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Paper 28
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAMBRIDGE ASSOCIATES, LLC,
Petitioner,

v.

CAPITAL DYNAMICS,
Patent Owner.

CBM2014-00079
Patent 7,698,196

Before FRANCISCO C. PRATS, GRACE KARAFFA OBERMANN, and DONNA M. PRAISS, *Administrative Patent Judges.*

PRAISS, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
Covered Business Method Patent Review
35 U.S.C. § 328(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

Cambridge Associates, LLC ("Petitioner") filed a Corrected Petition (Paper 4, "Pet.") on March 19, 2014, seeking covered business method patent review of U.S. Patent No. 7,698,196 ("the '196 patent") pursuant to § 18 of the Leahy-Smith America Invents Act, Pub. L. No. 112–29, § 6, 125 Stat. 284, 299–305 (2011) ("AIA"). On September 8, 2014, pursuant to 35 U.S.C. § 324, we instituted this trial as to claims 1–17 of the '196 patent on one ground of unpatentability under 35 U.S.C. § 101 (Paper 9, "Dec. on Inst."). Capital Dynamics ("Patent Owner") filed a Patent Owner Response (Paper 15, "PO Resp."), and Petitioner filed a Reply (Paper 17, "Reply").

Patent Owner filed a Motion to Exclude deposition testimony of Patent Owner's expert, Mr. Reyes, on pages 108 and 109 of the deposition transcript (Ex. 1012). Paper 21. Petitioner opposes the motion on the grounds that the objection to form is unfounded, and the Board is capable of assigning appropriate weight to the evidence presented at trial. Paper 24.

An oral hearing in this proceeding was held on May 5, 2015. A transcript of the hearing is included in the record (Paper 27, "Tr.").

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. § 328(a) and 37 C.F.R. § 42.73.

For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–17 of the '196 patent are unpatentable under 35 U.S.C. § 101. Because our determination does not rely on the deposition testimony subject to Patent Owner's Motion to Exclude, we dismiss the motion as moot.

A. The '196 Patent (Ex. 1001)

The '196 patent is directed to a method for analyzing a performance of a financial product or asset having an irregular cash flow by "benchmarking the performance" of the asset relative to "a public market or other index." Ex. 1001, 1:15–18, 7:58–65. An example of a financial product having an irregular cash flow is a private equity investment where funds are invested into an asset (referred to as draw downs) and funds are returned to the investor (referred to as disbursements). *Id*. at 1:26–29. An example of a public index is exchange traded securities. *Id*. at 1:40–42. A direct comparison between those two types of assets is difficult because the former is measured in terms of an internal rate of return while the latter is measured by time weighted returns. *Id*. at 1:35–42. Therefore, the method of the invention uses the traditional asset class as a benchmark or standard in a way that will determine, predict, or model how the non-traditional asset, which has a limited performance history (*id*. at 3:62–65), "would perform under various market scenarios for which actual performance data for the private equity is not available." *Id*. at 1:24–25. The method of the '196 patent "permit[s] more accurate analysis of the performance of private equity assets relative to the performance of a public index, and also permit[s] the simulation of private equity asset behavior." *Id*. at Abstract.

B. Illustrative Claim

Claim 1 of the '196 patent is illustrative of the claims at issue:

> 1. A method for benchmarking relative to an index a performance of a financial product having an irregular cash flow, said being method implemented with a computer system comprising one or more computer processors, the method comprising the steps of:

> receiving using at least one of said computer processors first cash flow data for the financial product over a period of time, the data including at least one input event and at least one output event;
>
> receiving using at least one of said computer processors values for the index over the period of time;
>
> determining using at least one of said computer processors a performance characteristic of the financial product;
>
> determining using at least one of said computer processors a value of a scaling function, wherein a performance characteristic of an investment of a second cash flow in shares valued relative to the index during the period of time has a specified relationship to the performance characteristic of the financial product, the second cash flow corresponding to the first cash flow modified by the scaling function;
>
> the determined value of the scaling function providing a measure of the performance of the financial product relative to the index.

C. Related Proceedings

Petitioner indicates that it has been sued for infringement of the '196 patent by Patent Owner in *Capital Dynamics AG v. Cambridge Assocs., LLC*, 1:13-cv-07766 (S.D.N.Y.). Pet. 9.

D. Alleged Ground of Unpatentability Instituted in Trial

Petitioner contends that claims 1–17 of the '196 patent are unpatentable for claiming ineligible subject matter under 35 U.S.C. § 101.

