The Case for Enhanced Index Strategy

Passive management is often thought of as an economical way to get market exposure; the clear advantage is that it maintains the full risk diversification benefits derived from an investor's asset allocation decisions and holds few surprises beyond what the market delivers. However, indexing also means its inability to deliver any return beyond the benchmark; and stock selection is determined by the index providers and stock weights are determined by the market.

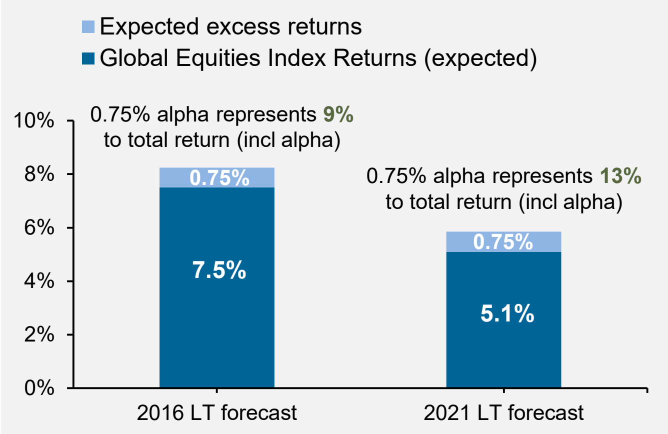
What if there was a way to potentially outperform the benchmark after fees and to do so with a risk profile highly similar to the benchmark? Our **enhanced indexation strategy** is designed to offer such a solution to the investors[1].

The enhanced indexing approach, which combines the benefits of passive investing with the high-conviction active management, is a highly efficient way of building a portfolio. The **JPM Global Research Enhanced Index** approach is designed to offer such a solution by taking an acute approach to risk management and yet deliver an opportunity to generate alpha and it has managed to meet this objective for the past 17 years[2].

Why Enhanced Indexing?

After a full decade of highly constructive equity returns, valuation multiples have become considerably higher. Together with the current macro backdrop, it is understandable that equity investors are likely to face a lower return environment moving forward. In Exhibit 1 on the right, we contrast the expected global equity return suggested by the JPMorgan Long Term Capital Market Assumptions in 2016 vs 2020, which highlights a significant 30% reduction in expected return during the recent 5 years from 7.5% pa to 5.1% pa. In this environment, passive investors need to be acutely aware of their inability to deliver any "alpha" or "excess return" which could otherwise become the silver lining to other active investors as any excess return generated will become a much more prominent contributor to the total equity return moving forward.

Exhibit 1 - Additional alpha is critical to overall returns



Source : J.P. Morgan Asset Management. Long term forecast as per JP Morgan Long Term Capital Market Assumptions as of 2016 and 2020 for AC World equity in USD terms. Forecasts, projections and other forward looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecast, projections or other forward statements, actual events, results or performance may differ materially from those reflected or contemplated.

1 The Investment Manager seeks to achieve the stated objectives. There can be no guarantee the objectives will be met

2 Source: J.P. Morgan Asset Management. Data as of end December 2020. **Past performance is not a reliable indicator of current and future results.**

J.P.Morgan Asset Management

Investors are constantly faced with the tradeoffs between risk and return. In its purest sense, risk can be thought of as the likelihood of losing one's investment. On a statistical level, it can be thought of as the volatility of investment returns, or standard deviation. The growth in passive assets leads investors to focus not only on absolute performance, but also relative returns and the volatility of such excess returns – or tracking error.

What does a low tracking error offer the investor? On surface, lower tracking errors suggest a lower likelihood of achieving alpha, either positive or negative. However, the attractiveness of enhanced indexing does not lie simply with its lower tracking error but with the higher efficiency. **Information ratio is typically the measure of this efficiency of alpha or excess returns generation per unit of incremental risk taken** (i.e. tracking error). An active strategy with excess return of 2% pa and a tracking error of 4% pa would have an information ratio of 0.50, while the enhanced index strategy with excess return of 0.75% pa and a tracking error of 1.0% pa would have an information ratio of 0.75.

