In 2002, Frontier State Bank began using a “leverage strategy” under which it funded long-term investments with short-term borrowing to generate profits from the
difference (“spread”) between long-term and short-term interest rates. This strategy, while lucrative for the bank—at least in the short run—caused significant concern for bank examiners at the Federal Deposit Insurance Corporation (FDIC) who raised the issue with Frontier during routine examinations. After Frontier’s responses failed to quell the examiners’ concerns, the FDIC’s enforcement staff sought and obtained a cease-and-desist order from the FDIC Board. The order requires Frontier to take a variety of steps to mitigate the risks associated with its leverage strategy. Frontier now petitions for review of the decision and order. It complains about the order’s requirements with respect to leverage capital, interest rate risk exposure, liquidity, and bank management. The FDIC asserts we lack authority to review the order’s leverage capital requirements; it defends the rest of the order as a reasonable exercise of the FDIC Board’s authority. We deny Frontier’s petition.¹

BACKGROUND AND PROCEDURAL HISTORY

In the United States, the FDIC is responsible for supervising and regulating commercial banks that are neither federally chartered nor members of the Federal Reserve System. Christopher M. Straw, Note, Unnecessary Risk: How The FDIC’s Examination Policies Threaten the Security of the Bank Insurance Fund, 10 N.Y.U.J. Legis. & Pub. Pol’y 395, 398 (2007). Because Frontier is such a bank, it is subject to periodic FDIC examination. One purpose of the FDIC’s examinations is to detect and

¹ Our jurisdiction derives from 12 U.S.C. § 1818(h)(2).
remedy “unsafe or unsound” banking practices in its supervised banks. See 12 U.S.C. § 1818(b)(1). As a result of these regular examinations, the FDIC learned of Frontier’s leverage strategy.

This case centers on whether Frontier’s leverage strategy is too risky. As the FDIC notes in its Capital Markets Examination Handbook: “Properly designed leverage programs efficiently utilize excess capital, and increase earnings and return on equity. A leverage program can be undertaken with little incremental overhead expense and, theoretically, an institution incurs less credit risk than traditional lending activities due to the high quality of the assets being purchased.” FDIC – Division of Supervision and Consumer Protection, FDIC Capital Markets Examination Handbook 462 (June 2007). Nevertheless, when “[i]mproperly managed, these strategies cause imprudent levels of interest rate risk and increased supervisory concern.” Id. The “predominant risk” in a leverage strategy is interest rate risk—“the possibility that [a] . . . portfolio’s value will fluctuate in response to changes in interest rates.” Id. at 3, 465. Other prominent risks include liquidity risk—“the possibility that an [investment] cannot be disposed of in a reasonable time without forfeiting economic value”—and operating risk including “[t]he risk of loss resulting from inadequate or failed internal processes, people and systems . . . [including] lack of management expertise or inadequate measurement or monitoring systems.”). Id. at 467.
According to the FDIC, Frontier’s leverage strategy\(^2\) is unusually and unacceptably risky. While leverage strategies undertaken “as a single transaction at a point-in-time” are relatively common,\(^3\) Frontier’s leverage strategy “[is] on-going” and involves “more than half of the bank’s assets.” (Resp. Br. 2.) Also of concern to the FDIC was Frontier’s allegedly high tolerance of the interest rate risks inherent in the leverage strategy.

The FDIC’s bank examiners expressed their concern in their February 2004 examination report. To address those concerns, Frontier and the FDIC negotiated a memorandum of understanding, which required Frontier to take a variety of remedial steps, including (1) achieve and maintain a leverage capital ratio of 7%; (2) “[d]evelop an [acceptable] interest rate risk measurement model”; (ALJ’s RD 3.) (3) establish “acceptable” interest rate risk limits; and (4) “develop plans [for] improving liquidity and reducing reliance on volatile liabilities to fund longer term assets.”\(^4\) (FDIC Ex. 4 at 1-2.)

\(^2\) Its long-term investments consist primarily of collateralized mortgage obligations purchased from U.S. agencies. Frontier funds these investments with short-term investments, including advances from Federal Home Loan Bank (FHLB), purchased federal funds, brokered deposits, and large certificates of deposit.

\(^3\) See FDIC – Division of Supervision and Consumer Protection, *FDIC Capital Market Handbook* 462 (June 2007) (“A leverage strategy is a coordinated borrowing and investment program with the goal of achieving a positive net interest spread. A leverage strategy is typically a stand-alone transaction conducted at a point-in-time and is separate from core bank operations.”).

In subsequent examinations, FDIC examiners continued to express concern over the level of risk inherent in Frontier’s leverage strategy. Of particular concern was whether Frontier’s risk-modeling tools accurately reflected its interest rate risk.

The FDIC’s concerns continued through Frontier’s 2008 examination. After that examination, the FDIC filed charges alleging Frontier’s leverage strategy was “unsafe or unsound.” (ALJ’s RD 1.) The FDIC later amended the notice to allege Frontier executed its leverage strategy with excessive interest rate risk, inadequate capital, inadequate liquidity, and inadequate management. The FDIC sought a cease-and-desist order to stop Frontier from executing its leverage strategy in this “unsafe or unsound” manner.

