challenger

The ~~BCA~~ ~~CAB~~ ~~BAC~~ ABC of sequencing risk

Sequencing risk is the risk of experiencing investment returns in an adverse order

There are those who believe that volatility is not a risk provided that an investor stays 'for the long term'. This is simply not true in the case of any portfolio that has cash flows. The culprit is sequencing risk; a subset of market risk or volatility.

The crux of sequencing risk is that cash flows amplify market risk and they do it in a way that is obscured by the use of time-weighted returns and the averaging of long-term returns (so you don't notice the sequence). Two investors might experience average returns of 8 per cent over a 20-year period and yet have materially different balances due to sequencing risk.

There are three physical properties that work together to create this problem:

1. A super balance starts small and grows large. Losses at the large end are much more significant than at the small end. This is also known as 'portfolio size effect'.
2. Then, there are the cash flows: inwards during accumulation and outwards during drawdown. These mean that dollars are buying and selling units of capital at different prices and different quantities of dollars are experiencing the investment returns of the portfolio (whether good or bad) over time. This is dollar cost averaging (both positive and negative) and the money-weighting of returns.
3. Lastly, there is volatility. Sequencing risk is really the silent killer by-product of volatility. You cannot save for retirement or live on those savings, without making contributions and withdrawals. They are not controllable. On the other hand, volatility is manageable, particularly across the retirement risk zone (see page 12). This is where the mitigation of sequencing risk is critical. If volatility can be reduced during this period, sequencing risk will have much less impact on retirement outcomes.

Pedalling uphill is more difficult than coasting downhill

To understand sequencing risk, you first need to understand the impact of volatility, in that recovering dollar losses from a negative market movement is harder than you might think. It's easy to lose money and harder to make it back, much like it's easier to ride downhill than it is to ride uphill.

To illustrate the point, consider the following example. Imagine you had invested $100 in the share market, and that your shares fell 10 per cent in the first year, then increased by 10 per cent the following year. Many people might think that they would still have $100 at the end of the two years. After all, the arithmetic average return over that period was 0 per cent.

A larger positive return is required to recover a negative return in the prior period

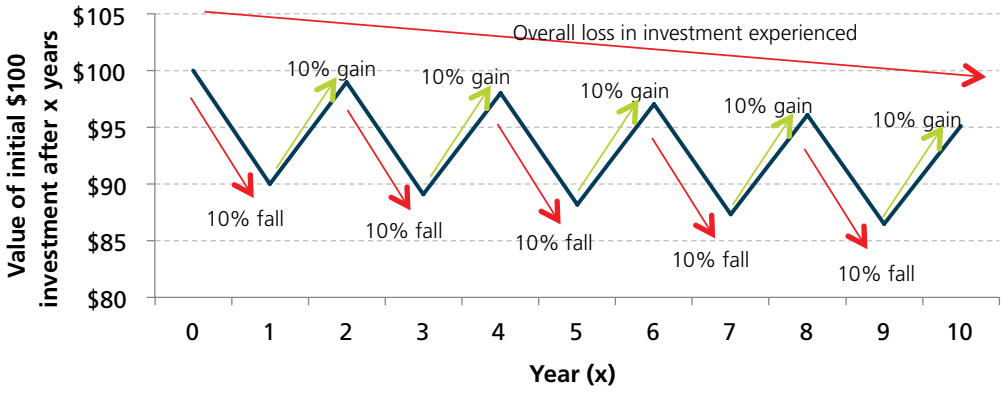
But, the devil is in the detail. After the first year, your investment of $100 would have been worth $90.[1] At the end of the second year, the $90 would have been worth $99.[2] The geometric mean[3] (of compounding returns) was minus 0.5 per cent a year or a loss

[1] $100 × (1 – 0.10) = $90.
[2] $90 × (1 + 0.10) = $99.
[3] The square root of the product of returns ($\sqrt{(1 - 0.1)(1 + 0.1)} - 1 = -0.5\%$) giving a more accurate picture of the average return over time.

of one per cent overall. In order for the investment to recover the first year's 10 per cent loss and reach $100 again in the second year, returns in the second year would need to be over 11 per cent, not 10 per cent. The magnitude of positive returns needs to be greater than the previous year's negative returns for an investment to recover losses fully. Figure 1 illustrates the net impact of alternative positive and negative returns, of the same magnitude, over time. The net impact is a steady erosion of the invested capital.

This example partly illustrates that the investment experience of an investor can be path dependent.

Figure 1: Impact on $100 investment of alternating 10% unrealised diminutions and 10% unrealised accretions



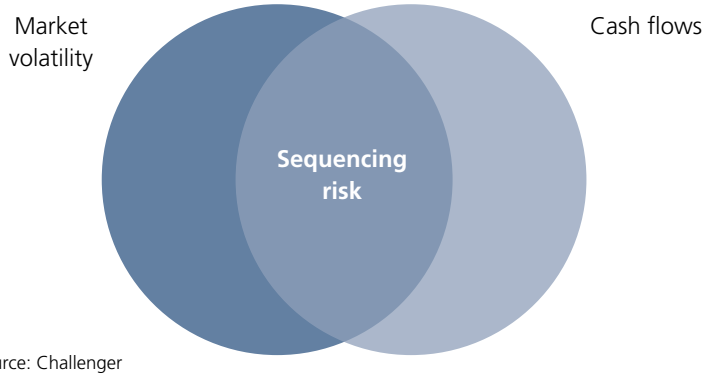
Source: Challenger

The sequence matters when market volatility is coupled with cash flows

It is common to consider market volatility as the risk in any investment. Normally, the sequence of returns is not considered as an additional risk, but whenever there are cash flows into or out of an investment, such as in retirement, the sequence will matter. In fact, the sequence only matters when both volatility and cash flows are in a portfolio (see Figure 2).

