MORNINGSTAR Indexes

Dividends for the Long Term— A Forward-Looking Approach to Equity Income

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Dividend investing isn't glamorous. Growth themes and innovators capable of exponential returns are far likelier to capture investor imagination than utility stocks or an insurer than has just hiked its payout by 9 cents per share.

Yet investing in seemingly stodgy dividend payers is a far surer route to superior long-term equity returns than chasing the market's highfliers. The cash payout is the most obvious appeal of dividend-paying stocks—magnified when cash and bonds offer paltry yields and when ageing investors look to their portfolios for income.

But the total-return story is more interesting. Research shows that a substantial portion of the long-term returns from equities comes from reinvested dividends and dividend growth. Dividend paying stocks also possess a performance advantage, with the high-yield segment of the market delivering the best returns. These phenomena are global in nature, spanning Asia Pacific, Europe, and North America.

Yet equity income investing is far from risk-free. While rising interest rates are the most commonly feared pitfall, a more serious risk is the "dividend trap." A stock can lure investors in with its yield only to see its financial situation deteriorate and payout cut. Chasing short-term yield at the expense of long-term total return can lead investors into dangerous segments of the market. History is riddled with cautionary tales.

For this reason, a selective approach to equity income investing is optimal. Rules-based passive equity income strategies typically employ screens for dividend durability. But the screens tend to be backward-looking. Historical dividend payments and historical dividend growth do not guarantee future payouts.

The Morningstar Dividend Yield Focus Indexes take a uniquely forward-looking approach to dividend investing. By targeting companies with competitive advantages and healthy balance sheets, the index methodology emphasizes dividend payments that can be sustained and ultimately grown over time. The assessment of competitive advantage relies on the insights of the Morningstar equity analyst team, whose proprietary Morningstar Economic Moat Rating measures the durability of the profits that fund dividends. The other pillar of the index methodology, Distance to Default, is a gauge of future financial distress.

This paper updates and expands a 2012 study into the efficacy of the metrics used by the Morningstar Dividend Yield Focus Indexes. The original index was launched in the U.S. in 2010, and the family has since globalized. The data demonstrate that the moat and Distance to Default screens predict dividend sustainability. Like dividend investing itself—which outperforms across markets and time periods—Morningstar's metrics for quality and financial health have global utility for dividend investors.

The Long-term Power of Dividends

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. We have examined the Kenneth R. French Data Library and found that investing in the high-yield portion of the equity market tends to be a winning strategy across the globe. 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. Different time periods are displayed for different regions due to data availability.

U.S. 1927–2021

	Return %	Risk % (Standard Deviation of Returns)	Return/Risk	R^2	Value of Dollar Invested in 1927
Non-Payers	9.6	29.3	0.33	0.84	$5,648.35
Low Yield	9.6	19.5	0.49	0.93	$5,505.80
Mid Yield	10.6	17.8	0.60	0.93	$12,876.82
High Yield	**11.0**	**19.7**	**0.56**	**0.80**	**$17,705.93**
Market	10.0	18.5	0.54	1.00	$7,830.70

Source: French Data Library

Japan 1975–2020

	Return %	Risk %	Return/Risk	R^2	Value of Dollar Invested in 1975
Non-Payers	8.0	28.4	0.28	0.63	$35.03
Low Yield	5.7	21.4	0.27	0.91	$12.66
High Yield	**11.6**	**21.2**	**0.55**	**0.81**	**$154.71**
Market	8.6	20.2	0.43	1.00	$44.78

Source: French Data Library

U.K. 1988–2020

	Return %	Risk %	Return/Risk	R^2	Value of Dollar Invested in 1988
Non-Payers	5.9	29.1	0.20	0.46	$6.66
Low Yield	6.0	18.8	0.32	0.89	$6.82
High Yield	**8.7**	**19.6**	**0.44**	**0.80**	**$15.59**
Market	7.4	16.9	0.44	1.00	$10.71

