

No. 18-1199

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**In the Supreme Court of the United States**

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INVESTPIC, LLC, PETITIONER

*v.*

SAP AMERICA, INC., RESPONDENT

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

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**BRIEF IN OPPOSITION TO CERTIORARI**

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**QUESTION PRESENTED**

Whether the court of appeals correctly applied this Court's repeated decisions that a "mathematical formula" is an abstract idea and thus ineligible for patenting, even if the formula is "new," "better," and limited to running on "computers" (*e.g.*, *Parker v. Flook*, 437 U.S. 584, 593–594 (1978)), to the patent claims at issue, which are directed to systems and methods for performing statistical analyses of investment information on general-purpose computers using their ordinary functions.

**CORPORATE DISCLOSURE STATEMENT**

The parent company of respondent SAP America, Inc., is SAP SE. SAP SE is the only publicly traded company that owns 10% or more of SAP America, Inc.

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## INTRODUCTION

The Federal Circuit’s unanimous decision in this case presents no question worthy of the Court’s review. InvestPic suggests otherwise by arguing that the court created a new “‘physical realm’ test” for its patent and others like it. *E.g.*, Pet. i, 6. That is incorrect.

The patent was invalidated because, *despite* being anchored in the physical realm, it is directed to “an advance in mathematical techniques in finance”—to “abstract ideas.” Pet. App. 20a. Specifically, the patent claims the use of math and general-purpose computers to skew a dataset of investment information and analyze it. As all four judges below agreed, the claimed “innovation” is “nothing but a series of mathematical calculations based on selected information and the presentation of the results” thereof, carried out on “off-the-shelf” computers using “their already available basic functions.” Pet. App. 3a, 15a, 18a–19a; accord *id.* at 55a–56a.

This case therefore involves a textbook application of nearly a century of precedent to claims directed to “systems and methods for performing certain *statistical analyses* of investment information.” Pet. App. 2a (emphasis added). In *Mackay Radio & Telegraph Co. v. Radio Corp. of America*, the Court held that “a scientific truth, or the mathematical expression of it, is not [a] patentable invention.” 306 U.S. 86, 94 (1939). In *Gottschalk v. Benson*, the Court held that § 101 does not authorize patenting a “mathematical formula,” even when the formula has a “substantial practical application \* \* \* in connection with a digital computer.” 409 U.S. 63, 71–72 (1972). Shortly thereafter, *Parker v. Flook* held that claims to a “mathematical formula” are ineligible for patenting even if the formula is

“new,” “better,” and limited to running on “computers.” 437 U.S. 584, 593–594 (1978). Finally, *Alice v. CLS Bank International* reaffirmed these decisions, holding that “generic computer [implementation] cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” 573 U.S. 208, 223 (2014).

InvestPic does not challenge these decisions or the two-step *Alice* framework—it asserts only a “misapplication of *Alice*” to these facts. Pet. 5. Accordingly, the petition should be denied. See S. Ct. R. 10 (certiorari is rarely warranted to address “the misapplication of a properly stated rule of law”).

In reality, the phrase “physical realm” appears just twice in the opinion below. And in one such instance, the court states that claim 32—which InvestPic admits is “illustrative” (Pet. 11)—“require[s] various databases and processors, which are in the physical realm of things.” Pet. App. 18a. Remarkably, InvestPic nowhere mentions this passage of the opinion. But it confirms that the question whether a patent claim’s failure to recite physical elements renders it “abstract” under § 101 is not fairly presented on this record.

Once these vehicle and other problems become evident, little remains of the petition. InvestPic finds it anomalous that patent claims might be held novel or non-obvious under §§ 102 and 103 of the Patent Act, but invalidated under § 101. Yet this Court has repeatedly rejected that view in decisions that InvestPic does not ask the Court to overrule. The same is true of InvestPic’s other arguments.

In sum, the court below, in unanimously affirming the district court, issued a careful and thorough ruling applying settled and unchallenged rules to the specific

facts of this case—which is not close on the merits. No judge voted for en banc review, and InvestPic’s “physical realm” theory is defeated by even a cursory look at the patent claims—which, again, expressly require various elements “in the physical realm of things.” Pet. App. 18a.

Certiorari should thus be denied.

## STATEMENT

### A. The governing statutory framework

Section 101 of the Patent Act authorizes the Patent Office to grant an inventor a patent on “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101. As this Court has “long held,” however, “this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice*, 573 U.S. at 216 (quotations and citation omitted). Extending patent monopolies to such claims “would risk disproportionately tying up the use of the underlying natural laws, inhibiting their use in the making of further discoveries.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 73 (2012). Thus, an invention “does not by itself satisfy the § 101 inquiry” by virtue of being a “groundbreaking, innovative, or even brilliant discovery.” *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 577 (2013).

