MORNINGSTAR Indexes

Dividends with discretion:
A rules-based equity income approach considering valuation and financial health

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Over the short term, dividend-paying stocks tend to be overshadowed by high-flying growth stocks; but they are a dependable route to successful long-term equity investing. From the days of the Dutch East India Company, dividends have served as the primary mechanism for businesses to distribute cash to shareholders. Cherished for their income stream, dividends also contribute significantly to the long-term total return from equity markets. Though dividend payers are dismissed by some as slow-growth companies lacking in reinvestment opportunities, their stodgy image belies a long-term performance advantage.

This is not to say that equity income investing doesn't carry risk. Interest rates are the most commonly feared enemy of the dividend investor. Morningstar research shows that the conventional wisdom regarding the historical relationship between interest rates and dividend payers is flawed.

"Dividend traps" are a more serious concern. A company can lure investors with a tempting yield, only to experience financial distress, dividend cuts, and share price declines. Chasing short-term yield at the expense of long-term total return can lead investors into dangerous corners of the market. Financials and housing-related stocks in 2007-09, energy and materials stocks in 2014-15, and 2020's pandemic-driven dividend disaster present cautionary tales.

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Valuation is also an important consideration. High-yielding stocks can become a crowded trade, especially when cash and bonds offer paltry yields and ageing investors look to their portfolios for income. Of course, avoiding overvalued shares is always a good investment strategy. Buying at a discount to intrinsic value provides a margin of safety and upside potential.

The Morningstar US Dividend Valuation Index represents a rules-based, selective approach to equity income investing. The index offers exposure to companies with significant payouts that are also financially healthy and attractively valued. Financial health is measured by the dynamic Distance to Default indicator, a measure of future distress. Valuation is gauged not through backward-looking financial metrics, but through the insights of Morningstar's Equity Research team. As a result, the Morningstar US Dividend Valuation Index homes in on companies with relatively attractive valuations and superior financial health, which Morningstar research links to dividend sustainability. The Morningstar US Dividend Valuation Index not only outperformed the broader U.S. dividend universe over the back-test period, but the equity market overall.

Dividends — Not Just for Income, but also for Total Return

Several academic studies have pointed to the long-term performance advantage of dividend-paying stocks. Yield is sometimes identified as a "factor" — a driver of excess return — while others believe that dividend payers do well because they tend to occupy the lower-priced portion of the

market (the “value effect”). In any case, the track record is strong. An examination of the Kenneth R. French Data Library reveals that investing in the high-yield portion of the equity market tends to be a winning strategy. Meanwhile, non-dividend payers underperform the market.

The following return comparisons use dividend portfolios displayed on the French Data Library’s website. They are formed based on dividend yields at the end of December and reconstituted annually. Like the market indexes they are compared against, they are capitalization-weighted.

Exhibit 1. **Dividend payer track record — U.S. 1927–2017**

	Return %	Risk % (standard deviation of returns)	Return/risk	R^2	Value of dollar invested in 1927
Non-payers	8.6	29.7	0.29	0.86	$1,674.77
Low yield	9.1	19.6	0.47	0.93	$2,564.60
Mid yield	10.4	17.8	0.59	0.93	$7,592.49
High yield	**11.1**	**19.8**	**0.56**	**0.80**	**$12,754.51**
Market	9.7	18.6	0.52	1.00	$4,189.63

Source: French Data Library

This record of outperformance aligns with the findings of several seminal studies. Litzenberger and Ramaswamy published a highly influential paper in 1979 observing that stocks paying above-average yields tend to produce superior performance.[1] Jeremy Siegel’s *The Future for Investors*[2] demonstrated that the highest-yielding stocks in the U.S. market outperformed the overall market by a substantial margin from 1958 to 2003. *Triumph of the Optimists* by Dimson, Marsh, and Staunton, examines equity market returns in four continents and 16 countries over a 101-year period, 1900–2001, concluding that in the short term, the impact of dividends can be easily overlooked, but over the long term, the compounding effect of reinvested dividends has a significant impact on total returns.[3] Dividend growth is also a key driver of long-term equity market returns across the 16 countries studied.

[1] Litzenberger, Robert H., and Krishna Ramaswamy, June 1979, *“The Effect of Personal Taxes and Dividends on Capital Asset Prices: Theory and Empirical Evidence,”* Journal of Financial Economics 7, 163-195

[2] Siegel, Jeremy, *The Future for Investors* (Crown Business, 2005)

[3] Dimson, Marsh, and Staunton, *Triumph of the Optimists* (Princeton University Press, 2002)

Why do dividend-paying companies outperform? Several factors are likely at play. Dividend payers tend to be established, steadier-than-average companies, confident enough in their cash flows to commit to returning cash to shareholders. Because investors are extracting income from their stock holdings, they are less likely to sell on bad news. Shareholder loyalty dampens volatility.

