United States Court of Appeals for the Federal Circuit

SAP AMERICA, INC.,
Plaintiff-Appellee

v.

INVESTPIC, LLC,
Defendant-Appellant

2017-2081

Appeal from the United States District Court for the Northern District of Texas in No. 3:16-cv-02689-K, Judge Ed Kinkeade.

OPINION ISSUED: May 15, 2018
OPINION MODIFIED: August 2, 2018[*]

KATHERINE VIDAL, Winston & Strawn LLP, Menlo Park, CA, argued for plaintiff-appellee. Also represented by MICHAEL A. BITTNER, THOMAS M. MELSHEIMER, Dallas, TX; TYLER JOHANNES, Chicago, IL; STEFFEN NATHANAEL

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[*] This opinion has been modified and reissued following a petition for rehearing filed by Defendant-Appellant.

JOHNSON, Washington, DC; JOHN D. VANDENBERG, Klarquist Sparkman, LLP, Portland, OR.

CECIL E. KEY, DiMuroGinsberg PC – DGKeyIP Group, Tysons Corner, VA, argued for defendant-appellant. Also represented by TERESA MARIE SUMMERS; JAY P. KESAN, McLean, VA.

Before LOURIE, O'MALLEY, and TARANTO, *Circuit Judges*.

TARANTO, *Circuit Judge*.

InvestPic, LLC's U.S. Patent No. 6,349,291 describes and claims systems and methods for performing certain statistical analyses of investment information. We addressed this patent in *In re Varma*, 816 F.3d 1352 (Fed. Cir. 2016), where we construed key claim terms and partly reversed and partly vacated the Patent Trial and Appeal Board's cancellations of various claims in two reexamination proceedings involving issues of anticipation and obviousness under 35 U.S.C. §§ 102 and 103. The present appeal involves a declaratory judgment action filed in 2016 by SAP America, Inc., which alleges, among other things, that the claims of the '291 patent are invalid because their subject matter is ineligible for patenting under 35 U.S.C. § 101. When SAP moved for a judgment on the pleadings on that ground, the district court granted the motion, holding all claims ineligible under § 101 and hence invalid. *SAP Am., Inc. v. InvestPic, LLC*, 260 F. Supp. 3d 705, 718–19 (N.D. Tex. 2017).

We affirm. We may assume that the techniques claimed are "[g]roundbreaking, innovative, or even brilliant," but that is not enough for eligibility. *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013); *accord buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1352 (Fed. Cir. 2014). Nor is it enough for

subject-matter eligibility that claimed techniques be novel and nonobvious in light of prior art, passing muster under 35 U.S.C. §§ 102 and 103. *See Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 89–90 (2012); *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) ("[A] claim for a *new* abstract idea is still an abstract idea. The search for a § 101 inventive concept is thus distinct from demonstrating § 102 novelty."); *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1315 (Fed. Cir. 2016) (same for obviousness) (*Symantec*). The claims here are ineligible because their innovation is an innovation in ineligible subject matter. Their subject is nothing but a series of mathematical calculations based on selected information and the presentation of the results of those calculations (in the plot of a probability distribution function). No matter how much of an advance in the finance field the claims recite, the advance lies entirely in the realm of abstract ideas, with no plausibly alleged innovation in the non-abstract application realm. An advance of that nature is ineligible for patenting.

I

A

Describing aspects of existing practices declared to be in need of improvement, the '291 patent states that "conventional financial information sites" on the World Wide Web "perform rudimentary statistical functions" that "are not useful to investors in forecasting the behavior of financial markets because they rely upon assumptions that the underlying probability distribution function ('PDF') for the financial data follows a normal or Gaussian distribution." '291 patent, col. 1, lines 24–36. That assumption, the patent says, "is generally false": "the PDF for financial market data is heavy tailed (i.e., the histograms of financial market data typically involve many outliers containing important information)," rather than

symmetric like a normal distribution. *Id.*, col. 1, lines 36–37, 41–44. Moreover, "statistical measures such as the standard deviation provide no meaningful insight into the distribution of financial data." *Id.*, col. 1, lines 44–46. As a result, the patent asserts, conventional "analyses understate the true risk and overstate [the] potential rewards for an investment or trading strategy." *Id.*, col. 1, lines 53–54.