When both cash flows and market volatility are present, the order of returns increases overall risk

Figure 2: Sequencing risk comes from the interaction of volatility and cash flows

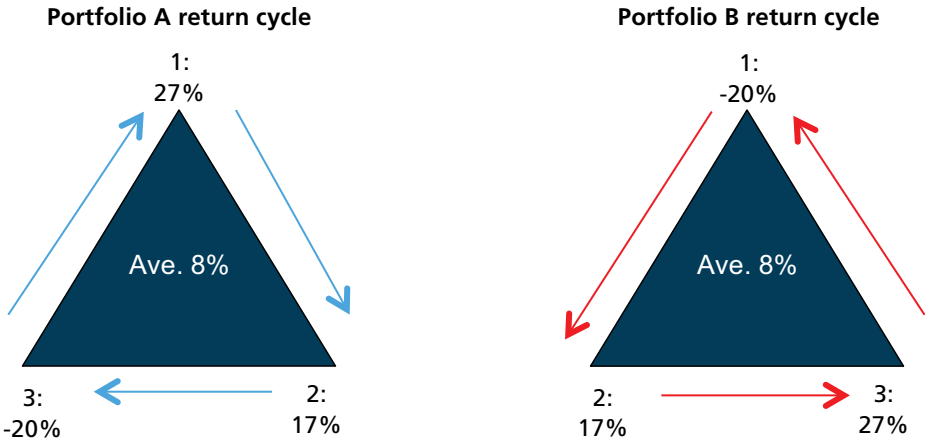


Source: Challenger

When there is no volatility, all returns are the same, so the sequence of returns does not matter. When there are no cash flows, every dollar of the initial investment experiences every return (positive or negative), so the sequence does not matter. When there are cash flows, the sequence will matter as not every invested dollar will experience the return from every period. Inflows miss the earlier returns and outflows miss any subsequent returns. The sequence of returns will thus matter to the end result for your client.

Consider the following example, which borrows from Moshe Milevsky's work on sequencing risk. In this example, a portfolio can earn one of three annual investment returns; 27 per cent; 17 per cent; or -20 per cent. The three returns are experienced in a cycle over a three-year period, after which the cycle repeats, producing an (arithmetic) average annual return of 8 per cent. Portfolio A experiences these returns in forward order, while portfolio B experiences the same returns, but in reverse order, as illustrated in Figure 3.

Figure 3: Cycle of returns for portfolio A and portfolio B



Source: Milevsky and Adaimova (2009)

The sequence does not matter if there are no cash flows

Consider first the case where an investor invests $100,000 in either portfolio A or B and makes no additional contributions or withdrawals for the next nine years. Table 1 shows that the investor would have had the same amount ($167,973) after nine years had he invested in portfolio A or B, even though the respective sequences of returns was different.

Now consider the case where the investor invests $100,000 in either portfolio A or B, and makes additional contributions of $20,000 each year. Here, the combination of market volatility and cash flows results in different outcomes after nine years. Portfolio A would be worth $378,656 after 9 years, while portfolio B would be worth $452,125, a difference of $73,469 (19.4 per cent), despite having exactly the same average returns over the period.

Table 1: Value of a portfolio with/without cash flows and with the same average return

	Portfolio A			Portfolio B		
Year	Return path	Investment without cash flow	Investment with annual $20,000 contributions	Return path	Investment without cash flow	Investment with annual $20,000 contributions
0		$100,000	$100,000		$100,000	$100,000
1	27%	$127,000	$152,400	-20%	$80,000	$96,000
2	17%	$148,590	$201,708	17%	$93,600	$135,720
3	-20%	$118,872	$177,366	27%	$118,872	$197,764
4	27%	$150,967	$250,655	-20%	$95,098	$174,212
5	17%	$176,632	$316,667	17%	$111,264	$227,227
6	-20%	$141,306	$269,333	27%	$141,306	$313,979
7	27%	$179,458	$367,453	-20%	$113,044	$267,183
8	17%	$209,966	$453,320	17%	$132,262	$336,004
9	-20%	$167,973	$378,656	27%	$167,973	$452,125
Average annual return	**8%**			**8%**		

Source: Milevsky and Adaimova (2009), Challenger estimates

The addition of cash flows results in different outcomes for the investor

The example illustrates that, while both portfolios have the same set of returns and average return over the nine years, the addition of cash flows results in different outcomes for the investor. The combination of market volatility and cash flows produces sequencing risk.

Money-weighted returns

Your clients will only get the money-weighted return. This is simply the average when returns across each period are weighted by the dollars invested in that period. This is not the standard industry measure of an investment return; instead, time-weighted returns are used. Time-weighted returns are advocated by the CFA Institute under the Global Investment Performance Standard (GIPS) because they enable a fair comparison across managers and between a manager and their benchmark. This is because they remove the impact of investor cash flows and, in a managed fund context, reflect returns at the fund level as if investors were invested for the entire period in question. Morningstar uses the expression 'investment returns' to describe time-weighted returns and 'investor returns' to describe money-weighted returns.[4]

Spending outcomes depend on money-weighted returns, not time-weighted ones

The time-weighted return will only enable you to calculate the value of your client's investment, assuming there are no cash flows (eg retirement drawdowns). The money-weighted return is what you need to consider when there are cash flows and it will let you know how much your client has really earned on their investment. A common example of money-weighted returns is the use of internal rates of return (IRR) in project evaluation.

