

Research Paper

Investment strategies after a market crash

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In this paper, we explore three potential investment strategies investors could follow after a stock market crash. We also review the outcome of these strategies if they were used in the 1973/74 and 1987 Australian stock market crashes.

The results are intuitive, in that moving to a more conservative investment allocation after a market crash results in the lowest long term returns and the highest risk strategy results in the best. It is interesting, however, to note the length of time the strategies take to return your capital and the overall long term return achieved over the 10 years subsequent to the market peak.

Strategy 1 - reduce exposure to shares

Many investors will feel that they are not risk tolerant enough to remain invested in the market to the same extent that they were prior to the market crash. Markets remain volatile and they could fall again.

While global share markets have fallen dramatically from their highs in 2007 it is possible that the next piece of bad news sends them down past their previous lows. The Australian market fell 51% from its highest point in November 2007 to a low in November 2008.

If you don't think you could tolerate further falls, you should consider reducing your allocation to share-markets. Before making the change, it is important to be aware of the potential consequences of this change to your long term returns.

Over the long run, shares are expected to perform better than lower risk assets such as cash and Government bonds, so by reducing your exposure, you reduce your expected long term return from here.

Strategy 2 - remain invested

As you will have heard over and over again, it is important to stick to your long term asset allocation and remain invested in the markets if you have just experienced a market crash. As you are very aware, share market returns are extremely volatile and just as you can experience a big negative return on your investment in a short period, you can also experience a big positive return in a short period. No one knows when these big positives will happen, so it is best to stay in the market to ensure you benefit from them. Often, after the market bottoms, there are very strong returns within the following 12 months.

We don't know if the market has bottomed, but many asset prices appear to be pricing in a severe economic down-turn. That said, asset prices tend to overshoot, so there is a good chance that negative sentiment surrounding the bad economic news over the beginning of 2009 will push them lower before any sustained positive returns happen.

Trying to predict short term returns is impossible, so it is better to look at the longer term. Given the current levels of many share prices, share market returns over the longer term look attractive.

Strategy 3 - top up at the bottom

It takes a much bigger positive return to rebuild your capital than the negative return that depleted it. For instance, if your portfolio fell by 43% as the Australian share market did over the past year, it will take a 76% return to get back to where you started. This is because you are earning the positive returns on a smaller balance. This sort of return can be expected to take some time to happen. For instance, after previous market crashes in Australia, it has tended to take about 4 to 5 years for markets to pass their previous high.

If, however, you increase your exposure to the market at the bottom, you can speed up this process.

The results of this strategy rely on you being able to pick the bottom. In our analysis, we also looked at what happened if you didn't pick the bottom. In 1987, it all happened in a month, so we looked at what would happen if you invested 3 months after the bottom. This did not change the results significantly. However, if you waited 6 months, it took a lot longer to return your capital and your 10 year return fell to by 0.5%pa to 8.3%pa.

In 1973/74, we looked at what happened if you invested 3 months before the market had bottomed. The market had fallen 36% until that point and it fell 33% in the three months before it bottomed. In this case, capital was still returned in the same time frame, but long term returns fell by 0.5%pa to 10%pa.

This is obviously the most risky strategy on a short term basis, as you risk losing further funds on the additional investment. To mitigate this risk:

- wait until you believe that the market is attractively priced for good long term returns
- invest in a diversified portfolio
- invest your planned additional investment amount over a period of time – say 12 months
- hold your nerve and remain invested for the long term.

How would these strategies have performed in the 1973/74 and 1987 Australian stock market crashes?

The two tables below show what could have happened if you invested according to these three strategies after the Australian stock market crashes of 1973/74 and 1987. Like the current one, these were large crashes. However, they all have different causes, so the recoveries can't be expected to be exactly the same. They may, however, provide some guidance as to what could happen.

The tables below show what happened to \$100 invested in the Australian market right before it started falling. In strategy 1, we assume that you sell half your share portfolio at the market bottom and invest the proceeds in a cash account earning 6%pa¹. In strategy 2, we assume you do nothing, just stay invested. In Strategy 3, we assume that you invest 20% of your original investment (\$20) at the market bottom.

As expected, the tables show that you can significantly speed up the return of your capital by investing further funds at the bottom. They also show that you lengthen the time it

¹ This is not the cash rate you would have received at these times as inflation was much higher. We have used 6% as a cash rate to put the analysis into today's context. We have assumed that rates will rise and that the average cash rate could be 6%pa over the medium to long term.

takes to recoup your investment if you reduce exposure. Note also that if we take inflation into account, strategy 1 does not return your real investment value after 10 years².

Table 1: Your portfolio balance through time if you invested \$100 at the market high before 1973/74 stock market crash

	1. Reduce exposure by 50%, \$	2. Stay invested, \$	3. Top up at bottom, \$
Jan 31, 1973	100	100	100
Sep 30, 1974	43	43	63
Nov 28, 1975	64	82	120
May 31, 1978	77	101	148
Aug 31, 1979	101	144	211
Jan 31, 1983	133	195	287
Return	3% pa	7% pa	11% pa
Return of capital after:	7yrs	5 yrs	3 yrs

Table 2: Your portfolio balance through time if you invested at the market high before 1987 stock market crash

	1. Reduce exposure by 50%, \$	2. Stay invested, \$	3. Top up at bottom, \$
Oct 30, 1987	100	100	100
Nov 30, 1987	59	59	79
Aug 31, 1989	78	91	122
Nov 29, 1991	87	100	134
Jul 30, 1993	101	119	159
Oct 31, 1997	140	173	232
Return	3% pa	6% pa	9% pa
Return of capital after:	6 yrs	4 yrs	2 yrs

The index used is the MSCI Australia Standard Core Index, dividends reinvested.

Note that the 10 year return is the return an investor would achieve in these strategies after investing at the absolute worst time 10 years prior. In both time periods, there was another market down turn within the 10 year period.

² If we consider inflation in the current environment and assume that it could be 3.5%pa over the next 10 years, then \$100 invested would be worth \$141 in real terms in 10 years.