idea with no particular limitation on how to implement the invention.

The Court granted certiorari on the following two questions:

> 1. Whether the Federal Circuit erred by holding that a "process" must be tied to a particular machine or apparatus, or transform a particular article into a different state or thing ("machine-or-transformation" test), to be eligible for patenting under 35 U.S.C. § 101, despite this Court's precedent declining to limit the broad statutory grant of patent eligibility for "any" new and useful process beyond excluding patents for "laws of nature, physical phenomena, and abstract ideas."
>
> 2. Whether the Federal Circuit's "machine-or-transformation" test for patent eligibility, which effectively forecloses meaningful patent protection to many business methods, contradicts the clear Congressional intent that patents protect "method[s] of doing or conducting business." 35 U.S.C. § 273.

SUMMARY OF ARGUMENT

This brief addresses Question 1. While the Federal Circuit correctly held that Petitioners' claim was not patent-eligible subject matter, its rationale was flawed and has unduly limited the scope of legitimate patent-eligible processes under § 101. Pure business methods, including Petitioners' patent claims, are not patent-eligible subject matter under Art I, § 8, Cl. 8 of the Constitution. There is significant evidence that the granting of pure business method patents does not further the constitutionally mandated purpose of patents, namely, to encourage the progress of the useful arts. Unlike traditional patents on technological advances, the patenting of pure business methods is a serious obstacle to innovation because it unduly impedes competition.

The Federal Circuit erred in promulgating the machine-or-transformation test as the exclusive test for determining the patent eligibility of process patent claims. Instead, the Court should reaffirm the flexible two-part inquiry set forth in *Diamond v. Diehr*.[3] Not only does the *Diehr* test avoid the prejudice to legitimate business and innovation inherent in an unduly rigid machine-or-transformation test, but it provides an effective screen against attempts to patent a pure business method, such as the method that Petitioners seek to patent, which impedes competition without promoting technological innovation. Petitioners' patent claim pre-empts an abstract idea, thus failing the first prong of the *Diehr* test. At most, the application of the abstract ideas in Petitioners' patent claim, hedging risk in commodities

[3] *Diamond v. Diehr*, 450 U.S. 175 (1981).

trading, is an insignificant addition to an abstract idea, which fails the second prong of the *Diehr* test.

ARGUMENT

I. PURE BUSINESS METHODS ARE NOT PATENTABLE SUBJECT MATTER

A. The Patenting of Pure Business Methods Does Not Promote "Progress" Within The Meaning Of Art I, § 8, Cl. 8.

The Constitution ultimately governs the issue of patent-eligible subject matter.[4] The power to issue patents, conferred upon the Congress by Art I, § 8, Cl. 8, of the Constitution, is qualified by the stated purpose that the patent should "promote the progress of science and useful arts".[5] The Patent Clause reflects a balance between the need to encourage innovation and the avoidance of monopolies which stifle competition without any concomitant advance in the "Progress of Science and useful Arts."[6] "From their inception, the federal patent laws have embodied a careful balance between the need to promote innovation and the recognition that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy."[7] Any consideration of the patent-eligibility

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[4] *See Shultz v. Moore*, 419 U.S. 930, 931 (1974) (Douglas, J., dissenting) ("[T]he standard of patentability is at root a constitutional standard. In determining patent validity under the statute, a court simultaneously holds the statute true to its constitutional source.").

[5] *Great Atlantic & Pacific Tea Co. v. Supermarket Corp.*, 340 U.S. 147, 154 (1950) (Douglas and Black, JJ., concurring).

[6] *Bonito Boats v. Thunder Craft Boats*, 489 U.S. 141, 146 (1989).

[7] *Id.*, at 146-147.

of pure business methods must, therefore, include an evaluation of whether the granting of patents on pure business methods suppresses competition without attendant progress in the useful arts.

