# Customizing Asset Allocation Models

Integrated Analyst, December 2025

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# NDR
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Welcome to the 6th edition of NDR's *Integrated Analyst*, a quarterly publication showcasing the wide-ranging capabilities of NDR's Custom Research Solutions (CRS) group.

Looking to settle a debate from your internal team meetings, increase the productivity of your organization, launch a new product suite, or quickly respond to an in-depth customer question? CRS can serve as an extension of your research team to assist with projects large or small. We build tailored solutions through direct engagement.

This issue of *Integrated Analyst* demonstrates a few of the many ways CRS customizes NDR's asset allocation models to directly address client objectives.

> *Q: Is it possible to create different risk profiles for your asset allocation model recommendations, including aggressive, moderate, and conservative?*

**A:** Absolutely! NDR's asset allocation models are constructed using a flexible optimization framework, giving us the ability to efficiently transform existing NDR content into a new model to suit a full spectrum of investor risk profiles.

For example, NDR's U.S. Asset Allocation Model, featured in our U.S. Strategy subscription service, produces monthly tactical weight recommendations relative to a benchmark of 55% equity, 35% fixed income, and 10% cash. The model's monthly weight recommendations are based on a set of configurable inputs to our mean-variance optimizer, including:

1. **Asset Pricing:** Stocks, Bonds and Cash

2. **Benchmark Weights:** 55% Stocks, 35% Bonds, 10% Cash

3. **Asset Views (Bullish/Bearish/Neutral):** Derived from NDR's existing composite indicator scores for Stocks, Bonds, and Cash[1]

4. **Appetite for risk (expressed as a number):** the larger the appetite for risk, the farther the weight recommendations stray from the benchmark

To create a model that addresses a more conservative or aggressive risk profile, we simply modify inputs (2) and (4), benchmark weights and appetite for risk, reusing the existing indicators and composite scores and making the overall process much more efficient when compared to building a new set of indicators from scratch.

The examples on the next page show (1) a conservative optimization, relative to a 40/60/0 benchmark of stocks, bonds, and cash, and (2) an aggressive optimization, relative to an 80/20/0 benchmark of stocks, bonds, and cash, respectively.

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1. The bulk of the time designing a model is spent testing indicators and combining the resulting signals into composite model scores.

## U.S. Asset Allocation Model Conservative (40/60/0)

- **Report:** TF50302xRisk_RPTCons.RPT
- **Run Date:** 2025-12-02
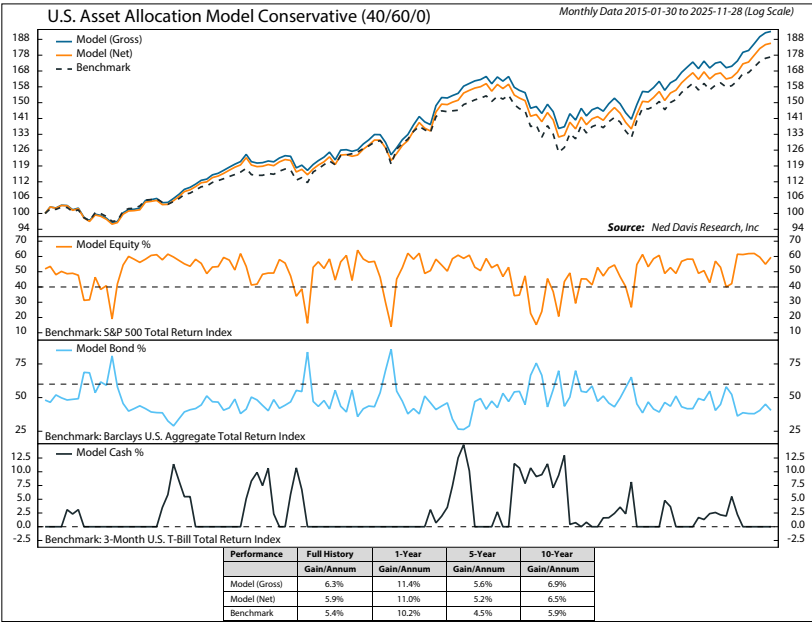
**Conservative Version**

Tabs: Overall Model | Stock/Bond Indicators | Bond/Cash Indicators

### U.S. Asset Allocation Model Conservative Weights

| Asset | Model Weight vs. Benchmark Weight** | Month-End Readings | | |
|---|---|---|---|---|
| | | 2025-11-28 | 2025-10-31 | 2025-0... |
| Equity % | 40.0 | 59.5 | 54.9 | 59... |
| Bonds % | 60.0 | 40.5 | 45.1 | 40... |
| Cash % | 0.0 | 0.0 | 0.0 | 0.0 |

