Long-Term Strategic Asset Allocation
Helping Investors Navigate The Markets And Remain Optimally Allocated, 2013

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Objective: to provide a stable long-term asset allocation strategy that responds to the individual investor's objectives and risk tolerance – discounting short-term market gyrations.

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Highlights
- Our Long-Term Strategic Asset Allocation model for 2013 suggests a five percent shift from bonds to cash for the Income and Growth profile. This is due to the narrowing yield spread between bonds and cash, which is currently at 1.2 percent, compared to 1.5 percent at the start of 2011.

- We believe that the eventual outcome of the significant monetary stimulus and low interest rate environment will be higher inflation and interest rates than we have seen in the past decade.

- We believe that the eventual increase in interest rates will be gradual rather than sudden.

- Bonds remain an important part of a well-diversified portfolio, as they can help offset the risks inherent in equity returns. Investors who are concerned about the impact of rising rates on their bond holdings can increase their holdings in corporate bonds and maintain a shorter duration.

- It is the length of time in the market that contributes to success, not timing it.

- Changing a long-term allocation to cater to short-term volatility or chasing recent winners may prevent investors from reaching their long-term financial goals.

- An investment portfolio's risk/return profile can be improved by an annual review and rebalancing.

- Adding global equities to a Canadian portfolio increases foreign exchange risk over the short-run. However, it has historically enhanced the risk-return tradeoff in the long-run.
Market Recap
In 2012, Canadian Mutual Fund investors pulled approximately $5.2 billion from equity markets and added more than $25 billion to fixed income products, according to the Investment Funds Institute of Canada (IFIC). No doubt, some of these investors were still reeling from negative Canadian equity market performance in 2011, and ended up missing out on the positive equity market performance in 2012. This is precisely why we recommend that investors adhere to their long-term strategic asset allocation. Long-term experience has taught us that discipline helps investors meet their financial goals.

Major equity markets produced positive returns in 2012. Global equities produced a double digit return of 14 percent despite fears related to slow economic growth. Domestic equities produced a positive return but underperformed global equities because of Canada’s high concentration in material and energy stocks. The S&P/TSX Material and Energy sectors produced negative returns of -5.7 percent and -0.6 percent, respectively.

Equity Markets’ Performance (Canadian Dollars)

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Index</th>
<th>2012 (%)</th>
<th>2011 (%)</th>
<th>2010 (%)</th>
<th>2009 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Equity</td>
<td>S&amp;P/TSX Composite Index</td>
<td>7.2</td>
<td>-8.7</td>
<td>17.6</td>
<td>35.1</td>
</tr>
<tr>
<td>U.S. Equity</td>
<td>S&amp;P 500 Index</td>
<td>13.4</td>
<td>4.6</td>
<td>9.1</td>
<td>7.4</td>
</tr>
<tr>
<td>Global Equity</td>
<td>MSCI World Index</td>
<td>14.0</td>
<td>-2.7</td>
<td>6.5</td>
<td>11.1</td>
</tr>
<tr>
<td>Int’l Equity</td>
<td>MSCI EAFE Index</td>
<td>15.3</td>
<td>-9.6</td>
<td>2.6</td>
<td>12.5</td>
</tr>
</tbody>
</table>

In the Canadian bond market, 10-year government yields decreased by another 14 basis points in 2012, creating positive returns for bonds. Canadian corporate bonds outperformed their government counterparts due to narrowing credit spreads. The DEX Corporate Bond Index returned 6.2 percent, outperforming the DEX Universe Bond Index and the DEX All Government Index, which returned 3.6 percent and 2.7 percent, respectively. All of these indices outperformed the DEX 91-day T-Bill Index, a proxy for cash, which returned a mere 1.0 percent.

Global bonds produced modest returns in 2012 as the average yield on global government bonds changed marginally in 2012. The U.S. investment grade bond market, represented by the Barclays Intermediate Aggregate Bond Index returned 1.9 percent (4.2 percent in U.S. dollars). The Citigroup World BIG Bond Index produced a return of 1.8 percent. Returns for both indices were negatively impacted by Canadian dollar strength.

Investment Outlook
There are many attractive investment opportunities available currently. The global economic recovery continues, with Global central banks, including the Federal Reserve (Fed), playing a significant role. The Fed’s objective, as stated in the Federal Reserve Act, is to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates. Over the past few years, the Fed’s quantitative easing efforts have been effective in supporting investments. Other central banks have also reduced short-term rates to historical lows and employed a quantitative easing strategy to stimulate economic growth. The question is: will the financial markets be less responsive to future quantitative easing?

We believe that the Fed and other central banks are determined to bring the global economy back to its feet. They will continue to offer more stimulus packages, which will potentially keep interest rates at modest levels and will place a floor on equity markets’ performance. We remain confident in the central banks’ policies and in the strength of the U.S. economy. Unlike others, we do not see the rising debt levels as a worrisome signal and we do not believe that the debt to GDP ratio accurately reflects the strength of the U.S. economy.

We believe the Fed will meet its objective of achieving a healthy inflation rate in the range of two to three percent. Of course, the risk that the Fed faces is if the economy goes into a deflationary or disinflationary period similar to that of Japan. In our analysis, we find that given the differences in the population growth and demographics, this is unlikely to happen.