Following the Federal Circuit's repudiation of the so-called "business method exception" in *State Street Bank & Trust Co. v. Signature Fin. Group Inc.*,[8] it became generally accepted that pure business methods were patentable, although the actual invention at issue in *State Street* was not a pure business method, but, rather a data processing system for implementing an investments structure. Significantly, before the Federal Circuit's decision in *State Street* there appears to have been no widespread demand for patent protection for pure business methods.[9] The availability of other forms of legal protection for new ways of conducting commerce, such as trade secret protection and copyright protection in appropriate circumstances, along with the commercial advantage enjoyed by the first to adopt a new way of transacting business seem to have been regarded as adequate incentives to innovate. For example, in *Kewanee v. Bicron*[10] the Court discussed the interplay between patent and trade secret protection and suggested that trade secret protection under state law provides sufficient incentives to innovate in the field of business methods because "keeping such items secret encourages businesses to initiate new

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[8] 149 F.3d 1368 (Fed. Cir. 1998).

[9] Indeed, it appears that it has been over 120 years since this Court was asked to consider whether business methods were patentable, in *Munson v. City of New York*, 124 U.S. 601, 604-05 (1888), and there, the Court opted to decide the case on different grounds and not reach the patent eligibility issue.

[10] 416 U.S. 470 (1974).

and individualized plans of operation, and constructive competition results".[11]

After *State Street*, the patenting of pure business methods, as well as the patenting of computer-implemented business methods, became common and began to cause concern, particularly among businesses engaged in commerce over the Internet or in developing computer technology. These concerns were expressed in hearings before the Federal Trade Commission (FTC) and before Congress. In a particularly prescient forewarning of some of the current misgivings regarding the patenting of pure business methods, the Court long ago observed that "an indiscriminate creation of exclusive privileges" tends to obstruct innovation rather than stimulate it and may create "a class of speculative schemers who make it their business to watch the advancing wave of improvement, and gather its foam in the form of patented monopolies, which enable them to lay a heavy tax upon the industry of the country, without contributing anything to the real advancement of the arts."[12]

The FTC considered the relationship between innovation and patents in an October 2003 report entitled "To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy".[13] The report noted that defenders of business method

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[11] *Id.*, at 483.

[12] *Atlantic Works v. Brady*, 107 U.S. 192, 200 (1883).

[13] The report is *available at* http://www.ftc.gov/os/2003/10/innovationrpt.pdf. To examine the balance of competition and patent law and policy, the FTC and the DOJ held hearings from February through November 2002 involving over 300 panelists including representatives from large and small businesses.

patents urged that "innovation should be presumed unless empirical evidence to the contrary exists," but "critics argued that business method patents do not foster incentives to innovate, because business methods traditionally evolve in response to competition and internal business needs, without regard to legal rights to exclusivity".[14] The FTC made no specific recommendation for judicial or legislative action on business method patents, but counseled that decision-makers should ask whether granting patents on certain subject matter will promote the constitutional objective of progress "or instead will hinder competition that can effectively spur innovation".[15]

The FTC noted that "empirical study has shown that in some industries, firms often innovate to exploit first-mover advantages, learning-curve advantages, and other advantages, not to gain patent protection".[16] For instance, one early study showed that in only two of the twelve surveyed industries—pharmaceuticals and chemicals—did the firms believe patents to be essential for developing or introducing thirty percent or more of the inventions.[17] The FTC noted that a later study found that lead time, learning curve advantages, complementary sales or service efforts, and secrecy were all more effective means of protecting the competitive advantages of

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[14] *Id.*, Ch. 4, at 43.

[15] *Id.*, Executive Summary, at 15; Ch. 4, at 43.

[16] *Id.*, Ch. 2, at 11.