To remedy those deficiencies, the patent proposes a technique that "utilizes resampled statistical methods for the analysis of financial data," which do not assume a normal probability distribution. *Id.*, col. 1, line 65 through col. 2, line 3. One such method is a bootstrap method, which estimates the distribution of data in a pool (a sample space) by repeated sampling of the data in the pool. *Id.*, col. 10, lines 20–38. A sample space in a bootstrap method can be defined by selecting a specific investment or a particular period of time. *Id.*, col. 12, lines 62–66. Data samples are drawn from the sample space "with replacement": samples are drawn from the sample space and then returned to the pool before the next sample is drawn. *Id.*, col. 10, lines 60–62, col. 11, lines 18–20. The patent also describes using a "bias parameter" to "specif[y] the degree of randomness in the resampling process." *Id.*, col. 11, lines 55–58. In order to "perform a resampled statistical analysis," a client "may specify a number of parameters including an investment or investments (e.g., a portfolio) to be analyzed, a financial function, a sample size, a period, a type of plot and a bias parameter, which controls the randomness of the resampling process." *Id.*, col. 2, lines 50–56.

As this case came to us from the district court, claims 1, 11, and 22 were the remaining independent claims of

the '291 patent.[1] Claims 1 and 11 are method claims. Claim 1 read as follows:

> 1. A method for calculating, analyzing and displaying investment data comprising the steps of:
>
> > (a) selecting a sample space, wherein the sample space includes at least one investment data sample;

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[1] Several months after InvestPic filed its opening brief in this court, reexamination certificates issued that amended those and other claims, added new claims, and cancelled others. At least because some of the changes merely make dependent claims independent and other claims are unchanged, and because pre-change damages might be available for valid claims that remain sufficiently unaltered as a substantive matter, the validity issues before us (involving subject matter eligibility) are not moot. *See Lexington Luminance LLC v. Amazon.com Inc.*, 601 F. App'x 963, 967 n.1 (Fed. Cir. 2015). In its briefing to the panel, InvestPic argued neither that the issues were moot nor that the claims emerging from reexamination are valid even if the pre-reexamination claims are not. Indeed, InvestPic urged this court in its reply brief to address the claims as they emerged from reexamination. We do so, concluding that any remand for further consideration of the post-reexamination claims would be futile. The most that the reexamination changes do is to add details to the abstract ideas in the claims; they add nothing to the non-abstract elements of the claims, which remain wholly conventional computer and display devices. The reexamination changes therefore do not alter our invalidity analysis and conclusion, which we present largely using the claims addressed by the district court.

> (b) generating a distribution function using a re-sampled statistical method and a bias parameter, wherein the bias parameter determines a degree of randomness in a resampling process; and,
>
> (c) generating a plot of the distribution function.

Id., col. 16, lines 35–43. Claim 11 stated the following:

> 11. A method for providing statistical analysis of investment data over an information network, comprising the steps of:
>
> (a) storing investment data pertaining to at least one investment;
>
> (b) receiving a statistical analysis request corresponding to a selected investment;
>
> (c) receiving a bias parameter, wherein the bias parameter determines a degree of randomness in a resampling process; and,
>
> (d) based upon investment data pertaining to the selected investment, performing a resampled statistical analysis to generate a resampled distribution.

Id., col. 17, lines 17–30.