Perhaps most importantly, the dividend commitment instills discipline. Corporate managers and directors find cash piles tempting. Rather than use excess cash to fund acquisitions that may or may not create value, buy back shares at questionable valuations, or fund speculative growth initiatives, paying dividends transfers cash to shareholders. Corporate executives and directors must act as careful stewards to maintain their dividend payment. Especially in the U.S., companies that withdraw dividends typically see their share price punished.

While dividend investing has proved effective over very long time periods, equity income strategies can underperform over shorter time frames. The following three sections will look at three risks faced by dividend investors. The first, interest rates, is overblown, as the empirical record shows. The second, valuation, waxes and wanes with investor sentiment. The third, financial distress, is so endemic to equity income investing that is has a nickname: “dividend traps.”

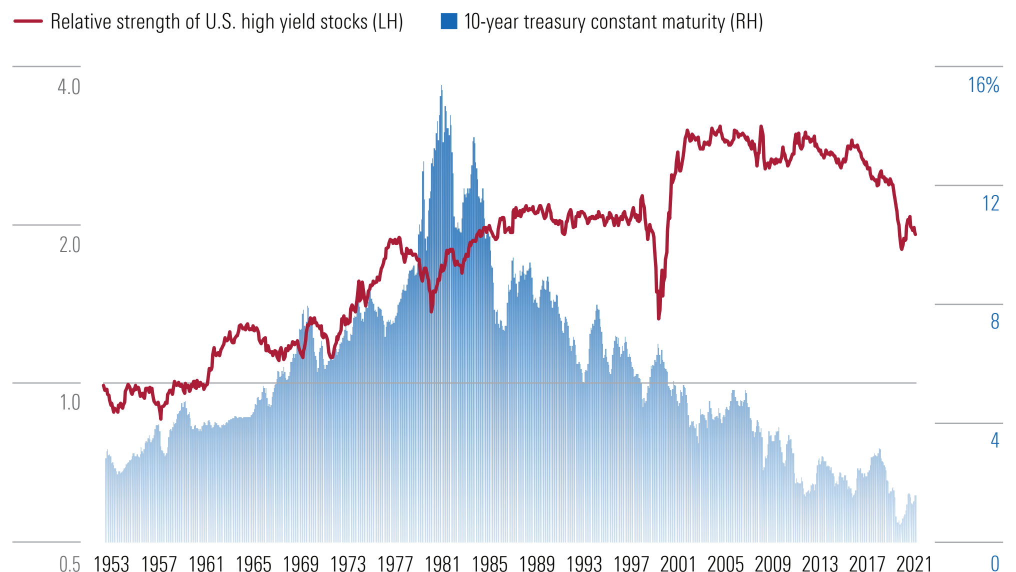
> Dividend payers tend to be established, steadier-than-average companies, confident enough in their cash flows to commit to returning cash to shareholders.

Meanwhile, income generation remains a key part of the appeal of dividend stocks. Dividends are a way for investors to extract value from their investment portfolio without selling shares at volatile prices or incurring taxable events. This was true in the days of the Dutch East India Company. It has been especially true in recent years. After global central banks slashed interest rates to rock-bottom levels to stimulate moribund economies during both the global financial crisis of 2007-2009 and the Covid pandemic of 2020, yield-starved investors fled to equities. Demographics have only exacerbated this trend. With the post-World War II generation moving from the accumulation phase of life into retirement, an expanding cohort of investors across the developed world is increasingly looking to extract income from their investments. Unsurprisingly, dividend-screened/weighted is the most popular category of "smart beta" globally.

Dividends and interest rates: A complicated relationship

The conventional wisdom holds that when rates rise, investors turn to cash and bonds and shun equity income. In fact, the shares of dividend payers often fall in response to rising rates, or even in anticipation. But does this relationship persist? Longer term, do dividend payers thrive in low rate environments and vice versa? Morningstar's former director of equity income strategy, Josh Peters, first tested the conventional wisdom empirically in 2015, and his research has been updated below. Using the French Data Library and the St. Louis Federal Reserve, we examine the performance of dividend-paying stocks under different rate regimes. We compare the relative performance of high-yield stocks—as defined by the French Library—to the yield on the 10-year Treasury.

Exhibit 2. **High yield equities vs interest rates—U.S.**



Source: French Data Library and St. Louis Federal Reserve

Dividend investors have always had to be careful. Dividends are not guaranteed; in fact, they are last in line to be paid out of a corporation's resources.