[17] *See* Edwin Mansfield, *Patents and Innovation: An Empirical Study*, 32 MGMT. SCIENCE 173 (1986).

new processes than patents were.[18] This study analyzed survey responses from 650 R&D managers representing 130 lines of business. The most recent study cited by the FTC confirmed the earlier findings; it found that patents trailed secrecy, lead-time, investments in complementary manufacturing capabilities, and investments in complementary sales and services as businesses' preferred methods of protecting commercially valuable innovations.[19] "[P]atents are unambiguously the least central of the major appropriability mechanisms overall," the study concluded.[20]

Most of the testimony regarding business method patents at Congressional hearings has focused on the effectiveness of the examination process for business method patent applications, in particular the difficulties caused by the relative dearth of published prior art for business methods which has permitted the issuance of patents on methods of doing business that some believe to be plainly obvious and lacking in novelty. However, some members of Congress and some business representatives who have testified at these hearings have addressed the more fundamental question of whether the granting of patents on new ways of transacting business promotes progress within the meaning of Art. I, § 8, Cl. 8.

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[18] *See* Richard C. Levin *et al*., *Appropriating the Returns from Industrial R&D*, *in* BROOKINGS PAPERS ON ECONOMIC ACTIVITY 783 (1987).

[19] *See* W. M. Cohen *et al*., *Protecting Their Intellectual Assets: Appropriability Conditions And Why U.S. Manufacturing Firms Patent (Or Not)* (National Bureau of Econ. Research Working Paper No. 7552, 2000), *at* http://papersdev.nber.org/papers/w7552.

[20] *Id*., at 9 (discussing product innovations); Figures 1 and 2 (reporting similar results for product and process innovations).

For example, in a hearing before the Subcommittee on Courts, the Internet and Intellectual Property of the House Committee on the Judiciary on April 4, 2001[21], Representative Berman of California expressed his concern about the "propriety of patenting methods for doing business" and asked whether "an abstract idea for conducting or organizing business operations" should receive patent protection.[22] Andrew B. Steinberg, who was then Executive Vice President and General Counsel of Travelocity.com, a large e-commerce retailer providing on-line travel services, testified that for Travelocity "business method patents have been neither a prerequisite to nor even a catalyst for innovation" and expressed his agreement with the position taken by the United Kingdom Patent Office that new business methods should not be patent-eligible because "the advantages of stealing a march on competitors, albeit temporarily, are incentive enough to seek to develop them".[23]

The disconnect between the constitutionally-mandated purpose of patents—to encourage innovation—and the granting of patents on pure business methods is nowhere more evident than in the case of patents on tax strategies.[24] It seems obvious that the desire to pay as little tax as legally possible is the true incentive for tax advisors to

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[21] The hearing transcript is *available at* http://commdocs.house.gov/committees/judiciary/hju72299.000/hju72299_0f.htm

[22] *Id.*, at 13.

[23] *Id.*, at 68, 63.

[24] There have been numerous bills before Congress seeking to prohibit tax patents. *See*, e.g., H.R. 1908, which passed the House of Representative in September 2007, Senate Bill S. 2369 introduced in November 2007, and §303 of the Stop Tax Haven Abuse Act (H.R., S. 506) introduced in March 2009.

design new strategies to minimize taxes. However, tax advisors now have to conduct patent searches before giving tax advice lest they be found liable for inducing or contributing to patent infringement when they advise their clients on how to use the tax laws to their advantage.

Accordingly, there is significant evidence that the granting of pure business method patents is not necessary to foster innovation in methods of transacting business; it is the first-mover advantage and other competitive advantages that provide the real incentive to innovate. Unlike traditional patents on technological advances, the patenting of pure business methods is, rather, a serious obstacle to innovation because it impedes the competition that is the driving force behind business method innovation. The granting of a patent monopoly on commercial ideas cordons off entire areas of commerce, as well as human thought and speech about new ways of conducting commercial transactions, as private property, foreclosing the competition that fosters true patentable innovations. An obvious example is that the granting of a patent purely on an abstract idea to carry out a commercial activity prevents the development of innovative technology to automate that activity.

It will no doubt be argued by some *amici* that a finding that pure business methods constitute patentable subject matter is mandated by the fact that the viability of some businesses is now heavily dependent on the exclusivity and licensing potential provided by a portfolio of pure business method patents. However, this argument ignores the fact that the constitutional basis for patents is the progress of the useful arts, not the protection of

intellectual property for its own sake or the protection of businesses or their sources of profit and capital funding.