Source: French Data Library

Europe ex-U.K. 1975–2020

	Return %	Risk %	Return/Risk	R^2	Value of Dollar Invested in 1975
Non-Payers	7.0	22.3	0.31	0.81	$22.37
Low Yield	9.9	18.2	0.54	0.95	$76.40
High Yield	**12.5**	**19.0**	**0.66**	**0.92**	**$221.98**
Market	10.6	17.8	0.59	1.00	$101.71

Source: French Data Library

Asia Pacific 1975–2020

	Return %	Risk %	Return/Risk	R^2	Value of Dollar Invested in 1975
Non-Payers	8.1	25.9	0.31	0.67	$36.12
Low Yield	6.0	20.1	0.30	0.92	$18.01
High Yield	**12.7**	**19.6**	**0.65**	**0.83**	**$245.44**
Market	9.1	19.1	0.48	1.00	$55.65

Source: French Data Library

Australia 1975–2020

	Return %	Risk %	Return/Risk	R^2	Value of Dollar Invested in 1975
Non-Payers	2.8	35.2	0.08	0.62	$3.58
Low Yield	10.0	26.3	0.38	0.90	$81.67
High Yield	**14.8**	**22.4**	**0.66**	**0.84**	**$593.10**
Market	11.1	23.1	0.48	1.00	$127.04

Source: French Data Library

Scandanavia 1987–2020

	Return %	Risk %	Return/Risk	R^2	Value of Dollar Invested in 1987
Non-Payers	7.9	71.4	0.11	0.06	$13.40
Low Yield	9.8	23.2	0.42	0.90	$24.00
High Yield	**13.5**	**21.7**	**0.62**	**0.80**	**$73.19**
Market	11.3	21.4	0.53	1.00	$37.91

Source: French Data Library

These conclusions are consistent with the findings of several seminal studies. Litzenberger and Ramaswamy published a highly influential paper in 1982 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 1958–2003. *Triumph of the Optimists* by Dimson, Marsh, and Staunton, examines equity market returns in four continents and sixteen 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.

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 prices that may or may not be attractive, or fund speculative

[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)

growth initiatives, paying dividends transfers cash to shareholders. Corporate executives and directors must act as careful stewards to maintain their dividend payment. Especially in a market like the U.S., companies that withdraw a dividend typically see their share price punished.

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 since the global financial crisis of 2007–09. With global central banks slashing rates to rock-bottom levels to stimulate moribund economies, paltry yields on bank accounts and bonds have chased yield-starved investors to the equity markets. 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.[4]

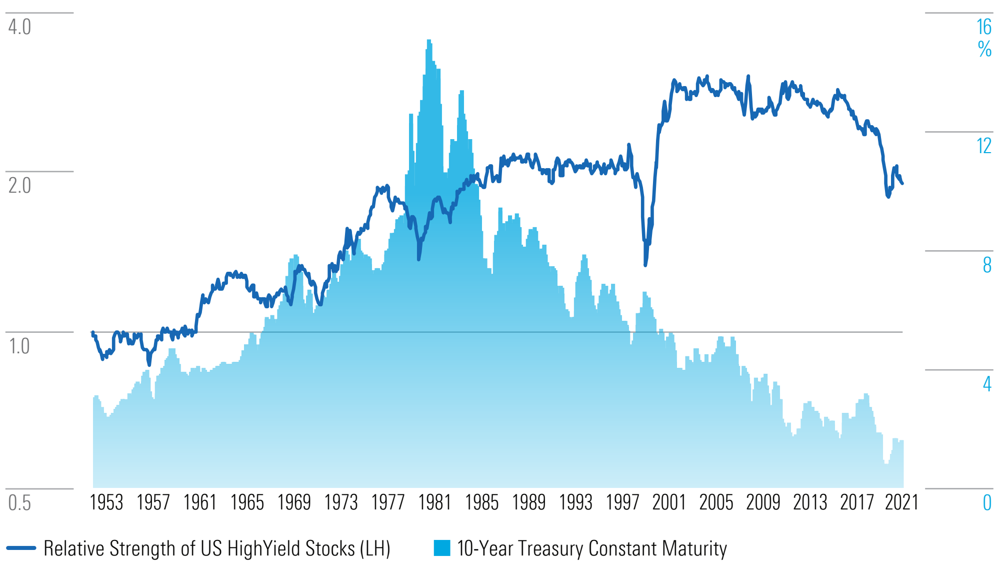
[4] Morningstar Manager Research, *"A Global Guide to Strategic-Beta Exchange-Traded Products,"* September 2017

What about Interest Rates?

