



Wealth Management
Dominion Securities

Why does asset allocation matter?

Investors often get caught up focusing on what sector, fund, or stock could be the next “big thing”. But investors should not lose sight of one of the most important decisions that could impact their long-term investing outcome: their asset mix.

A constant source of debate for investors has been the outlook for global equity markets, the direction of interest rates, which sectors to overweight and underweight, and what funds and stocks may be the winners of tomorrow. Yet investors should step back from the day-to-day nuances of the markets to ensure they have the proper asset allocation for their long-term goals.

Ultimately, asset allocation is often the primary driver of long-term portfolio risk and returns. This approach to portfolio construction may be particularly relevant after a prolonged period of outperformance in one asset or sub-asset class, when investors may question the need to have anything else in their portfolios. So we'd like to remind investors why appropriate asset allocation matters.

Asset allocation 101

Asset allocation refers to the process of diversifying portfolio investments across asset classes to achieve a desired investment outcome. The theory behind asset allocation strategy was developed in 1952 by Nobel Prize winning economist Harry Markowitz, who illustrated that the expected risk and reward of a portfolio were a function of three characteristics of its holdings:

- The volatility of each asset
- The expected return of each asset
- The relationship between the various assets (i.e., known as correlation, or the degree to which the various assets move in the same direction)

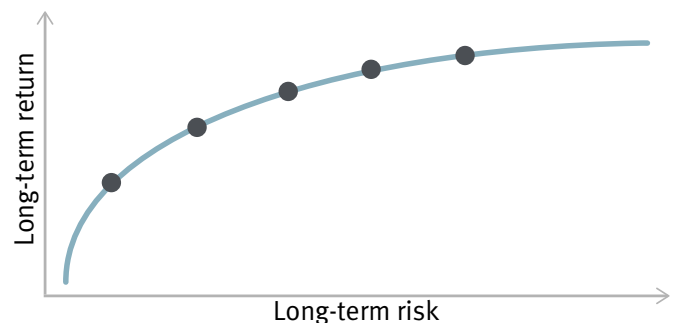


The concept of the “efficient frontier” emerged from this work. It suggested that properly planned asset allocation can help to maximize long-term expected return for a specific level of risk that an investor is willing to accept.

Asset allocation first focused on diversifying portfolios between cash, bond, and equity asset classes. It has evolved to include more focused sources of risk and return, including: sub-asset classes (e.g., large-/small-cap equities, short-/long-term bonds); styles (e.g., value/growth equities, government/corporate bonds); geographies (e.g., Canada, International); economic sectors (e.g., Financials, Technology); and alternative investments.

The salient aspect of portfolio construction is determining a suitable long-term (strategic) asset allocation that offers the optimal risk/return tradeoff

The efficient frontier



Source - RBC Wealth Management

and reflects the unique objectives and circumstances of an investor (an asset mix on the efficient frontier). This process usually requires making assumptions regarding the long-term potential upside and the risks of various asset and sub-asset classes. A strategic asset mix should be regarded as an anchor for a portfolio, particularly throughout business and investment cycles marked by volatility and uncertainty.

Why it's so important

Minimizes portfolio volatility

A seminal study in 1986 by Gary Brinson, Randolph Hood, and Gilbert Beebower examined the behavior of a number of pension funds. Then in 1991, Brinson, Hood, and Brian Singer published a well-known update. Both studies concluded that asset allocation was the largest contributor to the variability of a portfolio's returns over time, representing, on average, over 90% of the variation in returns. While investors tend to focus on portfolio "returns", risk (as measured by volatility and drawdown, or the maximum loss in portfolio value from a historical high-water mark to a subsequent minimum) is often overlooked and needs to be addressed. This is illustrated by comparing the conservative and growth asset mixes at right.

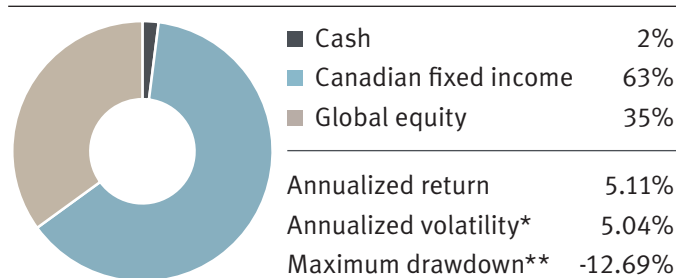
Lowers downside risk

As noted in our discussion of volatility above, another common view of risk is degree of downside (i.e., portfolio decline). Here too, asset allocation is clearly one of the largest drivers of absolute downside. The chart below depicts two asset mix profiles over the past 28 years, a balanced domestic asset mix and an equity-only domestic asset mix, and illustrates how asset allocation can meaningfully reduce downside risk.

