Alpha Research & Management

Benchmarks for "Active" Fixed Income Funds

9/1/2024, Samir Shah

With the rise in interest rates in 2022, there has been an explosion of new Fixed Income funds and ETFs in 2023 and 2024. Of these 151 identify as "Actively Managed.

Almost all funds benchmark against a Passive Index. There are no "Active Indices" to assess the performance of an "Active" fund against an Active Index, to determine an Active Fund's relative performance versus what is possible.

We have created a pair of Active Benchmark Portfolios that can be used to assess whether funds that are Actively Managed are reaching their potential.

Benchmark Active Model Portfolios	Aug-24	YTD 2024	1-year	3-year	5-Year	Cum returns 1/2016	Annual Alpha	Beta	Corr	Coef of Var
AGG Passive Index	1.5%	3.2%	7.3%	-6.2%	-0.4%	15.2%	0.0%	1	1.00	1028
Bench1: ARAM Active AGG+ IG	1.2%	3.3%	7.2%	-3.3%	4.4%	20.7%	0.6%	0.96	0.91	802
Bench2: ARAM Active AGG+ Broad	1.2%	4.9%	8.8%	0.6%	9.3%	28.2%	1.7%	0.76	0.87	627

- **We use 9 benchmark Fixed Income ETFs to represent bond market sectors**

ETF	Sector	Assets ($B)	Duration
AGG	Aggregate (All US IG)	$117.6	6.3
TLT	UST Long Duration	$53.2	17.1
BIL	UST T-Bills	$32.5	0.1
MBB	MBS Agency	$31.3	5.9
LQD	US $ Inv Grade Corps	$30.8	9.1
GOVT	US Treasury	$25.8	6.1
TIP	UST Inflation Bonds	$17.8	6.8
IAGG	International AGG IG bonds	$6.2	7.0
HYG	High Yield Corps	$16.8	3.1

- **2 Model Portfolios are created that can be used as Active Benchmark Indices**
    - **<u>Bench1: Active AGG+ IG</u> – using purely Investment Grade assets**
    - **<u>Bench2: Active AGG+ Broad</u> - adding HYG, as a proxy for higher yielding sectors that are often used by Active Managers – CLOs, convertible bonds, emerging market, etc**

<u>Methodology</u>

- **<u>Active Benchmark Portfolios are constructed from combinations of the 9 possible ETFs</u>**
- **A systematic risk targeting algorithm is used to build the active model portfolios, creating a consistent repeatable process for index construction**
- **The performance of the majority of Fixed Income "Active Funds" is best mapped to the AGG (high correlations)**
- **We target the risk of the AGG to construct the model portfolios**

- **Model Portfolios are reconstructed and rebalanced quarterly, responding to changes in volatility in AGG monthly returns, with weights of holdings changing**
- **The maximum weight of any fund is 50%**
- **Usually, 2-3 funds are selected at every rebalancing.**