To illustrate the difference, consider a retiree who retires with $400,000 and withdraws $20,000 each year (indexed by 2.5 per cent) for 25 years. The portfolio experiences a series of hypothetical returns shown in Table 2.

[4] http://corporate.morningstar.com/cf/documents/MethodologyDocuments/FactSheets/InvestorReturns.pdf

Table 2: Difference between time-weighted and money-weighted returns

Year (x)	Return	Investment assuming no cash flows ($)	Annual payment to retiree ($)	Capital after payment to retiree ($)	Total cash flow to retiree in year x ($)
0		400,000		400,000	
1	0%	400,000	20,000	380,000	20,000
2	4%	417,350	20,500	375,983	20,500
3	19%	495,733	21,013	425,583	21,013
4	–11%	441,131	21,538	357,170	21,538
5	11%	489,499	22,076	374,256	22,076
6	14%	556,619	22,628	402,946	22,628
7	13%	630,958	23,194	433,567	23,194
8	17%	738,868	23,774	483,945	23,774
9	9%	805,588	24,368	503,277	24,368
10	0%	805,588	24,977	478,300	24,977
11	7%	861,582	25,602	485,943	25,602
12	8%	930,560	26,242	498,606	26,242
13	7%	997,175	26,898	507,401	26,898
14	10%	1,096,088	27,570	530,162	27,570
15	13%	1,242,874	28,259	572,901	28,259
16	13%	1,400,015	28,966	616,369	28,966
17	19%	1,669,370	29,690	705,265	29,690
18	–8%	1,540,596	30,432	620,429	30,432
19	31%	2,017,758	31,193	781,398	31,193
20	4%	2,096,892	31,973	780,070	31,973
21	29%	2,711,991	32,772	976,123	32,772
22	0%	2,711,991	33,592	942,531	33,592
23	16%	3,140,657	34,431	1,057,079	34,431
24	14%	3,568,881	35,292	1,165,919	35,292
25	5%	3,760,636	36,175	1,192,388	1,228,563
Time-weighted return		**9.4%**	**Money-weighted return**		**8.6%**

Source: Challenger estimates

In this example, the time-weighted return is 9.4 per cent per annum based on the performance of a portfolio with no cash flows. The same portfolio, taking into account annual withdrawals, would have experienced a money-weighted return of 8.6 per cent per annum. In this case, money-weighted returns are closer to what the retiree would have experienced because they take into account the actual cash flows to the retiree.

Path dependence: why the sequence matters

Path dependence means that the size of your client's retirement savings is influenced by the order of investment returns

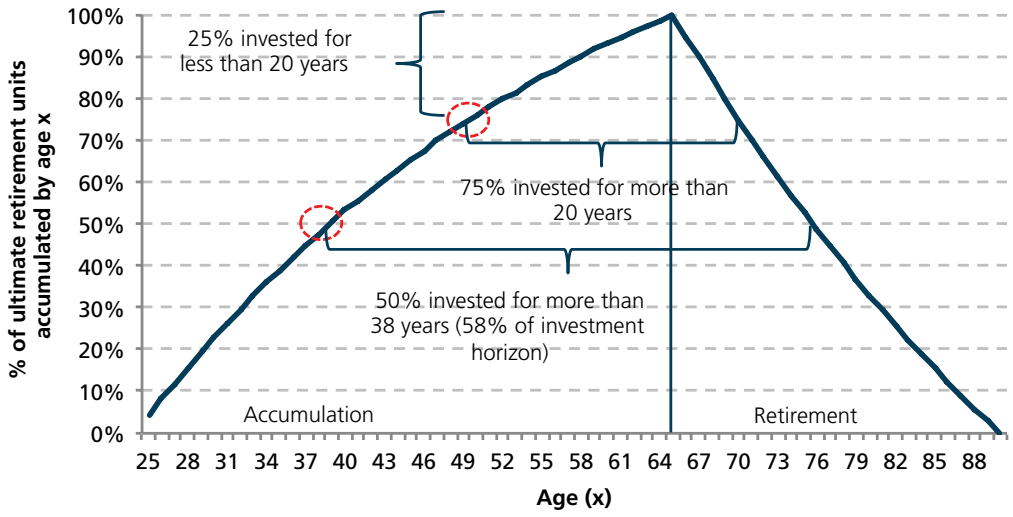
The process of accumulating wealth and providing a retirement income consists of three actions. First, saving money (and contributing to super); secondly investing or compounding those savings; and, lastly, spending money in retirement. The amount that can be spent will depend on how much is saved originally and the investment earnings. As saving and spending both occur over time, the returns on dollars saved and spent at different times will vary. For a total investment period of 65 years, say from age 25 to 90, some dollars will be invested for the full period, but some dollars near retirement might be withdrawn and spent within a couple of years of being invested.

When we think about the path of returns, we generally look at the annual returns averaged over the whole investment period. But, with some investments only being held for a few years in the middle of the investment period, the order of the investment returns can have a big impact on how much can eventually be spent in retirement (ie the aggregate retirement savings cash flows). The returns in the middle years apply to most of the invested capital, but returns early in accumulation, and in the later stages of retirement, will only apply to a smaller level of that capital. Having more invested capital at risk in the middle means returns during this period are more important than the returns achieved at other times.

