LINE OF

SIGHT

Customised Beta

Changing Perspectives on Passive Investing

Asian Edition

We hope you enjoy the latest presentation from Northern Trust's *Line of Sight*. By providing research, findings, analysis and insight on the effects and implications of our changing financial landscape, *Line of Sight* offers the clarity you need to make better informed decisions.

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CUSTOMISED BETA

Changing Perspectives on Passive Investing

February 2012

OVERVIEW

The turbulence and uncertainty that has confronted investors during the past 10 years has given rise to an increased focus on transparency and risk management. At the same time, many investors are now focused on meeting objectives for their portfolios that go beyond simply outperforming a benchmark. In response, a new range of passive strategies has emerged, moving away from traditional/cap-weighted indexing to alternative indices and, increasingly, customised index approaches. These new indices have been designed to help investors address their specific objectives. Given their shifting objectives and implementation strategies, some investors are assessing new strategies to determine whether these evolving approaches might better meet their needs.

The ability to tailor an index to create exposures that suit an investor's specific needs, then passively manage assets to this index raises genuine questions about the distinction between alpha and beta. Such indices could serve to provide specific style exposures or an efficient risk/reward ratio to reflect various sources of systematic return.

As a leader in global asset management, Northern Trust decided to examine more closely the practical implications for investors of the evolving use of passive investments in institutional portfolios. In particular, we examined investors' expectations for using passive management in the future, the effect of increasing passive use on investment decision making and whether they have concerns about benchmark construction methodology. The results of our research highlight some interesting trends in institutional investment management.

THE VOICE OF THE MARKET

To develop a comprehensive, market-based understanding of the evolving role of passive management and the implications of this evolution to institutional investors, Northern Trust engaged Greenwich Associates to interview 121 institutional investors around the globe, 21 of which were in Asia. All together the participants included in the analysis have more than 2.5 million employees and manage more than $500 billion in assets. Interviews were conducted during August and September of 2011.

THE LOST DECADE

The last 10 years of investing were epitomised by turbulence, uncertainty and inconsistent return, leading some investors to reconsider their investment objectives. We have witnessed a period in which risk has not necessarily been rewarded and a new focus has been placed on transparency and risk management. However, one benefit of such a difficult environment is the creativity and innovation it encourages. This same decade has seen the development and growth of the exchange-traded fund (ETF) sector, the introduction of new fund structures, nontraditional forms of beta and improved transparency. The environment has demanded that investors become more sophisticated, and they in turn have demanded greater sophistication in the products delivered to them.

A notable consequence of the shift towards a transparent and economical approach to investing is the increasing use of passive strategies among institutional investors. *Pensions & Investments*' recent annual survey of index managers revealed that worldwide index assets surged for the year ended 30 June 2011, up 24.7% to almost $6 trillion, a level surpassing the previous high at the end of 2007.*

With increased use comes increased attention. As institutions ramp up their use of passive strategies, they have begun to examine the construction and suitability of the benchmarks to which they are managing. Many of the investors in our survey (37% globally) expressed concerns that the standard construction of underlying cap-weighted indices may affect achieving their goals. In fact, academics have highlighted construction biases in cap-weighted indices for more than 20 years. The concerns that these biases are affecting their ability to meet their objectives are driving some institutional investors to seek out new ways to achieve benchmark exposure.

In seeking alternatives to a cap-weighted index, the first step investors take is typically towards an equally weighted index, which can, in its simplest form, introduce other issues, such as inherent sector biases, capacity constraints, high turnover or rebalancing issues. Investors that want to take things further might use benchmarks tactically or for theme-based investing to include regional or sector exposure. Investors that require a more specific approach might consider a fundamental or gross domestic product (GDP)-weighted index.

