

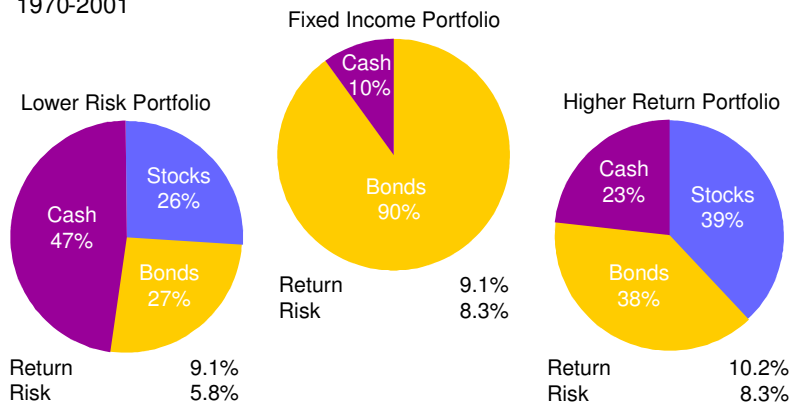
Diversification – cornerstone of portfolio theory

Harry Markowitz earned a Nobel Prize for his foundational work in finance that came to prominence in the 1950's. He was the first to establish the concept of an 'efficient portfolio' (a selection of securities that will deliver the greatest return for a given level of risk). Markowitz also found that two very risky or volatile investments (i.e. investment that fluctuate substantially in the returns they deliver) when combined together can lower the risk of the entire portfolio whilst increasing returns. This apparent contradiction occurs when two investments move in the opposite direction under the same conditions - technically defined as having different correlations.

The graph below exhibits statistically the effect of combining just three asset classes to either lower risk (volatility) for a given return, or increase return for a defined level of risk. This is a simplification of what we do in designing portfolios with multiple asset class groupings.

Potential To Reduce Risk or Increase Return

1970-2001



Risk is measured by standard deviation. Risk and return are based on annual data over the period 1970 -2001. Portfolios presented are based on Modern Portfolio Theory.

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Correlation is measured on a scale of -1 to +1. Assets with negative correlation (-1 being the maximum) always move in the opposite direction for a given set of circumstances by exactly the same amount. The table below shows the diversification benefit expressed by differing correlations between Australian large, small and value funds vis-à-vis the global asset class funds targeting similar large, small and value dimensions of risk and return. There are clearly diversification benefits to be had from an appropriate allocation mix across the full range of structured asset class funds available within Axiome's family of funds.

	Fixed Int. NZ\$	A.Value NZ\$	A.Large NZ\$	A.Small NZ\$	G.Value NZ\$	G.Large NZ\$	G.Small NZ\$	E.Mkts NZ\$
Fixed Int.	1.0							
Aust. Value	0.5	1.0						
Aust. Large	0.6	0.9	1.0					
Aust. Small	0.6	0.8	0.8	1.0				
Global Value	0.3	0.5	0.6	0.4	1.0			
Global Large	0.3	0.5	0.6	0.4	0.9	1.0		
Global Small	0.3	0.5	0.6	0.5	0.8	0.8	1.0	
Emerg. Mkts	0.2	0.4	0.5	0.4	0.5	0.5	0.6	1.0