To aid in applying § 101, the Court has identified several categories of inventions that—without more—are ineligible for patents. One such category is mathematical equations. For nearly a century, the Court has held that “a scientific truth, or the mathematical expression of it, is not [a] patentable invention.” *MacKay*, 306 U.S. at 94. Nor is “simply implementing a

mathematical principle on a physical machine, namely a computer, \* \* \* patentable.” *Mayo*, 566 U.S. at 84 (citing *Gottschalk*, 409 U.S. at 71).

Another category of unpatentable claims includes “fundamental economic practice[s]” such as “hedging[] or protecting against risk.” *Bilski v. Kappos*, 561 U.S. 593, 611 (2010). As the Court explained in *Bilski*, allowing a party to patent fundamental economic practices would “pre-empt use of [the applicable] approach in all fields, and would effectively grant a monopoly over an abstract idea.” *Id.* at 612.

Section 101 challenges are now evaluated under a two-step framework that the Court set out in *Alice*:

First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, what else is there in the claims before us? To answer that question, we consider the elements of each claim both individually and as an ordered combination to determine whether the additional elements “transform the nature of the claim” into a patent-eligible application.

573 U.S. at 217–218 (quotations and citations omitted). The Court in *Alice* further noted that, at the first step, a key question is whether the claims are directed to abstract ideas deemed unpatentable in prior cases, such as mathematical formulas and fundamental economic practices. *Id.* at 222–223 (discussing *Gottschalk*, *Flook*, and *Bilski*).

Section 101 eligibility is distinct from other bars to patentability, such as obviousness, anticipation, and enablement. *E.g.*, *Diamond v. Diehr*, 450 U.S. 175, 190 (1981) (“The question [] of whether a particular invention is novel is wholly apart from whether the invention falls into a category of statutory subject matter.”)

(quotations and citations omitted); cf. 35 U.S.C. §§ 102, 103, and 112. The Court in *Mayo*, for example, expressly “decline[d] \* \* \* to substitute §§ 102, 103, and 112 inquiries for the \* \* \* inquiry under § 101,” as that “approach \* \* \* would make the ‘law of nature’ exception to § 101 patentability a dead letter.” 566 U.S. at 89, 91.

### **B. The mathematical processes claimed by the '291 patent**

InvestPic’s Patent—U.S. Patent No. 6,349,291, or the “’291 patent”—claims a variety of mathematical techniques used to analyze financial information. As the patent abstract explains, the “invention provides a method and system for the statistical analysis, display and dissemination of financial data over an information network.” C.A. App. 28. In InvestPic’s own words, the genesis of the ’291 patent was the patent applicant’s observation that the Gaussian distribution, a mathematical formula for “assessing the health of investment portfolios,” was “inaccurate.” Pet. 7.

InvestPic’s patent claimed to solve the inaccuracy with a new mathematical process. For example, Reexamined Claim 1 of the ’291 patent reads:

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;
  - (b) generating a distribution function using a resampled statistical method and a bias parameter, wherein the bias parameter determines a degree of randomness in sample selection in a resampling process; and,

(c) generating a plot of the distribution function.

C.A. App. 1827a (emphasis added).

Reexamined Claim 32—which InvestPic acknowledges is “illustrative” (Pet. 11)—operates along similar lines as Claim 1, but also includes physical computer components. Reexamined Claim 32 recites “[a] system for providing *statistical analysis of investment information* over an information network comprising,” among other things:

*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 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.

Pet. App. 17a–18a n.3 (emphasis added).

### **C. The Federal Circuit’s earlier decision**

The Federal Circuit first reviewed the ’291 patent after the Patent Office rejected a number of its claims in *inter partes* and *ex parte* reexamination proceedings.

See *In re Varma*, 816 F.3d 1352 (Fed. Cir. 2016); Pet. App. 81a. In the *inter partes* reexamination proceeding, the examiner rejected claims 1–5, 10–16, and 19–21 on anticipation grounds and claims 29–31 on obviousness grounds. Pet. App. 89a. The Patent Trial and Appeal Board (“Board” or “PTAB”) affirmed. *Id.* at 89a–90a. In the *ex parte* reexamination proceeding, the examiner rejected claims 22–25 on obviousness grounds. *Id.* at 92a. Again, the Board affirmed. *Ibid.*

On appeal to the Federal Circuit, InvestPic sought reversal on the basis that the prior art reference cited by the examiner and the Board did not teach a “bias parameter,” a statistical method for manipulating data required by claims 1–5, 8–16, 19–21, and 24. Pet. App. 94a. The Federal Circuit agreed with InvestPic as to those claims, ruling that the Board had misread the claim language and that, when those claims were properly interpreted, the prior art reference did not apply to them. *Id.* at 98a. The Federal Circuit noted, among other things, that the Board had not made any finding that the prior art reference was “mathematically equal” to the claimed invention. *Id.* at 99a.

