ENDOWMENTS & FOUNDATIONS GROUP

Investment Policy Statements for the Current Environment

Improving investment policy guidance

J.P.Morgan
Asset Management

ABOUT

J.P. MORGAN ENDOWMENTS & FOUNDATIONS GROUP

The J.P. Morgan Endowments & Foundations Group is a dedicated team of investment specialists leveraging the firm's global resources to provide customized solutions and advice for endowments, private and public foundations, and not-for-profits on their investment needs. J.P. Morgan is a trusted advisor to more than 5,000 charitable organizations, managing over $40 billion of their assets (as of 6/30/11).

Foreword

Investment policy statements provide the foundation.

Monica Issar
Head of J.P. Morgan Endowments
& Foundations Group

All durable structures must start from a solid foundation, and, as contemporary architects have learned, modern buildings require flexibility at their base if they are to withstand the stresses of high winds and earthquakes. As Tony Werley, the Chief Strategist for our Endowments & Foundations Group, notes in this paper, investment policy statements must likewise blend flexibility with firm guidance, particularly in times of elevated market volatility.

Tony underscores the importance of drafting adaptable and effective investment policy guidelines for today's unsettled markets. He suggests an investment time horizon suited to capturing strategic opportunity, a timeframe that may have little to do with an institution's distribution horizon. He provides fresh perspective on the critical link between spending policy and asset preservation. He proposes asset allocation guidelines that take into account individual asset class volatility. Perhaps above all, he advocates giving measures of expected investment risk—forecast annual standard deviation, drawdown potential and other gauges of illiquidity and volatility—the same level of prominence in investment policy statements as measures of expected investment return.

Tony calls this approach "enabling policy" to contrast it with the more restrictive clauses of conventional documents. We believe enabling policy is more effective in achieving long-term objectives and is especially effective in avoiding the risks and catching the tactical advantages thrown up in an uncertain and turbulent environment. Not the least of the enabling policy's virtues is its utility in framing expectations. Its emphasis on risk metrics can give policymakers and stakeholders alike a clearer idea of the tradeoff between the pitfalls in reaching for returns and the shortfalls inherent in "playing it safe."

We hope Tony's paper stimulates discussion on a vital and particularly timely topic. We thank you for giving some thought to his views and look forward to expanding the dialogue by discussing yours.

Monica Issar
Head of J.P. Morgan Endowments & Foundations Group

Much like the foundation of a structure, the investment policy statement ("IPS") effectively supports all other aspects of the investment process. It sets the tone as well as the objectives for an institution's entire investment process. It establishes overall goals, sets out broad allocation and risk parameters and should place investment policy in the context of some assessment of the longer-term investment environment. The more expansive and informative the IPS, the more durable and constructive the portfolio process is likely to be under all market conditions, but especially during periods of stress.

Many investment policy statements are focused on expressing the aspirations and mission of the institution, while others are conceived as more technical documents focusing on the biases and constraints by which the investment process is governed. Though they may differ in format, in our view the most useful policy documents share a common approach in that they:

- Enable, rather than constrain, the managers and reviewers of the portfolio;
- Are expansive about return and risk objectives;
- Are attuned to the potential for disconnect between long-term expectations and interim results;
- Create devices by which distribution policy, asset allocation and other portfolio variables can be adjusted as conditions dictate.

If the IPS is constructed to provide for general policy guidance and executional flexibility, there is a greater likelihood of achieving institutional objectives and preferences while enhancing performance capabilities. In any event, a broad and descriptive IPS can inform and prepare all stakeholders in the portfolio's results for the range of an investment program's probable outcomes over multiple market cycles and conditions.