### Model Readings

| Model | Intra-Month Reading | Month-End Readings | | |
|---|---|---|---|---|
| | | 2025-11-28 | 2025-10-31 | 2025... |
| Stock/Bond Composite | 79.0 | 79.0 | 72.3 | 79... |
| Bond/Cash Composite | 76.0 | 80.2 | 77.1 | 83... |

### Sub-Model Readings

| Indicator | Intra-Month Reading | Month-End Readings | | |
|---|---|---|---|---|
| | | 2025-11-28 | 2025-10-31 | 2025... |
| Stock/Bond Internal Composite | 93.8 | 93.8 | 87.5 | 8... |
| Stock/Bond External Composite | 64.3 | 64.3 | 57.1 | 7... |
| Bond/Cash Internal Composite | 83.3 | 91.7 | 91.7 | 91.7 |
| Bond/Cash External Composite | 68.8 | 68.8 | 62.5 | 75.0 |

### U.S. Asset Allocation Model Conservative (40/60/0)

*Monthly Data 2015-01-30 to 2025-11-28 (Log Scale)*



Source: Ned Davis Research, Inc

| Performance | Full History Gain/Annum | 1-Year Gain/Annum | 5-Year Gain/Annum | 10-Year Gain/Annum |
|---|---|---|---|---|
| Model (Gross) | 6.3% | 11.4% | 5.6% | 6.9% |
| Model (Net) | 5.9% | 11.0% | 5.2% | 6.5% |
| Benchmark | 5.4% | 10.2% | 4.5% | 5.9% |

TF50302xRisk_ChtConserv_2

## U.S. Asset Allocation Model Aggressive (80/20/0)

- **Report:** TF50302xRisk_RPTAgg.RPT
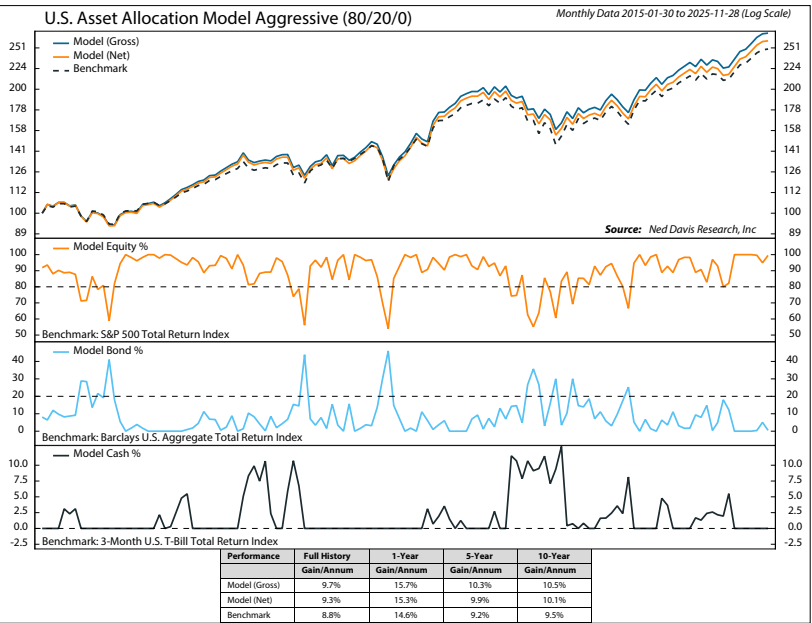- **Run Date:** 2025-12-02

**Aggressive Version**

Tabs: Overall Model | Stock/Bond Indicators | Bond/Cash Indicators

### U.S. Asset Allocation Model Aggressive Weights

| Asset | Model Weight vs. Benchmark Weight** | Month-End Readings | | |
|---|---|---|---|---|
| | | 2025-11-28 | 2025-10-31 | 2025-09-3... |
| Equity % | 80.0 | 99.5 | 95.0 | 99.6 |
| Bonds % | 20.0 | 0.5 | 5.0 | 0.4 |
| Cash % | 0.0 | 0.0 | 0.0 | 0.0 |

### Model Readings

| Model | Intra-Month Reading | Month-End Readings | | |
|---|---|---|---|---|
| | | 2025-11-28 | 2025-10-31 | 2025-09-... |
| Stock/Bond Composite | 79.0 | 79.0 | 72.3 | 79.5 |
| Bond/Cash Composite | 76.0 | 80.2 | 77.1 | 83.3 |

