CIBC PRIVATE WEALTH

THE STAN CLARK FINANCIAL TEAM'S

PERSPECTIVES

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Asset Allocation

VOLATILITY IS NOT THE SAME AS RISK

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A big part of investing is balancing risk and return. We'd all like to maximize returns, but what amount of risk are we willing to accept? First, let's take a closer look at what *risk* is. Does it mean the same as *volatility*? The Stan Clark Financial Team believes risk and volatility are not the same. I'll explain why.

152-Year Returns

Growth in stocks vs. bonds 1871 to 2022

RETURNS	Real growth of $100,000				
Highest returns	1 Year	5 Years	10 Years	15 Years	20 Years
Stocks	$79,780	$282,608	$397,063	$611,398	$1,092,667
Bonds	$23,764	$92,237	$119,849	$209,486	$295,415
Extra returns for stocks	+$56,016	+$190,371	+$277,213	+$401,913	+$797,252
Median returns					
Stocks	$7,393	$47,101	$112,165	$187,523	$308,811
Bonds	$2,401	$10,023	$19,953	$30,459	$49,129
Extra returns for stocks	+$4,992	+$37,078	+$92,212	+$157,064	+$259,681
RISKS					
Worst returns					
Stocks	-$35,025	-$46,196	-$33,289	-$25,053	$13,418
Bonds	-$13,636	-$37,256	-$30,164	-$34,979	-$29,995
Extra risks for stocks	$21,388	$8,940	$3,125	n/a	n/a
Extra risks for bonds	n/a	n/a	n/a	$9,926	$43,413
Chance of negative return					
Stocks	32%	14%	6%	1%	0%
Bonds	30%	26%	25%	20%	15%
Extra risks for bonds	-2%	12%	20%	19%	15%
Chance of worse returns					
Stocks	37%	26%	11%	3%	1%
Bonds	63%	74%	89%	97%	99%
Extra risks for bonds	26%	47%	78%	94%	98%

Source: Siegel, Shiller, CRSP, Cdn Institute of Acutaries, TSX, Bank of Canada.

The stock market is volatile, to the point where at times it can be uncomfortable. So why don't we just avoid all the volatility by putting everything into bonds? Well, as you'll see in the table below, the average return from bonds over the last 152 years is only 4.5%. What's worse, this only works out to a paltry 2.4% after inflation. Bonds, while less volatile, barely keep up with inflation.

Now let's look at the stock market. Stock returns have averaged 9.5%, which works out to 7.4% after inflation. Again looking at the table below, the average real returns from stocks are three times higher than those of bonds. Yet stocks appear to be riskier than bonds. It seems the tradeoff is that, if you want higher returns, they come with more risk.

However, as noted, we view volatility as being different than risk. You'll see the difference especially when looking at longer time periods. Volatility is just the ups and downs, which, while uncomfortable, eventually cancel out. Risk, on the other hand, is a permanent loss – the worst type of loss, because you can't recover from it. As an example, say you suddenly need all your money. You are forced to sell your stocks at a low. We want to avoid such situations – but we still want higher returns.

152-Year Returns

Growth in stocks vs. bonds 1871 to 2022

	Average Nominal Returns	Average Real* Returns	Real growth from $100,000				
			1 Year	5 Years	10 Years	15 Years	20 Years
Stocks	9.5%	7.4%	$7,393	$47,101	$112,165	$187,523	$308,811
Bonds	4.5%	2.4%	$2,401	$10,023	$19,953	$30,459	$49,129
Inflation	2.1%						
Difference in growth ($)			+$4,992	+$37,078	+$92,212	+$157,064	+$259,681
Difference in growth	2.1x	3.1x	3.1x	4.7x	5.6x	6.2x	6.3x

Source: Siegel, Shiller, CRSP, Cdn Institute of Acutaries, TSX, Bank of Canada.

* "Real" returns are nominal returns after subracting inflation

** "Real growth from $100,000" for 5 to 20 years is the median real growth, showing the effect of compounding.

One way to evaluate risk is to look at the after-inflation, worst-case scenarios. As you can see from the table, over one-year periods stocks can lose a lot more than bonds. In the worst case, stocks lose 35%. In the worst year for bonds, the drop is only 14%.

Interestingly, the chance of losing money in one-year periods between stocks and bonds is about the same: About a third of the time you should expect losses with either.

But, as we increase the number of years you are investing, the risks change. They become more in favour of stocks, less in favour of bonds.

At 10-year periods (see table), the worst-case scenario for stocks and bonds is about the same, with each down about 30%. Compared to one-year periods, this scenario is better for stocks and worse for bonds. The chance of losing money changes, too. Now stocks only lose 6% of the time, whereas bonds still lose about 25% of the time.

At 20-year periods, the worst case for stocks is actually a *profit* of about 13%. But for bonds the worst case stays about the same, at a loss of about 30%. Furthermore, the chance of losing with stocks becomes 0%. In other words, stocks have never been unprofitable over

20-year periods. Bonds, supposedly the "safe" investment, still lose about 15% of the time.

Here are some explanations of why this happens.

Most of short-term stock market volatility is caused by investor psychology. This cycle of investor optimism and pessimism tends to cancel out, resulting in less risk for stocks over time. The real source of stock market returns is company profits, which for the economy as a whole tend to be quite persistent. As company profits accumulate over time, they come to dominate the numbers, resulting in positive long-term returns – even if the end point is in a down period.

In contrast, with bonds the main risk is inflation eating away at low returns. When you lose to inflation, it's a permanent loss; there's no recovery.

To summarize, in the short term, the risks and volatility appear to be higher for stocks and lower for bonds. If you need your money soon, we believe you should have it invested mostly in bonds to help minimize risk. But in the long term, it's the opposite: Risks and volatility appear to be lower for stocks and higher for bonds. If you don't need your money for a long time, that money could go mostly into stocks to maximize returns. The bottom line is this: *When* you need your money should determine *how* you allocate your investments between stocks and bonds.

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