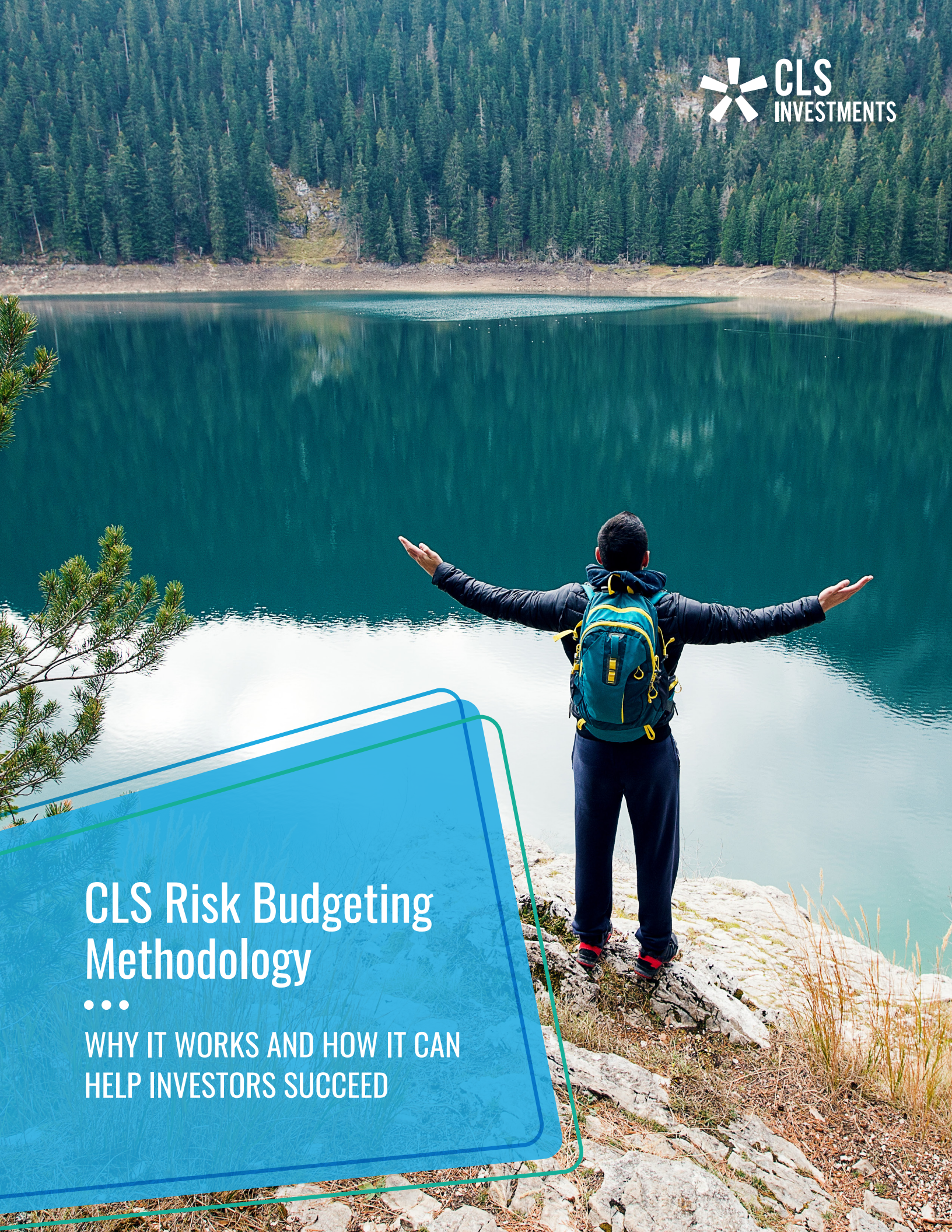

CLS INVESTMENTS

CLS Risk Budgeting Methodology

WHY IT WORKS AND HOW IT CAN HELP INVESTORS SUCCEED

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Executive Summary

At CLS, our signature methodology is Risk Budgeting. For each investor, our team of portfolio managers creates a portfolio that we believe accomplishes two key objectives.