* *Pensions and Investments Online (www.pionline.com), September 19, 2011.*

THE GROWING AVAILABILITY OF ALTERNATIVE BETA APPROACHES

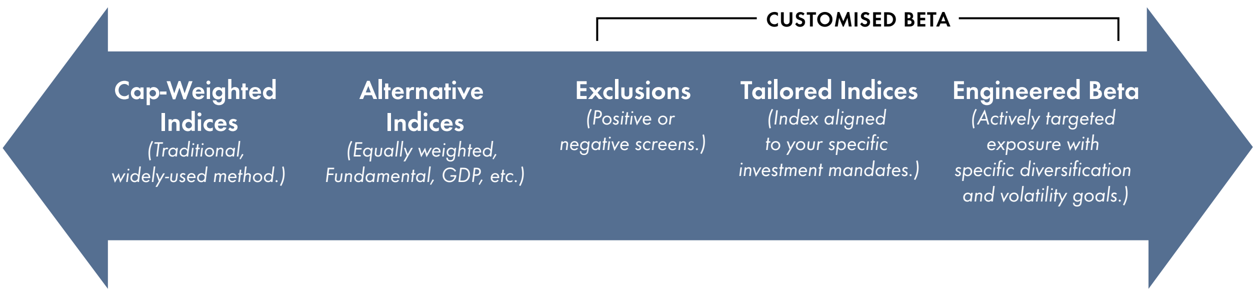
This is a sampling of the alternative index series global index providers have launched over the last decade. Investors examining these indices and products benchmarked to them need to understand the potential applications and related investment implications as they evaluate the roles these strategies might play within their portfolios.

INDEX SERIES NAME	STRATEGY FOCUS	LAUNCH YEAR
S&P Equal Weight Index Series	Equal Weighted/ Alternatively Weighted	2003
FTSE RAFI Index Series	Fundamental	2005
S&P Dividend Aristocrats	Dividend	2005
MSCI High Dividend Index Series	Dividend	2006
MSCI Minimum Volatility Series	Volatility/Risk/Risk + Factor	2009
MSCI Factor Index Series	Fundamental	2009
MSCI Value Weighted Index Series	Fundamental	2010
FTSE Active Beta Index Series	Fundamental	2010
FTSE StableRisk Index Series	Volatility/Risk/Risk + Factor	2010
MSCI Risk Weighted Index Series	Volatility/Risk/Risk + Factor	2011
FTSE TOBAM	Maximum Diversification	2011

Sources: S&P, MSCI, FTSE and Northern Trust

If these alternatively weighted indices are not meeting their needs because of their limited transparency, high turnover or limited breadth of coverage, some investors may choose to tweak an existing index or design their own. A variety of terms have been coined to describe these efforts, including smart beta, intelligent beta, engineered beta and others. These methods can be viewed as sitting in the exclusions, tailored indices or engineered beta buckets on a spectrum of beta. In this paper we will refer to these as customised beta.

SPECTRUM OF BETA

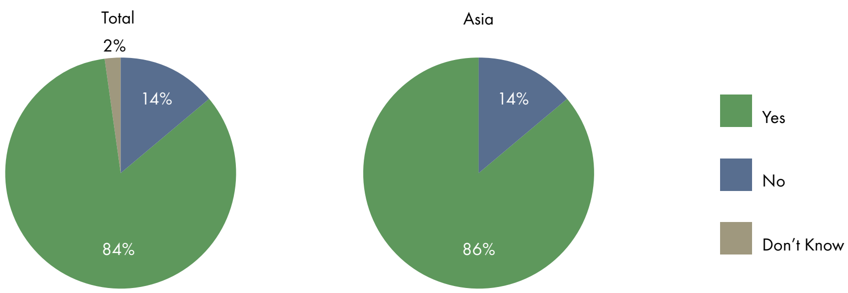


INVESTING WITH PURPOSE

The past decade has brought an important shift in institutional investment philosophy: Whereas historically most institutions defined the overall goal of their investment portfolios as outperforming a benchmark, institutions today see their primary task as meeting the overall objectives for the investment fund. One investor summarised the view of many Asian respondents, stating that "[the overall goal of our investment portfolio] is staying fully funded, and having a cushion to take care of volatility." While specific objectives vary from institution to institution based on their specific priorities, such as maintaining funding status, hitting return goals within a risk budget or maintaining downside protection, there is little doubt that among our survey participants these organisational requirements have replaced relative performance as institutions' primary measure of success.