Investment Time Horizons, Not Institutional Horizons

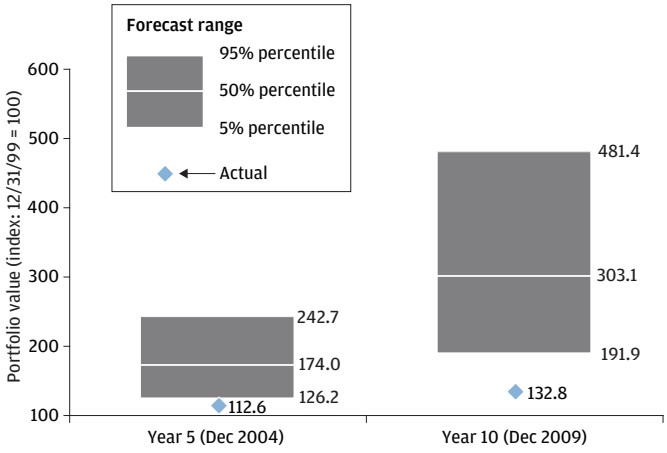
Essential to all policy statements is the investment timeframe for the assets that support an institution's mission. Investment policy statements generally assume an institution will pursue its mission in perpetuity and intend policy to support it throughout. While the concept implies the construction of a portfolio with a maturity long enough to take meaningful risk for the benefit of asset compounding, institutional lifespans, whether intended for perpetuity or a limited term, are not directly relevant to an investment time horizon that best promotes the maximum compounding of assets.

Rather than tacitly matching the investment time horizon with the institution's, an investment policy statement should be more explicit and definitive as to the timeframe over which the investment policy is to be measured and adjusted as global economic and investment market conditions change. By precisely identifying a strategic timeframe, which we define as a 10- to 15-year interval, the IPS can shape more focused risk and return expectations. On the one hand, time periods as long as 30 years are no guarantee of approximating average "historical" equity returns. On the other, time periods as long as 10- to 15-years can generate returns far at odds with historical long-term returns.

The time period of the 1970s through the 1990s, versus the adjacent decade of the 2000s, offers a ready object lesson. Annualized equity returns of 13.7% during the three-decade period surpassed the 1950–2010 average of 11.1%. The negative equity returns in the succeeding 10 years speak for themselves. The investment policy successfully meeting an institution's operating return requirement—its ORR, usually calculated as annual distributions, plus inflation and portfolio expenses incurred—would have been far different from one period to the next as **Exhibit 1** demonstrates. The exhibit, with an indexed starting value of 100 on December 31, 1999, compares actual index returns for a blended portfolio of 60% equities, 10% commodities and 30% bonds with projections based on return and risk realized over the previous 30 years. The projections in this case rely on the assumption that risk and return over the next decade would match what they had been over the previous 30 years. The shaded bars indicate the range of five- and 10-year cumulative wealth values resulting from returns projected with a 90% certainty as of the 1999 inception date—5% of possible results could have come in above the range and 5% below. The line through the bars represents the median forecast return—half the projected values would have been higher and half lower. As it turned out, the actual five- and 10-year values (indicated by the blue diamond) fell below even the low end of the projected range.

EXHIBIT 1: FORECAST RETURNS VS. ACTUAL RESULTS (DEC. 1999, INCEPTION DATE = 100)

Past performance is no guarantee: actual returns can fall short of the most meticulous historical projections.



ANNUAL RETURNS

	1970–99 (%)	2000–09 (%)
U.S. stocks	13.7	-1.0
Commodities	2.2	10.4
U.S. bonds	9.0	6.3
Allocation of 60% stocks, 10% commodities, 30% bonds	11.6	2.9

Source: Bloomberg, Ibbotson, J.P. Morgan.

U.S. stocks are represented by the S&P 500 Total Return Index, commodities are represented by the GSCI Spot Index and U.S. bonds are represented by the Barclays Capital Aggregate Bond Index after January 1976 and Ibbotson U.S. Intermediate Government Bond Index prior. Sample allocation assumes monthly rebalancing and no fees or taxes. It is not possible to invest directly in an index. **Past performance is no guarantee of future results.**

The results lead to two conclusions. First, decisions based upon an excessively long and purely historical view can produce results quite different from one premised upon a forward-looking strategic 10- to 15-year view with its unique valuation and fundamental characteristics. And second, a 10- to 15-year time-frame covers an interval sufficient to capture the economic and financial market conditions that will likely influence portfolio performance and determine the portfolio's contribution to an institution's operating objectives. Thus, while there is no certainty in long-term projections, their utility in organizing asset allocation and shaping investment policy is substantial.