Claim 22, a system claim, read as follows:

> 22. A system for providing statistical analysis of investment information over an information network comprising:
>
> a financial data database for storing investment data;
>
> a client database;

> a plurality of processors collectively arranged to perform a parallel processing computation, wherein the plurality of processors is adapted to:
>
> receive a statistical analysis request corresponding to a selected investment;
>
> based upon investment data pertaining to the selected investment, perform a resampled statistical analysis to generate a resampled distribution; and,
>
> provide a report of the resampled distribution.

Id., col. 18, lines 14–27.[2]

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[2] The changes on reexamination were as follows: The words "in sample selection" were added after "randomness" in each of claim 1 and claim 11. *See* J.A. 1827A. Claim 22 was changed to read:

> A system for providing statistical analysis of investment information over an information network comprising:
>
> a financial data database for storing investment data *corresponding to two or more selected investments, wherein the investment data comprises at least a first investment data value associated with a first investment and a second investment data value associated with a second investment;*
>
> *a sample space that includes at least the first investment data value and the second investment data value, the sample space being determined based at least in part*

> *upon one statistical analysis user request to perform at least one statistical analysis that corresponds to the two or more selected investments;*
>
> a client data base; and
>
> a plurality of processors collectively arranged to perform a parallel processing computation, wherein the plurality of processors is adapted to:
>
> > receive [a] *the one* statistical analysis *user* request corresponding to [a] *the two or more* selected [investment] *investments*,
> >
> > based upon *the one statistical analysis user request,* investment data *samples* pertaining to the *two or more* selected [investment] *investments drawn from the sample space, and at least one return object corresponding to each of the first and second investment data values,* perform a resampled statistical analysis *that preserves a temporal correlation between the two or more selected investments* to generate a resampled distribution; and
> >
> > provide a report of the resampled distribution.

J.A. 1837 (italics show additions; brackets show deletions).

B

In May 2017, the district court granted SAP's motion for judgment on the pleadings. *SAP*, 260 F. Supp. 3d at 718–19. The court concluded that the claims of the '291 patent are directed to "performing statistical analysis," specified using words in the claims and using more technical, mathematical notation in the written description. *Id.* at 711. Because mathematical calculations and formulas are not patent eligible, the court concluded, all of the claims of the '291 patent, including the dependent claims (which contain more specific mathematical steps) are not directed to patent-eligible subject matter. *Id.* at 714–15, 717–18. The court then ruled that the claims add no inventive concept to the mathematics to which they are directed—merely (a) further-specified mathematical calculations and (b) pre- and post-solution activities like use of the internet or generic computer hardware. *Id.* at 715–18.

The district court issued its final judgment on May 18, 2017, and InvestPic filed its notice of appeal on May 22, 2017, within the 30-day time limit. *See* 28 U.S.C. § 2107(a). We therefore have jurisdiction to hear this appeal pursuant to 28 U.S.C. § 1295(a)(1).

Claims 6, 17, and 24–26 were rewritten in independent form. Post-reexamination claims 6, 17, and 26 merely incorporate the language of the claims on which they previously depended. *See* J.A. 1827, 1837. Claim 24 modifies the "bias parameter" limitation so that it "determines a degree of randomness in sample selection in a resampling process." *See* J.A. 1837. Claim 25 incorporates limitations substantially identical to the revised claim 22. See *id.* Reexamination claims 32–40 are new; claim 32, quoted *infra*, is representative of those claims for current purposes.

II

We review a judgment on the pleadings under Rule 12(c) de novo. *See Hughes v. The Tobacco Inst., Inc.*, 278 F.3d 417, 420 (5th Cir. 2001). "The standard for deciding a Rule 12(c) motion is the same as a Rule 12(b)(6) motion to dismiss. The court accepts all well-pleaded facts as true, viewing them in the light most favorable to the plaintiff," which "must plead enough facts to state a claim to relief that is plausible on its face." *Guidry v. American Public Life Ins. Co.*, 512 F.3d 177, 180 (5th Cir. 2007) (internal citations and quotation marks omitted).