II. ANALYSIS

A. Claim Interpretation

The Board interprets claims of unexpired patents using the "broadest reasonable construction in light of the specification of the patent in which [they] appear[]." 37 C.F.R. § 42.300(b). Claim terms are given their plain

and ordinary meaning as would be understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. "There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

In the Decision on Institution, we interpreted various claim terms of the '196 patent as follows:

Claim Term (Claims)	Interpretation
"performance characteristic" (1, 5, 11, 12, and 17)	a measure or indication of performance
"scaling function" (1, 7–10, 12, 14, and 17)	a formula or constant
"final value" (5 and 15)	ordinary meaning of final value

See Dec. on Inst. 5–9. The parties do not dispute these interpretations in their Patent Owner Response and Reply. We adopt the above claim constructions based on our previous analysis, and see no reason to deviate from those constructions based on the record after trial.

III. ANALYSIS

A. Covered Business Method Patent

We determined, in the Decision on Institution, that the '196 patent is a covered business method patent as defined in Section 18(a)(1)(E) of the America Invents Act and 37 C.F.R. § 42.301, because at least one claim of the '196 patent is directed to a covered business method. Dec. on Inst. 9–12.

Patent Owner does not dispute our previous analysis in their Patent Owner Response. We reaffirm our determination in the Decision on Institution that the '196 patent is eligible for a covered business method patent review.

B. Claims 1–17 Are Directed to Non-Statutory Subject Matter

Petitioner challenges claims 1–17 of the '196 patent as directed to ineligible subject matter under 35 U.S.C. § 101. Pet. 16–31. Patent Owner disagrees and maintains that its claims are directed to patent-eligible processes because the claims do not recite an abstract idea or mathematical computation. PO Resp. 11–18.

1. Section 101 Subject Matter Eligibility

Patent-eligible subject matter is defined in 35 U.S.C. § 101 as "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." The Supreme Court recognizes three categories of subject matter that are ineligible for patent protection: "laws of nature, physical phenomena, and abstract ideas." *Bilski v. Kappos*, 561 U.S. 593, 601 (2010). Although a law of nature or an abstract idea by itself is not patentable, a practical application of the law of nature or abstract idea may be deserving of patent protection. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293–94 (2012). A practical application, however, must do more than simply state the law of nature or abstract idea and add the words "apply it" to be patentable. *Id*. at 1294; *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972). Furthermore, "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice Corp. Pty, Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2358 (2014). "Thus, if a patent's recitation of a

computer amounts to a mere instruction to 'implemen[t]' an abstract idea 'on . . . a computer,' that addition cannot impart patent eligibility." *Id*. (internal citation omitted).

In *Alice*, the Supreme Court applied the two-part framework set forth in *Mayo* to "distinguish[] patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Id*. at 2355. The first step is to determine whether the claims are directed to one of the above patent-ineligible categories. *Id*. The second step is to determine whether additional elements of the claims transform the claims such that the combination is "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself." *Id*. (quoting *Mayo*, 132 S. Ct. at 1294). The "prohibition against patenting abstract ideas 'cannot be circumvented by attempting to limit the use of the formula to a particular technological environment' or adding 'insignificant postsolution activity.'" *Bilski*, 561 U.S. at 610–11 (quoting *Diamond v. Diehr*, 450 U.S. 175, 191–92 (1981)).

"The 'abstract ideas' category embodies the longstanding rule that '[a]n idea of itself is not patentable.'" *Alice*, 134 S. Ct. at 2355 (quoting *Benson*, 409 U.S. at 67). Whether a phenomenon of nature, a mental process, or an "abstract intellectual concept[]," these categories of invention are unpatentable because "they are the basic tools of scientific and technological work." *Benson*, 409 U.S. at 67. The patents at issue in *Alice* claimed "a method of exchanging financial obligations between two parties using a third-party intermediary to mitigate settlement risk." *Alice*, 134 S. Ct. at 2356. Like the method of hedging risk in *Bilski*, 561 U.S. at 628—which the Court deemed "a method of organizing human activity"—*Alice*'s

"concept of intermediated settlement" was held to be "a fundamental economic practice long prevalent in our system of commerce" and, thus, an abstract idea. *Alice*, 134 S. Ct. at 2356. In *Parker v. Flook*, 437 U.S. 584, 594–95 (1978), a mathematical formula for computer alarm limits in a catalytic conversion process was held to be an ineligible idea. In *Benson*, 409 U.S. at 71–72, claims involving an algorithm for converting binary-coded decimal numerals into pure binary form were, in practical effect, a patent on the algorithm itself and an ineligible idea.