Given the income story, there's a powerful intuitive relationship between dividend payers and interest rates. The conventional wisdom holds that when rates rise, investors turn to cash and bonds, shunning 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 we have updated and globalized his study here. Using the French Data Library, the IMF, and the St. Louis Federal Reserve, we examine the performance of dividend-paying stocks under different rate regimes across several equity markets. We compare the relative performance of high-yield stocks to the 10-year government bond yield in the relevant market.

Exhibit 1. **High Yield Equities vs Interest Rates—U.S.**

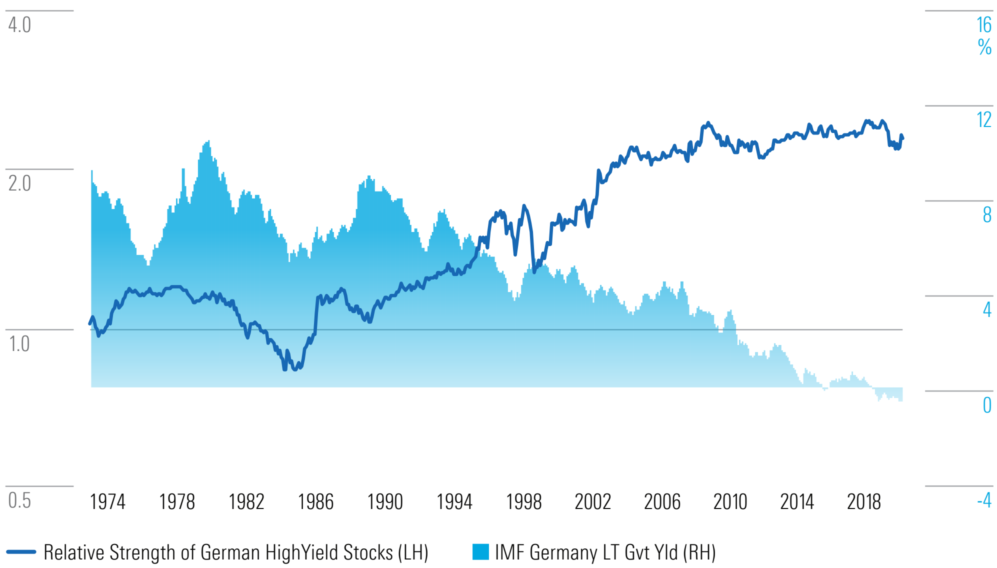


Source: French Data Library and St. Louis Federal Reserve

This graph demonstrates no clear relationship between interest rates and the relative performance of income-generating equities. In some periods of rising U.S. interest 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 late 1990s in the wake of the Asian Financial Crisis, it did not benefit dividend payers. During the technology bubble, investors cared little for earnings, let alone dividends. Then, in the extremely low interest rate environment extending from 2008 to 2015, high-yield equities lagged again. The problem this time was the struggles of high-yield sectors, from financial services to energy and materials.