For the above-mentioned reasons pure business methods are not patent-eligible subject matter under the Constitution.

II. THE MACHINE-OR-TRANSFORMATION TEST IS NOT THE APPROPRIATE LEGAL TEST FOR PATENT-ELIGIBLE PROCESSES UNDER § 101

A. The Machine-or-Transformation Test Introduces Uncertainty and Disrupts The Legitimate Settled Expectations of U.S. Patentees

Under the Federal Circuit's machine-or-transformation test articulated in *In re Bilski*[25], a claimed process may be considered "patent-eligible under § 101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing."[26] We support the result obtained by the application of this test to Petitioner's pure business method patent claim, but in adopting this particular test as the basis for its rejection of Petitioner's claim, the Federal Circuit has unduly limited the scope of legitimate patent-eligible processes under § 101. The test oversteps this Court's precedent, usurps the role of Congress in rewriting the definition of "process" in the Patent Act, provides no practical guidance regarding what constitutes an eligible machine or transformation and

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[25] *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (*en banc*).

[26] *Id.*, at 954.

unduly disrupts existing well-founded patent property rights.

This Court has repeatedly recognized that a fundamental principle or abstract idea, by itself, is not eligible for patent protection[27], but has not historically applied a rigid test in making the determination. The machine-or-transformation test eliminates not just pure business methods but also other processes that were previously considered to be patent-eligible under the Patent Act. The legislative intent of the Patent Act has been interpreted by this Court to include a wide scope of patentable inventions. "Congress plainly contemplated that the patent laws would be given wide scope."[28] Section 101 of the Patent Act lists processes, machines, manufactures, and compositions of matter as the four general classes of patent-eligible subject matter.

Section 101 does not distinguish certain types of processes that are patent-eligible from other types of processes that are not patent-eligible. The term "process" as broadly defined by 35 U.S.C. § 100(b), means "process, art, or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material."[29] Discrepancies between the broad scope of processes as defined by

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[27] "[A] principle is not patentable. A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right." *Le Roy v. Tatham*, 55 U.S. 156, 175 (1853).

[28] *Diamond v. Chakrabarty*, 447 U.S. 303, 308-309 (1980).

[29] The plain meaning of § 100(b) indicates, for example, that a new method of use claim for a known composition of matter is eligible for patent protection under the Patent Act – such a method of use would not previously have required either a machine or any transformation.

the Patent Act and the restrictive machine-or-transformation test are not reconciled by the Federal Circuit's reasoning. The machine-or-transformation test is a partial abrogation or re-writing of what constitutes a "process" under §§ 100 and 101 of the Patent Act. Consequently, the *Bilski* test contravenes the plain language and legislative intent of the Patent Act.

The Federal Circuit's decision does not provide guidance as to what types of machines or transformations are sufficient to render processes eligible for patent protection. Even though the Federal Circuit concedes that "[the] application of a . . . mathematical formula . . . may well be deserving of patent protection,"[30] it fails to explain what kinds of machines or transformations may be sufficient to render claims patent-eligible. For example, with respect to the patent at issue in *Gottschalk v. Benson*, 409 U.S. 63 (1972), what type of additional machine would qualify the patent claim as patentable subject matter? Would the conversion of numerals into binary code in the *Benson* patent claim qualify as a transformation under the Federal Circuit test? Thus, the machine or transformation test as articulated by the Federal Circuit introduces more questions than answers for patent practitioners and the businesses that they represent.

