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Taking Stock: Are Real Returns Truly Real?

By Nino Boezio

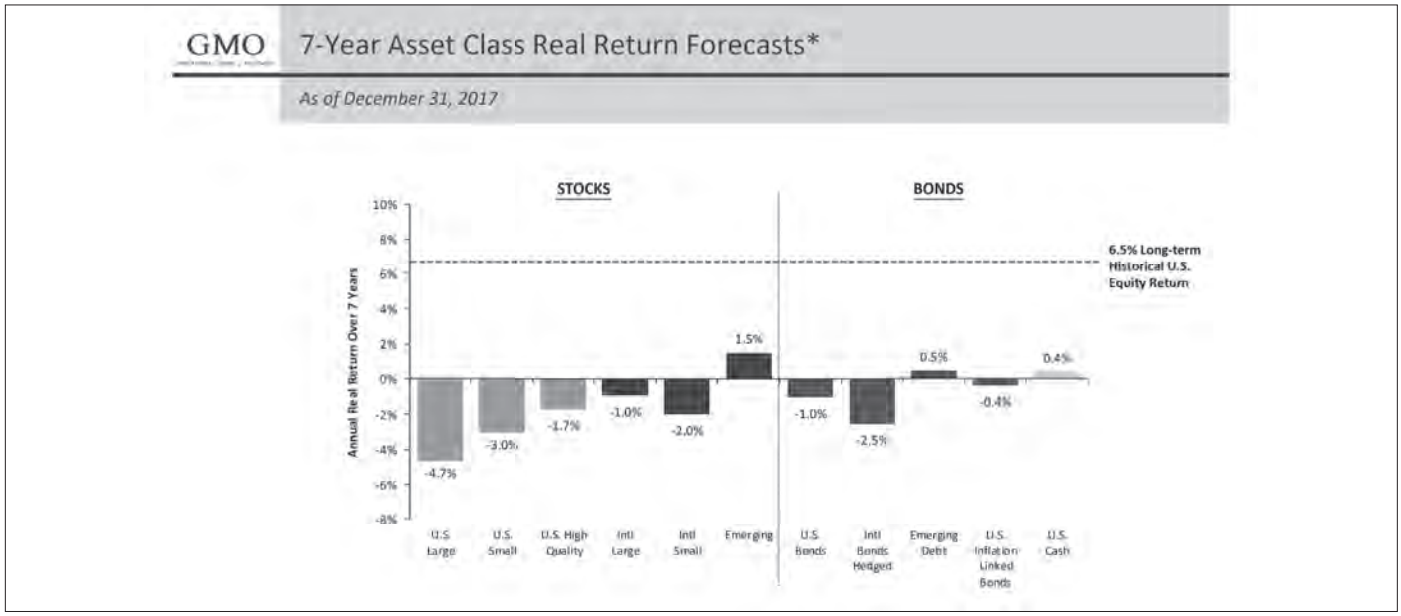
Like many practitioners, I have been grappling with the concept of real rates of return. With the current environment of low interest rates, many fixed income investments, after discounting for inflation, currently provide a negative or very low yield. Retail investors who do settle for that low yield, and hold bonds to maturity, will likely not achieve a rate a return even close to the rate of inflation.

Meanwhile, most other non-bond asset classes have provided attractive returns since the global financial crisis of 2008–2009. Of course, central bank policy (at least in part) can be blamed. The low interest rate "easy money" environment promoted by central banks, has produced "bond refugees" who have fled from short-term cash equivalents and fixed income and have gone elsewhere, hoping to achieve better performance. They seek higher returns in asset classes such as equities, real estate, infrastructure and private equity.

According to Investopedia[1], the definition of real rate of return is "the annual percentage return realized on an investment, which is adjusted for changes in prices due to inflation or other external effects. This method expresses the nominal rate of return in real terms, which keeps the purchasing power of a given level of capital constant over time. Adjusting the nominal return to compensate for factors such as inflation allows you to determine how much of your nominal return is actually real return."

Applying this definition, we have had very good rates of real return for most asset classes over the past several years (in fact, in many cases, rather attractive returns every year since the global financial crisis). Interestingly, we have had good returns even with fixed income, partly arising from the unrealized gains in bond values generated by interest rates drifting lower.

