# **Alternative Asset Allocation**

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### **About Bullion Management Group Inc. (BMG)**

BMG was founded by President and CEO Nick Barisheff in 1998.

Nick correctly forecasted a favourable environment for precious metals in the 1990s and beyond, but was unsatisfied with the investment options for individuals interested in buying physical bullion for inclusion in an investment portfolio.

Nick went on to found BMG BullionFund in 1998, the first open-end mutual fund trust in North America that provided investors with a convenient way of holding physical gold, silver and platinum bullion in their investments accounts, while not compromising any of the principles of bullion. Since that time, several other bullion offerings have been added to the BMG product roster.

An authentic bullion investment must provide absolute assurance and complete clarity as to the title, location, and control of the bullion. BMG accomplishes this through its legal structure, which was created over a 3-year period of negotiations with the Ontario Securities Commission. A closed-end fund could have been established in six months, but Nick was determined to create the best possible vehicle for a bullion investment.

BMG purchases only physical bullion with clear and unencumbered title, which is then vaulted in strict accordance with the regulations of the London Bullion Market Association (LBMA). There is absolutely no use of certificates, proxies, derivatives, or any paper gold substitutes.

## **Uncompromising Values in a World of Change**

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# **Executive Summary**

This report studies alternative investments and the impact that these asset classes have had on Canadian investment portfolios from 1972 to 2015 inclusive.

Since 1982 both stocks and bonds have enjoyed a historic bull run. These assets have experienced such consistent growth that the investment industry's status-quo portfolio is a 60% to 40% split between stocks and bonds respectively (the 60/40). Other assets are not seriously considered outside of stocks and bonds, as most money managers have never experienced prolonged bear markets in either asset class.

The underlying force behind the bull markets in stocks and bonds over the last three decades has been decreasing interest rates. Declining interest rates provide three main benefits:

- 1. Bond investors benefit from increasing bond prices
- 2. Stocks benefit from companies that can continually borrow cheaper credit to expand their earnings
- 3. Financial markets benefit by allowing greater borrowing and speculation

Now that most advanced economies have reached the lower limits of interest rate policy, stocks and bonds face new challenges that may surprise even seasoned investors. An increasing number of wealth advisors are starting to look at alternatives to enhance their 60/40 allocations.

While most money managers focus on only two asset classes (stocks and bonds), there are in fact five other asset classes available to investors:

- 1. Real estate
- 2. Precious metal
- 3. Commodities
- 4. Cash
- 5. Collectibles

At present, there are no convenient methods of allocating commodities or collectibles to a portfolio in a tangible manner. These asset classes are therefore omitted from this report.

## The following indexes are used for each asset class in this report:

- Stocks TSE/TSX
- **Bonds** Canadian federal government 10-year Treasuries
- Gold Spot price of gold bullion in Canadian dollars (CAD)
- **REITs** NAREIT priced in CAD
- Cash Canadian federal government 3-month T-Bills

Most diversification reports limit the scope of study to sectors instead of asset classes. Money managers believe they are diversified because they invest in different sectors within stocks and bonds. One of the best examples is that of gold mining stocks in the place of gold bullion. Gold miners are highly correlated to the stock market they trade on, especially during market downturns. Investing outside of stocks and bonds provide true diversification, because there is low correlation between asset classes as compared to sectors within an asset class.

Greater diversification combined with regular rebalancing provides better returns while lowering volatility in a typical portfolio. Most wealth advisors believe they need a large allocation to stocks to provide growth, but this report will show that even during the great bull run from 1982 to 2015, a lower allocation to stocks and bonds, and a subsequent position in alternative asset classes actually enhanced returns while decreasing volatility and limiting downside risk.

Investing in alternative assets also provides greater portfolio security due to protection from systemic risk. An event that is detrimental for one asset class may be beneficial for another asset class.

Everyone has heard of 'not putting all your eggs in one basket.' While most investors have two baskets (stocks and bonds), more baskets (different asset classes) offer greater benefits. This report will prove beyond any doubt that diversifying outside of stocks and bonds provides greater portfolio performance while increasing overall security.

