



senate **shj**

# Crisis Value Erosion

The financial impact of a crisis on 30 listed companies from around the world.

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# EXECUTIVE SUMMARY

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**A crisis can have a lasting impact on the financial standing and reputation of a listed company, and sometimes threaten its very existence. It can also have a devastating impact on the reputation of management and other individuals at the company.**

SenateSHJ studied the impact of a crisis on 30 listed companies from around the world over the past 40 years. The crises varied in nature and occurred in sectors including, technology, automotive, aviation and financial institutions. SenateSHJ has researched reputation and crises for many years, and this has uncovered a propensity for most companies we researched not to invest in crisis simulations.<sup>1</sup>

In the current environment, it is essential that Boards invest in crisis simulations to ensure they

are properly prepared and able to adequately respond (not just to the crisis, but to regulators and stakeholders) when a crisis arises. In order to put a dollar figure to the risk, we set about quantifying the financial and other metrics of a crisis. This included metrics such as share price drop, earnings per share (EPS) drop, and days to share price recovery.

We also attempted to assess the effectiveness of each company's actions to better inform future crisis responses of the broader industry.

Our insights about the impacts, how companies responded, and the responses that allowed for the quickest recovery will inform best practice in responding to and recovering from a crisis.

## Some of the key findings:

- 1. Seventy per cent of companies struck by a crisis experienced a drop in share price and earnings per share (EPS). On average, organisations saw a 19.0% drop in share price (the range was 2.1% VW racist advert to 50.4% BP Oil Deepwater Horizon explosion and oil spill)**
- 2. The median EPS drop was 143%**
- 3. Share prices took, on average, 147 days to recover**
- 4. The Mining and Materials sector had the highest share price drop (37.5%)**
- 5. The category of crisis with the biggest financial impact was environment impacts\* (average share price drop 35.1% and median EPS drop of 222%)**
- 6. This was followed by crises with casualties\* (average share price drop 24.4% and median EPS drop of 143%)**
- 7. This was followed by:**
  - Defects and recalls
  - White collar crime
  - Cyber crime.

<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.

# METHODOLOGY

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

## SHARE PRICE DROP:



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

## 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 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 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 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 (more information can be found below).

## 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 the industry trends.

**Accounting for industry trends was an essential step in the research so we could isolate the impacts of global events on share prices and company performances. For example, during the COVID-19 pandemic, all the major airline organisations experienced a considerable drop in share price. Not accounting for this would incorrectly inflate the financial metrics.**

For each organisation (the subject) that underwent a crisis, five competitors (the control group) from the same industry and the same stock market were considered. For example, for the Volkswagen emissions scandal, the control group comprised competitors: BMW, Mercedes-Benz Group, GM, Renault, and Porsche.

We captured a range of metrics for the control and subject groups via an application programming interface (API) accessed via Yahoo! Finance. These included opening share price, closing share price, the highest and lowest values on the day, the adjusted closing price, and the volume of shares traded daily.

We then normalised the data and gave each a ranking between zero and one for the duration of the data capture.

Finally, we used the average of these metrics across the control group to represent industry trends.

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

In addition, the following crises attributes were captured to be represented in the final framework:

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

**The final step was to categorise the chosen crises into eight classes defined by the Institute of Crisis Management. This meant categorising the 30 crises into the eight key areas:**

- 1** Defects and recalls
- 2** Cyber-crime
- 3** Environmental damage
- 4** Casualty accidents
- 5** White Collar crimes
- 6** Discrimination
- 7** Catastrophes
- 8** Mismanagement

# RESULTS

## Share price

Of the 30 organisational crises studied, 21 produced a variation in share price post the crisis becoming public. The crises resulted in widely different reactions on the financial markets; the smallest share price drop was

2.1% (Volkswagen for their racist advert) and the highest 50.4% (BP Oil for the Deepwater Horizon explosion and oil spill). The average share price drop for these 21 crises was 19.0%.