There are likely thousands of patentees who have invested substantial sums in obtaining and maintaining U.S. patents to processes that are not pure business methods but do not expressly include a machine or transformation, since such language was previously not required during examination of appli-

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[30] *Bilski*, 545 F.3d, at 953.

cations for process patents. These patentees may stand to lose their entire patent investment in view of the decision below.[31] While the Federal Circuit "reject[ed] calls for categorical exclusions beyond those for fundamental principles already identified by the Supreme Court"[32], in practice, however, its decision has given birth to an ill-defined exclusion of previously issued process patent claims based on the form, rather than the substance, of the claims. As noted by the Court in *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, "Fundamental alterations in [patent rules] risk destroying the legitimate expectations of inventors in their property."[33]

Even the Federal Circuit recognized the shortcomings of the test, admitting that the machine-or-transformation test may not be the appropriate test for all future technologies. "Nevertheless, we agree that future developments in technology and the sciences may present difficult challenges to the machine-or-transformation test . . . ."[34] The disruption created by the test was further articulated in Judge Newman's dissenting opinion. "The court thus excludes many of the kinds of inventions that apply today's electronic and photonic technologies, as well as other processes that handle data and information in novel ways. Such processes have long been patent

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[31] These patentees may not be able to cure their patents via corrective measures such as patent reissue, as a *Bilski*-eligible "machine" or "transformation" may not be supported by their original patent specifications.

[32] *Bilski*, 545 F.3d, at 960.

[33] *Festo*, 535 U.S. 722, 739 (2002).

[34] *Bilski*, 545 F.3d, at 956.

eligible, and contribute to the vigor and variety of today's Information Age."[35]

B. The Appropriate Test For Evaluating Patent Eligibility of a Process Patent Claim Is Whether The Claim Impermissibly Seeks a Patent on a Fundamental Principle Or An Abstract Idea

The Court has long established that despite a broad statutory interpretation, "excluded from such patent protection are laws of nature, natural phenomena, and abstract ideas."[36] In accordance with these exclusions, the Federal Circuit has held that "mental processes," "processes of human thinking," and "systems that depend for their operation on human intelligence alone" are not patent-eligible subject matter."[37]

While noting that laws of nature, natural phenomena, and abstract ideas alone are not afforded patent protection, the Court has held that, "it is now commonplace that an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection."[38] Therefore, the Court has drawn a distinction between patent claims that attempt to monopolize the excluded subject matter and those which only seek to exclude others from using a specific application of a

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[35] *Id*., at 976 (Newman, J., dissenting).

[36] *See, e.g., Diamond v. Diehr*, 450 U.S. 175, 185 (1981); *Parker v. Flook*, 437 U.S. 584, 589 (1978), *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972), and *Funk Bros. Seed Co. v. Kalo Inoculant Co*., 333 U.S. 127, 130, (1948).

[37] *In re Comiskey*, 554 F.3d 967, 980 (Fed. Cir. 2009).

[38] *Diehr,* 450 U.S., at 187.

law of nature or an abstract idea.[39] This distinction has been noted by the Court since the mid-nineteenth century.

> "A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right. Nor can an exclusive right exist to a new power, should one be discovered in addition to those already known . . . A patent is not good for an effect, or the result of a certain process, as that would prohibit all other persons from making the same thing by any means whatsoever. This, by creating monopolies, would discourage arts and manufactures, against the avowed policy of the patent laws."[40]

In this case the Federal Circuit recognized that, "the true issue before us then is whether Applicants are seeking to claim a fundamental principle (such as an abstract idea) or a mental process" and that "the underlying legal question thus presented is what test or set of criteria governs the determination . . . as to whether a claim to a process is patentable under § 101 or, conversely, is drawn to unpatentable subject matter because it claims only a fundamental principle."[41]

The Federal Circuit correctly identified the issue, but proceeded to create a patent eligibility test that is inconsistent with prior rulings of this Court, as well as prior decisions of Federal Circuit.[42] In so doing,

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[39] *Id*.

[40] *Tatham*, 55 U.S. at 175.

[41] *Bilski*, 545 F.3d, at 952.

[42] "[T]he Freeman-Walter-Abele test is inadequate. Indeed, we have already recognized that a claim failing that test may

the court noted that "[the preemption] inquiry is hardly straightforward. How does one determine whether a given claim would pre-empt all uses of a fundamental principle?"[43] In arriving at its restrictive machine-or-transformation test, the Federal Circuit failed to properly consider the flexible guidelines—not rigid tests—laid-out in the trilogy of cases *Benson*, *Flook,* and *Diehr*. Thus, the Federal Circuit erroneously turned a series of adaptable guidelines into a strict test.