## Introduction

The starting point for most investors seeking a balanced approach is the fabled 60/40 portfolio. Stocks and bonds have been in a bull market for so long (three decades and counting) that most investment professionals scoff at the idea that these assets will ever fail to deliver.

This great bull market run has lulled many investors into a false sense of diversification. Diversifying *within* an asset class is not the same as diversifying *with* different asset classes, for obvious reasons.

Over-concentration in an asset class carries concentration risk. If circumstances change, the environment for an asset class may change affecting all sectors within the asset class. Declining interest rates, financial engineering, and industry deregulation have provided a significant tailwind that allowed both stocks and bonds to flourish for over 30 years. If these factors change, stocks and/or bonds may experience difficulty.

Prudent wealth management should dictate greater diversification into assets that behave differently from one another. Ideally, growth assets that move in opposite directions during times of stress provide the greatest degree of security in a constantly changing world.

### Asset class versus sector

It is critical to understand the difference between an asset class and a sector. An asset class is a broad category of similar investments. A sector is a specific group of investments within an asset class. For example, stocks are an asset class, while sub-categories like financials, technology, and consumer staples are sectors of the stock market.

Gold bullion and gold mining stocks are a classic example that investors routinely substitute for one another. The problem with this paradigm will be demonstrated later.

This report will study five asset classes:

- 1. Stocks<sup>ii</sup>
- 2. Bonds
- 3. Gold
- 4. Real estate<sup>iii</sup>
- 5. Cash

Table 1 below reflects the returns for each asset class used in generating the results for this report. All figures are converted to and calculated in Canadian dollars (CAD).

STC	OCKS
TSE/TSX	
INCL DIV	
1972	27.4%
1973	0.3%
1974	-25.9%
1975	18.5%
1976	11.0%
1977	10.7%
1978	29.7%
1979	44.8%
1980	30.1%
1981	-10.2%
1982	5.5%
1983	35.5%
1984	-2.4%
1985	25.1%
1986	9.0%
1987	5.9%
1988	11.1%
1989	21.4%
1990	-14.8%
1991	12.0%
1992	-1.4%
1993	32.5%
1994	-0.2%
1995	14.5%
1996	28.3%
1997	15.0%
1998	-1.6%
1999	31.7%
2000	7.4%
2000	-12.6%
2001	-12.4%
2002	26.7%
2003	14.5%
2004	Committee and the last of the
	24.1%
2006	17.3%
2007	9.8%
2008	-33.0%
2009	35.1%
2010	17.6%
2011	-8.7%
2012	7.2%
2013	13.0%
2014	10.6%
2015	-8.3%

When these performance numbers are depicted in a table format (Figure 1), it becomes apparent that asset classes have different performance rankings almost every year.



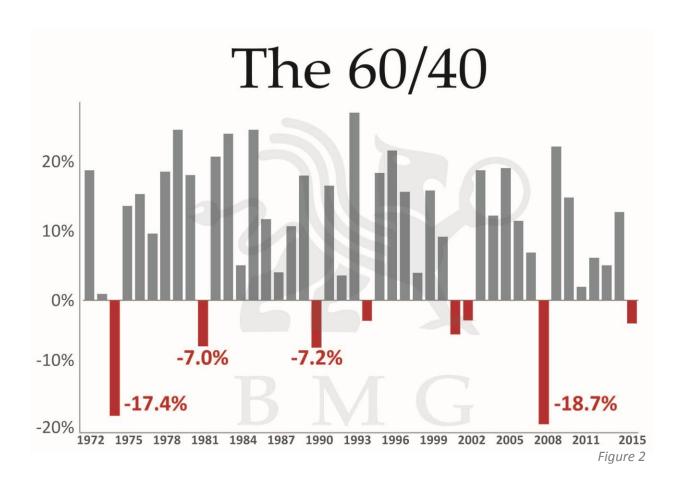
It is important to have proper diversification within each asset class. For example, stocks must have exposure to different sectors and different geographical regions. Bonds must have exposure to different issuers (corporate vs government) and different geographical regions.