As recognized by our reviewing court, "any given analysis in a § 101 'abstract idea' case is hardly a clear guidepost for future cases arising under § 101 —each case stands on its own, and requires separate analysis by the judges who must make the decision." *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, No. 2014-1194, slip op. at 56 (Fed. Cir. July 9, 2015).

2. Claims 1–17 Are Directed to an Ineligible Idea

Petitioner asserts that the claims are not patent eligible because they are directed to a mathematical computation that is an abstract idea. Pet. 18. According to Petitioner, the independent claims "use computers and processors as nothing more than calculators to expedite a purely mathematical analysis." *Id*. at 21. Petitioner also asserts that the dependent claims only add field-of-use-type limitations that identify the financial products to be analyzed, characterize an output variable, or specify other variables or limitations for the calculation. *Id*. at 24.

Petitioner further asserts that the claims are directed to an abstract idea because they "can be performed by a human without a computer." *Id*. at 27. Petitioner relies upon the Declaration of Dr. David Robinson (Ex. 1006 ("Robinson Decl.") ¶ 20) and the '196 patent itself (Ex. 1001, Fig. 11,

16:55–17:25) to show that the data is merely manipulated through multiplication or division, making it amenable to a pencil-and-paper analysis, and that the scaling function step is explicitly described as being determined without a computer. Pet. 27.

Patent Owner contends that Petitioner improperly dissects the claims into old and new elements, but, when considered as a whole, the claims are not directed to an abstract idea. For example, Patent Owner states:

> [T]he claims are directed towards specific methods for modeling, transforming and analyzing data from a financial product in order to measure the performance of the financial product relative to a public index.

PO Resp. 12. Patent Owner identifies the scaling function required by each of independent claims 1, 12, and 17 as creating a "second cash flow," a "scaled version of the cash flow," or "a plurality of simulated cash flows" that is "a synthetic cash flow used in the computer model to analyze the real-life data." *Id*. at 13. Additionally, Patent Owner asserts that patentability is supported by additional limitations in the independent claims that require computer processors to receive cash flow data, and to determine a performance characteristic of the financial product and a value of a scaling function. *Id*. at 14–15. Patent Owner further contends that:

> Petitioner's expert himself demonstrated that the computer benchmarking system and claimed computer models cannot (and should not) be attempted without a properly programmed computer system.

PO Resp. 18.

Petitioner responds that the scaling function is nothing more than a mathematical manipulation of data that correlates data representing private equity investments with data representing market performance. Reply 3–4.

Petitioner further responds that Patent Owner's expert, Mr. Jesse Reyes, demonstrated at his deposition that the scaling function is derived from four mathematical equations, can be calculated without a computer from minimal financial data for the benchmarked product and corresponding market data, and can provide a measure of performance in terms of better or worse than the index. *Id*. at 3 (citing Ex. 1012, 112:23–119:17, 136:10–23). Petitioner also cites embodiments in the '196 patent that use "simple addition, subtraction, and division" to derive the scaling function. *Id*. at 4 (citing Ex. 1001, 11:4–46). Petitioner likens the '196 patent's mathematical correlations between two sets of data to the manipulation of two data sets that the Federal Circuit determined was an unpatentable abstract idea in *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc*., 758 F.3d 1344, 1350 (Fed. Cir. 2014). Reply 4.

When asked at oral hearing how the '196 patent claims other than a mathematical relationship or an improved method of calculation, Patent Owner's counsel stated

> I think it is an improved method of comparing financial products, that's the way we understand it, of comparing a private equity product with a public index.

Tr. 42:7–10.

"[C]omparing public and private equity data [using] a conventional technique known as PME, short for Public Market Equivalent" was known prior to the '196 patent invention. Ex. 1001, 1:66–2:3. The '196 patent describes the shortcomings of the known benchmarking analyses:

> What has been absent from conventional analysis is a technique to allow the use of a private equity data set that is valid for a first time period relative to a benchmark as the source for a derived data set for use in analyzing performance

> against the (historical or generated) benchmark over a second time period for which good private equity data is lacking. This would permit the accurate use of sophisticated data analysis techniques and tools, such as Monte-Carlo and historic simulation systems. These simulation systems have been developed for use in analyzing and predicting the behavior and comparative risk of investments in public equities or other more traditional assets for which there is a much longer set of market data for a much greater number of entities and for which performance data, such as pricing, is available on a comparatively continuous basis during that time span.

