

# Crisis Value Erosion Index

A report on the financial impacts of crises on 70 listed companies from around the world.

senate **shj**

# Executive summary

**Reputation is precious. It can help increase market value, generate investment, attract top talent and boost business. These days it is a prerequisite for organisations who want to grow sustainably and contribute meaningfully to society.**

A crisis can destroy these benefits, exerting lasting effects on listed companies - even jeopardising their existence. The fallout can extend to personal reputations and the well-being of those involved.

In a comprehensive study spanning 40 years, SenateSHJ analysed the impact of crises\* on 70 listed companies across diverse sectors such as entertainment, mining, pharmaceuticals, technology, automotive, aviation, and finance. Despite the evident risks, our research reveals a lack of investment by most companies in crisis planning, including simulations<sup>1</sup> which are the foundation for understanding and managing risk in an organisation.

It is essential that board and management teams invest in crisis planning, preparedness and risk resilience (including simulations), to ensure they are properly prepared and able to adequately respond in a crisis.

To understand the risks of poor preparedness, we undertook an assessment on the impact crises have on market performance, including share price drop, days to share price recovery, earnings per share (EPS) drop, and days to EPS recovery, among others.

The significance and impact of our Crisis Value Erosion Index study was underscored by PRovoke Media, the leading PR industry publication, which ranked it No.1 in their [2022 Review: Top 10 Thought Leadership](#).

They commended the research for its use of real-world data and hard financial information saying:

**“It’s the kind of research that underscores the firm’s positioning and expertise and can be replicated year on year, becoming more valuable as it tracks more crises over a greater time span.”**



<sup>1</sup> Reputation Reality 2020 - A relatively low number of organisations that have a crisis communication plan test them at least annually. 50% of Australian organisations have a crisis communication plan and in New Zealand, 69% have a crisis communication plan. Of those, only 7% of Australian organisations test it every six months and a further 18% test them once a year. Only 11% of New Zealand organisations test them every six months and a further 26% test them once a year.

\*Crises were categorised into eight categories in line with the Institute of Crisis Management Categories.

# Key findings

1	Eighty per cent of companies struck by a crisis experienced a drop in share price and earnings per share (EPS). On average, organisations saw a <b>12% drop in share price</b> (the range was 0.4% for the Walmart ban on Chinese products to 50.4% BP Oil Deepwater Horizon explosion and oil spill)		<b>80%</b>	Experienced a share price and earnings per share drop
2	The <b>median EPS drop was 100% with three companies</b> Airbus, Credit Suisse and Ardent Leisure suffering an EPS drop of over 480%		<b>100%</b>	Median EPS drop
3	Share prices took, on average, <b>60 days to recover</b> to their pre-crisis value		<b>60</b>	Days to recovery
4	Companies in the <b>mining and materials sector</b> had the highest average share price drop (21.9%) and an average EPS drop of 131%		<b>131%</b>	Average EPS drop
5	The category of crisis with the most significant share price impact was <b>casualty accidents*</b> (average share price drop of 24.4% and median EPS drop of 191%)		<b>24.4%</b>	Average share price drop
6	This was followed by <b>environmental damage*</b> (average share price drop 23.4% and a median EPS drop of 222%)		<b>222%</b>	Median EPS drop
7	This was followed by:	 <b>Defects and recalls 16.6%</b>	 <b>Cybercrime 14.4%</b>	 <b>Catastrophes 12.6%</b>

\*Crises were categorised into eight categories in line with the Institute of Crisis Management Categories.

# Impact on share price

A crisis, more often than not, will negatively impact the share price of a listed company. Of the 70 organisational crises studied, 59 produced a variation in share price once the crisis became public. The average share price drop for these 59 organisations was 12%.