In talking to investment managers, virtually all agree that most, if not all, asset classes are expensive today (some may even claim that certain asset classes appear to be in a bubble). But they may also like to claim that they will deliver returns better than their peers if asset classes do begin to deflate, because they have bought the most attractive securities, have the highest quality research, find the best deals and have the smartest people. They do not want to pare back their portfolios in many cases, since their clients will not want to see that happen, and this behavior of "lightening up" on exposure also smacks of market timing. Also how can they justify charging a certain level of fees if they move to something safer than cash? Granted, I understand the dilemma. Many asset classes



Source: GMO

**The chart represents local, real return forecasts for several asset classes and not for any GMO fund or strategy. These forecasts are forward-looking statements based upon the reasonable beliefs of GMO and are not a guarantee of future performance. Forward-looking statements speak only as of the date they are made, and GMO assumes no duty to and does not undertake to update forward-looking statements. Forward-looking statement are subject to numerous assumptions, risks, and uncertainties, which change over time. Actual results may differ materially from those anticipated in forward-looking statements. U.S. inflation is assumed to mean revert to long-term inflation of 2.2% over 15 years.*

continue to appreciate despite high valuations, and market timing is very difficult. But one thing is for certain, real return expectations are not at levels we used to see.

In the preceding chart, graciously supplied by GMO LLC, we see a negative forecast for real rates of return for a range of U.S. and non-U.S. asset classes, much lower than what the firm views as the long-term historical U.S. equity real return.

The preceding chart is not atypical of what other investment managers may anticipate in terms of average future return over a similar period, even though some sort of decline may not be currently seen as imminent. Another author wrote[2]: "… our long-term valuation models estimate that equities will provide a return of less than 2 percent per annum over the next 10 years, which is less than the expected return of the safe-haven 10-year U.S. Treasury bond. In our view, the historic 4.5 percent risk premium between equities and U.S. Treasuries is now negative because of the $10.5 trillion of financial assets bought by the central banks over the past 8 years."

The general mood in the investment industry, from what I can gauge, seems to be that we may still see additional gains within the next one to two years (despite asset classes being expensive) even though the mathematics suggest that we are already on borrowed time. Such a positive view is being supported by arguing that the fundamentals and the underlying healthy economic environment will preclude the possibility of any major market decline, and history backs up this claim.

RISK PREMIUM

Considering the risk premium adds another twist. Going back to Investopedia[3], "A risk premium is the return in excess of the risk-free rate of return an investment is expected to yield; an asset's risk premium is a form of compensation for investors who tolerate the extra risk, compared to that of a risk-free asset, in a given investment."

In looking at the following table provided in a Canadian Institute of Actuaries presentation in 2016[4], even the risk premium can be called into question.

What happened to the risk premium?

	Length of Period Ending January 1, 2016				
	1 year	5 years	10 years	25 years	50 years
Total Fund Return[1]	5.4%	8.2%	6.2%	8.6%	8.6%
Bond Return[1,2]	4.8%	6.6%	5.9%	9.0%	8.2%
Gap	**0.6%**	**1.6%**	**0.3%**	**-0.4%**	**0.4%**

1. CIA Report on Canadian Economic Statistics
2. Long Canada Bonds

We note from the chart below that the total fund return (keep in mind these are Canadian statistics), but asset classes aside from fixed income, have not truly delivered exceptional added value performance. The risk premium above fixed income is negligible, and the fund performance is highly dependent upon the underlying fixed income performance.

Considering both the chart below and the preceding chart (that showed negative real rate of return expectations for the next seven years), we are now presented with a dilemma that suggests, that if these analyses are correct, we are getting no risk premium compensation for buying risky assets beyond fixed income.

FORECASTS

When presented with negative real return analyses of real return expectations (or a nominal rate of return for that matter), an organization or pension plan sponsor may not be convinced (or worried) and seek to ignore them, and this may be for good reason. A forecast is just a snapshot, often based on a certain set of beliefs after all. These views can differ based on the varied beliefs among forecasters.

But unfortunately there is also pressure to adopt certain beliefs, because of the investment return goals. A pension plan sponsor may opt for a certain discount rate since that is the rate required in order to meet funding needs. An organization may have disbursement requirements that require a certain level of investment return and income. They each need continued exposure to multiple asset classes that can potentially exceed the rate of inflation, even if it entails more risk.