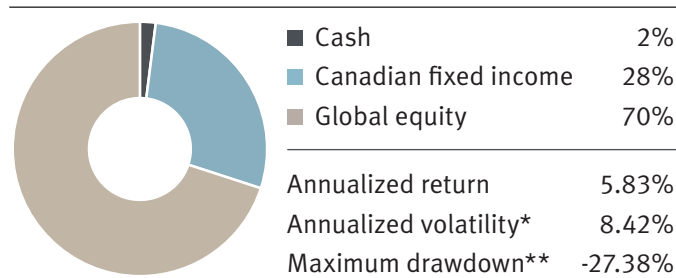
Volatility comparison: Conservative vs. growth asset mix

Performance from 1/1/08–12/31/18

Conservative asset mix



Growth asset mix



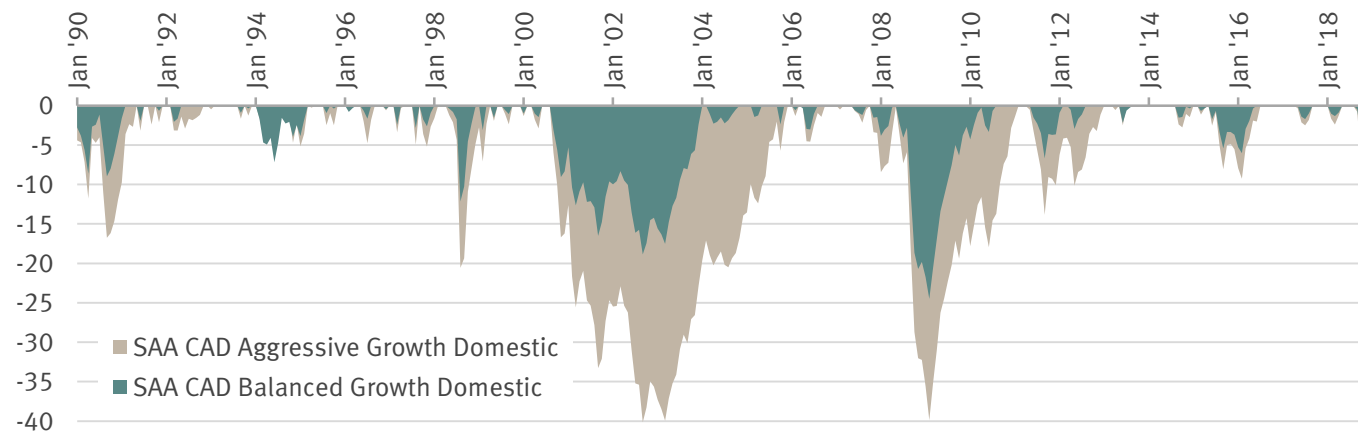
Indexes representative of each asset class: Cash – FTSE TMX Canada 30 T-bill Index; Canadian Fixed Income – FTSE TMX Canada Universe Bond Index; Global Equity – MSCI All Country World Net Index. Calculations are based on blended monthly asset class returns, with monthly rebalancing.

* Measured by standard deviation; a measurement of the variance of portfolio returns from its average.

** Maximum drawdown is the peak-to-trough decline of an investment during a specific period.

Source - FactSet; returns in CAD

Drawdown comparison: Balanced vs. aggressive growth asset mix



Source - RBC Dominion Securities Asset Mix Illustration Tool: Canadian Domestic Balanced and Canadian Aggressive Growth Profiles; returns in CAD
 ^See page 4 for full disclosure details

Drives performance

Studies have explored asset allocation's relationship to overall portfolio returns. In 2000, economists Roger Ibbotson and Paul Kaplan analyzed the returns of 94 U.S. balanced funds and pension funds to determine how portfolios' strategic asset allocation weights contributed to the actual return of each investment. They concluded that strategic asset allocation is critical to portfolio performance—*on average, across funds in the study, nearly 100% of long-term returns were driven by asset allocation.*

It is worth noting that the study focused on the average result across all funds in the analysis—some funds outperformed their strategic benchmark, others did not. The study did not draw a conclusion about active management, noting that an investor who has the ability to select superior managers before committing funds can earn above-average returns.