Following a crisis becoming public

**21**  **30** **out of** **organisations**



experienced variation in share price

**SMALLEST** share price drop

**2.1%**



VW's racist advert

**HIGHEST** share price drop

BP Oil Deepwater  
Horizon explosion  
and oil spill



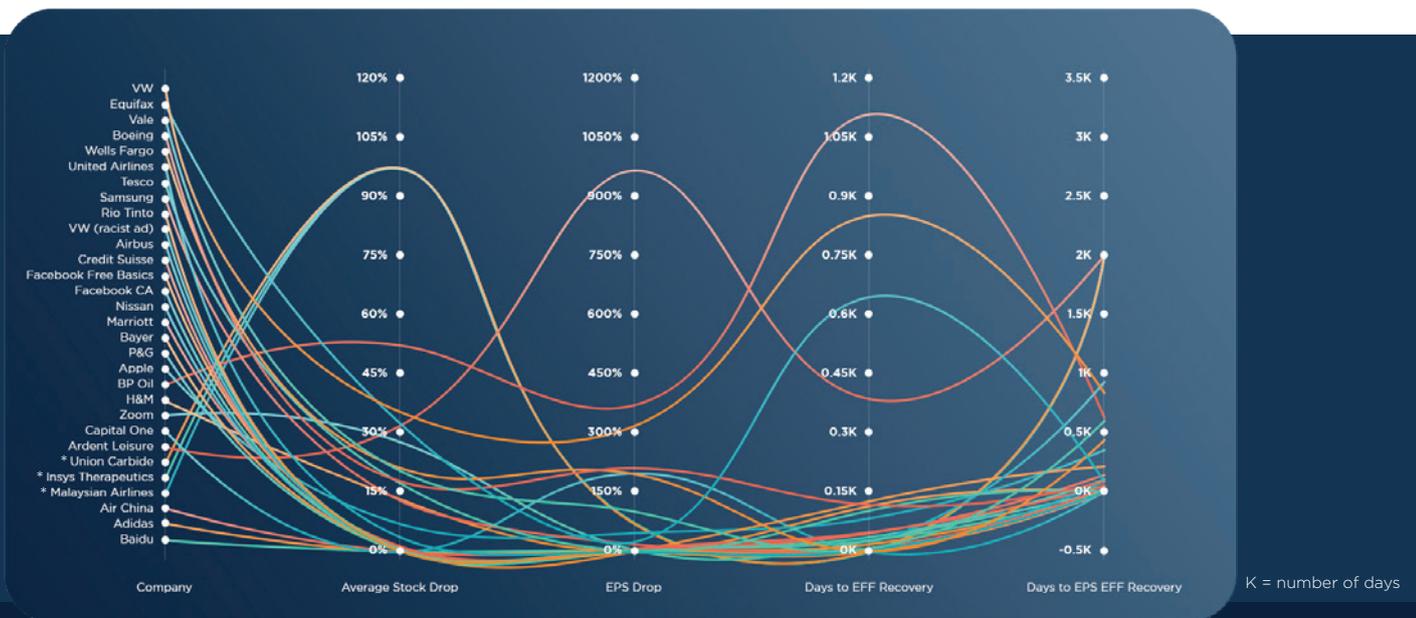
**50.4%**



## The crisis dashboard

The crisis data was collated and visualised using Microsoft Power BI (see example below and subsequent pages). This cloud-based data analytics tool is used for reporting and data analysis from a wide range of data sources. Using this, our data scientists linked to multiple data sources and analysed the data to compare all crises.

They then further visualised the impact applying other facts such as industry sectors, timeline (when the crisis happened), and sliding scales to illustrate share price drop/recovery (and effective share price drop/recovery), and days to EPS drop/recovery (and effective EPS drop/recovery).



\*These three companies either went out of business or were delisted.