Id. at 4:16–30. According to the "Summary of the Invention" section of the '196 patent, the objects of the invention "are achieved by scaling the cash flows of a private equity asset (or other investment or liability, such as a hedge fund) or scaling a corresponding cash flow applied to a benchmarking index, in a way that addresses the deficiencies of the conventional PME process." *Id*. at 5:59–63. "[A] cash flow scaling factor or function is selected." *Id*. at 5:63–64. The Specification discloses how the scaling factor or function is selected or derived:

> [C]omplex scaling factors, functions and models can also be used and applied to either or both cash flow components (i.e., disbursements and/or draw downs). For example different scaling factors can be used for different time periods, determined using a mathematical function (linear, exponential, or any other), derived from a set of market data (public equity, bonds, treasuries, interest rates, exchange rates, trading volume, etc.), set to provide a level of stress or providing a multi-dimensional set of descriptive parameters, or various combinations of the above.

Id. at 6:18–27.

The disclosures above evidence that the steps of analyzing the performance of private equity assets relative to the performance of a public index were known prior to the invention of the '196 patent, that

sophisticated data analysis tools also existed, and that the scaling factor or function required by the ’196 patent claims is determined using a mathematical function and is derived from a set of market data. The deposition testimony of Patent Owner’s expert supports Petitioner’s argument that (1) mathematical computation is a component of PME (Ex. 1012, 40:15–41:10); (2) determining a scaling factor (represented as lambda in equation 3 at column 11 in the ’196 patent) in particular is a mathematical computation (*id*. at 121:20–122:13); and (3) the scaling factor itself is a measure of relative performance in terms of “better or worse” (*id*. at 136:10–15).

Patent Owner disputes Petitioner’s characterization of the ’196 patent claims as simply a mathematical formula or algorithm, asserting that Petitioner dissects the claim rather than treating it as a whole with all of its limitations. PO Resp. 11–16. However, the method steps that accompany the step of determining a scaling function in each of the independent claims involve only receiving, outputting, or otherwise manipulating data, namely, cash flow data for the financial product and values for the index.

We agree with Petitioner that *Digitech* is instructive guidance concerning claims to “a process that employs mathematical algorithms to manipulate existing information to generate additional information.” *Digitech*, 758 F.3d at 1351 (citing *Parker v. Flook*, 437 U.S. at 595) (concluding such claims are ineligible subject matter). Like the ’196 patent claims, the process claim in *Digitech* did not recite expressly mathematical formulae or equations. It claimed, in prose, generating two data sets by taking existing information, such as measured chromatic stimuli, spatial stimuli, and device response characteristic functions, and organizing the

information into a new form called a device profile. *Digitech*, 758 F.3d at 1350–51. The method claim was determined to be an abstract idea "because it describes a process of organizing information through mathematical correlations and is not tied to a specific structure or machine." *Id*. at 1350. The absence of expressly recited mathematical formulae or equations in the claim carried no significance in determining whether the claims as a whole were directed to the abstract idea. *See also Alice*, 134 S. Ct. at 2356–57 (noting that no special significance was given to the fact that one of the claims in *Bilski* reduced hedging to a mathematical formula).

In sum, because we agree with Petitioner that the challenged claims involve determining a mathematical correlation, like the claims in *Digitech*, we conclude that the first step in the *Alice/Mayo* test is met for claims 1–17.

3. The Claims Lack a Patent Eligible Inventive Concept

The second step of our analysis requires us to determine whether the claims do more than describe the abstract idea identified *supra*. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014). In this step, we must examine the limitations of the claims to determine whether they contain an "inventive concept" to "transform" the claimed abstract idea into patentable subject matter. *Id*. "A claim that recites an abstract idea must include additional features to ensure that the claim is more than a drafting effort designed to monopolize the abstract idea." *Id*. (quoting *Mayo*, 132 S. Ct. at 1297) (internal quotation marks and brackets omitted).

Petitioner asserts that the claims fail the machine-or-transformation test for determining patent eligibility. Petitioner argues that the only machine mentioned in the claims is a general purpose computer and its processors rather than a specific combination of computer components interacting in a specific way to accomplish the claimed methods. Pet. 29.

Even if the claims are found to be directed to an abstract idea, Patent Owner contends they are patent eligible because they contain inventive concepts. PO Resp. 24–26. According to Patent Owner, the inventive concept is the use of a scaling function to transform irregular cash flow data into a second cash flow, which is the improvement on existing PME (Public Market Equivalent) benchmarking methods. *Id*. at 25. Patent Owner asserts that the rejection of Petitioner's obviousness grounds in our Decision on Institution amounts to an "effective[] finding that the claims did contain inventive concepts over the best prior art that Cambridge could locate." *Id*.