1. First, it's the most appropriate way to match an investor's portfolio with his or her risk profile.

2. Second, it's the most effective and efficient way to manage his or her expectations of how a portfolio should behave. For instance, if a portfolio has 60% of the risk of the overall global stock market, an investor should expect the return to be approximately 60% of the overall global stock market over time.

CLS uses Risk Budgeting because of three core beliefs:

1. All investors have a capacity to bear risk, and the best way to manage risk is to measure it, rather than relying on a traditional stock-to-bond ratio.

2. Over the long term, investors are rewarded for bearing risk; having too little risk hurts investor returns.

3. Investment methodologies should be designed to pair a disciplined risk management system with an active and flexible approach. Doing so enables CLS's Portfolio Management Team to put together risk-appropriate portfolios by looking at the broadest set of choices.

Risk Budgeting is a detailed and robust methodology with a simple but powerful outcome: it allows us to better manage risk while adding value through active and flexible asset allocation.

At CLS, we believe investors who are placed in portfolios appropriate to their individual Risk Budgets are more likely to stay invested, allowing more time for the portfolio strategy to succeed, and ultimately bringing them closer to their financial goals.

Risk Budgeting works for us because it works for investors.

Whitepaper content provided by Rusty Vanneman, CFA, CMT, CLS Chief Investment Officer

The CLS Investment Methodology

WHAT IS A METHODOLOGY?

In the investment world, an investment firm's methodology defines its base assumptions about markets and how it seeks to extract value from those markets. More simply, a methodology is the way an investment manager provides organization to the financial universe.

THE CLS PORTFOLIO PROCESS

This white paper specifically explains CLS's Risk Budgeting Investment Methodology, describing our investment decisions, analysis and research, and steps to build Risk-Budgeted portfolios for investors. The process includes:

- **Investment Foundation**: The philosophical principles and investment building blocks that provide necessary support for all subsequent parts of the investment process.
- **Investor Analysis**: Assessment of the Risk Budget and other factors.
- **Risk Analysis**: Analysis of the risk in investments.
- **Investment Analysis**: Analysis of the attractiveness of securities.
- **Risk-Budgeted Portfolios**: Production of a Risk-Budgeted portfolio.

Risk Budgeting Helps Investors Succeed

In order to keep investor portfolios in line with their Risk Budgets, CLS has developed a proprietary risk calculation that measures the risk of each asset in the portfolio relative to a global equity portfolio (which we call the Equity Baseline Portfolio and explain in the next section). This risk measure takes into account the asset's relative volatility (standard deviation), relative movement to the market (beta), and maximum losses between peak and trough values (drawdown).

We believe that Risk Budgeting is a better way for building balanced multi-asset portfolios for investors for three reasons:

1. It helps with establishing investor expectations regarding portfolio performance.
2. Portfolios with more stable portfolio risk tend to create better investor experiences as they exhibit lower "behavior gaps" (difference between official returns and investor returns due to investor cash flows). Portfolios with more stable portfolio risk also tend to have lower shareholder/investor turnover.
3. Portfolios with more stable portfolio risk tend to have better pre-tax and after-tax performance over time.

Investment Foundation

INVESTMENT BUILDING BLOCKS

Asset Class Segments and Strategies

CLS organizes the investment world into asset class segments and strategies, which are groups of securities with comparable characteristics that tend to react similarly to market events over time. CLS currently tracks more than 100 asset class segments and strategies.