### Sub-Model Readings

| Indicator | Intra-Month Reading | Month-End Readings | | |
|---|---|---|---|---|
| | | 2025-11-28 | 2025-10-31 | 2025-09... |
| Stock/Bond Internal Composite | 93.8 | 93.8 | 87.5 | 87.5 |
| Stock/Bond External Composite | 64.3 | 64.3 | 57.1 | 71.4 |
| Bond/Cash Internal Composite | 83.3 | 91.7 | 91.7 | 91.7 |
| Bond/Cash External Composite | 68.8 | 68.8 | 62.5 | 75.0 |

### U.S. Asset Allocation Model Aggressive (80/20/0)

*Monthly Data 2015-01-30 to 2025-11-28 (Log Scale)*



Source: Ned Davis Research, Inc

| Performance | Full History Gain/Annum | 1-Year Gain/Annum | 5-Year Gain/Annum | 10-Year Gain/Annum |
|---|---|---|---|---|
| Model (Gross) | 9.7% | 15.7% | 10.3% | 10.5% |
| Model (Net) | 9.3% | 15.3% | 9.9% | 10.1% |
| Benchmark | 8.8% | 14.6% | 9.2% | 9.5% |

TF50302xRisk_ChtAgg_2

**Q:** *Can we combine two or more existing asset allocation models, or add or remove assets to create a new model? What about setting maximum and minimum limits for individual asset exposure?*
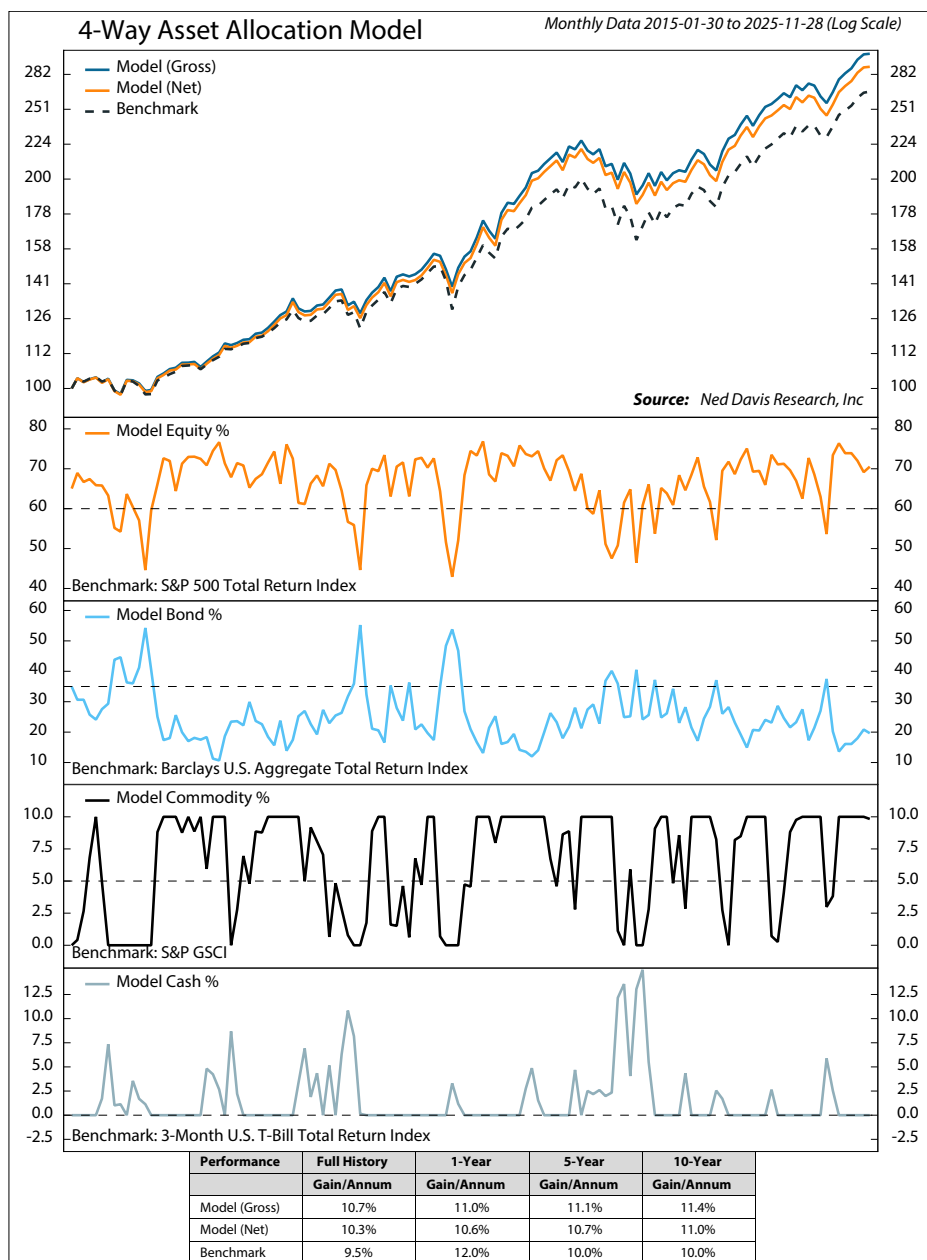
**A:** We can accommodate all of those requests! Because our optimization framework is flexible, there are limitless possibilities for creating new custom models from existing NDR content.