This graph demonstrates no clear relationship between interest rates and the relative performance of income-generating equities. In some periods of rising U.S. rates, such as the mid-1970s, dividend-paying stocks outperformed the market. As rates fell from the mid-1980s to the mid-1990s, the performance of high-yield stocks was fairly flat. When the Federal Reserve cut rates in the wake of the 1997-98 Asian financial crisis, dividend payers did not benefit. During the technology bubble, investors cared little for earnings, let alone dividends. Then, in the extremely low interest-rate environments following both the 2008 financial crisis and the 2020 pandemic-driven downturn, high-yield equities lagged again. Dividend-rich sectors, from financial services to energy and materials, all struggled. In short, the wider context is critical. Interest rates are one of many variables affecting the relative performance of equity income.

A similar conclusion was reached by Travis Miller, Morningstar energy & utilities strategist, and colleagues in an examination of the utilities sector.[4] Miller writes:

Our analysis of utilities' stocks returns since 1992 debunks the myth that rising interest rates will sink utilities—nor will another drop in interest rates necessarily pay off. In fact, the probability of utilities and interest rates moving in opposite directions over two- and three-year periods was similar to a coin flip during the last 25 years. We suggest long-term investors focus on utilities' dividend yields, growth potential, and valuations, as we showed above, not interest rate moves.

[4] Miller, Travis, Bischof, Andy, and Fishman, Charles, *Will Utilities Fly or Flop?*, Morningstar Equity Research. Sept. 7th, 2018.

Beware dividend traps

Dividend investors have always had to be careful. Dividends are not guaranteed; in fact, they are last in line to be paid out of a corporation's resources. Buying stocks with high yields can lead investors to risky pockets of the market. When a stock's price declines, its yield rises. Hunting for dividends can lead an investor to troubled sectors, industries, and securities.

One need not reach too far into the historical record to unearth cautionary tales. During the global financial crisis of 2007–09, dozens of dividend payers ran into trouble, including some equity income champions. In the U.S. market alone, companies in financial services or those exposed to the U.S. housing market—names like GE, Bank of America, Washington Mutual, and GM—suspended their dividend payments. At various stages of the crisis, some of these pressured stocks sported double-digit yields. Those ultimately proved unsustainable. Investors who were tempted by lofty payouts found themselves holding devalued shares. Prioritizing yield over total return can be a recipe for disaster.

Then there was the experience of companies in the energy and basic materials sectors in 2014–15. Depressed commodity prices pressured margins. Stalwarts like Conoco-Phillips, Kinder Morgan, and Freeport-McMoRan were all forced to cut their dividends.

In 2020, the pandemic-driven economic collapse led many companies to reduce, suspend, or eliminate shareholder payouts. Dividend cuts reached their highest level since 2008 and spanned sector. Plunging oil prices led energy businesses like Marathon and Occidental to drop their payouts. Consumer-facing companies like Gap, Disney, and Harley-Davidson cut. Financial services stalwarts, including Capital One and Progressive, slashed dividends after being undermined by low interest rates and loan losses. Even the technology sector, the best performer throughout the pandemic, saw some cutters, including Western Digital and Blackbaud.

Buying dividend payers indiscriminately is therefore dangerous. Active managers have long conducted fundamental research to gauge dividend sustainability and sidestep traps. Rules-based passive equity income strategies tend to rely on historical measures—an inherently limited approach.

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Too many dividend investors have been forced to learn that most painful of investment lessons: Past is not prologue. Screen for historical dividend payments or historical dividend growth, and you might have bought a stock like Citigroup, which consistently grew its dividend over the years, from 9 cents per share in 1998 to 54 cents in 2007, or Bank of America, whose track record of dividend payments reached back to the 1980s. Neither of those experiences ended well.

