

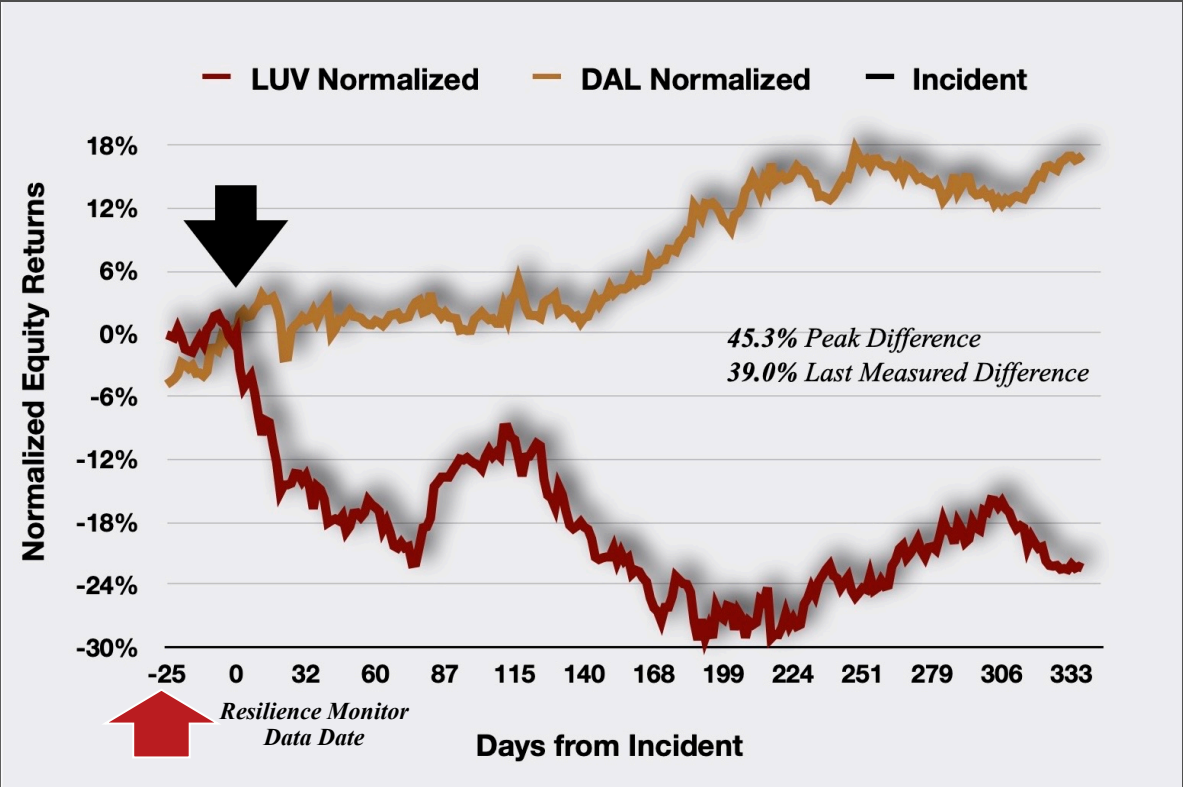
# Additional Materials for Success Story: A Reputation for Risk Management Enhances Value

STEEL CITY RE

## RESILIENCE MONITOR

REPUTATION HEALTH RISK FORECASTING AND BENCHMARKING

# Before the Incident



# Key Observations Before

- Electronic Risk Intelligence
  - The Resilience Monitor detected a potentially critical level of strategic stakeholder agitation, determined that there was a moderate chance of an outsized stakeholder reaction, and strongly recommended preemptive action.
  - The Resilience Monitor also observed non-critical changes in expectations and recommended action comprising a surge effort to mitigate risks to revenue and enterprise resilience.
- Human Risk Intelligence
  - Human intelligence gathering using reputation risk management best practices may have exposed risks associated with disappointed and disaffected employees.

# Key Observations After

- Resilience Monitor

- The Resilience Monitor detected no evidence of strategic stakeholder agitation but recommended strategic action on the basis of the magnitude of shifting investor expectations.
- The reputation value metric fell below the first loss gate insurance trigger seven times and the final measure was materially lower than before the crisis.
- The Fear Index peaked on crisis day 105 which was about 2 weeks before the gap between the equity returns of BUD and TAP reached a maximum.
- Benchmarking reveals that from pre to post crisis, the firm's profitability dropped from the 63<sup>rd</sup> to the 61<sup>st</sup> percentile among 41 similar firms; its share buyback rate rose from the 52<sup>nd</sup> to 93<sup>rd</sup> percentile.

- Equity Value Chart

- Equity returns under performed the benchmark S&P Select Food and Beverage Index by a maximum of 29% and were under performing by 22% on the last day of measurement; under performed a competitor by a maximum of 45% and were still under performing by 39% on the last day of measurement.



**RESILIENCE MONITOR**  
**Prepared for the Southwest Airlines Co.**  
**companion graphic report**  
**on April 1, 2024**

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**Summary of Observations and Recommendations**

**Headline Assessment.** Data indicate a **potentially critical** level of reputation risk for Southwest Airlines Co.. Increased *pre-emptive* reputation risk and crisis management as of December 1, 2022 are **strongly indicated**.