As an example, let's combine NDR's U.S. Asset Allocation Model with NDR's Commodity Model, also featured in our U.S. Strategy service. Let's also set a maximum weight limit on exposure to the commodity asset class.

Returning to our framework, the inputs to our optimizer now look as follows:

1. **Asset Pricing:** Stocks, Bonds, Cash, and Commodities

2. **Benchmark Weights:** 60% Stocks, 35% Bonds, 5% Commodities, 0% Cash

3. **Asset Views (Bullish/Bearish/ Neutral):** Derived from NDR's existing composite scores for Stocks, Bonds, Cash, and Commodities

4. **Appetite for risk (expressed as a number):** the larger the appetite for risk taking, the farther the weight recommendations stray from the benchmark weight

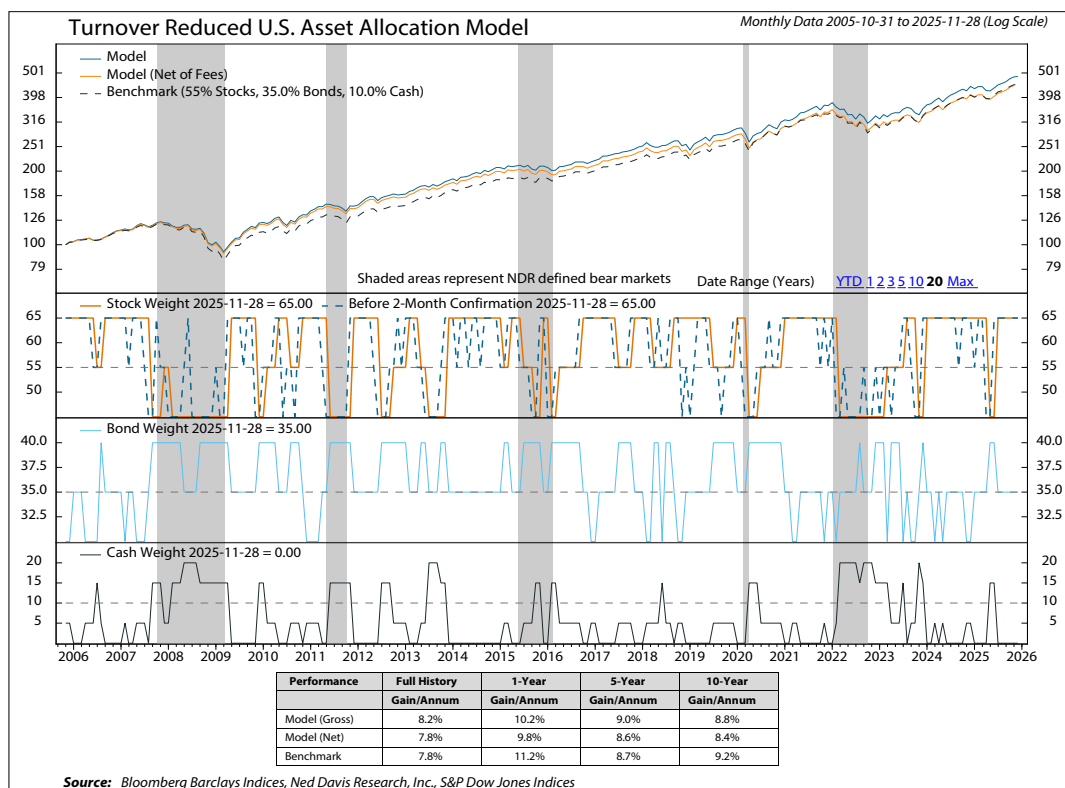5. **Optional Constraint:** Maximum weight for Commodities capped at 10%

The chart at left shows the new model. Notice in the 4th clip there are periods where the maximum commodity exposure is explicitly limited to 10%, which is an optional constraint. Maximum and minimum weights can be set to address specific mandates, risk profiles, and client preferences, and they can apply to one or all assets in the framework.