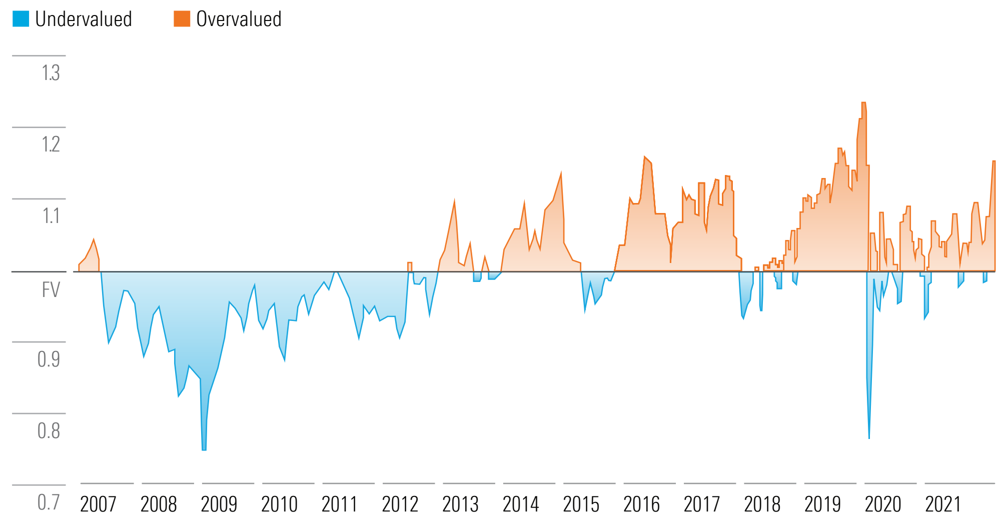
Dividends—Valuation concerns

Valuation is a perennial investment concern. Over the long term, the price paid for an asset is a key determinant of future returns. Even the highest-quality company could turn out to be a value destructive investment if it's purchased at an excessive price.

Valuation is sometimes overlooked when it comes to dividend-paying stocks. Many payers cluster on the value side of the market, where metrics like price to earnings and price to book value are more subdued than on the growth side of the market. But dividend payers are perfectly capable of becoming a crowded trade and seeing their shares bid up.

Consider the dividend-rich utilities sector. After several years of undervaluation in the wake of the financial crisis, the median utilities stock under Morningstar analyst coverage became overvalued in 2013. Even in a market dominated for years by high-flying tech stocks, the utilities sector did not represent a bargain—at least in aggregate terms—though pockets of undervaluation opened up in 2015, 2018, and especially in the pandemic-driven downturn of 2020.

Exhibit 3. **U.S. utilities sector valuation**



Source: Morningstar

The Morningstar US High Dividend Yield Index represents the higher-yielding half of the U.S. dividend-paying universe and is weighted by market capitalization. As of the end of the first quarter of 2022, the index contained 439 constituents. Of the 233 stocks assigned fair values by Morningstar analysts, 126 were deemed to be overvalued.

Exhibit 4. **Top 5 overvalued dividend payers**

Security	Valuation (1.00 represents fair value)
Archer-Daniels Midland	**1.64**
CF Industries	1.59
McCormick & Co.	1.58
Juniper Networks	1.49
Helmerich & Payne	1.49

Source: Morningstar Direct. Data as of 03/31/2022.

Since the 2008 financial crisis, dividend-paying stocks have become a haven for yield-starved investors. When the Federal Reserve and other central banks slashed interest rates to rock-bottom levels to stimulate economic growth and prevent recession, it sent savers and income-seeking investors fleeing from bank accounts and fixed-income holdings into the equity market. This was repeated when rates were slashed after the onset of the pandemic in 2020.

Low interest rates have coincided with demographic trends fueling demand for income. Populations are aging in the U.S. and across the developed world. The massive post-World War II baby-boom generation is retiring. As investors move from the “accumulation” phase of life to “decumulation,” they increasingly looking to draw on their investment portfolios for income.

The Morningstar US Dividend Valuation Index offers exposure to companies providing significant payouts that are also attractively valued and financially healthy.

According to Morningstar Asset Flows data, dividend-screened or weighted exchange-traded funds held $432 billion in investor capital globally as of March 31, 2022. In the first quarter of 2022 alone, they attracted $25 billion in new flows.

This is not to argue that dividend stocks are a bubble—far from it. For more than a decade after the financial crisis, the equity market was dominated by the FAANG or FAAGM stocks (Facebook [now Meta Platforms], Apple, Amazon, Netflix, Google [now Alphabet], and Microsoft), as well as stocks like Tesla and Nvidia. Bargains can typically be had among high-yielding stocks, with a selective, rather than indiscriminate approach.

Introducing the Morningstar US Dividend Valuation Index: A discerning approach

The Morningstar US Dividend Valuation Index offers exposure to companies providing significant payouts that are also attractively valued and financially healthy. Valuation is gauged not through backward-looking financial metrics, but through the insights of Morningstar's Equity Research team. Financial health is measured by the dynamic Distance to Default indicator, a gauge of future distress. Subsequent sections will discuss the Morningstar approach to valuation and the Distance to Default measure.

Index Eligibility

The Morningstar US Dividend Valuation Index derives its constituents from the Morningstar US Market Index, which targets 97% of the U.S. equity market's float-adjusted market capitalization. To be eligible for the dividend index, a security must have paid a dividend in the trailing 12-month period. Dividends must be "qualified income"; thus, real estate investment trusts are excluded. Securities must also be assigned a fair value estimate by Morningstar's Equity Research team. Analyst coverage of roughly 700 U.S. stocks represents 85% of equity market capitalization.