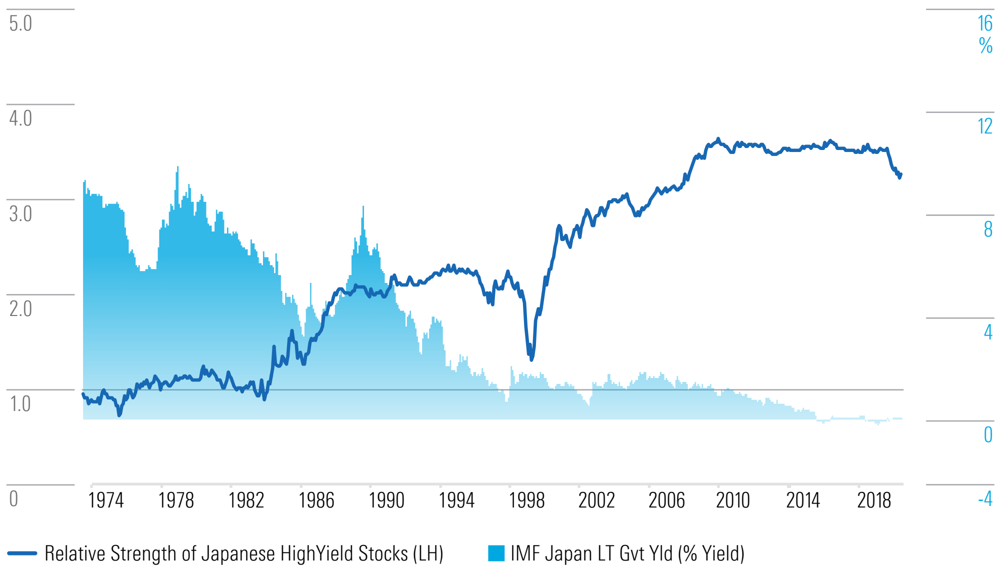
In short, the wider context is critical. Interest rates are one of many variables affecting the relative performance of equity income. Meanwhile, we observe no clear relationship between interest-rate regimes and dividend payers across several global markets.