Lowest share price drop



**0.4%**

**Walmart** (Ban of Chinese products)

Highest share price drop



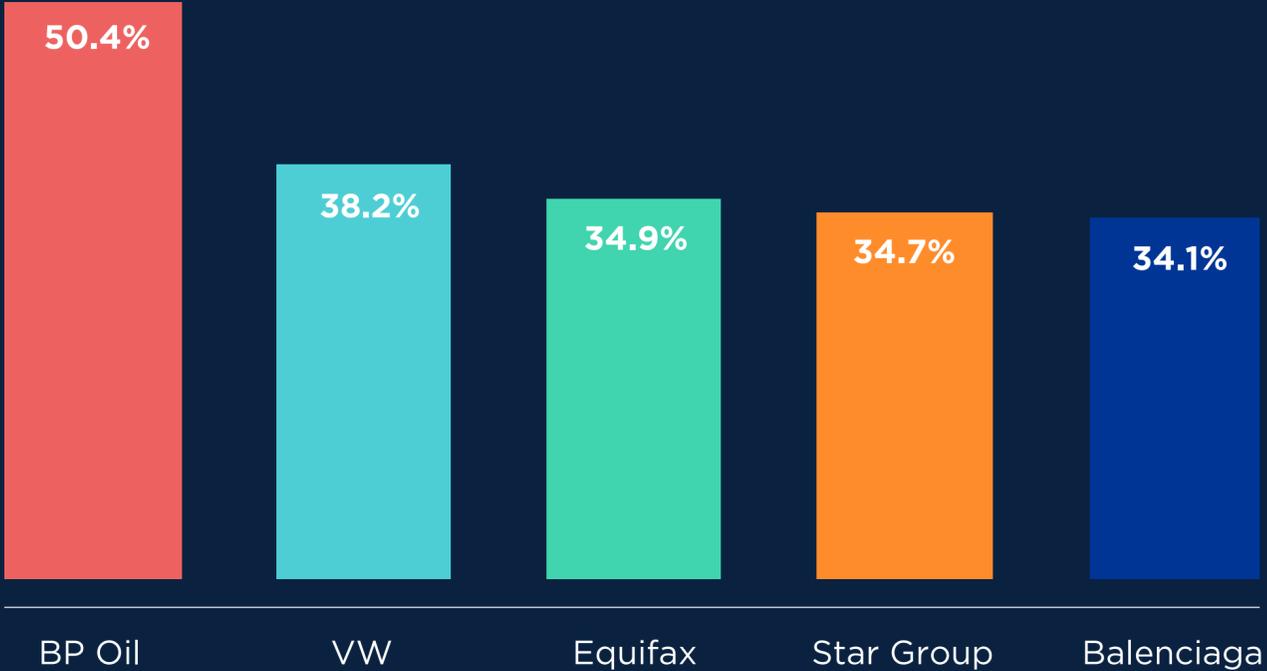
**50.4%**

**BP Oil**  
(Deepwater Horizon explosion and oil spill)

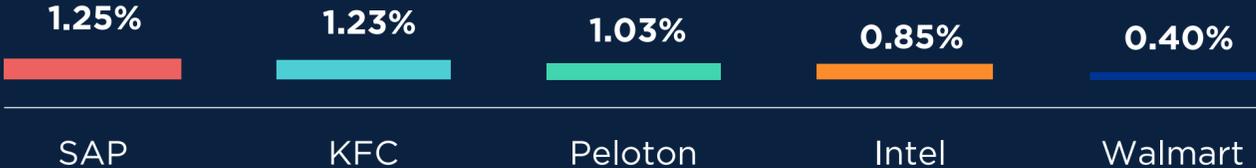


# Highest and lowest share price drops

The highest share price drop

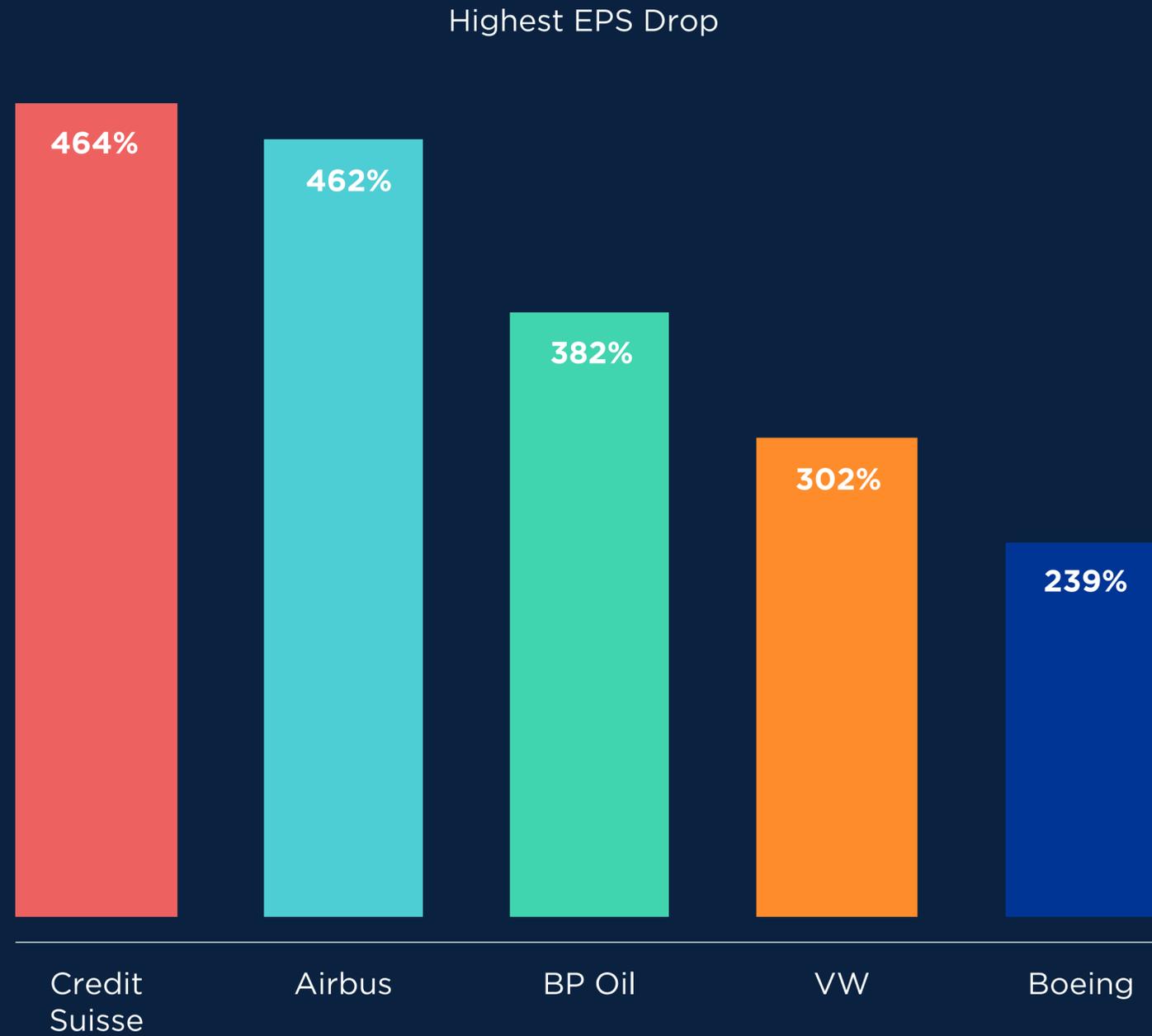


The lowest share price drop



# Earnings per share drop (EPS)

Some companies experiencing a share price drop had no change in their earnings per share (EPS) values. The worst affected organisation in terms of EPS erosion was Credit Suisse with an EPS drop of 464%. The median EPS drop across all companies was 100%.



# Impacts by industry and crisis category



## Impacts by industry and crisis category

The mining and materials and retail sectors saw the greatest average and median share price drops among the crises we analysed, while the pharmaceuticals and fashion sectors were the least affected.

Industry	Average share price drop	Median share price drop
Mining and Materials	21.9%	18.6%
Retail	18.5%	19.8%
Travel	17.5%	17.5%
Entertainment	16.3%	20.7%
Automobiles	15.2%	11.4%
BFSI	13.1%	11.2%
Fashion	11.4%	11.0%
Electronics	11.4%	11.4%
Telecom	11.2%	11.2%
Technology	10.4%	5.2%
Pharmaceuticals	9.8%	5.1%
Services	8.2%	8.2%
Airlines	5.8%	2.8%
FMCG	5.5%	3.0%

Table 1: Average and median share price drop values by industry

