FATALKS:
Custom Indexing in the Canadian Market

With Adam Butler, Chief Investment Officer, ReSolve Asset Management

FATALKS is an interview series where industry thinkers share their thoughts and perspectives on a variety of market trends and themes impacting indexing.

Adam Butler has 10 years of experience in investment management and worked with several large financial institutions in Canada before launching ReSolve Asset Management with his partners. He holds both CFA and CAIA charters and is Chief Investment Officer at ReSolve Asset Management.

S&P DJI: Who are ReSolve Asset Management's clients, and how do your clients' needs and objectives inform the investment outcomes you try to deliver?

Adam: At ReSolve, we believe that risk is measured as the probability that a client won't meet their financial goals. As such, we feel investing should have the exclusive objective of minimizing this risk. This may seem obvious, but in our observation, many advisors propose investment policies that are likely to fall short of this objective. It is well-documented that most market participants allocate far too great a share of their portfolio to domestic stocks and bonds, eschewing global opportunities, and they tend to purchase funds and strategies with good recent performance, despite abundant evidence that performance chasing leads to sub-par returns.

ReSolve's strategies are designed specifically to optimize the sustainability of tax-exempt portfolios with regular distributions, like endowments, foundations, and pensions. They are also well-suited to wealthy families who want to maximize the probability of preserving the real value of their wealth across multiple generations. In our experience, even sophisticated market participants underestimate how volatility can damage the sustainability of portfolios in distribution, or how inflation can wreak havoc on portfolios with intergenerational time horizons. Unsurprisingly then, few market participants have a deep appreciation for the types of strategies that are most likely to preserve and grow the real purchasing power of their capital.

S&P DJI: On your website, you state "as happens near the end of every market cycle, investors are abandoning diversification at exactly the wrong time." How does ReSolve Asset Management ensure that does not happen for its clients?

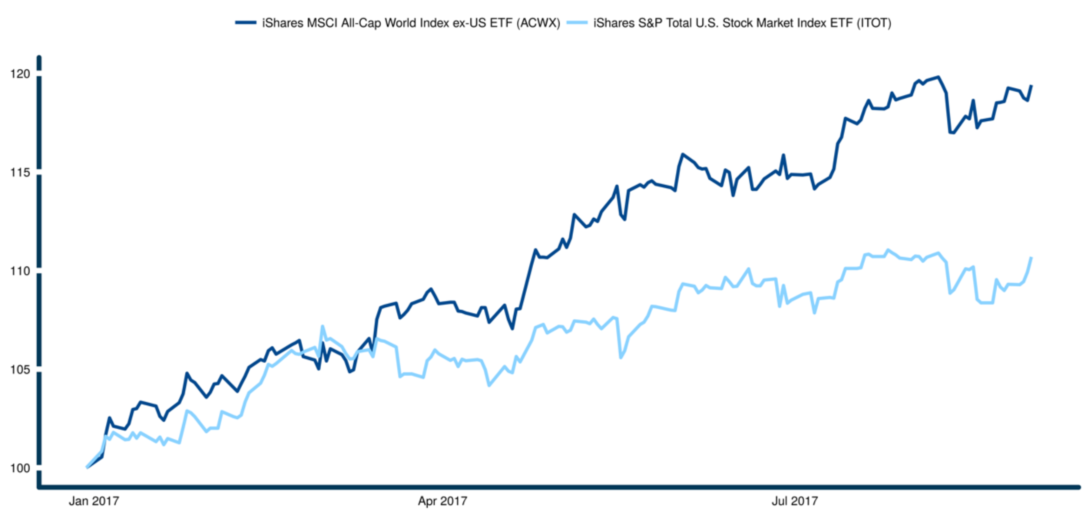
Adam: The recent decade has been rare because a single market—U.S. equities—has completely dominated every other global asset class. Through Dec. 31, 2016, a passive investment in U.S. large-cap stocks outperformed every other major global asset class over almost every horizon from one through 10 years, and by a substantial margin. As a result, investors who haven't touched their asset allocation in many years have a much larger share of their portfolio in U.S. stocks than they started with a decade ago.

When one asset class dominates for so long, market participants learn the lesson that diversification may actually be harmful to their wealth. After all, when one investment category dominates for many years in a row, any form of diversification will detract from performance. It's only natural for investors to resist advisors' advice to rebalance back to their long-term strategic portfolio weights when this decision has proved harmful over their recent experience. In fact, investors will often manufacture excuses to increase their exposure to the dominant asset class, driven by a fear of missing out on further gains. As a result, investors often have the largest exposure to the dominant asset class precisely when it is most expensive, and just before that asset class begins a long period of underperformance.