<u>Statistical Characteristics for Identification of Active Funds</u>

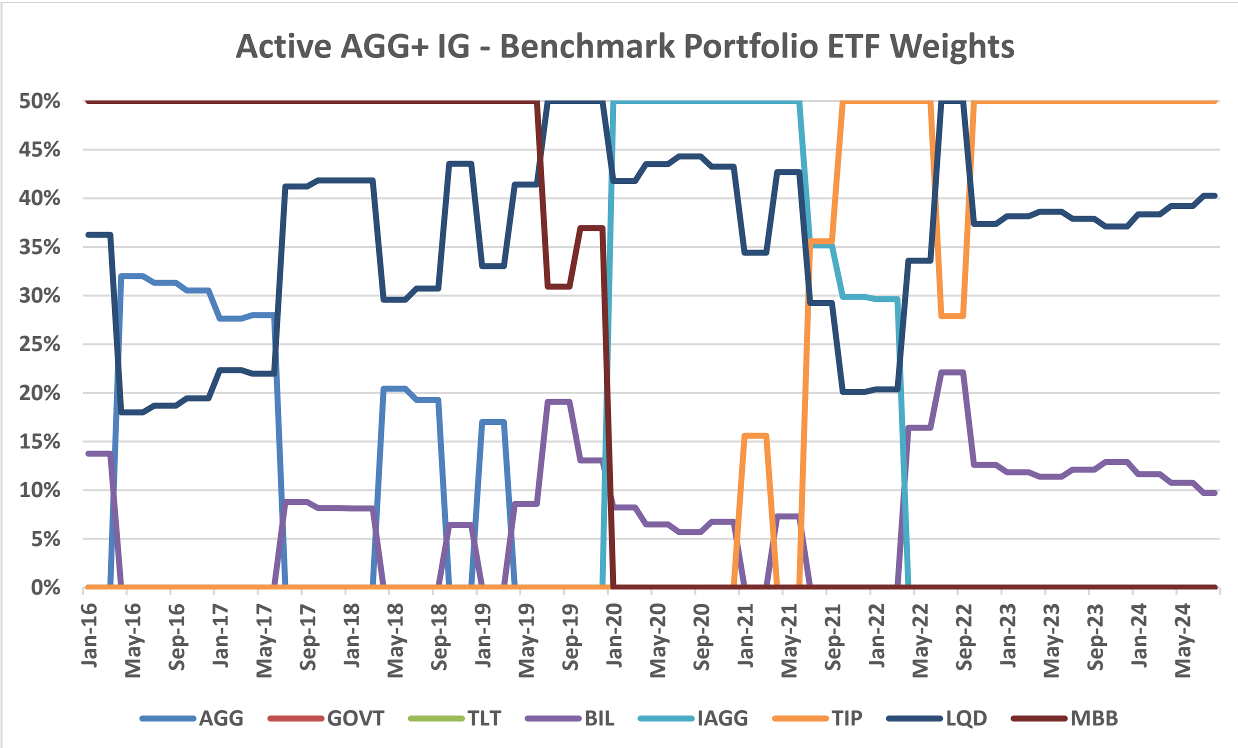
- A successful actively managed fund would have **low correlation** to their benchmark index
- The **Beta to the benchmark index of an Active manager should also demonstrate volatility and vary though time** as market regimes change and the manager responds though sector rotation or changing portfolio duration

