On June 19, 2014, the Supreme Court issued its decision in *Alice Corp. v. CLS Bank International*. The case involved patents covering a "method of exchanging obligations as between parties," a "data processing system to enable the exchange of an obligation between parties," and a "computer readable storage medium having computer readable program code embodied in the medium for use by a party to exchange an obligation between a first party and a second party." The Court characterized the claims as being directed to methods and machines providing "generic computer implementation" of "intermediated settlement" and concluded that they were not eligible for patenting under the "abstract ideas" exception to 35 U.S.C. § 101.

Section 101 provides: "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." Although the plain language of this statute expressly allows for the patenting of a "process" or a "machine," the Supreme Court began its discussion by stating that it has long held that the statute "contains an important implicit exception" for "[I]aws of nature, natural phenomena, and abstract ideas." The Court has not explained, however, what language in the statute implies these exceptions. Such an explanation would be very helpful in gauging the meaning and scope of those exceptions and of the "abstract ideas" exception in particular.

In this case, the Court followed a two-part analysis first applied in its opinion two years ago in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.* with regard to the "natural phenomenon" exception. First, the Court determined "whether the claims at issue are directed to one of [the] patent-ineligible concepts." Second, the Court assessed whether the elements of the claims at issue are "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself."

The Court first addressed the method claims in the case and, applying the first prong of the *Mayo* test, determined that the claims involved the use of an "abstract idea." The Court reviewed its case law dealing with "abstract ideas," noting that *Gottschalk v. Benson* involved a mathematical "algorithm," that *Parker v. Flook* involved a "mathematical

formula," and that *Bilski v. Kappos* involved "a method for hedging against the financial risk of price fluctuations." The Court then concluded that the method claims at issue here are directed to "the concept of intermediated settlement" and that, as in *Bilski*, this concept is "a fundamental economic practice long prevalent in our system of commerce" and is "a building block of the modern economy." "Thus," the Court concluded, "intermediated settlement, like hedging, is an 'abstract idea' beyond the scope of § 101." The Court stated that it did not need "to delimit the precise contours of the 'abstract ideas' category in this case" because it was "enough to recognize that there is no meaningful distinction between the concept of risk hedging in *Bilski* and the concept of intermediated settlement at issue here." The Court did reject the patentee's argument that an "abstract idea" is merely a "preexisting, fundamental truth [that] exists in principle apart from any human action," stating that this argument was inconsistent with the decision in *Bilski*, in which the Court grounded its conclusion in the fact that risk hedging was a "fundamental economic practice."

The Court next addressed the second step of the *Mayo* test to determine whether elements of the method claims add enough to the abstract idea of intermediated settlement so that the claim does not effectively monopolize that abstract idea. The Court concluded that "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." The Court recognized that a computer "necessarily exist[s] in the physical, rather than the purely conceptual, realm," but stated that that fact "is beside the point." The Court reasoned that if existence in the physical world "were the end of the § 101 inquiry, an applicant could claim any principle of the physical or social sciences by reciting a computer system configured to implement the relevant concept." The Court distinguished its decision in *Diamond v. Diehr*, which involved the use of a mathematical formula and a computer, because the formula was used "in a process designed to solve a technological problem in 'conventional industry practice.'" Specifically, it allowed the process to make use of continuous temperature measurements. As such, "the claims in *Diehr* were patent eligible because they improved an existing technological process, not because they were implemented on a computer."

On the facts of this case, the Court concluded that each of the elements of the method claims taken separately were "purely conventional" and that the claim elements taken together "simply recite the concept of intermediated settlement as performed by a generic computer." As such, the Court concluded that the claims "merely require generic computer implementation" of an "abstract idea" and therefore did not pass muster. The Court observed that "[t]he method claims do not, for example, purport to improve the functioning of the computer itself," "[n]or do they effect an improvement in any other technology or technical field," as in *Diehr*. The implication here is that the fields of banking, economics, and finance are not "technical field[s]."

The Court then addressed the system claims and the computer-readable medium claims in short order, stating that they failed "for substantially the same reasons." The patentee had argued that its system claims required "specific hardware" configured to perform "specific computerized functions." However, the Court noted that the "specific hardware" merely consisted of a "data processing system" with a "communications controller" and a "data storage unit," which are present in "[n]early every computer." As such, none of the hardware required by the system claim offers "a meaningful limitation" and "add[s] nothing of substance to the underlying abstract idea." As such, "the system claims are no different from the method claims in substance." The method claims "recite the abstract idea implemented on a generic computer," and the system claims "recite a handful of generic computer components configured to implement the same idea." The Court opined that patent eligibility should not "depend simply on the draftsman's art."

There remain several unanswered questions after *Alice*. First, the Court has not identified the language in the statute that implies the "abstract ideas" exception nor has it otherwise defined the term "abstract idea." Therefore, the meaning and breadth of that exception remains unclear. Second, it also remains unclear what exactly is sufficient to add to an "abstract idea" in order to become patent eligible. Although these unanswered questions remain, it is useful to take note of what we do know after *Alice*:

1. An "abstract idea" includes a purely mathematical "algorithm" (Benson), a

- "mathematical formula" (*Flook*), a "mathematical equation" (*Diehr*), and a "fundamental economic practice" such as "risk hedging" (*Bilski*) or "intermediated settlement" (*Alice*).
- 2. An "abstract idea" is not limited to a "preexisting, fundamental truth [that] exists in principle apart from any human action."
- 3. A method or system that merely implements an "abstract idea" using a generic computer is not patent eligible.
- 4. The process claims in *Diehr* were patent eligible, despite the presence of an "abstract idea," "because they improved an existing technological process...." Improvements in the fields of banking, economics, and/or finance appear implicitly not to be improvements in a "technology" or a "technical field."
- 5. The fact that what is claimed "necessarily exists in the physical, rather than purely conceptual, realm," *e.g.*, is a "tangible system," is not dispositive.