



MACKENZIE
Investments

Mackenzie ETFs Team

Rebalancing your asset allocation mix



It is difficult to predict which asset class may outperform in any given year. Since asset classes perform differently in various market settings, having an appropriate strategic asset allocation can go a long way in maintaining confidence in the face of ever-changing market conditions.

Asset allocation is the process of diversifying investments across different asset classes such as stocks and bonds based on an individual's specific objectives, risk constraints and investment time horizon. It helps balance the risk and return of the portfolio by holding various investments which may exhibit different performance patterns in various market settings. Investors spend a lot of time determining the appropriate long-term asset allocation mix, which optimizes their risk return objectives. But it is just as important they remain disciplined to it over the long term. Rebalancing is the process investors use to buy and sell various asset classes to maintain their asset allocation mix over the long term. It can be implemented at the asset class level (i.e. equities versus fixed income), the sub-asset class level (i.e. US fixed income vs Canadian fixed income) and at the individual security level.

Benefits of rebalancing

While having the appropriate asset allocation mix is one of most important drivers of portfolio returns, investors are more likely to achieve their long-term risk/return objectives if they adhere to it over the long run. Regular rebalancing helps investors maintain their target allocations and risk levels by minimizing concentration risk and unintended bets to specific asset classes.

To examine the impact of rebalancing, we analyzed three hypothetical portfolios (buy and hold, quarterly rebalancing, and annual rebalancing) with a target asset mix of 60% equities and 40% fixed income. The hypothetical portfolios also have target weights at the sub asset class levels consisting of the constituents of the following indices: US equities represented by S&P 500 index: 27.0%, Canadian equities represented by S&P/TSX Composite index: 18.0%, international equities represented by MSCI EAFE index: 10.8%, emerging market equities represented by MSCI EM index 4.2%, Canadian bonds represented by FTSE Canada Universe Bond index 23.6%, US bonds represented by Bloomberg US Aggregate TR Hdg CAD index: 9.6% and international bonds represented by Bloomberg Global Aggregate ex-USD 10% Issuer Capped Index TR USD Hedged index: 6.8%. An annual fee of 0.17% which represents a hypothetical management fee, was deducted from all hypothetical portfolios.

	Equity	Fixed income
Target asset mix	60.0%	40.0%
Quarterly rebalance	60.0%	40.0%
Drift from target asset mix	0.0%	0.0%
Annual rebalance	63.7%	36.3%
Drift from target asset mix	3.7%	-3.7%
Buy & hold	68.6%	31.4%
Drift from target asset mix	8.6%	-8.6%

Source: Morningstar, period from December 31, 2000 to September 30, 2021

Benefits of rebalancing

The analysis covers the time-period of December 31, 2000 to September 30, 2021. This includes the tech correction of early 2000s, the 2008 global financial crisis and the Covid-19 drawdown.

Regular rebalancing played a significant role in maintaining the optimal asset allocation mix at the asset class level. It also plays a role in keeping sub asset class weightings

reasonably close to their initial allocations within these hypothetical portfolios. As of September 30, 2021, the buy and hold strategy had a 9% overweight to equities.

The impact at the sub asset class level was even more significant as allocation to US equities had increased from 27% to 33% while exposure to Canadian bonds had declined by 4% over the period.

	US bonds	Canadian bonds	International bonds	US equities	Canadian equities	International equities	EM equities
Initial weight	9.6 %	23.6 %	6.8 %	27.0 %	18.0 %	10.8 %	4.2 %
Quarterly rebalance	9.6 %	23.6 %	6.8 %	27.0 %	18.0 %	10.8 %	4.2 %
Annual rebalance	8.8 %	21.2 %	6.2 %	29.1 %	19.8 %	10.9 %	3.9 %
Drift from initial weight	-0.8 %	-2.4 %	-0.6 %	2.1 %	1.8 %	0.1 %	-0.3 %
Buy & hold	7.5 %	19.7 %	4.3 %	33.4 %	21.0 %	7.1 %	7.0 %
Drift	-2.1 %	-3.9 %	-2.5 %	6.4 %	3.0 %	-3.7 %	2.8 %

Source: Morningstar, period from December 31, 2000 to September 30, 2021

US equities: S&P 500 Index, Canadian Equities: S&P/TSX Composite Index, International Equities: MSCI EAFE index, EM Equities: MSCI EM Index, Canadian Bonds: FTSE Canada Universe Bond Index, US Bonds: Bloomberg US Aggregate TR Hdg CAD, International Bonds: Bloomberg Global Aggregate ex-USD 10% Issuer Capped Index TR USD Hedged index.