Such goals and beliefs may require new investment ideas and strategies, and necessitate a refreshed view of the world, which may also push one to be more optimistic. All of this inadvertently may then rest on a real rate of return forecast, which is a lot less tangible than investors want to admit (it can land within a wide range where one choice is as good as another). And then unfortunately, the forecast becomes the "target" for investment performance impacting also the asset allocation strategy, and the level of risk exposure becomes secondary and treated as almost immaterial. This whole process can also work in somewhat of a backward fashion, where the target dictates the assumptions and the risk is not taken too seriously.

We like to try and forecast the future, as this can give us some perspective on what investment returns can look like. Forecasts are not factual, but unfortunately the acceptance of a particular forecast and the rejection of another can become a biased decision. Granted, a forecast may be shot down as just an opinion of the future, if it runs contrary to another more accepted and common point of view. Or an organization supporting a pension plan, may argue that the plan has a very long investment

horizon (so they are investing for the long-term) and thus can sustain a short-term shock. Such a long-term horizon argument may assume that if equities take a fall, they will eventually catch up and outpace bonds in the long-run anyway, and numerous studies can be cited to support this view. But I still cannot say with confidence that this would always be the case, and it is also going to be time or ending point dependent, but I can see how this argument can become put forward by a wide variety of users.

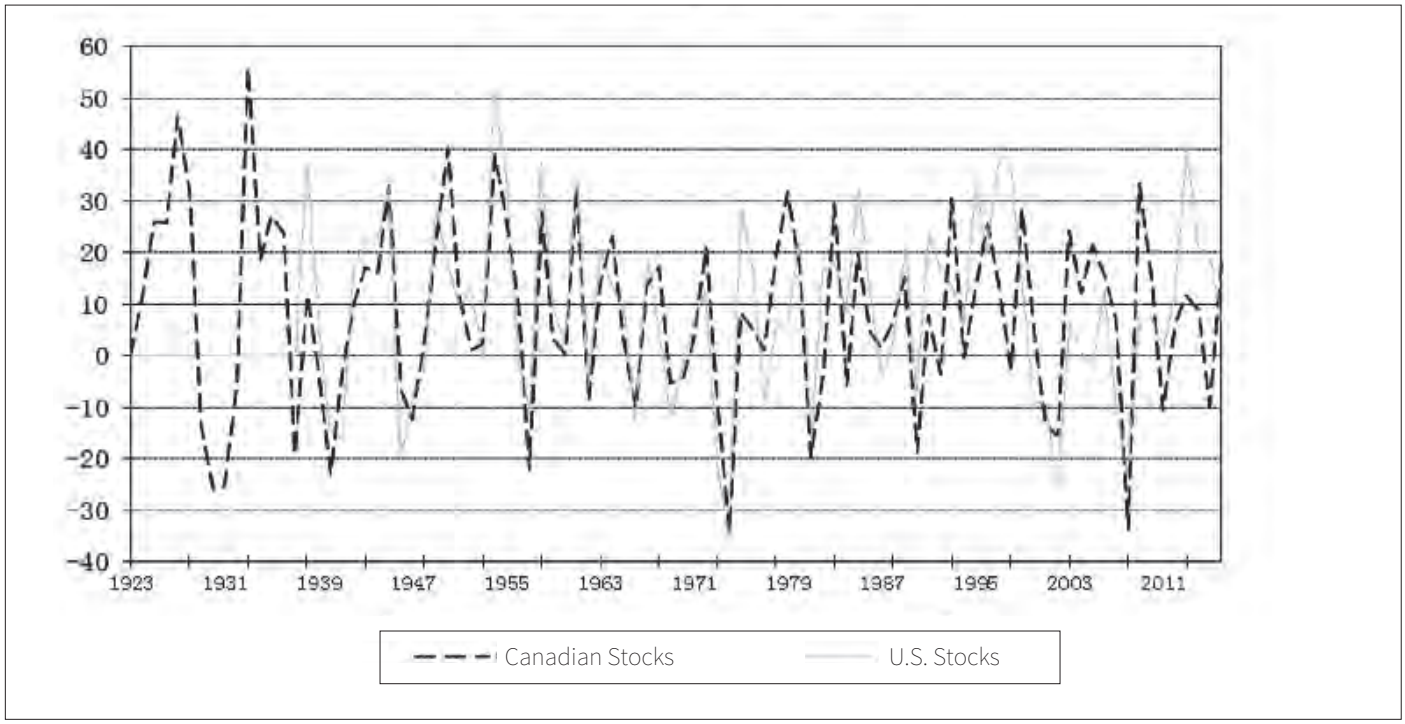
Even if forecasts are not factual, I would still emphasize that nominal returns or real returns are not either. In researching the matter of historical real return expectations and from looking at various studies, I have found quite a bit of dispersion as to where this real rate of return could be, such as for equities. It is also not as simple as subtracting the rate of inflation from a nominal rate (see Figures 1 and 2[5]). We also cannot just take some sort of annual average. It can entail some subjectivity, and we do not necessarily have lots of history on rates of return (at least for my purposes, anyway) even for the longest running asset classes, that would make me feel comfortable.