Investment and Spending Policy

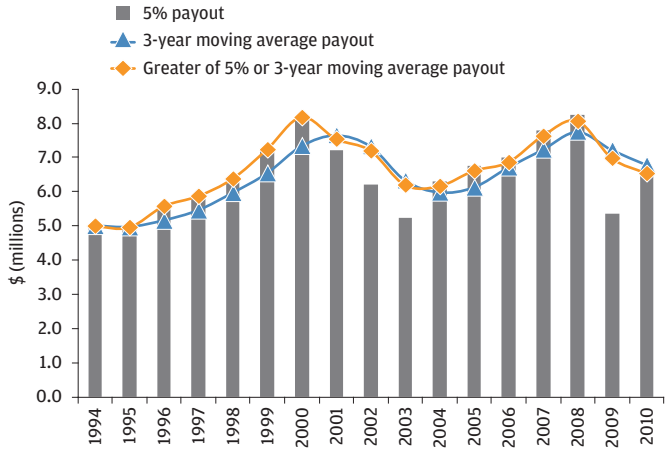
Spending policy weighs critically on an institution's ability to honor its near-term commitments and sustain distributions in perpetuity. The policy should give an institution a concrete idea of the trade-offs between current spending and future spending capacity via the maintenance of long-term portfolio values. Obviously it is easier to maintain portfolio values, even in the face of expansive distribution levels, when risk assets are in a bull market phase. In a period of modest returns and elevated volatility, a flexible spending policy and (equally as important) a precise understanding of portfolio spending breakeven can help to manage the tension between meeting current spending plans and maximizing portfolio values to meet long-term spending objectives.

Many worthwhile discussion papers and forums throughout the not-for-profit community deal with techniques and formulas for smoothing distributions in light of portfolio volatility. These discussions underscore the need to maintain flexibility in annual spending. Whether spending entails a simple three- or five-year

smoothing of distributions or more sophisticated approaches that balance the goals of maintaining portfolio value and spending, all these strategies are variations on the theme of reducing the volatility of portfolio distributions without excessively impairing portfolio value. For perspective, Exhibit 2 revisits the value of fixed and smoothed payout regimes in the context of the 1994 through 2010 markets for a moderately aggressive 70/30 stock/bond mix. We use the example of 5% annual spending not only because it is required of private foundations but also because we have found it broadly indicative of endowment practice.

EXHIBIT 2: ANNUAL CASHFLOWS*

Smoothing effect: evening out annual distributions has eased the impact of adverse markets with little change in total cashflows.



Source: Bloomberg, J.P. Morgan. As of December 31, 2010.

* Starting portfolio value = $100 million. Annual cashflows derived from index returns of hypothetical portfolio consisting of 70% MSCI All Country World Equities Index, 30% Barclays Capital Aggregate Bond Index; no taxes, annual rebalancing.