Adding Value – 10 Continuums

While CLS tracks over 100 asset class segments and strategies, 10 continuums demonstrate where CLS places emphasis on each asset class or segment. We believe there is opportunity to add value by adjusting asset allocations, particularly along these 10 continuums:

Continuum	Emphasis
Global	Domestic vs. International
International Equity	Developed vs. Emerging
Global Equity Style	Value vs. Growth
Global Equity Size	Large-Cap vs. Small/Mid-Cap
Global Equity Sector	Non-Cyclical vs. Cyclical
Smart Beta	Smart Beta vs. Market-Cap
Alternatives	High Exposure vs. Low Exposure
Bond Quality	High Quality vs. Low Quality
Bond Maturity	Short Maturity vs. Long Maturity
Dollar	Dollar vs. Non-Dollar

Asset Class Segments and Strategy Review Process

New asset class segments and strategies are regularly introduced. Once a segment or strategy has enough historical data and trading liquidity, CLS will begin to track it. CLS actively adjusts portfolio exposures to these 10 continuums and other areas of the market, while staying true to the Risk Budget.

EXCHANGE TRADED FUNDS (ETFs)

Why ETFs?

CLS began to use ETFs in the late 1990s and emphasize them in 2002. CLS is now one of the largest active ETF money managers in the world. ETFs are the dominant security in most CLS portfolios, and some utilize ETFs exclusively. CLS utilizes ETFs within investor portfolios because of the many potential benefits they provide, including:

- Low cost
- Stable market and risk exposure
- Targeted market exposure, ranging from broad market to market niches
- Diversification
- Intra-day trading
- Transparency
- Tax efficiency

RISK BUDGETING

Why Risk Budgeting?

Risk Budgeting is the core of CLS's investment management process and is the concept that guides every level of portfolio construction. Since Risk Budgeting is CLS's core process for controlling investor portfolio risk, deciding the unit of measure that best describes the investor's Risk Budget was an important choice. We want Risk Budgets to be understandable to investors, reasonably stable when volatility increases or decreases, and integrated with our investment decision-making process.

Tying the Risk Budget to Equity Risk

Since investors are typically most comfortable with using equity benchmarks to interpret portfolio results, we determined it most appropriate to also equate the Risk Budget to equity risk. In addition, we find equity risk to be the main driver of total portfolio risk (even in moderately conservative portfolios).

Since the absolute volatility of the market rises and falls, we want our portfolios to be able to adjust to those changes. Therefore, we tie the Risk Budget to a relative risk measure that moves with market volatility.

The equation representing the relationship between a globally diversified stock market portfolio's risk and the Risk Budget is:

Risk Budget (RB) = Relative Risk to the Equity Baseline Portfolio (EBP)

For example, a Risk Budget of 100 would have a risk approximately equal to that of the EBP, while a score of 50 would take approximately 50% of that risk.

Equity Baseline Portfolio (EBP)

We believe a baseline diversified equity portfolio should be a blend of a U.S. market index (capitalization-weighted) and an international (ex-U.S.) market index (capitalization-weighted). We believe 40% of this blended portfolio should be in non-U.S. stocks for a variety of reasons, including:

- Multiple decades of historical returns show increasing allocations to international equities has reduced portfolio volatility.
- International economies and market capitalizations are expected to continue growing faster than the U.S.
- International stock markets make up approximately 50% of the global stock market.
- International economies make up approximately 75% of the global economy.

The CLS is allocated as follows:

Equity Asset Classes	Benchmark	EBP Allocation
Domestic	Russell 3000	60%
International	MSCI ACWI (ex-U.S.)	40%

Risk Budget Tolerances

Once a Risk Budget has been established, portfolio managers must maintain Risk Budget scores within a range of +/- 5 points from the predetermined Risk Budget target for each portfolio. This requirement may be relaxed for some CLS-managed portfolios on the edges of the Risk Budget spectrum.

Risk Budgeting Methodology Annual Review

To maintain and continually improve the effectiveness of our Risk Budgeting Investment Methodology, CLS regularly reviews current and potential new inputs to the asset classes and strategies. All changes must be approved by the CLS Investment Committee.

Investor Analysis

In the second step of the process, CLS analyzes investor needs. We hold the conviction that an investor's desire to control the risk in his or her portfolios is consistent with his or her capacity to bear risk. The most important step in investor analysis is determining the investor's Risk Budget Score.