At ReSolve, we infuse all of our communications with the virtues of diversification. We start with a general framework for thinking about investment returns in different economic environments. Stocks, bonds, and alternative assets respond differently to inflation and growth dynamics, so they play different but equally important roles in a portfolio. We also discuss why it's important to take advantage of economic opportunities in all major economic regions of the world. It sometimes takes a great deal of persuasion to short-circuit client instincts, so we use all of the tools at our disposal to empower clients to make smart decisions. We often cite the diversification practices of famous institutions; draw on market participants' experiences in other historical market environments, and bring to bear abundant facts and figures to lead investors in the right direction.

We also lean against investors' emotions by highlighting why they should be more cautious about investments in the current fashionable asset class, and we offer reasons to consider more attractive alternatives. For example, in early January 2017 we published a piece titled "Cyclical Measures Signal Swan Song for U.S. Equities," which warned market participants about excessive U.S. stock market valuations and described several compelling reasons to consider a larger allocation to international stocks and alternative sources of return. Our timing was fortuitous in retrospect, as the MSCI All-Cap World Index ex-USA (ACWX) has outperformed the S&P U.S. Total Stock Market (VTI) by over 8% YTD, delivering 19.4% versus 11.1%, respectively.

Exhibit 1: Total Returns for U.S. and Ex-U.S. Stock Indices YTD through August 31, 2017



Source: CSI Data. Data as of July 15, 2017. Index performance based on total return in USD. Chart is provided for illustrative purposes.

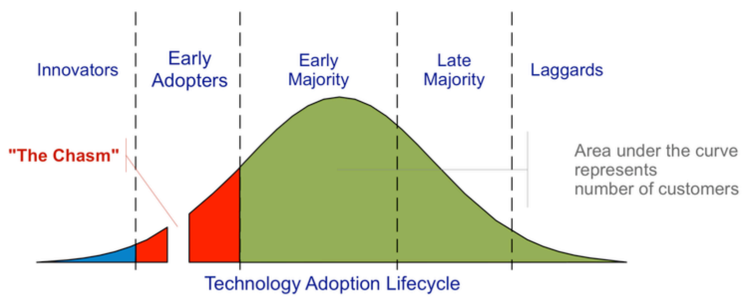
The late, great investor Peter Bernstein said that, "Diversification is an explicit recognition of ignorance." The ReSolve Global Risk Parity strategy provides optimally diversified exposure to over 95% of the world's exchange-traded assets. This means that when markets are rocking, especially markets close to home, and our diversified strategies are failing to keep up, clients might complain. We emphasize education and communication, but sometimes clients leave to chase whatever is fashionable. The pull to keep up with the Jones' is just too strong.

We decided when we founded this firm that we would rather lose half of our AUM from clients leaving to chase a hot bull market, than risk losing half of our clients' savings during the next bear market. Plain and simple, we are resolved to sticking to our mission.

S&P DJI: You are serving both Canadian and U.S. clients. What are some similarities and differences that you see in index adoption and use by financial advisors and asset managers in each country?

Adam: To best answer this question, let me first address differences in the adoption of index products between Canada and U.S. According to Morningstar, the proportion of retail assets invested in index-based strategies grew from 8% to about 12% between 2008 and 2015. Contrast this with U.S. market participant commitments to index-based products, which grew from 21% in 2008 to about 32%. If we think of index products—especially ETFs, which are the primary channel for these products—as a new technology, we can identify the stage of adoption in the context of Geoffrey Moore's "Technology Adoption Curve." ETF adoption is in the "Early Majority" stage of adoption in the U.S., but it is at the "Early Adopter" stage in Canada.

Exhibit 2: Geoffrey Moore's "Technology Adoption Curve"



Source: Wikipedia. Chart is provided for illustrative purposes.

In terms of our own experience, we observe meaningful differences in preferences and thought processes between U.S. and Canadian clients. Canadians continue to have faith in the concept of the "expert professional," who presumably can "beat the market." As a result, they are more likely to be motivated by the narrative of the "star manager," and allocate to active strategies accordingly. Canadians also tend to be more focused on hard assets, like real estate and commodities. This is unsurprising, as Canadians in aggregate haven't experienced a bear market in real estate in over 25 years, and residential real estate has delivered spectacular returns in many primary markets. In addition, Canada's economy is still heavily dependent on commodities and a meaningful segment of Canadians work in these industries. Lastly, Canadians tend to have an almost religious faith in their banks, which stems, in large part, from the fact that they have outperformed every other global sector over the past 25 years.