Index Selection

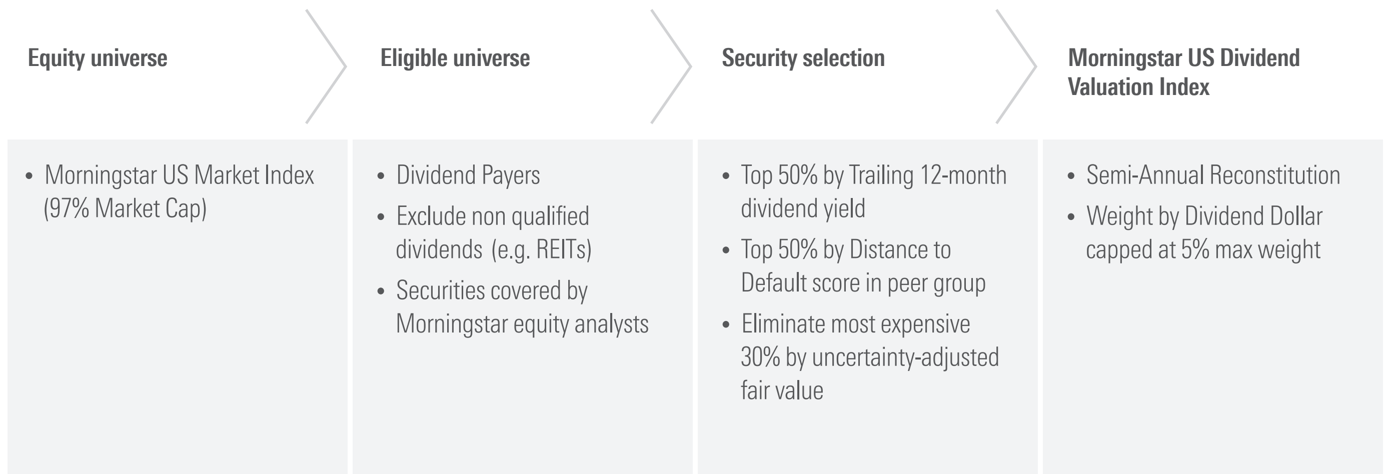
Eligible companies are screened on the basis of dividend yield, financial health, and valuation. The index selects securities in the top 50% of the U.S. equity market by trailing 12-month dividend yield. Companies must also possess a Distance to Default score in the top half of their peer group. Securities whose share prices land in the 30% most overvalued of the overall eligible universe are excluded. The number of constituents varies, dependent on eligibility rules and selection criteria. To reduce turnover, index constituents are allowed to remain at reconstitution time so long as they fall within a reasonable distance of the cut-offs for yield, Distance to Default, and valuation.

Index Weighting

Securities are weighted according to the available-dividend model. Dividend per share is multiplied by the number of shares that can be purchased (float). This retains the primary benefits of market-cap weighting (low turnover and scalable investment capacity), while also maximizing yield. As a risk-control measure, individual security weight is capped at 5% at the time of reconstitution.

Index Reconstitution/Rebalancing
The index is reconstituted (membership reset) and rebalanced (weights reset) semiannually in March and September on the Monday following the third Friday of the month. If Monday is a holiday, reconstitution/rebalancing is effective on the following business day. Market data used is as of the last trading day of February and August.

Exhibit 5. **Morningstar US Dividend Valuation Index construction process**



The Morningstar approach to valuation

Morningstar's equity research group believes that a company's intrinsic worth results from the future cash flows it can generate. Thus, at the heart of Morningstar's valuation approach is a detailed projection of a company's future cash flows, resulting from analyst research. Analysts create custom industry and company assumptions to feed income statement, balance sheet, and capital investment assumptions into a globally standardized, proprietary discounted cash flow modeling template. Analysts employ scenario analysis, in-depth competitive advantage analysis, and a variety of other analytical tools to augment the process.

Discounted cash flow analysis presents a better lens for viewing cyclical companies, high-growth firms, businesses with finite lives (mines, for example), or companies expected to generate negative earnings over the next few years. Multiples are not dismissed altogether but rather used as supporting cross-checks for DCF-based fair value estimates. DCF models offer their own challenges (including a potential proliferation of estimated inputs and the possibility that the method may miss short-term market-price movements), but Morningstar believes these negatives are mitigated by deep analysis and a long-term approach.

The concept of an economic moat plays a vital role in the qualitative assessment of a firm's long-term investment potential, and in the actual calculation of fair value estimates. An economic moat is a structural feature that allows a firm to sustain excess profits over a long period of time. Economic profits are defined as returns on invested capital over and above a firm's estimated cost of capital, or weighted average cost of capital. Without a moat, profits are more susceptible to competition.

Morningstar's equity research group believes that a company's intrinsic worth results from the future cash flows it can generate.

Morningstar has identified five sources of economic moats: intangible assets, switching costs, network effect, cost advantage, and efficient scale.