*This section is organized for quick orientation, observations, decisions, and actions. The data are current as of **December 1, 2022**. Detailed contents and chart references are in the Appendix beginning on page 4.*

**Strategic Risk Management and Governance Environment.** “Reading the room,” stakeholders’ mood appears significantly agitated making the likelihood that a shock would trigger an *outsized reaction* high. The Southwest Airlines Co.-specific “Fear Index” peaked in value on March 17, 2022.

Increased reputation risk mitigation actions, *when indicated*, would typically include consultation within the enterprise to determine: (1) what decision, policy, or statement from officers and directors; operational incident, or third-party actions that became public around the peak date precipitated stakeholders’ agitation; (2) what stakeholder expectations preceded the above; and (3) a course of action centered on meeting those expectations through operational changes to pre-empt a similar event from disappointing the same stakeholders; shaping expectations to current reality; or planning for the costs of loss. Not taking reputation risk mitigation actions when indicated increases the likelihood that an adverse event will precipitate a costly reputation crisis.

**Operational Enterprise Risk Management.** Data indicate no material expected changes in stakeholder behaviors or operations.

In addition to the general processes for enterprise reputation risk management, enhanced risk management resources and efforts including issue-specific collaboration and communication among potentially insular silos are borderline indicated as shown below and may help protect or restore value in one or more of these four contributors to enterprise resilience, especially if a major adverse event occurred in the past year or if the strategic risk environment described in #1 is precarious.

- **Mitigating risks to revenue: maintain baseline effort; no surge indicated.** Enhanced risk management, if indicated, could focus on mitigating sources of customer disaffection, supply chain issues, cyber hacks, property (fire, EH&S), and the impact of political violence, natural catastrophes, and other perils leading to business interruption.
- **Mitigating risks of higher costs and expenses: maintain baseline effort; no surge indicated.** Enhanced risk management, if indicated, could focus on mitigating employee disengagement; operational losses; credit costs, compliance failures; social license holder protests; and the additional costs arising from mitigating any of the multiple risks to revenue.

- **Mitigating risks to investors' appreciation of future potential: maintain baseline effort; no surge indicated.** Enhanced risk management, if indicated, could focus on collaborating with investor relations to promote the active mitigation of risks to revenue and of higher costs and expenses.
- **Mitigating risks to enterprise resilience: maintain baseline effort; no surge indicated.** Enhanced risk management, if indicated, could focus on implementing and promoting an integration of risk management and governance by the entire risk management apparatus through better risk intelligence and threat prioritization.

**Intelligence for Auditing Reputation Value and Risk Controls.** Southwest Airlines Co.'s reputation value is not underperforming its historic range at some period this past year (see graphic).

Controls are established on the basis of the prior year's value and volatility or insurance parametric triggers, if applicable. Control discrepancies were observed for the following magnitudes and durations: 0 breach(es) of the first lower control bar over the trailing twelve months. There were 0, 0, 0, 0 and 0 breach(es) of the second, third, fourth, and fifth lower control bars, respectively.

**Intelligence for Reputation Value and Risk Benchmarking.** With one (1) being the highest rank, Southwest Airlines Co.'s reputation value benchmarked at 2 among 45 **Airlines** industry peers. Named peers for a custom/bespoke benchmarking cohort are not available; in the absence of a bespoke cohort, empty data fields are marked 'N/A': the company ranked at 940 out of 8371.

**Historic Values.** Airlines industry historic rankings are available for 0 prior period(s). Over the past 1, 4, 8 and 13 weeks, the rankings were #N/A, #N/A, N/A, and #N/A respectively. Named peers for a custom/bespoke benchmarking cohort are not available. Over the past 1, 4 and 13 weeks, the rankings among peers were 0, 0, and 0 respectively. One year ago, the ranking was N/A.

**Note:** N/A=Data not available.

*This enterprise risk and reputation resilience report provides foresight for governance, recommended actions for risk management, and metrics for controls and benchmarking. Steel City Re's recommendations are based on Southwest Airlines Co. stakeholders' mood and behaviors inferred from forward-looking data of financial expectations.*

## The Value of Reputation Risk Management

**Reputation risk** is the gap between your stakeholders' expectations and future reality. Its cost to Southwest Airlines Co. depends on whether the expectations pertain to something that is mission-critical, the context of stakeholders' mood, and magnitude of the shock of disappointment. Every decision, policy, or statement from officers and directors can precipitate a crisis of disappointment. Any operational incident or any third-party action can too.

The key to efficient reputation risk management is to "read the room" and know when and where to best direct resources to mitigate the costs of shifting stakeholder expectations through risk operations, communications, and transfer.

**Why it matters:** Preventing stakeholder disappointment can mean the difference between customers buying or boycotting; employees working or fleeing; investors buying or selling; lenders adjusting interest rates down or up; regulators deferring or enforcing; and social license holders acquiescing or protesting.

**The numbers make a compelling case for reputation risk management over crisis management.** All things being equal, an insight-based reputation risk management approach yields, on average:

- **9.3%** stock price gain for firms that managed, validated and publicized reputation risk management strategies of mission-critical processes.
- **4.3%** stock price gain for firms that demonstrated reputation resilience in the setting of an adverse event.