The most important concept when thinking of sectors and asset classes is that sector diversification, while important, is not a substitution for asset class diversification.

### The fabled 60/40

The 60/40 has become so commonplace that it is generally taken for granted that it represents a diversified portfolio. An 'aggressive' investor may have an 80/20 allocation all the way up to 100% stocks. A 'conservative' investor may have a 30/70 allocation all the way up to 100% bonds. But in general, the 60/40 is the go-to portfolio for most balanced approaches.

Since 1972 the 60/40 has done a respectable job in terms of risk and return. Keep in mind, however, that these two assets have enjoyed an extremely favourable environment since 1982.



As shown in Figure 2, the  $60/40^{iv}$  has experienced eight years of negative returns. The annualized return from 1972 to 2015 was 9.85%, and had the following annual risk metrics: standard deviation 11.4%, Sharpe Ratio<sup>v</sup> 0.83, Sortino Ratio<sup>vi</sup> 1.12, and a maximum draw-down of -18.7%.

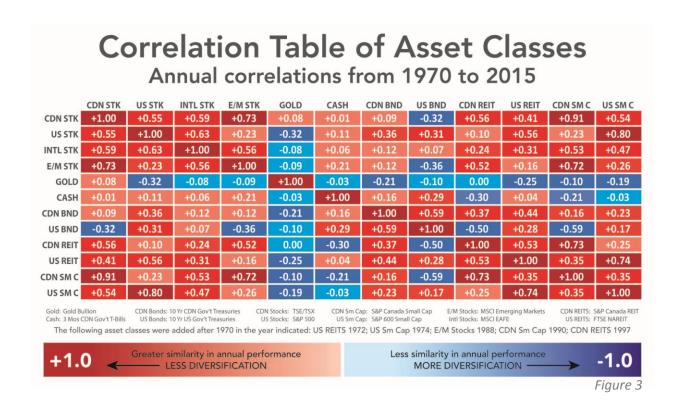
Compared to the stock market (annual standard deviation 17.1%, Sharpe Ratio 0.57, Sortino Ratio 0.72, and a maximum draw-down of -33.0%), the 60/40 offers a lower volatility approach, because bonds are providing some diversification. Using this same logic raises the question of what further asset class diversification does to portfolio performance.

### **Correlation and Diversification**

Correlation is measured on a scale of -1.0 to 1.0. A measurement of 1.0 means the assets are perfectly positively correlated and have the exact same volatility at all times. A measurement of -1.0 means the assets are perfectly negatively correlated and move in opposite directions at all times.

The more negative the measurement, the greater the negative correlation and the greater the diversification.

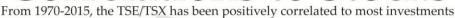
As illustrated in Figure 3, gold bullion is the most negatively correlated financial asset. Canadian stocks are the most positively correlated asset class.

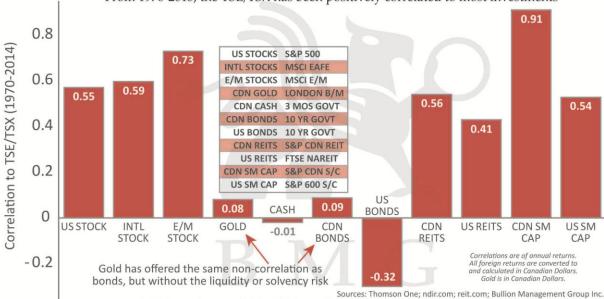


charted in

To emphasize the difference of correlation, the correlations of stocks and gold are charted in Figures 4 and 5 below.