Exhibit 2. **High Yield Equities vs Interest Rates—Germany**



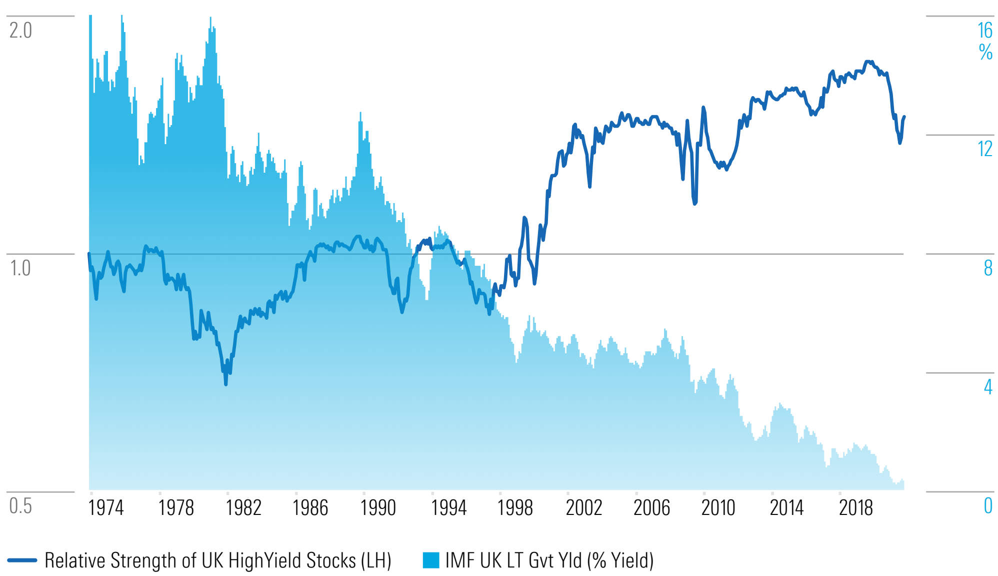
Source: French Data Library and IMF

Exhibit 3. **High Yield Equities vs Interest Rates—Japan**



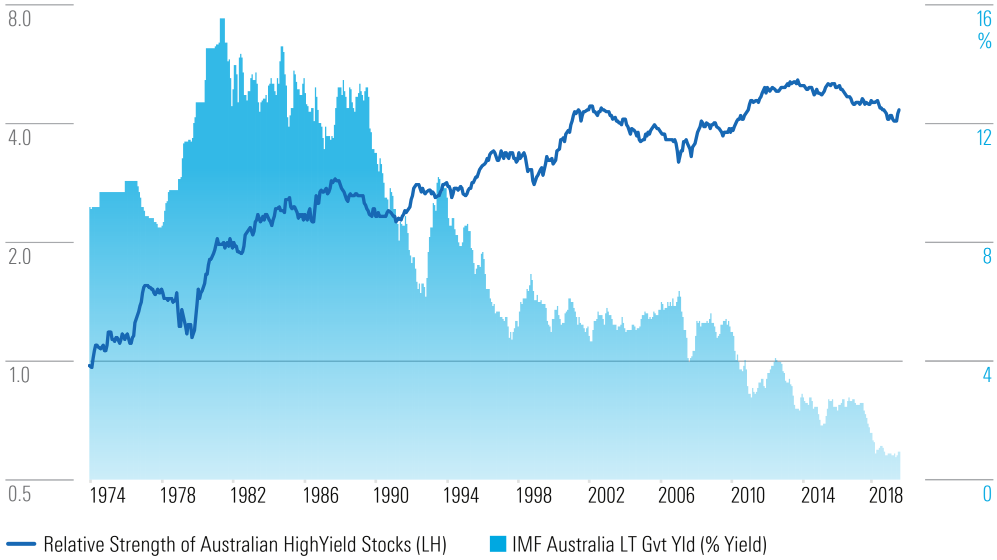
Source: French Data Library and IMF

Exhibit 4. **High Yield Equities vs Interest Rates—United Kingdom**



Source: French Data Library and IMF

Exhibit 5. **High Yield Equities vs Interest Rates—Australia**



Source: French Data Library and IMF

Beware the Dividend Trap

If interest rates are not the principal nemesis of a dividend strategy, what is? The term "dividend trap" refers to a stock that lures investors with a juicy yield, only to see the dividend cut or the company fall into distress. Dividends are not guaranteed; in fact, they are last in line to be paid out of a corporation's resources. Simply buying stocks with high yields can lead investors to risky pockets of the market. When a stock's price declines, its yield rises. So 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 Rio Tinto, Conoco Phillips, and Freeport-McMoran were all forced to cut their dividends.

In 2020, the pandemic-driven economic collapse led more than one third of the dividend payers in the Morningstar Global Markets Index to cut their payouts. Plunging oil prices led energy businesses like Marathon, CNOOC, and Equinor to drop their dividends. Consumer-facing companies like Gap, Adidas, and Nissan cut dividends due to falling demand. Financial services stalwarts, including UBS, Westpac, and Capital One, were undermined by low interest rates and loan losses. Disney, SK Hynix, EDF, Western Digital, and Mitsubishi Estate are other examples across sector and geography that made 2020 the biggest year for dividend cuts since 2008.

Dividend strategies reliant on backward-looking criteria were blindsided by many of these cuts. Active managers have long conducted fundamental research to gauge dividend durability and side-step traps. Rules-based passive equity income strategies tend to use historical measures—an inherently limited approach. Screen for historical dividend payments or historical dividend growth, and you might have bought cutters 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. In 2020, Royal Dutch Shell reduced its dividend for the first time since World War II. To invoke a clichéd investment metaphor, you can't drive a car looking through the rearview mirror.

The Morningstar Dividend Yield Focus Indexes

In 2010, Morningstar designed a uniquely forward-looking approach to rules-based passive equity income investing. The Dividend Yield Focus methodology uses proprietary metrics to gauge the quality and financial health of a business: the Morningstar Economic Moat Rating and Distance to Default.

An economic moat refers to a competitive advantage. Morningstar's Equity Research team took a concept that originated with Warren Buffet and turned it into a robust methodological framework. Analysts assign each of the roughly 1,500 companies they cover around the world a Morningstar Economic Moat Rating. A moat protects a company's profits from competition—in the same way that medieval castles used water-filled trenches to keep enemies at bay. Profits are defined as returns on invested capital over and above our estimate of a firm's cost of capital, or weighted average cost of capital.