## The lowest share price drop – 2.1% Volkswagen racist advert



## The highest share price drop – 50.4% BP Oil Deepwater Horizon explosion and oil spill

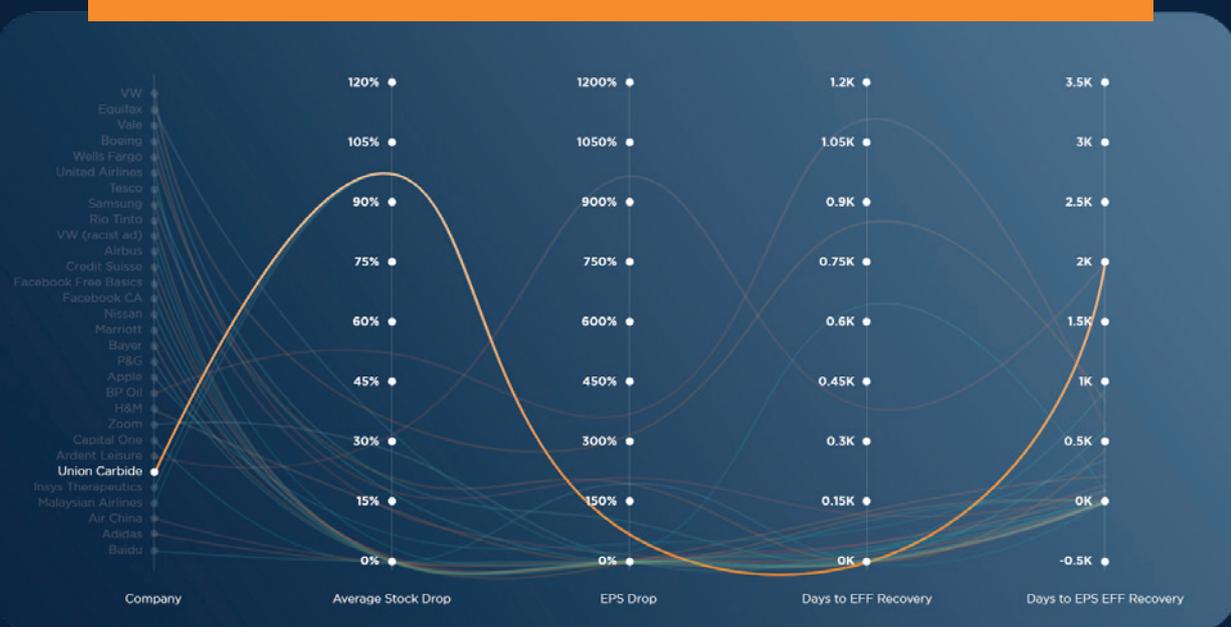


K = number of days

## Earnings per Share (EPS)

Some companies experiencing a share price drop had no change in their EPS values. However, the worst affected organisation experienced an EPS drop of 382% (Union Carbide – Bhopal gas disaster). The median EPS drop for all crises was 222%.

## Earnings per Share (EPS)



K = number of days

## Aggregates by Industry and Crisis Category

The mining and entertainment sectors were hardest hit in terms of the average and median share price drop (see Table 1), while the FMCG and fashion sectors were least affected.

Industry	Average share price drop	Median share price drop
Mining and Materials	37.50%	37.50%
Entertainment	31.00%	19.80%
BFSI	21.90%	19.60%
Technology	20.00%	15.70%
Pharma	19.80%	19.80%
Travel	17.50%	17.50%
Retail	16.60%	16.60%
Automobiles	16.10%	8.00%
Airlines	11.65%	11.70%
Electronics	11.40%	11.40%
Fashion	11.00%	11.00%
FMCG	8.90%	8.90%

**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), environmental damage and casualty accidents experienced a far higher share price drop compared to white collar crimes or discrimination.

Category	Average share price drop	Median share price drop
Environment damage	35.10%	35.10%
Casualty accidents	24.43%	24.60%
Cyber crime	22.48%	17.80%
Defects and recalls	20.33%	13.10%
White collar crime	13.85%	13.90%
Discrimination	6.90%	7.30%

**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	Average EPS drop	Median EPS drop
Casualty accidents	460.67%	239.00%
Environment damage	222.00%	222.00%
Defects and recalls	124.33%	37.00%
White collar crime	58.00%	27.00%
Cyber crime	15.60%	00.00%
Discrimination	5.75%	0.00%

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

## Statistical analysis

Recovery time is longer for companies experiencing larger share price drops with the correlation score of 0.81 (days to recovery) and 0.85 (days to effective recovery). This indicates organisations take longer to recover when the share price drops are larger.

