



This paper will examine the statistics behind these crises and the psychology underlying “irrational” investor behaviour. It will attempt to advise trustees on how best to prepare for these events and how to navigate successfully through the next crisis. Mindful of the unique financial circumstances of each charity, we will also aim to cover a range of scenarios that we hope will be relevant to every reader.

How often do stock market crises occur?

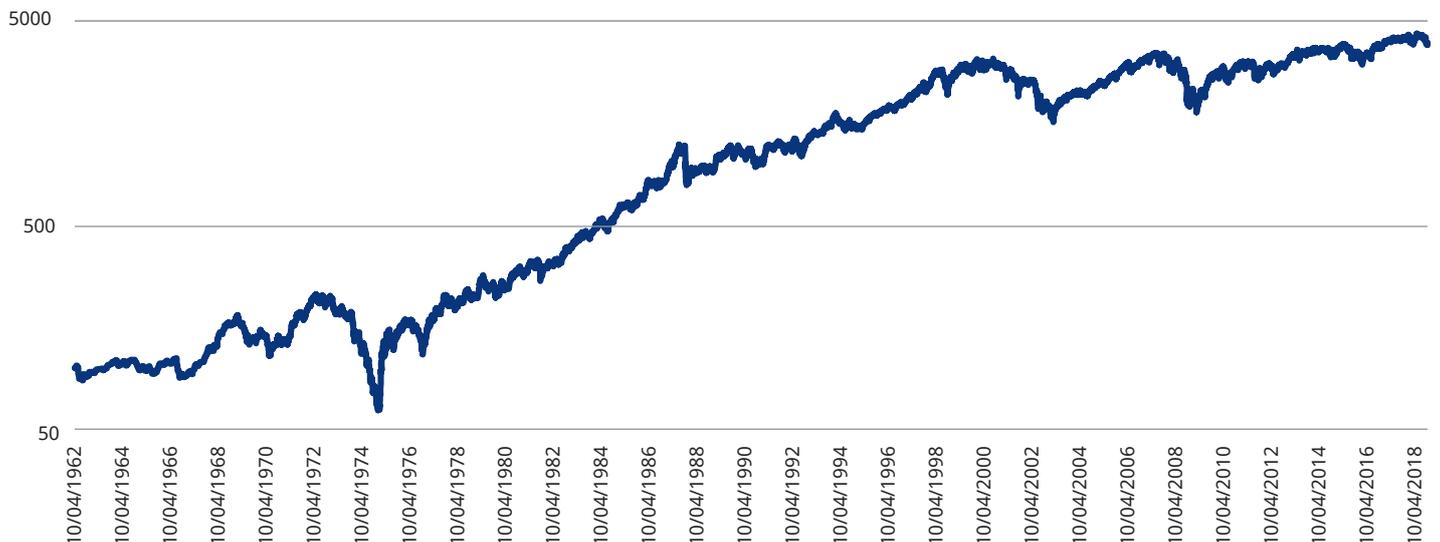
In the depths of a bear market, investors question whether the stock market is an appropriate medium of investment at all. However, historical evidence proves that capitulation is worth avoiding. For the truly long-term investor, and assuming finances are appropriately positioned, market falls should not be a cause for significant concern.

Looking at UK equity market returns over the last 50 years, we can see a number of eye watering market falls. Equities peaked in May 1972 with a capital value of 228. By the end of 1974 the market stood at 62, a 73% decline in capital value. It took just under two years for the capital fall, and nearly four years for markets to rebound. The ‘dot com boom’ market peaked in September 2000 and then fell 51% over the next two and a half years, bottoming in March 2003. Again, it took nearly four years for the market to recover to previous levels. Most recently, the credit crisis prompted a fall of 50% in equities between June 2007 and March 2009. The market eventually regained previous levels in May 2013. As the chart shows, since 1962 we have seen three dramatic falls, with an average decline of 57%, taking an average of just more than two years for the fall and four years for the recovery. These were the stock market crises of recent history.

It is common knowledge that investing in financial markets brings with it a degree of risk. Asset prices rise and fall each day and by the close of play on some of those days, the value of your investments will have gone down. Crises in history have presented themselves in a variety of ways; some characterised by a short sharp jolt, some slow and drawn out and others a violent zigzag of predominantly negative returns. There is no clear definition of a financial crisis, although it will tend to differentiate itself by a severe shock, distinguishing it from a bull market setback. A financial crisis is usually impossible to predict, and ignited by a spark hitherto unseen.