These preferences and biases are obvious at a glance for most Canadian retail portfolios, which are typically chock full of high-cost active mutual funds alongside long-held positions in banks, and a smattering of positions in large and small resource firms and utilities. According to Vanguard, Canadians typically hold about 70% of their wealth in Canadian securities, which represents one of the largest systematic home biases among developed countries.

In contrast, U.S. market participants have lived through a major housing crisis and a major banking crisis in the past decade. This has challenged investors' faith in major U.S. institutions and prompted a steady migration toward independent advisors over major wire-house brokers. At the same time, U.S. stocks rebounded most strongly and persistently after the Global Financial Crisis of 2008-2009, and they have outperformed every other major global investment category over most investment horizons from one through 10 years. When your home market outperforms every other market year after year, market participants learn that any form of diversification is harmful. It is no coincidence that U.S. investors are skirting all forms of active management in favor of low-cost, index-based exposure to (mostly U.S. oriented) stock indices.

More specific to our personal experience, U.S. market participants tend to be more receptive to the idea of trying something new. Canadian investors tend to be more conservative, preferring to wait to try something new until many others have validated it. U.S. investors are more likely to jump at the opportunity to be the first to try something. Our strategies are not new, but they are new to most retail investors. So, we find greater receptivity among a certain cohort of U.S. market participants than we do among most Canadians, and we tend to offer our more advanced strategies south of the border.

S&P DJI: Can you please explain how indexing and ETFs have fit into or enabled the execution of your allocation strategies?

Adam: Our business is founded on an evolved form of asset allocation. To this day, most market participants and practitioners employ a "strategic asset allocation" approach, which uses long-term capital market expectations to inform a strategic asset mix to meet a client's required return, in the context of risk tolerance, tax situation, age, wealth, and other considerations. As this approach utilizes market expectations that are expected to materialize over 10 years or more, investors are usually coached to stick with their asset mix through thick and thin, perhaps with periodic rebalancing.

Prior to the advent of index-based ETFs, market participants had virtually no choice but to employ a strategic asset allocation, because to express changes in one's asset mix required thousands of transactions in individual securities across dozens of global jurisdictions, or the use of derivatives like futures. The former option required complex trading infrastructure and had prohibitive trading costs, while the latter option was simply not available to most retail market participants. With the introduction of index ETFs, investors found themselves in possession of a tool that allowed them to alter their asset allocation across virtually every global market with just a few, highly liquid trades. This facilitated the development of a new investment business model predicated on a completely novel approach—active asset allocation.

Practitioners of active asset allocation take the position that market expectations, and investor preferences, evolve through time in response to changing financial and economic conditions. Portfolios should therefore continually adapt to these changing conditions. There are a variety of ways to perform these changes, ranging from highly discretionary macro-themes to purely systematic quantitative methods. At the systematic end of the spectrum, where we operate, active asset allocation is often about harnessing the exact same factors that produce return premia in stocks. For example, momentum, value, carry, and low volatility premia are just as economically significant when expressed across asset classes as when they are expressed through stock sorts. Even better, since each asset class responds differently to certain market environments, multi-asset factor strategies are typically not as vulnerable to the cyclical market shocks that affect traditional "smart beta" strategies. In other words, they have the potential to generate strong returns with less volatility.