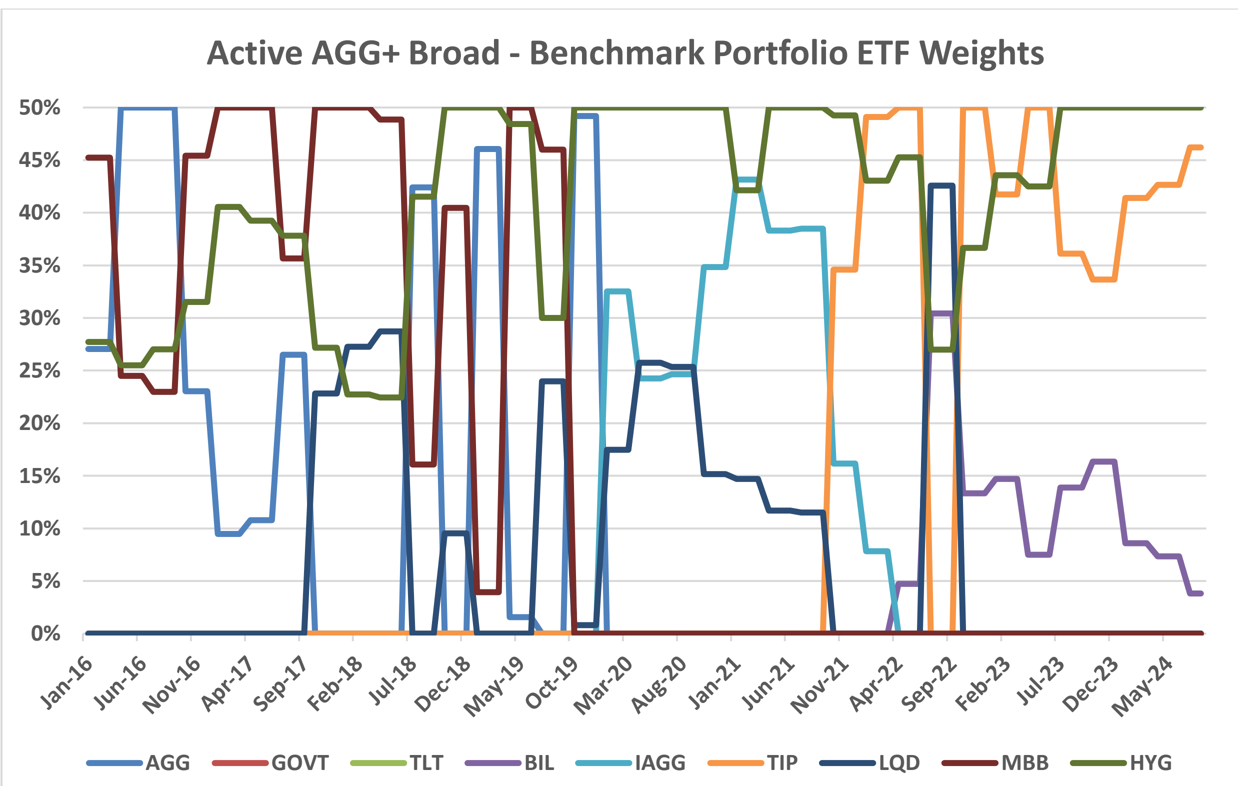
- If the fund manager succeeds in finding Alpha (the intercept of a regression of total returns), **then the Beta to the benchmark index could be lower**
- **A higher or lower Beta could also indicate duration differences** compared to the benchmark, if the correlation is