Despite knowing that we should expect to experience a serious downturn every so often, too many investors ignore perceived wisdom and sell out when it least makes sense. Stock market crashes are social phenomena, where external economic events combine with crowd behaviour and instinctive fear. Selling by some market participants drives more market participants to sell, leading to a downward spiral in price and significant loss of paper wealth. Investors anticipate further losses as pessimism and selling increases, and the market’s descent becomes self-sustaining.

However, markets have a habit of recovering and for those with the constitution and investment time horizon to stomach the fall, perseverance can prove fruitful.



Source: Cazenove Charities, Datastream, FTSE All Share (price index) in GBP to 31st October 2018. Past performance is not a guide to future performance.

What is the likelihood of these market falls?

The table right looks back at the performance of the price index of the FTSE All Share over the past 56 years (as far as the data allows). The evidence shows that the probability of a negative return on a rolling 1-year basis is 29%. Based on this period of history, in seven out of 10 years the UK market generated a positive return (in capital terms). A significant drop in markets is both unusual and infrequent; you would have lost 20% or more just 6% of the time.

However, shorter-term market oscillations are commonplace. Looking at intra-year declines, we can see that volatility of the market value is a normal part of investing. The chart below sets out calendar year returns and intra-year declines, showing that a fall of 10% or more happens in three out of four years.

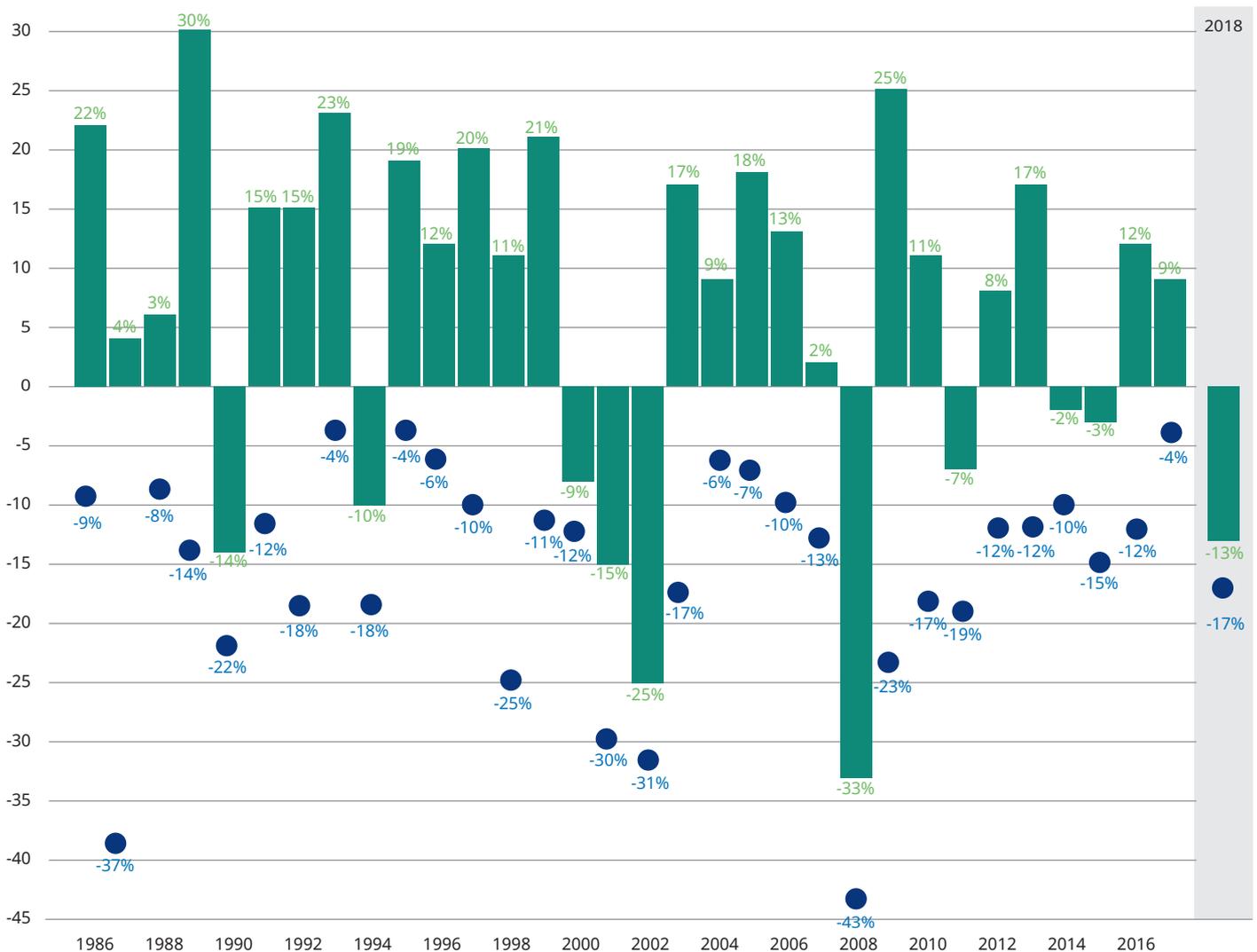
Return less than	Rolling 1 year historical probability
-70%	0%
-60%	0%
-50%	1%
-40%	1%
-30%	3%
-20%	6%
-10%	15%
0%	29%