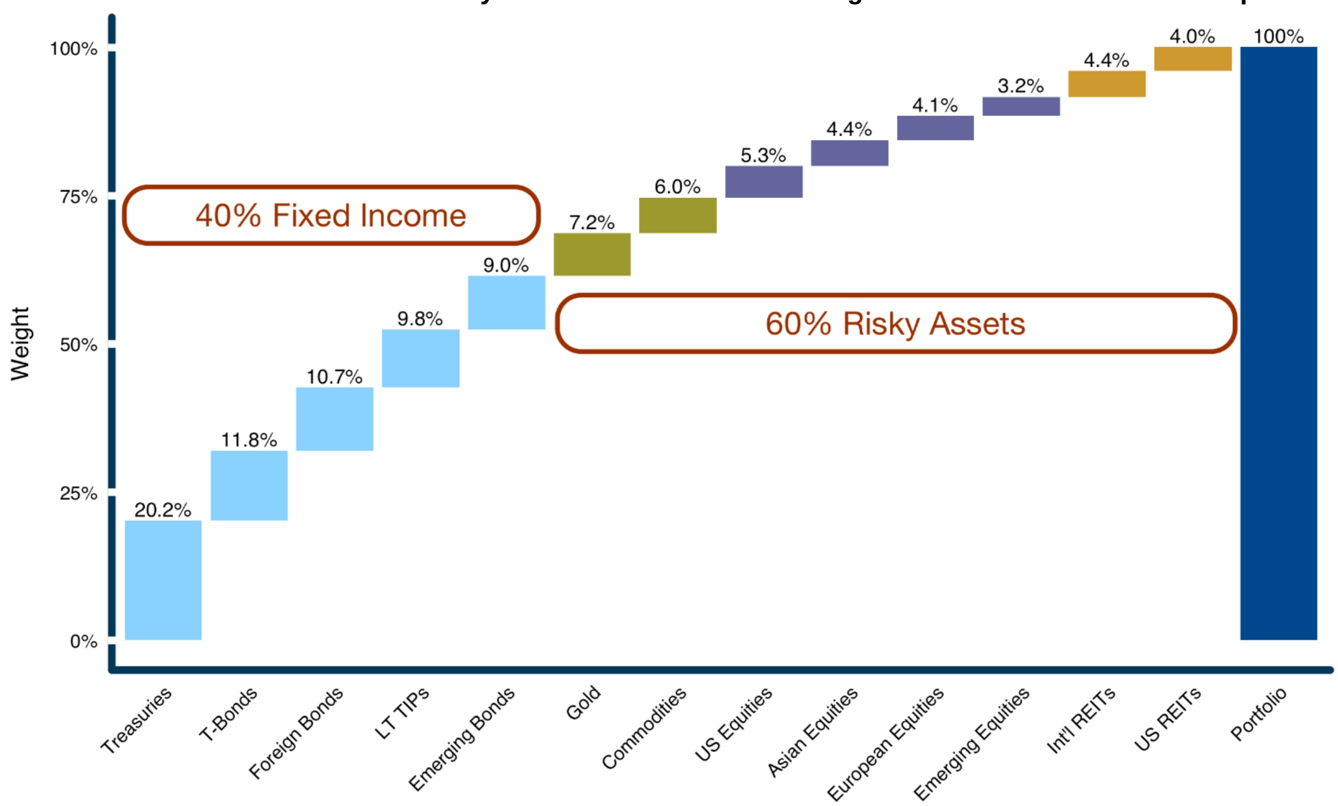
S&P DJI: You've written a book about dynamic asset allocation. How do your views on asset class returns and diversification inform the use of risk parity-based asset allocation?

Adam: From an asset allocation perspective, most portfolios today look remarkably similar to how they would have looked a couple of decades ago. That is, they are filled with products focused on mostly domestic stocks and bonds. Their asset allocation is relatively static, despite the fact that markets are constantly changing and evolving. This is unfortunate because the explosion of index-based ETF products means that the opportunity set available to contemporary clients is much larger than what was available to previous generations. These instruments are liquid enough to allow market participants' portfolios to adapt to changing market conditions in real time.

Risk parity is an asset allocation methodology that focuses on portfolio balance and diversity of investments. A typical portfolio consisting of mostly domestic stocks and bonds is neither in balance, nor sufficiently diverse. It would be expected to prosper in a narrow spectrum of market environments, specifically during periods of sustained growth, benign inflation, and abundant liquidity. Obviously, these conditions do not prevail all the time.

When a portfolio is in balance, each asset class in the portfolio has an equal opportunity to express its unique return character. When a portfolio has diverse investments, it contains assets that are constructed to thrive in a wide variety of market environments. Thus, a risk parity portfolio contains diverse investments, held in complete balance, which should be expected to produce consistent returns in most sustained economic environments. Exhibit 3 shows an illustration of a global risk parity portfolio, constructed so that each asset contributes the same amount of risk to the portfolio, based on long-term average covariance relationships from 1991 through 2016.

Exhibit 3: Illustrative Global Risk Parity Portfolio Formed From Long-Term Covariance Relationships



Source: ReSolve Asset Management, CSI. Data as of August 2017. Chart is provided for illustrative purposes.

The portfolio in Exhibit 3 takes a couple of steps in the right direction. It introduces a wider range of asset classes for better portfolio diversity, and it attempts to hold these assets in perfect balance. However, those who choose to hold this portfolio over the long term implicitly assume that the covariances between the asset classes stay close to their long-term averages over time. Unfortunately, this is not the case. As discussed above, risk, return, and correlation relationships between asset classes change through time in response to evolving economic and financial conditions, which means that the portfolio is constantly being nudged out of balance. Active—or dynamic—asset allocation is the process of regularly adjusting the portfolio so that it consistently reflects these changes.