The Federal Circuit had no opportunity, however, to consider whether the claims were abstract under § 101. As noted above, the concepts of obviousness and anticipation are distinct from the inquiry under § 101. *Mayo*, 566 U.S. at 91. And it was not within the PTAB’s purview to consider § 101 issues in the *ex parte* or *inter partes* reexamination proceedings. See 37 C.F.R. §§ 1.552, 1.906.

On remand from the Federal Circuit, the PTAB resolved the *inter partes* reexamination by holding that the examiner erred in rejecting claims 1–5, 8–16, 19–

20, and 21, but that the examiner did not err in rejecting claims 29–31. As to the *ex parte* proceeding, the PTAB reversed the rejection of claim 24, but affirmed the rejection of claims 22, 23, and 25.

The *inter partes* reexamination certificate did not issue until September 6, 2017, and was the subject of a certificate of correction that did not issue until October 20, 2017. The *ex parte* reexamination certificate did not issue until October 30, 2017. These certificates thus issued after SAP America submitted its opposition brief in the court below, but before InvestPic submitted its reply brief.

**D. The courts below held that the asserted claims are directed to abstract ideas.**

Applying this Court’s guidance in *Alice* and related precedent, both courts below determined that the subject matter of the ’291 patent’s claims—mathematical techniques used to collect, analyze, and display information—was not eligible for patenting.

1. SAP America filed this action seeking a declaration that the claims of the ’291 patent were invalid under § 101. After InvestPic answered, SAP America moved for judgment on the pleadings, asking the court to rule that all of the claims of the patent-in-suit are directed to patent-ineligible subject matter. See Pet. App. 38a.

The district court granted SAP America’s motion and entered judgment in its favor. Pet. App. 38a. Applying the two-part *Alice* framework, the court agreed with SAP America that “all of the claims of the ’291 Patent are invalid because they are directed toward the abstract ideas of mathematical calculations and data manipulation.” *Id.* at 65a.

At step one, the court determined that the claims did nothing more than “perform[] statistical analysis” using “a mathematical calculation.” Pet. App. 47a. In response to InvestPic’s argument that the use of “bias parameters” was a patentable method, the court explained that the “bias parameter and resampling procedure represents \* \* \* the abstract idea of manipulating data.” *Id.* at 49a. The court likewise rejected InvestPic’s suggestions that the claimed invention is patentable because it improves the relevant technology. *Id.* at 53a. As the court observed, “[t]he claims of the ’291 Patent do not contain any substantial limitations besides those that recite the abstract idea at issue, which is mathematical calculations.” *Ibid.*

Turning to *Alice*’s step two, the court held that the invention contained no additional “inventive concept” —only “insignificant pre and post solution activities.” Pet. App. 56a. As the court recognized, the limitations “do not add any substance to the claims except for reciting the necessary steps to obtain and store data and to report results of the data manipulation.” *Id.* at 55a–56a.

2. The court of appeals affirmed, holding that the invention “lies entirely in the realm of abstract ideas, with no plausibly alleged innovation in the non-abstract application realm.” Pet. App. 3a.

At *Alice*’s first step, the court of appeals agreed with the district court’s characterization of the claims, concluding that “[t]he focus of the claims \* \* \* is on selecting certain information, analyzing it using mathematical techniques, and reporting or displaying the results of the analysis.” Pet. App. 12a. As the court emphasized: “That is all abstract.” *Ibid.*

The court also distinguished its earlier decisions in *McRO, Inc. v. Bandai Namco Games America, Inc.*, 837 F.3d 1299 (Fed. Cir. 2016), and *Thales Visionix Inc. v. United States*, 850 F.3d 1343 (Fed. Cir. 2017). Pet. App. 13a–14a. Whereas the claims in *McRO* were directed to an improvement in “the display of ‘lip synchronization and facial expressions’ \* \* \* on screens” and the claims in *Thales* were directed to an improved “physical tracking system” (*ibid.* (citations omitted)), the claims of the ’291 patent were directed to “an improvement in wholly abstract ideas—the selection and mathematical analysis of information, followed by reporting or display of the results.” *Ibid.*

At *Alice*’s second step, the court again agreed with the district court’s conclusion that the asserted claims lack any “inventive concept.” Pet. App. 16a. In so holding, the court specifically addressed InvestPic’s reliance on the physical components of its claims:

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.