A six-day hearing before an administrative law judge (ALJ) culminated in a recommended decision concluding Frontier had “engaged in unsafe or unsound practices by imprudently operating its Leverage Strategy Program with an excessive level of interest rate risk exposure.” (ALJ’s RD 58.) The ALJ found Frontier lacked adequate capital, interest rate risk management, liquidity, and appropriate investment and asset/liability management practices. The ALJ proposed a cease-and-desist order addressing these unsafe and unsound practices. In particular, the proposed order required Frontier to maintain a 10% tier 1 leverage capital ratio, submit a new interest rate risk

policy that would include “[a]n effective system to identify and measure interest rate risk,” increase its liquidity to attain a dependency ratio\(^6\) of 45% or less, and to improve various aspects of its asset/liability management. (ALJ’s RD 8.) Rejecting a round of objections from both sides, the FDIC Board adopted the ALJ’s proposed order. Frontier then timely filed its petition for review in this court.

**DISCUSSION**

Frontier contends the FDIC Board’s order is arbitrary and capricious for four reasons: (1) inadequate record support for the imposed 10% tier 1 leverage capital requirement; (2) inadequate record support for finding it was exposed to excessive interest rate risk; (3) insufficient basis in the record for the order’s liquidity requirements; and (4) insufficient basis for the Board’s determination that Frontier’s management was deficient.

noncumulative perpetual preferred stock and minority interests in the equity capital accounts of consolidated subsidiaries.” *Id.; see also* 12 C.F.R. Pt. 3, App. A § 2(a).

“Tier 1 capital ratio,” as the ALJ used the term in his order, refers to the ratio of “tier 1 capital” to “adjusted total assets.” 12 C.F.R. § 325.103(b)(iii); 12 C.F.R. § 165.3(c). (ALJ’s RD 43.) “Adjusted total assets” refers to a particular valuation of the banking institution’s assets. *See* 12 C.F.R. § 167.6.

\(^6\) The dependency ratio is a measure of “how much of the bank’s longer term assets are funded with potentially volatile liabilities.” (Tr. Vol. II at 272.) “It is calculated by taking the potentially volatile liabilities, [subtracting] out temporary investments, and then dividing that by long-term assets.” (*Id.*) As one of the FDIC’s bank examiners explained at the hearing before the ALJ, when these liabilities “fund[] longer term assets, assets that have longer maturities, they would not be as liquid [and] if they were available to be sold to meet this liquidity [need], they might have to be sold at a realized loss.” (*Id.* at 273.) Thus, a lower dependency ratio indicates a lower liquidity risk.
Under the Administrative Procedure Act (APA), we “decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of an agency action.” 5 U.S.C. § 706. We must set aside agency action, findings, and conclusions that are arbitrary, capricious, an abuse of discretion, or otherwise contrary to law. *Id.* An agency acts arbitrarily and capriciously if it relies on factors deemed irrelevant by Congress, fails to consider important aspects of the problem, or presents an explanation that is either implausible or contrary to the evidence. *Bd. of County Comm’rs of Cnty. of Adams v. Isaac*, 18 F.3d 1492, 1497 (10th Cir. 1994). The agency’s decision must be supported by evidence “establish[ing] a rational relationship between its factual findings and its conclusion.” *Id.* On that evidence, the agency need only make a reasonable choice. *Id.* Frontier’s requested relief is unwarranted under this standard of review.

A. **Capital Requirement**

Frontier contends the FDIC Board’s imposition of a 10% tier 1 leverage capital ratio is arbitrary and capricious. According to the FDIC, the Board’s decision is not subject to judicial review because the decision is committed to its discretion by law. Frontier disagrees; in its view, when the FDIC sets capital levels using a cease-and-desist order rather than a capital directive, judicial review is appropriate.

We reject Frontier’s argument. Since our authority to review agency action under the APA is a threshold issue, *Mount Evans Co. v. Madigan*, 14 F.3d 1444, 1448 (10th Cir. 1994), we examine it first. As we explain below, Congress left the setting of capital
levels exclusively to the FDIC’s discretion because there is no “meaningful standard against which to judge the agency’s exercise of discretion.” See Heckler v. Chaney, 470 U.S. 821, 830 (1985); see also 5 U.S.C. § 701(a)(2). Since there is no such standard, there is no way for us to discern whether the FDIC abused its discretion or acted arbitrarily and capriciously in establishing minimum capital levels for Frontier, regardless of the enforcement procedure the FDIC employed.

1. Review of Capital Decisions

The FDIC’s authority to issue cease-and-desist orders originates in 12 U.S.C. § 1818(b), which allows it to issue a notice of charges to a bank engaging in an “unsafe or unsound practice.” 12 U.S.C. § 1818(b)(1). After a hearing, the agency may issue a cease-and-desist order. Id. § 1818(b)(1). The statute contains a provision for judicial review for these orders:

Any party . . . may obtain a review of any order served . . . by the filing in the court of appeals of the United States for the circuit in which the home office of the depository institution is located . . . a written petition praying that the order of the agency be modified, terminated, or set aside. . . . Upon the filing of such petition, such court shall have jurisdiction to affirm, modify, terminate, or set aside, in whole or in part, the order of the agency. Review of such proceedings shall be had as provided in [the judicial review chapter of the APA].