Another Perspective Around Spending Policy

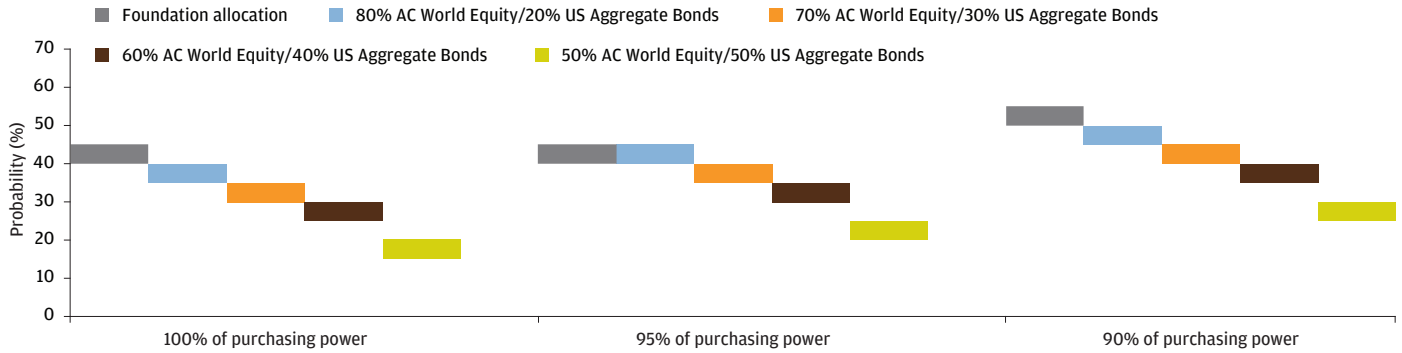
As useful as distribution smoothing policies are, a different perspective for a spending policy discussion might proceed from a consideration of portfolio spending breakeven (PSB). The PSB indicates the maximum annual distribution an institution might make for a given level of expected returns, volatility and inflation without reducing the real principal value of its portfolio. It serves, in that sense, as a fulcrum on which the institution can strike a balance between the needs of current and future beneficiaries. It indicates for a given allocation what maximum distribution an institution might make without reducing the real value of its portfolio, taking into account expected market returns, volatility and inflation. This key piece of information can help indicate changes to asset allocation necessary to meet either a long-term portfolio value target or reduce unnecessary portfolio risk. It can underscore the need to change spending policy or spending formulas, gauge the necessity of adding portfolio alpha from active management or, when all is said and done, suggest the need for future fund raising. In sum, the PSB helps create the context in which key policy variables can be more fully considered and reasonably decided.

Exhibit 3 estimates the likelihood of maintaining a portfolio's real value over the next 15 years while continuing its current distribution rate, adjusted for 3% annual inflation. Using J.P. Morgan's strategic capital market assumptions, it considers three stock/bond allocations—80/20, 70/30 and 60/40—and a more diversified "foundation" allocation composed of 38% stocks, 32% bonds and 30% alternative investments. Even the most aggressive stock bond mix has only a 35% to 40% chance of maintaining parity over the period, although the extra diversification of the foundation allocation improves the odds of holding value versus the other investment options. The more conservative—and less volatile—the mix becomes, the longer its odds of maintaining portfolio values. Loosening the standards and allowing for a 10% loss of portfolio value after distribution and inflation over the 15-year time period—in effect, allowing for a modest spend down of the portfolio—would raise the likelihood of maintaining value to better than 50% for the foundation allocation and as high as 50% for the aggressive 80/20 mix.

A secondary conclusion of the analysis is that, in the environment envisioned by the J.P. Morgan capital market assumptions, a high level of equity risk taking is not by itself sufficient to maintain portfolio purchasing power. More efficient portfolio construction, plus manager and/or tactical alpha, would be needed to close the gap between the ORR and benchmark allocation returns.

EXHIBIT 3: PROBABILITY THAT IN YEAR 15 A GIVEN ALLOCATION MAINTAINS PURCHASING POWER (INFLATION RATE = 3%)

Half empty: even the most aggressive allocation has less than even odds of retaining real portfolio value at a 5% distribution rate.



Source: J.P. Morgan.