Pet. App. 18a–19a (emphasis added). Given this claim language, the court concluded: “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.’” *Id.* at 20a (quoting *Mayo*, 566 U.S. at 73).

3. InvestPic sought panel rehearing or rehearing en banc, arguing (among other things) that the court erred in analyzing the original rather than the reexamined claims—which, as noted above (at 8), did not issue until late in the briefing, after conclusion of the *In re Varma* remand proceedings in the PTAB. In response, the panel granted panel rehearing in part and denied it in part. The panel issued an amended opinion addressing the reexamined claims, but otherwise left its original conclusions unchanged.

After noting that InvestPic’s reply brief had “argued neither that the issues were moot nor that the claims emerging from reexamination are valid even if the pre-reexamination claims are not,” the panel’s amended opinion explained that “any remand for further consideration of the post-reexamination claims would be futile.” Pet. App. 5a–6a n.1. The court concluded that “[t]he most that the reexamination changes do is to add details to the abstract ideas in the claims.” *Id.* at 6a n.1. And looking to the components of the invention, the changes “add nothing to the non-abstract elements of the claims, which remain wholly conventional computer and display devices.” *Ibid.*

The Federal Circuit denied en banc review without dissent or a call for a vote. Pet. App. 68a.

**REASONS FOR DENYING THE PETITION****I. The decision below raises no important question worthy of this Court’s review.**

The petition satisfies none of the Rule 10 criteria for granting certiorari. InvestPic inaccurately asserts that the court below adopted a “physical realm” test to assess the validity of patents under § 101. Specifically, it asserts that the court of appeals applied an absolute bar to any patent claim reciting nothing in the physical realm. But such a bar could not have been the basis for the lower court’s ruling, as the court stated that the patent’s illustrative claims “require various databases and processors, which are in the physical realm of things.” Pet. App. 18a. The court invalidated the claims *despite* this fact, as they are directed to mathematical equations—abstract ideas under this Court’s longstanding precedents. In sum, the “question presented” is not fairly presented, the decision below is unquestionably correct, and InvestPic’s remaining arguments for certiorari—such as its claim of an intra-circuit conflict—are unfounded. The petition should thus be denied.

**A. The “question presented” is not presented on this record, as the illustrative claims require elements in the physical realm and the court below did not adopt a “‘physical realm’ test.”**

The petition rests largely on the premise that the Federal Circuit created a new “physical realm’ test” for § 101 cases. Pet. i (portraying the decision below as a bright-line “physical realm” test that “categorically exclud[es] otherwise patentable processes from patent eligibility”); Pet. 5 (the court below “legislated

new exceptions to patentability”); Pet. 6 (the ruling “focused exclusively on whether the patent’s claims encompassed an invention in the ‘physical realm’”). Yet even a cursory review of the opinion below and InvestPic’s patent claims reveals that premise to be false, and once that becomes clear little remains of the petition.

1. The phrase “physical realm” appears just twice in the opinion below. The first time, the phrase is cited as one of several grounds for distinguishing some of the claims here from those involved in prior Federal Circuit cases that InvestPic cited. App. 13a–14a. The second time, the court below states that the illustrative claims “require various databases and processors, which are in the physical realm of things.” Pet. App. 17a–18a & n.3 (discussing claim 32); see also Pet. App. 8a n.2 (quoting claim 22, which likewise recites various “database[s]” and “processors”). That is an odd thing to say if the court’s basis for invalidating the claims was their failure to recite physical elements. Yet one searches the petition in vain for any acknowledgment of this passage of the opinion.

Indeed, InvestPic does not quote any of the claims; it simply paraphrases them and points the Court to “footnote 3 of the Federal Circuit’s opinion” for the actual claim language. Pet. 11. The claim quoted there (claim 32), however, expressly requires “a client data base; and a plurality of processors” (Pet. App. 18a n.3), and InvestPic acknowledges that this claim is “illustrative.” Pet. 11. Thus, the illustrative claims here “require various databases and processors, which are in the physical realm of things” (Pet. App. 18a), and the question whether a patent claim’s failure to recite physical elements renders it “abstract” under § 101 is not presented on this record.