In terms of the category of crisis as defined by the Institute for Crisis Management (Table 2), casualty accidents and environmental damage experienced a far higher share price drop compared with white collar crimes or cybercrime.

Category of crisis	Average share price drop	Median share price drop
Casualty accidents	24.4%	24.6%
Environmental damage	23.4%	19.8%
Defects and Recalls	16.6%	11.4%
Cybercrime	14.4%	13.5%
White-Collar crime	12.1%	9.6%
Other	10.9%	7.4%
Mismanagement	7.5%	1.3%
Discrimination	5.6%	3.9%
Workplace violence	2.5%	2.5%

Table 2: Average and median share price drop values by crisis category

When exploring aggregate values of earnings per share (EPS), both the industries and categories show a similar trend to share price drops. This is supported by the correlation value between share price drop and EPS drop – 0.72 – indicating the two are coupled.

Category of crisis	Average EPS drop	Median EPS drop
Environmental damage	222.0%	222.0%
Casualty accidents	191.0%	191.0%
White-Collar crime	173.5%	113.0%
Cybercrime	156.9%	42.0%
Mismanagement	138.7%	138.7%
Defects and Recalls	124.3%	37.9%
Other	37.4%	32.3%
Discrimination	23.0%	23.0%
Workplace violence	One crisis and no impact on EPS	

Table 3: Average and median EPS drop values by crisis category

# Statistical analysis

## Recovery time

The recovery of share price to pre-crisis levels is longer for companies experiencing larger share price drops.



## Correlation score

(There is a strong statistical correlation between the size of the share price drop and recovery as indicated by the figures below)