Eligibility under 35 U.S.C. § 101 is a question of law, based on underlying facts. *See Aatrix Software, Inc. v. Green Shades Software, Inc.,* 882 F.3d 1121, 1125 (Fed. Cir. 2018); *Berkheimer v. HP Inc.,* 881 F.3d 1360, 1364–65 (Fed. Cir. 2018). Like other legal questions based on underlying facts, this question may be, and frequently has been, resolved on a Rule 12(b)(6) or (c) motion where the undisputed facts, considered under the standards required by that Rule, require a holding of ineligibility under the substantive standards of law. *See*, *e.g.*, *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1341 (Fed. Cir. 2017); *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1328 (Fed. Cir. 2017); *Fair-Warning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016); *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1380 (Fed. Cir. 2016); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 717 (Fed. Cir. 2014). This is such a case.

Section 101 provides that "[w]hoever 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 provision, however, "contains an important implicit exception: Laws of nature, natural

phenomena, and abstract ideas are not patentable." *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014). A claim falls outside § 101 where (1) it is "directed to" a patent-ineligible concept, *i.e.*, a law of nature, natural phenomenon, or abstract idea, and (2), if so, the particular elements of the claim, considered "both individually and 'as an ordered combination,'" do not add enough to "'transform the nature of the claim' into a patent-eligible application." *Id.* at 2355; *see Mayo*, 566 U.S. at 78–79. The first stage of the *Alice* inquiry looks at the "focus" of the claims, their "'character as a whole'"; and the second stage of the inquiry (where reached) looks more precisely at what the claim elements add—specifically, whether, in the Supreme Court's terms, they identify an "'inventive concept'" in the application of the ineligible matter to which (by assumption at stage two) the claim is directed. *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–1356 (Fed. Cir. 2016) (quoting *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016)); *see also Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1338 (Fed. Cir. 2017) (*Capital One*); *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1348 (Fed. Cir. 2016); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

A

The claims in this case are directed to abstract ideas. The focus of the claims, as reflected in what is quoted above, is on selecting certain information, analyzing it using mathematical techniques, and reporting or displaying the results of the analysis. That is all abstract.

We have explained that claims focused on "collecting information, analyzing it, and displaying certain results of the collection and analysis" are directed to an abstract idea. *Electric Power*, 830 F.3d at 1353. "Information as such is an intangible," hence abstract, and "collecting

information, including when limited to particular content (which does not change its character as information), [i]s within the realm of abstract ideas." *Id.* (citing cases). So, too, is "analyzing information . . . by mathematical algorithms, without more." *Id.* at 1354 (citing cases, including *Parker v. Flook*, 437 U.S. 584 (1978), and *Gottschalk v. Benson*, 409 U.S. 63 (1972)). And "merely presenting the results of abstract processes of collecting and analyzing information, without more (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis." *Id.* (citing cases). The claims here are directed at abstract ideas under those principles.

Contrary to InvestPic's contention, the claims here are critically different from those we determined to be patent eligible in *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016). The claims in *McRO* were directed to the creation of something physical—namely, the display of "lip synchronization and facial expressions" of animated characters on screens for viewing by human eyes. *Id.* at 1313. The claimed improvement was to how the physical display operated (to produce better quality images), unlike (what is present here) a claimed improvement in a mathematical technique with no improved display mechanism. The claims in *McRO* thus were not abstract in the sense that is dispositive here. And those claims also avoided being "abstract" in another sense reflected repeatedly in our cases (based on a contrast not with "physical" but with "concrete"): they had the specificity required to transform a claim from one claiming only a result to one claiming a way of achieving it. *McRO*, 837 F.3d at 1314; *see Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1305–06 (Fed. Cir. 2018); *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241 (Fed. Cir. 2016); *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1265 (Fed. Cir. 2016); *see also Two-Way Media*, 874 F.3d at 1337; *Secured Mail*

Solutions LLC v. Universal Wilde, Inc., 873 F.3d 905, 909 (Fed. Cir. 2017); *RecogniCorp*, 855 F.3d at 1326; *Symantec*, 838 F.3d at 1316.