Source: Cazenove Charities, Datastream, FTSE All Share (price index) in GBP to 31st October 2018. Past performance is not a guide to future performance.

So can we tell the difference between a crisis and a 'normal' market correction?

Periods of negative returns are normal

FTSE All Share Calendar year returns and intra-year declines



Source: DataStream, FTSE, J.P. Morgan Asset Management. Returns are based on local price only and do not include dividends. Intra-year decline refers to the largest market fall from peak to trough within a short time period during the calendar year. Returns shown are calendar years from 1986 to 2018. Past performance is not a guide to future performance.

Attempting to time the market can be a mistake

When negative news headlines are prolific and investors are panicking, it can be tempting to try to stem your losses by selling out. As shown opposite, in 25 of the last 33 calendar years, the UK equity market has fallen by more than 10% at some stage during the year. Trustees may ask themselves, 'if we act quickly, can we sell stocks before they lose too much of their value?'

The probability of success in shielding your portfolio from large losses falls the shorter the timeframe over which it happens. What is more, evidence shows that total returns in the days, months and years following a sharp drop in the market have been strong; missing the recovery can be costly. The table below shows how the US equity market behaved following the 10 worst one-day falls over the last 30 years. The light green boxes show positive returns, the dark green double- or triple-digit returns.

The overriding theme is that returns are primarily positive; almost always in the day following a dramatic fall, double-digit in all but two occurrences over one year and extraordinarily strong over five years. The September 2008 crash distinguishes itself by being slower than the others to recover losses, although by the end of the fifth year, you'd have made a return of 71%. For those doubting the relevance of applying historical data to current market conditions, the period either side of New Year's Eve 2018/19 was a case in point: in 2018, US stocks experienced their worst December return since 1931 and in 2019, their best January return since 1987*.

This pattern is not exclusive to the US equity market. Between 1986 (when the total return index was created) and the end of 2017, the UK's FTSE All Share has generated an annualised 9.6% per annum. Missing the best 50 days would have reduced your return to just 2.8%. Missing the 30 best days would achieve only 4.9% and missing as few as the 10 best days would yield a significantly lower 7.5%. The second chart below shows on the y-axis how much you would have made on a £1m initial investment in each of these scenarios.