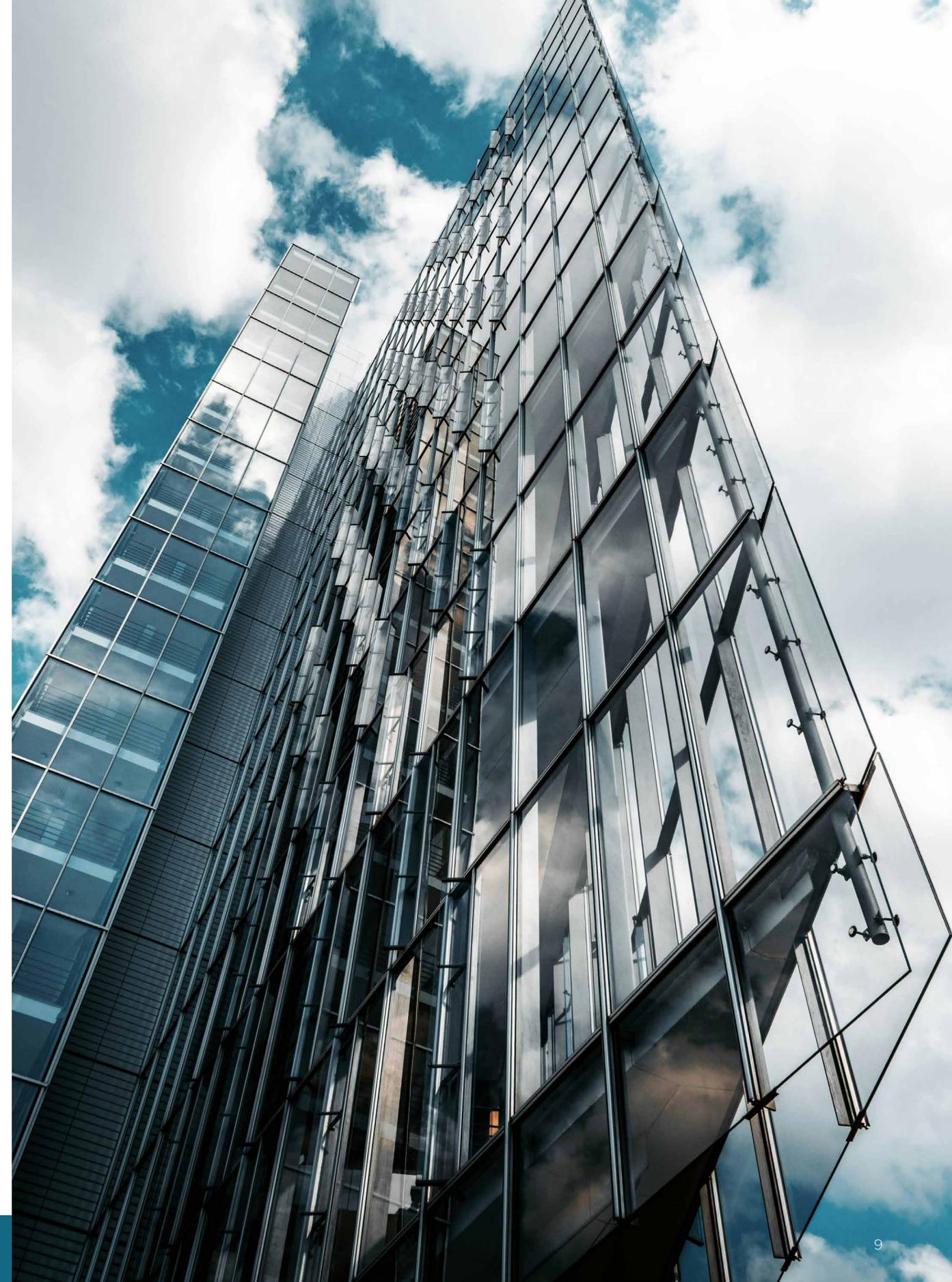
**0.58** days to share price recovery\*

**0.61** days to effective share price recovery\*

This indicates organisations take **longer to recover** when the **share price drops are larger**.

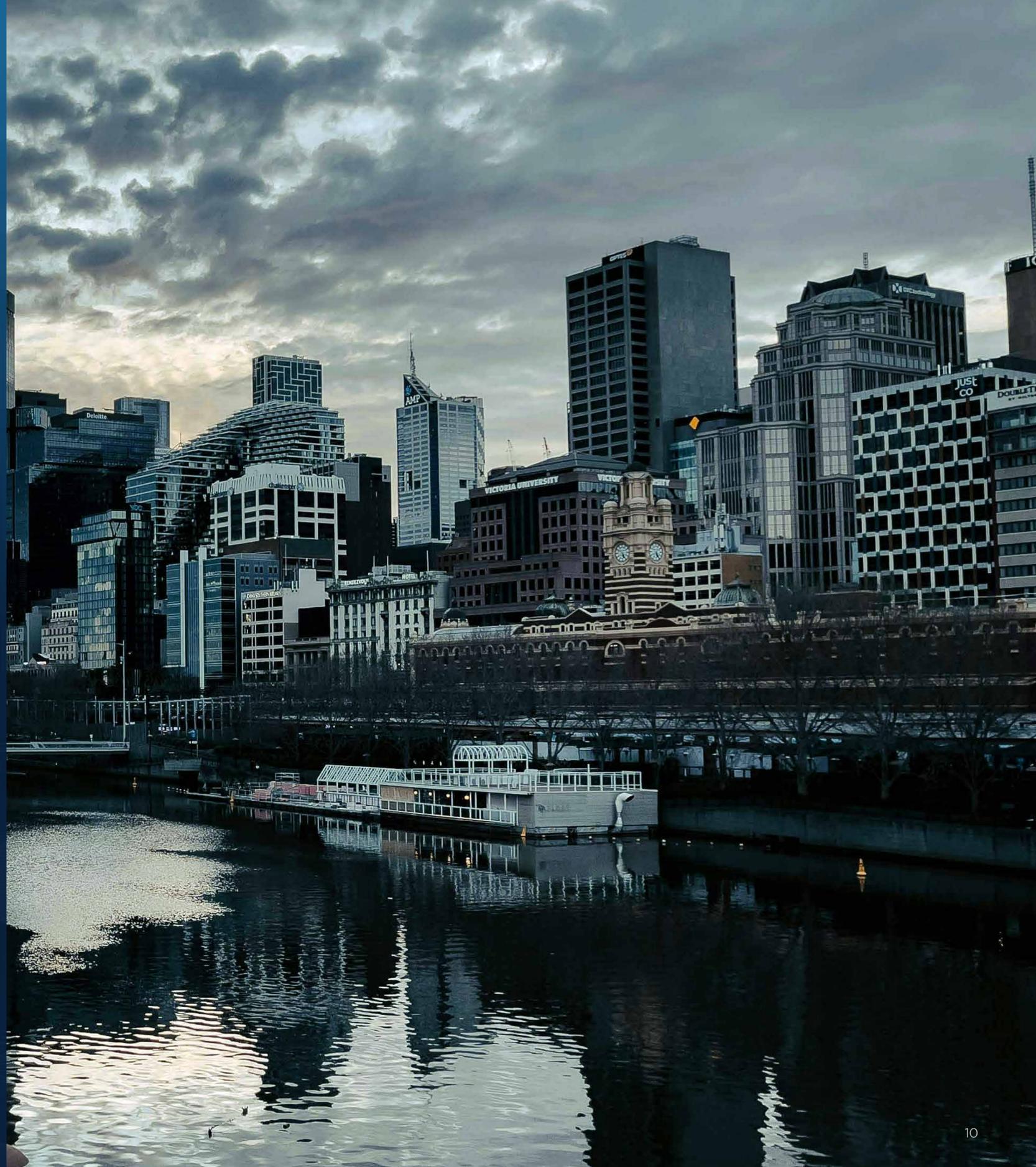
Similarly, the correlation between share price drop and EPS drop is also high. When a large crisis hits, the length of time to recovery can be far longer, more costly and have deeper impacts to brand and personal reputations.

