GMO
WHITE PAPER

# THE PASSIVE AGGRESSIVE AGG, REVISITED

***Passive investing in bonds today turns prudence on its head***

**Peter Chiappinelli** | February 2020

EXECUTIVE SUMMARY

The Bloomberg Barclays U.S. Aggregate index, aka the "Agg," is taking an aggressive stance on risk. While it seems counterintuitive to claim that a passive instrument is taking an aggressive stance on anything, that is the nature of bond indexes, by design. We believe they are fundamentally flawed in their construction. Today is a prime example. The Agg has been loading up on lower credit quality bonds at what looks to be the wrong point in the credit cycle, and it has been extending duration at some of the lowest yields in U.S. history. In other words, this passive aggressive index has turned prudence on its head.

It is well understood among investors that there have been massive flows out of active equity funds into passive vehicles, such as index funds and ETFs. What has not been as widely appreciated is that the same thing is happening in fixed income. Nearly 40% of all "core" bond funds today are passively managed (up from 16% only 10 years ago). One index in particular is vacuuming up these assets – the Bloomberg Barclays U.S. Aggregate Index, commonly known as "the Agg." We think this massive movement to the Agg is ill-timed and is turning the very concept of prudence on its head because the index suffers from the following problems:

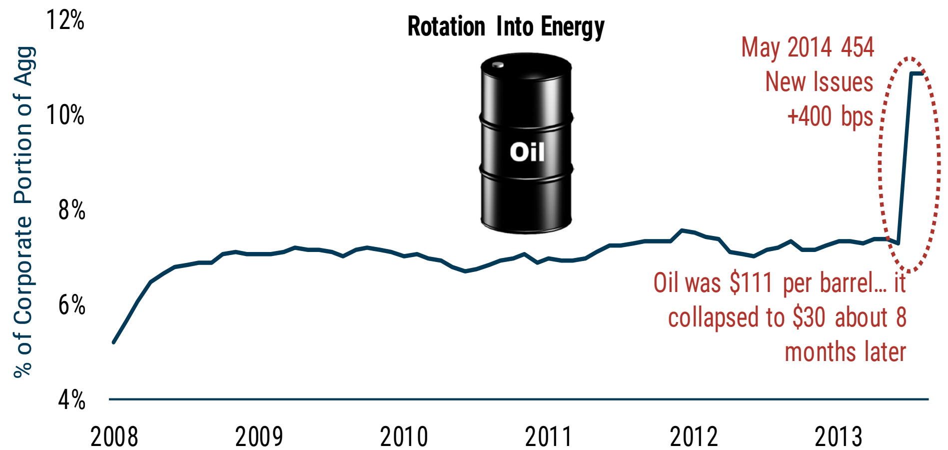
- Its construction is fundamentally flawed.
- It suffers from deteriorating corporate credit quality at a concerning point in the market cycle.
- It has been *extending* duration (increasing interest rate risk) at some of the lowest yields in U.S. history.
- It offers some of the lowest expected returns in its history.
- It hovers close to 0% in real yields.
- It has been one of the worst-performing strategies in bond management universes in the last 1, 3, 5, 7, and 10 years.

We first wrote about our Agg-related concerns back in 2017, but with interest rates dipping back toward historically low levels this fall, we wanted to revisit and expand on our concerns, especially given that flows into passive have only *accelerated* recently. We also wanted to offer some concrete suggestions for what we believe is a better approach to fixed income investing.

## *The Age-Old Bums Problem*

It is well understood among fixed income managers that bond indices suffer from a flawed construction. Laurence Siegel, formerly Director of Research at the Ford Foundation, named this flaw "The Bums Problem." It aptly points out that a cap-weighted index for bonds is, by design, loading up on the most indebted issuers within its universe (note that cap-weighting makes sense in equities, but it makes no sense in bonds). This means that an index is at great risk of rotating into the wrong sectors just as these issuers are the most vulnerable. For example, in the late 90s, the Agg dramatically increased its exposure to technology and telecom bonds, just in time for the Tech Bubble bursting. From there, it loaded up on bank credit, right before the Great Financial Crisis (GFC). Finally, as shown in Exhibit 1, in 2014 the Agg dramatically increased exposure to capital-intensive energy companies, just before oil prices suffered a historic collapse. *Remember, it behaves this way by design*.