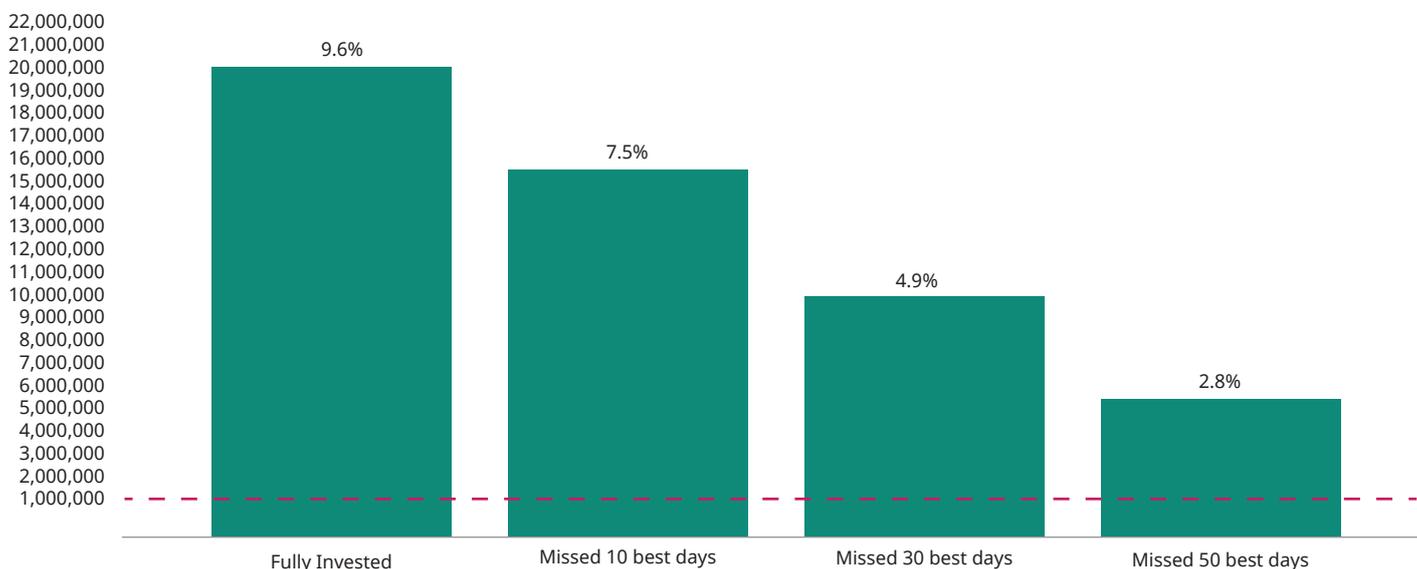
*Source: Morgan Stanley Research, Bloomberg, S&P 500 total return, January 2019.

Ten worst one-day falls for the S&P 500

Date	Rtn	1day	1week	1mth	6mth	1yr	5yr
15 October 2008	-9.0	4.3	-1.2	-3.5	-4.7	24.0	109.0
01 December 2008	-8.9	4.0	11.5	11.0	17.2	39.3	147.0
29 September 2008	-8.8	5.4	-4.4	-15.8	-25.1	-1.5	70.9
09 October 2008	-7.6	-1.2	4.0	2.5	-4.4	20.9	103.5
27 October 1997	-6.9	5.1	7.1	8.7	24.9	23.4	9.6
31 August 1998	-6.8	3.9	1.8	6.4	30.3	39.8	13.0
20 November 2008	-6.7	6.3	18.1	16.1	21.8	48.8	164.3
08 August 2011	-6.6	4.7	7.7	6.2	22.0	28.1	117.0
13 October 1989	-6.1	2.8	4.1	2.1	5.0	-6.9	63.8
19 November 2008	-6.1	-6.7	10.1	10.3	14.2	39.2	147.5

Source: Datastream, Cazenove Capital, December 2018. Past performance is not a guide to future performance.

Impact of being out of the market



Source: Datastream, Cazenove Capital, FTSE All Share total return, December 2018. Past performance is not a guide to future performance.

10% p.a.
US equity market
return

4%
p.a. return
to a US equity
investor

Source: Dalbar, 2017. Returns over a 30 year time period, to end of 2016.

An investor would have to be uncommonly nimble to time correctly a sell-out and then to buy back in at the optimal moment to capture the bounce that follows. Evidence shows just how difficult it is to market time with any consistency.