RISK PROFILE

The CLS Risk Profile determines an investor's Risk Budget based on responses to questions about his or her individual expectations, objectives, volatility tolerance, investment horizon, and withdrawal rates.

Overriding the Risk Budget Score

The Risk Profile also gives the investor the opportunity to set his or her Risk Budget at a specific level, regardless of the score calculated from the risk assessment questions. There are certain situations where overriding the Risk Profile may be in the best interest of the investor. For example, an investor may have a significant percentage of his or her assets in a fixed annuity contract or may have a particularly generous pension. Since both of these assets are less risky than equities, it may make sense to override the Risk Budget from the Risk Profile and increase the investor's Risk Budget.

Notes of Caution about Overriding the Risk Budget Score

- Investors often look at accounts in isolation. Changing a portfolio's risk causes concern for investors if they are not able to evaluate their CLS managed accounts in conjunction with their other accounts.
- We evaluate our Risk Profile questions periodically. These questions are considered reliable, and the Risk Budget provides boundaries that guide investment decisions at CLS.

Investors Best Suited for CLS Management

Risk Budgeting is a strategic approach to portfolio management (i.e., manages to a target risk allocation) with an active asset allocation (i.e. asset allocations will change over time in an effort to manage risk and enhance returns). Investors who expect a more tactical approach (i.e., expect large changes in portfolio risk, asset allocations, or both) are not well suited for Risk-Budgeted portfolios.

CLS employs globally diversified, Risk-Budgeted, multi-asset strategies.

- Since CLS portfolios are global, they will have exposure to international securities. Investors who expect a return to approximate the domestic stock market (such as the S&P 500) are not suited for global portfolios.
- These are asset allocation portfolios, otherwise known as balanced or multi-asset portfolios. Since asset allocation strategies sacrifice some potential return for reduced volatility, investors seeking only maximum return with no concern for risk may not be a suitable match for our strategies.

The CLS Risk Profile Includes a Mix of Objective and Subjective Questions:

Objective Questions:	*Subjective Questions:*
• Address withdrawal rates, percentage of investable assets being placed in the portfolio, ability to handle emergencies, and time horizon.	• Seek to estimate the investor's emotional capacity for bearing risk, as well as risk/return ratios and patience during a downturn.

Risk Analysis

Once an investor is assigned a Risk Budget and has identified the strategy in which he or she wishes to invest, the next step is to design a portfolio through CLS's risk analysis process.

CLS measures risk in two steps. The first is to calculate a relative risk score for each security being considered for inclusion in the portfolio. CLS derives the relative risk score by measuring the risk of each security relative to the EBP. In the second step, the CLS Chief Investment Officer (CIO) produces a macro risk adjustment based on changing market risk and whether the Risk Budgeting Investment Methodology is capturing those changes.

RISK ANALYSIS PROCESS

Each security under anaylsis is assigned a risk score, which allows investments of different asset class segments or strategies to be compared.

Calculating Relative Risk Scores

CLS measures the risk level of the security relative to the EBP by using a proprietary combination of three risk measures designed to best analyze the security in question:

Risk Budget Score = f (Relative Standard Deviation (1 year), Beta (1 year and 10 year), and Relative Maximum Drawdown (10 year)

Relative Standard Deviation

Standard deviation, a measure of absolute risk, is the best tool to gauge an asset's impact on a portfolio if it performs poorly on its own. On a weekly basis, CLS calculates the relative standard deviation of returns over the previous year.

However, using relative standard deviation as the sole risk measure assumes no diversification impact. For example, in the case of the economic slowdown of 2007 and 2008, bonds were much more volatile than normal, relative to stocks. However, they gained in price while stocks faltered. Thus, while the standard deviation of bonds was high, the impact on the portfolio was not significant, as overall portfolio volatility was actually reduced.