\*Days to effective recovery accounts for industry/sector trends. We calculated this by evaluating five competitors from the same sector and stock market - the control group. We then normalised the data to get an average of all the metrics across the control group to represent the sector trend to enhance the precision of the analysis.



# CEO/C-Suite resignations

While resignations are not always driven solely by a crisis, we have compared financial metrics where resignations did and didn't occur. Indications are strong that a big drop in share price often leads to the resignation of the CEO.



### Companies without CEO resignations

In cases where **CEOs did not resign**, organisations averaged a 11.1% drop in share price.

# 11.1%

## Share price drop



### Companies with CEO resignations

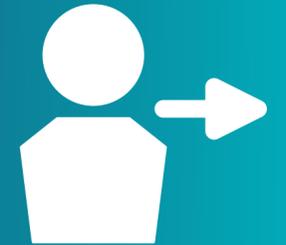
CEO resignations were more likely to follow large, damaging crises.

In cases where CEOs did resign, organisations averaged a 21.2% drop in share price.

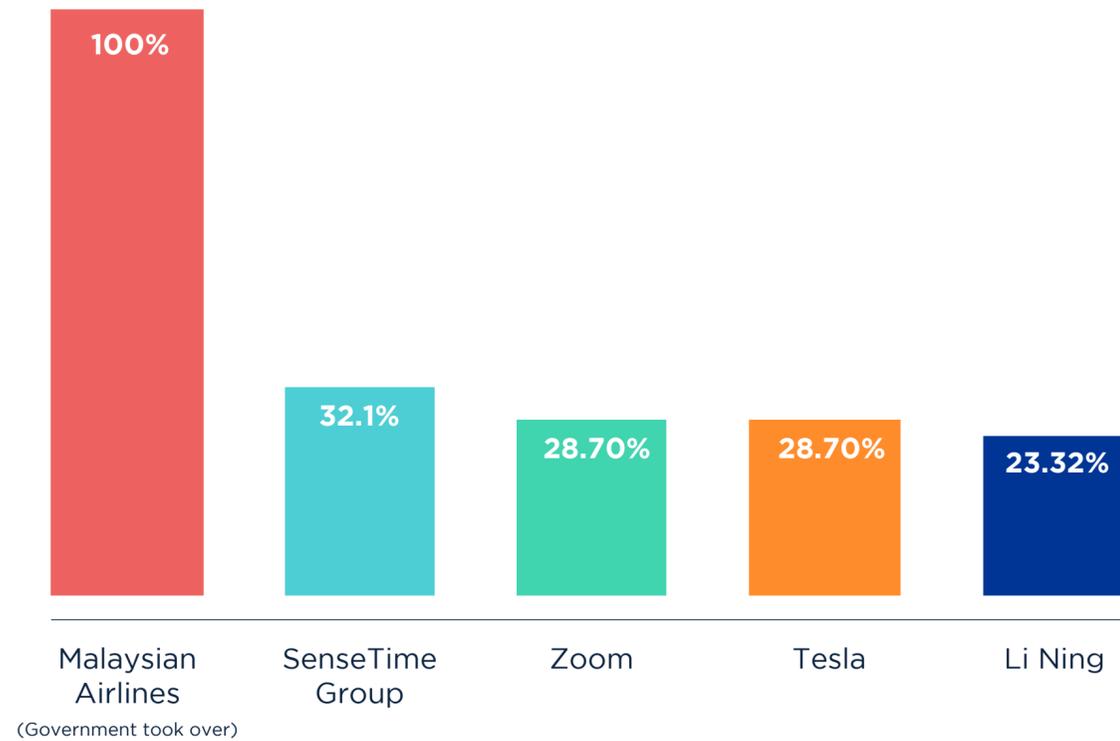
This does not account for the severity or nature of the crisis which resulted in the resignation.