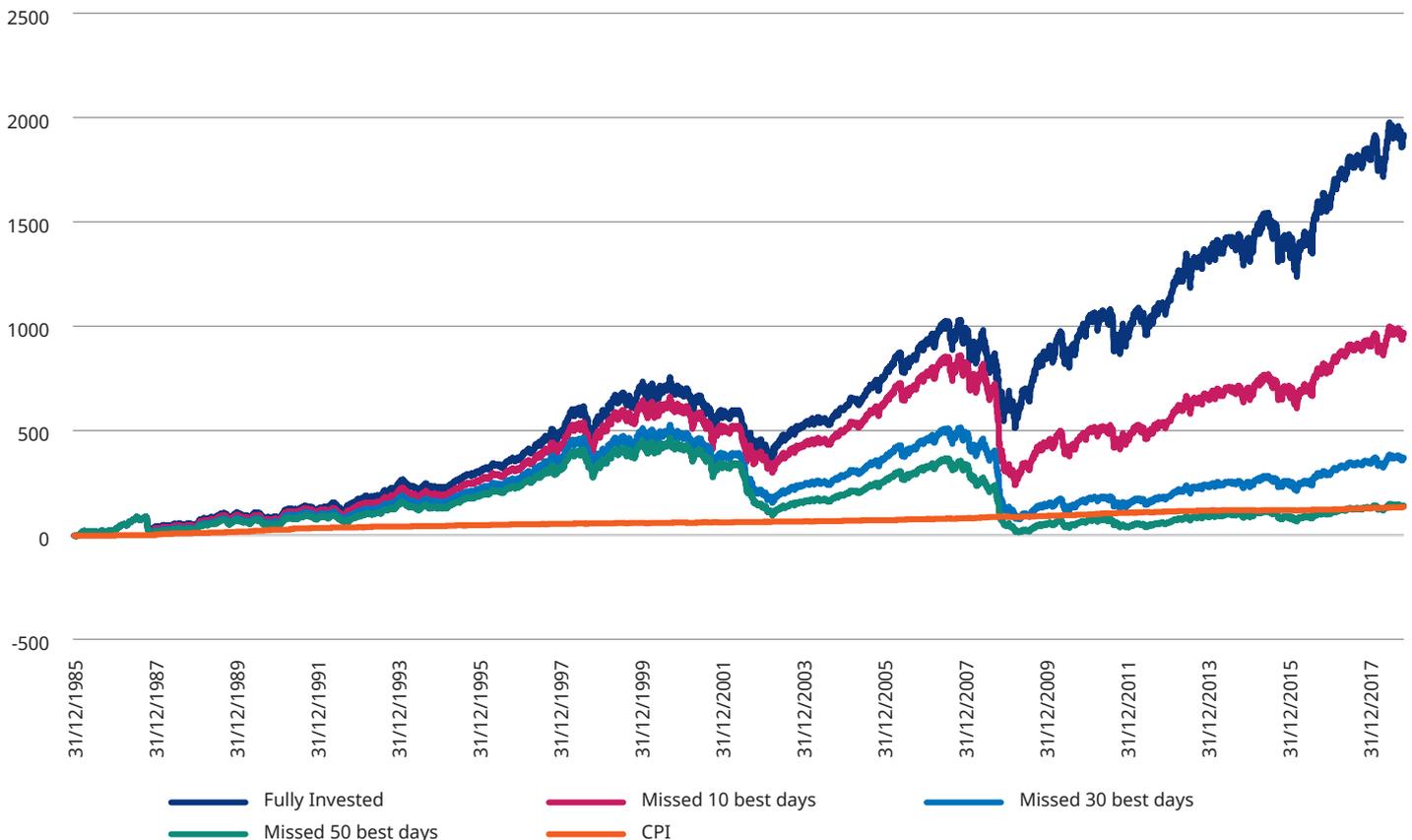
Dalbar, a financial market research company in the US, publish an annual study that compares returns to investors with returns from the index. The 2017 study showed that the annual return received by investors in the US equity market over 30 years to the end of 2016 was 4% per annum. Compare this to the S&P 500 index return of 10% per annum and you can see the problem. Although part of this difference is down to costs, the study makes it clear that the majority of investor underperformance can be attributed to investor behaviour. They say "the retention rate data... .. suggests that investors lack the patience and long-term vision to stay invested in any one fund for much more than four years. Jumping into and out of investments every few years is not a prudent strategy because investors are simply unable to correctly time when to make such moves."

Trying to time your way into and out of markets could reduce the chances of protecting your assets from inflation, which, for most charity investors, is more of a threat to long-term sustainability than short-term volatility. Historical evidence demonstrates that stock markets tend to generate returns that, over time, outstrip the inflation that would otherwise erode the value of the initial sum. How can attempting to time the market compromise your chances of beating it?

