PRINCIPLES FOR EFFECTIVE PORTFOLIO CONSTRUCTION

A DISCIPLINED APPROACH TO BUILDING STRONGER PORTFOLIOS
As we’ve transitioned into a new market cycle, it has never been more important to build portfolios that have greater potential to capture opportunities, weather downturns and achieve long-term goals. This booklet provides the essentials of portfolio construction; within it you will discover key strategies and a systematic framework to build portfolios that help solve investor needs.
PRINCIPLES FOR EFFECTIVE PORTFOLIO CONSTRUCTION

1. START WITH AN ASSET ALLOCATION PLAN
2. DIVERSIFY TO SMOOTH OUT THE RIDE
3. REBALANCE TO STAY THE COURSE
4. USE THE 4 Ps FRAMEWORK TO SELECT INVESTMENTS
5. CHOOSING THE APPROPRIATE INVESTMENT IS KEY
6. LOOK BEYOND TOTAL RETURNS
7. PUT IT ALL TOGETHER
Begin at the end—What’s the goal?

A portfolio should be a reflection of each investor’s unique goals.

- What are they trying to accomplish?
- When will they need the money?
- How much risk are they willing to take to achieve their objectives?

Asset allocation has historically been the primary driver of a portfolio’s performance and risk. Answering these questions will determine how to properly allocate across asset classes and help investors achieve their goals.
Building a strategic asset allocation model

What are your goals?

- College
- Buying Home
- Retirement

What is your risk tolerance level?

- Low
- High

What will you need the money?

- 20-80
- 50-50
- 80-20

STRATEGIC ASSET ALLOCATION MODELS*

<table>
<thead>
<tr>
<th>Allocation</th>
<th>Return</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-80</td>
<td>5.74%</td>
<td>4.43%</td>
</tr>
<tr>
<td>50-50</td>
<td>7.53%</td>
<td>7.91%</td>
</tr>
<tr>
<td>80-20</td>
<td>9.15%</td>
<td>11.67%</td>
</tr>
</tbody>
</table>

*10-year historical results as of 12/31/2020. Source: Bloomberg Barclays, Merrill Lynch, Morgan Stanley, MSCI, Russell, J.P. Morgan Asset Management Multi-Asset Solutions. U.S. large cap: Russell 1000 Growth Index® & Russell 1000 Value Index®; U.S. mid/small cap: Russell 2500 Index®; U.S. REITs: Morgan Stanley REIT Index; developed markets equity: MSCI® EAFE Index; emerging markets equity: MSCI Emerging Markets IndexSM; U.S. investment grade: Bloomberg Barclays U.S. Aggregate Index; U.S. high yield: Bloomberg Barclays U.S. Corporate High Yield 2% Issuer Capped Bond Index; emerging markets debt: J.P. Morgan EMBI Global Index. The model performance shown is hypothetical and for illustrative purposes only and does not represent the performance of a specific investment product. The performance presented does not reflect the deduction of expenses associated with a fund, such as investment management fees and fund expenses, including sales charges if applicable. Past performance is no guarantee of future results. For illustrative purposes only.
Diversification works

The last 15 years have provided a volatile and tumultuous ride for investors, with a global financial crisis, numerous geopolitical conflicts, a global pandemic and two major market downturns.

Yet despite these difficulties, a well-diversified portfolio of stocks and bonds has weathered the market ups and downs. Utilizing a balanced asset allocation can smooth out the ride for clients, which will help keep them invested. And the key to any good investment plan is being able to stay invested, to ultimately achieve your long-term goals.
The power of diversification


Discipline Approach to Building Stronger Portfolios
Stay on course; don’t “set it and forget it”

As markets shift, so do portfolio allocations. Without rebalancing, investors can gradually become overexposed to unwanted risks. In this simple illustration, over just the 1st quarter 2020, the 60% equity and 40% fixed income portfolio left untouched drifted to become a 51% equity and 49% fixed income portfolio.

Create a rebalancing policy

Some portfolios are rebalanced according to a set schedule, others after major market moves and still others when assets stray from original targets. What’s most important is creating a formal rebalancing policy and following it faithfully.
Rebalancing to stay the course

Rebalancing on schedule to help maintain strategic allocation

The 60-40 portfolio has drifted 9% in just one quarter

KEY TAKEAWAYS

24% of investors’ managing portfolios didn’t rebalance at all during the COVID-19 volatility.

