

# A BETTER UNDERSTANDING OF VOLATILITY

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*“The stock market is a device for transferring money from the impatient to the patient.”*

– Warren Buffett

Every investor should establish an investment policy statement that notably establishes the allocation between stocks and fixed income. This policy, which helps us stay the course, is mainly determined by our investment horizon, our financial goals, our specific needs (liquidity and others), and our risk tolerance.

Defining our true risk tolerance is difficult, since we tend to have a higher risk tolerance in good times, such as when the stock market has been rising for a long period of time (now almost 10 years), and tend to have a lower risk tolerance in bad times, such as during or following a stock market correction or crash. This is mainly due to the fact that we as human beings, are more sensitive to recent experiences than we are to experiences that occurred further in the past. Nonetheless, our tolerance to risk will be greater if we familiarize ourselves with the stock market’s history.

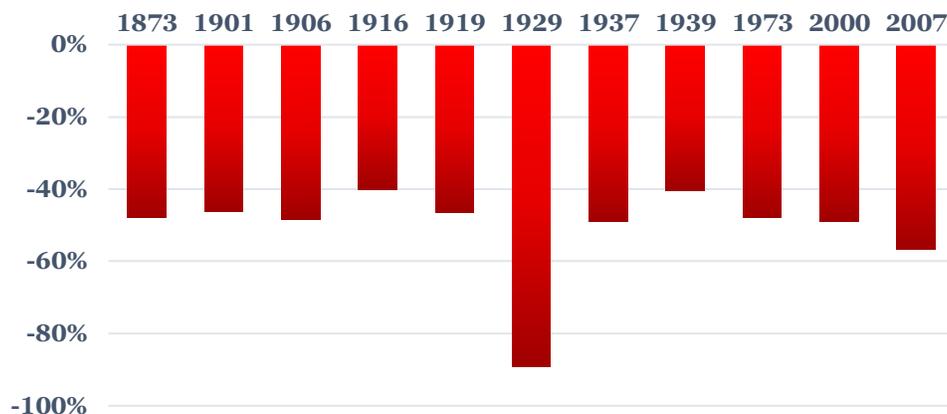
When we talk about risk tolerance, it is important to distinguish between tolerance to volatility and tolerance to a permanent loss of capital. No one wants to permanently lose their investments, but all investors should accept volatility.

It is illusive to try to predict or “time” the markets, the next crash, its duration, or even the best time to enter and exit the stock market. However, in order for us to better prepare ourselves mentally for the ups and downs of our portfolios, it helps to know how the stock market has behaved over the very long term.

Here are four tables amongst others that we provide to our clients when discussing their investment policy statements:

## Table 1

### History of Stock Market Crashes <sup>1</sup>



<sup>1</sup> There are several definitions of a "stock market crash"; we define it as a fall, from peak to trough, of 40% or more. We use the Dow Jones as an approximate representation of the stock market from its beginnings in 1896 up until 1957, after which we use the S&P 500.

**Table 2****Frequency of Stock Market Corrections and Crashes (Dow Jones 1900-August 2018)**

Corrections	Average Frequency	Last Occurrence
> -5%	About three times a year	March 2018
> -10%	About once a year	March 2018
> -15%	About every 2 years	October 2011
> -20%	About every 3.75 years	March 2009
> -40%	About every 12 years	March 2009

The idea here is not about predicting when the next correction will occur, nor is it to have precise historical statistics, but simply to understand that at one moment or another, corrections or crashes do happen, and we must be mentally prepared before they do.

The next table indicates the dollar effect on a \$1M portfolio for various decreases in the stock market according to different asset allocations:

**Table 3**

% in stocks	% in fixed income	-40% (about every 12 years)		-20% (about every 3.75 years)		-15% (about every 2 years)		-10% (about once a year)	
		%	Ending portfolio value	%	Ending portfolio value	%	Ending portfolio value	%	Ending portfolio value
40%	60%	-16%	840 000 \$	-8%	920 000 \$	-6%	940 000 \$	-4%	960 000 \$
60%	40%	-24%	760 000 \$	-12%	880 000 \$	-9%	910 000 \$	-6%	940 000 \$
80%	20%	-32%	680 000 \$	-16%	840 000 \$	-12%	880 000 \$	-8%	920 000 \$

\* We are assuming here that the fixed income portion remains stable during a stock market correction, which is not always the case.

Being able to see in advance the dollar effect for different levels of stock market drops, can help us better live through corrections once they occur. Warren Buffett argues that if a person who invests in the stock market is unable to watch their stock portfolio decrease in value by 50%, they should not be in the stock market at all. Even the most solid companies' stock price can fall abruptly during a panic.

The corollary of this tolerance and patience is a historical annual return on stocks of about 10% (in the United States, excluding fees, taxes, and inflation) during the 20th century; adjusted for an average inflation rate of 3%, the U.S. stock market therefore generated a real return of around 7% (a little less in Canada); bonds returned around 5%, or 2% net of inflation. Fees and taxes are specific to each investor but can erode a good amount of the return if we are not careful. Most of our clients have an investment horizon of 20 to 30 years, with a life expectancy now longer than before (we use an average of 96 years). The *Institut Québécois de Planification Financière* and the *Financial Planning Standards Council* suggest long-term return projections of about 6.5% for stocks, 2.9% for 3-month Canada Treasury bills, 3.9% for fixed income, and a 2% inflation rate. No one can really predict the next 20 to 30 years, but we can argue that bonds could cause a gradual loss of purchasing power over the long term after deducting inflation, fees, and taxes (for taxable accounts). Ideally, fixed income investments should be reserved for non-taxable accounts and be determined by our shorter investment horizon (especially for the elderly), by a safety cushion in the event of a disaster,

or by fixed liquidity needs, and not by our intolerance to volatility. It must be understood, however, that some people are temperamentally more anxious, and we must adjust accordingly.

All in all, when we reflect on our financial goals and create our investment policy statement, it is important to consider: 1) the major impact of inflation, fees, and taxes; 2) the very high price we will pay in the long-run trying to avoid volatility, and 3) a small difference in percentage return makes a very big difference in absolute dollar terms when the investment period is very long, i.e. a normal life expectancy. This is the exponential effect of compound returns, which Albert Einstein called the “eighth wonder of the world”.