To earn a narrow or wide economic moat rating a company must possess a structural feature that prevents excess returns from quickly eroding. Morningstar Equity Research has identified five sources of economic moat: Intangible Assets, Switching Costs, Network Effect, Cost Advantage, and Efficient Scale. Moat ratings are determined through a rigorous, peer-reviewed process using both quantitative and qualitative inputs.

In 2013, Morningstar developed a Quantitative Economic Moat Rating designed to extend coverage. The Quantitative Economic Moat Rating spans more than 50,000 stocks across developed and emerging markets. The Quantitative Economic Moat Rating is analogous to Morningstar's Economic Moat Rating in that both are meant to describe the strength of a firm's competitive position. It is calculated using a machine-learning algorithm designed to predict the economic moat rating a Morningstar analyst would assign to the stock. The quantitative rating is expressed as none, narrow, or wide.[5]

[5] Please refer to the *Morningstar Quantitative Equity & Credit Ratings methodology* for more information"

Just as the analyst-assigned economic moat rating reflects current analyst view—subject to change at any time—the quantitative rating is also dynamic. The market-based and fundamental data points feeding the algorithm are updated daily as new data flows into the model. That means the quant rating will respond to market news, like earnings or a merger, just like an analyst would. The Quantitative Economic Moat Rating is employed as a supplement to the analyst-assigned moat rating for some members of the Dividend Yield Focus Index family.

Distance to Default is the other key pillar of the index methodology. As the name implies, this metric is a gauge of financial health, aiming 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. Distance to Default is measured relative to sector peers.

Naturally, the indexes are focused on dividend-paying stocks. But different dividend conventions across markets require a nuanced approach to defining the universe. Because U.S. companies tend to signal their dividend payments in advance, a data-point called "indicated dividend" can be used. In markets outside the U.S., where dividend programs are less consistent, dividend payers are best identified in retrospect. Members of the Morningstar Dividend Yield Focus Indexes focused on markets outside the U.S. use trailing 12-month dividend yield to define dividend payers.

Morningstar Global Dividend Yield Focus Index Family Construction Proces

Morningstar Investable Universe	Screens	Moat Rating and Distance to Default	Sector Capping	Morningstar Global Country/Region Dividend Yield Focus Index
• Morningstar Country/Region Index • Targeting Large, Mid and Small* Segments	• Dividend Paying companies • REITs excluded	• Moat Ratings—Wide or Narrow • Quant Moat complements Economic Moat • Distance to Default—Top 50% in respective sector-region	• Sector weight is capped at minimum of 40% or 5 times weight in the benchmark	• Top N# companies with the highest Indicated or Trailing 12-Mo Dividend Yield

* Large Mid only where the region/country has more than 500 large and mid-cap securities
# 5% security cap is applied for portfolios with number of securities greater than 50; 10% security cap is applied for portfolios with number of securities less than 50.

Going Global for Equity Income

As demonstrated earlier, the dividend story is a global one. Dividend-paying stocks possess a performance advantage across markets. So equity income investing can be an effective means of obtaining global exposure, widening the opportunity set to include thousands of great companies, and diversifying across geography and currency.

While the number of U.S. dividend payers has stagnated over the past 10 years, the number has increased outside the U.S. Share repurchases have actually eclipsed dividends in the U.S. market over the past couple of decades. They offer more flexibility, because companies can buy back shares opportunistically, when they are flush with cash or see their shares as undervalued. In contrast to a dividend payment, a repurchase is not a long-term commitment that is withdrawn at the risk of punishment.

Then there's the income story. Investors can find attractive yields by scouring the globe for dividend payers. Consider the market-level yields across the Morningstar global equity index series.