Now is a good time to rebalance back to your strategic asset allocation and consider:

- Maintain portfolio protection – consider lower beta equities or equity alternatives
- Capitalize on the volatility – consider asset classes that may be undervalued like value and international equities

Source: J.P. Morgan Asset Management. Stocks measured by MSCI ACWI, bonds measured by Bloomberg Barclays U.S. Aggregate Bond Index. Indices are used for illustrative purposes only, are unmanaged, include the reinvestment of dividends, and do not reflect the impact of management or performance fees. Indices do not represent actual individual accounts. One cannot invest directly in an index. Past performance is no guarantee of future results.

1 BlackRock Investments, LLC, May 2020.
There are many factors to consider

A framework for selecting investments based on the four Ps can help you better understand what you own and what you should expect:

1. **People**—Who's managing the strategy? What are their experiences and capabilities?

2. **Philosophy**—What is the strategy trying to achieve? For example, is it seeking long-term growth? Current income? A combination of both?

3. **Process**—How does the strategy pursue its objectives and invest shareholder money?

4. **Performance**—When would this strategy likely underperform/outperform? How much risk was taken relative to returns?
The four Ps framework to select investments

What is the process for identifying and selecting investments for your portfolios?

**PEOPLE**
- Who manages the strategy?
- How long has the current team been in place?
- What is the team's experience?
- What are the team's capabilities and resources?

**PHILOSOPHY**
- What are the core investment beliefs?
- What does the strategy seek to do?
- How clearly is the investment philosophy conveyed?
- Is this a benchmark-aware or -agnostic approach?

**PERFORMANCE**
- What are the appropriate ways to evaluate performance?
- Is the track record lined to the team and process?
- What are the key return/risk drivers?
- When would this strategy likely under/ outperform?

**PROCESS**
- How does the team invest to meet its objective?
- What is the strategy’s investment style?
- What are the portfolio characteristics?
- What is the risk management approach?

For illustrative purposes only.
Big gaps between top and bottom performers

Given the wide array of approaches available, mutual funds and ETFs in the same category may deliver vastly different results. This chart shows average annual returns for the top performers, bottom performers and largest market cap-weighted passive option within each investment category.

In the large growth category, for example, the gap between the top and bottom performers was a sizable 4.36% difference in annual return. Compounded over time, this can have a big impact on a portfolio’s dollar value and a client’s ability to achieve their goals.
There can be a huge separation between top and bottom performers

15-year portfolio return dispersion*

Source: Morningstar as of 12/31/2020. *Represents average annual portfolio return dispersion between the 10th and 90th percentile over a 15-year period for each Morningstar category including mutual funds and ETFs. The ETFs listed above are the largest by AUM within their category. World Allocation not shown as it does not currently have any prevalent ETFs with significant AUM. ETF shares are bought and sold throughout the day on an exchange at market price (not NAV) through a brokerage account, and are not individually redeemed from the fund. ETFs and Mutual Funds are different investment vehicles. ETFs are funds that trade like other publicly traded securities. Similar to shares of an index mutual fund, each ETF share represents an ownership interest in an underlying portfolio of securities and other instruments typically intended to track a market index. Unlike shares of a mutual fund, shares of an ETF may bought and sold intraday. This information is shown for illustrative purposes only, does not reflect actual investment results, is not a guarantee of future results and it not a recommendation. The performance quoted is past performance and is not a guarantee of future results. Mutual funds are subject to certain market risks. Investment returns and principal value of an investment will fluctuate so that an investor’s shares, when redeemed, may be worth more or less than original cost. Current performance may be higher or lower than the performance data shown.
Dig deeper into performance

Of the four Ps, investors tend to focus most closely on performance. But evaluating performance involves much more than simply looking at recent returns. Other factors to consider include consistency, risk and performance relative to benchmarks and peers.