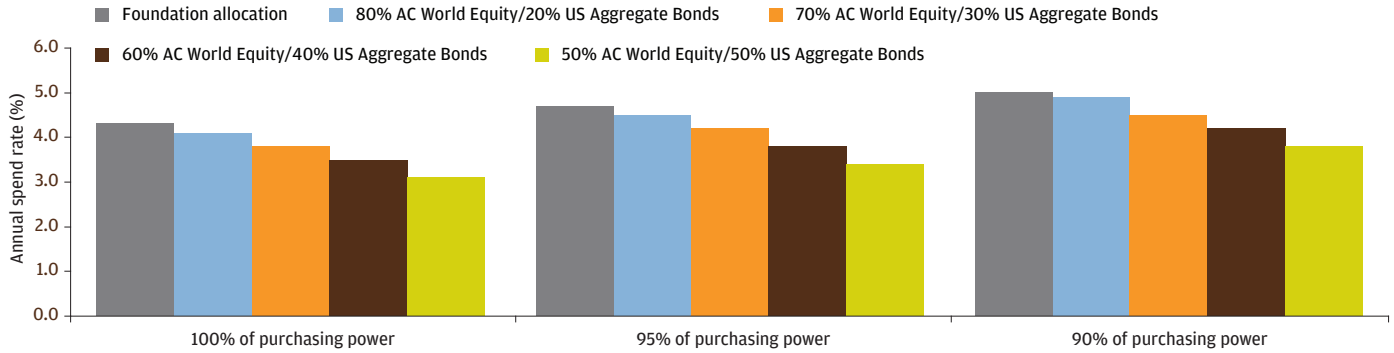
Note: Asset allocation as indicated, 5% annual payout; no taxes. Probability is quantified as the percentage of market scenarios (as defined by Monte Carlo simulations) in which the allocation was above the target level in year 15. Probabilities are quoted in a range of 5%; they are equally likely to fall anywhere within this range. For illustrative purposes only.

Converting Portfolio Probabilities to Spending Breakeven

Exhibit 4 converts the probability of maintaining value into the more usable portfolio spending breakeven percentage. It indicates the sustainable payout for a given stock/bond mix—that is, for a given level of risk taking. An 80/20 mix, for example, could support a spending rate of approximately 4% without damaging the long-term real value of the portfolio. The sustainable payout rate for each risk level reflects expected market returns only. It doesn't factor in any manager or tactical alpha that may accrue over the course of time. For those institutions taking a lower risk profile, such as the 50/50 policy mix, 3% is the most that could be distributed pre-alpha while still keeping the portfolio whole in real terms. Stating the analysis in the most positive light, the hypothetical diversified foundation portfolio could, on a pre-alpha basis, maintain 90% of purchasing power while still distributing 5% annually.

EXHIBIT 4: SPEND RATE THAT IN YEAR 15 ALLOWS A GIVEN ALLOCATION A 50% LIKELIHOOD OF MAINTAINING PURCHASING POWER (INFLATION RATE = 3%)

Half full: distribution breakeven calculates distribution levels likely to sustain portfolio values for a range of allocations.



Source: J.P. Morgan.

Note: No taxes. Spend rate is defined as the percent of the allocation's market value that was distributed annually such that the allocation was above the target level in 50% of market scenarios in year 15. Spend rates have been rounded to the nearest 0.1%. For illustrative purposes only.

Wider Rebalancing Mandates

Narrow variance bands around volatile asset classes can result in multiple breaches of the bands during the course of a meaningful correction or a sustained rally, as **Exhibit 5** illustrates. Over the course of the historical simulation, using market returns from the approximate start of the last financial cycle in January 2003 through June 2011, the hypothetical foundation portfolio, invested 38% in equities, 32% in fixed income and 30% in alternatives, would have consistently breached the 5% variance band along the path of the portfolio results. The equity allocation, to take one example, would have breached the 5% variance band in 22 of the 34 quarters and come right up against it in another two.

In the context of volatile markets, chronic breaches suggest the need for more flexibility around policy bands instead of a need to change allocation policy. Narrow variance bands may subject the portfolio to rounding up equity exposure early in a protracted decline or rounding down exposure in a relentless rally. In addition, normal economic and financial market cycles have provided multiple opportunities for enhancing return or reducing risk through judicious tactical changes to portfolio exposures that tightly constrained policy bands might preclude.