Of the institutions participating in our study, 84% globally say that meeting their own unique investment objectives is more important to them than outperforming relative to their chosen benchmarks (see Chart 1). In Asia, 86% of institutions say this is true, as do 88% of European institutions and 80% of institutions in North America.

CHART 1: IS MEETING MY INVESTMENT OBJECTIVE MORE IMPORTANT THAN OUTPERFORMING A BENCHMARK?



Source: Northern Trust Customised Beta Study 2011
Base: Total - 121 respondents, Asia - 21 respondents

INCREASED FOCUS ON PASSIVE INVESTMENTS

As institutions forgo relative performance measures in favour of a focus on meeting their own specific investment fund objectives, passive investment products that deliver market performance at a relatively low cost are becoming increasingly important tools in institutional portfolios. Worldwide, approximately one-third of institutions participating in the study say passive products make up more than 40% their equity and fixed income assets, and a sizable number of institutions expect to increase allocations to passive strategies over the next three years. Approximately four in ten of the institutions expect passive strategies to make up more than 40% of equity and fixed income assets by 2014.

In Asia, approximately one-third of participating institutions report passive allocations of more than 40% in equities and 45% of institutions say passive allocations top that level in fixed income. While few Asian institutions are predicting a big shift into passive strategies in equities, 53% of participating institutions in Asia say passive allocations will top 40% in fixed income within the next three years.

A higher proportion of European institutions surveyed reported relatively large allocations to passive products than those in Asia (ex-Japan) and North America. Approximately 45% of institutions in Europe report that passive funds represent more than 40% of equity and fixed income assets, and approximately 57% expect passive strategies to cross that threshold in the next three years.

In North America the use of passive strategies is less prolific, with just 33% of participating institutions expecting their use of passive strategies to surpass 40% of the total portfolio by 2014. Yet, even those survey participants are planning to allocate more to passive over the coming three years.

One investor explains, "Over the past three years we have increased our passive mandate, [because] it allows us to respond more quickly to manager underperformance and to address any issues of downside risk … and it allows for more management flexibility and sector exposure."

Benchmark Concerns

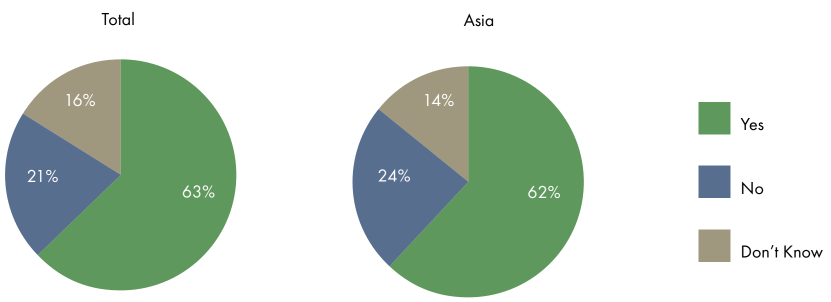
According to the study, investors note that market cap coverage, style biases, weighting methodology and sector/country biases are the most important criteria when evaluating and selecting an index. These same institutions, however, express concerns about the construction of cap-weighted indices.

Globally, 37% of study participants describe themselves as "concerned" or "very concerned" about methodology-related biases in standard index-weighting schemes. Specifically, respondents noted concerns about biases towards larger market capitalisation in equity indices. For fixed income, their concerns centered on biases toward larger debt issuance. If these biases don't align with investors' objectives, they may seek more customised indices as an alternative. Worries about these issues are most evident in Asia, where more than half of study participants (52%) express some level of concern about index bias.

In practice, there is a common objective that we often encounter when working with investors in all regions to achieve emerging markets exposure. Many passive portfolios based on major global equity indices can fall short of the level of exposure institutions might prefer for smaller emerging markets because they are weighted by market capitalisation. With the increasing overhang of debt issues in Europe and in other parts of the developed world, many investors see emerging markets and Asia as the source of market growth in the future. In these cases, some form of customisation can help an investor meet those specific objectives.