**4-Way Asset Allocation Model**          *Monthly Data 2015-01-30 to 2025-11-28 (Log Scale)*

Model (Gross)
Model (Net)
Benchmark

Source:  Ned Davis Research, Inc

Model Equity %
Benchmark: S&P 500 Total Return Index

Model Bond %
Benchmark: Barclays U.S. Aggregate Total Return Index

Model Commodity %
Benchmark: S&P GSCI

Model Cash %
Benchmark: 3-Month U.S. T-Bill Total Return Index

| Performance | Full History | 1-Year | 5-Year | 10-Year |
|---|---|---|---|---|
| | Gain/Annum | Gain/Annum | Gain/Annum | Gain/Annum |
| Model (Gross) | 10.7% | 11.0% | 11.1% | 11.4% |
| Model (Net) | 10.3% | 10.6% | 10.7% | 11.0% |
| Benchmark | 9.5% | 12.0% | 10.0% | 10.0% |

TF50302x4AA_Cht_2

**Q: My clients are invested in taxable portfolios and are therefore sensitive to frequent allocation changes. What steps could we take to reduce the number of allocation shifts without sacrificing too much return?**

**A:** There are many ways CRS has helped clients create turnover-conscious models, reducing the number of taxable events while also saving operational costs.

One method to reduce turnover is simply to define a minimum trade size, which prioritizes only the most impactful allocation changes. Minimum trade sizing is configurable by asset (e.g., the minimum move required for bonds can differ from the minimum move required for commodities) and is especially useful in a model containing many assets. On each rebalance date, the model could trade anywhere from zero to all of its assets, helping to reduce transactions wherever possible.

In models with just a handful of assets (e.g., stocks, bonds, and cash), we can implement a simpler turnover reduction approach, assigning specific weights to pre-defined allocation zones. For example, we can restrict the allocation to stocks to just one of three values – underweight at 45%, benchmark weight at 55%, and overweight at 65% – based on the range occupied by the original model's raw weight recommendation. The chart below shows an application of this approach.



**Turnover Reduced U.S. Asset Allocation Model**

Monthly Data 2005-10-31 to 2025-11-28 (Log Scale)

— Model
— Model (Net of Fees)
-- Benchmark (55% Stocks, 35.0% Bonds, 10.0% Cash)

Shaded areas represent NDR defined bear markets    Date Range (Years)    YTD 1 2 3 5 10 **20** Max

— Stock Weight 2025-11-28 = 65.00    -- Before 2-Month Confirmation 2025-11-28 = 65.00

— Bond Weight 2025-11-28 = 35.00

— Cash Weight 2025-11-28 = 0.00

| Performance | Full History | 1-Year | 5-Year | 10-Year |
|---|---|---|---|---|
| | Gain/Annum | Gain/Annum | Gain/Annum | Gain/Annum |
| Model (Gross) | 8.2% | 10.2% | 9.0% | 8.8% |
| Model (Net) | 7.8% | 9.8% | 8.6% | 8.4% |
| Benchmark | 7.8% | 11.2% | 8.7% | 9.2% |

*Source:* Bloomberg Barclays Indices, Ned Davis Research, Inc., S&P Dow Jones Indices

TF50302x2Mo_2

**NDR**

Turnover can be reduced even further when combined with a two-period confirmation requirement, meaning the recommended weight must remain in the same allocation zone for at least two rebalance periods before a reallocation takes place. In some cases, this can also help to reduce whipsaws. The orange line in the 2nd clip of the chart illustrates a two-period confirmation requirement. The blue dashed line in the same clip shows the stock recommendation without the 2-period confirmation.

The possibilities for NDR model customization are truly limitless, and we've had time to show you only a few ways that CRS creates unique asset allocation models from existing content. *To learn more about NDR's independent and objective research capabilities, along with many other research offerings, contact us at* CRSQuestions@ndr.com.

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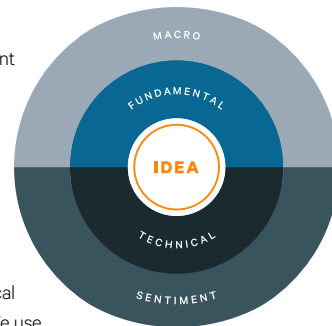
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