We anticipate long-term interest rates will rise, but that the increase will be gradual rather than a sudden jump. We continue to strongly recommend that investors maintain their fixed income (bond) portfolio allocation. In our view, fixed income is an insurance policy against the risks associated with equities and serves to dampen volatility of an overall portfolio. Investors who are concerned about the impact of rising rates on their bond holdings should increase their holdings in corporate bonds and should maintain a shorter duration. For 2013, our model suggests a five percent shift from bonds to cash for the Income and Growth profile. This is due to the narrowing yield spread between bonds and cash.
In the equity markets, company balance sheet ratios look strong. Since the financial crisis in 2008, companies have strengthened their balance sheets, increased their cash reserves and enhanced their internal risk management processes. Many investors remain fearful of investing in equities. This creates additional opportunity for long-term investors who are currently in the market.

We continue to believe that a disciplined long-term strategic asset allocation strategy is the best approach to use in this uncertain economic environment. In this paper, we expand on the views above and explain how to construct well-diversified portfolios based on risk tolerance and time horizon. We also present the current recommendations of CIBC Asset Management Investment Management Research regarding the appropriate allocations for various investor profiles.

Deflation Or Inflation (Or Hyperinflation)?

In basic terms, deflation is a sustained decline in general prices, inflation is a sustained rise in general prices, and hyperinflation is a sustained and extreme rise in general prices. Hyperinflation, whether as experienced during the last decade in Zimbabwe or in 1920’s Germany, does not necessarily stem from a supply shock or a decline in the availability of resources or commodities, but often from excessive debt and a large and sustained increase in the money supply. Some have warned that the United States may face a period of hyperinflation, but this appears unlikely at this point. Although the United States has substantial debt, the U.S. banks are re-evaluating their lending policies and the capital injected by the government is not making its way into the economy.

We believe that the central banks will continue to deliver stimulus to the economy and will keep interest rates low. They remain focused on their objective to reduce unemployment and minimize the variation associated with inflation, targeting an inflation rate of two percent. A steady inflation of two to three percent is considered healthy for economic growth. Some believe that the economic growth and the financial markets will become immune to the stimulative policy actions, which might result in a low growth environment and a prolonged deflationary period similar to that of Japan. We do not believe that a prolonged deflationary environment will be the outcome.

There are substantial differences between North America and Japan. Firstly, the Japanese population is falling while the populations in the U.S. and Canada are rising. Population growth provides a positive contribution to GDP growth.

Secondly, Japan has a higher percentage of retired people above the age of 65. These retirees can benefit from a deflationary environment, where their savings today are worth more in the future. Also, the total dependency ratio in Japan is much higher than that in North America. The dependency ratio compares the number of people younger than 15 and above 65 to the working age population. The lower the ratio is the more productive the population is, which contributes to higher GDP Growth.

Interestingly, China has the lowest dependency ratio among the G7 countries making its population the most productive among these countries. Canada and the U.S. have growing populations and more productive demographics than Japan. We believe that this significant difference in demographics, combined with the considerable stimulus, make it unlikely for a deflationary environment to emerge.

The other risk is high inflation, which could stem from the very large increase in the money supply, coupled with extremely low interest rates. We believe that the eventual outcome of the central bank stimulus will be higher inflation and interest rates than were experienced in the past decade. However, over the next year or two, we anticipate that the Bank of Canada and the Fed will continue to keep core inflation in the range of two to three percent, unless an unexpected supply shock surfaces to disrupt the economic system. Also, the continuous outsourcing of product manufacturing and services to cheaper international markets may help keep inflation within reasonable limits. Our concerns about high inflation are longer-term in nature and depend on how all of the events unfold, such as stabilizing global economies, economic expansion in emerging countries, ease of credit and lending, increase in banks’ excess reserves and other economic and political issues.
Rising Debt Level – Is It Worrisome?

Dire warnings circulate about rising total debt to GDP ratios in many countries, but how important are these figures? Many investors believe that a Debt to GDP multiple greater than one might indicate a bankruptcy risk. We do not share this view. Consider an individual who takes on a long-term mortgage to buy a property. The value of the mortgage will likely be above her total annual income, similar to how the total debt in the U.S. is above its GDP. The individual is likely capable of meeting her mortgage payment obligations, and would not be considered a bankruptcy risk. As long as the individual is capable of making mortgage payments in a timely manner, then she will have a favourable credit standing regardless of the debt to income ratio.

The U.S. total public debt to GDP ratio is at historical highs, similar to the levels witnessed in 1946. In the 1940s, U.S. GDP continued to grow and so did the S&P 500 Index.

Another important consideration is that debt is not repaid all in one year. It is paid out over many years, and hence, the distribution of the debt payments over time is important. A large debt which is repaid over 30 years is substantially different from one that is repaid over three years. Also, the current low interest rate environment reduces the interest component of the debt, which reduces the total annual repayments. The following chart illustrates the principal and interest debt repayments for the U.S. in the next 10 years.

As the chart above shows, the ratio of the debt repayment in 2013 to GDP is around 20 percent for Canada, the U.S., Japan and Germany. This ratio indicates that these countries are in good credit standing for 2013. However, Spain may be in trouble as its debt repayment in 2013 is about 65 percent of its total GDP. That said, Germany is capable of paying 75 percent of Spain’s debt repayment in 2013, and still having a 2013 debt repayment to GDP ratio of 24 percent.

The fear among investors regarding increasing debt levels is unwarranted. Current debt levels do not suggest lower GDP growth, nor do they suggest financial distress. The total debt to GDP ratio has little significance on the financial strength or credit standing of a country. Therefore, investors should stop worrying about increasing debts levels and the artificial media noise, and should remain focused on achieving their long-term financial goals.