Companies with a narrow moat are those believed to be more likely than not to achieve normalized excess returns for at least the next 10 years. Wide-moat companies are those in which Morningstar's equity research team has a very high degree of confidence that excess returns will remain for 10 years, with excess returns more likely than not to remain for at least 20 years. The longer a firm generates economic profits, the higher its intrinsic value. Low-quality, no-moat companies will likely see their normalized returns gravitate toward their cost of capital more quickly than companies with moats.

Combining analysts' financial forecasts with a firm's economic moat leads to an assessment of how long returns on invested capital are likely to exceed the firm's cost of capital. Returns of firms with a wide economic moat rating are assumed to fade to the perpetuity period over a longer period than the returns of narrow-moat firms, and both will fade slower than no-moat firms, increasing the estimated intrinsic value.

The Morningstar valuation model is divided into three distinct stages

Stage I: Explicit Forecast

In this stage, which can last five to 10 years, analysts make full financial statement forecasts, including items such as revenue, profit margins, tax rates, changes in working-capital accounts, and capital spending. Based on these projections, Morningstar calculates earnings before interest, after taxes and the net new investment to derive an annual free cash flow forecast.

Stage II: Fade

The second stage of the model is the period it will take the company's return on new invested capital—the return on capital of the next dollar invested—to decline (or rise) to its cost of capital. During the Stage II period, Morningstar uses a formula to approximate cash flows in lieu of explicitly modeling the income statement, balance sheet, and cash flow statement as done in Stage I.

The length of the second stage depends on the strength of the company's economic moat. Morningstar forecasts this period to last anywhere from one year (for companies with no economic moat) to 10–15 years or more (for wide-moat companies). During this period, cash flows are forecast using four assumptions: an average growth rate for EBI over the period, a normalized investment rate, average return on new invested capital, and the number of years until perpetuity, when excess returns cease. The investment rate and return on new invested capital decline until a perpetuity value is calculated. In the case of firms that do not earn their cost of capital, marginal ROICs are assumed to rise to the firm's cost of capital (usually attributable to less reinvestment), and the second stage may be truncated.

Stage III: Perpetuity

Once a company's marginal ROIC hits its cost of capital, a continuing value is calculated, using a standard perpetuity formula. At perpetuity, Morningstar assumes that any growth or decline or investment in the business neither creates nor destroys value and that any new investment provides a return in line with estimated WACC.

Morningstar's recommended margin of safety widens as uncertainty of the estimated value of the equity increases.

Because a dollar earned today is worth more than a dollar earned tomorrow, Morningstar discounts projections of cash flows in stages I, II, and III to arrive at a total present value of expected future cash flows. Because analysts model free cash flow to the firm — representing cash available to provide a return to all capital providers — Morningstar discounts future cash flows using the WACC, which is a weighted average of the costs of equity, debt, and preferred stock (and any other funding sources), using expected future proportionate long-term, market-value weights.

Uncertainty around Fair Value Estimate

Morningstar's Uncertainty Rating captures a range of likely potential intrinsic values for a company and uses it to assign the margin of safety required before investing. The Uncertainty Rating represents the analysts' ability to bound the estimated value of the shares in a company around the Fair Value Estimate, based on the characteristics of the business underlying the stock, including operating and financial leverage, sales sensitivity to the overall economy, product concentration, pricing power, and other company-specific factors.

Analysts consider at least two scenarios in addition to their base case: a bull case and a bear case. Assumptions are chosen such that the analyst believes there is a 25% probability that the company will perform better than the bull case, and a 25% probability that the company will perform worse than the bear case. The distance between the bull and bear cases is an important indicator of the uncertainty underlying the fair value estimate.

Morningstar's recommended margin of safety widens as uncertainty of the estimated value of the equity increases. The more uncertain about the estimated value of the equity, the greater the discount required relative to the estimated value of the firm before purchase is recommend.

The Morningstar US Dividend Valuation Index considers a firm's analyst-assigned fair value estimate adjusted for uncertainty.

Distance to default

For a full discussion of the Distance to Default metric employed by Morningstar Indexes, please see the methodology paper.[5]