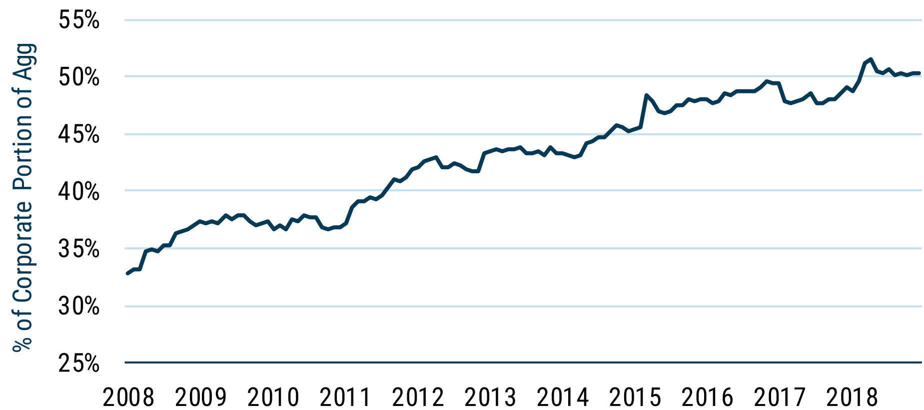
## EXHIBIT 1: BUMPING INTO THE BUMS - YOU CAN'T MAKE THIS STUFF UP




Source: POINT

Today, the index has a different problem as it has been shifting exposure to lower rated BBB-rated debt, resulting in a secular deterioration of corporate credit quality across all sectors of the Agg. Prior to the GFC, the corporate component held roughly 32% in BBB bonds – today, that number has risen to an eye-popping 50+% (see Exhibit 2).

## EXHIBIT 2: CAN YOU SAY BUMS...




Source: Bloomberg

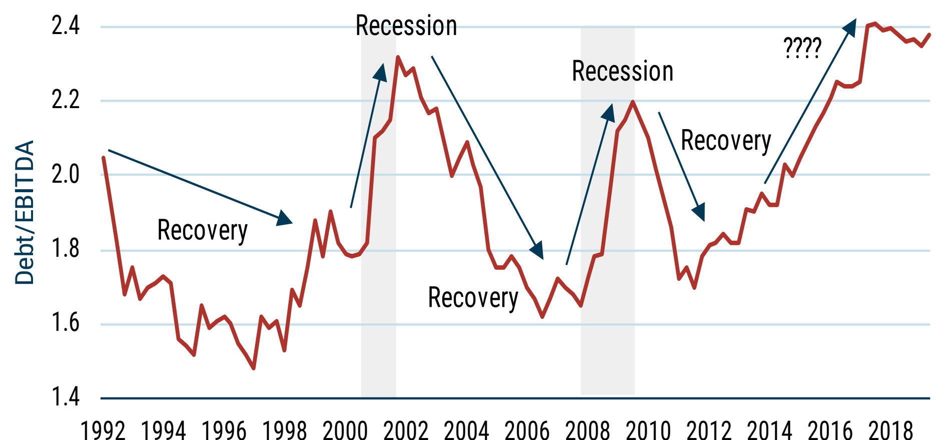
Importantly, at the same time that corporate credit risk is going up, compensation for taking that risk is going *down*. Prior to the GFC, the typical spread between AAA and BBB rated bonds hovered around 200 bps. Over the last 10 years, that number dropped to roughly 150 bps, and in just the last 2 years, with spreads tightening further, it is now solidly below 100 bps (see Exhibit 3). As the worldwide hunt for yield continues, the credit sector of the Agg is taking on significantly more risk yet paying investors less for doing so. This strikes us as the very definition of imprudence.