Beta

Beta, a measure of correlated risk, is also used for risk measurement. We measure beta over a one-year time frame on a weekly basis and analyze beta over a 10-year time frame using monthly data. The 10-year measure provides long-term perspective, while the one-year captures short-term changes in the market environment.

In this risk measure, the focus is tied to how much risk a particular asset is adding, relative to movement in the EBP. Because beta uses the covariance in its calculation, it is very much related to how assets move together. In the case of commodities, the standard deviation is very high. The movement of the asset class compared to the EBP shows a fairly unrelated pattern, so the beta of the commodity asset class is often quite low. For almost all CLS-managed portfolios, the vast majority of risk comes from equities. As such, measuring an asset's risk relative to the EBP, which is the source of risk in the portfolio, is a very logical and effective way to use beta.

Relative Maximum Drawdown

We also use relative maximum drawdown, a measure of downside risk. Drawdowns help determine an investment's financial risk. The measure uses monthly data over the previous 10 years to compare maximum peak-to-trough declines to the EBP's maximum drawdown over the same time period. Since many investors react only to negative surprises in performance, a measure that looks at the movement when markets drop is another way to reconcile risk measurement and investor expectations.

Differing Time Periods

We emphasize the one-year time frame to ensure Risk Budgeting scores are responsive to changes in market risk. We also incorporate a lesser weighting to the 10-year time frame for beta and maximum drawdown to the risk scores to tether risk scores to the longer-term experience.

Macro Risk Adjustment

Once the relative risk scores are calculated, CLS's Chief Investment Officer (CIO) has the flexibility to increase or decrease the risk score of the EBP by up to 15 percentage points in absolute terms. The CIO may do this based on research of changing market risk and whether the Risk Budgeting Investment Methodology is capturing those changes.

For example, if the CIO's analysis determines the risk of the current market environment has increased, the CLS portfolio manager would realign the portfolio by selling more risky assets in favor of less risky assets. In this example, the move could be accomplished in a variety of ways, such as, selling large-cap domestic stocks and investing in low-risk bonds or cash. Alternatively, the portfolio manager could reduce emerging markets and small-caps and buy large- caps. Multiple moves could be made to keep the client invested according to his or her Risk Budget.

Benefits of Risk Budgeting

At its core, Risk Budgeting provides:

- Disciplined risk management. By targeting a risk level, the process keeps the overall risk of the portfolio in line with investor objectives.
- Justifiable potential return for risk. Budgets are used to distribute a limited resource. By evaluating the projected return relative to the risk, CLS makes sure the emphasized positions sufficiently reward the investor for the additional risk.

Investment Analysis

CLS examines the attractiveness of an asset based on its risk and the potential return it may bring to the portfolio. Using a consistent approach, CLS relies upon a set of quantitative inputs and qualitative evaluations of asset classes to estimate overall return potential.

AREAS OF ANALYSIS

CLS portfolio managers focus on five characteristics when analyzing the attractiveness of a security:

- Behavioral
- Economic
- Fundamental
- Quantitative
- Valuation

The specific technique used to analyze securities using each characteristic varies according to the security and how it will be used in the portfolio. For the purposes of this paper, it is important to focus on the common elements of each approach applied to all asset classes.

Behavioral analysis is a method of evaluating securities by analyzing technical analysis and sentiment analysis.

1. CLS has a long and rich history of using technical analysis, which is the study of price action, to help make investment decisions. We have found that various technical measures can add value in the investment decision-making process, particularly when it comes to shorter-term transaction timing decisions. Technical tools that we utilize include trend, momentum, and relative strength.

2. In addition, we study investor sentiment, in particular by looking at investor surveys (both professional and individual) and investment flows. We are interested in what investors are thinking, saying, and doing. This information is useful for both making investment decisions and for assisting in investment counseling and communication.

Economic analysis is the study of the overall global economy and the impact of economic activity on global financial markets. It is useful in understanding and potentially determining market direction for various asset class segments and strategies. In fixed income, for instance, understanding the current and expected rate of inflation is important in determining potential changes in return and risk assessments.