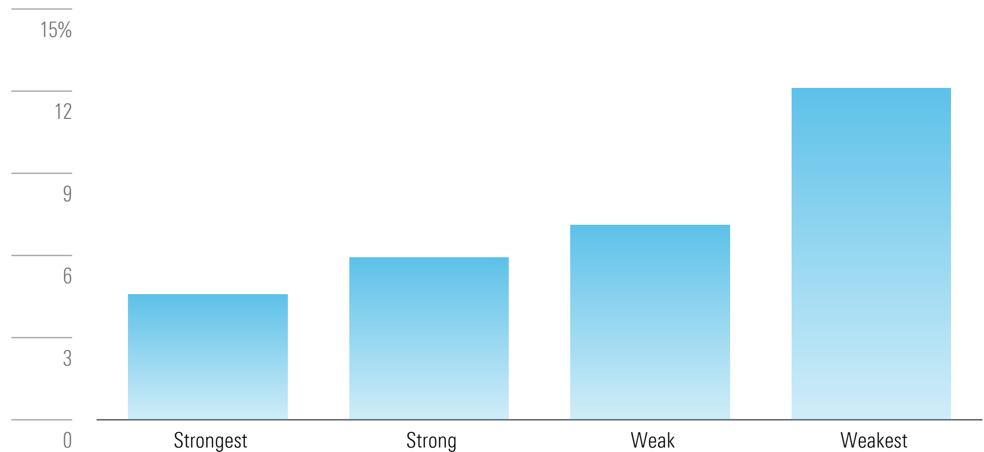
As its name implies, Distance to Default aims to forecast the likelihood of bankruptcy. Distance to Default uses option pricing theory to evaluate the risk that the value of a company's assets will turn out to be less than the sum of its liabilities. It considers equity value and share price volatility and is therefore responsive to market fluctuations.

[5] Morningstar Indexes Distance to Default Methodology Paper, Morningstar Indexes, February 2016

Distance to Default is measured on a relative basis. Companies in the financial-services sector are compared within their sector. All other stocks are judged relative to the entire universe of eligible equities. Because leverage is inherent to their business model, financial-services stocks warrant separate treatment. Including them in the broad equity universe would flatter the financial health scores of stocks in other sectors.

Distance to Default is an effective predictor of dividend cuts. Dividing the universe of U.S. dividend payers into four equal bands (quartiles) by their Distance to Default scores, we looked at whether the company went on to experience a dividend cut by comparing adjoining fiscal year-end dividend per share figures over a multi-year period. If the company decreased its dividend per share year over year, we consider it to be a dividend cut. We observed that companies with the lowest probability of default are likeliest to sustain their dividends, with the inverse also being true.

Exhibit 6. **Distance to default – percentage of dividend cuts by quartile**



Source: Morningstar Indexes. Time Period Studied: 2005-2021.

Holdings-based features of the Morningstar US Dividend Valuation Index

The Morningstar US Dividend Valuation Index displays several distinguishing characteristics compared with both the overall equity market and its high-yield segment.

The Morningstar US Market Index, whose 1,500-plus constituents cover 97% of equity market capitalization, reflects the broad U.S. equity market. The Morningstar US High Dividend Yield Index represents the higher-yielding half of the U.S. dividend-paying universe and is weighted by market capitalization.

First, as of March 31, 2022, the Morningstar US Dividend Valuation Index sports a higher yield than that of the overall market and its high-yield segment.

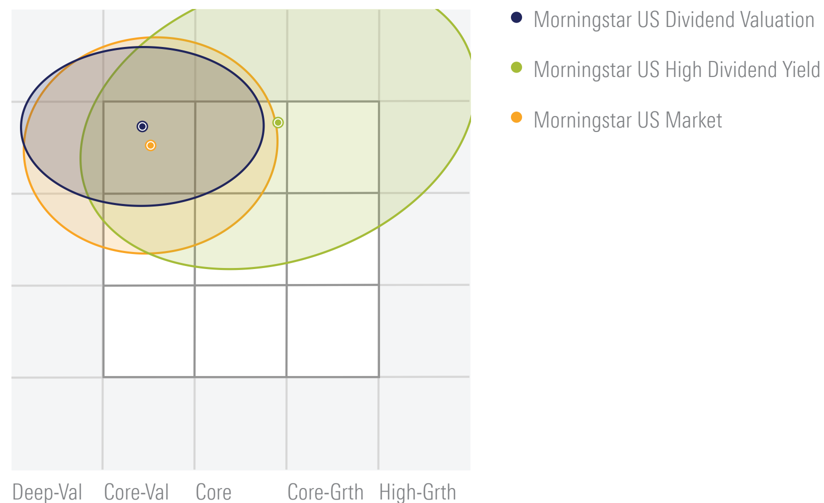
Exhibit 7. **Comparative index-level dividend yields**

Index	Trailing 12-Month Yield
Morningstar US Dividend Valuation Index	**3.11**
Morningstar US High Dividend Yield Index	2.70
Morningstar US Market Index	1.29

Source: Morningstar. Data as of 03/31/2022.

Next, we observe the three indexes on a Holdings-Based Style Map that plots the weighted average of portfolio holdings on the Morningstar Style Box, with Y axis positioning driven by market capitalization. On the X axis is valuation, incorporating measures like price/earnings and price/book. Both dividend-focused indexes lean toward value stocks, with Dividend Valuation's constituents in aggregate possessing lower valuations on measures such as price/earnings, price/book, and price/cash flows.