# 21.2%

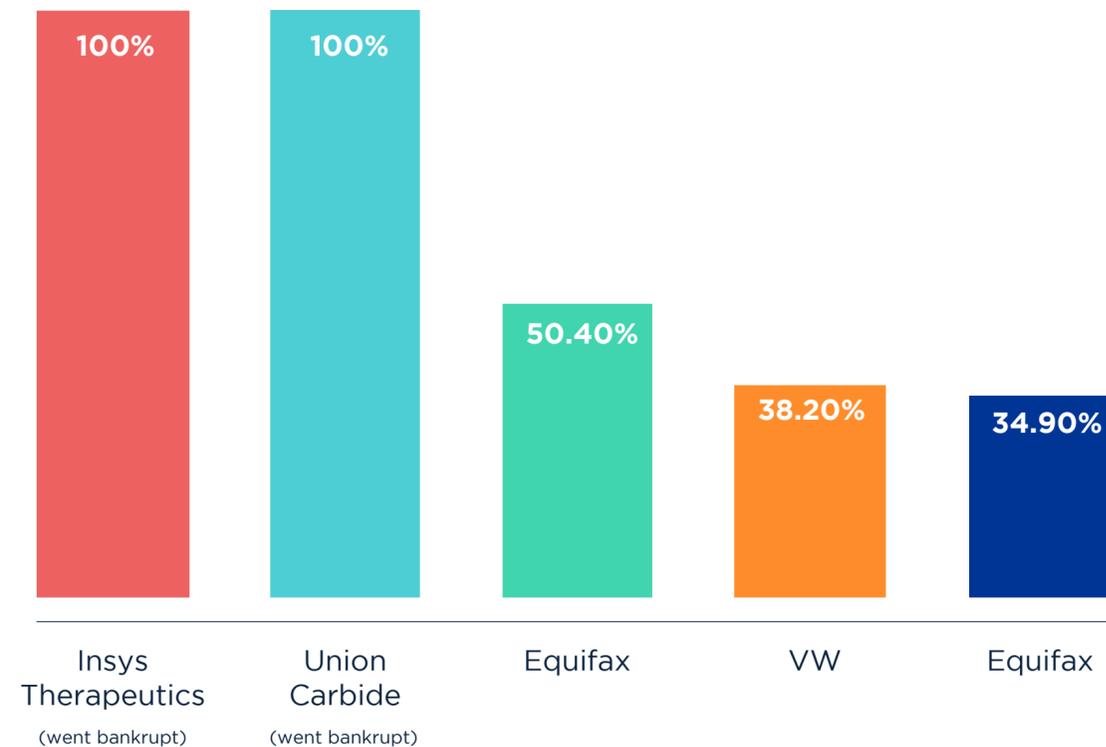
## Share price drop



The highest share price drop among organisations without CEO resignations



The highest share price drop with CEO resignations



# The 15 companies which experienced CEO, board or other executive resignations experienced the following categories of crisis:



Accidents



Casualties



Catastrophes



Cybercrime



Defects and recalls



Environmental damage



White-Collar crime



Workplace violence



## Companies providing compensation

Organisations that provided compensation to those affected by the crisis experienced an average share price drop of 16.9% and average days to recovery totalled 144. This compared to 10.5% and 28 days where the organisation did not offer compensation. This does not indicate handing out compensation leads to longer recovery times because organisations tend only to do so when there has been a significant impact on those affected or if they have been ordered by the court, regulator or government.



# Crisis preparedness

**The research findings underscore a stark reality: a crisis holds the potential to significantly impact a business across key financial indicators, often requiring months, if not years, for recovery. In response, organisations must prioritise comprehensive crisis preparedness. It is crucial to recognise that a Business Continuity Plan alone will not suffice as a crisis communication plan.**

Given the imperative for readiness, SenateSHJ has observed a noticeable increase in businesses wanting to assess and stress test their preparedness. This includes, among others, risk analysis, crisis document reviews, crisis messaging workshops, crisis simulations, culture checks, crisis team evaluations, and business as usual (BAU) team and recovery team checks.

By hosting simulations, a Crisis Management Team (CMT) can quickly identify if the business is fit to handle a crisis, where the gaps lie and what people, training and resources they need to plug these. Being 'crisis ready' hinges on the comprehensive training of key individuals responsible for crisis management.

The gravity of organisational readiness cannot be overstated, particularly in the context of cybersecurity. Cybercrime, projected to cost companies an estimated \$10.5 trillion annually by 2025, reflects the most significant transfer of economic wealth in history. The escalating growth rate of cybercrime at 15% year over year underscores the urgency for robust crisis preparedness.