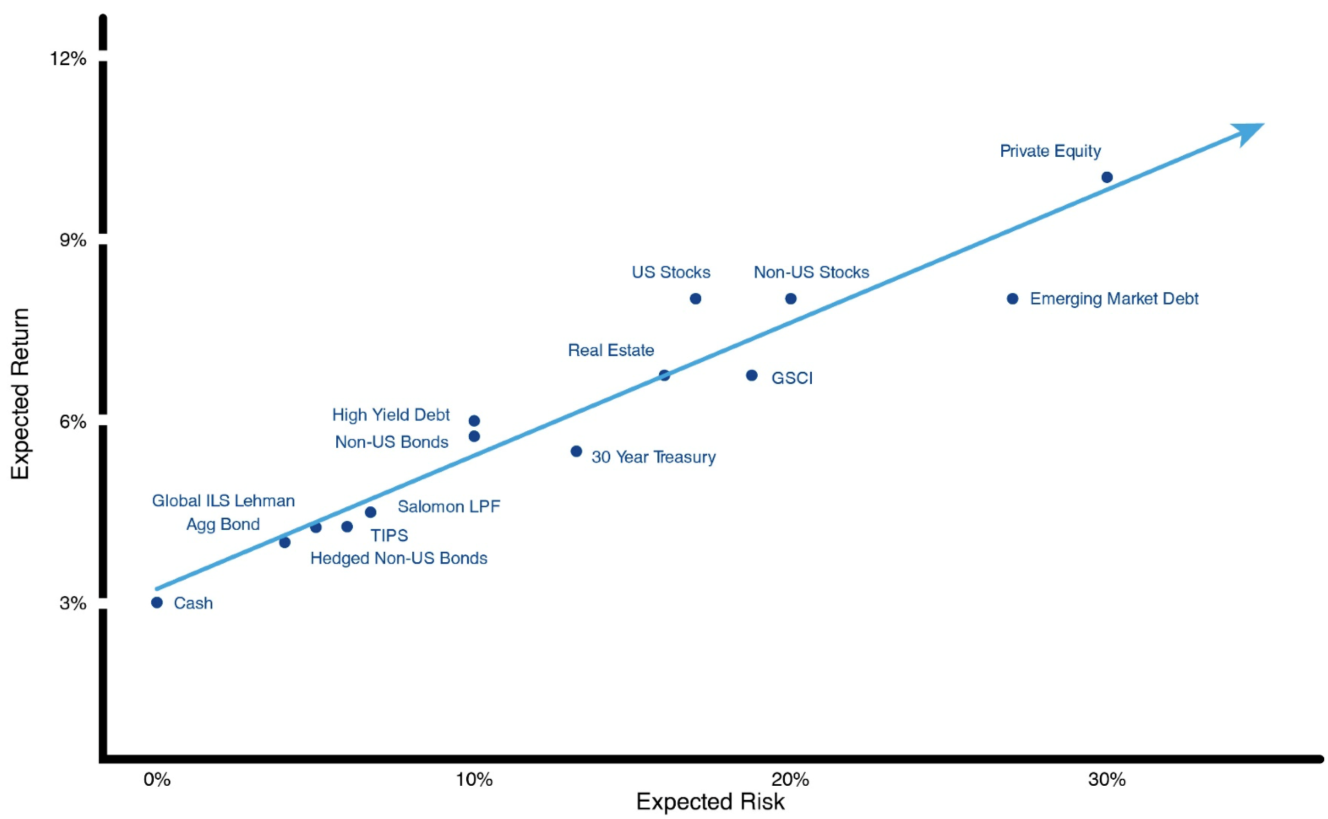
To boil it down, traditional strategic asset allocation maintains a consistent asset mix as markets evolve, while active risk parity maintains consistent risk balance as the portfolio evolves.

S&P DJI: Some might view risk parity as a complicated solution. How are you educating advisors on how it works and why it might be a good fit for them and their client's goals?

Adam: Risk parity is simpler, in practice, than other forms of asset allocation. That's because traditional portfolio optimization requires precise estimates of expected returns for all the assets under consideration. Estimating these forward returns can be difficult.