**The correlation between share price drop and EPS drop is also high. When a large crisis hits, the organisation and its shareholders should brace for major financial impacts.**





## CEO/C-Suite resignations

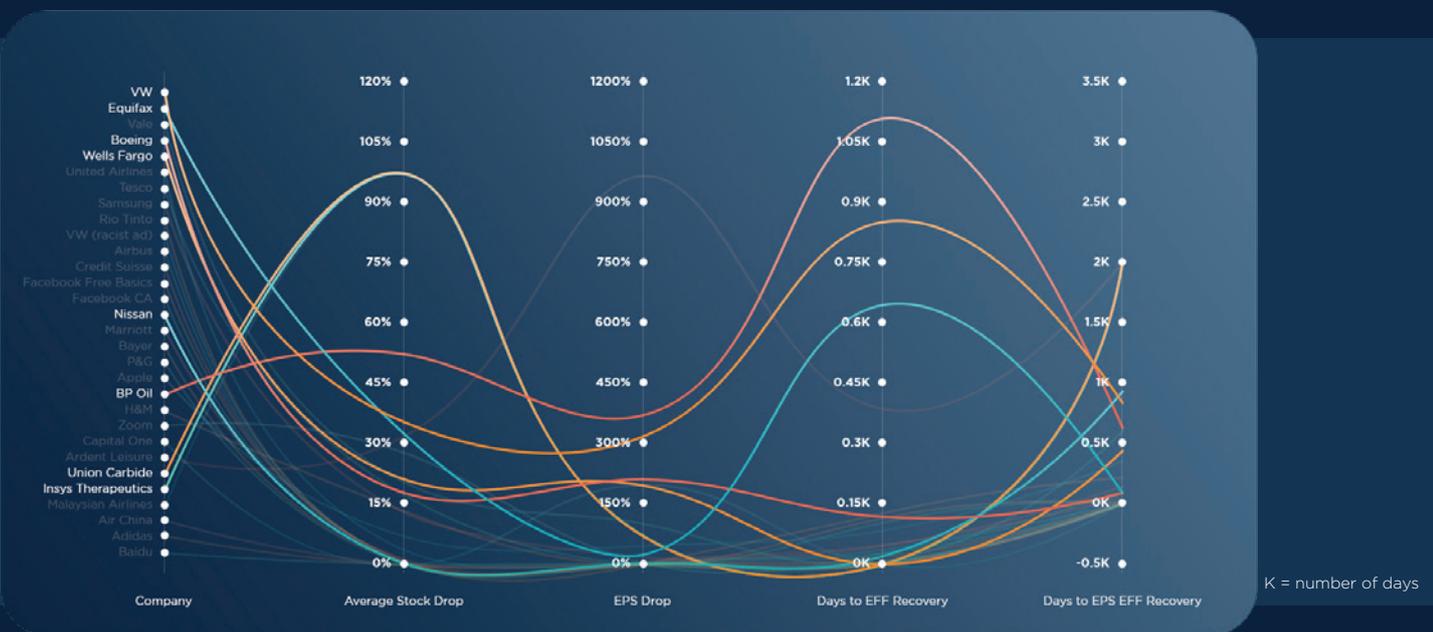
**It is difficult to point directly to cause and effect when it comes to the resignation of the CEO following a crisis.**

In cases where CEOs did not resign, the organisations had, on average, an 11.10% drop in share price (see visual below), this increased to 36.6% in cases where they did resign. This doesn't account for the severity or nature of the crisis which resulted in the resignation. The second visual below indicates the CEO resignations were more likely to follow large, damaging crises.