Fundamental analysis looks at the fundamental characteristics of the underlying company for a security, such as revenues, earnings, and cash flow. Fundamental analysis focuses on a security's earnings growth rate, profitability, and underlying financial health. When it comes to equity investments, for example, the level and trend of corporate earnings is critical, as stock prices follow earnings over time. At the individual security level, this may involve research of financial statements.

Quantitative analysis captures a variety of measures, ranging from costs to risk analysis. CLS analyzes various quantitative data, leading with cost analysis. A cost analysis includes the expense ratio and transaction costs of a security. For taxable investors, we will also consider tax costs.

In addition, CLS spends considerable time on correlation analysis. While most firms look at correlation over the entire market environment, CLS gives extra emphasis to correlation when the market declines. During downturns, correlations among equity asset classes tend to increase, but correlations between bonds and equities can have varied reactions. We pay extra attention to the bond asset classes moving opposite the equity market when looking for diversification. Because of our emphasis on downturns, commodities and other alternative asset classes may be used as diversifying assets.

At CLS, factor analysis is also critical to understanding portfolio and underlying securities. Understanding factors – the shared traits that impact risk and return across securities is critical in helping investors manage risks and target desired investment objectives. Factors play an important role in both risk management and investment management.

Valuation analysis examines how much one might pay for a fundamental characteristic, such as revenues or earnings. This analysis is arguably the most important of the five. A security may have promising growth, but if the valuation is too high, the investment potential may be poor, or vice versa. At CLS, valuation analysis, particularly relative valuation research, is an important driver of our investing decisions. Relative valuation analysis looks at a valuation of a specific investment versus the broad market, and then compares this relative valuation to its long-term history. All else being equal, if this relative valuation is low compared to its history, the security is considered inexpensive and attractive. If the relative valuation is high compared to its history, the security is considered rich and unattractive.

CLS INVESTMENT THEMES

CLS manages various investment strategies with different mandates, investment universes, and portfolio management teams. Each portfolio management team has different biases and preferences, but there are two guiding principles that each has in common: the Risk Budgeting Methodology and CLS Investment Themes.

Like the Risk Budgeting Methodology, the CLS Investment Themes are also agreed upon by the CLS Investment Committee (IC). The IC meets formally each quarter (typically around the third week after quarter-end) and communicates regularly throughout the year. All IC votes regarding updates to the methodology or investment themes must win by at least 75% of the investment committee members present. .

To help formulate the investment themes, the IC invites outside speakers to its quarterly meetings for a segment called the CLS Forum. Once the themes have been decided, each portfolio management team is allowed flexibility in how they implement and articulate them in portfolios.

Risk-Budgeted Portfolios

DEGREE OF PORTFOLIO EMPHASIS

CLS may emphasize a particular asset class segment, strategy, or fund in an investor's portfolio. When doing so, CLS considers:

- The degree of expected outperformance relative to other asset classes on a risk-adjusted basis. If multiple asset classes are considered attractive, then the degree of emphasis will be smaller.
- The risk score of the outperforming asset class and the portfolio's Risk Budget. The Risk Budget naturally prevents portfolio managers from overemphasizing risky assets in investors' portfolios. However, when a less volatile asset mix (like large-cap value) outperforms, the Risk Budget allows for larger positions. For instance, if emerging markets is the most attractive asset class, the allocation will likely be smaller than if large value or large blend is deemed most attractive.
- The EBP allocations of underperforming assets classes. Because of the large allocation to large-cap domestic equities in the EBP, large-cap value and growth stocks are unlikely to be excluded from a portfolio at the same time. Conversely, small-caps and mid-caps can be excluded much more frequently because of their smaller allocations in the EBP.

TRADEOFFS

As evidenced so far, Risk Budgeting is a method for resolving the tradeoffs between risk and reward as effectively as possible. CLS's portfolio managers take the risk allowed by the investor's Risk Budget and put together a portfolio of securities based on the factors discussed earlier.