In contrast, risk parity-based asset allocation does not require any return estimates. Rather, risk parity expresses the view that the assets in the portfolio will offer excess returns in proportion to their risk. For example, if an asset is twice as risky as another asset—measured by expected volatility perhaps—then it would be expected to deliver twice the excess returns. In financial parlance, a risk parity portfolio is mean-variance efficient if the assets are expected to have equal Sharpe ratios. As you can see in Exhibit 4, this is actually consistent with what we have observed historically.

Exhibit 4: Historical Excess Returns Relative to Historical Volatility



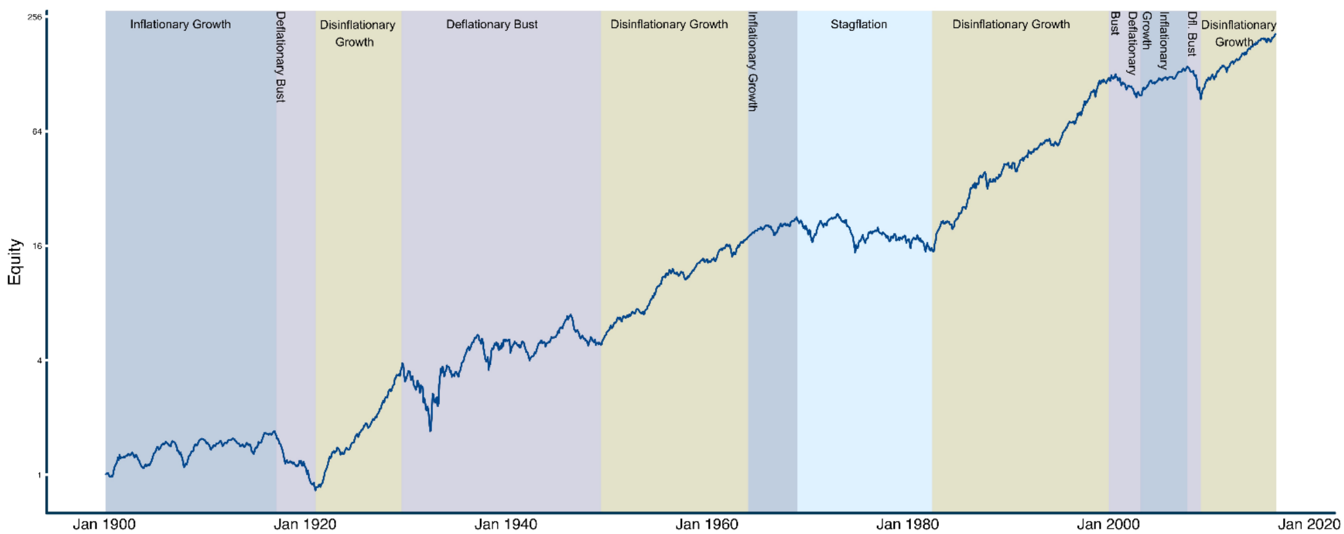
Source: Bridgewater Associates. Data as of August 2017. Chart is provided for illustrative purposes.

Aside from its attractive theoretical properties, the long-term character of returns to a global risk parity strategy are also attractive. By virtue of the diversity and balance of holdings, the portfolio is designed to produce a positive risk premium across a wide variety of economic environments. The strategy has also exhibited a higher Sharpe ratio than most traditional portfolios over several decades, as exemplified by the ReSolve Global Risk Parity Index—a custom solution we created in partnership with S&P DJI. This combination of stable returns across environments that have proved hostile to traditional portfolios, and a high long-term Sharpe ratio, makes it a particularly good fit for institutions, retirement portfolios, and ultra-wealthy investors with intergenerational time horizons.

S&P DJI: You make the case that sequence of returns risk is a relevant and important concern for those providing advice to retirees. Can you restate the argument and tell us how you approach a solution to sequence of returns risk?

Adam: Many newer market participants are surprised to learn that returns are not evenly spaced in time. Rather, traditional strategies, like the ubiquitous 60% stock/40% bond "balanced" portfolio, have typically experienced a decade or so of strong double-digit annualized gains followed by a long period of consolidation, characterized by little progress and several large drops. This unpredictability of returns can wreak havoc on the best laid investment plans. Exhibit 5 shows how returns to a U.S. portfolio of 60% S&P 500® and 40% U.S. 10-year Treasury bonds move from feast to famine over the decades from 1900 through 2016.