high, and can be used to estimate the implied duration of a fund

- **<u>A change in Beta between periods would suggest a duration change and active management</u>**

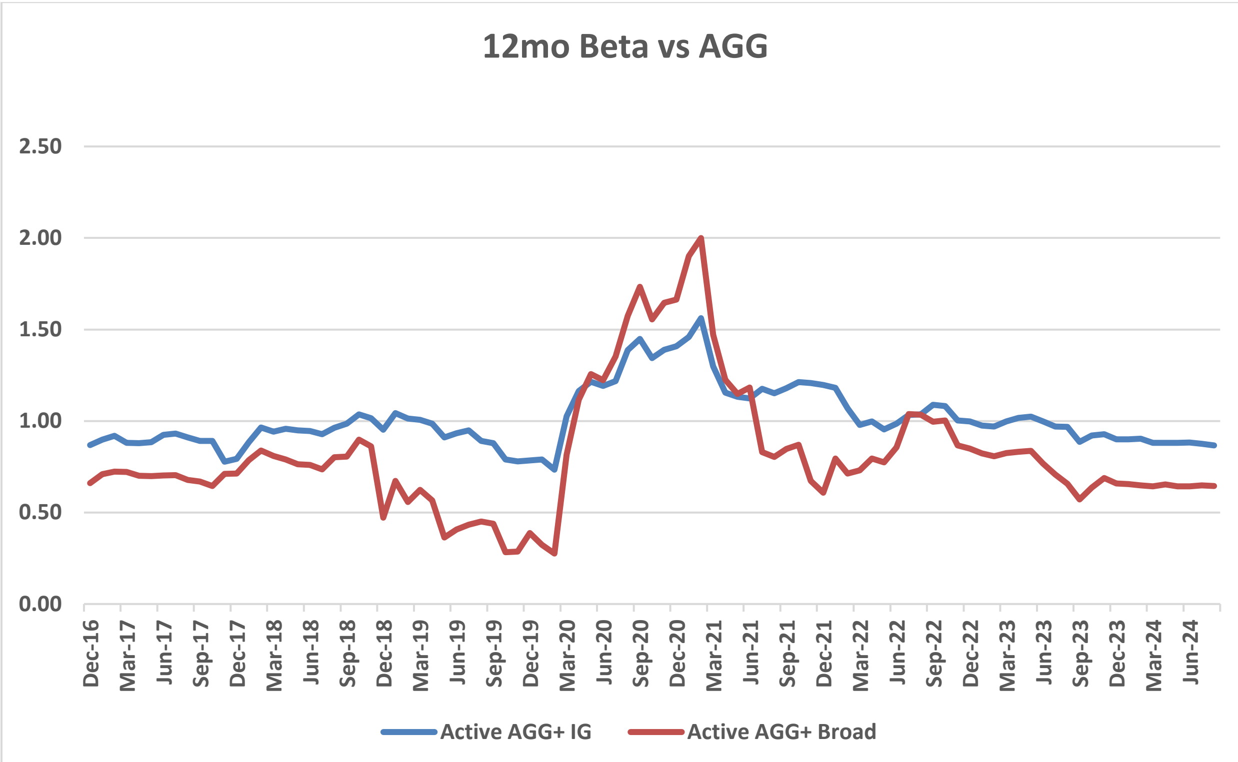
- **<u>Conversely, high correlations and stable Betas would imply that the fund is not truly 'Active'</u>**