In *Diehr* this Court set forth a two-part inquiry to aid in determining whether a patent claim is directed to a practical application of an abstract idea or a monopoly on the idea itself. The first inquiry asks whether the claim preempts all practical uses of the abstract idea. In *Diehr* the Court found that the claimed process of curing synthetic rubber, using as part of the process a mathematical equation, did not "pre-empt the use of that equation" but permissibly foreclosed the use of the equation only in conjunction with all of the other steps in the claimed process.[44]

In *Benson* the Court found the recited mathematical formula had "no substantial practical application except in connection with a digital computer" and as such "the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself."[45] In addition, the

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nonetheless be patent-eligible. *See In re Grams*, 888 F.2d 835, 838-39 (Fed. Cir. 1989). Rather, the machine-or-transformation test is the applicable test for patent-eligible subject matter." *Id.*, at 959.

[43] *Id.*

[44] *Diehr,* at 187.

[45] *Benson*, 409 U.S., at 71-72.

Court held that the formula was "so abstract and sweeping as to cover both known and unknown uses of the BCD [binary coded decimal] to pure binary conversion."[46]

In *Flook* the claim at issue was directed to using a particular mathematical formula to calculate an "alarm limit" (a value that would indicate an abnormal condition during an unspecified chemical reaction).[47] The Court rejected the patent claim because it did not include any limitations specifying "how to select the appropriate margin of safety, the weighting factor, or any of the other variables."[48] The Court found that the claim derived solely from the discovery of a natural phenomenon and "simply provides a new and presumably better method for calculating [an] alarm limit."[49] Therefore, the Court held that the claim could not "support a patent unless there [was] some other inventive concept in its application."[50] In distinguishing *Flook*, the Court in *Diehr* noted:

> "The [*Flook*] application, however, did not purport to explain how these other variables were to be determined, nor did it purport "to contain any disclosure relating to the chemical processes at work, the monitoring of the process variables, nor the means of setting off an alarm or adjusting an alarm system. All that it

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[46] *Id.*, at 68 (citing *O'Reilly v. Morse* 56 U.S. 62, 113 (1852)).

[47] *Flook*, 437 U.S., at 586.

[48] *Id.*

[49] *Id.*, at 594.

[50] *Id.*

provides is a formula for computing an updated alarm limit."[51]

Even if the patent claim does not preempt the abstract idea at issue, the second *Diehr* inquiry requires an examination of whether the patent claim contains merely an "insignificant addition" to the abstract idea. In *Flook*, the Court noted the Applicant's assertion that he did not seek to "wholly preempt the mathematical formula," since there were uses of his formula outside the petrochemical and oil-refining industries that remained in the public domain.[52] The Applicant also argued that the presence of specific "post-solution" activity (*i.e.*, the adjustment of the alarm limit to the figure computed according to the formula) distinguished the case from *Benson* and therefore rendered the claimed process patentable.[53] The Court disagreed, stating, "The notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process exalts form over substance. A competent draftsman could attach some form of post-solution activity to almost any mathematical formula; the Pythagorean theorem would not have been patentable, or partially patentable, because a patent application contained a final step indicating that the formula, when solved, could be usefully applied to existing surveying techniques."[54]

In *Diehr*, the Court reiterated that insignificant additions to an abstract principle will not render a

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[51] *Diehr*, 450 U.S., at 186-87.

[52] *Flook*, 437 U.S., at 589-90.

[53] *Id*.

