focus

Portfolio Diversification: Unpacking the Free Lunch

Portfolio diversification is a core principle of long-term investing and has been called the only free lunch in finance. What does that mean?

The primary goal of diversification is not higher returns, but to minimise the risk and volatility (the free lunch) of a portfolio for a given long-term expected return. We unpack why diversification is one of the key tools in an investor's toolbox.

> "The only investors who shouldn't diversify are those who are right 100% of the time."
>
> SIR JOHN TEMPLETON, FOUNDER OF TEMPLETON GROWTH FUND

FORSYTH BARR

"Risk means more things can happen than will happen."

ELROY DIMSON, LONDON BUSINESS SCHOOL

If the future was certain, investing would be easy. But (as we've been firmly reminded over the past COVID-impacted year or so) it is not. As legendary investor Howard Marks describes it: "The future should be viewed not as a fixed outcome that's destined to happen and capable of being predicted, but as a range of possibilities and, hopefully on the basis of insight into their respective likelihoods, as a probability distribution." The future is uncertain. There is a range of possible outcomes. How we invest should reflect this.

Don't put all your eggs in one basket

Diversification aligns to the old adage of not putting all your eggs in one basket. By spreading our eggs (investments) across multiple baskets we reduce the chance of unforeseen events materially hurting our portfolio. Diversification works because different companies, different sectors, and different assets react differently to the same event. When the value of one falls, another may rise. Take COVID-19. It heavily impacted anything travel and tourism related, but there were healthcare and technology companies that have benefited. In financial lingo, these assets aren't correlated.

EVERY INVESTMENT HAS ITS DAY: RETURNS ACROSS ASSET CLASSES

Year	NZ equities	NZ listed property	NZ Govt bonds	Australian equities (NZD)	Global equities (NZD)	Commodities (NZD)	Gold (NZD)	NZ cash	NZ median house price
1999	13.3%	-6.4%	0.0%	22.1%	27.2%	25.7%	2.5%	4.8%	1.2%
2000	-8.0%	7.3%	11.1%	6.7%	1.1%	55.6%	11.7%	6.5%	0.0%
2001	17.9%	12.1%	4.8%	-6.8%	-10.8%	-14.5%	8.9%	6.1%	4.7%
2002	-1.2%	10.4%	8.7%	-38.3%	-35.7%	0.2%	-0.9%	5.6%	7.9%
2003	25.6%	13.4%	6.4%	2.3%	7.2%	-1.0%	-4.9%	5.6%	19.3%
2004	25.1%	20.0%	5.5%	0.3%	5.0%	-0.4%	-4.3%	6.1%	13.5%
2005	10.0%	11.4%	6.9%	10.4%	17.2%	28.1%	24.0%	7.2%	13.5%
2006	20.3%	17.2%	4.2%	11.3%	16.9%	-1.3%	17.6%	7.7%	11.9%
2007	-0.3%	-9.9%	3.9%	-3.6%	2.7%	6.8%	19.4%	8.5%	4.5%
2008	-32.8%	-26.8%	15.8%	-18.3%	-24.5%	-16.0%	35.7%	8.8%	-4.8%
2009	18.9%	3.0%	1.7%	1.4%	7.1%	-3.9%	-0.7%	3.4%	9.6%
2010	2.4%	-4.3%	7.0%	6.6%	4.6%	8.9%	19.9%	3.0%	-2.2%
2011	-1.0%	3.8%	13.3%	1.3%	-7.5%	-13.4%	9.5%	2.9%	0.9%
2012	24.2%	13.4%	4.8%	8.8%	9.7%	-6.6%	0.2%	2.7%	9.6%
2013	16.5%	-1.7%	-2.0%	31.9%	23.5%	-9.3%	-28.4%	2.7%	9.8%
2014	17.5%	17.6%	7.8%	19.4%	9.9%	-12.3%	3.8%	3.4%	5.4%
2015	13.6%	10.4%	5.4%	14.8%	11.3%	-14.1%	1.6%	3.4%	3.3%
2016	8.8%	2.7%	3.4%	9.6%	6.4%	10.1%	6.1%	2.5%	11.8%
2017	22.0%	12.8%	5.5%	18.5%	21.3%	-0.5%	10.4%	2.0%	6.1%
2018	4.9%	9.8%	4.6%	0.5%	-4.3%	-6.2%	2.8%	2.0%	1.5%
2019	30.4%	31.2%	4.9%	30.1%	25.9%	7.2%	17.4%	1.7%	12.1%
2020	13.9%	4.4%	5.4%	4.0%	8.8%	-9.1%	13.5%	0.6%	18.6%
2021 YTD	-3.3%	-2.7%	-2.5%	9.0%	9.4%	14.6%	-6.9%	0.1%	10.9%
Average return	9.7%	6.0%	5.6%	5.2%	4.7%	1.0%	6.3%	4.3%	7.4%