# Correlations to Stocks



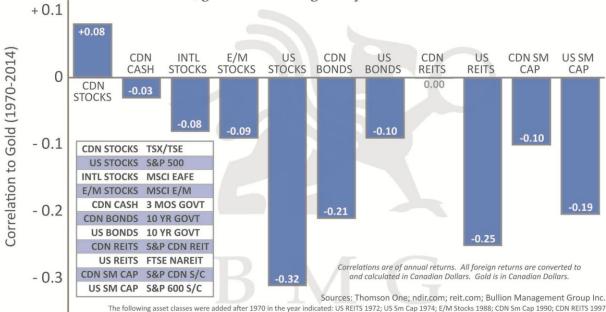


Sources: Thomson One; ndir.com; reit.com; Bullion Management Group Inc.
The following asset classes were added after 1970 in the year indicated: US REITS 1972; US Sm Cap 1974; E/M Stocks 1988; CDN Sm Cap 1990; CDN REITS 1997

Figure 4

# Correlations to Gold

From 1970-2015, gold has been negatively correlated to most investments



Fiaure 5

Gold's long-term negative correlation is impressive, but of even greater importance is the role gold provides during times of stress. Figure 6 shows gold's performance during a stock market crash or correction.

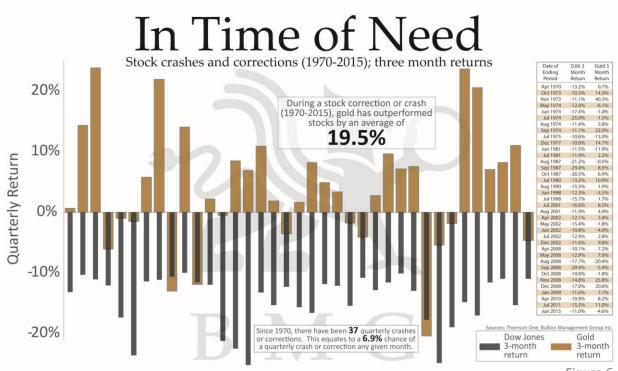
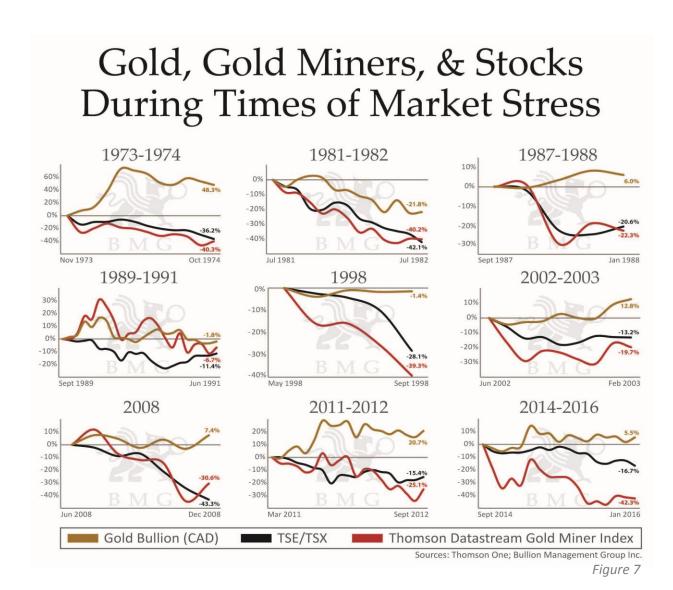


Figure 6

During any 3-month period of any stock loss greater than 10%, gold on average provided a return of 19.5%. This negative correlation combined with gold's annualized return of 8.3% since 1972 make gold bullion an ideal candidate for diversification.

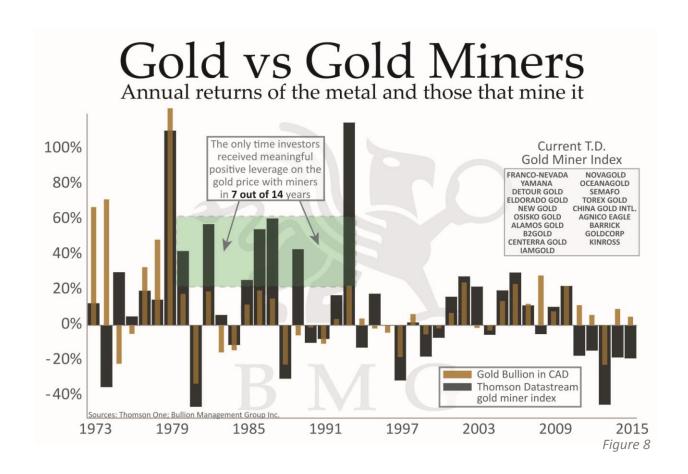
# **Gold Mining Stocks vs Gold Bullion**

Many investors purchase gold mining stocks because they believe the miners behave like gold bullion and will protect investors during a market meltdown. Looking at the numbers for the past four decades reveals a different picture (Figure 7).