Conversely, crisis management yields, on average:

- **9%** stock price loss after the first week.
- **13.2%** stock price underperformance of the market at seven-months
- **23.3%** stock price underperformance of peers at seven-months

**The takeaway:** Beginning with regular measurement and oversight through this report, reputation risk insurance can reinforce enterprise value resilience, protect Directors & Officers from liability and culpability, and promote the strategic value of risk management.

## Appendix: Detailed Quantitative Measures and Chart Annotations

This Appendix provides the reasoning and evidence behind Steel City Re’s foresight and recommended action for reputation risk management and governance. Data are *inferred from forward-looking data of financial expectations* specific to Southwest Airlines Co.— four derivative measures capturing the economic notion of stock price fused into a synthetic index of reputation value. The synthetic index has been validated for more than a decade by hedge funds and a public equity index, INDEXCME: REPUVAR. Southwest Airlines Co. data are also presented graphically in the companion *Resilience Monitor* charts.

Intelligence for Risk Strategy/Future Loss   Environment (Fear Index).....	4
Intelligence for Strategic Risk Operations/Current Loss (Risk Metric Subcomponents).....	6
Intelligence for Auditing Reputation Value and Risk Controls.....	7
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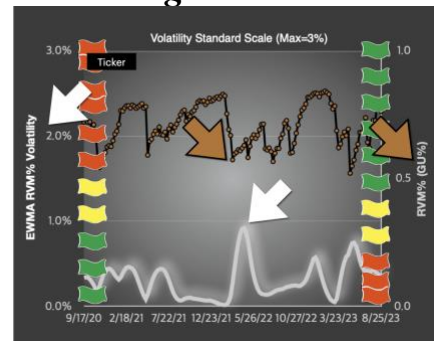
**Intelligence for Risk Strategy/Future Loss | Environment (Fear Index).** Weekly data over the past year indicate a **a potentially critical** level of reputation risk for Southwest Airlines Co.. Stakeholders’ mood appears significantly agitated making the likelihood that a shock would trigger an *outsized reaction* high. The metric for this assessment—the Fear Index—peaked in value on March 17, 2022. Increased *pre-emptive* reputation risk and crisis management as of December 1, 2022 are **strongly indicated**.

*Figure 1. Please see the separate companion Southwest Airlines Co. Resilience Monitor graphic report dated December 1, 2022, [key risk governance chart, page 5, left](#), for a graphical presentation of the above summary and details below.*

*The current exponentially weighted moving average reputation value metric percentile volatility is 0.067 . A value of around 0.02 (2%) or greater indicates an environment of generalized stakeholder agitation where an incident or adverse event is more likely to shift stakeholder expectations and generate outsized and longer-tailed consequences, all things being equal.*

*A [generic annotated illustration of the risk governance chart, page 5, left](#), of the separate companion graphic report is shown here.*

**Figure 1**





**Reasoning and Evidence:**

This Steel City Re measure of emotional agitation is similar in design and purpose to the Chicago Board of Options Exchange (CBOE) VIX or “fear” index. It is suggested that the risk executive correlate the quantitative measures in this report with newsworthy quantitative and qualitative information that may be known by stakeholders whose expected behavior is reflected in these metrics.

**Underlying Expectation Risk from Historic Events**

Southwest Airlines Co.’s stakeholders’ measured level of expectation agitation over the trailing twelve months peaked at 0.094<sup>1</sup> on the week ending March 17, 2022. Values near 0.02 (2%) or greater indicate stakeholder uncertainty implying exaggerated emotions, especially fear.

The spanning eight-week average change in reputational value of (-0.058) GU%<sup>2</sup> at that time suggests the net emotion was pessimism, disappointment, or dread. Material shifts in expectation<sup>3</sup> in either direction are associated with outsized reactions to incidents, events, or adverse news over the next year.

Its magnitude was likely to shift stakeholders’ expectations downward.

**Current Expectation Risk from Recent Events**

The current reputation value volatility is 0.067. It is compared to the peak 0.402 on January 27, 2022 and an average of 0.085 over the trailing 12 months. The difference between the current and average volatilities is (-0.018); the ratio is 79%.<sup>4</sup> The one (1) and four (4)-week measures of reputation value have moved 0.035 GU% and 0.186 GU%.<sup>5</sup>

These data suggest net stakeholder emotion at this time is optimism and positive anticipation.

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<sup>1</sup> This unitless metric of volatility is the higher of either the unweighted or exponentially-weighted moving average of the trailing ten-week variance of the reputation value metric.

<sup>2</sup> GU% is the Gerken Unit percentile, which ranges from a low of 0.0 to a high of 1.0.

<sup>3</sup> Nobel Prize-winning insight, Economics, 2022, gleaned from studying how banks suddenly collapse, and what triggers a run (and by analogy, an equity share dump).

[https://en.wikipedia.org/wiki/2022\\_Nobel\\_Memorial\\_Prize\\_in\\_Economic\\_Sciences](https://en.wikipedia.org/wiki/2022_Nobel_Memorial_Prize_in_Economic_Sciences)

<sup>4</sup> Values may not appear to sum exactly due to rounding errors.

<sup>5</sup> GU% change data are measured on a scale of -1.0 to +1.0.