“Be Greedy When Others Are Fearful” – Warren Buffett

Investors are currently bearish, which could be a good thing for long-term investors who are currently invested in the market. Our measure of investor confidence is currently in the bottom quartile of results since 1996. We measure investor confidence by calculating the one year change in the ratio of all IFIC equity assets to all IFIC fixed income assets in the Canadian mutual fund market. This provides us with a quantitative measure of investors’ risk appetite, using the actual buying and selling patterns of retail investor. The greater the growth in the relative allocation to equities, the higher the investor confidence.

Historically, when the confidence ratio is low, the 12-month return of the S&P/TSX in the following year tends to be positive. The chart below plots the one-year rolling returns for the S&P/TSX Composite Index against the one year lagged Investor Confidence ratio. The pattern shows that low Investor Confidence has been followed by strong performance in the equity markets.
For example, investors who entered the equity market in March 2003, when confidence in the equity markets was at its lowest point, gained 38% over the following year. Similarly, those who entered the equity market in February 2009, at the second lowest point for Investor Confidence, enjoyed a 48% growth in their wealth by the end February 2010.

The reverse is also true. Investors who entered the equity market in September of 2000, when confidence in the equity markets was at its peak, wound up losing 33 percent of their wealth by September of 2001.

Based on the current low level of investor confidence, we expect the returns for the equity market in the next year to be positive. However, while we navigate through these times of uncertainty, we must not forget to remain diversified and optimally allocated. Bonds continue to have a significant role to play.

**Bonds are an Important Part of a Well-Diversified Portfolio**

Despite the possibility of a rise in rates in 2013, we believe that bonds remain an important part of a well-diversified portfolio. Bonds help offset the risks inherent in equity returns.

<table>
<thead>
<tr>
<th>Asset Class Returns (Annualized returns)</th>
<th>50s</th>
<th>60s</th>
<th>70s</th>
<th>80s</th>
<th>90s</th>
<th>00s</th>
<th>2010-2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Equities</td>
<td>13.2</td>
<td>10.0</td>
<td>10.4</td>
<td>12.2</td>
<td>10.6</td>
<td>5.6</td>
<td>4.8</td>
</tr>
<tr>
<td>Global Equities</td>
<td>18.6</td>
<td>8.3</td>
<td>7.9</td>
<td>19.9</td>
<td>14.5</td>
<td>-3.0</td>
<td>5.7</td>
</tr>
<tr>
<td>Canadian Bonds</td>
<td>1.6</td>
<td>3.6</td>
<td>6.6</td>
<td>13.2</td>
<td>10.1</td>
<td>6.7</td>
<td>6.6</td>
</tr>
<tr>
<td>Canadian Cash</td>
<td>2.1</td>
<td>4.5</td>
<td>7.3</td>
<td>11.9</td>
<td>6.4</td>
<td>3.3</td>
<td>0.9</td>
</tr>
<tr>
<td>Average Inflation</td>
<td>2.4</td>
<td>2.5</td>
<td>7.4</td>
<td>6.5</td>
<td>2.2</td>
<td>2.1</td>
<td>2.1</td>
</tr>
</tbody>
</table>

The table above demonstrates the importance of diversification and the risks involved in avoiding particular asset classes. In the most recent decade, the returns on Canadian and global equities trailed those of bonds, while in previous decades the opposite was the case. This illustrates that investors should maintain an allocation to both equities and bonds irrespective of the short-term market environment.

**Yield Spreads**

The Canadian government bond yield curve continued to flatten in 2012, with long-term rates falling due to fears of an economic slowdown. The Canadian 10-year government yield spread (the spread between the 10-year and the Canadian T-Bill rates) dropped by 22 basis points in 2012.

As we will detail later, our asset allocation model shows a five percent shift from bonds to cash for the Income and Growth profile. This change in the asset allocation is a result of the narrowing yield spread between bonds and cash. In the long-term, this shift results in marginally enhanced risk-adjusted returns for this profile. Cash is less sensitive to changes in interest rates than bonds, so this shift also reduces the risks associated with rising interest rates.

The following chart shows the changes in the 10-year government yield spreads for the past 7 years.
As the economy recovers, we expect that 10-year yields will rise. However, we also believe that rates will remain modest by historical standards as central banks continue to deliver stimulus. We do not anticipate a big jump in rates, but rather gradual, small increases. Investors who are concerned about the impact of rising rates on their bond holdings should increase their holdings in corporate bonds and maintain a shorter duration in their bond holdings. A shorter duration results in lower sensitivity to movements in interest rates. Corporate bond holdings also generally offer lower interest rate sensitivity as changes in credit spreads are often negatively correlated with changes in T-bill yields. This means that if short term rates rise, credit spreads would tend to narrow, thereby cushioning the negative impact of the rise in yields.

Credit Spreads
Credit spreads versus 10-year government bonds narrowed from around 218 basis points on December 31, 2011 to around 175 basis points on December 31, 2012. This was because yields of BBB-rated corporate bonds declined by more than yields of 10-year government bonds. Although credit spreads have narrowed, there is still room for them to narrow further as the economy continues to recover. In particular, current credit spreads are almost double their levels in 2006, as shown in the following chart.

Since reaching their peak, high yield credit spreads have narrowed as a result of the aggressive fiscal and monetary policies pursued by governments in the developed world. High yield credit spreads narrowed further in 2012. The Canadian high yield spread narrowed by 286 basis points in 2012. At the beginning of 2013, Canadian high yield spreads (577 basis points), are wider than the average spread of 525 basis points over the past 15 years. As such, we believe that high yield bonds may continue to perform well as the global economy continues to improve.