The chart below shows the rate of UK inflation – represented by the Consumer Price Index (CPI) – against a portfolio invested in the FTSE All Share using the same timeframe as above. The blue line represents your return had you remained fully invested, the red line having missed the 10 best days, the grey line missing the 30 best days and the yellow line the 50 best days. Being out of the market at the wrong time can make a real difference to your long-term returns and endanger your ability to protect the inflation-adjusted value of your endowment, particularly once spending is taken into account.

Given the evidence below, why do investors continue to capitulate? The problem is that more often than not, human emotion overrides calculated logic.

‘The stock market is a device for transferring money from the impatient to the patient’ Warren Buffett



Source: Datastream, Cazenove Capital, FTSE All Share total return, December 2018

The problem: logic vs instinct

Investor psychology and the behavioural biases that lead to poor investment decision-making can be an impediment to long-term success. Much has changed over the past three decades; the availability of inordinate amounts of information, algorithmic trading, centrally planned financial markets etc. but one thing that has not changed is human nature.

Behavioural biases: why under stress, the short-term is a lure:

LOSS AVERSION The market extrapolates the future based on the past. Supply and demand, company-specific news-flow, sector trends, geopolitical developments; all of these have an impact on short-term market performance. When a piece of negative news hits the headlines, we often act instinctively and as markets start to decline, we become fearful of further losses. Greed is one thing, but fear is quite another. The long-term evidence in favour of equity investment counts for a great deal less if you are a trustee who has just suffered a 25% fall in the value of your charity's equity portfolio. Those fears are compounded by the barrage of media outlets – designed to target our emotions – that fan the flames of those fears, often leading to a withdrawal of capital at the worst possible time. This is also known as “panic selling”.

HERDING This behavioural bias refers to our instinct to do the same as everyone else. Herding often involves people using the actions of others as a guide to sensible behaviour, instead of thinking and acting independently. From an evolutionary standpoint, it makes perfect sense. However, applying it to the market can be a huge mistake. Investors often have limited access to information about how markets are likely to develop, so they base their decisions on the actions of others. In a falling market, herd instinct falls in the face of logic, rendering a plummeting market self-fulfilling.

Logic

Stay the course;
we know that markets recover...
We are long-term investors...
Volatility is expected.

Instinct

We need to stop losing money...
Acting in unison gives us comfort...
We must do something!

ANCHORING The process of remaining focussed on what happened previously and not adapting to new developments is known as anchoring. This situation can be exacerbated by our tendency to avoid changing our views as much as we should in light of new information, and the fact that groups tend to shift decisions to the extreme when compared to decisions taken by individuals (a process known as group polarisation).

ACTION BIAS in the height of market turmoil, trustees can feel that doing something is better than doing nothing. However, from an investment point of view, short-term reactions might hinder long-term goals. Investment professionals work in an industry where frenetic dealing activity is seen as a sign of confidence and ability. Doing nothing is sometimes the hardest thing to do but frequently the best.

The biggest of these problems for trustees are “herding” and “loss aversion”. These two behaviours tend to function together, compounding investor mistakes over time. As markets are rising, individuals believe that the current price trend will continue for an indefinite period, leading to euphoria. Conversely, as markets fall, investor instinct overcomes logic and panic takes over.





How to prepare

A “cycle of loss” starts when an investor abandons their investments and sells at a time when markets are low. This is often followed by feelings of remorse as the markets recover. The investor eventually re-invests when their confidence is restored, often when markets have recovered. **Preparation helps to prevent this cycle of selling low and buying high; we suggest a ‘crisis playbook’.**

Crisis playbook:

1 Establish what a crisis would look like for your charity

Some market crises are relatively confined and have little impact on the wider economy. For example, the fall-out of 1987 impacted investors but did not reverberate into other areas. However, more often than not, financial crises are linked to a downturn in growth and accompanied typically by increasing unemployment and reduced income.

In light of the above, it is prudent to review three critical aspects of the charity’s financial assets:

Level of liquid reserves and cash deposit risk

Ensure that enough cash is held to support spending through a crisis and that deposits are spread between a number of counterparties, or invested in a diversified cash fund.