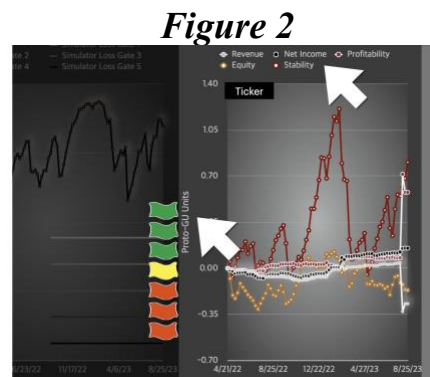
## Intelligence for Strategic Risk Operations/Current Loss (Risk Metric Subcomponents).

Weekly data reflecting recent financial expectations indicate no material changes in stakeholder behaviors or operations. Additional, focused risk management resources and efforts are borderline indicated as shown below and may help protect or restore value. There are three major opportunities for integrating reputation risk management into enterprise risk management: risk intelligence; gamified prioritization; and risk communications.<sup>6</sup>

- maintain baseline effort; no surge indicated: *mitigating risks to revenue.*
- maintain baseline effort; no surge indicated: *mitigating risks of higher costs and expenses.*
- maintain baseline effort; no surge indicated: *mitigating risks to investors' appreciation of future potential.*<sup>7</sup>
- maintain baseline effort; no surge indicated: *mitigating risks to enterprise resilience.*

*Figure 2. Please see the separate companion Southwest Airlines Co. Resilience Monitor graphic report December 1, 2022, key risk management chart, page 4, right, for a graphical presentation of the above summary and details below.*

*A generic annotated illustration of the risk management chart, page 4, right of the separate companion graphic report is shown here.*



### Reasoning and Evidence:

The directional change over the trailing twelve months with respect to expectations of stakeholder behaviors relevant to resilience that would impact the following areas—revenue, net income, and future growth, as well as their respective stabilities—are 0.36 , 25.57 , 1.06 , and 0.43 <sup>8</sup>. Negative twelve-month changes in values reflect areas of expected net value-eroding behaviors.

Over the past 1, 4 and 13 weeks, respectively, changes in expectations as well as peak and trough values all arising from expected stakeholder behaviors have been recorded as follows:

- Expectations of revenue changes 0.00 , 0.00 , and 0.01 ; Peak and trough dates for relative revenue expectation changes are respectively the weeks ending July 21, 2022 and December 2, 2021.

<sup>6</sup> Reputation, Stock Price, and You (Apress: 2012) is a good reference text. Steel City Re's advisory service is a good resource.

<sup>7</sup> Put simply, your stakeholders and the public at large want to know that you're actively trying to preclude risk. They want to know that you have effective thoughtful risk management and dutiful governance—quality enterprise risk management. Strategic insurance helps deliver this message.

<sup>8</sup> Measured in proto-GU%, each component being normalized against the entire population of values.

- Expectations of net income changes 0.00 , (-0.00), and (-0.00); Peak and trough dates for relative net income expectation changes are respectively the weeks ending December 2, 2021 and July 21, 2022.
- Expectations of equity growth changes 0.08 , 0.12 , and 0.15 ; Peak and trough dates for relative equity growth expectation changes are respectively the weeks ending April 21, 2022 and December 2, 2021.
- Expectation stability changes 0.15 , 0.24 , and 0.13 ; Peak and trough dates for relative metric stability expectation changes are respectively the weeks ending December 1, 2022 and September 29, 2022.

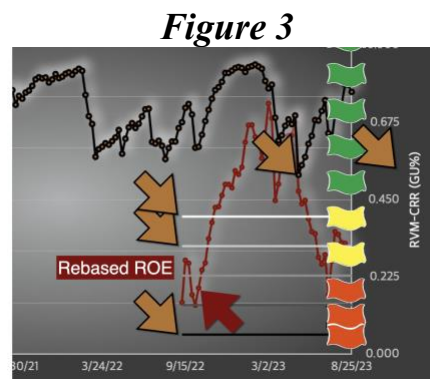
**Intelligence for Auditing Reputation Value and Risk Controls.**<sup>9</sup> Southwest Airlines Co.’s reputation value and volatility to controls established on the basis of the prior year’s value and volatility, show that Southwest Airlines Co.’s reputation value is not underperforming its historic range; i.e., 0 breach(es) of the first lower control bar over the trailing twelve months. There were 0 , 0 , 0 , 0 and 0 breach(es) of the second, third, fourth, and fifth lower control bars, respectively.

*Figure 3. Please see the separate companion Southwest Airlines Co. Resilience Monitor graphic report December 1, 2022, [key reputation value control charts on page 3](#), for a graphical presentation of the above summary and details below.*

*Black and gold markers, black line. RVM% is a composite index of four ~equally weighted forward looking financial measures of expected revenue, income, equity value, and their net stability. The unit of measure is the Gerken Unit percentile (GU%).*

*Red line. Change in market capitalization of Southwest Airlines Co. adjusted for the change in the S&P500 to reduce signal noise.*

*A generic annotated illustration of the reputation value control charts on page 3 of the separate companion graphic report is shown here.*



Reasoning and Evidence:

<sup>9</sup> A general overview of the reputation risk management controls and benchmarking information provided by this resilience monitor can be found in this [explanatory video](#).