Equities Are Best Over The Long-Term
In periods of strong equity market returns, investors are often tempted to establish very high allocations to equities in an effort to capture further gains. What they forget, however, is that along with the higher potential returns of equities comes higher risk. Instead of chasing returns, investors should maintain a disciplined, long-term asset allocation approach, taking into account their time horizon, liquidity needs and risk tolerance. In particular, a well-diversified portfolio should include an allocation to bonds, as they help to mitigate the risk of the portfolio’s equity holdings.

The equity markets have been volatile and most investors would agree that in the short-term, equities are more volatile than bonds and cash. Investors with very short-term goals should, in general, steer clear of equities and focus on guaranteed investments. However, in the long-run, equities continue to prove themselves as the superior asset class for investment growth. Even the worst 20-year period for equities (annualized return of 6.2 percent), is roughly on par with the average historical performance from the bond market and higher than the effective yield on cash and bonds (0.9 and 2.2 percent, respectively, as at December 31, 2012). History tells us that over the past 63 years, Canadian equities outperformed Canadian bonds in 73.3 percent of the overall periods on a 10-year rolling basis.
Long-Term Strategic Asset Allocation

Remain Diversified And Fully Invested

It is the length of time in the market that contributes to success, not timing it. Investors are advised to set their long-term financial goals and to have a disciplined asset allocation approach, which will help them meet their long-term targets according to their risk profiles. Trying to time the market may prevent investors from achieving their long-term goals. Risk decreases over a longer time horizon, which should encourage patient investors. The probability of realizing a loss diminishes over time. Based on the past 63 years, the probability of a negative return for the Income profile and the Growth profile decreases from 10.5 percent and 18.5 percent respectively on a one-year basis, to 0.4 percent and 7.8 percent on a three-year basis.

Percentage Of Negative Annualized Returns For The Income And Growth Profiles (1950 – 2012)

Source: Bloomberg, CIBC Asset Management

Investing is a long journey and investors should not allow short-term market movements to alter their approach. The next chart shows the return-percentile of the Income and the Growth portfolios from 1950 to 2012. In any short-run period, investors may face higher volatility and potentially negative returns. However, this should not discourage them from investing because volatility tends to decrease in the long-run and returns tend to revert to a narrower band around their long-term average. For example, based on the past 63 years, a negative one year return of -9.2 percent or lower for the Growth portfolio occurred 5 percent of the time. This compares to a negative one year return of -1.8 percent or lower for the Income portfolio with the same observed frequency. The lowest 5 percent return-percentile improves significantly with a longer-time horizon. Over a ten-year period, there has been a 5 percent chance that investors would earn an annualized return of less than 3.3 percent for the Growth portfolio compared to an annualized return of less than 4.4 percent for the Income portfolio. However, the more volatile Growth portfolio has a higher return potential than the Income portfolio as evidenced by its higher average annualized returns across all time periods.

5th, 50th & 95th Annualized Return Percentile Over Time (1950 – 2012)

Source: Bloomberg, CIBC Asset Management
We invest to grow our assets, to either fund future expenses or simply increase our net worth. This raises the question: What is the rate of return that investors require from their portfolios?

A link between the time horizon and the investor risk profile should be established. For example, investors with a five-year time horizon may be comfortable with investing in the Income portfolio. Based on the past 63 years of historical returns, the Income portfolio, as shown in the chart above, has a 50 percent chance of achieving an annualized return of 7.3 percent or better over a five-year period, and only a 5 percent chance of making an annualized return of less than 4.6 percent. If we compare that to the current yield on a Canadian 91-Day T-Bill of 1.0 percent as at December 31, 2012 or even compare it to the five-year government yield, which is 1.6 percent as at the end of December 2012, investors may be better off investing in the Income portfolio, which, over the past 63 years, has never produced a return of less than 1.6 percent.

The above statistics should be a wake up call for risk-averse investors who have their money in saving accounts or cash and are able to sacrifice liquidity for more than five years. Many risk-averse investors unwittingly believe that cash is a safer investment than the Income portfolio on a five-year period. This may not be the case. It is very interesting to note that, in the past 63 years, the Income profile never had an annualized return lower than positive 2.2 percent on a five-year basis, while cash did (for example, 1.1 percent in December 1954). Although the Income profile may have a higher volatility than cash, most of this volatility is upside volatility, which could be viewed as upside return potential. History has taught us that investing in cash over a five-year time horizon as opposed to the Income profile has a high opportunity cost of sacrificing upside return potential with no or little improvement on the downside risk.

We use five investor profiles, intended to serve as guidelines for clients, covering a variety of user groups. They include, from the most conservative to the most aggressive: Capital Preservation, Income, Income and Growth, Growth and Aggressive Growth.

Objectives And Constraints

Many variables need to be considered in determining the appropriate mix of stocks, bonds and cash for each type of investor. These include the investor’s individual goals and risk tolerance, time horizon, financial situation, income needs, liquidity, tax considerations, unique circumstances and attitude toward global investing. For this reason, we recommend investors maintain an updated Investment Policy Statement, which clearly describes these objectives and constraints, and provides a solid foundation for the investment plan. The table at the bottom of the page demonstrates a generic guideline of the main objectives and constraints for each investor profile.

CIBC Wood Gundy has developed the Money Compass® as a tool to help investors find their appropriate investor profile to create an Investment Policy Statement.