Specifically, the question presented asks: “Does the Federal Circuit’s ‘physical realm’ test contravene the Patent Act and this Court’s precedent by categorically excluding otherwise patentable processes from patent eligibility?” Pet. i. But since InvestPic’s claims contain elements “in the physical realm,” this case is not a suitable vehicle to decide that question.

In any case, later Federal Circuit decisions confirm that the court has not adopted a “physical realm” test. Following its decision in this case, the court has found various software patents to be eligible for patenting under § 101, despite existing no more in the “physical realm” than the ’291 patent. See *Ancora Techs. v. HTC Am., Inc.*, 908 F.3d 1343, 1347–1348 (Fed. Cir. 2018) (computer security software); *Data Engine Techs., LLC v. Google LLC*, 906 F.3d 999, 1008 (Fed. Cir. 2018) (electronic spreadsheet software). The Federal Circuit specifically noted in *Ancora* that “[c]omputers are improved not only through changes in hardware; software can make non-abstract improvements to computer technology.” 908 F.3d at 1347 (internal quotations and citation omitted). Indeed, in one of the cases that the court below found distinguishable from this case, the court held that a software patent directed to an improved 3-D animation technique was patent-eligible. *McRO*, 837 F.3d at 1316. In sum, InvestPic’s reports that the Federal Circuit has adopted a “‘physical realm’ test” are greatly exaggerated.

2. Rather than adopt any new “test,” the Federal Circuit invalidated InvestPic’s patent claims *notwithstanding* the fact that they were anchored in the physical realm, because they were nonetheless directed to the abstract idea of using mathematical parameters to skew a set of financial data and analyze it on general purpose computers. In the court’s own words, “[t]he

claims here are ineligible because their innovation 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),” carried out on “off-the-shelf” computers using “their already available basic functions.” Pet. App. 3a, 15a, 18a–19a (emphasis added); accord *id.* at 20a (holding that the claims are directed to “an advance in mathematical techniques in finance”—to “abstract ideas”). The district court reached the same conclusion for the same reasons. *Id.* at 55a–56a.

This case therefore involves a textbook application of this Court’s decisions in *Mackay*, *Flook*, *Gottschalk*, and *Alice* itself to claims directed to “systems and methods for performing certain *statistical analyses* of investment information.” Pet. App. 2a (emphasis added). As noted above, *Flook* held that claims to a “mathematical formula” are ineligible for patenting even if the formula is “new,” “better,” and limited to running on “computers.” 437 U.S. at 594. Similarly, *Gottschalk* held that § 101 does not authorize patenting a “mathematical formula,” even when the formula has a “substantial practical application \* \* \* in connection with a digital computer,” if the patent claims “in practical effect would be a patent on the algorithm itself.” 409 U.S. at 71–72. And *Alice* reaffirmed these precedents, ruling that “generic computer [implementation] cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” 573 U.S. at 223; see also *Mackay*, 306 U.S. at 94. As all four judges below recognized, that is precisely the situation here.

InvestPic does not challenge *Flook*, *Gottschalk*, *Mackay*, *Alice*, or the two-step *Alice* framework—only the lower court’s application of those precedents to this

record. See Pet. 5 (asserting a “misapplication of *Alice*”); *id.* at 19–20, 30. As explained below (at 22–25), that application of precedent was unassailably correct. But even if the court below had erred, certiorari would not be warranted to address “the misapplication of a properly stated rule of law.” S. Ct. R. 10.

**B. InvestPic’s claims of an intra-Federal Circuit split are unfounded.**

Unable to establish that the ruling below creates a “physical realm” test, InvestPic insists that review is needed to resolve an intra-circuit conflict. According to InvestPic, the Federal Circuit has “disregard[ed] the preemption inquiry entirely and substitute[d] [its] own tests for subject-matter eligibility,” evaluating the preemption issue in “inconsistent ways.” Pet. 30–31. But a careful review of the cited cases reveals no “crisis” in doctrine—only cases that turn on their facts.

1. First and foremost, the “preemption concern \* \* \* undergirds” the *Alice* framework. *Alice*, 573 U.S. at 223. As the Court there observed, the two-step inquiry helps courts “distinguish between patents that claim the ‘buildin[g] block[s]’ of human ingenuity and those that integrate the building blocks into something more, \* \* \* thereby ‘transform[ing]’ them into a patent-eligible invention.” *Id.* at 217 (quoting *Mayo*, 566 U.S. at 89). And the Federal Circuit faithfully applied the *Alice* framework in every case that InvestPic cites on this point. *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016); *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1303–1305 (Fed. Cir. 2018); *Exergen Corp. v. Kaz USA, Inc.*, 725 F. App’x 959, 963–966 (Fed. Cir. 2018).