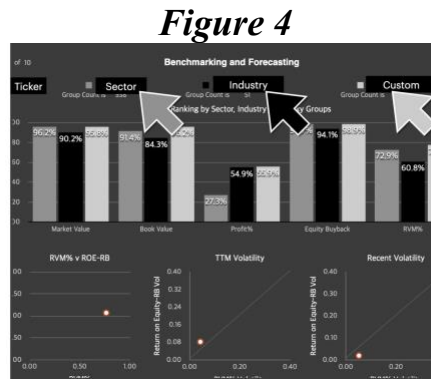
The average direction<sup>10</sup> of change over the past year is 0.10 (GU% vector). Southwest Airlines Co.'s current reputation value<sup>11</sup> is 0.88 GU%, compared with reputation values of 0.85 GU%, 0.85 GU%, and 0.79 GU% over the past 1, 4, and 13 weeks respectively.

The reputation value changes are reflected in the observed change in market capitalization, currently \$23798 million, which has changed 4%, 8%, and 9%, over the past 1, 4, and 13 weeks, respectively; or, when adjusted to remove background market effects, 2%, (-0%), and 6% over the past 1, 4, and 13 weeks, respectively.

**Intelligence for Reputation Value and Risk Benchmarking.** Southwest Airlines Co.'s reputation value benchmarked to 45 Airlines industry peers earns a ranking at 2, which corresponds to the 0.81 percentile. Named peers for a custom/bespoke benchmarking cohort are not available; in the absence of a bespoke cohort, empty data fields are marked 'N/A': 8371 custom-selected peers, places the company ranking at the 0.88 percentile for a rank of 940 out of 8371 with one (1) being the highest rank.

*Figure 4. Please see the separate companion Southwest Airlines Co. Resilience Monitor graphic report December 1, 2022, [key benchmarking charts on page 6](#), for a graphical presentation of the above.*

*A [generic annotated illustration of benchmarking charts on page 6](#) of the separate companion graphic report is shown here.*



**Historic Values.** Airlines industry historic rankings are available for 0 prior period(s). Over the past 1, 4, 8 and 13 weeks, the rankings were #N/A, #N/A, N/A, and #N/A respectively. Named peers for a custom/bespoke benchmarking cohort are not available. Over the past 1, 4 and 13 weeks, the rankings among peers were 0, 0, and 0 respectively. One year ago, the ranking was N/A. Note: N/A=Data not available.

<sup>10</sup> Vector-based charts on pages 6 and 7.

<sup>11</sup> Steel City Re makes available for risk managers on request a PowerPoint® template, prepopulated with company-specific data, on reputation risk for use in ERM and board presentations.

# RESILIENCE MONITOR

REPUTATION HEALTH RISK FORECASTING AND BENCHMARKING

## Southwest Airlines Co.

December 1, 2022



Contents for LUV	Page
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## Description

This enterprise risk and reputation resilience report provides foresight for governance, recommended actions for risk management, and metrics for controls and benchmarking.

Effective reputation risk governance and management can mean the difference between customers buying or boycotting; employees working or fleeing; investors buying or selling; lenders adjusting interest rates down or up; regulators deferring or enforcing; and social license holders acquiescing or protesting.

Data shown here graphically are *inferred from forward-looking data of company-specific financial expectations*—four derivative measures capturing the economic notion of stock price fused into a synthetic index of reputation value.

The synthetic index has been validated for more than a decade by hedge funds and a public equity index, INDEXCME: REPUVAR. Company data are also presented in text form in the companion *Resilience Monitor* narratives.

## Vital Signs and Key Metrics

Simulation Start Date	December 9, 2021	
Simulation End Date	December 1, 2022	
Simulation Binding RVM%	0.231	
Current RVM% & Industry Rank	0.884	2
RVM% Sim/Current	0.2328	0.8839
RVM Sim/Current	-0.4117	0.6426
Losses Gate 1/RM	0	1.50
Losses Gate 2/RM	0	2.50
Losses Gate 3/RM	0	3.50
Losses Gate 4/RM	0	4.50
Losses Gate 5/RM	0	5.50
RVM% Vol Sim/Current	0.0223	0.0845
RVM Vol Sim/Current	-2.0483	13.9713

