

**WisdomTree
RESEARCH**

DIVIDEND GROWTH'S DRIVERS: PICKING APART QUALITY

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THE LOGIC

Consider a simple and unlikely scenario: three indexes with three different dividend growth rates, each experiencing the same price appreciation over several years.

Figure 1 shows the return experience with initial dividend yields of 3%, capital appreciation of 3% per year and dividend growth rates of 2%, 5% and 8%.

At the end of the horizon, Index A, the slowest dividend grower of the three, ends with a yield of 2.86%. This is considerably lower than the yield of the rapidly growing Index C. Logic says that the latter should trade at a valuation premium, not a discount (using the dividend yield) at the end of such a run. That is why this scenario is unlikely.

Figure 1: Investment Profile, 3% Equity Price Appreciation

		Div. Growth Rate	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total Return on Investment	Year 5 Div. Yield
Index A	Dividend	2%	\$3.00	\$3.06	\$3.12	\$3.18	\$3.25	\$3.31		2.86%
	Price		\$100.00	\$103.00	\$106.09	\$109.27	\$112.55	\$115.93		
	Total Capital		\$100.00	\$106.06	\$112.46	\$119.20	\$126.32	\$133.83	6.00%	
Index B	Dividend	5%	\$3.00	\$3.15	\$3.31	\$3.47	\$3.65	\$3.83		3.30%
	Price		\$100.00	\$103.00	\$106.09	\$109.27	\$112.55	\$115.93		
	Total Capital		\$100.00	\$106.15	\$112.74	\$119.82	\$127.41	\$135.57	6.27%	
Index C	Dividend	8%	\$3.00	\$3.24	\$3.50	\$3.78	\$4.08	\$4.41		3.80%
	Price		\$100.00	\$103.00	\$106.09	\$109.27	\$112.55	\$115.93		
	Total Capital		\$100.00	\$106.24	\$113.04	\$120.45	\$128.57	\$137.46	6.57%	

Source: WisdomTree. FOR ILLUSTRATIVE PURPOSES ONLY. Performance data is hypothetical in nature and is not representative of any actual investment. Hypothetical example assumes starting “price” of an investment tracking the index of \$100, an initial dividend of \$3 with dividends reinvested. You cannot invest directly in an index.

Look at what happens when we tease this scenario so all three indexes end each year with a 3% dividend yield, the same as they started.

In figure 2, a \$100 investment tracking Index A grows to \$127.99 due to index appreciation plus several years of reinvested dividends of \$3 or more. Indexes B and C grow more, resulting in 8.15% and 11.24% total returns, respectively. Both results are considerably better than that of the lackluster Index A.

Such is the eighth wonder of the world—compound interest.

