

FACTOR PROFILE: VALUE

INSIGHTS AND DESIGN OF OUR ADVANCED FACTORS

Equity factors represent systematic, persistent drivers of return that reflect how markets price risk, behavior, and business fundamentals over time. Decades of academic and empirical research, including Northern Trust Asset Management's *Foundations in Factors*, show that factors such as value, quality, momentum, and low volatility have historically delivered differentiated risk and return profiles relative to capitalization weighted markets. These return patterns are commonly linked to a combination of economic foundations and behavioral frictions, including investor preferences, constraints, and misperceptions, that tend to persist through market cycles. Importantly, while factor exposures are systematic, their effectiveness is highly sensitive to how they are defined, measured, and implemented. Simplistic constructions can amplify cyclicalities, introduce unintended risks, or dilute the underlying signal. As a result, disciplined factor design, grounded in economic intuition, robust empirical evidence, and thoughtful portfolio construction, is in our view, essential to improving the durability, risk efficiency, and overall investor experience of factor driven strategies.

QUANTITATIVE STRATEGIES

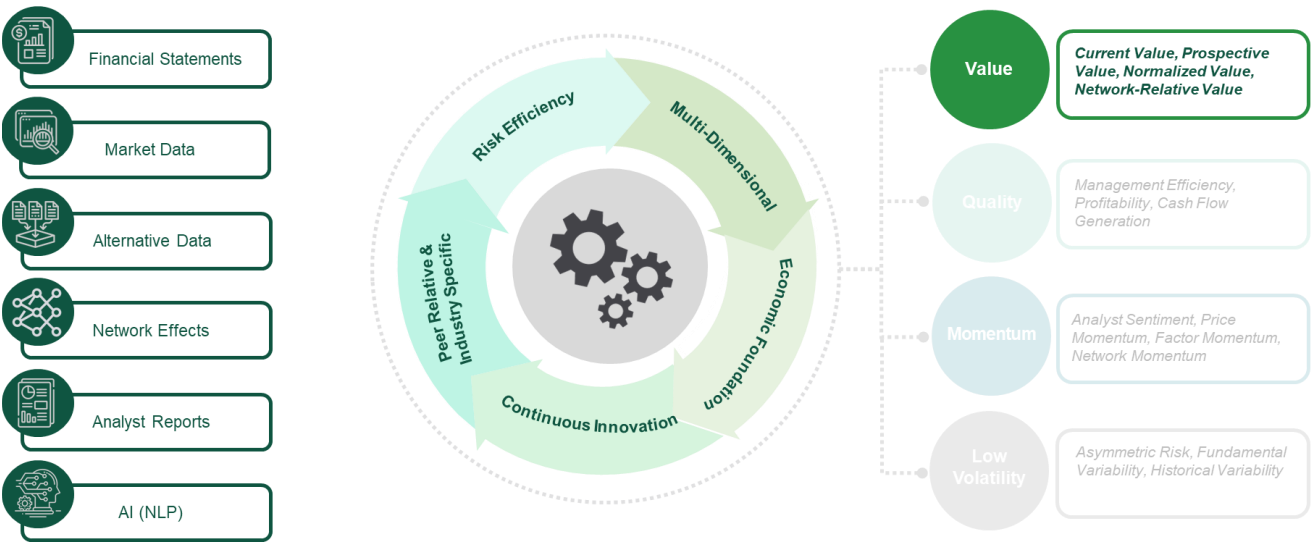
Northern Trust Asset
Management

OUR FACTOR FRAMEWORK

Our multi-dimensional factor framework recognizes factor premia as complex, unobservable phenomena that are best captured through diversified signals rather than single metrics. Across Value, Quality, Momentum, and Low Volatility, the framework integrates traditional financial data with alternative and text based data, network analytics, and advanced processing techniques to capture multiple economic and behavioral dimensions of each factor, while deliberately managing unintended exposures. This approach reflects our view that robust factor definitions must evolve alongside markets, data availability, and the structure of the global economy.

Our factors are built with a strong emphasis on risk efficiency. We explicitly neutralize uncompensated risks and use peer-relative comparisons to improve measurement consistency across the investment universe, extending beyond standard classifications to incorporate proprietary network relationships. The framework is context-aware, recognizing that risk and business models vary meaningfully across sectors. Continuous innovation is guided by a disciplined, evidence-based research process that preserves core economic intuition while refining measurement, supporting resilient, differentiated, risk-adjusted outcomes across market cycles.