Think of it as climbing and descending a mountain peak, as illustrated in Figure 4. The figure uses 'retirement units', rather than dollars. This is so that we can think about the aggregate retirement savings at retirement as being a hypothetical 100 units and then look at the proportions of those 100 units at various stages of accumulation and decumulation. Also, using dollars is confusing because a dollar invested grows into two dollars over time. Figure 4 shows how the number of units changes over time. It shows, for example, that only 75 per cent of the portfolio is invested for more than 20 years and can be considered a truly long-term investment. It so happens that the 25 per cent that is saved, invested and spent in the 20 years around retirement is subject to greater risk associated with market volatility.

Not all of your client's retirement savings will be held for the 'long-term'

Figure 4: Proportion of retirement 'units' accumulated at age x



Source: Challenger estimates
Assumes return of 7% pa in accumulation, 5% pa in retirement, 4% AWOTE, 2.5% inflation.

There are differences between how this impacts portfolios in accumulation and retirement, which can be seen in the following examples.

Path dependence in accumulation

To illustrate how the order of returns matters in the accumulation phase, consider the following example. Imagine a 40-year old investor in the accumulation phase has $50,000 in super. She makes annual super and voluntary contributions of $10,000 that increase by four per cent annually. Her savings can experience one of three return paths shown in Table 3. Each possible return path has the same universe of 25 different annual returns from -12 per cent to 12 per cent, each occurring only once, but in a different order. As a result, each path has the same time-weighted, average annual return. We then use these paths in Figure 5 and Figure 6 to illustrate path dependence in accumulation and then retirement.

Table 3: Three hypothetical return paths

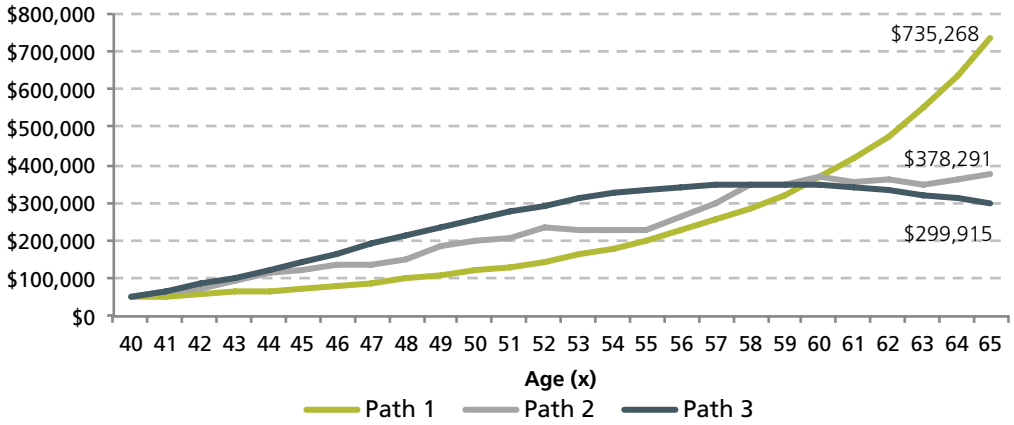
	Annual investment return at age x			
Age in accumulation (x)	Path 1	Path 2	Path 3	Age in retirement (x)
41	-12%	10%	12%	66
42	-11%	1%	11%	67
43	-10%	12%	10%	68
44	-9%	5%	9%	69
45	-8%	-2%	8%	70
46	-7%	3%	7%	71
47	-6%	-12%	6%	72
48	-5%	4%	5%	73
49	-4%	11%	4%	74
50	-3%	2%	3%	75
51	-2%	-5%	2%	76
52	-1%	6%	1%	77
53	0%	-9%	0%	78
54	1%	-8%	-1%	79
55	2%	-7%	-2%	80
56	3%	8%	-3%	81
57	4%	7%	-4%	82
58	5%	9%	-5%	83
59	6%	-6%	-6%	84
60	7%	0%	-7%	85
61	8%	-10%	-8%	86
62	9%	-4%	-9%	87
63	10%	-11%	-10%	88
64	11%	-2%	-11%	89
65	12%	-3%	-12%	90

Source: Challenger

Different orders of the same set of returns can create very different outcomes, even in accumulation

Figure 5 illustrates the size of the investor's savings over the 25 years. The figure shows that despite each return path having the same set of returns, the order in which these returns occurs impacts how much an investor has saved after 25 years. It is the money-weighting that makes the difference; in other words, the size of the account balance when a high or low investment return is experienced changes the end result.