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7 The FDIC, rather than the Office of the Comptroller of the Currency or the Board of Governors of the Federal Reserve System, regulates “State nonmember insured bank[s].” See 12 U.S.C. §§ 1813(q), 1818(b)(1); see also 12 U.S.C. § 3902 (defining “appropriate federal banking agency,” for purposes of the International Lending Supervision Act, in accord with § 1813(q)).
Id. § 1818(b)(h)(2) (emphasis added).

The statute vests this court with jurisdiction to review cease-and-desist orders. But it also explicitly incorporates the APA’s standards for judicial review. Id. While the APA embodies a presumption of judicial review, “[t]his is just a presumption, however, and under § 701(a)(2) agency action is not subject to judicial review ‘to the extent that’ such action ‘is committed to agency discretion by law.’” Madigan, 14 F.3d at 1449 (quoting Lincoln v. Vigil, 508 U.S. 182, 190-91 (1993)). As § 701(a)(2) makes clear, judicial review is not available in those circumstances where the relevant statute “is drawn so that a court would have no meaningful standard against which to judge the agency’s exercise of discretion.” Heckler, 470 U.S. at 830; see Madigan, 14 F.3d at 1449. “In such a case, the statute . . . can be taken to have ‘committed’ the decisionmaking to the agency’s judgment absolutely.” Heckler, 470 U.S. at 830; see Lincoln v. Vigil, 508 U.S. 182, 191 (1993).

This is such a case. Prior to the enactment of the International Lending Supervision Act of 1983 (ILSA), courts took a more active role in reviewing banking regulators’ orders relating to capital. In First National Bank of Bellaire v. Comptroller of Currency, the Fifth Circuit concluded a banking regulator’s order setting a capital requirement was not supported by substantial evidence; it accordingly vacated the regulator’s cease-and-desist order. 697 F.2d 674, 684-85, 687 (5th Cir. 1983). Congress responded to the First National Bank of Bellaire decision by enacting ILSA. Pub. L. No. 98-181, § 901, 97 Stat. 1153, 1280 (1983). As pertinent here, it provides:
Each appropriate Federal banking agency shall have the authority to establish such minimum level of capital for a banking institution as the appropriate Federal banking agency, *in its discretion, deems to be necessary or appropriate* in light of the particular circumstances of the banking institution.

12 U.S.C. § 3907(a)(2) (emphasis added). Moreover, “[f]ailure of a banking institution to maintain capital . . . as established pursuant to subsection (a) of this section may be deemed by the appropriate Federal banking agency, *in its discretion*, to constitute an unsafe and unsound practice within the meaning of section 1818 of this title.” *Id.* § 3907(b)(1) (emphasis added).

These sections of ILSA use the same language the Supreme Court identified in *Webster v. Doe* as committing a decision to an agency’s sole discretion. 486 U.S. 592 (1988). In *Webster*, the Supreme Court compared the kind of statutory language establishing a meaningful judicial review standard with statutory language not doing so. *Id.* at 600. The statute at issue in *Webster* dealt with the CIA Director’s authority to discharge an employee. According to the Supreme Court, language limiting the Director’s discharge authority to circumstances “when the dismissal is necessary or advisable” would have allowed the courts to review the necessity or advisability of the discharge. *See id.* By contrast, the applicable statute allowed the CIA Director to discharge an employee when “the Director *shall deem such termination necessary or advisable* in the interests of the United States.” *Id.* (quoting former 50 U.S.C. § 403(c)) (emphasis added). The Supreme Court concluded the addition of “deem such termination
necessary or advisable” provided no meaningful judicial review standard, thereby mandating deference to the Director’s decision. *Id.*

Here, the statutory language granting the FDIC the authority to set a bank’s minimum capital levels “in its discretion” to the level it “deems to be necessary or appropriate” tracks the language of the *Webster* statute, and gives us no standard to apply. *See also Madigan*, 14 F.3d at 1450 (noting the use of the word “deem” was particularly probative in this inquiry). ILSA’s language thus commits the setting of capital levels to bank regulators’ discretion.

To the limited extent it may inform our discussion of ILSA’s language, the legislative history confirms our view. In enacting these provisions, Congress intended to insulate the “‘independent discretion’” of bank regulators from judicial review. *FDIC v. Bank of Coushatta*, 930 F.2d 1122, 1126 (5th Cir. 1991) (quoting S. Rep. No. 98-122, 98th Cong., 1st Sess. 16) (emphasis omitted). As the Senate Committee on Banking, Housing, and Urban Affairs explained:

> The Committee believes that establishing adequate levels of capital is properly left to the expertise and discretion of the agencies. Therefore, in order to clarify the authority of the banking agencies to establish adequate levels of capital requirements, to require the maintenance of those levels, and to prevent the courts from disturbing such capital, the Committee has provided a specific grant of authority to the banking agencies to establish levels of capital. . . .