[54] *Id.*, at 590.

process patent-eligible stating, "A mathematical formula as such is not accorded the protection of our patent laws, and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment. Similarly, insignificant post-solution activity will not transform an unpatentable principle into a patentable process. [Internal citations omitted]."[55] Although the Federal Circuit found it necessary to adopt a new test to determine whether a patent claim reciting an abstract idea would pre-empt substantially all uses of that idea, it recognized that "field-of-use" limitations and "insignificant post-solution activities" would not render an otherwise ineligible patent claim patentable.[56]

The steps of the Petitioners' patent claim are a series of abstract ideas, namely, (a) the idea of initiating a series of transactions between a commodity provider and consumers of said commodity wherein said consumers purchase said commodity at a fixed rate based upon historical averages, said fixed rate corresponding to a risk position of said consumer; (b) the idea of identifying market participants for said commodity having a counter-risk position to said consumers; and (c) the idea of initiating a series of transactions between said commodity provider and said market participants at a second fixed rate such that said series of market participant transactions balances the risk position of said series of consumer transactions.

Had the Federal Circuit employed the two-part *Diehr* inquiry, it would have reached the same

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[55] *Diehr,* 450 U.S., at 191-192.

[56] *Bilski*, 545 F.3d, at 957.

ultimate conclusion, while also staying faithful to the precedents set by this Court. Petitioners' patent claim fails under the first *Diehr* inquiry because it pre-empts an abstract idea, the only practical application of which is the mitigation of risk in commodities trading. Petitioners' claim also fails under the second *Diehr* inquiry because, at most, the application of the idea, mitigating risk in commodities trading, is an insignificant addition. Accordingly, the Petitioner's claim does not constitute patentable subject matter.

C. The "Machine-or-Transformation" Test May Provide A Clue To The Patent Eligibility Of A Process Patent Claim In Some Cases But Is Not The Correct Test For Determining Patentable Subject Matter

The Federal Circuit has made the machine-or-transformation test the definitive test for process claims under § 101:

> "We stated that the Supreme Court's machine-or-transformation test is the definitive test to determine whether a process claim is tailored narrowly enough to encompass only a particular application of a fundamental principle rather than to pre-empt the principle itself."[57]

As support for this holding, the Federal Circuit cites this Court's rationale in *Benson*. "Transformation and reduction of an article 'to a different state or thing' is the **clue** to the patentability of a process

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[57] *In re Ferguson*, 558 F.3d 1359, 1363 (Fed. Cir. 2009) (citing *Bilski*).

claim that does not include particular machines."[58] (Emphasis Added).

This "**clue**" is undoubtedly an important tool to help determine if the claim pre-empts the fundamental principle or simply claims a particular application of the principle. But in *Benson* this Court made it clear that the machine-or-transformation test is only a clue, not a definitive test, stating, "We do not hold that no process patent could ever qualify if it did not meet the requirements of our prior precedents."[59] This language is repeated in *Flook*.[60]

The Federal Circuit even acknowledged that the machine or transformation test may be employed only as a clue in the overall pre-emption inquiry. "An argument can be made [that the Supreme] Court has only recognized a process as within the statutory definition when it either was tied to a particular apparatus or operated to change materials to a 'different state or thing'".[61] This phrase from *Flook* just points out a logical or coincidental relationship between the machine-or-transformation clue and the overarching *Diehr* inquiries. The machine-or-transformation inquiry may inform the overall analysis, but it was never intended to be dispositive.

The Federal Circuit tried to explain its rationale for making the machine-or-transformation clue into a definitive rule.

> "We believe that the Supreme Court spoke of the machine-or-transformation test as the "clue" to

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[58] *Benson*, 409 U.S., at 70.

[59] *Id*, at 71.

[60] *Flook*, 437 U.S, at 589 n. 9.

[61] *Bilski*, 545 F.3d, at 954 (citing *Flook*, 437 U.S., at 589 n. 9).