Figure 5: Path dependence in accumulation



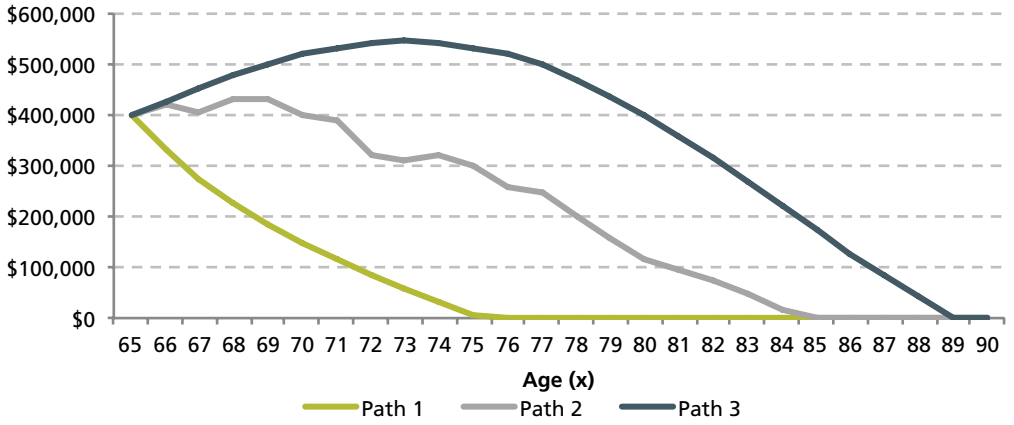
Source: Challenger

Path dependence in retirement

Now consider a person in retirement who retires with $400,000 at age 65, and who withdraws $20,000 at the end of the first year. Withdrawals increase by 2.5 per cent annually and retirement savings can experience one of the same three return paths in Table 3, but at different ages. Figure 6 illustrates that retirement savings are also path dependent.

Sequencing risk works in reverse in retirement

Figure 6: Three scenarios illustrating path dependence in retirement



Source: Challenger

Notice that path 1 in both the accumulation and retirement phases orders returns from worst to best over time. In accumulation, path 1 results in the highest retirement balance, but produces the worst outcome in retirement. Similarly, the returns path that results in the lowest balance in accumulation (path 3), leads to the most sustainable cash flows in retirement.

The cash flow out in retirement gradually reduces the capital base, so your client will be better off if returns start strongly and are poor at the end. Early negative returns have the opposite impact when building savings in the accumulation phase. Investors can handle poor returns at the start of accumulation and prefer strong returns at the end of the accumulation phase. This is another illustration that what works in accumulation does not necessarily work in retirement.

The timing of negative returns can have a big impact on retirement balances

No investor or retiree wants to experience weak or negative investment returns, but adverse market movements are a fact of life. Retirees are particularly loss averse given that they have much less chance of making up losses once retired. If market losses are a fact of life, does the timing of the loss have an impact on the overall result? To the extent that the timing of a loss has an impact on the final outcome, there is another form of sequencing risk faced by anyone with a retirement savings plan.

Negative returns in the accumulation phase can hurt client retirement outcomes

Negative returns early in accumulation do not have a large impact on the overall outcome

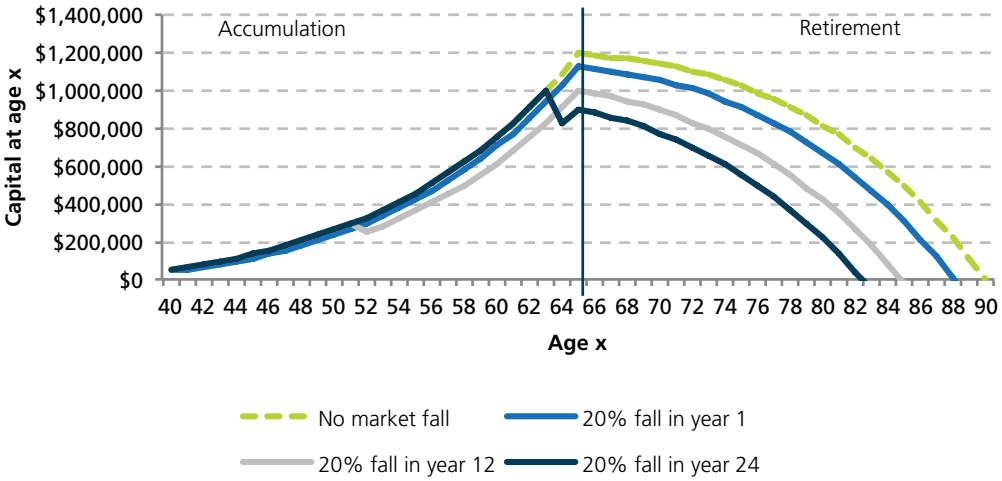
Examining long-term data on the Australian market[5] indicates that it can take between 6 to 10 years for equity markets to recover from large market crashes. As a result, it is easier to recover from negative market movements if savings have enough time to grow. Giving savings the time to grow becomes more difficult as retirement approaches. Consequently, those in accumulation are likely to find it more difficult to recover from negative returns if those adverse returns occur closer to retirement.

Consider an example where a 40-year old in the accumulation phase has $50,000 in superannuation savings. She is expecting to retire at age 65 (after 25 years) and makes annual contributions of $10,000, which increase by 4 per cent each year. During accumulation, she experiences one of three investment paths. Each investment path has 24 years where returns are 7 per cent per annum and one year where she experiences a 20 per cent fall. The paths only differ in the timing of the 20 per cent fall, which occurs in either the first, twelfth or twenty-fourth year of accumulation.

During retirement, her savings are invested more conservatively and return 5 per cent a year. She withdraws $64,000 in the first year of retirement. Her withdrawals increase by 2.5 per cent each year. Figure 7 illustrates how her savings are impacted under the three different return scenarios assuming that her spending pattern in retirement is unchanged.

[5] Brailsford et al (2012) have estimated returns from 1882 to 2010.

Figure 7: The impact of negative returns at different times in accumulation



Source: Challenger

Losses near the end of the accumulation phase can have a large adverse impact on retirement outcomes

The results show that the closer the negative market return is to retirement, the less the retiree is able to save by retirement and the worse the outcomes are in retirement. The closer she gets to retirement, the larger her savings become and the larger becomes the dollar loss she suffers from the adverse market movement (this is sometimes referred to as the 'portfolio size effect'). It can be difficult for those close to retirement to recover from a large loss since they have little time to respond before they retire.