Exhibit 5: Real Returns to a U.S. Portfolio of 60% S&P 500 and 40% U.S. 10-Year Treasury Bonds



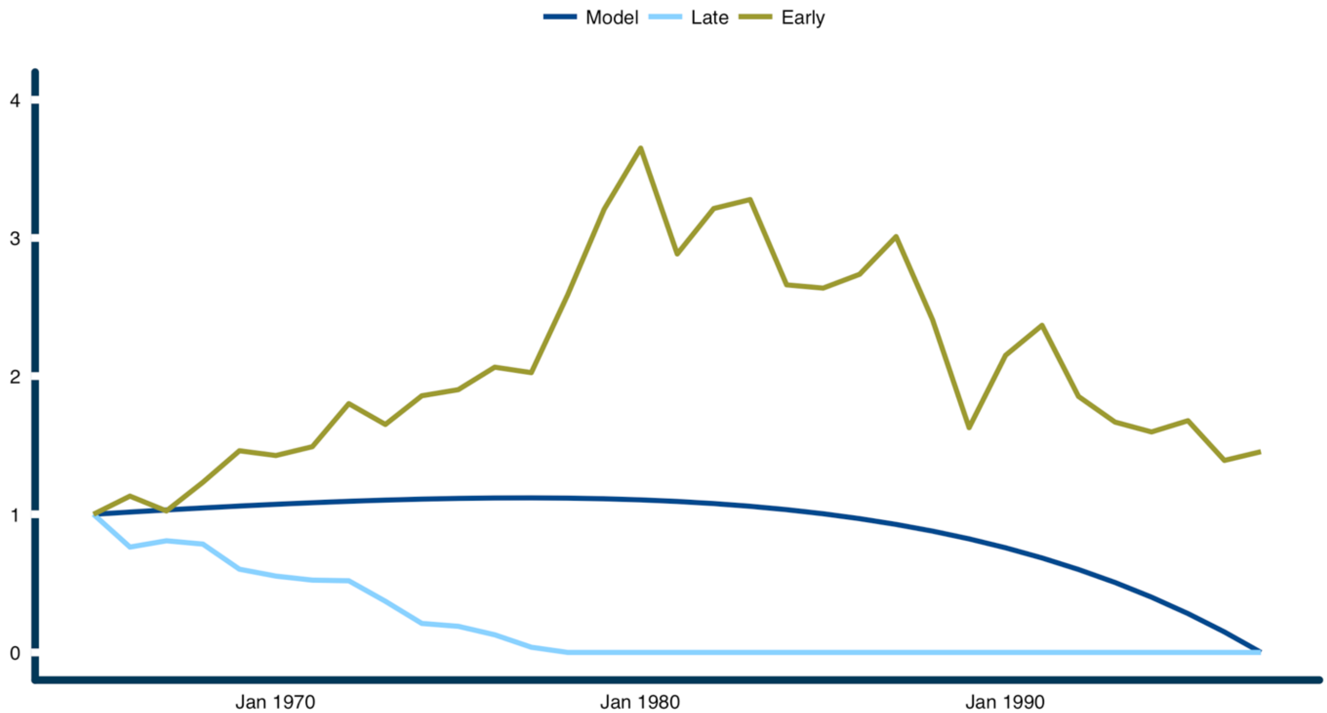
Source: ReSolve Asset Management, S&P Dow Jones Indices LLC, Global Financial Data. Data from 1900 to 2016. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Consider the Dow Jones Industrial Average from 1966 through 1997. Over this 31-year period, the index produced almost exactly 8% per year in compound returns. Yet this period is actually composed of two distinct market environments: the zero-return environment from 1966-1981 and the explosive growth environment from 1982-1997, where stocks compounded by about 16% per year.

Assuming a stable inflation environment over this period, a person retiring in 1966 with the goal of taking 5% per year from his portfolio, adjusted upward each year by 3% for inflation, would have burned through his savings in just 13 years. With no growth in the portfolio over the first 15 years, the investor would have been completely reliant on his savings to meet his cash-flow needs. Worse, the investor would have been forced to take withdrawals at several periods when the portfolio was far under water. The combination is toxic for portfolios in distribution. As a result, the investor's portfolio would not have survived long enough to benefit from the bull market that followed.

Now imagine that the situation was reversed in time. Somehow the investor was able to experience the bull market returns from the second half of the period first, while the zero-return environment came later. Specifically, the investor experienced the returns from 1982 through 1997 followed by the returns from 1966 through 1981. This retiree could withdraw the same 5%, adjusted upward by 3% per year for inflation, for the entire 31-year period. Moreover, at the end of the period he would have had a multi-million dollar legacy. Exhibit 6 illustrates a retiree's wealth given that the bulk of returns came early versus late in the period, relative to the modeled wealth trajectory.