## Companies with no CEO resignations



The eight companies which experienced CEO, board or other executive resignations went through the following categories of crisis: catastrophes, casualties, accidents, cyber crime, defects and recall, environmental damage and white collar crimes.



## Companies providing compensation

Organisations which provided compensation to those affected by the crisis, experienced an average share price drop of 25.2% and average days to recovery totalled 249. This compared to 13.5% and 54 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 to by the court, regulator or government.

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# CONCLUSION

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**The findings are clear, a crisis can have a substantial impact on the value of a business across several key financial indicators and it can take the business months, if not years, to recover.**

Covid has been an unpleasant reminder to all for the need to prepare and ensure their organisations are crisis ready. But they should be warned that a Business Continuity Plan is not a crisis communication plan. At SenateSHJ, we know many businesses are failing to prepare, and many are not testing their crisis preparedness by running crisis simulations.

Even when they do, sometimes the chief executive or other members of the executive team don't take part.

Failure to bring leaders fully into crisis preparedness, significantly undermines the crisis planning, structure, process and capability building. There is no point, when attempting to be 'crisis ready', when key individuals responsible for managing a crisis have not been trained.

Around the globe regulators are recognising the need for companies to be prepared. For

example, the Australian Prudential Regulation Authority (APRA) – an independent statutory authority that supervises institutions across banking, insurance and superannuation, and is accountable to the Australian Parliament – has called this out. In a recent address, APRA Executive Director, Policy and Advice, Renée Roberts, called on industry leaders to "...have already thought seriously about possible crisis scenarios, come up with a credible plan and tested their ability to execute it.

"Making it up on the spot or coming up with a plan and putting it on the shelf doesn't cut it," she said "We need leaders to face up to this challenge, not view it as a compliance exercise. Leaders need to have thought seriously about financial stress scenarios, come up with a credible plan, and then test their institution's ability to execute this plan."

A key part of crisis preparation for any business is to involve key partners and suppliers. Crises do not occur in a vacuum and one of the most challenging aspects during a crisis is how a business works with and informs its partners and suppliers. Not planning for this will leave the business unprepared and even more vulnerable.



Finally, experience shows it is critical in the aftermath of a crisis, 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.

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## HOW YOU CAN HELP

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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 in the crisis list below in Appendix 1, please contact us and we will endeavour to input the data and share the updated findings with you.

Please email [crisis@senateshj.com.au](mailto:crisis@senateshj.com.au)