The figure also shows that losses just before retirement have a direct impact on the retirement phase if the retiree is unable to counteract the loss. The less a retiree has at retirement, the less she has to spend in retirement, and the less she is able to leave as a bequest.

Negative returns in the retirement phase

It can take six to 10 years for markets to recover from large market falls. Regular cash flows are crucial in retirement, and retirees might not be able to wait 6 to 10 years for their savings to recover before they draw an income.

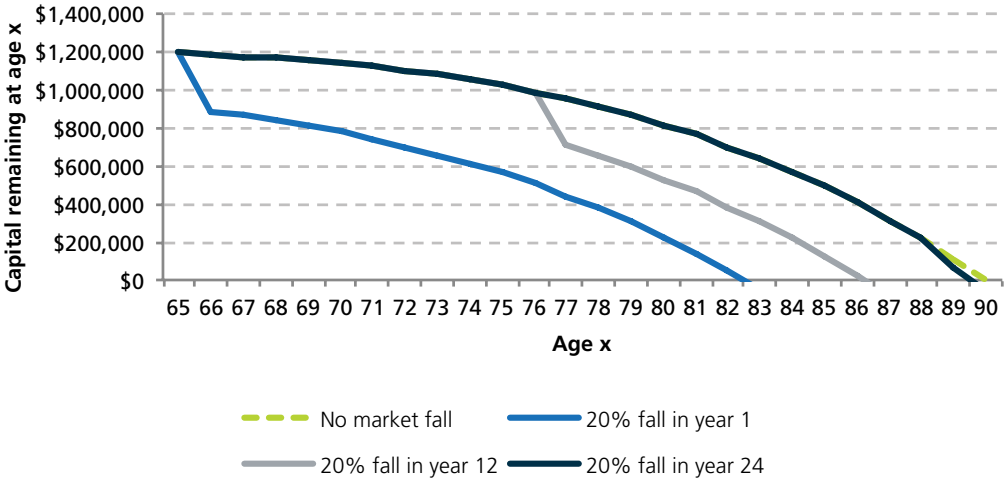
Withdrawal amounts are relatively inelastic to market movements for many retirees. Retirees typically want to withdraw a particular dollar amount from their savings each year and are usually reluctant to reduce this amount. In some cases, retirees might not be able to reduce their annual withdrawal amount if it only covers a modest standard of living.

However, many retirees are invested in a unitised account-based pension where they need to sell units to extract these regular cash flows. In the case where markets fall, the unit price of an account-based pension will also fall. A retiree will need to sell a greater number of units at lower prices to realise the same dollar withdrawal. The problem here is that selling more units at lower prices leaves fewer units available to grow through compounding and support future cash flows. While negative returns can occur at any time during retirement, adverse market movements early in retirement can be particularly painful. Early in retirement, more pension units are exposed to market movements, and the more units you need to sell early in retirement, the fewer units you will have to last the rest of retirement.

Negative returns early in retirement have a large impact on the overall outcome

Consider a 65-year old retiree who starts retirement with $1,190,000[6] in an account-based pension and who withdraws $64,000 per year. Withdrawals are assumed to increase by 2.5 per cent per annum. The account-based pension experiences one of three investment paths. Each investment path has 24 years where returns are 5 per cent per annum and one year where the market falls by 20 per cent. The paths differ only in the timing of the 20 per cent fall, which occurs in either the first, twelfth or twenty-fourth year of retirement. Figure 8 shows the impact on retirement savings in the three scenarios.

Figure 8: The impact of negative returns at different times in retirement



Source: Challenger

While the size of the negative returns is the same in all three scenarios, it is the timing of these negative returns that really matters. The figure illustrates that the earlier a market crash occurs in retirement, the worse the impact on final savings. At the start of retirement, you have the maximum number of 'pension fund units'. A crash early on means that you have to sell more of these units to obtain the required dollar withdrawal, leaving fewer units to benefit from compounding over time. A crash later on in retirement means that savings have had time to grow so that fewer units have to be sold to obtain the required dollar withdrawal.

A real-world example of sequencing risk in retirement

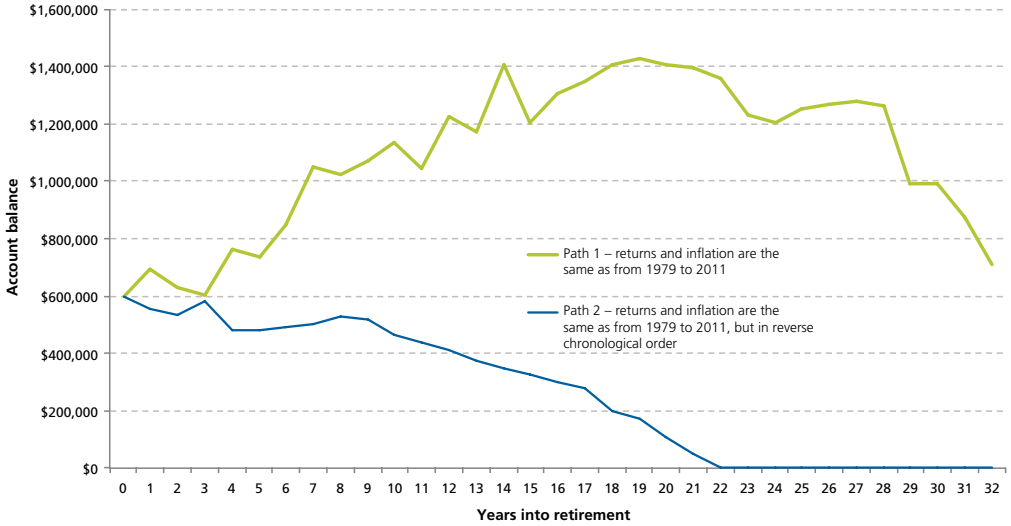
In this example, we consider a person who retires today with $600,000, and who withdraws $40,391[7] per year (indexed to inflation). He invests his savings in an account-based pension that is 50 per cent in Australian equities and 50 per cent in Australian bonds.