Money Compass Questionnaire

Determining the optimal investor profile is one of the most important steps in the long-term strategic asset allocation process. When selecting an appropriate profile, it is necessary for an investor to determine long-term return objectives, as well as risk tolerance, especially given recent market volatility. Importantly, one’s tolerance for risk should not be based on the last 12 months of performance and volatility, but instead on longer periods that better coincide with the investor’s time horizon. Investors need to be comfortable with the volatility of their asset allocation in whatever type of market that awaits. To help with this process, we encourage investors to work together with their advisors using tools such as the CIBC Wood Gundy Money Compass™ Questionnaire. This tool is educational and can help individuals better understand their level of risk tolerance.

Methodology

We have chosen to include three asset classes in our Canadian only model: cash, bonds and equity, using pre-tax monthly data back to 1950. The cash asset class is represented by 91-Day Canadian Government T-Bills. Bonds are represented by Government of Canada bonds with a maturity greater than 10 years until 1980, after which the DEX Bond Universe Index is used. Stock returns are represented by data from the Montreal Exchange and Toronto Stock Exchange Monthly Reviews from 1950 to 1955, followed by the S&P/TSX Composite to the present.

By using 63 years of historical data, we capture a great diversity of economic cycles. This long time period helps mitigate the impact of cycle-specific events such as the 1980s inflation bubble and its impact on bond returns and volatility.

Portfolios were generated for every combination of cash, bonds and equity, rebalanced annually, with a constraint on the maximum cash weighting of 20 percent. Constraint decisions are not taken lightly – they tend to significantly alter the final outcome of the model. We believe the excessively high returns of cash in the 1970s and 1980s are unlikely to occur in the foreseeable future. Amazingly, the best 12-month return for cash was 19.5 percent in the early 1980s, a far cry from today’s 1.0 percent annual yield.

After generating every possible portfolio combination, the standard deviation and expected long-term returns were calculated for each portfolio. The expected long-term return is based on the historical return for equities and the current yields available in the bond and T-bill markets. We believe this provides a more realistic return expectation for the different investor profiles. Only portfolios with the highest return for each incremental level of risk are plotted and linked to form the Efficient Frontier (graph on page 1). The Efficient Frontier is then divided into five equal segments, which correspond to our investor profiles. They are ranked from the most risk averse: Capital Preservation, to the least risk averse: Aggressive Growth. The final asset allocations are a blend of the equity/bond/cash weightings in each segment.

Asset Allocation For Canadian Investors

<table>
<thead>
<tr>
<th>Domestic Assets Only</th>
<th>Cdn Equity (%)</th>
<th>Bonds (%)</th>
<th>Cash (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Preservation</td>
<td>15</td>
<td>65</td>
<td>20</td>
</tr>
<tr>
<td>Income</td>
<td>30</td>
<td>60</td>
<td>10</td>
</tr>
<tr>
<td>Income &amp; Growth</td>
<td>50</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Growth</td>
<td>70</td>
<td>30</td>
<td>0</td>
</tr>
<tr>
<td>Aggressive Growth</td>
<td>90</td>
<td>10</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: CIBC Asset Management

* The recommended time horizon is established using a minimum return of approximately 2 percent per annum, which is the inflation target set by the Bank of Canada.
Adding Global Equity – Advantages

Historically, over the past 63 years, global equities have exhibited lower risk than Canadian equities with better return characteristics. Consequently, adding global equities to a Canadian portfolio has increased the return and lowered the risk (volatility). In fact the optimal (risk minimized) pure equity allocation (no bonds, no cash and no global constraints), over the past 63 years, is 20 percent Canadian equity and 80 percent global equity.

Adding Global Equity – Catering To Canadian Investors

Hinging one’s investment fortunes on foreign countries, in lieu of the home country where the obligations likely exist, may create risks that could come back to hurt the investor. Currency exposure (foreign content) does add foreign exchange fluctuations to the portfolio returns in the short-run. This is the price of global diversification. When determining our global long-term asset allocation profiles, we factored in the foreign exchange risk with respect to the risk and return objective of the investment profile. The rationale behind linking the foreign exchange exposure to the risk profile is that investors in the more aggressive (risky) profiles typically have longer time horizons, lower liquidity concerns and a higher appetite for risk. Foreign exchange becomes a lesser concern with longer time horizons as foreign exchange risk decreases and the benefits from global diversification will probably have a greater impact on the overall performance. The table below quantifies the volatility of the U.S. dollar against the Canadian dollar over different time frames.

Volatility Of The U.S. Dollar Against The Canadian Dollar

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>One year Rolling</td>
<td>5.8</td>
<td>29.0</td>
<td>-19.1</td>
</tr>
<tr>
<td>5 Years Rolling</td>
<td>2.9</td>
<td>4.8</td>
<td>-9.5</td>
</tr>
<tr>
<td>10 Years Rolling</td>
<td>2.0</td>
<td>3.7</td>
<td>-4.8</td>
</tr>
<tr>
<td>20 Years Rolling</td>
<td>0.9</td>
<td>1.8</td>
<td>-1.6</td>
</tr>
</tbody>
</table>

The ranges of the annualized foreign exchange return narrows with a longer-time horizon. It is interesting to note that the annualized return of the U.S. Dollar against the Canadian dollar from January 1961 – December 2012 was only 0.1 percent. The annualized risk, as measured with the standard deviation, decreases from 5.8 percent on a one-year time horizon to 0.9 percent on a twenty-year time horizon.