Morningstar Global Equity Indexes—Trailing 12 Month Yield %

Morningstar US Market	1.29
Morningstar Europe	2.63
Morningstar Asia Pacific	2.48
Morningstar Emerging Markets	2.49
Morningstar Canada	2.40

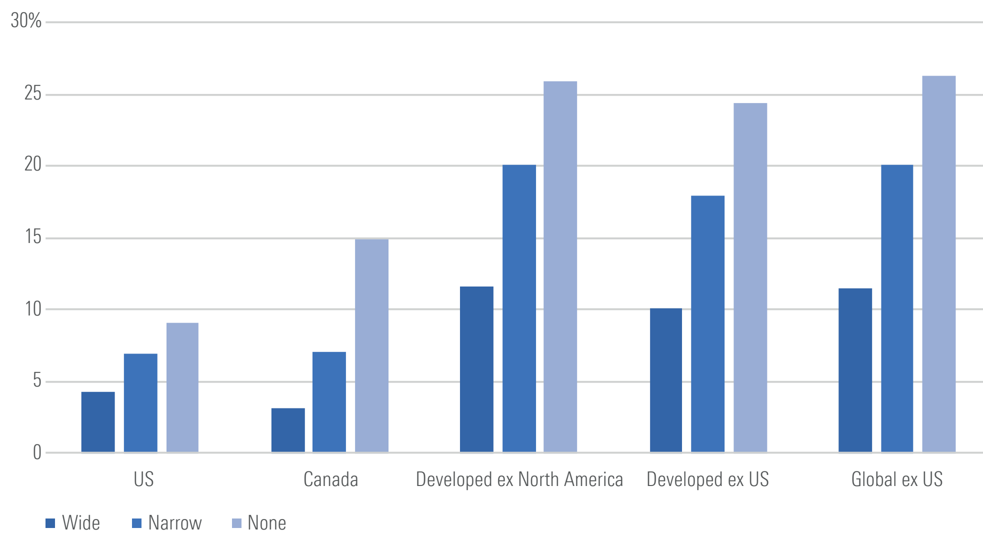
Source: Morningstar Indexes. Data as of March 31, 2022.

Moat, Quant Moat and Distance to Default Predict Dividend Cuts

In 2012, we published the results of a study demonstrating that companies with economic moats and strong Distance to Default scores experience fewer dividend cuts. The exhibits below update the study, globalize it, and examine the predictive power of the Quantitative Moat rating. Taking as a starting point the Morningstar Global Markets Index, which contains more than 7,000 stocks from developed and emerging markets, we look at dividend payments between 2005 and 2021. We bucketed companies by Moat, Quantitative Moat, and Distance to Default level at the start of the period and gauged whether they experienced a dividend cut.

Dividend cuts are defined differently depending on region. For the U.S. and Canada, where dividends are paid regularly, we calculate the indicated dividend per share by annualizing the latest dividend paid by the company. If the company decreases its dividend per share any time within a one-year period, we consider it to be a cut.

Exhibit 6. **Analyst Moat—Percentage of Dividend Cuts by Rating Level**



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

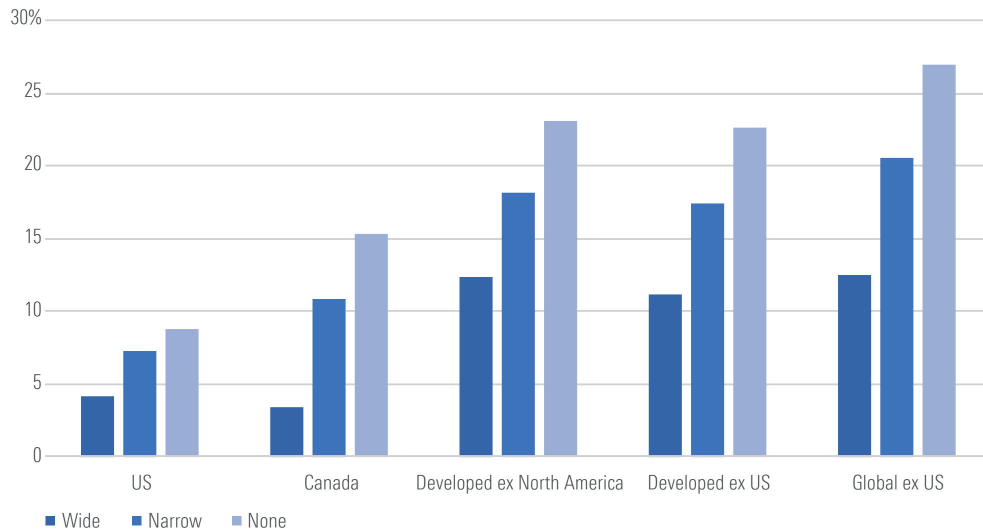
For the global ex-North America equity universe, we determine whether a dividend was cut by comparing adjoining fiscal year-end dividend per share figures over a multi-year period. If the company decreased its dividend per share year-over-year, we consider it to be a dividend cut.