Fixed income can be considered to provide better information, for at least we know what observed yields are. I have also found it strange how some forecasts may use a long-term real rate of return for fixed income which differs substantially from the observed rate of return, for such a forecast is also assuming a mean reversion is taking place within the expectation. The best expected return for fixed income would arguably be to base it on the current observed yield (less some provision for default)—in fact, the realized returns for bonds will necessarily pull toward this level if held to maturity.

THE INGREDIENTS OF THE REAL RETURN SOUP

When organizations require a prediction of what their investment portfolio will provide in terms of return (say, in the next three to five years), they may simply create an asset forecast using a reset each year of return expectations, i.e., assume no mean reversion even when recent returns have been exceptionally good or poor. Part of the justification may revolve around recent changes in fundamentals; the low level of interest rates;

Figure 1
Canadian and U.S. Stocks



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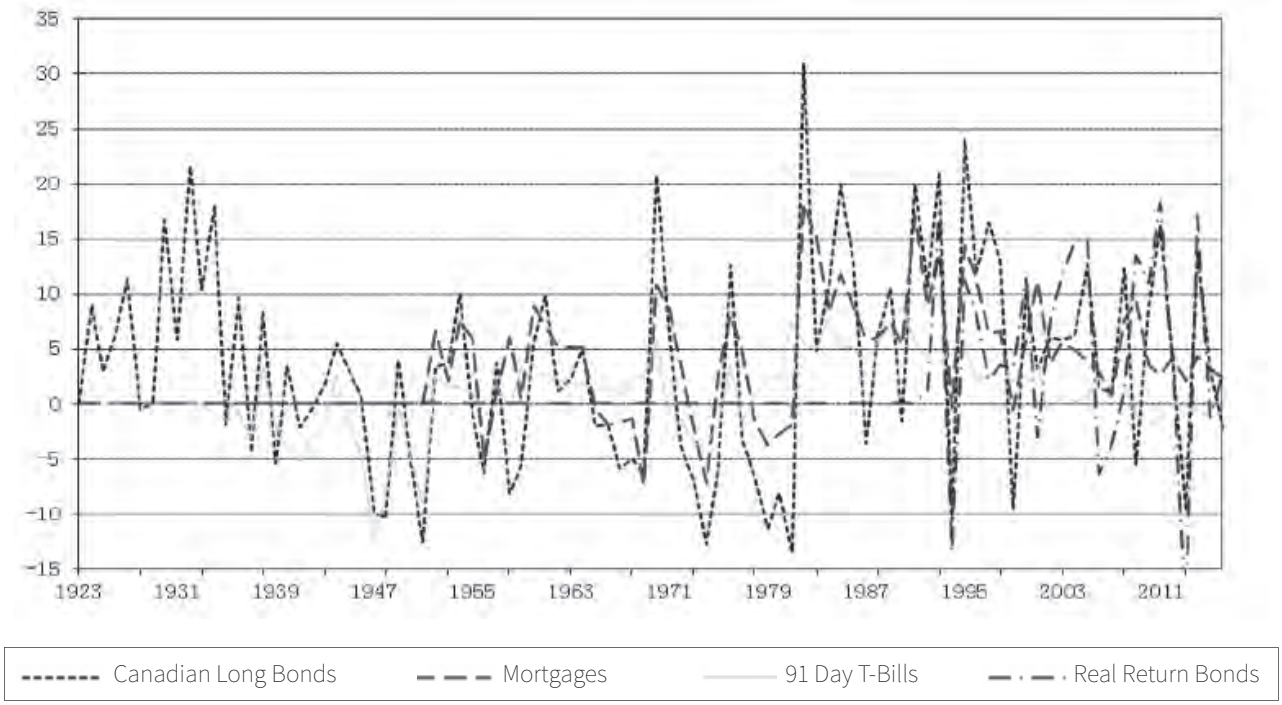
[5]Source: TSX © Copyright 2017. TSX Inc. All Rights Reserved.
[5]Source: Standard & Poor's, a division of The McGraw-Hill Companies, Inc. © Copyright 2017. All Rights Reserved.