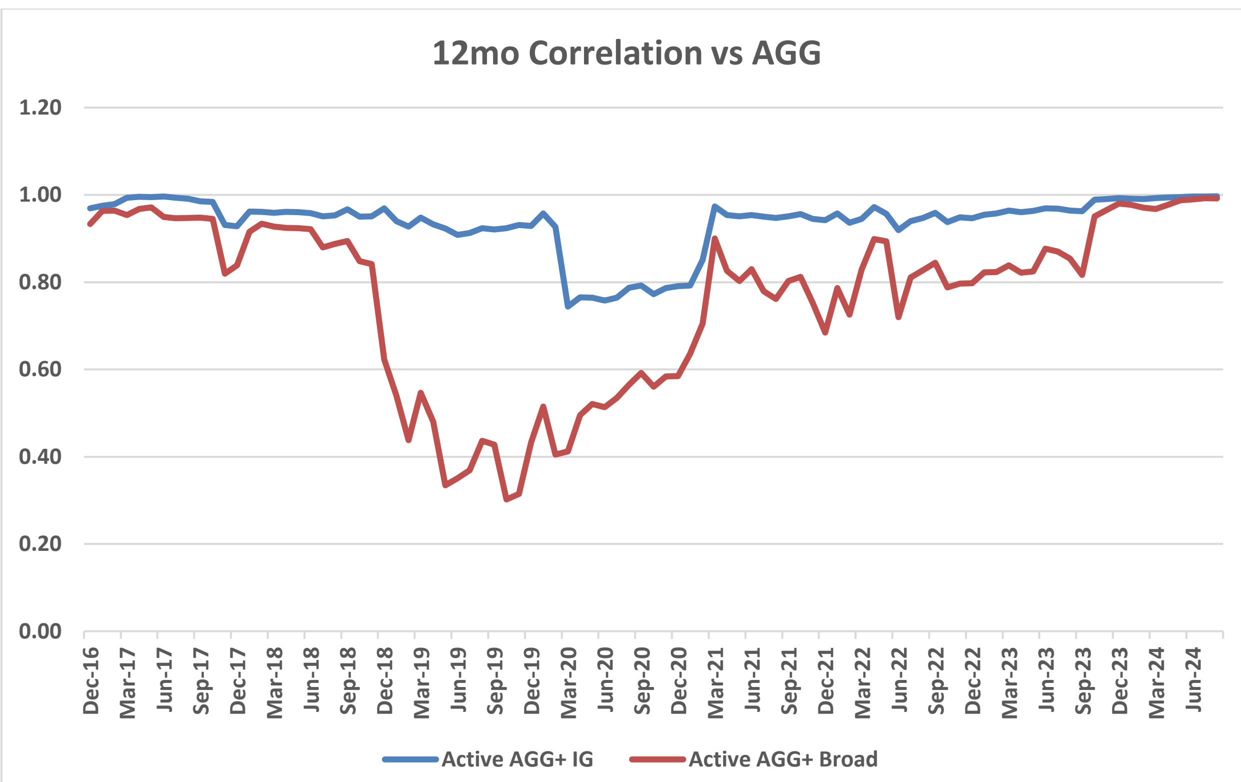
Active Benchmark Model Portfolio Weights