Source: Bloomberg, Forsyth Barr analysis

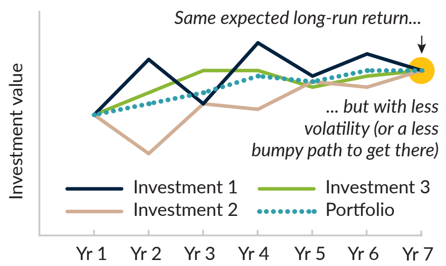
Best Year | Worst Year | Negative Return

> ...in an uncertain world unexpected events can happen...

The maths

Here is an (overly) simple example. An investor has three "uncorrelated" investments in their portfolio (not actually enough for an adequately diversified portfolio). Each has the same expected long-term return. The chart highlights that over the long-run the expected returns of each of these individual assets and the combined portfolio are the same, but the path along the way is a lot less bumpy with a diversified portfolio.

DIVERSIFICATION PROVIDES A LESS BUMPY ROAD



Source: Forsyth Barr analysis

Types of diversification

Appropriate portfolio diversification requires investing across asset classes (e.g. equities, bonds, property, cash, currencies), sectors (e.g. healthcare, technology, retail, industrials), and geographies, tailored for the objectives of the individual investor.

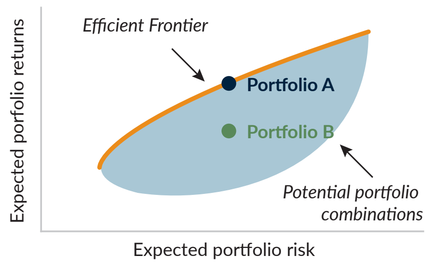
We need only look to the sharp COVID-19 market sell-off in March last year to see evidence of the benefit of allocating across different "baskets". Equity markets fell, but bonds proved more resilient. New Zealand dollar weakness helped reduce the impacts of the declines in international equity prices. Tourism businesses suffered whereas healthcare benefitted. During this period many investments saw dramatic swings in value (you would not have wanted to own a portfolio of just airline stocks!).

Since then there have been many twists and turns in investment markets. When vaccines were developed and rollout commenced around the world, market leadership switched from companies who were COVID-19 beneficiaries (or were at least resilient to its impacts) to those who will benefit most as economies reopen. Obviously it would be nice to just own the winners, but in an uncertain world unexpected events can happen. As the chart above suggests, an appropriately constructed portfolio means "shocks" (good and bad) are smoothed out over time.

Maximising the diversification benefit

Building a quality diversified portfolio is not simply a matter of selecting a bunch of different-looking assets. When constructing a portfolio, an investor should seek to maximise the expected return for the risk he or she is bearing. Portfolios that achieve this (Portfolio A) are said to lie on the "Efficient Frontier" (in other words they maximise the benefits of diversification). Any portfolios below this frontier (Portfolio B) offer a lower return for the same risk.

AIMING FOR THE BEST RETURN FOR RISK



Source: Forsyth Barr analysis

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In practice it is difficult to determine exactly where a portfolio lies. Investors give themselves the best chance of being closer to A than B by carefully considering the role of each investment in the portfolio, and having a spread across asset types, geographies, and industries. Academic research concludes a portfolio should comprise around 30-40 different assets to capture the maximum benefit of diversification.

Not a silver bullet, but a free lunch nonetheless

Portfolio diversification is no silver bullet. It can't make your portfolio risk free, but it can narrow the swings along the way. A less volatile portfolio can provide the added benefits to an investor of sleeping better at night, lessening the chance of panic during periods of market volatility, and comfort bearing greater risk (and therefore earning higher returns) over time.

The challenge for investors is having the time and knowledge to construct a diversified portfolio. What's more, portfolios are not static, they need to be rebalanced and evolved over time. A key role of a financial adviser is to help investors build and maintain appropriate portfolios, helping avoid common investor mistakes such as home market bias, where an investor is overexposed to their home country's market, and ensuring the portfolio changes over time to reflect the investor's goals. When implemented correctly, investors can enjoy their free lunch and have a smoother ride.

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Understanding that sudden changes in financial markets can cause concern or indicate opportunity, your Forsyth Barr Investment Adviser is available to provide you with advice and assistance at any time.

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