Second, the cases do not support InvestPic’s claim that “some panels hold that the absence of preemption

risk confers patent eligibility [while] others hold that preemption is relevant only as a potentially disqualifying factor.” Rather, the cases reveal a consistent application of *Alice*’s two-step framework to varied facts and claims. See *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1259 (Fed. Cir. 2014) (“[T]he claims recite an invention that is not merely the routine or conventional use of the Internet.”); *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016) (“[T]his specific method of filtering internet content cannot be said, as a matter of law, to have been conventional or generic.”); *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1377 (Fed. Cir. 2015) (“The method at issue here amounts to a general instruction to doctors to apply routine, conventional techniques.”); *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) (“[T]he claims merely recite well-understood, routine conventional activities.”) (quotations and citation omitted).

To be sure, some of these decisions discuss preemption in greater depth, in answer to the parties’ specific arguments or to support its analysis under the *Alice* framework. See, e.g., *DDR Holdings*, 773 F.3d at 1259; *BASCOM*, 827 F.3d at 1350. But in none of the cases does the Federal Circuit “hold” that the “absence of preemption risk *confers* patent eligibility” or that “preemption is relevant *only* as a potentially disqualifying factor.” Pet. 31 (emphasis added).

Nevertheless, InvestPic cannot credibly argue that the court below disregarded preemption in its analysis. Beyond applying the two-part *Alice* framework, at the request of InvestPic’s counsel, the court’s step-two analysis addressed whether any aspects of the claims brought the invention beyond the realm of the building

blocks of human ingenuity. Pet. App. 18a–20a. The court concluded that none did. *Id.* at 20a. Instead, the court explained that “the asserted advance” in the claims was solely “in the realm of abstract ideas—an advance in mathematical techniques in finance.” *Ibid.* As noted above, this Court has long held that “a scientific truth, or the mathematical expression of it, is not patentable invention.” *Mackay*, 306 U.S. at 94.

2. According to InvestPic, the Patent Office’s recent guidance on the application of § 101 confirms that there is a “crisis” in the doctrine. But beyond the fact that PTO guidance is not binding on the courts (*e.g.*, *In re Smith*, 815 F.3d 816, 819 (Fed. Cir. 2016)), InvestPic’s patent would fare no better even if this Court were to adopt that guidance *in toto*.

As that guidance explains, at least three categories of abstract ideas should be considered ineligible subject matter: (a) “Mathematical concepts”; (b) “Certain methods of organizing human activity—fundamental economic principles or practices”; and (c) “Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion).” 84 Fed. Reg. 50, 52 (Jan. 7, 2019). As both the district court and the court of appeals determined, InvestPic’s patents provide a textbook example of claims directed to manipulating information using mathematical equations and displaying the results. See Pet. App. 3a (Federal Circuit), 12a–16a; *id.* at 47a–48a (district court); see also *infra* at 22–25 (explaining why that conclusion is correct on the merits). The claims of the ’291 patent are thus necessarily directed to at least the first two of the PTO’s categories, if not all three. Accordingly, the patent would have been rejected even if the court below had applied the PTO’s guidance.

**C. InvestPic’s remaining arguments for certiorari are without merit.**

None of InvestPic’s remaining arguments in support of certiorari has merit.

A. Several of InvestPic’s arguments would require the Court to overturn its past decisions on § 101 eligibility. Yet the petition makes no such request, and the Court has repeatedly rejected similar arguments.

*First*, InvestPic repeatedly suggests it was anomalous for the Federal Circuit to find the patent claims novel and non-obvious under §§ 102 and 103 while invalidating them under § 101. Pet. 6 (“Despite being found irrefutably valid under § 102 and § 103 \* \* \* the patent was felled on a Rule 12(c) motion under § 101.”); Pet. 13 (“No prior art nor combination of art can invalidate the ’291 Patent on 35 U.S.C. § 102 or § 103 grounds.”); Pet. 14–15, 34–35. But while the Court has acknowledged that “the § 101 patent-eligibility inquiry and \* \* \* the § 102 novelty inquiry might sometimes overlap” (*Mayo*, 566 U.S. at 90), it has consistently held that “whether a particular invention is novel,” for example, “is wholly apart from whether the invention falls into a category of statutory subject matter” (*Diehr*, 450 U.S. at 190) (quotations and citations omitted). Indeed, in *Mayo*, the Court expressly refused to substitute other patent-eligibility inquiries for § 101. 566 U.S. at 90. In response to the suggestion that §§ 102, 103, and 112 would suffice to screen patents, the Court explained that such an approach was “not consistent with prior law” and “would make the ‘law of nature’ exception to § 101 patentability a dead letter.” *Id.* at 89. InvestPic presents no reason to revisit that determination here.