Impact on long term risk/return profile

Rebalancing is often neglected in periods of extended bull markets as stocks tend to perform stronger than bonds and a buy and hold strategy is more likely to outperform. However, it is important to note that rebalancing is not intended to boost short term portfolio returns but rather, to control volatility. It serves as a risk management tool to help investors achieve their long-term objectives by ensuring they remain diversified and maintain the appropriate investment mix to help mitigate the impact of market volatility. This often leads to increasing portfolios'

allocation to fixed income, an asset class with lower volatility, making for a smoother investment experience for investors. The enhanced diversification and consistent fixed income allocation may also improve long term risk adjusted returns. In the three hypothetical portfolios we analyzed above, rebalancing enhanced risk adjusted returns and led to a higher sharpe ratio over the long term.

The benefit of rebalancing is enhanced during times of heightened market volatility as it minimizes emotional



Benefits of rebalancing

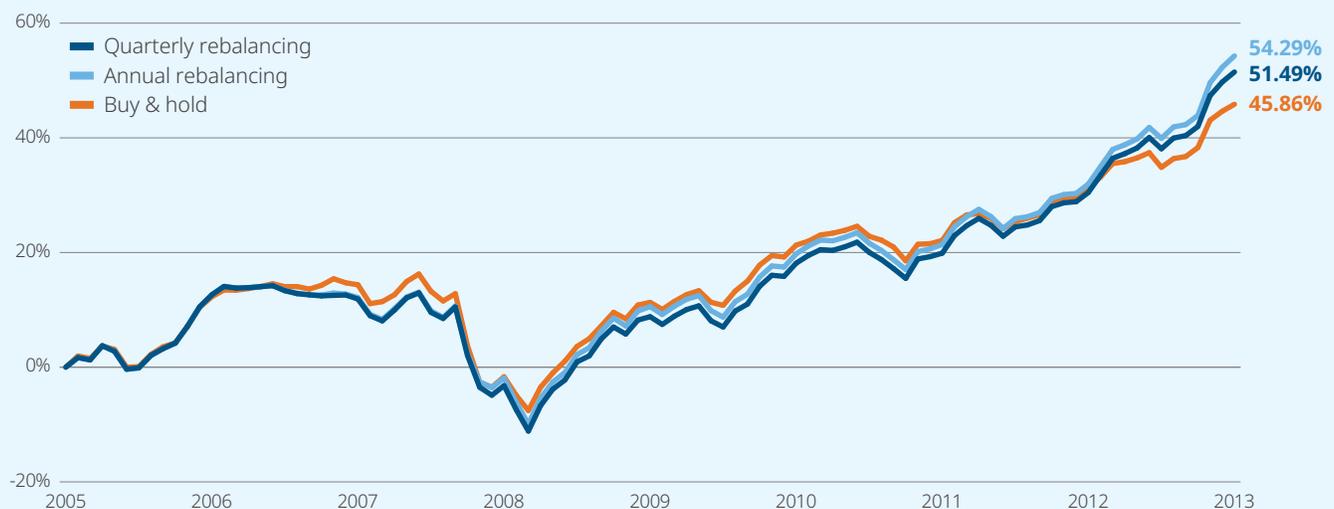
decisions and helps investors stay the course and focus on their long-term objectives. Investors often abandon their planned investment strategy when markets are down by panicking and selling low. Conversely, when markets are up, investors often react due to fear of missing out and buy high. This emotional roller coaster is evident in the investment industry net sales. Rebalancing forces investors to remain disciplined and realign their portfolios back to target weights by selling the top performing asset classes and reallocating the proceeds to the worst performers. This helps navigate the downside by buying more fixed income during bull markets and participate in the upside by buying more equities during bear markets.

In short, rebalancing allows investors to buy low and sell high by avoiding market timing and sticking to their strategic asset allocation mix and long-term plan.

To highlight the impact of rebalancing during extended bear markets, we narrowed the focus of the three hypothetical portfolios mentioned above to the period of January 2006 to December 2013. This includes the period before, during and post recovery of the great financial crisis. The annual and quarterly rebalancing strategies outperformed the buy and hold approach by more than 5% in total returns while providing better risk adjusted returns.