Information ratio matters to investors. High and consistent information ratios not only provide a higher chance for investors to achieve their investment objective in a more predictable way, it also allows a more effective allocation of risk budget. Historically, enhanced index managers have consistently achieved higher information ratios than fully active managers with high tracking error targets based on the much broader breadth of opportunities usually captured by the enhanced index managers.

Typically as managers move up the risk curve, they tend to hold more concentrated portfolios in order to achieve higher levels of excess return, however each incremental unit of expected excess return often comes with some additional tracking error – and very often in a disproportionate amount. Highly active strategies (especially those who are "long-only") typically face the following challenges which contribute uncompensated risks for their portfolios:

- As portfolios become more concentrated, it becomes more difficult to remain sector neutral which historically is a good way to control relative risks.
- Including non-benchmark stocks in portfolios leads to increased relative risks, but not necessarily returns.
- The inability to implement "negative" information as fully as "positive" information, as the maximum negative bet is achieved by not holding a security.

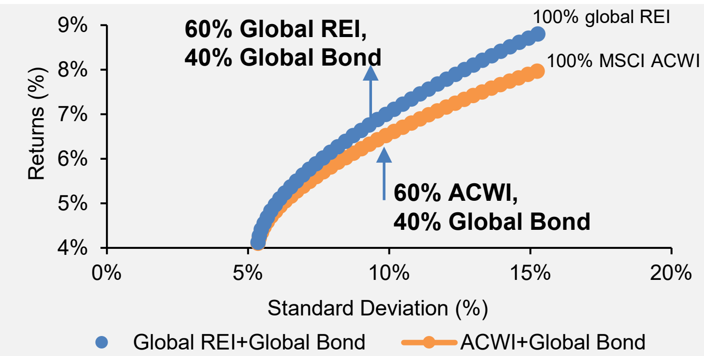
Uncompensated risks, raise the denominator of the information ratio equation without necessarily increasing the numerator, resulting in a lower information ratio. On the contrary, in our Global REI strategy, the combination of a proprietary, sustainable information advantage and a disciplined portfolio construction techniques which minimizes uncompensated risks leading to superior risk-adjusted returns. Enhanced index strategies do not attempt to achieve excess return levels as high as those in traditional active strategies, but generate the excess returns at higher information ratios in a highly consistent way.

The view from the efficient frontier

Exhibit 2 compares efficient frontiers using solely index returns for both stocks and bonds (shown in orange) and the corresponding efficient frontiers when our enhanced index strategies are substituted for their respective index funds (shown in blue). In each instance, the inclusion of our enhanced index strategies raises the aggregate return with only a small corresponding increase in the aggregate risk. We believe this increase in risk is a small price to pay for the increase in returns.

In each efficient frontier, we have marked the standard 60% stocks/40% bonds allocation point for both the passive stock allocation and our enhanced indexing strategy. Regardless of the strategy, there is a significant improvement in return with a minimal corresponding increase in risk.

Raising the efficient frontier with Research Enhanced Investing (REI) versus passive equity indexes.
Exhibit 2 – Global REI vs Passive equity index