We assume that the retiree experiences one of two returns paths. The first return path is the same as what was experienced between the end of 1979 and 2011. The retiree experiences the 1980 return first, the 1981 return second…the 2011 return last. The second return path is the same set of returns, but in reverse chronological order. That is, in the second return path, the retiree experiences the 2011 return first, the 2010 return second, the 2009 return third…the 1980 return last.

[6] This is the capital amount from the prior example, when there was no loss in accumulation.
[7] ASFA Retirement Standard, comfortable lifestyle for a single person, June 2012.

In the first path, the retiree experiences the 40 per cent market fall of 2008 late in retirement, but in the second return path experiences this negative return very early in retirement. The retiree's remaining capital under each return path is displayed in Figure 9.

Figure 9: Real-world example of the impact of sequencing risk in retirement



Source: Challenger estimates, Bloomberg, ASFA

The sequence of returns in Australia has been favourable

The results show that had a retiree experienced the same returns as between 1979 and 2011 in the same order, he would have had over $700,000 remaining 32 years into retirement. Had he experienced the same returns, but in reverse order, and done nothing to respond, he would have run out of capital 22 years into retirement, and had at least ten years in retirement with no capital. If the retiree experienced the second return path, he might have had to rely on the more modest Age Pension for the rest of his retirement.

The retirement risk zone

From the previous analysis, we can draw two basic conclusions. First, it is better to suffer negative returns early in the accumulation phase. Secondly, it is better to suffer negative returns later in retirement. Once again, the results illustrate that accumulation and retirement are different.

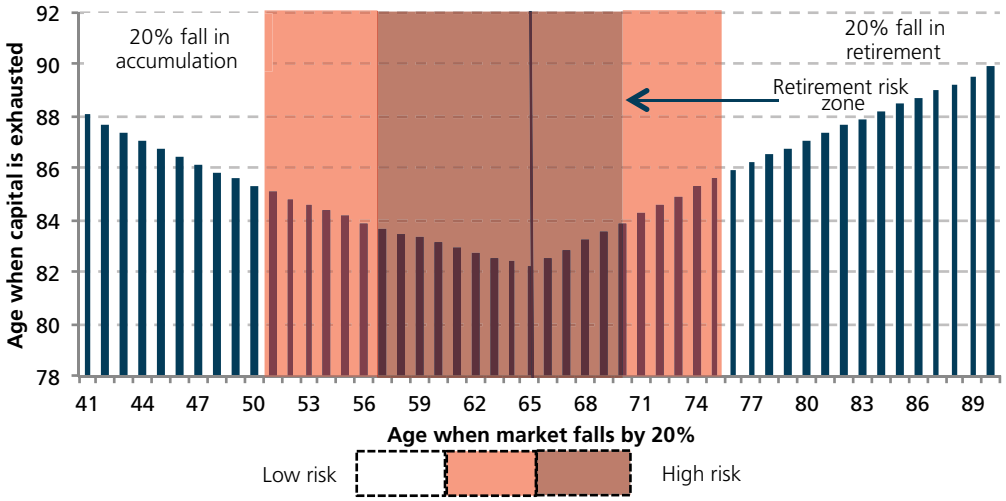
The results also give rise to the idea of a 'retirement risk zone'. That is, sequencing risk becomes more of a problem during late accumulation and early retirement. The retirement risk zone refers to the few years before and after retirement where a bad sequence of returns is likely to have the greatest negative impact on retirement outcomes.

The retirement risk zone begins well before retirement and can last a long time

Milevsky and Salisbury (2006) suggest that the retirement risk zone is 'the five to 10 years before and after the onset of cash flow generation.' That is, they define the retirement risk zone as the 10 to 20 years centred on retirement. More recent studies, such as Doran et al (2012), find that the retirement risk zone might range from 15 or 20 years before retirement to 5 years after retirement. These findings suggest that sequencing risk becomes a problem in the accumulation phase sooner than many advisers might think.

To illustrate the retirement risk zone, consider once more the assumptions described in Figure 7, but this time with 50 paths where the 20 per cent market fall occurs once in each path. That is, we have a return path where the fall occurs at age 41, a path where the fall occurs at age 42, a path where the fall occurs at age 43 and so on. Figure 10 shows the age at which capital is exhausted for each of the 50 return paths, assuming the retiree does not respond. The chart shows that capital runs out earlier when the market falls closer to retirement; the retirement risk zone.