*Second*, InvestPic argues that the ruling below erroneously defines the term “abstract” in the context of § 101 to mean “the opposite of something ‘tangible,’ ‘physical,’ ‘or concrete.’” Pet. 17. But rather than redefine “abstract,” the court below simply applied this Court’s longstanding guidance that the “building blocks” of human ingenuity (*e.g.*, scientific truths, mathematical equations, and fundamental economic practices) are not patent-eligible. See Pet. App. 12a (determining that the claims were focused on mathematical techniques); *id.* at 20a (determining that there is no “inventive concept” to remove the claims from the realm of abstract ideas); see also *Alice*, 573 U.S. at 217; *Bilski* 561 U.S. at 611–612; *Mayo*, 566 U.S. at 84; *Gottschalk*, 409 U.S. at 71–72; and *Mackay*, 306 U.S. at 94. Under that line of authority, claims to a “mathematical formula” are invalid even if the formula is “new,” “better,” and limited to running on “computers.” *Flook*, 437 U.S. at 594; *supra* at 3–4, 15.

B. Finally, InvestPic says the decision below “so single-mindedly focuse[s] on what constitutes an ‘abstract idea’ and ‘something more’ that it has lost sight of” the principle of preemption. Pet. 4–5. But as we have explained (at 9–10), the court below applied the *Alice* framework, which “the preemption concern \* \* \* undergirds.” *Alice*, 573 U.S. at 223. And more generally, the preemptive effect of InvestPic’s claimed invention confirms that it is not patentable.

According to InvestPic, a patent does not preempt all uses of an abstract innovation where its claims are “narrowly drawn” and “limited to a[] specific implementation” or “narrow applications of [a] more general principle[].” Pet. 15, 18, 19. But InvestPic’s claims are directed to nothing of the sort—they do not achieve

any technological solution to any technological problem, but merely apply improved statistical analyses to better predict market behavior. And in any event, merely narrowing the law of nature or abstract idea that is claimed does not change the fact that the patent would preempt others from using it in the future.

The claims in *Gottschalk*, for example, were narrowly directed to a specific seven-step algorithm for converting binary-coded decimal numerals to pure binary numerals—an algorithm that, for all intents and purposes, only a computer could practicably perform. 409 U.S. at 71, 73–74. When assessing preemption there, the Court identified two alternative algorithms for solving the same mathematical problem solved by the claimed algorithm. *Id.* at 66–67. One alternative was to look up the conversion in a table; the other was a different way that a human would do the arithmetic. *Id.* at 67. Although the claims did not recite or preempt either the method of using a table or the different steps that a person would use, the Court nevertheless held the claims—which, again, required a computer—to preempt the claim-recited steps. Because “[t]he mathematical formula involved \* \* \* has no substantial practical application except in connection with a digital computer,” the Court explained, a patent would effectively “wholly preempt the mathematical formula and, in practical effect, would be a patent of the algorithm itself.” *Id.* at 71–72. So too here, as *InvestPic* admits that “[t]he claimed novel process here is a process that can only be performed by a computer; a human cannot perform the process.” Pet. 6.

In *Mayo*, moreover, the Court rejected the theory that claims reciting specific, narrow, limited laws of nature—which of course leave open more alternatives than do broader claims—are patent eligible. As the

Court explained, “[a] patent upon a narrow law of nature may not inhibit future research as seriously as would a patent upon Einstein’s law of relativity, but the creative value of the discovery is also considerably smaller. And, as we have previously pointed out, even a narrow law of nature (such as the one before us) can inhibit future research.” 566 U.S. at 88.

The Court went on to note that its decisions “have not distinguished among different laws of nature according to whether or not the principles they embody are sufficiently narrow.” *Id.* at 88–89. Rather, “the cases have endorsed a bright-line prohibition against patenting laws of nature, mathematical formulas and the like, which serves as a somewhat more easily administered proxy for the underlying ‘building-block’ concern.” *Id.* at 89.

These principles apply forcefully here. No matter how much InvestPic strives to narrow its discovery (Pet. 11–12), the patent claims all practical uses of that mathematical discovery. Thus, conferring a patent on such claims would effectively “wholly preempt the mathematical formula and, in practical effect, would be a patent of the algorithm itself.” *Gottschalk*, 409 U.S. at 71–72.

## **II. The Federal Circuit’s decision is correct.**

Review is also unwarranted because the court below, applying longstanding precedent, correctly concluded that InvestPic’s claims are ineligible for patenting under § 101.