Contrary to Frontier’s argument, this conclusion also comports with the Fifth Circuit’s post-ILSA view. In *Bank of Couthatta*, the Fifth Circuit concluded an FDIC directive setting capital levels was unreviewable. *Id.* at 1129. The *Bank of Couthatta* court rested its conclusion on two rationales: the apparent lack of a clear and convincing statutory authorization for judicial review of the capital directive\(^8\) and the lack of a meaningful review standard. *See id.* at 1128-29. Frontier attempts to distinguish *Bank of Couthatta* because it involved a capital directive; here, the FDIC used a cease-and-desist order instead. A capital directive results from a different procedure, and, unlike the procedure leading to a cease-and-desist order, the capital-directive procedure does not include a hearing before an ALJ or the opportunity for pre-enforcement judicial review. *See id.* at 1126 (“*[T]he hearing requirements for cease-and-desist orders are not incorporated in the procedures for capital directives.*”) Although the FDIC used the cease-and-desist procedure here, and there is a statutory provision explicitly authorizing judicial review of cease-and-desist orders, *see* 12 U.S.C. § 1818(h)(2), the other obstacle remains: there still is no standard we can use to review the FDIC decision.

This lack of standard is, in large part, a result of the subjectivity inherent in invested capital determinations. One function of capital is to “absorb losses which may

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\(^8\) Although the *Bank of Couthatta* court observed that “[e]xamination of the statutory scheme and its legislative history supports a congressional intention to preclude review,” it ultimately concluded the capital directive was unreviewable because there was no meaningful review standard. *Bank of Couthatta*, 930 F.2d at 1128.
be incurred in periods of uncertainty.”  First Nat’l Bank of Bellaire, 697 F.2d at 686 n.15.

The amount of capital a bank needs to weather uncertainty is a subjective judgment dependent on an informed analysis of the magnitude and likelihood of the attendant risks.  

See id. (noting the regulator’s examiner “did not know how much capital the Bank needed to cover uncertainty”).  Reasonable minds will differ as to appropriate capital levels because they reasonably differ on their assessment of the attendant risks.9  The ALJ acknowledged as much in his decision:  “Correlating capital to risk is obviously a subjective determination, and the examiners themselves have some difficulty articulating a precise correlation.”  (ALJ’s RD 50.)

Yet somehow these differing views must be reconciled.  While Congress could have preserved the system in which courts reconciled the differing views, it did not.  To the contrary, § 3907 reflects Congress’ view that banking regulators—not courts—are in the best position to judge banks’ susceptibility to risk.  Cf. Sunshine State Bank v. FDIC, 783 F.2d 1580, 1583-84 (11th Cir. 1986) (Congress requires us to defer the opinions of bank regulators as long as their opinions are within a “zone of reasonableness”).  While this choice leaves banks in the position of enduring any vicissitude attending the exercise

9 Because Frontier’s own interest rate risk modeling is questionable, see infra Section II, it would be unrealistic to expect the FDIC to be able to calculate and defend an exact capital level necessary to mitigate the risk.  Here, according to a testifying FDIC examiner, the FDIC could “probably go out and calculate a capital level based on the inadequate models that we’ve seen but then we don’t know if that’s sufficient.  We still got to have adequate models to assess the risk.”  (Tr. Vol. III at 666.)  Without such models, the agency is indeed reduced to making its “best guess.”  (Id. at 667.)
of the regulator’s discretion, Congress is permitted to prioritize the safety of the banking system over banks’ interest in avoiding subjective or even harsh agency decisions.\textsuperscript{10} See 5 U.S.C. § 701(a).

Section 3907 of ILSA forecloses our review of the FDIC’s imposition of capital requirements because it commits the setting of capital levels to the FDIC’s discretion without giving us any standard to determine the correctness of the FDIC’s decision.

2. Capital Directives and Cease-and-Desist Orders

Even if we could fabricate some standard for reviewing the FDIC’s decision, it would not be likely to give banks any meaningful protection. Were we to do so, banking regulators would simply use ILSA’s unreviewable capital-directive procedure to set capital levels while simultaneously using the cease-and-desist-order procedure to address other aspects of bank operation. And, for most purposes, the cease-and-desist-order procedure gives banks more procedural protection because it requires the regulator’s enforcement officials to justify the capital level they seek to an ALJ and gives banks an opportunity to respond to the evidence and argument. Regulators ought not be discouraged from giving banks these heightened procedural protections.

\textsuperscript{10} While it is perhaps possible that certain substantive or procedural defects in a regulatory agency’s decision setting capital levels might be so egregious as to violate constitutional guarantees of equal protection or due process, Frontier wisely makes no such argument and we need not consider it today. See Webster, 486 U.S. at 603 (requiring Congress to clearly preclude judicial review of constitutional claims “to avoid the serious constitutional question that would arise if a federal statute were construed to deny any judicial forum for a colorable constitutional claim.” (quotations omitted)).
B. Interest Rate Risk Exposure

The FDIC Board adopted the ALJ’s conclusion that Frontier was exposed to excessive interest rate risk. Frontier claims the Board’s decision is arbitrary and capricious because (A) its interest rate risk models were adequate to assess its exposure; (B) the FDIC’s evidence of excessive interest rate exposure was unrealistic; and (C) its declining net interest margin did not demonstrate excessive interest rate risk. We reject those arguments.