Patent Owner also contends that the "computer system comprising one or more computer processors" and the "at least one of said computer processors" recited in each of the independent claims are meaningful limitations. *Id*. at 26–28. According to Patent Owner, the claimed computer technology "is integral to meeting the requirements of accuracy, precision and timeliness," which can be difficult in the private equity world. *Id*. at 27 (citing Ex. 2004 ¶¶ 80, 86–96). Patent Owner contends that Dr. Robinson demonstrated at his deposition that he was unable to perform the claimed steps without a computer, therefore "manual steps alone" would not provide the results necessary "for any present day, real-world application." *Id*. at 27–28.

Petitioner responds that an improved method of calculation is irrelevant to a determination under Section 101 in view of the Supreme Court's holding in *Flook*. Reply 6 (quoting *Flook*, 437 U.S. at 595 n.18 ("Very simply, our holding today is that a claim for an improved method of calculation, even when tied to a specific end use, is unpatentable subject matter under § 101.")). Petitioner also observes that Patent Owner does not dispute that any computer can be used to perform the claimed steps and directs us to Mr. Reyes' testimony that he does not need a specialized computer or program to perform the improved PME calculations. *Id.* at 7. Petitioner further cites *Alice*, 134 S. Ct. at 2360, *Mayo*, 132 S. Ct. at 1298, and *Gottschalk*, 409 U.S. at 71–72, to support its argument that such a general purpose computer to increase the speed or accuracy of the mathematical calculations will not impart patent eligibility to an otherwise abstract claim. *Id.*

We are convinced by Petitioners' argument that the '196 patent's claims do not contain an "inventive concept" sufficient to transform the claimed abstract idea into a patentable invention.

The fact that a claim relies on a method that is implemented on a computer does not, by itself, demonstrate that the claim is patent eligible. Rather, a challenged claim, properly construed, must incorporate enough meaningful limitations to ensure that what is claimed is more than just an abstract idea, and is not a mere "drafting effort designed to monopolize [an abstract idea] itself." *Mayo*, 132 S. Ct. at 1297. In order for a machine to impose a meaningful limitation on the scope of a method claim, it must play "a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be

achieved more quickly." *SiRF Tech., Inc. v. Int'l Trade Comm'n*, 601 F.3d 1319, 1333 (Fed. Cir. 2010). Claims that recite a method of doing business on a computer, and do no more than merely recite the use of the computer for its ordinary function of performing repetitive calculations, are not patent eligible. *Bancorp Servs., L.L.C. v. Sun Life Assurance Co.*, 687 F.3d 1266, 1278–79 (Fed. Cir. 2012) (finding computer used for its most basic function, the performance of repetitive calculation, does not impose a meaningful claim limitation).

We are persuaded that Petitioner has shown by a preponderance of the evidence that the extent to which a computer aids the performance of the claimed invention is no more than the ordinary function of common computer software programs, such as the Microsoft Excel spreadsheet used by Patent Owner's expert. Reply 7 (citing Ex. 1012, 153:15–154:21). Patent Owner's argument that the computer technology required by the '196 patent claims "is integral to meeting the requirements of accuracy, precision and timeliness" (PO Resp. 27 (citing Ex. 2004 ¶ 96)) focuses on a specific commercial application of the patent claims "[i]n the private equity world" (*id*. (citing Ex. 2004 ¶¶ 86–95)). We are not persuaded by Patent Owner's arguments because they presume particular mathematical computation methods not required by the claims, and reinforce that the nature of the invention is a patent ineligible mathematical algorithm. For example, Patent Owner contends that when presented with a problem to solve at his deposition, Petitioner's expert, Dr. Robinson, inaccurately computed a real rate of return on an investment because he used quarterly compounding rather than daily compounding. Ex. 2004 ¶ 87. According to Mr. Reyes, Patent Owner's expert, "daily cashflow (as opposed to monthly or quarterly)

has been recognized as a requisite compounding frequency as far back as the 1960s." *Id*. at ¶ 91. Such mathematical computations, even if required by the claims, are not sufficient to transform the claims into patent eligible subject matter.

a. Claim 1

Petitioner has shown that each of the independent claims involves gathering data and performing calculations with the data. Pet. 21–26. Petitioner also has shown that any computer can be used to perform the claimed steps. *Id*. at 30 (citing Ex. 1001, 16:16–19); Reply 7 (citing Ex. 1012, 153:15–154:21). The Robinson Declaration explains how the data manipulation shown in Figures 11a, 11b, and 11c of the '196 patent can be carried out using paper and pencil using ordinary arithmetic. Ex. 1006 ¶¶ 20–22. Petitioner also has shown that the minimal complexity of the calculations required by the claims was performed manually by Patent Owner's expert at deposition. Reply 12 (citing Ex. 1012, 112:23–119:17; Ex. 1011).