Figure 2
Bonds, Mortgages and T-Bills



'Source: Statistics Canada CANSIM Series © Copyright 2017. All Rights Reserved.

political, taxation or economic changes (GDP); changes in national productivity; investor confidence, etc., so that the real or nominal rates are claimed to not be "lofty" expectations after all. Again, this can be hard to challenge given the wide dispersion of opinion regarding what the real return may be. But on the opposite end, we have negative demographics (which I consider to be a major detractor from the real returns we saw in the past), huge levels of sovereign debt (also a major detractor as it represses fiscal spending), excess capacity in certain industry sectors, increasing regulation (again in certain areas, which is deflationary and economically repressive), rising interest rates, the gradual removal of liquidity, potential geopolitical risk, and so on. The long laundry list above just further emphasizes how forecasting real return is a difficult and complicated task, and history may not also be a useful guide, as the present day is different from the past.

REAL RETURN—MARGIN FOR SAFETY AND PORTFOLIO STRATEGY

Perhaps the best conclusion from the above is that we do need to consider a margin of safety and assess whether the portfolio strategy is truly sound. Given that rates of real return are very debateable, we do need to assess that if assets do not perform as expected, what will be the impact on our portfolio. This may require scenario testing using a range of assumptions, both optimistic and pessimistic. How will an organization be impacted if returns are not as robust as currently assumed? Should a margin of safety be incorporated either in the assumptions, or a toning down of the portfolio strategy be made, just in case?

Too many organizations today (just like on many occasions in the past) are thinking alike. They may feel that many asset classes are expensive, but want to ride things out for further gains, and then somehow expect to be the first to exit a market position before conditions become too "dangerous." The portfolio strategy needs to be continually assessed as to whether it is relying on realistic (not optimistic) assumptions, is it riding on a mood of optimism, and are they getting the full story on the financial environment. We have had good investment returns for far too long, and this has given investors too much "unfounded" confidence. With several central banks now on the road (with more to follow) of raising interest rates and removing liquidity, we may no longer have the tide to lift all boats.

CONCLUDING REMARKS

I believe the use of real return today is a real problem. I have seen it used too often as though it is academically supported to land within a certain (rather tight) range, it will play out over the longer-term to a certain level, and there is no mean reversion (i.e., we will never have to give back the better-than-expected returns of the past).

We need to reflect that there is great uncertainty in estimating what a real return would be under even the best of circumstances. Real return is not as real a measure as we may think it is, or in the way some are communicating it. This uncertainty, therefore, requires us to understand that there should be a margin of safety reflected in our portfolio positioning, or that at least, we need to be prepared for a scenario that is not what is expected but should not be a surprise either. ■

This article is the sole opinion of the author and not of the Society of Actuaries or of the Financial Services Commission of Ontario.

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ENDNOTES

1 The definition of real rate of return is found at http://www.investopedia.com/terms/r/realrateofreturn.asp.

2 Manley Jr., J. Lawrence. "The Financial Asset Bubble Is Ending; Time To Re-Examine Your Risk Allocation." Oct 25, 2017 <https://seekingalpha.com/article/4116560-financial-asset-bubble-ending-time-re-examine-risk-allocation?>

3 The definition of risk premium is found at: https://www.investopedia.com/terms/r/riskpremium.asp The definition of real rate of return is found at http://www.investopedia.com/terms/r/realrateofreturn.asp.

4 Hamilton, Malcolm, Doug Chandler and Faisal Siddiqi, "Low Interest Rates and Retirement Savings," CIA webcast, September 2016, page 25.

5 Report on Canadian Economic Statistics 1924–2016, Canadian Institute of Actuaries, July 2017, Page 5, Figure 1B.