

# Investment Due Diligence Process

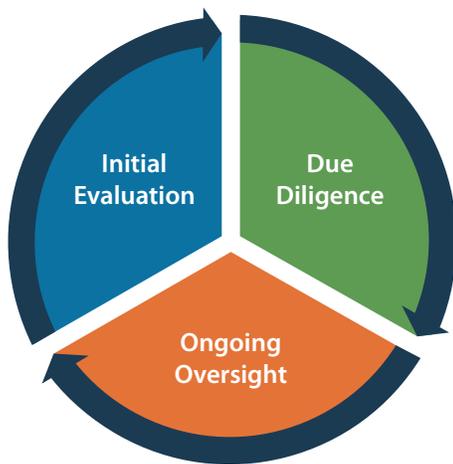
SS&C ALPS Advisors | Insights

## SS&C ALPS Advisors Investment Due Diligence – Summary

Our purpose at SS&C ALPS Advisors is to help our clients achieve their investment goals. In order to do that, an asset allocation framework must concentrate on delivering **exposures** consistent with those goals. In this regard, many existing frameworks lack precision. Our ModelLab Investment Selection Framework helps us avoid some of the pitfalls inherent in these frameworks and provide clients with asset allocation tools to better match their desired investment outcomes.

## Investment Due Diligence – Overview

SS&C ALPS Advisors' model construction process is designed to implement the views of the Multi-Asset Research Team's (MART or Research Team) Investment Committee while minimizing tracking error. The Committee meets quarterly to decide desired allocations in the three major asset classes (Fixed Income, Equity and Real Assets).



The process of implementing the Committee's views consists of three stages: Evaluation, Diligence and Oversight. This can be thought of as a cycle:

**Initial Evaluation:** In stage one, funds are evaluated quantitatively for inclusion in the model.

**Due Diligence:** Next, MART performs due diligence on selected funds using a proprietary process discussed in more detail below.

**Ongoing Oversight:** Finally, once a fund is selected for inclusion in an allocation model the team performs ongoing oversight to ensure that the fund provides the intended exposures.

## SS&C ALPS Advisors Multi-Asset Research Team

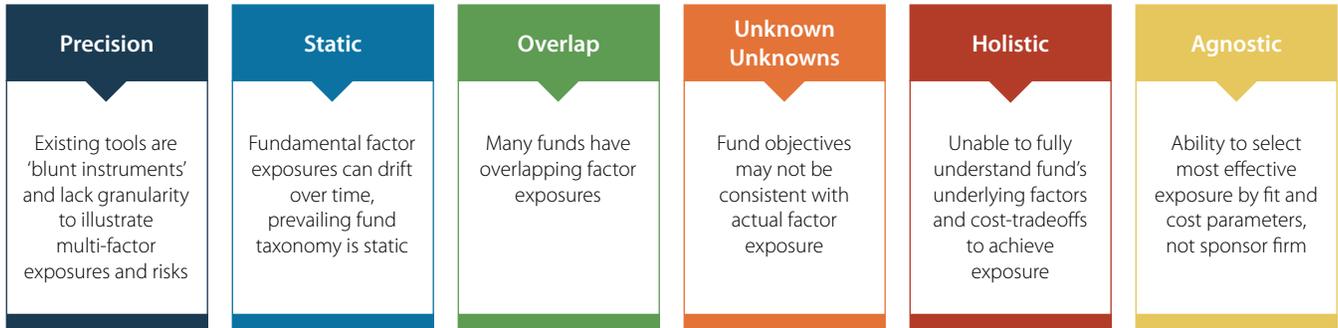
The Research Team consists of 16 individuals with over a century of combined experience in Equity and Fixed Income Research, Quantitative Research, Portfolio Management and Systems Engineering. The team is responsible for the development and application of the analytical tools used in Manager Due Diligence and providing oversight. Each member of the team is also a member of the Investment Committee.



## SS&C ALPS Advisors ModelLab – An Introduction

There are several existing frameworks that are meant to break down an investible universe into its component exposures. These frameworks focus on investment styles (Growth, Value, etc.), sectors (Equity sectors, Investment Grade Credit, Real Estate, etc.), factors (Momentum, Dividends, Volatility) and themes (Energy Transition, Disruptive Technology, etc.). In our view, the existing frameworks all face challenges.