Taking claim 1 as an example, it recites steps directed to data gathering (e.g., "receiving . . . cash flow data for the financial product" and "receiving . . . values for the index") followed by steps directed to performing calculations on the data (e.g., "determining . . . a performance characteristic of the financial product" and "determining . . . a value of a scaling function"). Pet. 21. We agree with Petitioner that the claimed steps do not add a technological advance because they are directed to the abstract idea of manipulating and calculating data for a financial product. *See id*.

b. Claim 12

Independent claim 12 recites data gathering and calculating steps similar to those recited in claim 1 and adds a step of "outputting using at least one of said computer processors an indication of the determined value." We agree with Petitioner that this output step is an insignificant post-solution activity. *Id*. at 22.

c. Claim 17

Independent claim 17 recites data gathering and calculating steps similar to those recited in claim 1 and adds "at least one of" four steps. We agree with Petitioner that those steps are either insignificant post-solution activities (e.g., "providing . . . a measure of the performance of the asset" or "providing the scaled cash flow data as input to a financial analysis system") or additional abstract data manipulation steps (e.g., "simulating . . . behavior of the at least one specific asset" or "analyzing the simulated cash flows"). Pet. 23–24.

d. Dependent Claims 2–11, 13–16

Dependent claims 2, 3, and 16 recite exemplary financial products. Dependent claim 10 recites providing an output. Dependent claims 4–9, 11, and 13–15 specify further details of the abstract calculation (e.g., claim 4, "wherein . . . cash flow input events comprise draw downs"; claim 11, "wherein the performance characteristic is one of IRR and NAV"). We agree with Petitioner that these further limitations do not add a technological advance to the abstract idea of modeling a financial product having irregular cash flow. *See id*. at 24–25.

4. *Preemption*

Patent Owner argues that the ’196 patent claims are not ineligible subject matter because they do not impermissibly preempt the use of an abstract idea. According to Patent Owner, “there are numerous examples in the record of different PME methods that do not use the scaling method covered by the ’196 patent.” PO Resp. 23. Patent Owner identifies two methods, the Kaplan-Schoar PME method and the Direct Alpha method, which Mr. Reyes testified do not scale cashflows in determining whether investment in private equity did better or worse than the same investment in public markets. *Id*. (citing Ex. 2004 ¶¶ 66–75).

Petitioner responds that “the unpatentability of natural laws applies even if the natural law at issue is narrowly claimed, for fear that granting even narrow patents to discoveries in these areas would ‘tie up’ the ‘basic tools of scientific and technological work.’” Reply 10 (citing *Mayo*, 132 S. Ct. at 1301 (quoting Benson, 409 U.S. at 67)). Petitioner further argues that Mr. Reyes conceded that each of these methods is mathematically equivalent. *Id*. (citing Ex. 1012, 146:2–10).

We need not determine the mathematical relationship between Patent Owner’s method of comparing financial products to an index and other methods of analyzing financial data in order to determine the degree to which such comparisons are preempted by the ’196 patent claims, in light of our foregoing analysis under *Alice* and *Mayo*. *See Ariosa Diagnostics, Inc. v. Sequenom, Inc*., Nos. 2014-1139, 2014-1144, slip op. at 14 (Fed. Cir. June 12, 2015) (“[Q]uestions on preemption are inherent in and resolved by the § 101 analysis.”).

D. Conclusion

For the foregoing reasons, we conclude Petitioner has proven, by a preponderance of the evidence, that claims 1–17 of the '196 patent are unpatentable under 35 U.S.C. § 101.

IV. ORDER

For the reasons given, it is:

ORDERED that Petitioner has established by a preponderance of the evidence that claims 1–17 of the '196 patent are unpatentable;

FURTHER ORDERED that Patent Owner's motion to exclude is dismissed as moot; and

FURTHER ORDERED that because this is a Final Written Decision, parties to the proceeding seeking judicial review of the Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

CBM2014-00079
Patent 7,698,196

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