Concentration of investment risk

Diversification of investments ensure that when one type of asset class, industry, company or manager performs less well, the risk is spread. This approach means that while some investments go down, others might perform better or stay stable and so the overall journey is smoother. A pooled multi-asset investment fund can often prove a cost-effective solution for smaller charities.

Concentration of revenue risk

Diversification of income can reduce funding risk. Make contingency plans for downsizing if you know or suspect you could lose funding in a downturn. Temporary revenue reductions may be managed by short term expenditure prudence, whereas permanent loss of income may provoke more significant strategic and operational measures.

The following questions may help to identify what a crisis might look like for your charity:

- How much do you rely on your investments for income? What if dividends were cut? Can you fund your spending from elsewhere to prevent having to crystallise a loss in you investment portfolio?
- Do you rely on donations/legacies or membership/fees for income? How reliable would these revenue sources be in a financial crisis or recession?
- Will the charity be called upon for higher spend on its beneficiaries at a time when resources to meet those needs are impaired?
- Can you cut back on spend? Will lower income threaten the ability of the charity to operate? Can you reduce programme spend?
- Could you take cash from elsewhere if needed?

2

Examine anticipated spend in the light of your overall finances and stress-test under various scenarios

When stock markets fall, it is important to avoid selling when values are low. If there is no cash reserve, you may run the risk of becoming a forced seller, ie. needing to liquidate assets regardless of price, simply to meet financial needs. A cash fund held alongside an investment portfolio provides a pool of money set aside to meet foreseen and unforeseen expenses. It is not unusual for a charity to hold between three and six months of operating costs in cash to safeguard against a shortfall. Some charities hold as much as 18 months' in reserve. Having a buffer of cash or liquid investments to draw on to cover commitments will help smooth periodic market falls so that trustees do not have to jeopardise their long-term goals. The risk of a lack of cash to fund short-term spend can be mitigated by prudent planning ahead of time:

- Examine your known short-term liabilities, probable medium-term liabilities and possible long-term liabilities. Is there enough liquidity in the portfolio to cover them?
- Where possible, model your spending for the next 18 months to ensure you have enough cash available
- Consider applying a spending rule if appropriate
- Ensure you have a robust reserves policy in place
- Consider carefully future inflation expectations and on template building up capital in rising markets
- Stress test your arrangements assuming a 5%, 10% and 20% fall in equity markets. If you plan your spend and keep adequate cash aside, these should have little impact on your ability to cover known liabilities

3

Agree a long-term strategy and stick to it

One thing that the behavioural biases have in common is that they can lead investors to deviate from a sound investment strategy tailored towards their targets, risk tolerance and time horizon. A proven way to ward off negative behaviours is to agree a strategy that focuses on the charity's overarching goals and is not dependent on short-term market conditions. Spending due time and care creating an investment strategy that will see you through good and bad times is worth the investment of time; it should be articulated in writing and crystallised in an investment policy statement.

For the 'crisis playbook', the areas to focus on are:

Financial objectives:

- What role do your investments play in your balance sheet?
- How important are they compared to your other financial activities?

Attitude to risk:

- Does your charity depend on the income, or total return of your investments to fund annual charitable expenditure?
- What is the attitude of the trustees to capital volatility?
- Time

Horizon/ liquidity needs:

- Define your time horizon. Are your investment assets best described as long-term, medium-term or short-term? You could consider splitting your assets to reflect different time horizons
- Do you have specific or general liquidity needs?

4

Prepare your board psychologically and implement processes

Assuming there is a sound investment policy statement in place, adequate cash set aside and risks accounted for, you could be forgiven for assuming that the psychological element of crisis planning is unimportant. Quantitative analysis is normally the board focus, with volatility figures, value at risk, historical asset characteristics and performance forecasts tending to take centre stage.

However, the behavioural aspect of investing can be crucial when faced with a crisis. The first step is to be cognisant of our hard-wired instincts: action bias, loss aversion, herding and anchoring. Second, keep your long-term goals in mind: read and re-read your investment policy statement and remind yourself why it was created. Consider your original goals. Are they still aligned with the policy? Has anything changed? Does your mission remain the same? This should shift emphasis from short-term market thinking to your long-term aims. Third, filter your news: most financial news is entertainment, written to sell papers and generate clicks. Headlines are designed to target your emotions and heighten anxiety. Remind yourself that they are written in isolation and without any knowledge of your charity's specific circumstances. Instead, find two or three high quality, objective sources of financial commentary and discard the rest.