For the Capital Preservation profile, we allocated only 10 percent to foreign exposure. This profile caters to risk averse investors, who are income oriented and may be older and where their (implicit or explicit) liabilities may be coming due. The foreign currency exposure increases as we move to the right on the efficient frontier curve towards more risky profiles, which usually have longer time horizons. For the Income profile, we allocated 20 percent foreign exchange exposure. The allocation to foreign contents keeps increasing with the increase in the risk appetite of the profile to allow for 60 percent foreign exchange exposure for the Aggressive Growth profile. The Aggressive Growth investors are able to tolerate additional foreign exchange volatility and increase their opportunity set to include global investments (which in turn enhances the overall return of the portfolio, while at the same time decreases risk).

In an effort to address these issues, the following investor profiles combine Canadian and global equities.
Compared to last year’s allocation, our Long-Term Strategic Asset Allocation model for 2013 suggests a five percent shift from bonds to cash for the Income and Growth profile. This is due to the narrowing yield spread between bonds and cash. The yield spread between Canadian bonds and cash is currently 1.3 percent, compared to 2.1 percent in 2010 and 1.5 percent in 2011.

Although the yield on cash is lower than that of bonds, cash has a lower correlation with equities compared to bonds, which helps reduce overall portfolio volatility. Based on data from the past 63 years, the correlation between cash and Canadian equities is -0.061 while the correlation between Canadian bonds and Canadian equities is 0.223. Cash also has a shorter duration than bonds, making it less sensitive to an increase in interest rates, which is beneficial in the current market environment. The model also indicates that a shift to cash of greater than 5 percent would not be optimal, as the low yield on cash (1.0 percent as at the end of December 2012) would likely result in a drag on the performance of the Income and Growth profile.

**Application Of The Asset Allocation Process While Using Managed Money**

The process of categorizing some securities into specific asset classes is not always straightforward. Some managed products, such as mutual funds or independently managed portfolios, will have their own implicit asset allocation. Consider a standard equity mutual fund. While primarily holding equities, this product’s manager will normally maintain an underlying cash position. An investor could unwittingly over-allocate to cash if they purchased this equity mutual fund after having already made their own portfolio’s cash allocation. Too much cash could create a drag on the performance of their asset allocation strategy.

**Asset Allocation Including Global Equities**

<table>
<thead>
<tr>
<th></th>
<th>Global Equity (%)</th>
<th>Cdn Equity (%)</th>
<th>Bonds (%)</th>
<th>Cash (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Preservation</td>
<td>10</td>
<td>5</td>
<td>65</td>
<td>20</td>
</tr>
<tr>
<td>Income</td>
<td>20</td>
<td>15</td>
<td>55</td>
<td>10</td>
</tr>
<tr>
<td>Income &amp; Growth</td>
<td>30</td>
<td>20</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>Growth</td>
<td>45</td>
<td>25</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td>Aggressive Growth</td>
<td>60</td>
<td>30</td>
<td>10</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: CIBC Asset Management

In order to consider the implicit cash position held within managed equity products, we have altered our original asset allocation model. It is widely recognized that the average cash allocation is somewhere in the five to ten-percent range within managed equity products. The current low yield on cash of 1.0 percent, as at December 31, 2012, will create a drag to the overall performance of the asset allocation.

To account for this cash holding and its overall drag effect on performance, we have adjusted some of the asset allocation recommendations in a few of the investor profiles by adding more equities and reducing bond exposure (see table below). Adjustments are highlighted in brackets.

**Asset Allocation For Managed Equity Product Accounts (Mutual Funds, Frontiers, etc.)**

<table>
<thead>
<tr>
<th></th>
<th>Equities (%)</th>
<th>Bonds (%)</th>
<th>Cash (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Preservation</td>
<td>10</td>
<td>5</td>
<td>65</td>
</tr>
<tr>
<td>Income</td>
<td>20</td>
<td>15</td>
<td>55</td>
</tr>
<tr>
<td>Income &amp; Growth</td>
<td>30 (+5)</td>
<td>25 (-5)</td>
<td>40</td>
</tr>
<tr>
<td>Growth</td>
<td>45 (+5)</td>
<td>30 (+5)</td>
<td>10</td>
</tr>
<tr>
<td>Aggressive Growth</td>
<td>60 (-5)</td>
<td>30</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: CIBC Asset Management

Standard equity-based mutual funds and independently managed portfolios represent only one equity/bond product alternative. Investors should also be aware of other types of managed/specialty products when implementing and reviewing their asset allocation strategy. The table below shows the suggested asset allocation classification, and investor profile suitability. These, however, are generic breakdowns, and would be prone to change depending upon each individual product and situation. As such, these suggested classifications should be used only as an example.