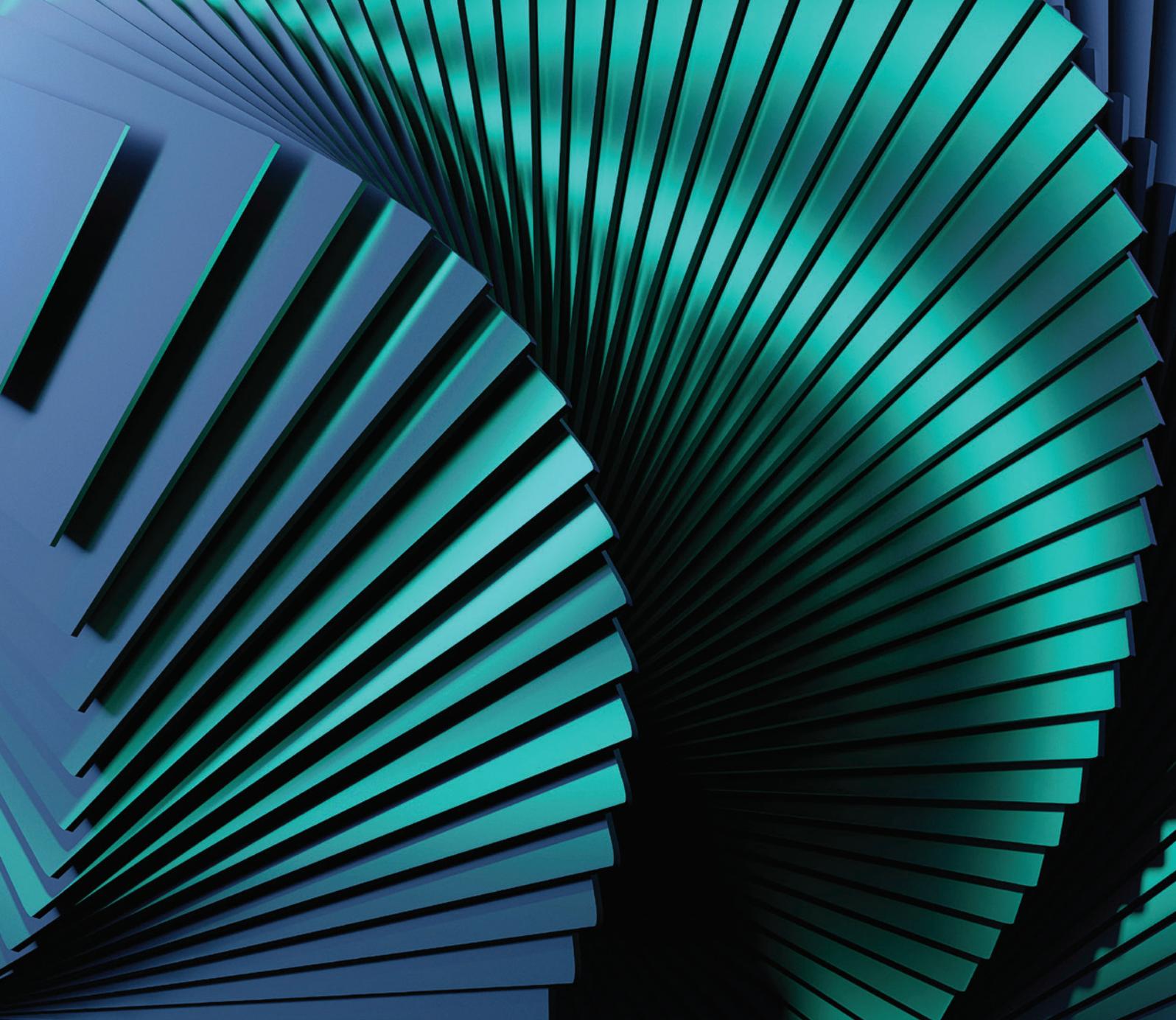
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# APPENDIX-1 CRISIS LIST

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1. VW – Emissions scandal – 2008-2015
2. Equifax – Data breach – 2017
3. Vale – Dam disaster – 2015
4. Boeing – 737 – Max crashes – 2018-2020
5. Wells Fargo – Accounting scandal – 2016-2018
6. United Airlines – Passenger defamation-2017
7. Tesco – Accounting scandal – 2014
8. Samsung – Exploding phones – 2016
9. Rio Tinto – Aboriginal site scandal – 2020
10. VW – Racist ad – 2020
11. Airbus – Bribery scandal – 2019-2020
12. Credit Suisse – Corporate spying scandal – 2019
13. Facebook Free Basics-Privacy issues – 2016
14. Facebook CA – Cambridge Analytica issue – 2013-2018
15. Nissan – CEO accounting scandal – 2018-2019
16. Marriott – Data breach-2018
17. Bayer – Cancer crisis-2016-2017
18. P&G – False advertising – 2015
19. Apple – Battery blowout – 2016-2017
20. BP Oil – Deepwater Horizon explosion and oil spill – 2010
21. H&M – Racist ad – 2018
22. Zoom – Security failure – 2020
23. Capital One – Data breach – 2019
24. Ardent Leisure – Theme park deaths – 2016
25. Union Carbide – Gas leak – 1984-1989
26. Insys Therapeutics – Opioid crisis – 2020
27. Malaysian Airlines – MH370 disappearance – 2014
28. Air China – Prejudice precautions – 2016
29. Adidas – Congratulatory email fail – 2017
30. Baidu – Search result controversy – 2016





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