A PROVEN MULTI-DIMENSIONAL FRAMEWORK TO ASSESS SECURITY CHARACTERISTICS



Source: Northern Trust Asset Management, For Illustrative Purposes Only.

OUR APPROACH TO VALUE

Value is fundamentally about intrinsic worth, not simply identifying stocks that look inexpensive based on surface level metrics. At its core, value reflects the gap between a company's market price and the underlying economics of the business, shaped by its ability to generate cash flows over time. Historically, stocks with strong value characteristics have played an important role in long term equity outcomes, particularly when market prices embed expectations that later prove too extreme. Behavioral forces often drive this dynamic from both directions: investors can extrapolate recent challenges too far forward for some companies, while becoming overly optimistic about growth narratives for others, pushing prices away from fundamental value. However, to capitalize on this dynamic, it requires careful and calibrated measurement. Traditional valuation ratios, applied mechanically, can struggle in today's economy where intangible investment, innovation, and uneven growth profiles are increasingly central to value creation. Simple measures often fail to distinguish between companies that are genuinely undervalued and those that are inexpensive for structural or fundamental reasons, just as they can overstate the attractiveness of growth when future potential is already fully priced in.

Our approach is deliberately diversified across complementary lenses rather than anchored to a single "cheapness" metric. We apply a systematic, peer-to-peer framework across the full investment universe, which helps ensure like-for-like comparisons and reduces the risk that structural differences, accounting distortions, or subjective bias drive results. This breadth is an important differentiator versus discretionary "value" judgments: we aim to consistently identify where market prices embed overly pessimistic expectations while avoiding companies that are inexpensive for structural reasons. The themes driving our factor definition are outlined below:

Current value signals provide a timely assessment of how a company is priced relative to its most recent fundamentals. Measures such as earnings yield and free cash flow yield help identify situations where prices appear disconnected from near term earnings and cash flow reality, while remaining sensitive to sector and business model context.

Normalized value signals address cyclicalities and short term distortions that can overwhelm point in time valuation. By evaluating valuation relative to earnings power across a full business cycle, normalized measures help distinguish companies that are temporarily out of favor from those facing persistent deterioration.

Prospective value signals incorporate forward looking expectations to complement backward and cycle adjusted views. These measures are especially relevant for companies undergoing meaningful change or investing heavily in growth, where historical financials can lag underlying economics. We include forward earnings yields, but also employ a more advanced intrinsic value lens that uses a systematic discounted cash flow framework to translate expected cash flows, growth, profitability, and risk into an explicit estimate of economic value.

Network value adds an additional peer relative lens designed for today's economy, where traditional sector groupings can be too blunt and intangible investment is increasingly important. By comparing valuation to economically linked peers and competitors, network value helps separate true undervaluation from structural differences in business models, and supports a more modern, like-for-like assessment of intrinsic value.

The below exhibit highlights the outcomes of our approach relative to a single-metric approach, where benefits are seen in return and risk-adjusted returns.

EXHIBIT 1: VALUE RISK AND RETURN OUTCOMES

The advantage of our diversified, multi-dimensional approach to harvest the value factor

Market Universe	Factor (Value)	Ann. Return (%)	Ann. Vol. (%)	Max. Drawdown (%)	Information Ratio
U.S.	NT Value	3.8%	6.2%	-27.1%	0.62
	Book-to-Price	-1.0%	15.4%	-57.6%	-0.07
Developed Markets ex. U.S.	NT Value	5.1%	4.2%	-20.4%	1.22
	Book-to-Price	3.1%	13.0%	-48.1%	0.24
Emerging Markets	NT Value	8.6%	5.3%	-12.0%	1.62
	Book-to-Price	4.0%	10.6%	-44.3%	0.37

Source: Northern Trust Asset Management – Quantitative Strategies. Based on long-short backtests using the Russell 1000, MSCI World Ex-US, and MSCI Emerging Markets indexes, weighted by alpha times the square root of market cap. Period: January 1996 - January 2026. Simulated performance for illustrative purposes only. Northern Trust represents a proprietary advanced definition described herein., "Book-to-Price" = book value of common equity divided by market cap as used in the Barra equity risk model. This table does not show actual performance results. For illustrative purposes only. Past performance is not indicative or a guarantee of future results. Index performance returns do not reflect any management fees, transaction costs or expenses. It is not possible to invest directly in any index.

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