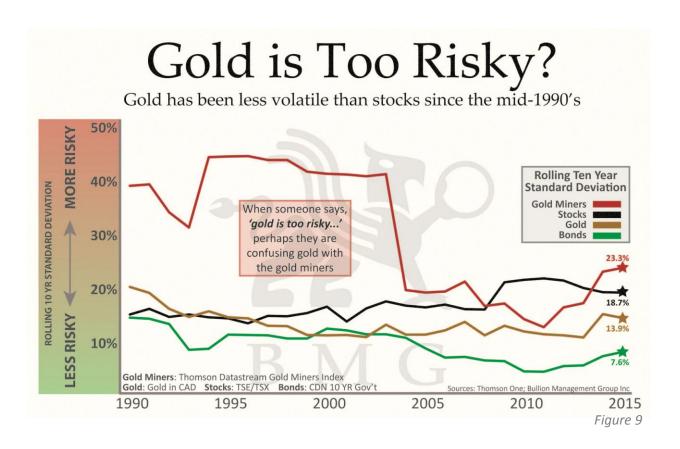
If mining stocks do not provide protection during a crash or correction, at least investors can take solace in knowing that miners provide significant leverage on the price of gold. Unfortunately, the leverage is largely negative. This has the impact of magnifying losses during downward movements in the gold price, and receiving little premium on the upside of the gold price.

This is somewhat of a raw deal for investors, as they are assuming much greater risk for very little chance of out-performance. Impeccable timing is required to out-perform the underlying bullion, something most investors are not capable of achieving on a consistent basis.



Gold mining stocks have rarely outperformed gold bullion on an annual basis (Figure 8). The only semi-consistent period was the 1980s, and it happened only half the time. Gold miner positive leverage can happen in the short-term, as it did in early 2016 when gold miners doubled. But these events happen so quickly that most investors do not have enough time to react. For long-term investors, gold bullion is the better choice, both in terms of risk and return.

Gold bullion has the reputation of being risky. This perception is probably due to the volatility of the gold mining stocks, not the volatility of bullion. When the standard deviation of bullion is compared that of the miners, it is easy to understand why people make this false assumption. As shown below (Figure 9), gold bullion is not only less volatile than the miners, it is less volatile than the overall stock market.



Negative correlation and moderate volatility metrics make gold bullion an ideal holding in a portfolio. Gold is a growth asset, with a compounded growth rate of 8.3% per year since 1972. The long-term standard deviation (since 1972) of gold bullion is elevated at 27.9%, but this number is artificially high due to the huge upside volatility experienced in the 1970s. If the five best years for gold are eliminated (1979: 123.1%; 1974: 71.5%; 1973: 67.1%; 1978: 48.5%; 1972: 46.0%) the standard deviation decreases from 27.9% to 15.7% - a drop of 43.7% in volatility. This compares to a standard deviation of 15.2% for the TSE/TSX since 1972 (also after the five best years are subtracted).

Gold bullion clearly offers an investor some great benefits. Solid growth with relatively mild volatility (as opposed to gold mining stocks), and excellent negative correlation helps portfolios grow and maintain value during times of economic stress.