## EXHIBIT 3: TAKING MORE RISK...AND GETTING PAID LESS

Source: FRED

The sheer amount of corporate debt issuance is historic, however looking at that statistic in isolation is an incomplete assessment. Instead, the focus should be on the ability to service that debt. Yet when we take a look at an important measure of that ability, Debt to EBITDA (of investment grade issuers), the story is sobering. The cycle of Debt to EBITDA typically follows a logical pattern. During economic recoveries, as earnings (the denominator) increase and outpace debt, the ratio typically moves downward (see Exhibit 4). After the recession of 1990-91, the economy and corporate earnings started to improve, and the Debt to EBITDA ratio dropped materially. Then, in the 2000 recession, as earnings collapsed and debt (the numerator) became large relative to earnings, the ratio spiked. This logical pattern repeated in the 2008 recession. Today, however, something strange is going on. As expected, the ratio started to improve in the 2010 post-GFC recovery. In the past few years, however, it has been rising markedly – *before* any recession. This is odd. Debt is far outpacing earnings today, ominously raising the question as to what will happen to this ratio, already at extremes, when the next recession eventually hits?

## EXHIBIT 4: WHAT ABOUT NEXT RECESSION?




Source: Morgan Stanley

Calculation was of the median investment grade issuer (excluding financials and energy).

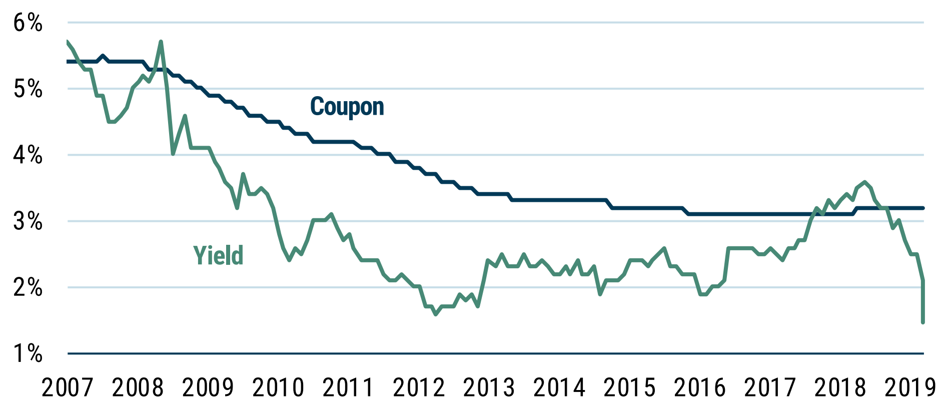
## *Three Forces Driving Out Duration*

### THE CRUEL BOND MATH OF LOWER YIELDS AND COUPONS

Without doing a rehash of intricate bond math, *duration* is an important calculation of bond risk. At its root, duration measures the sensitivity of a bond's price to a shift in interest rates. For example, a bond (or a bond portfolio) with a duration of 5 years means that for every 1% shift upwards in interest rates, there is a 5% drop in the price of the bond. All else being equal, the lower the yield, the higher the duration (and vice versa); the longer the maturity, the higher the duration (and vice versa). That's just how the math of bond risk works.

As shown in Exhibit 5, yields (and coupons) have been dropping steadily since the GFC and the introduction of Quantitative Easing by the Fed. Prior to 2008, the Agg's yield was close to 6%, but more recently has been at or even below 2%, significantly increasing its duration.