Figure 10: The retirement risk zone



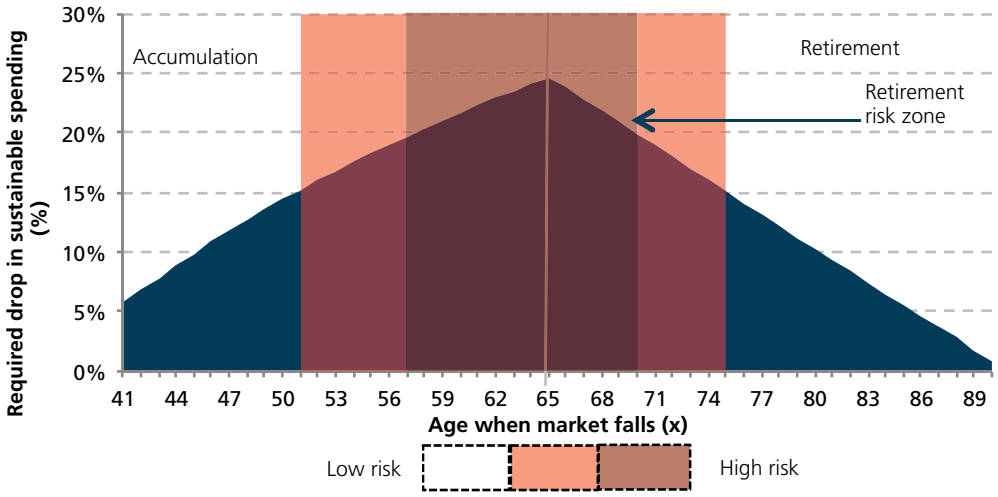
Source: Challenger

The potential impact of a poor sequence on retirement spending

Another way of seeing the impact of a poor sequence of returns is to consider what level of spending would be sustainable following a market fall. Figure 11 illustrates how much average spending during retirement would need to be cut following a negative return in order for retirement spending to be sustainable. The reduction in spending depends on the actual timing of the market fall. The peak impact is at the point of retirement at age 65, where a 20 per cent fall, instead of a 7 per cent gain, would reduce sustainable annual spending by almost 25 per cent. The drop off would be more dramatic after retirement, partly because of the expectation that some of the money would have been spent by that time.

The greatest level of sequencing risk is at the point of retirement

Figure 11: Impact of a market fall on the level of sustainable retirement spending



Source: Challenger estimates

Managing sequencing risk

A number of possible strategies have been suggested to combat sequencing risk.

Frank and Blanchett (2009) suggest three methods to mitigate sequencing risk. First, they suggest that a retiree can adjust spending downwards when markets fall. However, reducing spending might be easier for some retirees than for others. Retirees whose savings can only provide for the bare minimum in retirement might have little room to adjust spending, however good the reason for doing so might be. Secondly, the authors suggest that adjusting the asset allocation of retirement savings might be able to reduce the impact of negative market movements. Lastly, they suggest that drawing less of a cash flow at the start of retirement might reduce the impact of adverse market movements.

Blanchett and Frank (2009) as well as Frank et al (2010) examine an adaptive strategy during retirement that can be used to increase the chances of a lifetime of cash flows. The papers suggest that a portfolio's probability of ruin be calculated each year, and the withdrawal amount be adjusted to ensure sustainability of cash flows. Legislated minimum withdrawal amounts in retirement further complicate the implementation of such strategies.

Managing sequencing risk for clients involves using a variety of products

Milevsky and Salisbury (2006) suggest that sequencing risks cannot be avoided by diversifying a portfolio's asset allocation alone. Their research shows that a portfolio invested entirely in short-term fixed interest products is unlikely to be able to grow or offset inflation. On the other hand, a portfolio invested entirely in growth assets has a substantial exposure to sequencing risk. They advocate the use of insurance products to protect from market downside. In their view, a product-centric approach to portfolio allocation, rather than an asset-centric approach, is needed.

This is extended by Milevsky and Adaimova (2009) who advocate altering the allocation to products in retirement to offset sequencing risk. They suggest that the risk 'cannot be mitigated using conventional investment and asset allocation strategies.' Instead, they promote adopting a product allocation strategy, which involves combining different types of retirement products such as managed funds, annuities, and capital guaranteed products in varying proportions to match specific needs of the retiree client.

These papers provide a variety of approaches to manage the impact from sequencing risk for your clients. As with most aspects of investing, there is a need to balance risks and returns. Those investments likely to offer the greatest returns will also be subject to higher levels of sequencing risk. There will be no single solution that suits every client; rather a balance needs to be determined for every client. Reducing some exposure to volatile markets in the retirement risk zone will go some way to reducing the risk and produce a better outcome for retirees.

Conclusion

The best outcome for each client will be different; they all need individual advice

Many people understand the concept of market risk, but few are as familiar with the subset of sequencing risk and its impacts. The order in which investment returns occur can mean the difference between having sustainable retirement cash flows and being reliant on the Age Pension.

It is important to understand that sequencing risk:

- Occurs when there are both market volatility and cash flows;
- Is present in both the accumulation and retirement phases because market volatility and cash flows exist in both cases;
- Is greatest in the years either side of retirement, when more of your client's money is exposed to potential losses;
- Can mean that the money-weighted return actually received by a client can vary dramatically; and
- Can mean that your client might need to cut average retirement spending significantly.

Given that the timing of poor market returns can have a significant impact on retirement outcomes, retirees should consider how best to minimise the impact on their savings from market falls during the retirement risk zone. A strategy that will help your clients is to reduce exposure to the more volatile asset classes during the retirement risk zone. Extending this to include a product with regular cash flows will further mitigate sequencing risk and increase the success rate of their retirement plans.

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14170/CG941/0812