1. Interest Rate Risk Modeling

The ALJ found both of Frontier’s interest rate risk models inadequately “quantify the market risk associated with the [l]everage [s]trategy.” (ALJ’s RD 22.) In particular, the ALJ found Frontier’s primary interest rate risk model to be flawed because it incorporated inaccurate predictive data. Frontier quarrels with the finding and argues the ALJ should not have penalized it for using the predictive data, especially when the FDIC’s examiners required it (or at least urged it) to use the data. We disagree on both scores.

a) The Earnings Model’s Use of the Bloomberg Data

Frontier’s primary model of the effects of interest rate changes on the assets involved in its leverage strategy is “an internally developed earnings simulation model” (the “earnings model”). (ALJ’s RD 6.) Frontier claims the model’s results have been amply validated because the model is “back tested quarterly to determine accuracy” and “independently reviewed by a third party quarterly to determine whether the information
being analyzed is reliable.” (Id.) The third party “(1) reviews the reasonableness of the assumptions used; (2) checks the accuracy of the underlying data and supporting documentation; (3) conducts back-tests on projected earnings versus actual earnings (independent of the bank’s internal back testing); and (4) recommends changes to the model.” (Id. at 9.) The ALJ concluded this model was inadequate because it used inaccurate predictive data (the “Bloomberg data”).

To reach this conclusion, the ALJ used Frontier’s own argument against it. At the hearing before the ALJ, Frontier—not the FDIC—argued the inaccuracy of the Bloomberg data. Relying on predictions derived from the Bloomberg data, the FDIC forecasted disastrous results for Frontier’s leverage strategy portfolio if interest rates rose two points. Frontier rebutted this prediction with evidence showing a two-point rise in interest rates would not result in disaster. Indeed, Frontier maintains here, as it did at trial, that the Bloomberg data produces predictions that correlate poorly with the actual performance of its leverage strategy portfolio. The ALJ agreed with Frontier but then condemned it for relying on the data; the earnings model, like the FDIC’s prediction, used the Bloomberg data to predict the results of changes in interest rates on Frontier’s portfolio. The ALJ further criticized Frontier for using the flawed Bloomberg data in its model for years without “refin[ing] the model to make it accurate.” (ALJ’s RD 26.)

11 As we understand it, the Bloomberg data are commercially available datasets that allow financial institutions to predict how interest rate changes of varying speeds and magnitudes will affect the value of their assets.
Frontier now takes issue with the ALJ’s criticism. Frontier argues its back-testing process demonstrated the model’s accuracy despite the use of the Bloomberg data. It has a point. After all, the ALJ found Frontier back-tested the model quarterly and the variation of 3.13% between the model’s prediction and actual results in the fourth quarter of 2007 was “acceptable.” (ALJ’s RD 9.) Indeed, there is some record evidence showing Frontier’s earning model produced much more accurate predictions than did the Bloomberg data standing alone. The ALJ’s discussion also failed to examine how either the earnings model or the bank’s routine back-testing might have compensated for or mitigated the Bloomberg data’s inaccuracy. Nor did the ALJ consider whether the earnings model might have painted an overly bleak assessment of Frontier’s interest rate risk; significant evidence showed the Bloomberg data significantly overstated projected losses. If so, the model’s predictions might have been inaccurate, but in a way that caused Frontier to be more cautious than necessary in its approach to interest rate risk. Predictions are usually inaccurate; the question is whether the model was accurate enough to allow Frontier to manage its interest rate risk.

Yet we detect irony. Despite Frontier’s back-testing of the earnings model, two key pieces of evidence in the record suggest Frontier’s distrust of its own predictions. First, Keith Geary, Frontier’s expert witness, forcefully criticized the predictive accuracy of the Bloomberg data during the hearing before the ALJ. He explained, “You can’t utilize the Bloomberg defaults. They have no correlation to actual bonds’
performance.”¹² (Tr. Vol. IV at 1101.) He also explained that, when the Bloomberg data are used to model the effects of two-percentage-point changes in interest rates, “you don’t pay any attention to the output . . . because [you] know intuitively it’s going to [never] occur.” (Tr. Vol. IV at 1179 (emphasis added).) Second, Frontier’s chairman wrote a letter to the FDIC in 2006 strenuously emphasizing the predictive inaccuracy of the Bloomberg data and asking the FDIC to stop requiring Frontier to use it. Had Frontier believed its procedures could fully mitigate the inaccuracy of the Bloomberg data, it would not have argued so forcefully against being required to use it. In short, the record demonstrates Frontier’s skepticism about the Bloomberg data, and, to the extent the earnings model incorporated it, there is cause to doubt Frontier truly trusted the earnings model to gauge its interest rate risk.

Moreover, although Frontier’s back-testing might have acceptably validated the model against the interest rate changes that actually occurred during certain prior periods, it is not clear the back-testing vindicates the model’s ability to adequately inform Frontier about its interest rate risk under other interest-rate change scenarios that could occur in the future. The ALJ’s skepticism of the earnings model’s predictive capability was therefore reasonable.