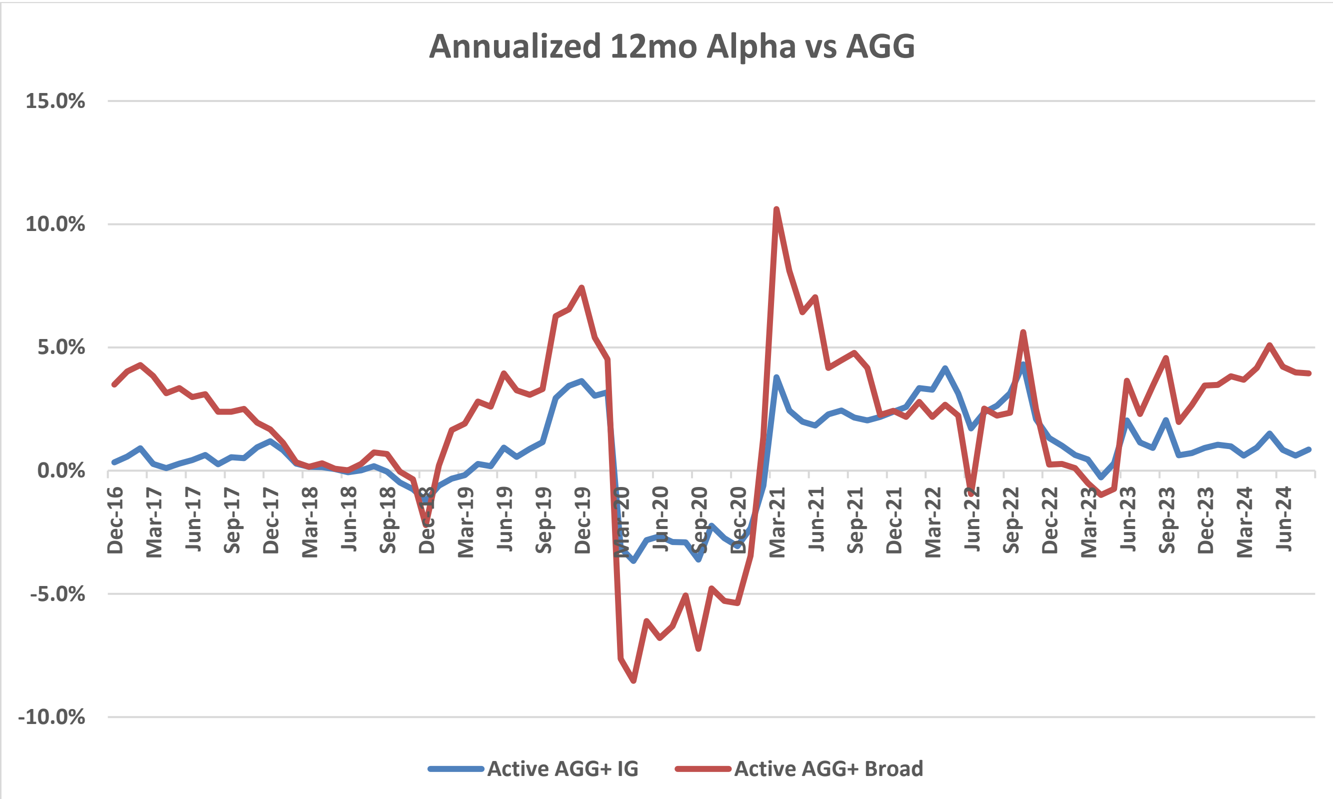


Active Benchmarks - Beta and Correlation vs AGG