Regulatory bodies, such as the Australian Prudential Regulation Authority (APRA), have created reforms to strengthen the preparedness of the financial services sector to respond to a crisis. They have also put in place the Cyber Operational Resilience Intelligence-led Exercise (CORIE) Framework to assist Australian financial institutions to bolster their cyber resilience. Other institutions globally like the FSB, the World Bank, the UN, the WHO, to mention a few, are doing the same in their sectors.

Companies should not underestimate the value of strong stakeholder relationships in a crisis. Time and resources are well spent investing in ongoing stakeholder mapping and engagement. It can act as a strong reputation shield when a crisis hits and even generate stakeholder advocacy and support.

Finally, experience shows that in the aftermath of a crisis, it is critical that the organisation identifies the lessons learned, including the potential financial impact. This entails reviewing all response actions including the earliest notifications, identifying the gaps and weaknesses, and putting plans in place to be properly prepared.

# Methodology

The research considered six metrics relating to the financial performance of the organisation:



## Share price drop:

The percentage drop in the value of the share price of the organisation from the day the crisis became public to the lowest value post the crisis.



## Days to recovery of share price:

Days taken for the share price to recover to the pre-crisis value from the day of the lowest post-crisis share price value.



## Days for effective recovery of share price:

Days taken for the share price to recover to the pre-crisis value from the day of the lowest post-crisis share price value, accounting for the industry trends (see opposite for more information).



## Earnings per share (EPS) drop:

The percentage drop in value of EPS of the organisation from the day the crisis became public to the lowest value post the crisis.



## Days to recovery of EPS:

Days taken for the EPS to recover to the pre-crisis value from the day of the lowest post-crisis EPS value.



## Days for effective recovery of EPS:

Days taken for the EPS to recover to the pre-crisis value from the day of the lowest post-crisis EPS value, accounting for industry trends.

In our research, a pivotal measure was accounting for industry trends to accurately isolate the impact of global events on share prices and company performances. An illustration is the substantial drop in share prices experienced by major airlines during the COVID-19 pandemic. Neglecting this contextual influence could distort financial metrics.

To ensure precision, each organization (the subject) was meticulously evaluated against five competitors (the control group) from the same industry and stock market. For instance, for the Volkswagen emissions scandal, the control group comprised competitors: BMW, Mercedes-Benz Group, GM, Renault, and Porsche.

To gather comprehensive insights, we employed an application programming interface (API) via Yahoo! Finance, capturing a spectrum of metrics for the control and subject groups. These metrics included opening and closing share prices, highest and lowest daily values, adjusted closing prices, and daily traded share volumes.

We normalised the data and assigned a ranking between zero and one. The average of these metrics across the control group was employed to represent industry trends, enhancing the precision of our analyses.

Following the data preparation, six key metrics were captured and recorded for the publicly listed organisations impacted by a crisis.

In addition, we captured the following crises attributes:

- Resignation of the CEO
- Resignation of other C-suite executives or members of the board
- Fines paid to government and/or judicial bodies
- Compensations to victims
- Company statements acknowledging the crisis and ownership of fault
- Attempts to deflect the blame away from the company
- Regulation change in the industry resulting from the crisis.