**Suggested Classifications For Alternative Asset Classes**

<table>
<thead>
<tr>
<th></th>
<th>Classification Breakdown (%)</th>
<th>Investor Profile Suitability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balanced Mutual Fund</td>
<td>60 Equities 30 Bonds 10 Cash</td>
<td>All Types</td>
</tr>
<tr>
<td>Equity-Hedge Fund</td>
<td>100 Equities</td>
<td>Growth &amp; Aggr. Growth</td>
</tr>
<tr>
<td>Equity Linked Note</td>
<td>30-50 Equities 70-50 Bonds</td>
<td>All Types</td>
</tr>
<tr>
<td>Income Trusts (REITs)</td>
<td>100 Equities</td>
<td>All Types</td>
</tr>
<tr>
<td>High Yield Bonds</td>
<td>100 Equities</td>
<td>All Types</td>
</tr>
<tr>
<td>Commodities</td>
<td>100 Equities</td>
<td>All Types</td>
</tr>
</tbody>
</table>

Source: CIBC Asset Management

**Asset Allocation Recommendations For Canadian Investors**

<table>
<thead>
<tr>
<th></th>
<th>Cdn Equity (%)</th>
<th>Bonds (%)</th>
<th>Cash (%)</th>
<th>Global Equity (%)</th>
<th>Incl. Global (%)</th>
<th>Managed (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Preservation</td>
<td>15</td>
<td>65</td>
<td>20</td>
<td>10</td>
<td>5</td>
<td>65 20</td>
</tr>
<tr>
<td>Income</td>
<td>35</td>
<td>55</td>
<td>10</td>
<td>20</td>
<td>15</td>
<td>55 10</td>
</tr>
<tr>
<td>Income &amp; Growth</td>
<td>50</td>
<td>50</td>
<td>0</td>
<td>30</td>
<td>20</td>
<td>40 10</td>
</tr>
<tr>
<td>Growth</td>
<td>70</td>
<td>30</td>
<td>0</td>
<td>45</td>
<td>25</td>
<td>25 5</td>
</tr>
<tr>
<td>Aggressive Growth</td>
<td>90</td>
<td>10</td>
<td>0</td>
<td>60</td>
<td>30</td>
<td>10 0</td>
</tr>
</tbody>
</table>

Source: CIBC Asset Management
Risk Analysis Of Investor Profiles

Different measurements may be used to quantify risk. There is no preferred method of measuring risk, but combining various risk measurements provides a more comprehensive analysis of the risk characteristics of an investment portfolio.

Standard deviation is one of the most commonly used risk measurements in investment theory. Standard deviation measures the variability around the expected return. The lower the standard deviation, the lower the risk is for the profile.

Variability Around The Expected Return For The Income Profile vs. Aggressive Growth Profile

One problem with the probability of negative returns as a measurement of risk is that it does not address the magnitude of potential loss. A particular investment may have a slim chance of experiencing a loss, but if the loss occurs, it may be larger than the investor can tolerate. The worst annual return is a complementary risk measurement, which captures the magnitude of the downside.

Worst & Best Annual Returns (1950 –2012)

The worst annual return risk approach shows the lowest historical return, which is an important consideration. But the worst return may have occurred under depressed circumstances that could be unlikely to happen again in normal events. Return-percentile is another risk measurement that would combine the probability a scenario’s occurrence with the magnitude of the corresponding return. The 5th percentile shows the lowest 5 percent for the returns. The table below shows the 5th, 50th and 95th annual return percentiles for the profiles from January 1950 – December 2012.
Another risk assessment approach is to test how much time an investment required to regain previous highs after a bear market. In other words, what was the worst peak-to-trough percentage loss for each profile and how long did it take to regain the previous peak?

Worst Loss & Time To Recover To Previous Peak (1950 – 2012)

<table>
<thead>
<tr>
<th>Maximum Loss (%</th>
<th>Max Number of Months to Recover from Trough</th>
<th>Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Preservation</td>
<td>-9.5</td>
<td>14</td>
</tr>
<tr>
<td>Income</td>
<td>-17.3</td>
<td>35</td>
</tr>
<tr>
<td>Income &amp; Growth</td>
<td>-22.2</td>
<td>41</td>
</tr>
<tr>
<td>Growth</td>
<td>-27.8</td>
<td>58</td>
</tr>
<tr>
<td>Aggressive Growth</td>
<td>-37.8</td>
<td>64</td>
</tr>
</tbody>
</table>

Source: CIBC Asset Management

It is interesting to note that, for both the Income and the Income & Growth profiles, the maximum loss did not occur in the same period as the maximum number of months to recover. The maximum loss occurred in the 1970s bear market, while their maximum number of months to recover occurred in the bear market following the bursting of the technology bubble.

A different assessment of recovery time is counting the frequency for one, two or three years for each profile to traverse from peak to trough and back to the original peak again during the past 63 years. Impressively, the most conservative Capital Preservation profile only required a year to recover twice in the last 63 years. On the other hand, Aggressive Growth suffered nine periods that required more than a year to recover, four of which took longer than three years to regain the previous peak.

The risk measures discussed earlier help investors decide on the suitability of each profile. It is clear that, over the long-term, equities outperform bonds and bonds outperform cash. But, this outperformance comes at a cost of higher risk as measured by volatility (standard deviation).

Regardless of the measurement used to quantify risk, higher return still requires the assumption of higher risk.

The five-investor profiles, ranging from Capital Preservation to Aggressive Growth, have incrementally higher levels of expected return and volatility. This distinctly highlights the trade-off between expected profile returns and the assumption of higher risk levels.
To further help illustrate how different asset allocations can alter risk/return parameters, we look at the performance of the different investor profiles during two very different investment environments. The first period is the bull market between October 31, 2002 and September 30, 2007. As the following graph illustrates, the most conservative profile, Capital Preservation, had the lowest cumulative rate of return, at 34.9 percent in the five-year period. As expected, the Aggressive Growth profile recorded the highest rate of cumulative return at 77.6 percent.

During bear markets, it has been possible to help protect an investor’s capital using strategic asset allocation.