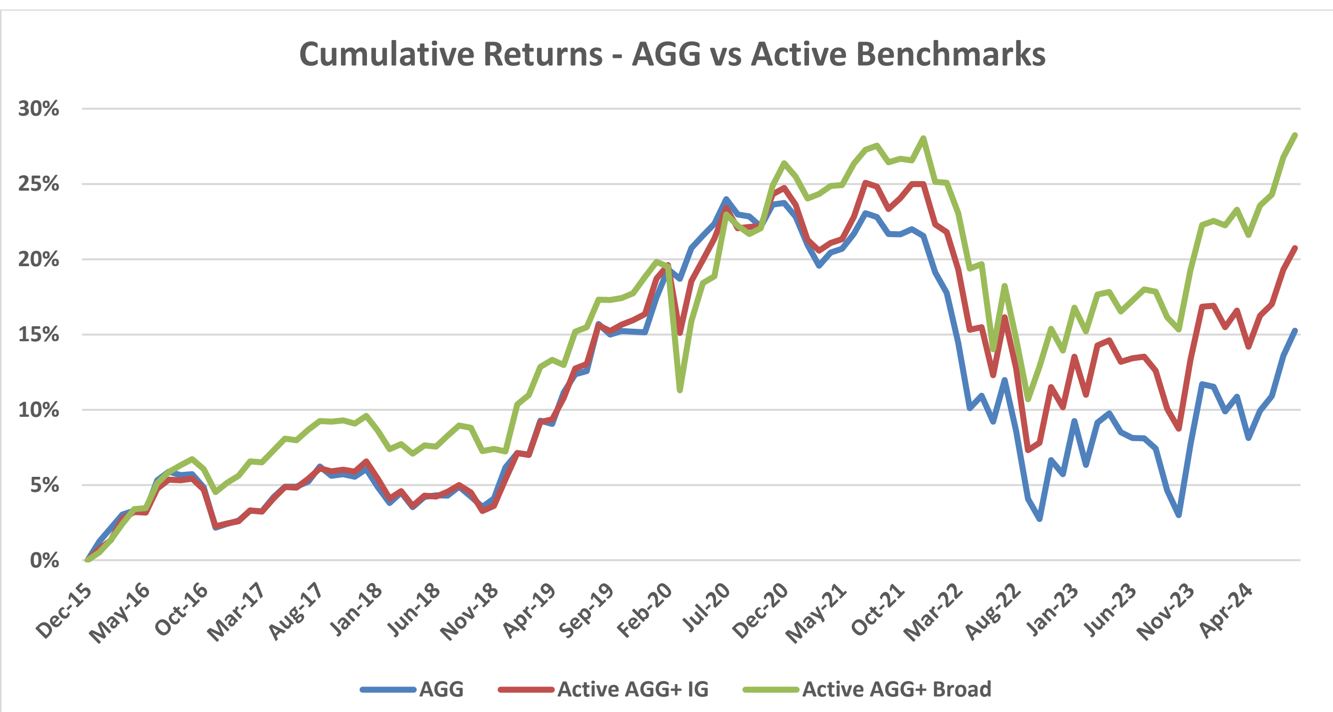




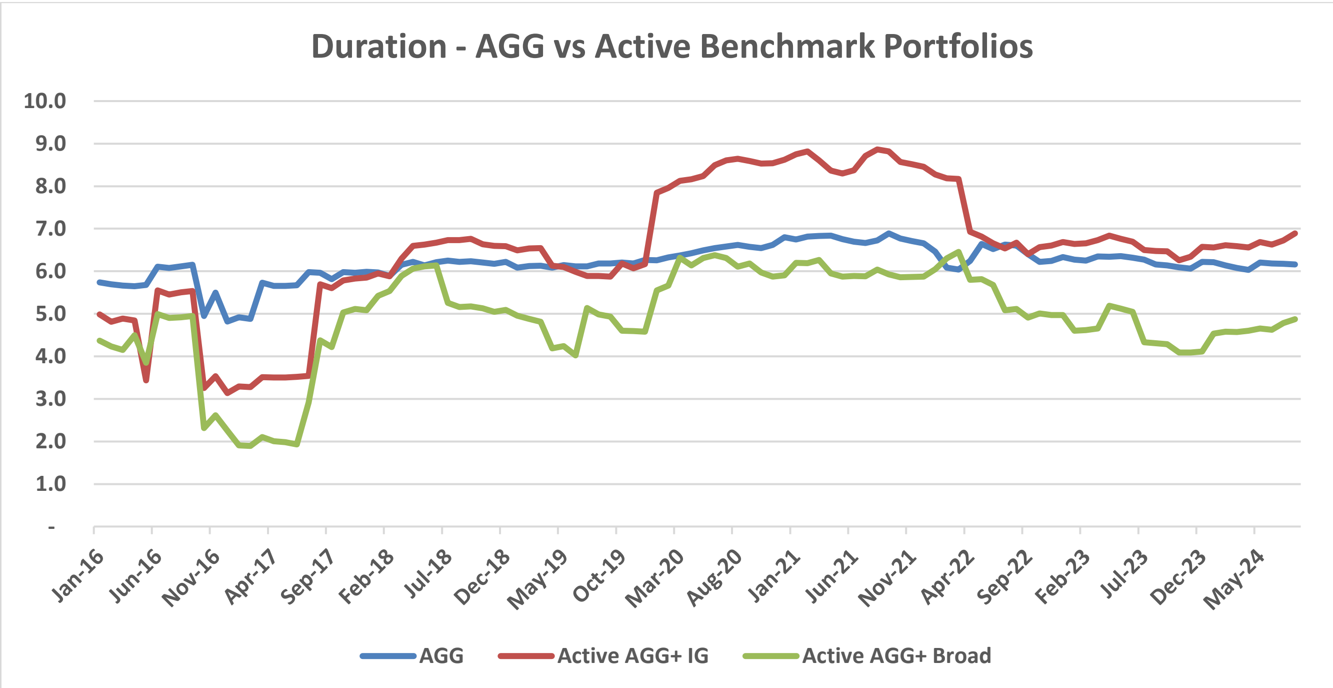
Active Benchmarks - Annualized Alpha vs AGG