Portfolio governance and possibly portfolio performance could be better served by setting rebalancing guidelines wide enough to accommodate either historical levels of volatility or volatility levels we can project going forward. As **Exhibit 6** shows, using J.P. Morgan's current capital market assumptions, the odds of not breaching 5% policy bands in the coming five years are little better than 50-50. Widening them to account for meaningful market volatility makes sense in the context of recent history and future expectations.

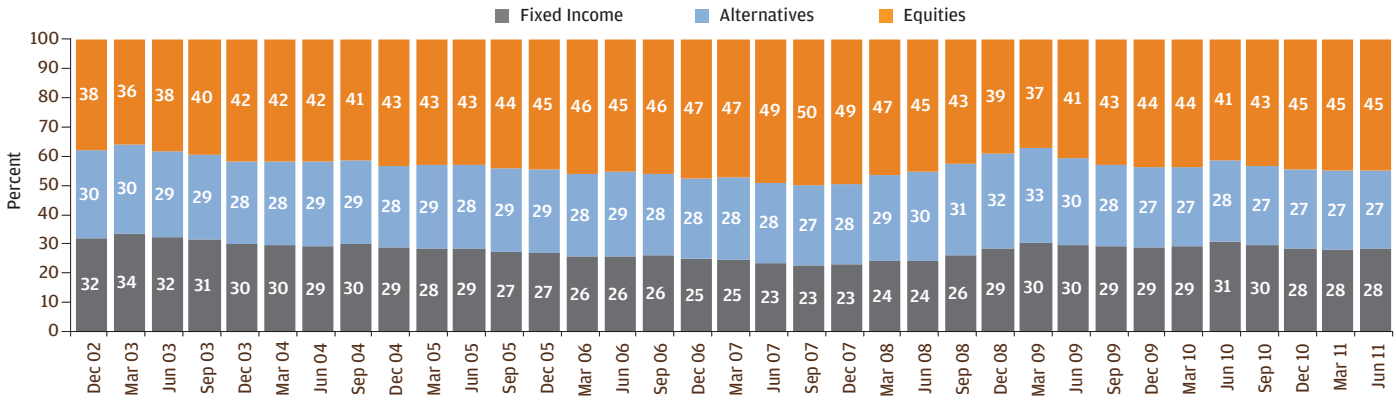
While there is no simple formula or standard rule of thumb for setting the width of investment policy bands, a starting suggestion would simply multiply an asset class's portfolio weight by its forecast annual volatility. To illustrate with an example from our foundation portfolio, the 38% strategic target weight to global equities, which has a forecast annual volatility of approximately 18%, would imply a band width of at least 6.8% above and below the 38% long-term target. Wider bands may be called for in portfolios where tactical allocation is applied.

Execution Flexibility Within Broader Policy Guidance Creates an Enabling Document

Within reason, an investment policy should seek to enable more than it restricts. The intent of an enabling document is to identify the IPS's unintended constraints to meeting portfolio goals, not to relax portfolio discipline or disregard an institution's preferences. Generic guidance, such as asset and strategy class

EXHIBIT 5: HYPOTHETICAL ASSET ALLOCATION DRIFT OVER TIME DUE TO MARKET MOVEMENTS, USING HISTORICAL INDEX DATA*

Inelastic bands: recent volatility has increased the likelihood of breaching narrowly constructed and inflexible allocation policy.