### EXHIBIT 5: BOND MATH, I.E., DECLINING YIELDS AND COUPONS

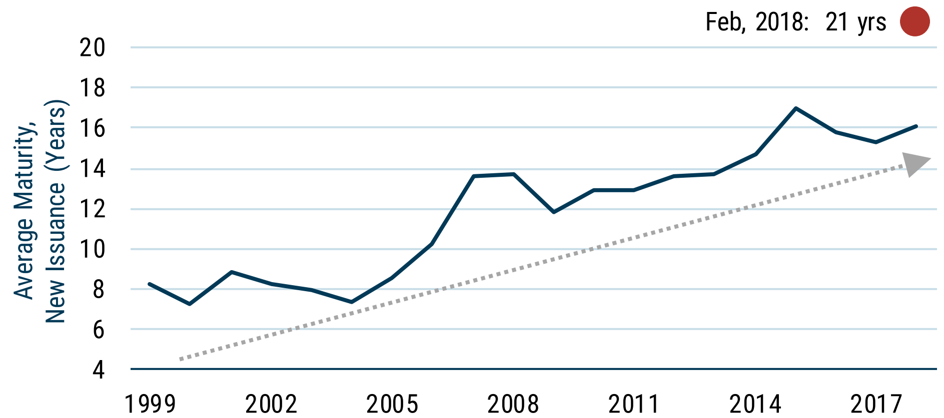



Source: U.S. Department of Treasury
Month-end observations, except for Sept. 4, the last data point. The intra-month yield actually bottomed on July 5, 2016.

### CORPORATE FINANCING BEHAVIOR DRIVING UP DURATION

CFOs of major corporations have seen interest rates trending lower and lower over the last 10 years. Money has become increasingly cheap. So, CFOs have been behaving rationally in the face of cheap money by issuing as much debt as they can and locking it in for as long as the market will let them (see Exhibit 6). The last few years go in the record books as having had the most issuance of corporate debt in American history and the longest maturity. Corporate America has been selling massive numbers of bonds. The Agg has been buying them. These lower yielding and longer maturity bonds have been finding their way into the Agg because that's what passive instruments do – they buy bonds without any regard for price.

## EXHIBIT 6: COMPANIES LOCKING IN LOWER FOR LONGER...

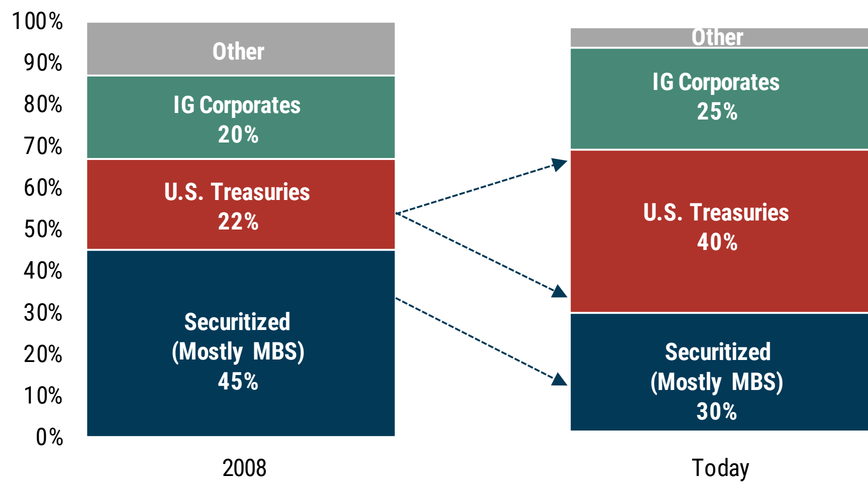



Source: SIFMA

## CHANGING COMPOSITION OF THE AGG

The final problem is that the Agg has dramatically changed its stripes since the GFC. Exhibit 7 shows that 10 years ago the largest sector, by far, was securitized loans (e.g., ABS, MBS); most of these types of securities have shorter maturities and duration. Today, longer-dated Treasuries are now the dominant sector of the Agg, while securitized bonds have dropped off significantly. This, again, has shifted both the maturity and duration of the Agg upward.