### Fund Analytics Challenges



The proprietary SS&C ALPS Advisors framework, or ModelLab, was purpose built to address these challenges. Using a cloud based data warehouse and leveraging SS&C enterprise infrastructure and engineering capabilities, we have built a web-based analytics engine to evaluate over 5,000 funds and benchmarks. We begin with all available ETFs and Mutual Funds from all Asset Managers and Sponsors. We are agnostic as to our available options and will consider all funds.

Since our primary objective is improving investment outcomes, we believe that a multi-manager approach provides the broadest range of fund options for building investment models with desired exposures and risks/return profiles, in a cost-effective manner. We do not take placement fees or participate in other revenue sharing arrangements.

ModelLab can be thought of as a central repository where funds can be examined for cost, risk vs. return, factor loading, style bias or thematic exposure. Understanding any fund's exposures across all these spectra helps us fine-tune our exposures and address the challenges of other frameworks.

### ModelLab Investment Selection Framework

#### 5,000+ Funds: Rigorous Quantitative Best Fit Tools

ModelLab deconstructs static fund taxonomy and illuminates fund exposures.



Then, for any given Investment Objective, View or Characteristic, ModelLab provides Fund choices that can maximize:

- Fit for Tactical Views and Objective at Lowest Cost
- Consistent, Risk-managed Exposure and Returns

#### + An Iterative Qualitative Selection Process

##### >Begin with Core Passive Exposure

Determine how passive Funds can represent the Investment Objective and Views.

- Expense Ratio
- Tracking Error
- R<sup>2</sup>

##### +Active

Pure active can be used to generate alpha in some exposures which can advance the Objective. How successful is the manager at providing this exposure, at what cost and level of consistency?

- Information Ratio
- Return Hit Ratio

##### +Desired Factors & Tilts

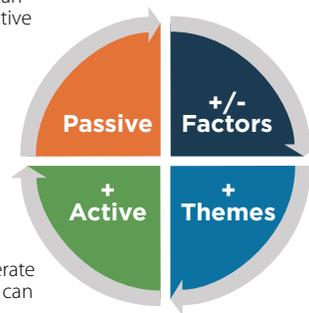
Market-capitalization based indices may not provide optimal exposure for the Objective and Views. Which single or multi-factor Funds can provide optimal exposures given the Objective and Views?

- Expense Ratio
- Returns-based Style Attribution

##### +Thematic

Themes cut across multiple Sectors (i.e. Renewable Energy). Passive and factor-based funds may be unable to obtain the focused exposure. What are the Fund(s) that can provide focused exposure to the theme?

- Spectra multi-asset risk and exposure analysis



In practice, the goal of our due diligence is to gain the desired exposure at the lowest cost. By deconstructing a fund into its component parts, we can better assess fund exposures. We will evaluate a fund’s cost vs. objective as well as risk vs. return in order to find fund choices that can maximize:

- Fit for Tactical Views and Objective at Lowest Cost
- Consistent, Risk-managed Exposure and Returns

We apply an iterative process that begins with Core Passive exposure, which tend to very low cost funds meant to provide exposure to a broad index, such as the S&P 500 or Bloomberg Aggregate Bond Index. However, that approach may not provide access to desired factors, style tilts or themes. In that case, the team will evaluate other rules-based funds. For example, if broad equity exposure is desired, but with a tilt toward dividend paying stocks, a passive fund may not be the best option.

Rules-based funds, while more expensive in general than broad passive funds, may provide more precision and are evaluated both on cost and “fit” with our objective.

In the example below, we started with the objective of finding a US Equity Large Cap Value Strategy with negative exposure to Information Technology and Crowding, given the recent trend in the US of concentration amongst the largest companies in the S&P 500. We found that one of the funds best provided this exposure at a very low cost.