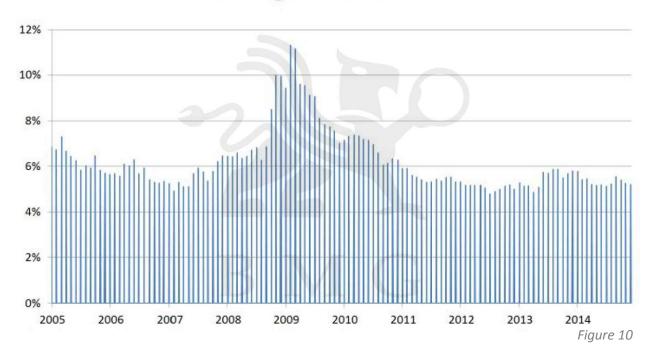
The physical nature of bullion also provides the investor with a hard asset in their portfolio, one that is not dependent on the skills of a manager, and not susceptible to the illiquidity any counterparty. This feature may sound obscure during good economic times, but it may prove to be the ultimate form of wealth preservation in a worst-case scenario.

# **Real Estate Investment Trusts (REITs)**

This study also includes Real Estate in the form of Real Estate Investment Trusts (REITs). This investment vehicle offers the most liquidity in the form closest to actual real estate. Like gold bullion, REITs also provide the investor with a hard asset in their portfolio, and as such has different characteristics than contemporary investments like stocks and bonds.

Almost all REITs pay a regular dividend, because the rental incomes are spun off to investors. During the 2008-2009 financial crisis, anyone who bought REITs at the depressed prices received approximately double the income. RIO CAN is one of Canada's best know REITs, and as Figure 10 shows, the dividend yield spiked during the financial crisis. REITs could keep their payouts constant as their underlying business was largely uninterrupted.

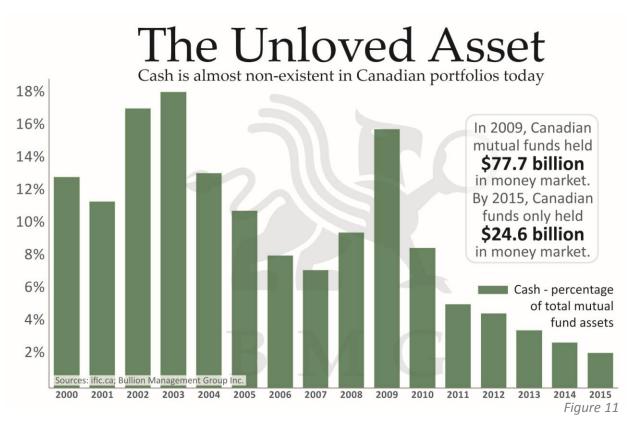
# Moving Dividend Yield



The FTSE NAREIT (converted to CAD) has been the top-performing asset in the BMG Canadian Periodic table. This asset class was the top-performing asset 17 times in the 44 years since 1972. This represents 38.6% of the time that REITs have been the top-performing asset class. Clearly REITs have a place in portfolios due to their top performance and hard asset nature, which provide greater security in a portfolio.

## Cash as an Asset

Cash is largely a forgotten asset these days. Cash and equivalents currently generate little to no interest (and in some countries, negative interest), so there is no incentive to consider them for inclusion in a portfolio. Figure 11 shows how low cash positions have become as an asset class. In Canada, as of 2015, cash made up only 2% of all investment funds, down from almost 18% in 2003.



Cash holdings seem to spike after stock market crashes, as evidenced in Figure 11 (2002-2003, and 2009). This demonstrates how investor emotions interfere with long-term planning. Investors panic when stocks drop and they sell, converting to cash after the fall. This, of course, is the exact opposite of the 'buy low, sell high' strategy, and it causes damage to the long-term performance of a portfolio

As we saw in Figure 10 (Rolling dividend yield), a market drop is the best time to buy stocks because the stock is being bought low, while the dividend yields are artificially high.