Around the world, 63% of participating institutions say that known inefficiencies should be addressed and removed (see Chart 2). "Institutions see these inefficiencies, like the over-representation of issuers with relatively high levels of outstanding debt in fixed-income indices, as such an important issue that one in five study participants say they would be willing to pay to have them removed," said Andrew McCollum, a consultant with Greenwich Associates. "This is strong evidence that institutional investors may benefit from considering a more customised beta strategy."

CHART 2: BELIEF THAT KNOWN INEFFICIENCIES SHOULD BE REMOVED



Source: Northern Trust Customised Beta Study 2011
Base: Total - 120 respondents, Asia - 21 respondents

EVOLUTION OF PASSIVE PORTFOLIO CONSTRUCTION

Among the many trends contributing to the growing popularity of passive investment strategies was the adoption of alpha/beta separation portfolio construction techniques. Investors identified index investing as providing a foundation of low-cost "beta" that is then complemented and supplemented with higher-cost alpha in the form of actively managed products. However, the survey indicates that the relevance of that view of alpha/beta separation is now being questioned by some investors. Index strategies can play roles in a portfolio's core holdings (beta) as well as the satellite or returns-seeking (alpha) components of an overall investment strategy. Asset allocation also has evolved from traditional asset class and style buckets to allocations based on specific risk factors and objectives. Index management aligns with the risk-factor or objective-focused allocation approach because it allows investors to tailor specific beta exposure and provides greater transparency.

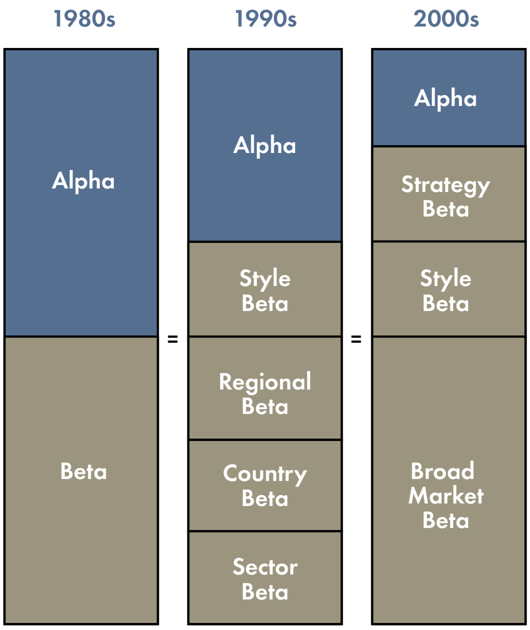
Also affecting the use of passive investment strategies among institutional investors is the blurring of the distinction between alpha and beta. Chart 3 (on page 7) illustrates the evolution of the role beta plays in portfolio construction. In the past 10 years, however, indices have been launched that offer both style beta and strategy beta, essentially shifting the line between alpha and beta. This blurring of the divide between true beta and alpha could explain why 41% of European respondents do not consider alpha-beta separation very relevant to their portfolios – a position not witnessed in the Asia- or North America-domiciled respondents.

As stated earlier, just over one-third of institutions in our survey noted concerns about bias inherent in traditional cap-weighted and alternative indices, which could make customised beta an effective strategy for them. In fact, 40% of institutions globally identified customised beta as being relevant to their current portfolio construction models.

Clearly, many institutions are continuing to use portfolio construction concepts in which cap-weighted indices play a central role, and have not adopted a more customised approach to their passive investing. We anticipate, given the attractiveness of passive investing's fundamental tenets, such as transparency, liquidity and low turnover, that further adoptions of these newer approaches will occur fairly quickly.

It is also likely that many investment funds are moving towards a customised beta approach without even recognising it. "As the market evolves, what we once considered to be part of our alpha generating portfolio five years ago, we now consider part of our passive portfolio," explains one investor.