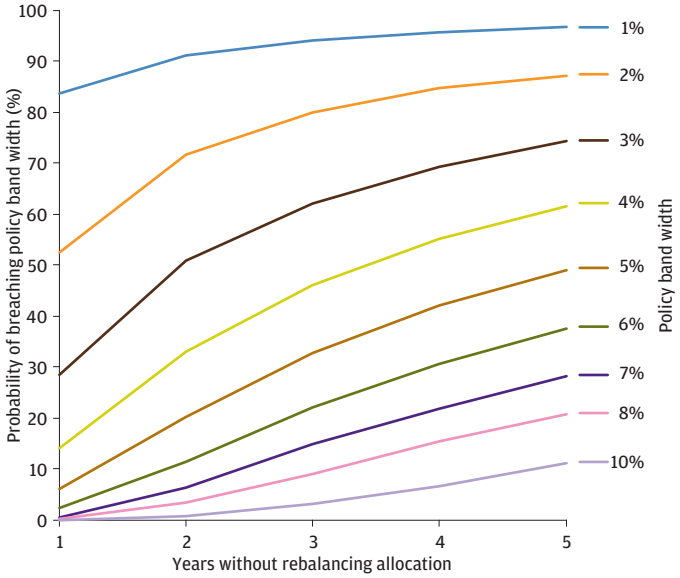
Source: Bloomberg, Thomson Reuters, NCREIF, J.P. Morgan. As of June 30, 2011.

* Allocation starts at 38% equities, 30% alternatives and 32% fixed income as of December 31, 2002, and is not rebalanced. **Past performance is no guarantee of future results.** It is not possible to invest directly in an index. For illustrative purposes only.

Indices: S&P 500 Index, Russell 1000 Value Index, Russell Midcap Index, MSCI EAFE Index, MSCI AC Asia ex-Japan Index, MSCI Emerging Markets Index, HFRI Fund of Funds Diversified Index, HFRI Event Driven Index, HFRI Equity Hedge Index, HFRI Relative Value Index, HFRI Macro Index, Thomson Venture Economics Private Equity Performance Index, NCREIF Property Index, DJ-UBS Commodity TR Index, Barclays Capital U.S. Aggregate Bond Index, Barclays Capital U.S. TIPS Index, Barclays Capital U.S. Corporate Index, Merrill Lynch High Yield Master II Index, JPM EMBI Global Composite Index, Citigroup U.S. Domestic 3 Month T-Bill Index.

EXHIBIT 6: FORWARD-LOOKING SIMULATED PROBABILITY OF BREACHING POLICY BAND, BY POLICY BAND WIDTH

Loosening the grip: in a time of higher volatility, flexible allocation bands may avoid costly reallocation and help capture tactical opportunity.



Source: J.P. Morgan.

limitations, and institutional preferences, such as the desire for high levels of transparency and constraints upon leverage and asset class diversification requirements, provide useful insights into the risk profile of the organization.

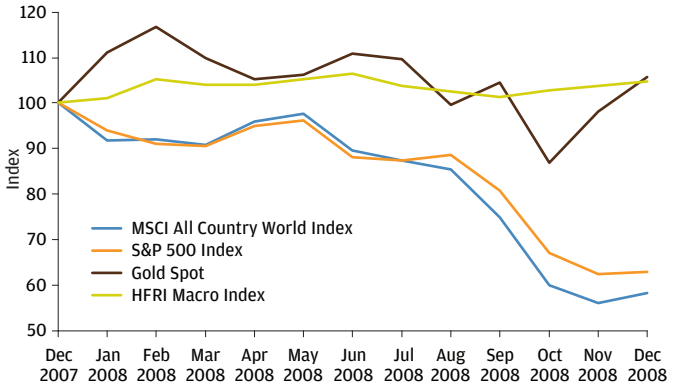
Yet policy that is intended to communicate institutional preferences may unintentionally be restrictive. Macro guidance may not always allow for the full set of opportunities offered by the financial markets as tools to augment returns or reduce volatility. In considering sub-asset class diversification, capitalization quotas, leverage, etc., policy principles should factor in the possible disconnect between macro intentions and the restrictions high-level guidance may put upon practical portfolio execution.

Several recent examples over the last cycle, when even a bedrock investment principle like diversification had to be adapted to circumstances, highlight the impact of unintended consequences on investment performance. Futures managers/commodity trading advisors that could have provided crucial diversification in the extreme markets of 2008 often found themselves constrained by overly explicit guidelines on leverage and transparency. And within the commodity asset class itself, diversification became a two-edged sword—commodities are often pro-cyclical and may provide little diversification at the moment of maximum equity downside.