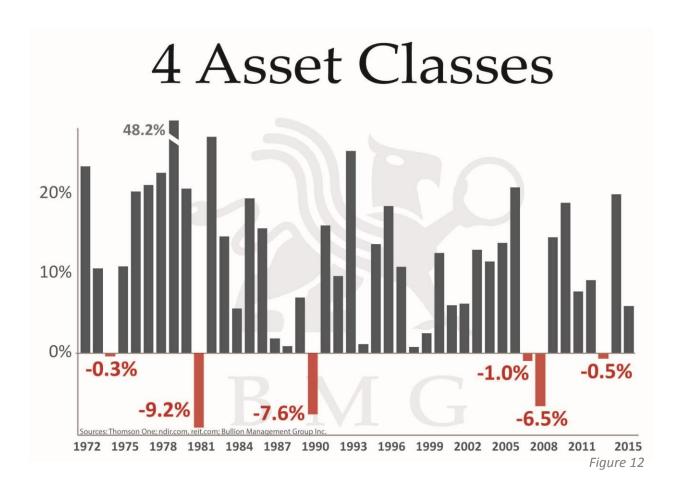
This is the main reason for holding cash as an investment in a portfolio. Cash provides some 'dry powder' for the purchase of undervalued assets, and also provides a storage place for selling overvalued assets and locking in profits.

## The Effect of Alternative Assets on Investment Portfolios

This report has studied the 60/40, and concluded that it has fared well over the last few decades, aided by favourable tailwinds. This report has also made a compelling case for alternative assets based on their own merits. But what effect do these alternative assets have on the 60/40 during this same time period?

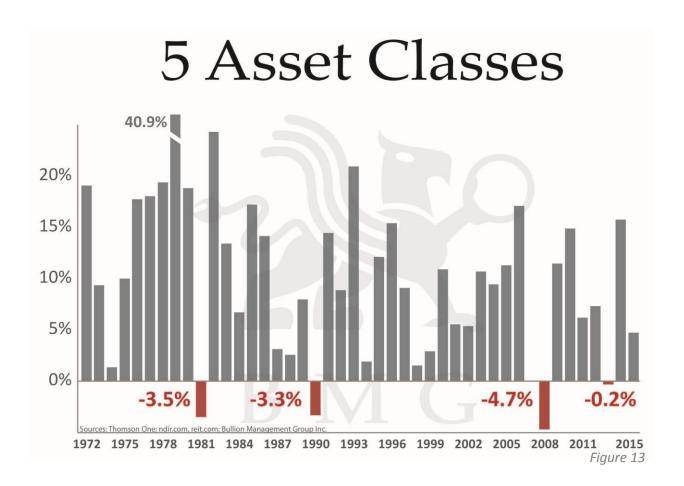
As indicated earlier in Figure 2, the 60/40 offers decent performance but with limited downside protection. The annualized return of the 60/40 from 1972 to 2015 was 9.85%. vii

When the number of asset classes is expanded from two to four viii (to include gold and real estate), the annualized return increases to 10.74%. An increase of 0.89% may not sound like much, but when it is compounded over 44 years, an original investment of \$10,000 in 1972 is worth \$888,400 with four asset classes, instead of only \$625,000 with the 60/40 over the same time period.



Volatility is reduced and returns are improved by expanding the number of asset classes. This is equivalent to 'having your cake, and eating it too.' As shown in Figure 12 above, the maximum drawdown is reduced from -18.7% in the 60/40 to -9.2% in the four asset-class portfolio – a decrease of over 50%. The standard deviation, the Sharpe Ratio, and the Sortino Ratio all improved as well.

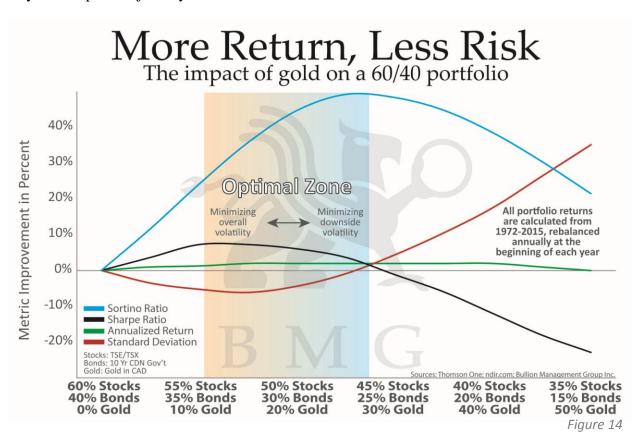
When the four asset-class portfolio is expanded to five assets<sup>ix</sup> (to include cash), the results are almost difficult to believe. In the 44 years since 1972, a five asset-class portfolio only had four negative years, with the largest loss being only -4.7%. All risk metrics show huge improvements (summarized in Table 2 below). Perhaps the most incredible feature of the five asset-class portfolio is that it has almost the exact same return as the 60/40 (the five asset-class portfolio outperformed the 60/40 by 0.1% annualized). Therefore, an investor makes no sacrifice in lowering their volatility.