It all comes down to diversification

The primary way asset allocation helps to reduce volatility and manage downside is through efficient diversification, in our view. Asset class and sub-asset class returns are unpredictable and move in and out of favour over time. As the chart below shows, these changes can happen from one year to the next, or can occur after a more prolonged period of asset class outperformance or underperformance. This latter point can be particularly

Equity/fixed income returns during market stress

Period of market stress	Broad Canadian equity market return* (cumulative)	Broad Canadian fixed income market return** (annualized)
Credit crisis: June 2008–March 2009	-38.93%	5.65%
Tech wreck: July 2001–Dec. 2002	-12.27%	16.24%
Financial crisis: July 1981–July 1982	-36.98%	15.26%

* Represented by S&P/TSX Composite (CAD-denominated)

** Represented by FTSE/TMX Universe Bond Index (CAD-denominated)

Source - FactSet

relevant during strong bull markets, where some asset classes may sustain outperformance for extended periods, leading some investors to question the need for proper diversification and asset allocation. The need often becomes apparent after a market correction or more painful bear market, when the risk has already been realized and it may be too late to rebalance and/or plan for proper diversification and/or asset allocation.

Some asset classes have demonstrated the tendency to move in the opposite direction from other asset classes (i.e., exhibited low correlation), particularly during bear markets or periods of market stress (see table above). As

Market cycles quilt

Annual returns for select asset classes, 2008–18

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Better	Emerging Market Bonds 10.03%	Emerging Market Stocks 51.59%	Canadian Stocks 17.61%	Canadian Govt. Bonds 10.2%	Emerging Market Stocks 15.61%	U.S. Stocks 41.27%	U.S. Stocks 23.93%	U.S. Stocks 21.59%	Canadian Stocks 21.08%	Emerging Market Stocks 28.26%	U.S. High-Yield Bonds 6.74%
	Canadian Govt. Bonds 9.03%	Canadian Stocks 35.05%	Emerging Market Stocks 12.67%	Emerging Market Bonds 10.00%	Emerging Market Bonds 14.84%	International Stocks 31.02%	Emerging Market Bonds 17.11%	Emerging Market Bonds 21.35%	U.S. High-Yield Bonds 13.08%	International Stocks 16.82%	Emerging Market Bonds 4.36%
	Global Bonds 5.73%	U.S. High-Yield Bonds 34.35%	U.S. High-Yield Bonds 9.12%	Canadian Corp. Bonds 8.24%	International Stocks 14.72%	U.S. High-Yield Bonds 14.65%	U.S. High-Yield Bonds 11.68%	International Stocks 18.95%	U.S. Stocks 8.09%	U.S. Stocks 13.83%	U.S. Stocks 4.23%
Annual returns	Cash 2.56%	Canadian Corp. Bonds 16.26%	U.S. Stocks 9.06%	U.S. High-Yield Bonds 7.58%	U.S. Stocks 13.44%	Canadian Stocks 12.99%	Canadian Stocks 10.55%	U.S. High-Yield Bonds 14.57%	Emerging Market Stocks 7.34%	Canadian Stocks 9.1%	Canadian Govt. Bonds 1.53%
	Canadian Corp. Bonds 0.23%	International Stocks 11.91%	Canadian Corp. Bonds 7.34%	Global Bonds 6.33%	U.S. High-Yield Bonds 13.25%	Emerging Market Stocks 3.93%	Canadian Govt. Bonds 9.29%	Canadian Govt. Bonds 3.84%	Emerging Market Bonds 6.34%	Canadian Corp. Bonds 3.38%	Cash 1.30%
	U.S. High-Yield Bonds -7.63%	Emerging Market Bonds 10.24%	Canadian Govt. Bonds 6.51%	U.S. Stocks 4.64%	Canadian Stocks 7.19%	Emerging Market Bonds 1.11%	Global Bonds 8.59%	Canadian Corp. Bonds 2.71%	Canadian Corp. Bonds 3.73%	Emerging Market Bonds 3.01%	Canadian Corp. Bonds 1.10%
	U.S. Stocks -21.20%	U.S. Stocks 7.40%	Emerging Market Bonds 6.38%	Cash 0.90%	Global Bonds 6.5	Cash 0.96%	Canadian Corp. Bonds 7.59%	Emerging Market Stocks 2.04%	Global Bonds 3.73%	Global Bonds 2.60%	Global Bonds 1.06%
	International Stocks -29.18%	Global Bonds 5.04%	Global Bonds 5.04%	Canadian Stocks -8.71%	Canadian Corp. Bonds 6.22%	Canadian Corp. Bonds 0.84%	Emerging Market Stocks 6.63%	Global Bonds 1.61%	Canadian Govt. Bonds 0.90%	Canadian Govt. Bonds 2.18%	International Stocks -6.03%
Worse	Canadian Stocks -33.00%	Canadian Govt. Bonds 1.57%	International Stocks 2.13%	International Stocks -9.97%	Canadian Govt. Bonds 2.65%	Global Bonds 0.62%	International Stocks 3.67%	Cash 0.56%	Cash 0.47%	Cash 0.63%	Emerging Market Stocks -6.87%
	Emerging Market Stocks -41.62%	Cash 0.36%	Cash 0.43%	Emerging Market Stocks -16.40%	Cash 0.91%	Canadian Govt. Bonds -2.00%	Cash 0.89%	Canadian Stocks -8.32%	International Stocks -2.49%	U.S. High-Yield Bonds 0.44%	Canadian Stocks -8.89%

Source - FactSet; returns in CAD; ^^see page 4 for full disclosure of benchmarks included in this chart

a result, a portfolio that is diversified and has holdings with varying degrees of correlation can potentially enhance its risk-return outcome and smooth out its returns over time.