## Subjectivities and Notices

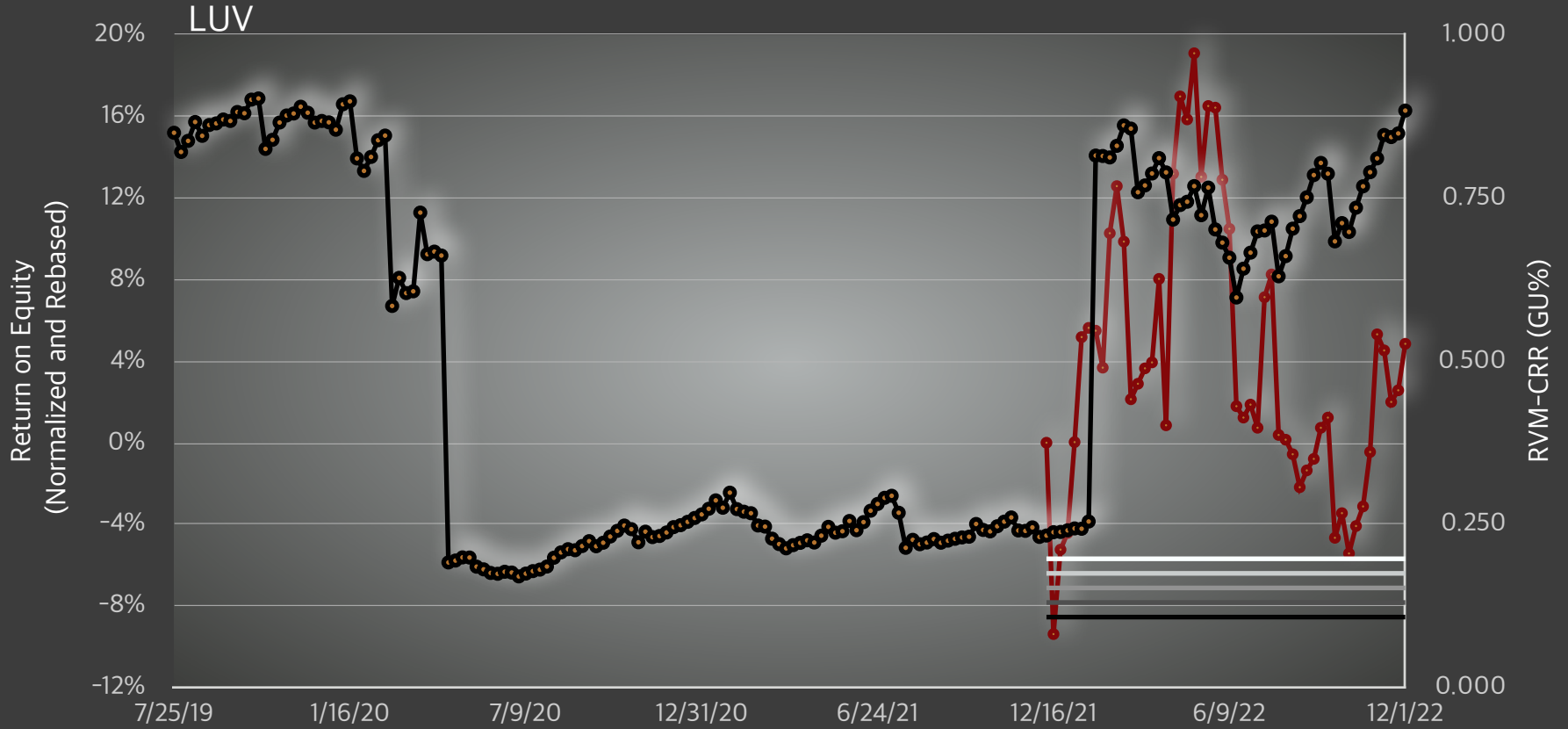
This report comprises an analysis of publicly available data that have been subjected to proprietary algorithms maintained and operated by Steel City Re. The sources are believed to be reliable. The actuarial analysis was prepared by Steel City Re’s Maths Unit.

However, Steel City Re is not an auditor and has not independently verified the underlying data. Because of the possibility of human or mechanical error as well as other factors, all information contained herein is provided “As Is” without warranty of any kind.



- RVM-CRR
- Simulator Loss Gate 1
- Simulator Loss Gate 2
- Simulator Loss Gate 3
- Simulator Loss Gate 4
- Simulator Loss Gate 5
- Period Rebased ROE