Similarly, in *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1348–49 (Fed. Cir. 2017), the improvement was in a physical tracking system. The use of mathematics to achieve an improvement no more changed the conclusion that improved physical things and actions were the subject of the claimed advance than it did in *Diamond v. Diehr*, 450 U.S. 175 (1981). Here, in contrast, the focus of the claims is not a physical-realm improvement but an improvement in wholly abstract ideas—the selection and mathematical analysis of information, followed by reporting or display of the results.

Contrary to InvestPic's suggestion, it does not matter to this conclusion whether the information here is information about real investments. As many cases make clear, even if a process of collecting and analyzing information is "limited to particular content" or a particular "source," that limitation does not make the collection and analysis other than abstract. *Electric Power*, 830 F.3d at 1353, 1355 (citing cases). Moreover, the "investment" character of this information simply invokes a separate category of abstract ideas involved in *Alice* and many of our cases—"the creation and manipulation of legal obligations such as contracts involved in fundamental economic practices." *Id.* at 1354; *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) ("At best, the claims describe the automation of the fundamental economic concept of offer-based price optimization through the use of generic-computer functions."); *see Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017); *buySAFE*, 765 F.3d at 1353–54.

InvestPic also argues that the '291 patent's claims are similar to others we have concluded were patentable at the first stage of the *Alice* inquiry, specifically the claims

in *Enfish* and *BASCOM*. In those cases, claims were patent-eligible because they were directed to improvements in the way computers and networks carry out their basic functions. *Enfish*, 822 F.3d at 1335–36; *BASCOM*, 827 F.3d at 1348–49; *see Electric Power*, 830 F.3d at 1354. The claims in *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1259–60 (Fed. Cir. 2017), were similar. Here, the focus of the claims is not any improved computer or network, but the improved mathematical analysis; and indeed, the specification makes clear that off-the-shelf computer technology is usable to carry out the analysis. *See, e.g.*, '291 patent, col. 4, lines 13–22, col 5, lines 28–37, col. 6, lines 13–16, col. 14, lines 50–61. The claims of the '291 patent thus fit into the familiar class of claims that do not "focus . . . on [] an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools." *Electric Power*, 830 F.3d at 1354.

B

Because the claims are directed to an abstract idea, we must proceed to the second stage of the *Alice* inquiry. We readily conclude that there is nothing in the claims sufficient to remove them from the class of subject matter ineligible for patenting and transform them into an eligible application. What is needed is an inventive concept in the non-abstract application realm. Here, all of the claim details identified by InvestPic—including in the claims that emerged from reexamination—fall into one or both of two categories: they are themselves abstract; or there are no factual allegations from which one could plausibly infer that they are inventive. In these circumstances, judgment on the pleadings that the claims recite no "inventive concept" is proper.

We have already noted that limitation of the claims to a particular field of information—here, investment information—does not move the claims out of the realm of abstract ideas. Dependent method claims 2–5, 7, and 10

add "limitations . . . [that] require[] the resampling method to be a bootstrap method." *SAP*, 260 F. Supp. 3d at 715. Likewise, "[c]laims 8 and 9 add limitations that the statistical method is a jackknife method and a cross validation method." *Id.* at 716. Because bootstrap, jackknife, and cross-validation methods are all "particular methods of resampling," those features simply provide further narrowing of what are still mathematical operations. They add nothing outside the abstract realm. *See Mayo*, 566 U.S. at 88–89 (stating that narrow embodiments of ineligible matter, citing mathematical ideas as an example, are still ineligible); *buySAFE*, 765 F.3d at 1353 (same). Dependent method claims 12–21 are no different. The same is true of the enumerations of processes carried out by computers in the claims added on reexamination. *See* J.A. 1837–39.[3]