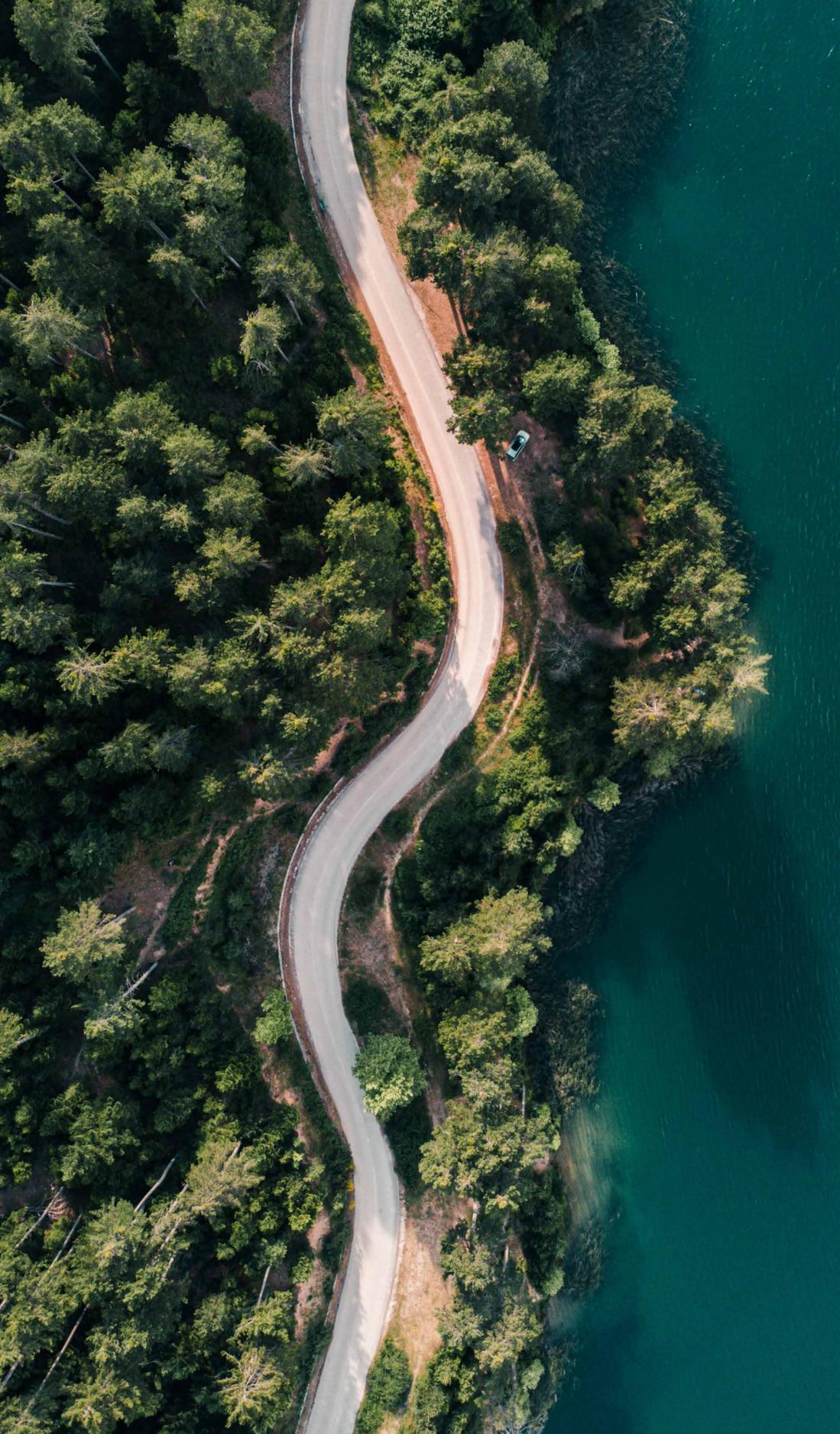
# Appendix 1 - Crisis list

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1. VW - Emissions scandal
2. Equifax - Data breach
3. Vale - Dam disaster
4. Boeing - 737-Max crashes
5. Wells Fargo - Accounting scandal
6. United Airlines - Passenger defamation
7. Tesco - Accounting scandal
8. Samsung - Exploding phones
9. Rio Tinto - Aboriginal site scandal
10. VW - Racist ad
11. Airbus - Bribery scandal
12. Credit Suisse - Corporate spying scandal
13. Facebook Free Basics - Privacy issues
14. Facebook CA - Cambridge Analytica issue
15. Nissan - CEO accounting scandal
16. Marriott - Data breach (two breaches in 2018 and 2020)
17. Bayer - Cancer crisis
18. P&G - False advertising
19. Apple - Battery blowout
20. BP Oil - Oil spill devastation
21. H&M - Racist ad
22. Zoom - Security failure
23. Capital One - Data breach
24. Ardent Leisure - Theme park deaths
25. Union Carbide - Gas leak
26. Insys Therapeutics - Opioid crisis
27. Malaysian Airlines - MH370 disappearance
28. Air China - Prejudice precautions
29. Adidas - Congratulatory email fail
30. Baidu - Search result controversy
31. SAP - Bribery scandal
32. DWS - Fraud allegations
33. Credit Suisse - Data breach
34. Orpea - Nursing Home scandal
35. DGL Group - Inappropriate comments
36. Li Ning - Inappropriate design
37. JNBY - Inappropriate prints
38. Master Kong (Wei Chuan) - Food adulteration
39. Uni-President - Food adulteration
40. Tencent - Zero-covid rumours
41. SenseTime Group - Lock-up period expiration
42. NIO Inc - Short-sell scandal
43. Bilibili - Privacy and surveillance issue
44. Walmart - Ban of Xinjiang products
45. Intel - Ban of Xinjiang products
46. Peloton - Production halt
47. KFC - Kristallnacht promo in Germany
48. Marriott Hotels - Data breach (data breach 2022)
49. BYD - Environmental pollution
50. TSMC - Geopolitical crossfire
51. Medibank - Data breach
52. Star Group - Money laundering
53. News Corp - Inappropriate comments
54. Lark - Inappropriate behaviour
55. Anglo American - Dam collapse
56. Singtel - Data breach
57. Aurobindo Pharma - Liquor scam
58. Mahindra Group - Loan recovery crisis
59. Max Group - Mismanagement lawsuit
60. CDSL - Malware attack
61. Eli Lilly - Fake insulin tweet
62. Starbucks - Expired ingredients
63. Disney - Political fight-parental rights
64. Nestle - Pizza E. coli outbreak
65. Tesla - Automobiles
66. DWS - Green investments
67. Adidas - Kanye West scandal
68. Balenciaga - Retail
69. MTR - Doors fell off the train
70. Foxconn - Workers strike - Central China

**The Crisis Value Erosion study is live research – the more crises we input, the better we can understand the impact of these crises and the mitigating actions taken during the crisis.**

If you would like us to input a listed company crisis which does not appear on the list in Appendix 1, please contact us and we will endeavour to input the data and share the updated findings with you.



Want to talk? We're here to help.



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