CHART 3: EVOLUTION OF BETA



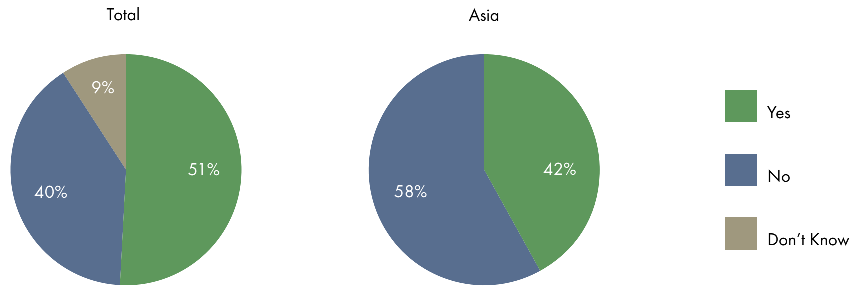
- Style Beta – Indices designed to give or to reduce exposure to a specific investment style, either value or growth
- Regional Beta – Indices designed to give or to reduce exposure to a specific region or regions
- Country Beta – Indices designed to give or to reduce exposure to a specific country
- Sector Beta – Indices designed to give or to reduce exposure to a specific sector or industry group
- Strategy Beta – Risk premia strategy indices that often use weighting methods other than price, such as value, momentum or volatility
- Broad Market Beta – Indices covering now standard forms of beta including region, country or sector

Source: MSCI

EARLY DAYS FOR CUSTOMISED BETA

As the concept of customised beta comes out of its infancy, more investors may turn to these strategies to address their specific investment objectives. Our research shows that 42% of Asian institutions say they would use customised beta to address their objectives if these tools were readily available (see Chart 4, on page 8). Given that the concept is in its formative stages and little time has been spent on education or promotion, this number reveals a high natural interest.

CHART 4: INTEREST IN EXPLORING CUSTOMISED INDICES



Source: Northern Trust Customised Beta Study 2011
Base: Total - 108 respondents, Asia - 19 respondents

The institutions surveyed see two primary benefits to a customised beta approach: improved risk/return trade-offs and increased diversification. Beyond these two primary benefits, institutions can use customised beta to meet a number of goals, which differ somewhat by region:

Asia

- Asian institutions see customised beta as a possible tool for eliminating inefficiencies within their portfolios that they see arising from methodological and weightings biases of existing indices, particularly with regards to their fixed income benchmarks.
- Many Asian institutions are also in the process of incorporating alpha/beta separation and core/satellite portfolio construction approaches – models in which customised beta can serve as an important tool.

Europe

- European institutions see customised beta strategies as having the potential to boost transparency within their passive portfolios at a time of increasing oversight and regulation.
- European institutions also are among the world's most enthusiastic proponents of socially responsible investing (SRI) and environmental, social and governance (ESG) investment practices. Customised beta approaches can provide an efficient screening tool for institutions looking to comply with these standards.

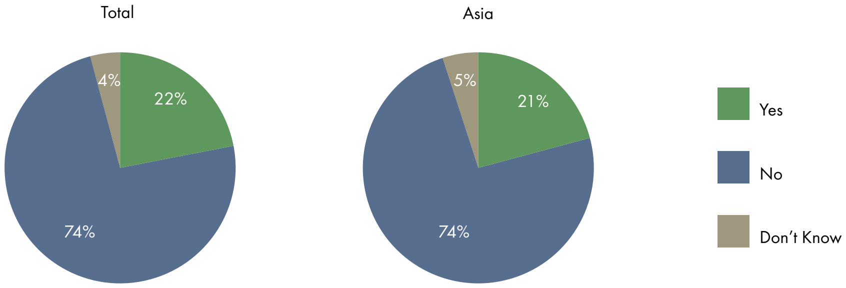
North America

- Although passive funds make up a smaller share of institutional portfolios in North America, investors in the United States and Canada are planning to increase allocations to passive strategies in the coming three years, and many of these institutions see customised beta as a means of expanding their market coverage as they do so.

ANALYSIS MATTERS

Although many institutions around the world recognise the benefits and potential uses for customised beta, only 22% of institutions participating in the Northern Trust study (see Chart 5) have conducted analyses of the short- and long-term implications of customised beta approaches. This finding reflects the fact that institutions in general spend the majority of their time and resources on active management – in particular, on the task of selecting managers. Globally 41% of respondents spend more than 30% of their time on manager selection.