¹² Geary also testified he had an “a-ha moment” when he “realized that Bloomberg defaults have nothing to do with actual history, and nobody else was paying attention to it. That was the moment I was living for.” (Tr. Vol. IV at 1110.)
While informed and reasonable minds could differ on whether the earnings model was adequate as an interest rate modeling tool in light of Frontier’s validation efforts, our task is merely to determine whether the FDIC Board’s conclusion is reasonable. *See Isaac*, 18 F.3d at 1497. Because the record reveals adequate cause to question both the earnings model’s predictive capability and Frontier’s willingness to rely on it as a risk-modeling tool, the FDIC Board’s conclusion is reasonable. *See id.*

b) *Reliance*

Frontier also appeals to our sense of fairness in arguing it should not be penalized for relying, at the FDIC’s insistence, on the Bloomberg data. Although the ALJ found the FDIC did not require Frontier to use the Bloomberg data, the record shows the FDIC at least suggested it do so. Neither the ALJ nor the FDIC Board addressed this record evidence. The FDIC has no answer to this dilemma, except to urge us to accept the ALJ’s fact-finding.

We recognize the inequity in the FDIC’s criticisms of Frontier’s interest rate risk modeling. Nevertheless, the inequity is not so egregious as to demand a remedy. There is no evidence suggesting the FDIC intended to trick Frontier or undermine its position. On the contrary, testimony suggested the change in the FDIC’s position was the result of its evolving knowledge about the usefulness of the Bloomberg data in assessing the risks associated with a leverage strategy rather than improper motive. According to trial testimony, the Bloomberg data was an accepted industry standard. Frontier’s expert suggested the weaknesses in the Bloomberg data were not well understood in the
industry. Frontier’s expert even testified about having an “aha moment” when he realized how inaccurate predictions premised on the Bloomberg data could be. (Tr. Vol. IV at 1110.) Given this evolving knowledge, it would be imprudent to allow Frontier, in the name of fairness, to continue using concededly faulty data.

c) *Frontier’s Alternative Risk Model*

Frontier also employs a second interest rate risk model provided by ALX Consulting, Inc. The ALX model includes both an economic value of earnings (EVE) component and an earnings component. “EVE represents the net present value of all asset, liability, and off-balance sheet instrument cash flows.” (ALJ’s RD 6 n.12.) Frontier does not validate the results from the ALX model as it does with its internal earnings model, even though, as the ALJ found, its own policies require it to do so.

The ALJ concluded there were significant issues with both the EVE and earnings components of the ALX model. Frontier does not challenge the ALJ’s findings regarding the inaccuracy of the ALX model. Rather, it argues the findings are immaterial because it relies only secondarily on the ALX model and none of the model’s shortcomings exposed Frontier to higher interest rate risk. Frontier misses the point; according to the ALJ’s decision, neither of its risk models adequately informed it (or its examiners) about

13 We decline to consider Frontier’s conclusory argument that the ALJ’s findings with respect to the ALX model “lacked objective support in the record.” (Pet. Br. 30.) The petitioner bears the burden of demonstrating the alleged error. *See Hernandez v. Starbuck*, 69 F.3d 1089, 1093 (10th Cir. 1995). It must explain which specific findings lack record support. Where, as here, it fails to do so, we consider the argument waived. *See id.*
its exposure to interest rate risk. The shortcomings of the ALX model prevent it from serving as an accurate alternative model of Frontier’s interest rate risk. As such, Frontier lacked any effective modeling tool to understand and appropriately limit its interest rate risk.

2. The FDIC’s Risk Projection

Frontier also contends it was not exposed to excessive interest rate risk and quarrels with the evidence the FDIC presented to demonstrate Frontier’s excessive risk. A scenario the FDIC expounded at trial suggested a hypothetical interest rate increase of two percentage points would extend Frontier’s portfolio’s weighted average life from 3.33 years to 11.28 years and cause a disastrous capital depreciation of nearly $82 million—156% of Frontier’s tier 1 capital. Frontier’s expert called this scenario unrealistic because “[i]nterest rates would never go up [two percentage points] overnight and stay that way for 11.28 years to make that number become reality.” (Tr. Vol. IV at 1126.) In response, the FDIC’s expert testified “[t]he condition for that depreciation is not contingent on an overnight increase in rates. It is also not contingent on those rates, holding there. So even if rates, say, went up over six months [by two percentage points], you would still see comparable [depreciation]. . . .” The ALJ credited the FDIC’s witness.

Frontier argues this scenario was unrealistic because it relied on the faulty Bloomberg data and unrealistic assumptions about changes in interest rates. It also points to exhibits showing similar two-point interest-rate changes in the past without the losses
predicted using the Bloomberg data having occurred. And, as we have already discussed, the predictive inaccuracy of the Bloomberg data is questionable. Although the facts are fairly debatable, we are limited to determining whether the FDIC Board’s conclusion is reasonable. *See Isaac*, 18 F.3d at 1497. Because the Board’s conclusion is supported by the record testimony of the FDIC examiners, it is reasonable.

3. The Net Interest Margin

Frontier next argues the FDIC “improperly relie[d] on the Bank’s declining [net interest margin] as evidence of excessive interest rate risk.” (Pet. Reply Br. 22.) Frontier claims: (1) a declining net interest margin is to be expected in the context of rising interest rates, and (2) its ability to maintain a positive spread despite rising interest rates vindicates its ability to manage interest rate risk.