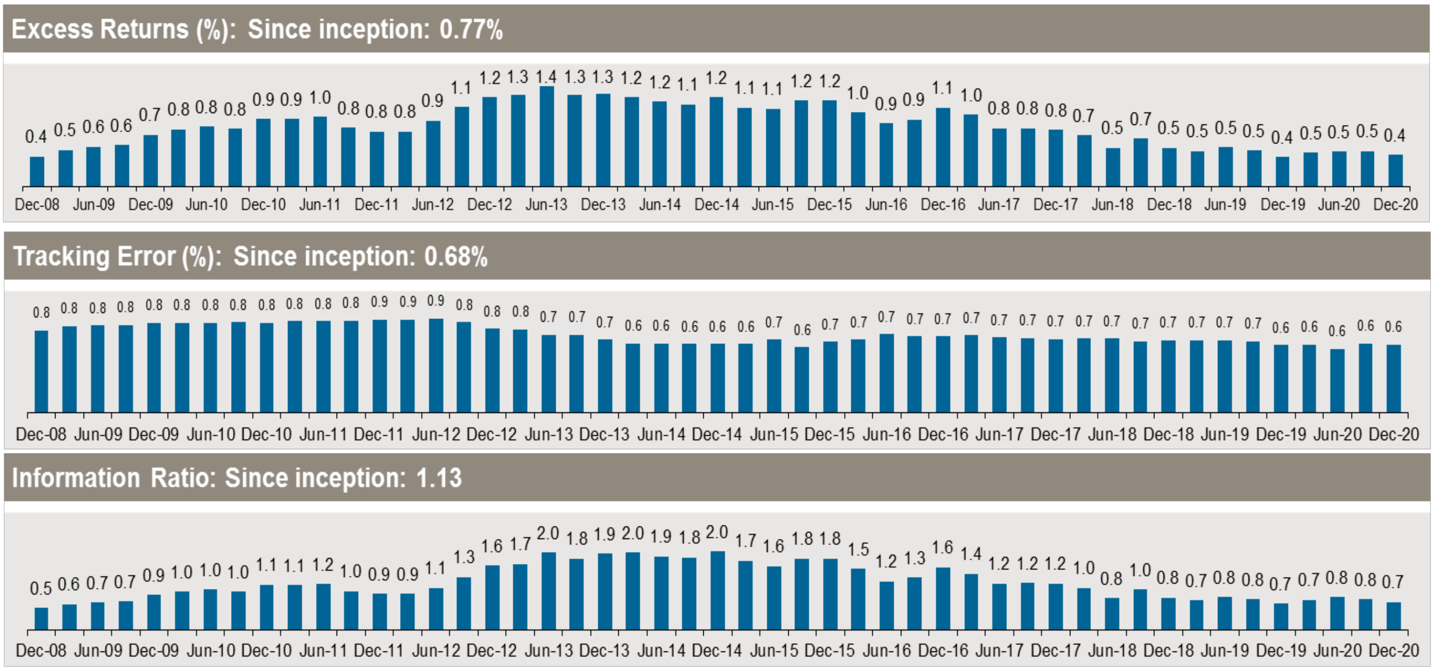
Source: J. P. Morgan Asset Management, Bloomberg. Data from October 2003 to November 2020. Performance data for global REI portfolio is based on the Global ACWI REI Composite in USD gross of fees. Global bond returns are based on Bloomberg Barclays global aggregate total return index. **Past performance is not a reliable indicator of current and future results.**

Why J.P. Morgan Global Research Enhanced Index Strategy?

J.P. Morgan Global REI is an index-like portfolio that exploits stock specific ideas. We target to deliver positive excess returns, driven by the insights from our fundamental research analysts, and to do so with risk characteristics similar to the benchmark. Like an index fund, our strategy is close to fully invested at all times, so we do not engage in market timing. Our sector weights are tightly controlled relative to the benchmark and we continually monitor our risk factor exposures. The key focus here is to deliver consistent alpha and at the same time minimize our active risk (ie. tracking error)[3].

Our Global REI strategy launched in September 2003 and has delivered an annualised excess returns of 0.77% at a tracking error of 0.68 as shown in Exhibit 3 below. The positive excess returns along with a low tracking error has led to a high information ratio of 1.13 since inception.