CHART 5: CONDUCTED AN ANALYSIS OF SHORT- AND LONG-TERM IMPLICATIONS OF CUSTOMISED BETA APPROACHES

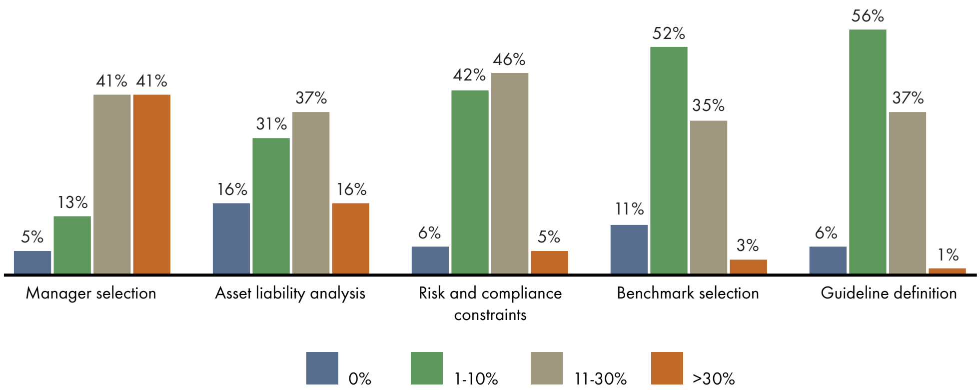


Source: Northern Trust Customised Beta Study 2011
Base: Total - 106 respondents, Asia - 19 respondents

In contrast, for about two-thirds of the respondents (62%), benchmark selection occupies 10% or less of the time they devote to investment activities and just over one-third (35%) spend 11% to 30% of their time on this activity (see Chart 6, on page 10). In both Europe and North America the majority of institutions dedicate less than 10% of their time to benchmark selection. However, in Asia, half of all respondents spend between 11% and 30% of their time reviewing and selecting benchmarks, much higher than the global average of 35%.

Nevertheless, with nearly half of all institutions saying it is very important that the benchmarks they invest against accurately reflect the specific market universe exposure they desire in their portfolio, it seems inevitable that institutions will have to start devoting more time and using new approaches in benchmark selection as the number of available benchmarks continues to grow and they expand their use of passive strategies. After all, even if you spend a considerable amount of time selecting your manager, you could still fail to meet your investment goals if you choose the wrong benchmark. Different methodologies can create very different results, and a thorough review of benchmarks should include a variety of factors, including rebalancing, liquidity and weighting approaches.