One commodity index constituent, however, has frequently exhibited countercyclical qualities: precious metals, specifically gold. In a majority of cases when equity prices have come under significant pressure, gold has proved its diversification merits. It had an even lower correlation to equities than macro funds during the financial crisis, and its performance was comparable (**Exhibit 7**). Its price rose 5.8% in 2008 and 2.1% in June of 2010 when the S&P 500 fell -37.0% and -5.2%, respectively. Yet gold would have run afoul of commodity diversification guidelines or single commodity prohibitions despite its portfolio diversification benefits. More recently, events in the Middle East/North Africa might similarly argue for exceptional single commodity exposure for energy.

EXHIBIT 7: ASSET CLASS TOTAL RETURNS, DEC. 2007—DEC. 2008 (DEC. 2007, INCEPTION DATE = 100)

Worth its weight: like macro hedging strategies, gold was a defensive bulwark during the financial crisis.



Correlations, Jan 2000–June 2011	Gold Spot	HFRI Macro Index
MSCI All Country World Index	0.15	0.32
S&P 500 Index	0.04	0.19

Source: Bloomberg, J.P. Morgan. Uses monthly total return index data. **Past performance is no guarantee of future results.** It is not possible to invest directly in an index.

Risk and Return

Return-focused policy objectives are the natural starting point for organizing investment policy. Returns, after all, are the reason for the portfolio, and maintaining the real value of a portfolio over time while meeting financial commitments to the stakeholders of an institution calls for returns at a minimum equal to the ORR. Guidance around risk parameters that are acceptable to the organization would seem just as critical since yearly volatility, drawdowns and "black swans" all have a direct impact on returns. The risk awareness exercise has the ancillary benefit of informing the stakeholders impacted by the outcome of the portfolio construction process of just how variable any given year's returns may be. Some advance knowledge of the magnitude of risk inherent in a portfolio may prove to be the deciding factor between maintaining the course during unforeseen events and morphing portfolio risk lower precisely when risk should be increased.

Providing guidance as to the level of risk acceptable to achieve an institution's ORR is necessary, since by establishing risk benchmarks we raise the standard to which the portfolio is managed. Risk guidance implies an awareness of historical levels of asset class volatility or, better still, measures of forward-looking volatility (as illustrated for our foundation allocation in **Exhibit 8**), either of which is essential in framing reasonable expectations. A policy statement that addresses directly or indirectly all aspects of portfolio risk from annual volatility and drawdown to liquidity and other risk measures can align return expectations with the magnitude and breadth of risk taken in order to reach the desired return objective.

EXHIBIT 8: SUMMARY RISK STATISTICS FOR THE FOUNDATION ALLOCATION*

Just in case: a comprehensive overview of volatility impacts can sensitize stakeholders to risk tradeoffs.

	(%)
Expected equilibrium volatility	11.3
Annual potential loss (5% likelihood event)	-9.6
Annual potential loss (1% likelihood event)	-15.8
Worst historical drawdown (last 5 years, index basis)	-33.1

Source: Bloomberg, Thomson Reuters, NCREIF, J.P. Morgan.

* Forward-looking except for historical drawdown.

Summary: The Virtues of "Enabling" Policies

We have sought to make the case for enabling investment policy, a flexible approach to portfolio construction within the confines of sound policy guidance. We suggest the following:

- Build future assumptions from forward-looking return and risk asset class projections rather than historical results.
- Factor portfolio spending breakevens into determining spending policy.
- Take risk metrics into account alongside return expectations.
- Employ allocation variance bands that reflect expected volatility within each asset class and allow for flexibility of investment mandates within macro policy guidelines.

This enabling mindset makes sense in all investing environments, in our view, and is especially valuable given a strategic outlook of modest returns and outsized risk. While the investment issues facing perpetual institutions with distribution mandates have no simple hard and fast policy answers, enabling policy, along with a robust analytical toolbox and customized investment solutions, may well offer the best means to navigate the uncertainties on the road ahead.

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