Exhibit 3 - Global REI: Rolling 5 years quarterly periods



Source: J.P. Morgan Asset Management, Factset. Strategy performance is calculated in compliance with GIPS® standards, where segregated mandate portfolios and/or pooled funds, as relevant, managed in accordance with the strategy are grouped into a 'composite'. GIPS Composite name = Global ACWI REI Composite. Base currency = USD. *Benchmark changed from MSCI World to MSCI ACWI on 31 May 2010. Composite inception date September 2003. Total return assumes the reinvestment of income. Excess returns are calculated on a geometric basis. Actual performance will vary depending on security selection and the applicable fee schedule. Movements in currency rates can adversely affect the return of your investment. Data as of end December 2020. **Please refer to the GIPS Composite Disclosure slide. Past performance is not a reliable indicator of current and future results.**

The long term excess performance of our Global REI strategy is attributable to the ability of our fundamental research analysts to deliver in-depth, stock specific investment insights and to our portfolio managers who manage portfolios maximizing exposure to our analysts' insights while keeping a benchmark-like skeleton (ie. maintaining region, sector and style neutrality). Our team consists of experienced and stable group of 100+ investment professionals globally having strong expertise in both quantitative and qualitative analysis. We spend approximately USD 150 million annually on our research budget to ensure the superior quality of fundamental research which we believe is second to none in the industry. Our breadth of research coverage allows us to analyses almost all of the names in the benchmark, which is vital to being a successful enhanced indexer. The stocks we find attractive we overweight versus its corresponding benchmark weight and we underweight the unattractive stocks. This fundamental approach is vastly differentiated from the competition in enhanced indexing where many of them choose to use a pure quantitative approach where backward-looking and historical data are the key drivers. Fundamental approach is less prevalent in this space and that's where the J.P. Morgan global REI strategy appears unique. We rely on the expertise of our strong team of analysts and the fundamental research forms the foundation of the strategy's success.

3 The Investment Manager seeks to achieve the stated objectives. There can be no guarantee the objectives will be met.

Conclusion

Enhanced index strategies, given their emphasis on modest excess returns and rigorous risk management, can be an important part of the solution for improving investment efficiency.

Investors considering a shift from traditional active equity strategies to passive index funds, in an effort to decrease active equity risk, may find a more risk-efficient solution in enhanced index strategies. Conversely, those with a large allocation to passive strategies, but in need of excess return may determine that enhanced index strategies hit their sweet spot on the return/risk spectrum.

J.P. Morgan global REI strategy adheres to a long-standing investment philosophy, have strong research capability with a dedicated team of analysts, follows a rigorous portfolio construction/risk management approach and have consistent track record of more than 17 years. We strongly believe that it will continue to provide investors an ideal to enhance their investment efficiency.

GIPS Composite Disclosure - Global ACWI REI 100 Composite (USD)

Year	Composite Return	Benchmark Return	Composite 3-Yr Ann St Dev	Benchmark 3-Yr Ann St Dev	Number of Portfolios (*throughout period)	Dispersion	Market Value at end of Period	Percentage of Firm Assets	Total Firm Assets
2019	27.92%	26.60%	11.52%	11.38%	<5	N/A	407,212,589		
2018	-9.37%	-9.41%	10.79%	10.62%	<5	N/A	311,642,044	0.09%	349,453,000,000
2017	24.06%	23.97%	10.50%	10.51%	<5	N/A	461,457,313	0.12%	397,864,000,000
2016	8.16%	7.86%	11.15%	11.21%	<5	N/A	1,423,219,656	0.44%	323,024,000,000
2015	-1.77%	-2.36%	10.82%	10.94%	<5	N/A	1,206,168,435	0.36%	337,498,000,000
2014	5.93%	4.16%	10.48%	10.64%	<5	N/A	1,230,841,839	0.36%	346,370,000,000
2013	24.37%	22.80%	14.25%	14.14%	<5	N/A	1,164,128,490	0.34%	339,656,000,000
2012	18.01%	16.13%	17.30%	17.35%	<5	N/A	938,170,480	0.33%	285,186,000,000
2011	-6.76%	-7.35%	20.64%	20.63%	<5	N/A	796,399,463	0.28%	279,893,000,000
2010	13.59%	12.49%	24.03%	24.06%	<5	N/A	855,836,122	0.28%	302,549,000,000

J.P. Morgan Asset Management claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. J.P. Morgan Asset Management has been independently verified for the periods 1st January 1996 to 31st December 2018. The verification reports are available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation. Verification has not included the J.P. Morgan Taiwan investment process.