This page summarizes the ABC’s of investment selection, a simple framework that can be used to gain a deeper understanding of performance. Along with guidance from a financial professional, they can help investors assess investments, compare similar strategies and make informed decisions.
The ABC’s of investment selection

**NET EXPENSE RATIO**
Cost of ownership for a Mutual Fund or ETF

**ALPHA/EXCESS**
Reflects a fund’s total return above or below a benchmark

**BATTING AVERAGE**
Measures the manager’s ability to meet or beat the benchmark consistently

**CAPTURE RATIOS**
Percentage of the benchmark’s return that was “captured” in rising and falling markets

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**A**
Investment delivers positive excess returns above the benchmark

**B**
Investment has a batting average of 50% or great

**C**
Investment has a positive spread between up/down capture ratio
The whole is greater than the sum of its parts

Portfolio construction and investment selection is an ongoing process. To build a portfolio that can withstand market ups and downs, all six components in the process must work together to achieve the desired result. Investors should also understand how these six components inform the overall process and the essential roles they play in building stronger portfolios.
Portfolio construction process

1. START with an asset allocation plan
2. DIVERSIFY to smooth out the ride
3. REBALANCE to stay the course
4. USE THE 4Ps framework to select investments
5. CHOOSING the appropriate investment is key
6. LOOK beyond total returns

This information is shown for illustrative purposes only, does not reflect actual investment results, is not a guarantee of future results and is not a recommendation.
J.P. Morgan Multi-Asset Solutions Model Portfolios

J.P. Morgan Model Portfolios are designed to help investors make thoughtful, well-informed decisions in creating multi-asset portfolios. They are based upon our Multi-Asset Solutions research team’s asset allocation views, which are the product of a rigorous and disciplined process that integrates:

- Qualitative insights that encompass macro-thematic insights, business cycle views, non-systematic inputs and market dislocations
- Quantitative analysis that considers market inefficiencies, intra- and cross-asset class risk-return models, relative value, market directional strategies and systematic factor analysis
- Strategy Summits and ongoing dialogue in which research and investor teams debate, challenge and develop the firm’s asset allocation views

These views are translated into two series of risk-based model portfolios, one version focusing on traditional asset classes and another that includes alternative strategies. Further they range from conservative to aggressive allocations (see following pages for model portfolio allocation details).

The J.P. Morgan Multi-Asset Solutions Model Portfolios are updated on a quarterly basis and are rebalanced on a monthly basis. Each portfolio is constructed using a blend of the underlying asset class indices shown in the table on the right for performance. Additionally Indices or ETFs may be used for portfolio-level data.

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Underlying Asset Class Indices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equities</strong></td>
<td></td>
</tr>
<tr>
<td>U.S. Large Cap Growth</td>
<td>Russell 1000 Growth</td>
</tr>
<tr>
<td>U.S. Large Cap Value</td>
<td>Russell 1000 Value</td>
</tr>
<tr>
<td>U.S. Mid/Small Cap</td>
<td>Russell 2500</td>
</tr>
<tr>
<td>US REITs</td>
<td>MSCI US REIT</td>
</tr>
<tr>
<td>Developed Mkts Equity</td>
<td>MSCI EAFE</td>
</tr>
<tr>
<td>Emerging Market Equity</td>
<td>MSCI EM</td>
</tr>
<tr>
<td>U.S. Investment Grade</td>
<td>Bloomberg Barclays US Aggregate Bond</td>
</tr>
<tr>
<td>U.S. High Yield</td>
<td>Bloomberg Barclays US Corp High Yield 2% Issuer Cap</td>
</tr>
<tr>
<td>Emerging Markets Debt</td>
<td>JPM EMBI Global Diversified</td>
</tr>
<tr>
<td>Muni Investment Grade</td>
<td>Bloomberg Barclays Municipal</td>
</tr>
<tr>
<td>Muni High Yield</td>
<td>Bloomberg Barclays High Yield Muni</td>
</tr>
<tr>
<td>TIPS</td>
<td>Bloomberg Barclays US Treasury US TIPS</td>
</tr>
<tr>
<td>Cash</td>
<td>USTREAS T-Bill Auction Ave 3 Mon</td>
</tr>
<tr>
<td><strong>Fixed Income</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Alternative</strong></td>
<td></td>
</tr>
<tr>
<td>Equity Alternatives</td>
<td>HFRX Equity Hedge Index</td>
</tr>
<tr>
<td>Fixed Income Alternative</td>
<td>Barclays US Aggregate Bond</td>
</tr>
<tr>
<td>Core Diversifiers</td>
<td>HFRX Global Hedge Fund Index</td>
</tr>
</tbody>
</table>
The performance of the indices does not reflect the deduction of expenses associated with a fund, such as investment management fees. By contrast, the performance of the Funds/models reflect the deduction of fund expenses, including sales charges if applicable. Total return figures assume the reinvestment of dividends. Investors cannot invest directly in an indices.