As one of Frontier’s reports from ALX Consulting explained: “The net interest margin is an indicator of management’s ability to respond to changing interest rates. . . . When the net interest margin is volatile, either interest rate risk is present or the balance sheet mix or pricing is not stable.” (FDIC Ex. 39 at 12.)

Frontier does not contest its net interest margin “steadily declined.” (ALJ RD 31.) Indeed, Frontier experienced a “51 percent decline between 2004 and 2007.” (Id. at 32.) Rising interest rates are inherently challenging for a leverage strategy, and some volatility in net interest margin must therefore be expected. Nevertheless, large fluctuations in the margin—like a 51% decline—indicate difficulty in coping with changing interest rates. The FDIC’s reliance on such a significant decline in net interest margin to conclude
Frontier was exposed to excessive interest rate risk is reasonable. See Isaac, 18 F.3d at 1496-97.

To the extent Frontier challenges the FDIC’s order because it requires Frontier to both increase capital and decrease risk, we agree with the FDIC Board that the magnitude of overlapping risks in Frontier’s execution of its leverage strategy made the FDIC’s two-pronged approach to remediation reasonable.

C. Liquidity

The FDIC Board determined Frontier operated with inadequate liquidity and ordered Frontier to maintain a maximum dependency ratio of 45%. Frontier claims the Board’s dependency ratio decision “is arbitrary and capricious because it is based on ‘expert opinions’ that lack an objective factual basis.” (Pet. Br. 41.) It also challenges the finding that it operated with inadequate liquidity. We are not persuaded.

1. Dependency Ratio

Liquidity is important because it indicates “the ability to pay current debts as they come due.” Black’s Law Dictionary 942 (7th ed. 1999) (definition of “liquidity ratio”). One measure of liquidity is the dependency ratio. It indicates “how much of the bank’s longer term assets are funded with potentially volatile liabilities.” (Tr. Vol. II at 272.) As the ALJ explained, a high dependency ratio reflects a bank’s “reliance on funding sources that may not be available in times of financial stress or adverse changes in market conditions.” (ALJ’s RD 36.) Thus, the lower the dependency ratio, the lower the liquidity risk.
The ALJ found the FDIC failed to produce any evidence to support the specific 45% dependency ratio requirement it sought to impose on Frontier. But he also found the difference between the 45% ratio the FDIC sought and the 50% ratio Frontier’s own policies required to be “not particularly significant.” (ALJ’s RD 39.) The ALJ also found Frontier operated with a 62.36% dependency ratio, which represented significantly higher risk than the 44.56% average for American banks and the 25.66% average for banks in Frontier’s peer group.

Under the applicable standard of review, the ALJ’s finding need not connect exactly to the evidence; rather, the finding need only rationally relate to the evidence as a whole. See Isaac, 18 F.3d at 1497; see also Sunshine State Bank, 783 F.2d at 1581 (noting deference to an examiner’s recommendation is appropriate when recommendation is within a “zone of reasonableness”). Since Frontier was using a novel and unique leverage strategy, it was reasonable for the ALJ to limit Frontier to a dependency ratio comparable to the 44.56% average of other American banks—particularly since the average dependency ratio for banks in Frontier’s peer group was only 25.66%.14 Moreover, it was reasonable for the ALJ to accept the FDIC’s proposed 45% ratio when it was comparable to the 50% ratio set under Frontier’s own monetary

14 Although Frontier complains it is unfair to compare it to banks in its peer group because its peers typically do not employ leverage strategies, the ALJ’s 45% ratio allowed it to have far less liquidity than its peers.
policies. And, for these same reasons, the FDIC Board acted reasonably in adopting the ALJ’s conclusion.

2. Other Liquidity Challenges

Frontier also challenges the finding that its liquidity was impaired by (1) use of brokered deposits,\textsuperscript{15} and (2) a lack of a contingency funding plan.

Frontier argues brokered deposits are “stable and reliable because there are very few ways by which a brokered deposit can be withdrawn from a bank.” (Pet. Br. 45.) Yet the FDIC’s problem with brokered deposits is not merely the possibility of

\textsuperscript{15} A brokered deposit is “any deposit that is obtained, directly or indirectly, from or through the mediation or assistance of a deposit broker.” 12 C.F.R. § 337.6(a)(2); \textit{see also} 12 U.S.C. § 1831f(g) (defining “deposit broker”). As one scholar explained, brokered deposits are associated with heightened risk:

Generally, banks . . . competing with each other for deposits, must pay high interest rates for deposits placed by brokers. Therefore, in order to make a profit, financial institutions must invest brokered deposit funds in loans that will yield high returns. High-yielding loans generally are risky. Consequently, FDIC . . . officials have condemned the practice by which banks . . . use brokered deposits to invest in risky loans in the hope that rapid growth will help them out of their often-troubled financial situations.

. . .

The FDIC has noted a correlation between the collapse of financial institutions and the heavy use of brokered deposits. An FDIC official has said that “many institutions that have failed recently depended heavily on brokered deposits.”