Some practical suggestions:

- Ensure that you have a **diverse board and investment committee**. Diversity by gender, background, experience and personality have been proven to improve decision making.
- Structure a committee with **adequate experience**. The Charity Governance Code recommends that trustees who have served office for more than nine years should only be re-appointed after a rigorous assessment, and stresses the need for a progressive refreshing of the board. However, for charities with investments, this should be balanced with the need to retain trustees with sufficient investment experience. Which members of the committee were not around in 2001 or 2008? Having been insulated from the acute challenges previous crises presented, would these members recoil in the face of anxiety? Do inexperienced trustees outnumber those with a longer-term perspective? If so, how would the group react in a crisis?
- Invest in expanding trustees' **knowledge and take advice**. Consultants and advisers can help ensure that discussions are well facilitated, informed and test a range of scenarios. Good ongoing training will help trustees to own and understand the strategy.
- Identify a **long-term return target** for your portfolio and avoid measuring performance against an arbitrary benchmark. Focus on your overriding investment goals and long-term strategy. History shows that in any year the value of a portfolio of investments will move up and down. One way to deal with this 'noise' is to factor it into your strategy by setting upper and lower parameters within which trustees expect to tolerate variation – setting a range around the target return to recognise expectations of volatility.
- Avoid the temptation to review your portfolio's **performance too regularly**. Markets are inherently volatile and checking the value of your charity's investments daily, weekly and even monthly can exacerbate anxiety and encourage short-termism.
- Under stress, contentious issues can come to the fore. **Implement processes** to stave off any internal disputes and avoid decision-making deadlock. In the absence of unanimous agreement, will the Chair have the power to make a final decision? Will the committee vote on the issue? Will the voting be open or anonymous? Processes can make a committee more disciplined and systematic – a great advantage in turbulent times.

Is a crisis simply a state of mind?

Assuming the steps suggested above are thought through thoroughly and the practical steps considered and implemented where appropriate, you will be in a good position to weather even a dramatic market storm.

To recap:

- You know that in the long run, investors are rewarded for taking risk. Avoiding risk entirely means avoiding returns.
- You know that the best days often come directly after the worst and that market timing is unlikely to add value.
- You know the behavioural biases to expect and are mindful to avoid them.
- You have a multi-generational timeframe and an investment policy to match. Shorter-term assets are identified and appropriately invested. In the event of a downturn, you will have adequate cash to cover your needs.
- You have prepared for a downturn with scenario analysis and are confident that a loss in portfolio value will not jeopardise the charity's ability to operate.
- You have processes in place to deal with disputes, a diverse and experienced board, a watertight investment policy, and a long-term strategy designed to fit your long-term goals.
- Market falls are regular and can periodically turn into a crisis, but history proves that resisting the urge to rush for the exit can reap long-term rewards.

What's a crisis?

A stock market crisis is different to a bear market and to a recession. A recession relates to the economy and tends to affect all areas of society. In contrast, a bear market tends to signify a period of negative returns for equity markets, whereas a crisis usually describes a shorter sharper fall.

	Definition	Psychology
Market crisis	Sudden, steep >10% losses in a stock market index over a period of several days	Dramatic headlines, panic selling
Bear market	Declining stock market prices measured in months/years	Pessimism, capitulation, despondency
Recession	A fall in economic activity (GDP) for 6 months or more	Anxiety, depression

Rebalancing

Systematic portfolio rebalancing, set in advance, can help to remove emotion from the decision-making process and ensure allocation to the areas that have fallen the most. Rules-based rebalancing helps to overcome the behavioural biases by forcing you to buy when the market has fallen and sell when it has gone up.

Pound cost averaging: when placing cash into the markets, what's the best strategy?

Investing monthly can help to remove the market timing issue. For those with a lump sum, a gradual deployment your investment over a period of time such as the next four quarters, rather than in one lump sum could help you come to terms with the problem. If markets correct, then at least you didn't commit all of your money, and if the markets continue to rise, then at least you got some working from the outset. This method is more about controlling the emotions of investing rather than the result itself as it allows you avoid the regret that can come from making a one-time decision that goes against you.

Important information

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