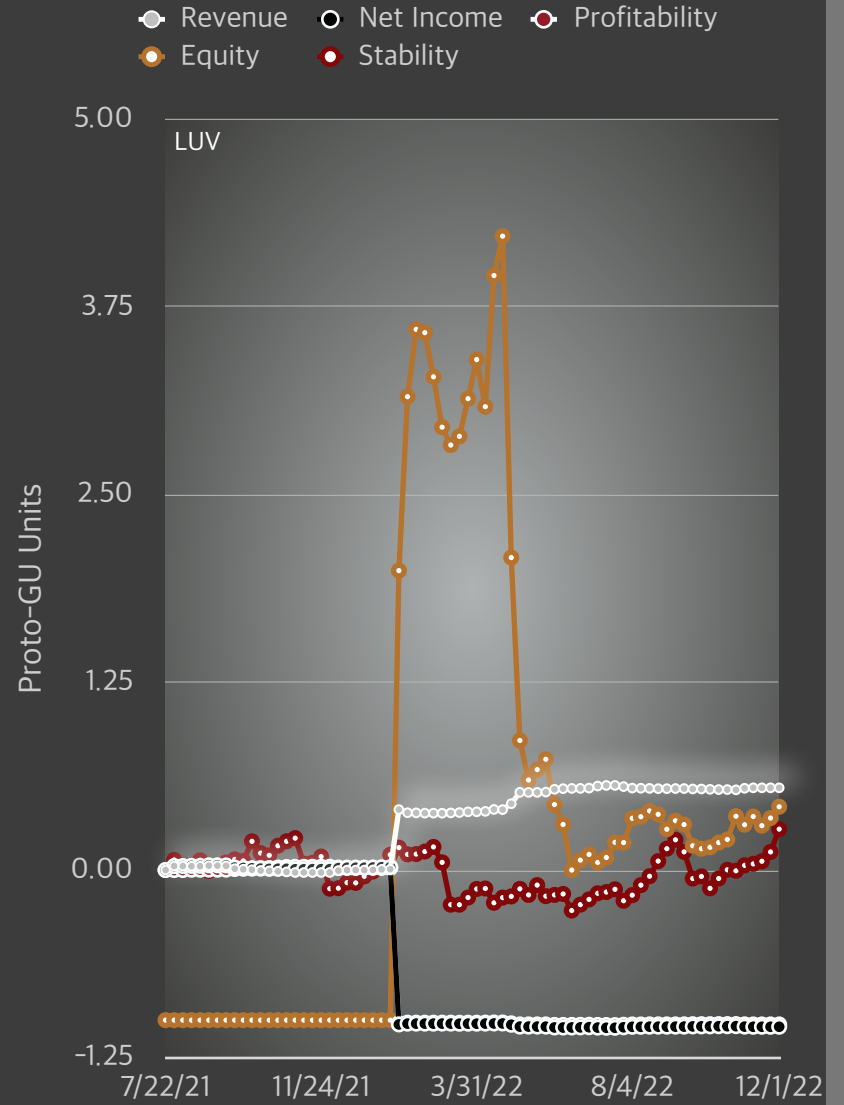
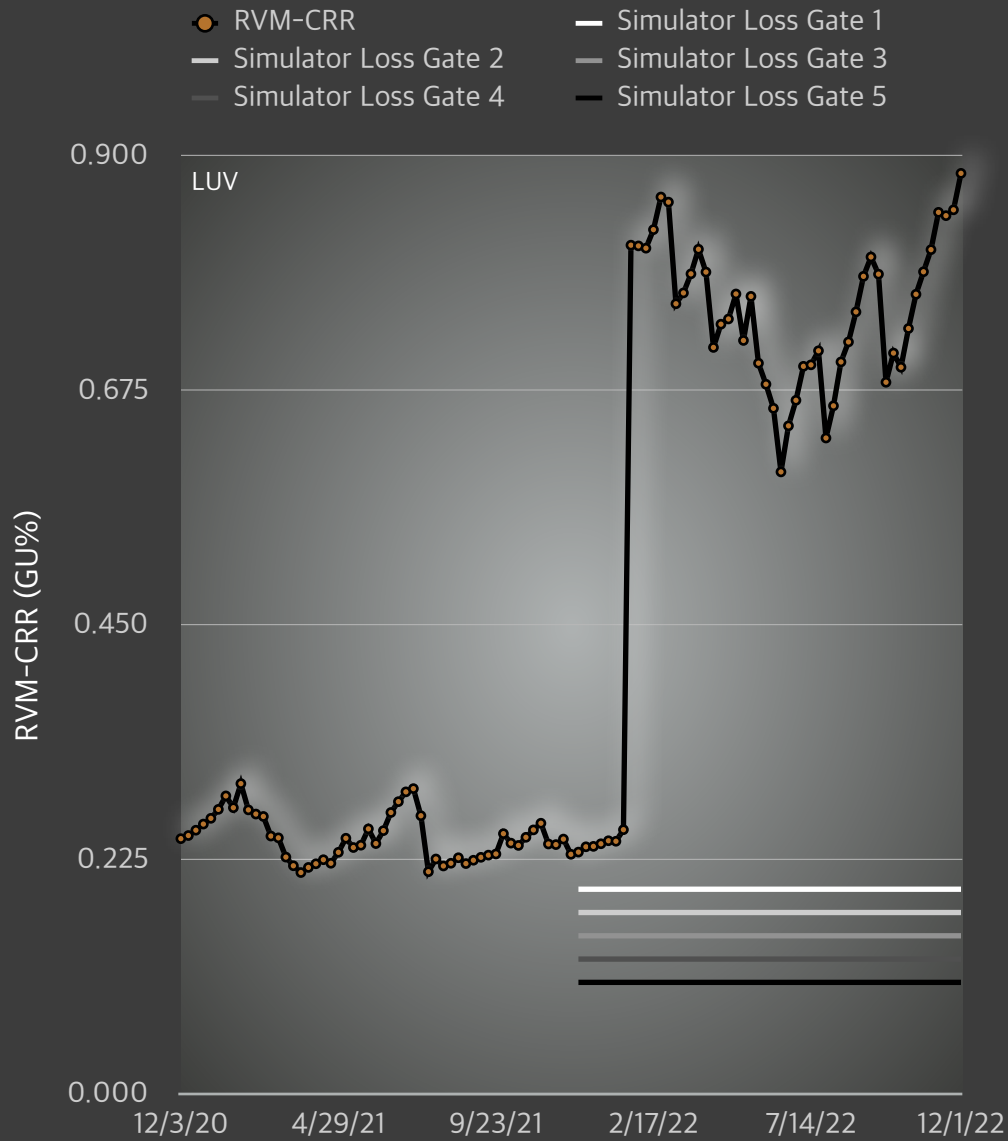
### Equity and RVM Performance Overview



**Note:**

RVM-CRR is a synthetic index of reputation value *inferred from forward-looking data of company-specific financial expectations*—four derivative measures capturing the economic notion of stock price—and reported for linguistic comfort in Gerken Units (GU%).