The Firm:
For the purpose of GIPS® compliance, the Firm is defined as the J.P. Morgan London, J.P. Morgan Hong Kong, J.P. Morgan Singapore and J.P. Morgan Taiwan investment processes of J.P. Morgan Asset Management. J.P. Morgan Taiwan investment process was added to the Firm definition with effect from 1st January 2019. J.P. Morgan Japan was removed from the Firm definition with effect from 1st January 2020. A complete list and description of all the Firm's composites is available on request.

Definition of the Composite:
This composite consists of portfolios which are managed according to the following rules. The portfolios are managed by the Global Research Enhanced Index Team; they are segregated funds; they can't have country exclusions and are allowed to hold off benchmark bets; must seek a tracking error of 1%-1.25%; must invest in developed and emerging market securities and are currently managed against the MSCI All Country World TR (Net) Index. A minimum account size of USD 100 million applies for this composite. The composite is constructed from discretionary portfolios only. It does not contain any returns that have been carved out of other multi asset class portfolios. The composite benchmark is the MSCI All Country World TR Net Index. The composite benchmark is calculated net of withholding tax from a Luxembourg holding company's perspective. The composite benchmark changed on 31st May 2010 from the MSCI World benchmark due to an evolution of the existing strategy to facilitate market demand for exposure to emerging markets. Prior to this change the composite did not have exposure to emerging markets. No portfolios in this composite are leveraged through the use of derivatives or other means. Portfolios may be permitted to use forward contracts for the purposes of hedging only. Additionally some portfolios are permitted to use security and currency futures and options for positioning, according to the guidelines. The composite incepted on 30 September 2003 and was created in October 2017.

Valuation and calculation

1. The returns shown for this composite are the asset-weighted averages of the performance of all of the individual portfolios in the composite using beginning of period weightings. The performance results are time-weighted rates of return with the reinvestment of income, that are net of commissions, transaction costs and non-reclaimable withholding taxes, where applicable. Gross returns do not reflect the deduction of management fees or any other expenses that may be incurred in the management of the account. Net returns are net of model management fees in effect for the respective time period. Model net returns are calculated by subtracting 1/12th of the fee listed in the fee disclosure section from the gross composite return on a monthly basis. No other fees in addition to the investment management fee and trading expenses have been deducted in the calculation of these net returns. No performance based fees have been deducted. Actual management fees charged may vary by account due to various conditions described in Part IIA of Form ADV.
2. The returns for indices do not include any transaction costs, management fees or other costs.
3. Additional information regarding policies for valuing portfolios, calculating performance and preparing compliant presentations are available upon request.
4. Internal dispersion measures the spread of annual returns of individual portfolios within a composite. It is calculated using the asset-weighted standard deviation of the gross returns of portfolios that were included in the composite for the full year. Internal dispersion is not shown for calendar years with five or fewer portfolios in the composite for the full year.
5. The three year annualised standard deviation measures the variability of the composite and benchmark returns over the preceding 36 month period. Standard deviation measures are not shown where there are less than 36 monthly observations available.
6. All portfolios in this composite have been valued at least monthly to June 2005 and daily thereafter (excluding Hong Kong accounts which continue to be valued monthly), on a trade date basis using accrual accounting.
7. Past performance is no guarantee of future results. As with any investment vehicle, there is always the potential for gains as well as the possibility of losses.
8. Until the Total Firm Assets are finalised, the previous year's Total Firm Assets will be carried forward as an estimate.

Fee: JPMorgan Asset Management's (JPMAM) typical schedule of management fees payable in USD for Global ACWI REI 100 clients is 0.20% per annum.