Exhibit 8. **Comparative index-level holdings-based style maps**



Source: Morningstar. Data as of 03/31/2022

From a sector weight perspective, Dividend Valuation skews away from popular areas of the equity market and toward ones that have done less well. Technology, which led the market for years following the 2008 financial crisis, is underrepresented compared with the overall market. The index is also light on communications services, financial services, energy, and materials. Consumer defensive, healthcare, and utilities were overweights for Dividend Valuation, as of the first quarter of 2022.

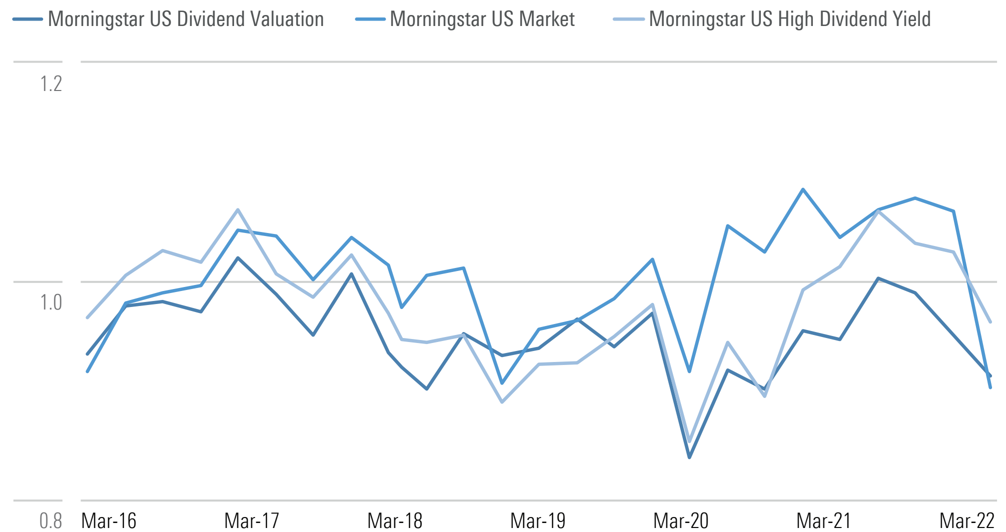
Exhibit 9. **Comparative index-level sector weights (% net)**

Name	Basic Materials	Comm Svs	Consumer Cyc	Consumer Def	Healthcare	Industrials	Real Estate	Technology	Energy	Financial Services	Utilities
Morningstar US Dividend Valuation	**1.76**	**7.37**	**4.85**	**22.58**	**18.91**	**9.48**	**0.00**	**11.52**	**1.28**	**9.14**	**8.17**
Morningstar US High Div Yld	3.25	4.41	6.41	12.54	15.25	12.73	0.02	10.20	8.94	18.80	7.45
Morningstar US Market	2.53	8.72	11.90	6.00	13.33	8.66	3.56	25.58	3.83	13.22	2.67

Source: Morningstar Direct. Data as of 03/31/2022

Finally, Morningstar analysts' fair value estimates can be weighted to obtain index-level valuations. As seen in the graph below, the Morningstar US Dividend Valuation Index has consistently traded at an aggregate discount to the Morningstar US Market Index and the Morningstar US High-Dividend Yield Composite Index, with 1.00 representing fair value. This is intuitive, as the securities whose share prices land in the 30% most overvalued in the overall eligible universe are excluded. The valuation differentials may not be dramatic, but U.S. Dividend Valuation was the only one of the three indexes offering upside, if you subscribe to Morningstar's view that share prices and intrinsic value eventually converge.

Exhibit 10. **Price to Fair Value**



Source: Morningstar. Data as of 03/31/2022. Index inception date April 23, 2018, prior data relies on back-tested information.

Take a selective approach to dividends

Dividend-paying stocks are a superb means of participating in equity markets over the long term — not just for income but also for total return. They should be approached selectively, however. Interest rates are an overemphasized nemesis. Valuation and financial health should be upper most in investors' minds. The Morningstar Dividend Valuation Index emphasizes dividend payers with attractive valuations and avoids companies that may have significant yields but are destined for financial distress. The index approaches dividends with discretion.

About Morningstar Indexes

Morningstar Indexes was built to keep up with the evolving needs of investors—and to be a leading-edge advocate for them. Our rich heritage as a transparent, investor-focused leader in data and research uniquely equips us to support individuals, institutions, wealth managers and advisors in navigating investment opportunities across major asset classes, styles and strategies. From traditional benchmarks and unique IP-driven indexes, to index design, calculation and distribution services, our solutions span an investment landscape as diverse as investors themselves.

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