The graph above illustrates the performance of each investor profile from October 1, 2007 to March 31, 2009—a deep bear market environment still in fresh memory. Capital Preservation had the highest rate of return at 1.7 percent. As a vivid example of risk and return in action, the investors who had accepted a higher degree of portfolio volatility began to feel the impact. The Aggressive Growth portfolio posted the lowest rate of return at negative 30.9 percent, giving back a large portion of its gains. In contrast, Global and Canadian equities declined by 34.9 percent and 35.2 percent during this period, demonstrating that even a modest 10 percent weighting in bonds can provide some downside protection. It is also worth noting that the period of the bull market, in the example above, was 60 months and is much longer and stronger than the period of the bear market, which was only 18 months.

One risk of using the last bear market as the standard is that all bear markets are different. Fortunately, during the last bear market, bonds continued to increase in value as equities fell. This amplified the benefits of asset allocation. Unfortunately, during some bear or downward markets, bonds and equities did not counteract each other to smooth out a diversified portfolio’s performance.

In 1972, all the investor profiles would have lost money as bonds and equities fell in value. While equities fell more, the bond market was negatively impacted by the high oil prices and the ongoing Vietnam War. Conversely, in the early 1980s near the peak of inflation, bonds performed poorly while equities gained ground.
**Portfolio Rebalancing**

An important consideration is when to rebalance a portfolio back to the targeted long-term asset mix. Markets are volatile and on any given day one asset class will outperform another, altering the portfolio asset allocation. Left unchecked, a portfolio will drift away from its long-term asset allocation, leading to added volatility and risk. But, rebalancing too often, back to the targeted asset allocation, may result in greater transaction costs and tax consequences.

To test the effects of different rebalancing strategies on returns, volatility and turnover, we used the Growth profile of 25 percent Canadian equity, 45 percent Global equity, 25 percent Canadian bonds and 5 percent Cash (25/45/25/5).

"Turnover Caused by Asset Class Rebalancing" is the turnover resulting from a portfolio rebalancing from one asset class to another, such as selling equities to buy bonds. This does not include turnover within any asset class, such as buying one equity and selling another.

In addition to testing periodic rebalancing strategies, such as annual or quarterly, we included strategies that are triggered if the portfolio’s allocation deviates from the original targeted asset allocation by a certain percentage. For example, “15 percent Off Target” strategy would be rebalanced if any of the asset class weighting were 15 percent or more away from the original weighting.

“No Rebalancing” produces the highest return over the long-term. This return, unfortunately, comes with the price of higher volatility (higher standard deviation). As time progresses, the higher performing asset class' relative weight in the portfolio increases (in this case, equities). This portfolio drift comes with costs. First, the volatility of the portfolio is significantly higher compared to the portfolio that is rebalanced on a regular basis. Secondly, as the portfolio drifts to a higher weighting in the outperforming asset class, the portfolio may no longer match the client’s objectives and comfort level of risk. The asset allocation could change...
dramatically over time from the original allocation if not rebalanced. In this case, the original asset allocation of 70 percent equity (Canadian + Global) and 30 percent bonds and cash drifted to 95.1 percent equity and 4.9 percent bonds and cash. This new allocation is more in line with a very aggressive investor compared to the original allocation.

With the “no rebalancing” option ruled out, the question remains “how often to rebalance?” Our study found rebalancing annually provides optimal results. Semi annual and quarterly rebalancing resulted in slightly lower volatility and returns, with significantly higher asset class turnover. Rebalancing when an asset class is 20 percent off its targeted weighting also produced good results in line with annual rebalancing with lower turnover. There are some additional risks with targeted rebalancing strategies. When markets are very volatile, there may be multiple rebalances in one year. This may have an unsettling effect on investors at a time when the markets are disturbing enough on their own. This may also lead to second guessing. Once the 15 percent off target is breached, there may be a desire to wait for 20 percent. Since we prefer a disciplined approach for long-term asset allocation, this second guessing would not be optimal. Based on these risks, we continue to advocate a regular calendar rebalancing.

Selecting which month to perform an annual rebalancing did not materially affect returns over the past 63 years. Annualized performance ranged from 9.59 percent to 9.67 percent depending on which month investors rebalanced. Rebalancing in the late summer or early fall appeared to have marginally better results.

Conclusion

In our view, finding an appropriate asset allocation is essential for investors attempting to attain their long-term financial goals. The trade-off between return and risk must be made to achieve monetary objectives to fund future liabilities while ensuring investors are comfortable with the level of risk/volatility.

Once a long-term strategic asset allocation is decided upon, it should be adhered to despite market fluctuations. Market volatility has a powerful impact on investor sentiment. All too often, investors will want to increase equity weightings at or near a market peak and want to shy away from equities near a market trough. Long-term experience has taught us that discipline is required under such stressful and trying circumstances.

Bonds remain an important part of a well-diversified portfolio, as they can help offset the risks inherent in equity returns. Investors who are concerned about the impact of rising rates on their bond holdings should increase their holdings in corporate bonds and maintain a shorter duration in their bond holdings. A shorter duration results in lower sensitivity to movements in interest rates. Corporate bond holdings also generally offer lower interest rate sensitivity as changes in credit spreads are often negatively correlated with changes in T-bill yields.

We found a portfolio risk/return profile could be improved by an annual review and rebalance. Finally, our historical examination indicates investors can improve their return potential by adding global equities, but in doing so they will face additional risks such as currency fluctuations. We advise investors to adhere to their recommended foreign content based on their time horizon. Human tendency to chase returns and abandon global diversification based on recent performance of the Canadian dollar could hamper long-term returns.