> patent-eligibility because the test is the tool used to determine whether a claim is drawn to a statutory "process"—the statute does not itself explicitly mention machine implementation or transformation. We do not consider the word "clue" to indicate that the machine-or-implementation test is optional or merely advisory. Rather, the Court described it as the clue, not merely "a" clue."[62]

This interpretation of *Diehr* is erroneous. While the Court in *Diehr* considered whether the claims at issue were tied to a machine or transformed physical matter, the Court based its ultimate holding on the two-part inquiry.[63] It is the two-part inquiry applied in *Diehr* which is the appropriate test for patent eligibility of process claims. Although the machine-or-transformation test may provide some general guidance for the examination of process claims, it is plainly inappropriate as the solitary legal standard for processes under § 101.[64] "That a process may be patentable, irrespective of the particular form of the instrumentalities used, cannot be disputed . . ."[65]

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[62] *Id.*, at 956, n. 11.

[63] *Diehr*, 450 U.S., at 192-193.

[64] "It is argued that a process patent must either be tied to a particular machine or apparatus or must operate to change articles or materials to a "different state or thing." We do not hold that no process patent could ever qualify if it did not meet the requirements of our prior precedents. It is said that the decision precludes a patent for any program servicing a computer. We do not so hold." *Benson*, 409 U.S., at 71.

[65] *Diehr*, 450 U.S., at 184 (citing *Cochrane v. Deener*, 94 U.S. 780, 787-788 (1877)).

D. The Machine-or-Transformation Test Conflicts With Patentable Subject Matter Provisions of Foreign Jurisdictions Such As The European Union And May Disrupt Future Attempts At Global Harmonization

In today's global economy, conflicts between the intellectual property systems of different nations can hinder innovation. The Federal Circuit's decision may impede future attempts to harmonize U.S. patent laws with other jurisdictions in the global economy. For example, the European Patent Office (EPO) has developed a test for determining the patent eligibility of software, business methods, and other process-based subject matter.[66] Article 52 of the European Patent Convention states general exclusions of patentable subject matter. The EPO has held, however, that a claim is patent eligible if "a technical effect is achieved by the invention or if technical considerations are required to carry out the invention."[67] The technical character or teaching must inform a skilled person how to solve a particu-

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[66] *EPC* Art. 52 reads, "(1) European patents shall be granted for any inventions which are susceptible of industrial application, which are new and which involve an inventive step. (2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1: (a) discoveries, scientific theories and mathematical methods; (b) aesthetic creations; (c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers; (d) presentations of information. (3) The provisions of paragraph 2 shall exclude patentability of the subject-matter or activities referred to in that provision only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such. . . ."

[67] *EPO* T 931/95 (OJ 2001, 441).

lar technical problem as opposed to a purely financial, commercial, or mathematical problem simply using technical means.

The EPO "technical character" requirement is analogous to the two-part inquiry provided by this Court in Diehr. In stating that the invention at issue must involve a technical teaching or inform a skilled person how to solve a particular problem, the EPO is requiring a particular application for the invention. By requiring a particular problem to be solved, the EPO is foreclosing attempts to claim the fundamental principle that would preempt the use of the fundamental principle by others. If the EPO standard were applied to Diehr, the technical character in the Diehr invention would be the curing of synthetic rubber. This is the same conclusion reached by the Court under the first inquiry in Diehr. Likewise, the second Diehr inquiry, which considers whether the patent claim merely contains an insignificant addition, is analogous to the EPO prohibition against claiming a solution to a purely theoretical problem using a particular technical means.

In considering the technical effect of a claim, the EPO is not looking at the parts of the claimed matter, but rather looks at the claim as a whole to determine the technical character of the claimed matter. The two-part inquiry, as laid out by this Court in *Diehr*, similarly looks at the claim as a whole to determine if it preempts the use of a fundamental principle or simply claims a particular ("technical") application of the principal. By contrast, the machine-or-transformation test of the Federal Circuit would require the PTO to consider individual elements or limitations of the claims to determine if a machine or transformation is recited.

CONCLUSION

For the reasons stated herein, the Court should find that pure business methods are not patent-eligible subject matter under the Constitution. Further, the Court should overrule the machine-or-transformation test promulgated by the Federal Circuit as the exclusive test for determining the patent eligibility of process claims, and should reaffirm the flexible two-part inquiry set forth in *Diamond v. Diehr*.

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