CHART 6: PROPORTION OF TIME ALLOCATED TO ACTIVITIES RELATED TO INVESTMENT DECISIONS



Source: Northern Trust Customised Beta Study 2011

Base: 98 respondents

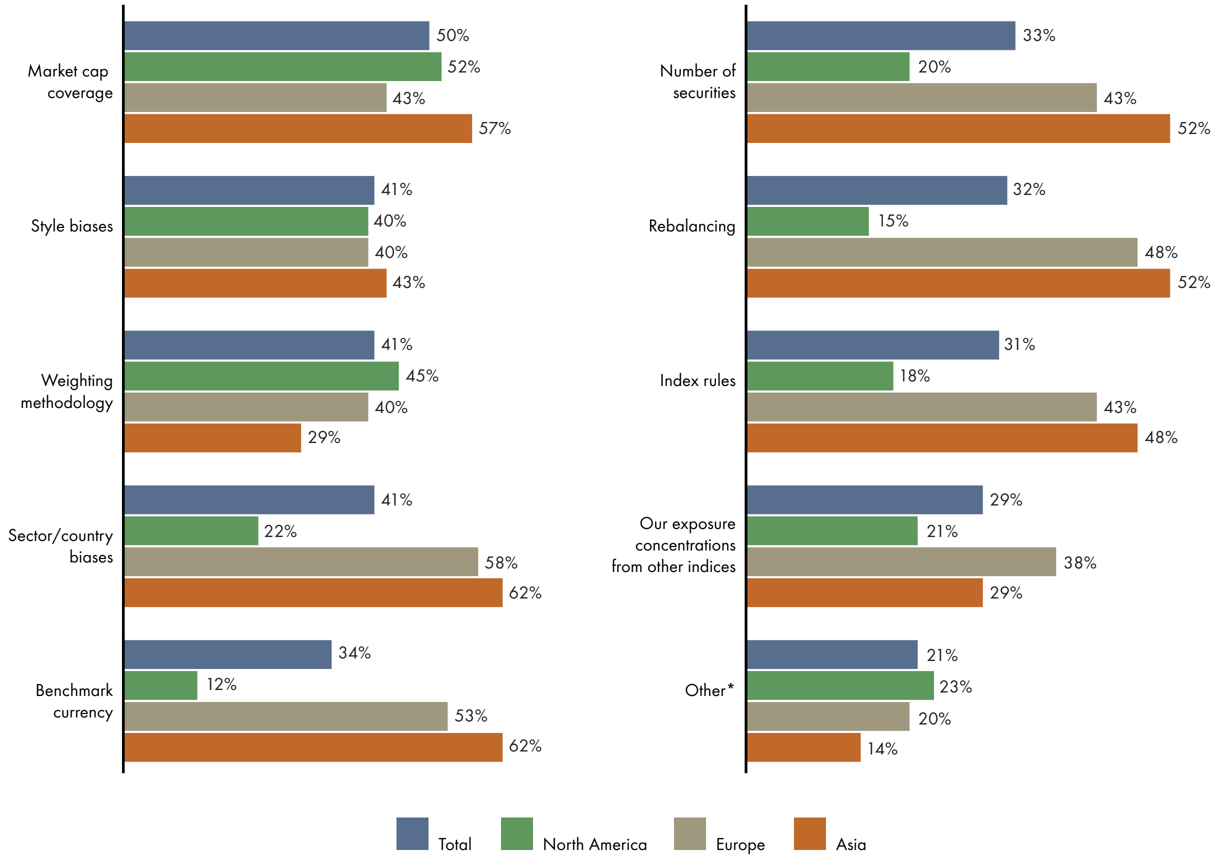
Benchmark Selection Criteria

Chart 7 (on page 11) shows the most important factors considered by institutions when selecting benchmarks. At a global level, four factors drive benchmark selection:

- Market cap coverage;
- Style biases;
- Weighting methodology; and
- Sector/country biases.

North American institutions rely primarily on the first three criteria when selecting a benchmark. In contrast, institutions in Asia and Europe regularly consider a much broader range of factors, including benchmark currency, number of securities, rebalancing policies and index rules. At present, only 29% of institutions around the world consider their own levels of exposure concentration from existing index investments when selecting a new benchmark. We expect investors to increasingly recognise the need to apply more comprehensive levels of exposure concentration analyses to institutional portfolios, ensuring that total overall exposures are in line with goals and expectations.

CHART 7: SELECTION CRITERIA FOR EVALUATING AND CHOOSING AN INDEX FOR PASSIVE INVESTMENTS



Source: Northern Trust Customised Beta Study 2011

Base: Total 121, North America 60, Europe 40, Asia 21

** North America "other" includes: markets representation, risk measures, consultant recommendations, correlation, cost, not a consideration; Asia "other" includes: domestic currency, tracking error, replicability; Europe "other" includes: turnover, replicability, superiority, transparency*

A GROWING ARRAY OF BETA OPTIONS

As institutions in Asia and other global markets increase their investments in passive products, the range of available strategies has evolved, moving further along the beta spectrum. This evolution has led to myriad new approaches ranging from alternatively weighted indices to customised beta approaches that allow institutions to choose the type of index exposure that will best meet their specific needs.

A key observation from the survey results is that, although investors do not allocate a large portion of their time to benchmark selection, they are investing with purpose – focused on meeting investment objectives rather than benchmark outperformance. Northern Trust believes the introduction of a broader array of beta solutions is a positive development, providing investors with opportunities to refine alignment with their investment goals. The market today remains segmented, with some investors gravitating towards traditional index solutions while others are exploring the possibilities of custom indices. The spectrum of beta to alpha solutions has never been better, providing an excellent opportunity to review your investment goals with your asset managers and consultants, and to explore implementation opportunities suitable to your investment purpose.

FOR MORE INFORMATION

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