Compared to the 60/40, the standard deviation of the five asset-class portfolio decreased from 11.4% to 8.6% (a 24.6% improvement in general volatility), the Sharpe Ratio increased from

0.83 to 1.08 (a 30.1% improvement in portfolio efficiency), and the Sortino Ratio increased from 1.12 to 2.69 (a 140.2% improvement in downside risk and volatility).

If gold's impact on the 60/40 is to be studied in isolation, one can see that gold is a significant contributor to the improvements in risk metrics and return. As shown in Figure 14, the optimal zone of gold in a Canadian portfolio (as measured from 1972-2015) is 10% to 25%. This is an easy first step in the journey to alternative asset diversification.



# **Portfolio Comparison Summary**

	Annualized Return	Standard Deviation	Sharpe Ratio	Sortino Ratio	Maximum Drawdown	Negative Years
The 60/40 (2 Assets)	9.85%	11.4%	0.83	1.12	-18.7%	8
4 Assets	10.74%	10.6%	0.97	2.11	-9.2%	6
5 Assets	9.95%	8.6%	1.08	2.69	-4.7%	4

Table 2

## **Conclusion**

This report set out to investigate alternative assets and their effect on the traditional Canadian portfolio. It has been demonstrated that gold bullion (as opposed to gold miners) offers the greatest negative correlation among financial assets classes. This is especially true during times of stock market stress.

The four asset-class portfolio (stocks, bonds, gold, and real estate) has greater returns compared to the 60/40 portfolio, while having moderately lower volatility. The five asset-class portfolio (stocks, bonds, gold, real estate, and cash) has almost the same return as the 60/40 portfolio, with a substantial decrease in volatility. The four asset-class portfolio would be best suited for an investor seeking growth with less volatility, while the five asset-class portfolio would be best suited for an investor seeking capital preservation with some growth.

Greater asset class diversification is beneficial for a portfolio. Alternative asset classes provide an 'insurance policy' for the portfolio, without the insurance premium.

Low volatility/low risk with a real return is an investment strategy many baby-boomers are looking for. By the time people have completed their wealth accumulation, most investors are concerned more with preserving their wealth than taking risk.

BMG has pioneered a customized Risk and Return Report that demonstrates the effect of gold bullion on a select asset allocation. Simply provide BMG with your allocation (either general terms or specific funds) and a custom report will be generated, showing the impact of gold bullion on both risk and return over the past 10 years.

Please feel free to contact BMG today at 905-474-1001 or <u>info@bmgbullion.com</u> today for your customized report.

### **Endnotes**

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#### Disclaimer

BMG Funds are exposed to various risks. Please refer to the BMG Funds prospectus for a complete list and description of these risks.

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<sup>1972</sup> was chosen as the starting point because this was the first year that gold traded freely and provided a nominal rate of return.

Stock returns include the annual dividend yield.

Due to the lack of Canadian REITs up until the 1990's, the FTSE NAREIT is used and coverted to Canadian dollars (CAD).

 $<sup>^{\</sup>text{iv}}$  The 60/40 in this report is rebalanced annually on January  $1^{\text{st}}$ 

<sup>&</sup>lt;sup>v</sup> This report uses a risk-free rate of 1.0% in calculating the Sharpe Ratio

vi This report uses a risk-free rate of 1.0% and minimum portfolio return of 4.0% in calculating the Sortino Ratio

vii All portfolio returns in this report are gross of fees and taxes

The four asset class portfolio allocation is 25% per each asset class (stocks, bonds gold, and real estate), rebalanced annually on January first of each year.

The five asset class portfolio allocation is 20% per each asset class (stocks, bonds gold, real estate and cash), rebalanced annually on January first of each year.