Mix it up

Investors often get caught up focusing on what sector, fund, or stock could be the next “big thing”. That is understandable in a world where we are bombarded with information. Nevertheless, investors should not lose sight of one of the most important decisions that could impact their long-term investing outcome: their asset mix. Through efficient diversification amongst asset and sub-asset classes that have varying degrees of correlation, investors can tailor their portfolios to meet their desired outcome, both from a risk and return perspective.

Disclosures and disclaimers

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Performance and benchmarks

^ (Paragraphs 1–5 are associated with the “Drawdown comparison” chart at the bottom of page 2) The hypothetical performance for each model is based on the returns of indexes. Indexes are unmanaged and used as a broad measure of market performance. It is not possible to invest directly into an index.

The Canadian Domestic Balanced Model is made up of 2% Cash, 11% Canadian Government Fixed Income, 16% Canadian Corporate Investment-Grade Fixed Income, 5% Global Fixed Income, 3% Preferred Shares, 4% Corporate High-Yield Fixed Income, 4% Emerging Markets Fixed Income, 33% Canadian Equities, 12% U.S. Equities, 6% International (EAFE) Equities, 4% Emerging Markets Equities.

The Canadian Aggressive Growth Model is 2% Cash, 58% Canadian Equities, 22% U.S. Equities, 11% International (EAFE) Equities, 7% Emerging Markets Equities.

The following indexes have been used for each asset class: CAD Cash – FTSE TMX Canada 30 Day TBill Index; Government Fixed Income – 50% FTSE TMX Canada Mid Term Government Bond Index and 50% FTSE TMX Canada Short Term Government Bond Index; Corporate Fixed Income – 50% FTSE TMX Canada Mid Term Corporate Bond Index and 50% FTSE TMX Canada Short Term Corporate Bond Index; Global (CAD Hedged) –

Bloomberg Barclays Global-Aggregate Total Return Index Value (CAD Hedged); US Corporate High Yield Fixed Income – Barclays US Aggregate Credit High Yield (CAD Hedged); Emerging Markets Fixed Income – JPM EMBI Global Diversified (CAD Hedged); Canadian Equities – S&P/TSX Composite Total Return Gross Return; US Large Cap Equities – S&P 500 Total Return; International Equities – MSCI EAFE (Net); Emerging Markets Equities – MSCI Emerging Markets (Net).

Prior to August 2015, which is the first month when all indexes became available, the following re-weighting methodology is used: Prior to January 2015: Emerging Markets Fixed Income is reallocated to JPM EMBI Global Diversified. Prior to Feb 2007: US Corporate High Yield Fixed income is reallocated to Bloomberg Barclays US Aggregate Credit (1983) – High Yield. Prior to August 2002: Canadian Preferred is reallocated to FTSE TMX Corporates blend (50% Short and 50% Mid). Prior to January 2001: Emerging Markets Equities Net are reassigned to MSCI Emerging Markets Gross Return. Prior to March 1999: Global Fixed are reassigned to Bloomberg Barclays Global Aggregate (Unhedged USD). Prior to January 1994 the Emerging Markets Fixed Incomes reassigned to Bloomberg Barclays Global Aggregate (Unhedged USD).

^^ (The benchmarks in this paragraph are associated with the “Market cycles quilt” at the bottom of page 3) The following indexes have been used for each asset class represented in the chart: Cash – FTSE TMX Canada 30 Day T-bill Index; Canadian Government Bonds – FTSE TMX Canada All Government Bond Index TR; Canadian Corporate Bonds (Investment Grade) – FTSE TMX Canada Universe Corporate Bond Index TR; Global Bonds – Barclays Global Aggregate

Bond Index (CAD-Hedged); Emerging Markets Bonds – JPM EMBI Global Diversified Bond Index Unhedged (CAD); U.S. High Yield Bonds – Barclays Corporate High Yield Unhedged (CAD); Canadian Stocks – S&P/TSX Composite Total Return; U.S. Stocks – S&P 500 Total Return (CAD); International Stocks – MSCI EAFE Net Index (CAD); Emerging Markets Stocks – MSCI Emerging Markets Net Index (CAD).

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