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Gail Otsuka Ayabe, \textit{The "Brokered Deposit" Regulation: A Response to the FDIC’s and FHLBB’s Efforts to Limit Deposit Insurance}, 33 UCLA L. Rev. 594, 622-23 (1985) (citations omitted).
withdrawals; rather, it is their overall volatility. Brokered deposits “impair the institution’s liquidity [because] most . . . are short term.” *Franklin Sav. Ass’n v. Director, Office of Thrift Supervision*, 934 F.2d 1127, 1145 (10th Cir. 1991). “This means the institution must sell investments in order to obtain the money to pay off the maturing deposits.” *Id.* (emphasis added). In addition, the FDIC’s examiner testified he was concerned Frontier “would not be able to maintain access to these brokered deposits.” (ALJ’s RD 52 (emphasis added).)

The ALJ was also concerned with Frontier’s use of Federal Home Loan Bank (FHLB) advances to fund its long-term investments; he feared they exacerbated its potential liquidity problem. According to one of the FDIC’s examiners, Frontier had reached the limit of what it could borrow from the FHLB and had even used a “short term transaction to inflate [its] balance sheet for the purposes of increasing . . . their ability to get . . . additional funding” from the FHLB.¹⁶ (Tr. Vol. II at 269.)

The problem with Frontier’s use of brokered deposits and FHLB advances was particularly acute because they accounted for almost 25% and 52% of Frontier’s wholesale funding, respectively, with wholesale funding representing about 64% of Frontier’s total liabilities. As the ALJ explained: “[i]t is easy to understand therefore why a restriction or the unavailability of one or both of these funding sources indicated a

¹⁶ The ALJ acknowledged Frontier’s circumvention of the 40% limit did not “violate[] any rule, regulation, law or policy.” (ALJ’s RD 52 n.54.)
high liquidity risk.” (ALJ’s RD 53.) We agree. The record provides substantial support for the ALJ’s conclusion as adopted by the FDIC Board. See Isaac, 18 F.3d at 1497.

Frontier also argues its liquidity crisis plan and Asset/Liability Management (ALM) policy provide a contingency funding plan, contrary to the ALJ’s finding. Although the FDIC did not respond to this aspect of Frontier’s argument, it is without merit. The ALJ rejected the liquidity crisis plan as “overly general.” His assessment was overly kind. The so-called “Bank Liquidity Crisis Plan” in Frontier’s ALM policy is simplistic, requiring only that Frontier’s president be responsible for managing any liquidity crisis.17 Indeed, the ALJ’s analysis of the so-called plan is more extensive than

17 In its entirety, the “plan” states:

5. BANK LIQUIDITY CRISIS PLAN:

   The President, or his/her designee, will be responsible for:
   a. Communications with regulatory agencies
   b. Communications Contact Person for the purpose of responding on behalf of the Bank to inquiries from the Media, Employees, Depositors, Borrowers, and Shareholders.
   c. Assessment of asset pledging positions and market/liquidation values
   d. Orderly liquidation of short-term assets
   e. Availability of funds through borrowing arrangements
   f. Operational issues such as lobby traffic
   g. Disposition of long maturity assets
   h. Increased long term borrowing assets
   i. Raising capital

   (Frontier State Bank Ex. 9 at 5 (2008 version); see FDIC Ex. 11 at 4-5 (2005 version).) Frontier’s ALM also has another section listing other banks that could serve as
the plan itself. As the ALJ noted, the plan does nothing to “‘plan and arrange’ for contingency funding” or “define any liquidity risk stress test scenarios.” (ALJ RD 54.) The record amply supports the ALJ’s finding and conclusion.

D. Bank Management

Finally, Frontier contends the FDIC Board acted arbitrarily and capriciously in concluding its management “engaged in unsafe or unsound banking practices by failing to adhere to its policies and by failing to adequately manage and mitigate interest rate risk.” (Pet. Br. 49.)

An unsafe or unsound practice is one which is contrary to generally accepted standards of prudent operation, the possible consequences of which, if continued, would be abnormal risk or loss or damage to an institution, its shareholders, or the agencies administering the insurance funds and that it is a practice which has a reasonably direct effect on an association’s financial soundness.

_Simpson v. Office of Thrift Supervision_, 29 F.3d 1418, 1425 (9th Cir. 1994) (quotations omitted). Because the FDIC Board determined Frontier operated with insufficient capital, failed to adequately manage interest rate risk, and failed to maintain adequate liquidity, the FDIC Board’s conclusion Frontier’s management engaged in unsafe or unsound practices was not arbitrary or capricious.18

sources of contingency funding and calling for annual testing. Yet neither section elaborates on the arrangements with the listed funding sources for contingency funding or describes the liquidity risk testing to be done.

18 We acknowledge Frontier also challenges the ALJ’s findings and conclusions related to asset growth. The ALJ concluded Frontier violated its “Asset Growth Plan” because it operated “without adequate interest risk management.” (ALJ’s RD 51.)
The petition for review is DENIED.

Frontier criticizes the ALJ for failing to link its board-authorized deviations from its asset growth plan to interest rate risk. We disagree. While the link may be implicit in the ALJ’s reasoning, it is clear: asset growth in the bank’s leverage portfolio increases the bank’s exposure to interest rate risk. See FDIC Capital Market Handbook, supra, at 447. Were an unanticipated interest rate crisis to occur, these added assets would make it even harder to resolve. The ALJ’s conclusion was reasonable.