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[3] For example, the added claim 32 reads:

A system for providing statistical analysis of investment information over an information network comprising:

> a financial data database for storing investment data corresponding to two or more selected investments, wherein the investment data comprises at least a first investment data value associated with a first investment and a second investment data value associated with a second investment;
>
> a sample space that includes at least the first investment data value and the second investment data value, the sample space being determined based at least in part upon one user request to perform at least

one statistical analysis that corresponds to the two or more selected investments;

a first data structure for storing a first return object having a first time field and a first value field, wherein the first time field stores a first time corresponding to a time of a return of the first investment, and wherein the first value field stores the investment data value of the first investment at the time stored in the first time field;

a second data structure for storing a second return object having a second time field and a second value field, wherein the second time field stores a second time corresponding to a time of a return of the second investment, and wherein the second value field stores the investment data value of the second investment at the time stored in the second time field;

a client data base; and

a plurality of processors collectively arranged to perform a parallel processing computation, wherein the plurality of processors is adapted to:

receive the statistical analysis request corresponding to the two or more selected investments,

based upon the one statistical analysis request and investment data samples pertaining to the two or more selected investments

Some of the claims require various databases and processors, which are in the physical realm of things. But it is clear, from the claims themselves and the specification, that these limitations require no improved computer resources InvestPic claims to have invented, just already available computers, with their already available basic functions, to use as tools in executing the claimed process. Although counsel for InvestPic contended at oral argument that the inclusion of a "parallel processing" computing architecture in claim 22 (now also in added claims 32–40) should render the claim patent eligible, Oral Arg. at 13:10–13:45, neither the claims nor the specification call for any parallel processing architectures different from those available in existing systems. Rather, to the extent that parallel processing is discussed in the specification, it is characterized as generic parallel processing components—not even asserted to be an invention of InvestPic—on which the claimed method could run. '291 patent, col. 14, lines 50–61.

> drawn from the sample space, perform a resampled statistical analysis, wherein the first return object of the first investment and the second return object of the second investment both correspond to a time period to preserve a temporal correlation between the two or more selected investments, to generate a resampled joint distribution; and
>
> provide a report of the resampled joint distribution.

J.A. 1837–38.

In accordance with the Supreme Court's conclusion in *Alice*, 134 S. Ct. at 2358–59, this court has ruled many times that "such invocations of computers and networks that are not even arguably inventive are insufficient to pass the test of an inventive concept in the application of an abstract idea," *Electric Power*, 830 F.3d at 1355 (internal quotation marks omitted) (citing cases). *See*, *e.g.*, *Credit Acceptance*, 859 F.3d at 1055–56; *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1374–75 (Fed. Cir. 2017); *Secured Mail*, 873 F.3d at 911–12. Under those decisions, an invocation of such computers and networks is not enough to establish the required "inventive concept" in application. Indeed, we think it fair to say that an invocation of already-available computers that are not themselves plausibly asserted to be an advance, for use in carrying out improved mathematical calculations, amounts to a recitation of what is "well-understood, routine, [and] conventional." *Mayo*, 566 U.S. at 73. Here, that conclusion is properly drawn under the standards governing Rule 12(c) motions.

There is, in short, nothing "inventive" about any claim details, individually or in combination, that are not themselves in the realm of abstract ideas. In the absence of the required "inventive concept" in application, the claims here are legally equivalent to claims simply to the asserted advance in the realm of abstract ideas—an advance in mathematical techniques in finance. Under the principles developed in interpreting § 101, patent law does not protect such claims, without more, no matter how groundbreaking the advance. An innovator who makes such an advance lacks patent protection for the advance itself. If any such protection is to be found, the innovator must look outside patent law in search of it, such as in the law of trade secrets, whose core requirement is that the idea be kept secret from the public.

III

For the foregoing reasons, we affirm the judgment of the district court.

AFFIRMED