Active Benchmarks - Cumulative Returns

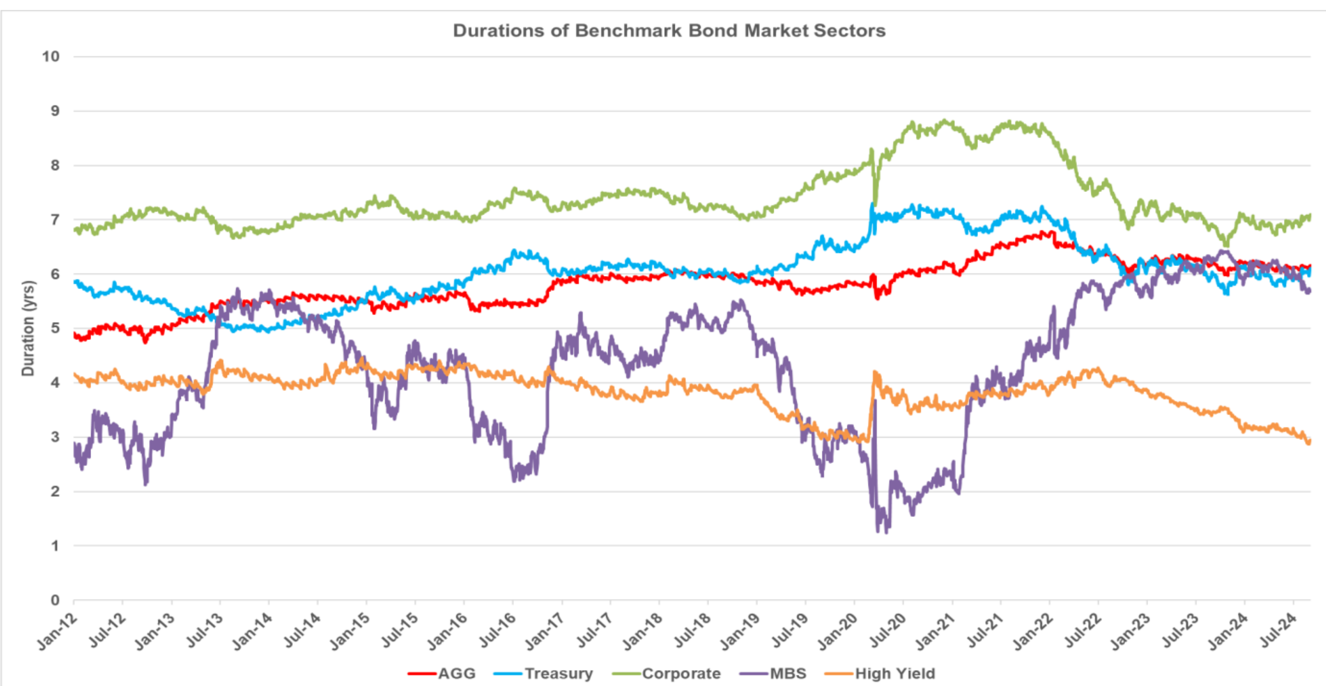


Active Benchmarks - Duration



The Case for Active Management in Fixed Income

The chart below highlights duration volatility in Fixed Income sectors. This creates opportunities for Active Management through duration management and sector rotation in response to rate, credit, yield curve and QE regime changes.



<u>What makes a Fixed Income Fund "Active"</u>

I asked ChatGPT some questions, and the answers (bold emphasis is mine) matched my understanding.

> ***"Active fixed income funds have fund managers who actively make decisions to buy and sell securities in an attempt to outperform the market. Passive fixed income funds, on the other hand, aim to replicate the performance of a specific bond index."***
>
> ***"Making fixed income funds active typically involves the fund manager actively managing the portfolio to generate returns that outperform the benchmark. Common active strategies in fixed income funds include:***
>
> - ***Security Selection:*** *Actively choosing individual bonds or other fixed-income securities based on the manager's analysis of credit risk, interest rates, and economic conditions.*
> - ***Duration Management****: Adjusting the fund's average duration, or interest rate sensitivity, based on expectations for interest rate movements. This can help capitalize on changing interest rate environments.*
> - ***Credit Analysis****: Assessing and actively managing credit risk by selecting bonds from issuers with strong creditworthiness or improving credit conditions.*
> - ***Sector Rotation:*** *Shifting allocations among different sectors of the fixed income market (e.g., government bonds, corporate bonds, mortgage-backed securities) based on market conditions and economic outlook.*
> - ***Yield Curve Strategies:*** *Adjusting the portfolio's exposure along the yield curve to capitalize on anticipated changes in interest rates at different maturities.*
> - ***Global Diversification:*** *Actively managing exposure to bonds in different regions and currencies to take advantage of global economic trends.*
>
> ***These strategies require active monitoring, analysis, and decision-making by the fund manager to navigate market conditions and generate returns beyond what might be achieved through passive management."***

Our Active Fixed Income Benchmark Indices and Model Portfolios fill a gap in the ability of the market and allocators to assess performance. We look forward to your comments.

Samir Shah

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