**Russell 1000 Value** – Index is an unmanaged index that measures the performance of the companies within the Russell 1000 with lower price-to-book ratios and lower forecasted growth values.

**Russell 1000 Growth** – Index is an unmanaged index that measures the performance of the companies within the Russell 1000 with higher price-to-book ratios and higher forecasted growth values.

**Russell 2500** – Index is an unmanaged index that measures the performance of the small to mid-cap segment of the U.S. equity universe, commonly referred to as “smid” cap. The Russell 2500 Index is a subset of the Russell 3000® Index. It includes approximately 2500 of the smallest securities based on a combination of their market cap and current index membership.

**MSCI US REIT** – Index is an unmanaged index that is a free float-adjusted market capitalization index that is comprised of equity REITs. The index is based on MSCI USA Investable Market Index (IMI), its parent index, which captures large, mid and small cap securities.

**MSCI EAFE** – Index is an unmanaged index. EAFE (Europe, Australia, Far East) Index (net of foreign withholding taxes) is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets, excluding the U.S. and Canada.

**MSCI EM** – Index is an unmanaged index. (net of foreign withholding taxes) is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of emerging markets.

**Morgan Stanley US REIT** – Index is a capitalization-weighted index of the most actively traded real estate investment trusts (REITs), designed to measure real estate equity performance.

**Bloomberg Barclays US Aggregate Bond** – Index is an unmanaged index that represents securities that are SEC-registered, taxable and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities and asset-backed securities.

**Bloomberg Barclays US Corp High Yield 2% Issuer Capped** – Index is an unmanaged index that tracks the performance of fixed rate non-investment grade debt that are dollar denominated and non-convertible with a maximum allocation of 2% to any one issuer.

**JPM EMBI Global Diversified** – Index is an unmanaged index that tracks performance of U.S. dollar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities. The index caps maximum weight to any country in the index at 10%.

**Bloomberg Barclays US Municipal** – Index is an unmanaged index composed of USD-denominated long-term tax exempt bonds with a minimum credit rating of Baa. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds and pre-refunded bonds.

**Bloomberg Barclays High Yield Municipal** – Index is an unmanaged index that tracks the high yield portion of the USD-denominated long-term tax exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds and pre-refunded bonds.

**Bloomberg Barclays US Treasury US TIPS** – Index is an unmanaged index that tracks total returns of all publicly issued, U.S. Treasury inflation-protected securities that have at least one year remaining to maturity, are rated investment grade and have $250 million or more of outstanding face value.

**USTREAS T-Bill Auction Ave 3 Month** – Index is an unmanaged index that measures the performance of the average investment rate of US T-Bills securities with the maturity of 3 months.

**HFRX Equity Hedge Index** – Index designed to be representative of Equity Hedge strategies, which maintain positions both long and short in primarily equity and equity derivative securities.

**HFRX Global Equity Hedge Fund Index** – Index designed to be representative of the overall composition of the hedge fund universe, including but not limited to, convertible arbitrage, distressed securities, equity hedge, equity market neutral, event driven, macro, merger arbitrage and relative value arbitrage. These strategies are asset weighted based on the distribution of assets in the hedge fund industry.
*Allocation changes are expressed in percentage point terms and reflect a change in view since the prior Strategy Summit. Percents may not sum to 100% due to rounding. † Strategic allocations shown in the left column for each model portfolio do not include this quarter’s tactical shifts. The current allocation for a given model would equal the sum of the strategic allocation plus the tactical shift. Source: J.P. Morgan Asset Management Multi-Asset Solutions; assessments are made using data and information up to March 2021. For illustration purposes only. Allocation percentages are subject to market and economic conditions and may be changed without notice. Diversification does not guarantee investment returns and does not eliminate the risk of loss. Diversification among investment options and asset classes may help to reduce overall volatility.
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