## EXHIBIT 7: SHIFT IN COMPOSITION




Source: Barclays

## THE NET-NET: MORE RISK AT THE WORST POSSIBLE TIME

For the last 10 years in particular, the yield on the 10-year U.S. Treasury has been steadily decreasing. In September 2019, just a few short months ago, it hit 1.47%, near the lowest yield ever recorded in U.S. history (as an important aside, rates in Europe were at 7-century lows). While it is entirely possible that rates could have gone lower,

prudence dictated that this was a period to be *reducing* risk by either shortening duration or reducing bond exposure. What has the Agg been up to these last few years? Just the opposite. Since the GFC, the Agg has extended its duration by close to 70% (see Exhibit 8). At basically the lowest yields in American history, when any prudent investor would likely consider *shortening* duration, the Agg did the exact opposite.

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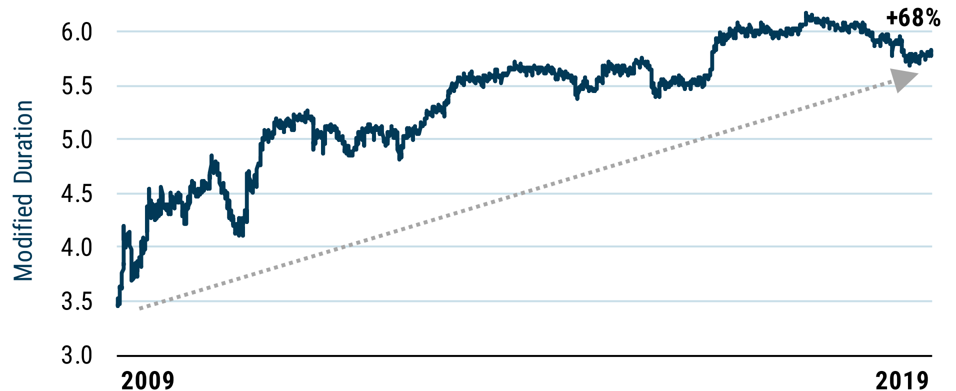
EXHIBIT 8: NET-NET – DURATION IS GETTING LONGER...

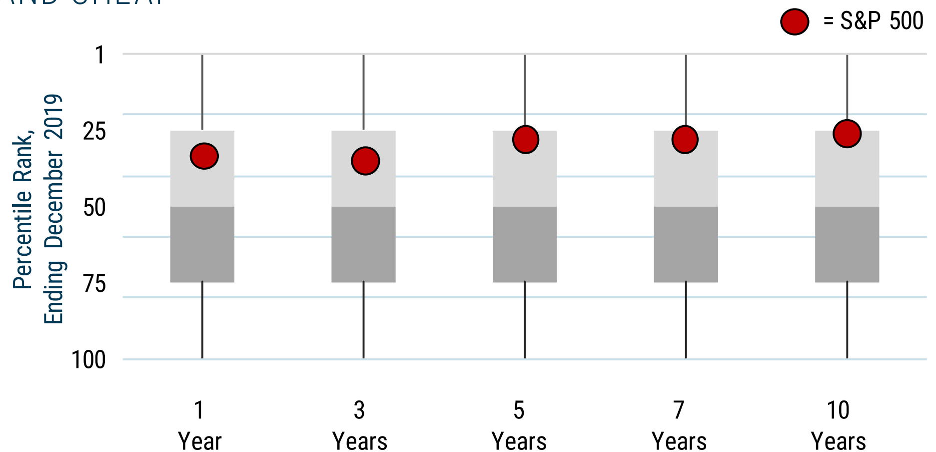



As of 12/31/19 | Source: Barclays

## *Performance of the Agg*

Choosing passive strategies is typically justified on a few fronts, but solid relative performance and low fees are frequently cited. For certain pockets of the *equity* markets, there is compelling evidence that passive strategies have done well on a relative basis; for example, active managers have historically had a difficult time adding alpha above the passive benchmark in U.S. large cap space. In Exhibit 9, we have plotted the ranking of the S&P 500 benchmark vs. a universe of active managers (through December 31, 2019). The passive S&P 500 index has performed respectably, ranking near the top third or top quarter over many time frames.