Hypothetical portfolios	Return (annualized)	Return (cumulative)	Standard deviation	Sharpe ratio	Worst month
Quarterly rebalancing	6.05%	238.20%	6.91%	0.62%	-7.65%
Annual rebalancing	6.13%	243.61%	6.81%	0.64%	-7.55%
Buy & hold	5.78%	221.08%	6.60%	0.61%	-8.05%

Source: Morningstar, period from December 31, 2000 to September 30, 2021. Net of hypothetical management fee of 0.17%



Source: Morningstar, period from December 31, 2005 to December 31, 2013. Net of hypothetical management fee of 0.17%.

Benefits of rebalancing

In conclusion, rebalancing at both the asset class and sub asset class level is a critical component of the portfolio management process that controls risk and ensures investors adhere to their strategic asset allocation mix. It helps investors control their behaviour and minimize emotional decisions of buying high and selling low. While rebalancing may lead to short term underperformance in extended bull markets, it helps investors achieve their long-term financial goals by staying the course, protecting on the downside, and providing an overall smoother investment experience.

Mackenzie's all-in-one, low-cost, asset allocation ETFs suite includes Mackenzie Conservative Allocation ETF (MCON), Mackenzie Balanced Allocation ETF (MBAL) and Mackenzie Growth Allocation ETF (MGRW). The ETFs are designed for investors with different risk profiles and help mitigate the impact of market volatility by delivering an appropriate investment mix with transparent and liquid exposures. They combine the benefits of broad global diversification with strategic asset allocation and provide a disciplined rebalancing process. This helps investors achieve their long-term objectives by maintaining the optimal exposure to target allocations and risk levels.

Standard performance for the the hypothetical portfolios and their index components

Name	Inception date	1 yr	3 yr	5 yr	10 yr
Buy & Hold (60% equity - 40% fixed income hypothetical portfolio)	2000-12-29	17.87	11.6	8.76	8.68
Quarterly Rebalance 60% equity - 40% fixed income hypothetical portfolio)	2000-12-29	16.11	11.16	8.65	9.51
Annual Rebalance 60% equity - 40% fixed income hypothetical portfolio)	2000-12-29	16.38	11.02	8.59	9.6
Bloomberg Global Aggregate ex-USD 10% Issuer Capped Index TR USD Hedged	2000-12-29	-8.43	2.07	1.52	6.49
Bloomberg US Aggregate TR Hdg CAD	1990-01-31	-0.54	5.26	2.65	3.08
FTSE Canada Universe Bond	1979-12-31	-3.64	4.17	2.26	3.27
MSCI EAFE NR CAD	1969-12-31	24.74	9.41	8.09	9.77
MSCI EM GR CAD	2000-12-29	9.08	10.54	8.08	7.61
S&P 500 TR USD	1970-01-30	32.86	19.16	17.08	18.82
S&P/TSX Composite TR	1977-01-03	38.77	15.36	10.58	8.78

Source: Morningstar as of October 31, 2021. All returns in CAD. The 3 hypothetical portfolios are net of hypothetical management fee of 0.17%

Standard performance for Mackenzie Asset Allocation ETFs

Name	Ticker	Inception date	1 yr	3 yr	5 yr	10 yr	Since inception
Mackenzie Conservative Allocation ETF	MCON	2020-09-29	10.41	-	-	-	8.05
Mackenzie Balanced Allocation ETF	MBAL	2020-09-29	17.20	-	-	-	13.68
Mackenzie Growth Allocation ETF	MGRW	2020-09-29	24.22	-	-	-	19.44

Standard performance for Mackenzie Asset Allocation ETFs. Source: Morningstar as of October 31, 2021. All returns in CAD



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**To find out more, please contact your financial advisor or Mackenzie's Sales Team.
mackenzieinvestments.com/ETFs.**

¹ Sharpe ratio provides a measure of risk adjusted returns to determine the reward per unit of risk of an investment portfolio. It is calculated as (average portfolio return - average risk-free rate) / standard deviation. Risk free rate is normally measured by the 90-day Treasury bill rate. The higher the Sharpe Ratio, the better the investment portfolio's historical risk-adjusted performance.

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