Exhibit 6: Illustration of Retiree's Wealth



Source: ReSolve Asset Management, S&P Dow Jones Indices, LLC. Data as of August 2017. Chart is provided for illustrative purposes.

The feast or famine nature of traditional stock and bond portfolios are rooted in basic fundamental drivers of asset prices. It is expected that stocks should produce excellent returns during sustained periods of positive economic growth, benign inflation, and abundant liquidity. Bonds should do well in periods of decelerating inflation. But neither of these major asset classes is designed to do well during periods of extreme inflation, and corporate bonds are vulnerable to periods of sustained negative growth.

To produce steady returns across the decades, in every major sustained economic environment, market participants require more diverse portfolios, including assets like Treasury Inflation Protected Securities (TIPs), commodities and gold, traded real estate (REITs), and more esoteric assets like emerging market stocks and bonds. A more diverse portfolio requires a more robust portfolio construction methodology and can benefit from active asset allocation.

S&P DJI: ReSolve Asset Management is the first Canadian Private Investment Counsel (PIC) that S&P DJI has worked with to create a custom index. What in the market specifically drove you to explore the custom option?

Adam: We have been enthusiastic exponents of risk parity strategies for several years, but we recognized that there aren't many commonly recognized benchmarks that market participants could use to gauge the value of the approach. By creating a custom benchmark, we were able to help advisors and investors to clearly compare and contrast the essential character of a risk parity strategy with the portfolios they have traditionally relied upon. We were also able to model real client objectives against the risk parity benchmark to illustrate how the strategy can improve the sustainability of portfolios in distribution, as well as preserve real purchasing power for intergenerational wealth.

S&P DJI: How do you intend to use the ReSolve Global Risk Parity Index, and do you see the need for independently calculated proprietary benchmarks growing in Canada for PICs?

Adam: ReSolve advises a Canadian ETF that is directly informed by the ReSolve Global Risk Parity Index. In addition, ReSolve deploys risk parity solutions through the ReSolve Online Advisor. We also believe our process has equal merit in institutional applications such as pensions, foundations, and endowments. The index is an important tool to illustrate how ReSolve approaches markets in general and helps to set expectations for what market participants might expect from the risk parity methodology going forward. The role of S&P DJI as a third-party calculation agent provides a clear separation of responsibilities in the process and thereby maintains objectivity and credibility of its ongoing function.

GENERAL DISCLAIMER

It is not possible to invest directly in an index. Exposure to an asset class represented by an index is available through investable instruments based on that index. S&P Dow Jones Indices does not sponsor, endorse, sell, promote or manage any investment fund or other investment vehicle that is offered by third parties and that seeks to provide an investment return based on the performance of any index. S&P Dow Jones Indices makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. S&P Dow Jones Indices LLC is not an investment advisor, and S&P Dow Jones Indices makes no representation regarding the advisability of investing in any such investment fund or other investment vehicle. A decision to invest in any such investment fund or other investment vehicle should not be made in reliance on any of the statements set forth in this document. Prospective investors are advised to make an investment in any such fund or other vehicle only after carefully considering the risks associated with investing in such funds, as detailed in an offering memorandum or similar document that is prepared by or on behalf of the issuer of the investment fund or other vehicle. Inclusion of a security within an index is not a recommendation by S&P Dow Jones Indices to buy, sell, or hold such security, nor is it considered to be investment advice.

These materials have been prepared solely for informational purposes based upon information generally available to the public and from sources believed to be reliable. No content contained in these materials (including index data, ratings, credit-related analyses and data, research, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse-engineered, reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of S&P Dow Jones Indices. The Content shall not be used for any unlawful or unauthorized purposes. S&P Dow Jones Indices and its third-party data providers and licensors (collectively "S&P Dow Jones Indices Parties") do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Dow Jones Indices Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON AN "AS IS" BASIS. S&P DOW JONES INDICES PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Dow Jones Indices Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages.

S&P Dow Jones Indices keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P Dow Jones Indices may have information that is not available to other business units. S&P Dow Jones Indices has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

In addition, S&P Dow Jones Indices provides a wide range of services to, or relating to, many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions and financial intermediaries, and accordingly may receive fees or other economic benefits from those organizations, including organizations whose securities or services they may recommend, rate, include in model portfolios, evaluate or otherwise address.