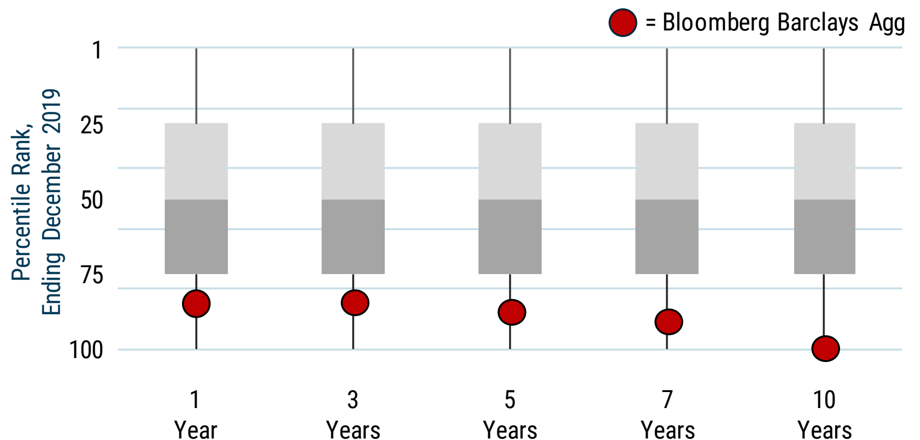
EXHIBIT 9: PASSIVE S&P 500 – QUITE RESPECTABLE AND CHEAP




As of 12/31/19 | Source: eVestment Universe of U.S. large cap active mangers. Net of fees.

Meanwhile, the Agg's performance relative to active bond managers is demonstrably poor (see Exhibit 10). In fact, over the last 3-, 5-, 7-, and 10-year time frames, the Agg is ranked at or near the very bottom of a comparative universe.[1] This is *despite* its low fees.

## EXHIBIT 10: PASSIVE AGG – HARDLY RESPECTABLE




As of 12/31/19 | Source: eVestment Universe of Core-Plus active bond managers. Net of fees.

## *Get Active*

What can fixed income investors do? Plenty. First, we do understand that many still need a bond portfolio that will be measured or benchmarked against the Agg. The classic "60% stock/40% bond" balanced benchmark, in fact, uses the Agg as the "40." Our advice, then, is to deviate from the benchmark as much as your policy, your risk budget, or your stomach allows. There are any number of ways to use that risk budget. Following is a list of things we are currently doing or have historically done in bond space.

**Underweight bonds (in favor of cash or alternatives) in a multi-asset class setting.** The first thing we do is to own less than benchmark weight to bonds in our multi-asset class strategies. At GMO, our flagship "balanced" strategy as of December 31, 2019 had an 800-bp underweight to bonds. With a flattish yield curve and much more room for bond rates to rise rather than fall, we believe cash-like assets offer a superior risk/reward trade-off. As of December 31, 2019 in our Benchmark-Free Allocation Strategy, for example, roughly 25% was allocated to liquid alternatives.

**Out of benchmark.** For those bond portfolios that have an explicit benchmarking to the Agg, and therefore cannot really deviate too much from its duration, we are spending our risk budget on out-of-benchmark credit sectors. The strategy is called GMO Core Plus, and its duration is roughly in line with the Agg, but with a notable overweight to structured credit (e.g., ABS, MBS, CMBS). We are finding good relative value in this sector today. In addition, the risk/reward trade-off for emerging market debt is worthy of an allocation.