It is important to review the tradeoff that occurs in analyzing securities inside a Risk-Budgeted framework. For example, if CLS increases an investor's position in high-yield debt, by selling short-term government bonds, the risk of the portfolio would rise. Because of this increased risk, the portfolio manager would be required to sell a security with a risk higher than high-yield debt or do a separate transfer between two additional assets that involves trading from a higher-risk asset to a lower-risk asset.

TRADING IN ACCOUNTS

There are no specific trading parameters within CLS's Risk Budgeting Investment Methodology, but the following are general practices:

- The CLS Portfolio Management Team's primary goal is to take advantage of opportunities in the market, not to follow specific trading guidelines. Risk Budgeting keeps risk consistent while minimizing constraints on the portfolio managers' decisions.
- CLS's trading within investor accounts generally differs from that of other managers. Many investment managers rebalance the whole account at once, or trade cash for equity asset classes to increase risk. Conversely, since CLS strives to always keep the portfolio risk close to the Risk Budget, we regularly reallocate risk throughout the year rather than rebalancing it annually.
- Investors in CLS strategies, utilizing CLS-managed funds, may see fewer trades in their accounts as many of the risk adjustments are made within the funds to keep risk inline with each fund's stated investment objective.

RISK BUDGET BENCHMARK

The best benchmark for measuring CLS portfolios is an examination of how our portfolio managers build and manage portfolios. That can be evidenced by comparing the Risk Budget to the EBP.

When measuring performance, it is important to account for the percentage of portfolio risk not allocated to the stock market. This remainder should be assumed to be invested in the risk-free asset. The proxy we use for the risk-free rate is the one-month Treasury bill. For example, an investor with a Risk Budget of 74 will have a benchmark composed of 74% of the EBP and 26% of the risk-free asset.

The Risk Budget Benchmark is calculated as follows:

RB Benchmark= (RB x EBP) + ((1-RB) x RFR)

RB *= the Risk Budget expressed as a percentage of the EBP*
EBP *= Equity Baseline Portfolio*
1-RB *= the percentage of the portfolio invested in the risk-free asset*
RFR *= the risk-free rate as measured by the one to three month Treasury bill*

For simplicity, the return of the risk-free asset can be removed. For example, for an investor with a 74 Risk Budget, the benchmark is 74% of the return of the EBP.

Conclusion

This white paper has reviewed CLS's approach to investing, how investors are assigned a Risk Budget, and how that Risk Budget aligns with risk analysis. Finally, it has outlined our approach to investment analysis and the steps we take to create and evaluate Risk-Budgeted portfolios.

In sum, CLS's Risk Budgeting Investment Methodology seeks to create diversified portfolios that favorably combine investor risk measurement and active asset allocation. We regularly seek to enhance the system by employing innovative techniques to improve consistency and risk management. Our methodology provides our team of portfolio managers with guidelines, yet provides each manager the flexibility to tailor the strategy to the options available in a given product or investment universe. By using a team approach and a disciplined strategy, CLS is able to benefit from past research and utilize the expertise of our portfolio managers to understand how best to apply that research to the current market environment.

The Equity Baseline Portfolio (EBP) is a blended index comprised of 60% domestic equity (represented by the Russell 3000 Index) and 40% international equity (represented by the MSCI ACWI ex US Index), rebalanced monthly. The Russell 3000 Index is an unmanaged index considered representative of the U.S. stock market. The MSCI ACWI ex US Index is an index considered representative of stock markets of developed and emerging markets, excluding those of the US. The volatility of the indexes may be materially different from the individual performance attained by a specific investor. In addition, portfolio holdings of investors may differ significantly from the securities that comprise the indexes. You cannot invest directly in an index.

CLS INVESTMENTS

Contact Us Today

17605 Wright Street | Omaha, NE 68130

888.455.4244 | CLSinvest.com

1027-CLS-8/15/2019