### ModelLab® Equity Investment Selection Example

**Objective:** Find a Low-Cost US Equity Large Cap Value ETF

**Constraints:** Return, Yield, Volatility top quartile since Inception

**Exposures:** Desire Significant Negative Factor Tilt to US Technology & Crowding

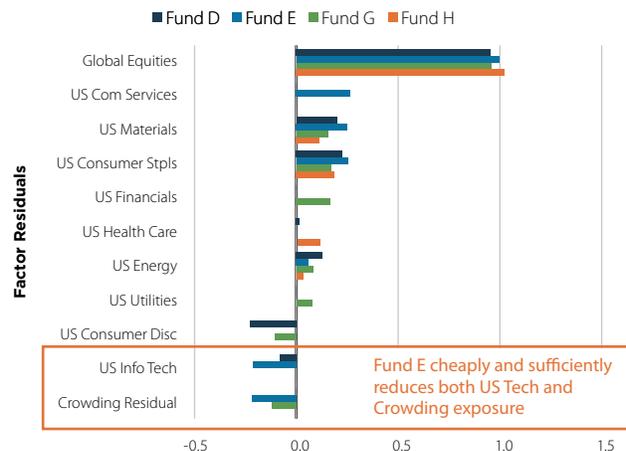
#### ModelLab® Steps – Results\*

1. Start with US Large Equity Value Passive ETFs (70 Funds)
2. Sort on Expense Ratio, Refine with Constraints, Risk & Return (4 Funds)
3. Confirm desired factor exposure tilts (1 Fund)

Passive Value ETF	Expense Rank ↓	Return Rank ↑	Yield Rank ↑	Volatility Rank ↓
Fund A	1	58	81	26
Fund B	1	31	79	31
Fund C	1	63	77	47
Fund D	2	80	94	18
Fund E	2	99	95	18
Fund F	3	45	98	90
Fund G	3	81	93	17
Fund H	4	98	81	18
Fund I	4	58	97	12
Fund J	4	38	54	23
Fund K	4	61	84	79
Fund L	5	93	74	70
Fund M	5	51	86	97

\*Actual Results – Fund Name/Ticker redacted

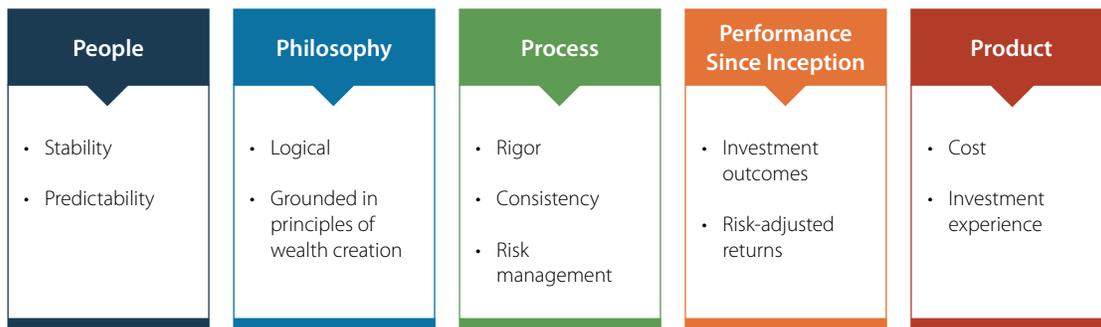
#### ModelLab® Spectra® Time-Series Regression Results\*\*



\*\*Actual Results – Only Positive and Negative Factor residuals are shown. Insignificant exposures have been redacted.

In some cases and in some asset classes, rules based or passive funds may not provide the exposures we need. In that case, active funds may be the best option. Because they are less constrained, active funds are subject to additional due diligence from the team following our 5 “P’s” process:

### Five P’s



To reiterate, the purpose of the Investment Selection Framework is to gain the precise exposure at the lowest cost, with the goal of helping our clients achieve their desired investment outcomes.

## SS&C ALPS Advisors Ongoing Oversight Process

Once a fund has been selected for inclusion in the models, the Research Team performs ongoing due diligence to ensure that the selected funds continue to provide the expected exposures and results. We can think of this process as another cycle:

Each week, exceptions reports are run on all of the active funds, in order to assess if there are any “outliers” that need greater attention. Each quarter, an analyst from the Research Team will perform a quantitative and qualitative overview of each fund, which will be discussed at the Team’s quarterly oversight meeting. Funds that do not continue to meet the desired objectives will be subject to being placed on a watch list and potentially removed from the models.



## SS&C ALPS Advisors Investment Due Diligence – Summary

When selecting the appropriate investment strategies within the framework of an asset allocation model, there are a number of factors to consider. Drawing on decades of studying investment markets, the SS&C ALPS Advisors Multi-Asset Research Team has purpose-built a process that can ultimately help investors build allocation models custom made to deliver desired investment outcomes.

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