**Alpha overlay.** We employ an alpha overlay strategy, run by our fixed income team, that takes relative value positions in various sovereign bond markets and currency markets. This overlay is capital-efficient in that it requires very little cash. The duration of this overlay, because it is taking long and short positions, hovers near zero.

1 This universe of active managers includes those who employ a "core-plus" approach, that is, they allow themselves to go out of benchmark, typically adding credit risk in high yield and emerging market debt, even though these sectors are not included in the Agg. However, when we compared the Agg to these managers on a Sharpe Ratio (i.e., risk-adjusted) basis, the passive Agg ranking was still extremely low.

***Peter Chiappinelli***
Mr. Chiappinelli is a member of GMO's Asset Allocation team. Prior to joining GMO in 2010, he was an institutional portfolio manager on the asset allocation team at Pyramis Global Advisors, a subsidiary of Fidelity Investments. Previously, he was the director of institutional investment strategy and research at Putnam Investments. Mr. Chiappinelli earned his MBA from The Wharton School at the University of Pennsylvania and his B.A. from Carleton College. He is a CAIA charterholder, and was the founding President of the CAIA Boston chapter. He is a CFA charterholder.

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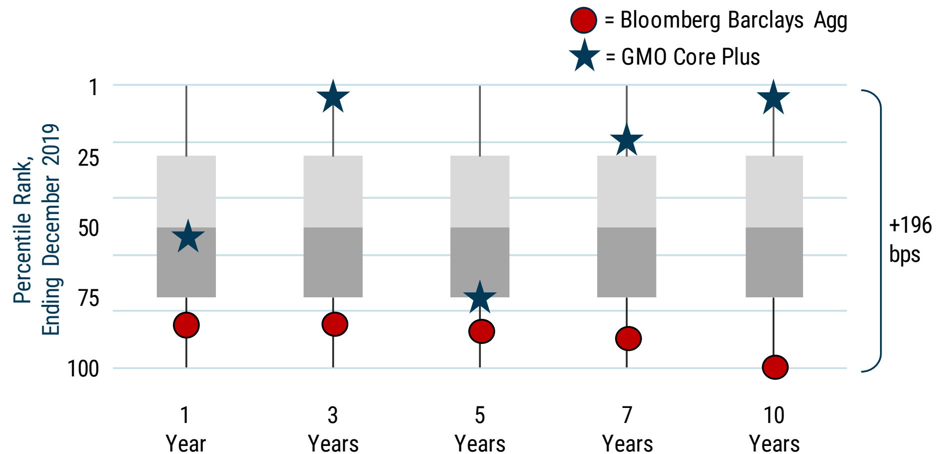
**High tracking error.** The overriding message is that investors should employ high tracking error to the Agg. Given its flawed construction and poor compensation for risk, we want our portfolios to look as different as possible while still maintaining client objectives and guidelines. This approach has served our clients well. Exhibit 11 is the same as Exhibit 10 but now includes the ranking of the GMO Core Plus Strategy. It has been able to add 196 bps of value over the Agg over the last 10 years, and has done so by doing many of the things it is doing today.

## EXHIBIT 11: THERE ARE THINGS YOU CAN DO




As of 12/31/19 | Source: eVestment Universe of Core-Plus active bond managers. Net of fees.

## *Passive Agg Is Turning Prudence on Its Head*

It seems odd to say that a passive index is making decisions, but that is exactly the point. The Agg's passive nature means it can fall victim to organic forces driving change – *it acts by not acting*. The result is a portfolio today that has turned prudence on its head. Its corporate sector is experiencing a credit deterioration at a concerning point in the credit cycle, and it has been extending duration at some of the lowest yields in U.S. history. With *real* yields hovering around 0%, it is offering one of the lowest *expected* returns in its history. While it is true it is a low-cost option, any investor in the passive Agg would have suffered a costly give-up in return over the last 10 years (relative to active managers). Because the passive Agg has organically become more aggressive over the last 10 years with little expected reward, prudence dictates a more active approach today.