InvestPic complains that, in ruling the claimed invention ineligible for patenting, the court below “distort[ed]” this Court’s holdings in *Bilski* and *Alice*. Pet. 24–26. But the ruling below is compelled by the Court’s many precedents distinguishing “patents that

claim the ‘buildin[g] block[s]’ of human ingenuity” from “those that integrate the building blocks into something more.” *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 89).

As explained above (at 3), this Court has long-recognized that § 101 “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice*, 537 U.S. at 216 (internal quotations omitted). As early as 1939, the Court explained that within the scope of this exception are “scientific truth[s], or the mathematical expression of [them].” *Mackay*, 306 U.S. at 94. And at the advent of the information age, the Court clarified that patents directed to a “mathematical formula [with] no substantial practical application except in connection with a digital computer” are likewise ineligible for patenting. *Gottschalk*, 409 U.S. at 71–72; accord *Flook*, 437 U.S. at 594. The Court’s more recent decisions have only solidified these principles, reaffirming that “simply implementing a mathematical principle on a physical machine, namely a computer, [is] not [] patentable.” *Alice*, 573 U.S. at 222 (quoting *Mayo*, 566 U.S. at 84).

As the court below recognized, this case is squarely controlled by this principle. At *Alice*’s first step, the claims of the ’291 patent are directed to “nothing but a series of mathematical calculations based on selected information and the presentation of the results of those calculations.” Pet. App. 3a.

At *Alice*’s second step, there is “nothing ‘inventive’ about any claim details, individually or in combination”—leaving the patent as nothing more than “an advance in mathematical techniques in finance.” Pet. App. 20a. In particular, the formulae at issue are carried out on “off-the-shelf” general-purpose computers

using “their already available basic functions.” Pet. App. 3a, 15a, 18a–19a; accord *id.* at 55a–56a. Put another way, none of the claim limitations at issue *improve* computers; they are instead simply “use[d] as tools in executing the claimed process.” *Id.* at 19a.

As this Court cautioned in *Flook*, allowing conventional pre- and post-solution activities—such as those present here—to “transform an unpatentable principle into a patentable process [would] exalt[] form over substance.” 437 U.S. at 590. Holding otherwise would enable “[a] competent draftsman [to] attach some form of post-solution activity to almost any mathematical formula.” *Ibid.* That concern is well-founded here.

InvestPic does not dispute the Federal Circuit’s characterization of the ’291 patent. See Pet. i. Nor would such a challenge warrant certiorari. S. Ct. R. 10. But in any event, a review of the patent’s language—absent from the petition—confirms that the court’s characterization was proper.

As the patent’s abstract states, the “invention provides a method and system for the statistical analysis, display and dissemination of financial data over an information network.” C.A. App. 28. Similarly, the claims recite “[a] method for calculating, analyzing and displaying investment data” (claim 1); “[a] method for providing statistical analysis of investment data” (claim 11); and “[a] system for providing statistical analysis of investment information over an information network” (claim 32). C.A. App. 1827a, 1837. In short, the patent is just as the court below described: “a series of mathematical calculations based on selected information and the presentation of the results of those calculations.” Pet. App. 3a.

It is no answer to say that the claims here are directed not to mathematics, but rather to “assessing the health of investment portfolios.” Pet. 18. Insofar as that is true (and we are skeptical), such activity is a “fundamental economic practice long prevalent in our system of commerce” tantamount to hedging or intermediated settlement. *Alice*, 573 U.S. at 219 (quoting *Bilski*, 561 U.S. at 611). That too is ineligible for patenting.

Given the nature of the patent and this Court’s unambiguous guidance in *Alice*, *Flook*, *Gottschalk*, *MacKay*, and *Bilski*, the conclusion reached below was not a difficult one. There is no reason for this Court to disturb it.

\* \* \* \* \*

In sum, it is for good reason that all four judges who heard this case below agreed that InvestPic’s patent claims were invalid, and that no Federal Circuit judge called for a vote on whether to rehear the decision en banc. InvestPic’s “physical realm” theory is not fairly presented on this record, as the plain language of the claims themselves expressly require—in the words of the court below—elements “in the physical realm of things.” Pet. App. 18a. Thus, the court broke no new ground; it simply applied several longstanding holdings of this Court—that the Patent Act bars the patenting of mathematical formulae—to the specific facts of this case, and its ruling was unassailably correct.

### CONCLUSION

For the foregoing reasons, the petition for certiorari should be denied.

Respectfully submitted.

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