Detailed view of reputational value (RVM-CRR) movement and changes in its underlying components

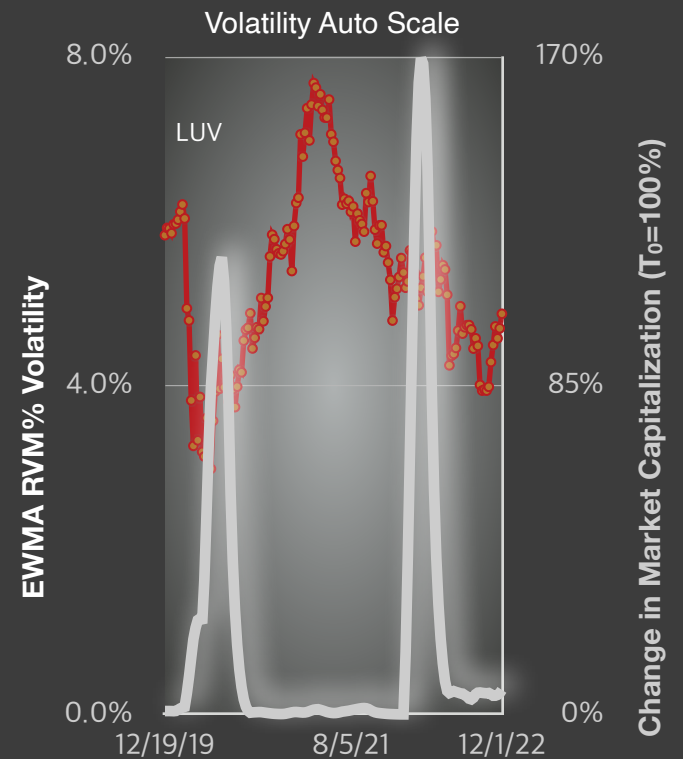
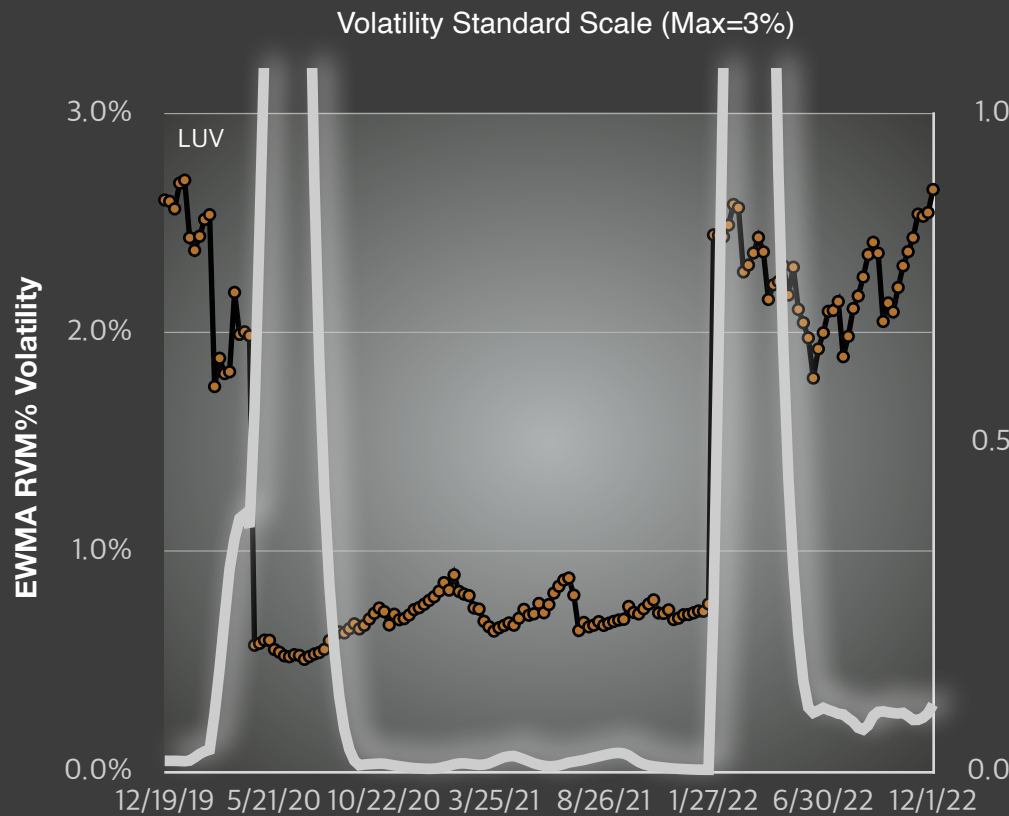




# Strategic Oversight of Mission-Critical (Reputation) Assets



— EWMA      ● RVM\_CRR      — EWMA      ● LUV MarCap-Normalized



Volatility in reputational value (EWMA RVM%) – a quantitative measure of stakeholders’ certainty in a company’s ability to meet their expectations – is a leading sign of shifting stakeholder expectations that can trigger bank runs and stock price collapses. Corroborating measures are drops in reputational value (RVM%) and market capitalization.

## Benchmarking and Forecasting



# LUV

■ Transportation  
Group Count is 219

■ Airlines  
Group Count is 45

■ 0  
Group Count is 8371

Peer Ranking by Sector, Industry and Proxy Groups