In absolute terms, the frequency of dividend cuts increases outside of North America. It grows larger still when emerging markets are included. Outside of North America, dividends are not considered a commitment to the same degree as they are in the U.S. and Canada. They are often paid out opportunistically when the company has excess cash on hand. In emerging markets, the dividend commitment is weaker still.

In the study, we first looked at the frequency of dividend cuts by moat level. We find that no-moat companies are far more likely to experience dividend cuts than narrow or wide moat-rated companies. The relationship is monotonic. The trend is consistent across geography.

Next, we examine the predictive power of the quant moat rating, which algorithmically mirrors the analyst-assigned moat rating. Again, the data demonstrate a monotonic relationship, where no-moat companies in the quantitative system cut their dividends more frequently than narrow moats and narrow more than wide.

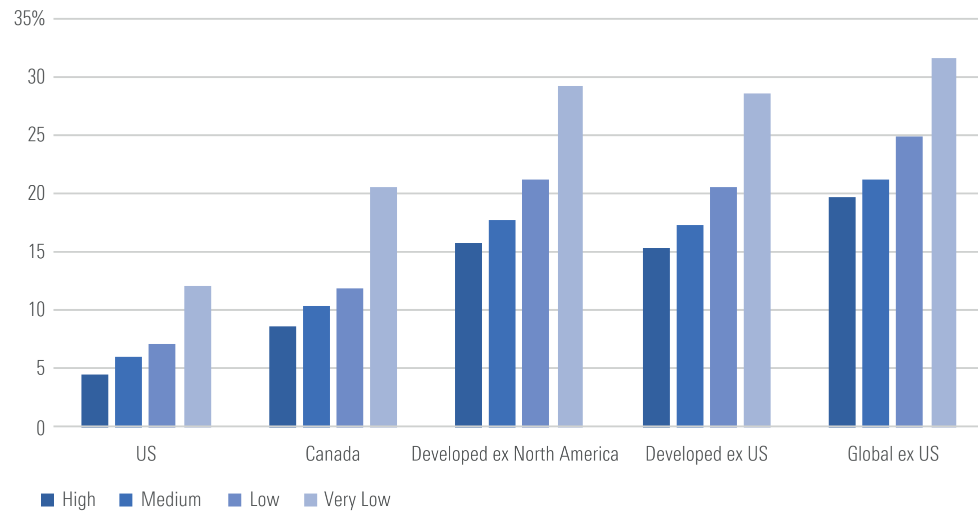
Exhibit 7. **Quantitative Moat Ratings—Percentage of Dividend Cuts by Rating Level**



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

Finally, we examine Distance to Default and its ability to predict dividend cuts. Dividing the universe into four equal bands (quartiles), we see that companies with the highest Distance to Default scores, implying the lowest probability of bankruptcy, are least likely to experience dividend cuts. The inverse is also true. The pattern holds across geography.

Exhibit 8. **Distance to Default—Percentage of Dividend Cuts by Quartile**



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

Dividends for Total Return

Dividend investors should resist myopically focusing on income to the neglect of total return. Chasing yield can be a dangerous proposition as some payouts are unsustainable. Investors would do well to select based on competitive positioning and financial health. Morningstar's measures—economic moat, quant moat, and distance to default—can help avoid dividend cuts. The Morningstar Dividend Yield Focus Indexes employs these measures in a global search for sustainable equity income. Buying the shares of companies that are capable of maintaining and growing their income streams into the future is a path to successful long-term equity investing. M

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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