Figure 2: Investment Profile, End Yield of 3%

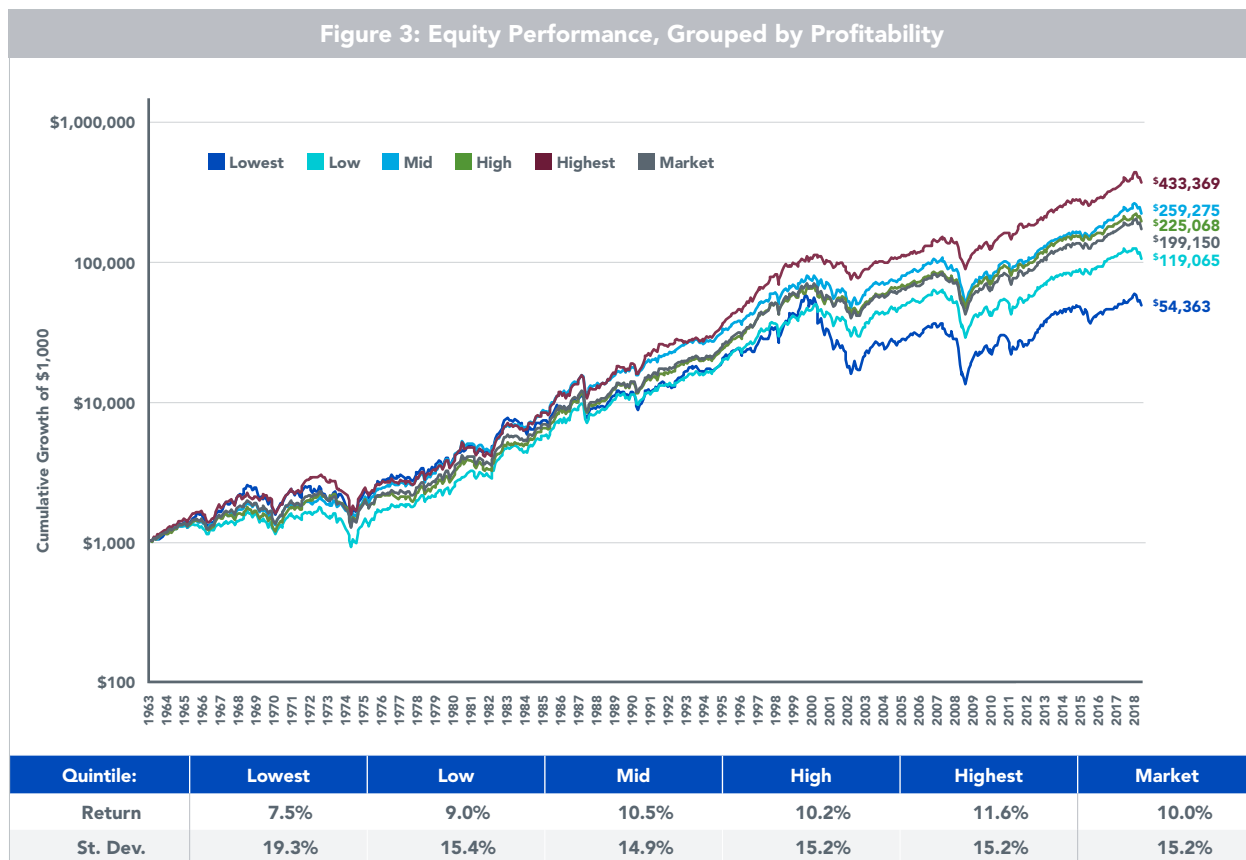
		Div. Growth Rate	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total Return on Investment	Year 5 Div. Yield
Index A	Dividend	2%	\$3.00	\$3.06	\$3.12	\$3.18	\$3.25	\$3.31		3.00%
	Price		\$100.00	\$102.00	\$104.04	\$106.12	\$108.24	\$110.41		
	Total Capital		\$100.00	\$105.06	\$110.38	\$115.96	\$121.83	\$127.99	5.06%	
Index B	Dividend	5%	\$3.00	\$3.15	\$3.31	\$3.47	\$3.65	\$3.83		3.00%
	Price		\$100.00	\$105.00	\$110.25	\$115.76	\$121.55	\$127.63		
	Total Capital		\$100.00	\$108.15	\$116.96	\$126.50	\$136.81	\$147.96	8.15%	
Index C	Dividend	8%	\$3.00	\$3.24	\$3.50	\$3.78	\$4.08	\$4.41		3.00%
	Price		\$100.00	\$108.00	\$116.64	\$125.97	\$136.05	\$146.93		
	Total Capital		\$100.00	\$111.24	\$123.74	\$137.65	\$153.12	\$170.34	11.24%	

Source: WisdomTree. FOR ILLUSTRATIVE PURPOSES ONLY. Performance data is hypothetical in nature and is not representative of any actual investment. Hypothetical example assumes starting “price” of an investment tracking the index of \$100, an initial dividend of \$3 with dividends reinvested. You cannot invest directly in an index.

A driver of long-term compound returns is dividend growth. But what drives the driver? Corporate profitability.

Using a half-century of data,¹ a strategy that identified the top 20% of stocks by profitability outperformed the bottom quintile by 409 basis points per year (11.55% vs. 7.46%). That’s because profitability is the driver of dividend growth.

¹ Source: Kenneth French Data Library 6/30/1963 – 12/29/2017



Source: Kenneth French Data Library. Period based on availability of operating profitability returns sorted into quintiles, 6/30/1963–12/31/2018. Universe is U.S.-listed equities grouped by operating profitability. Past performance is not indicative of future results. Standard deviation (St. Dev.): measure of how widely an investment or investment strategy’s returns move relative to its average returns for an observed period. A higher value implies more “risk,” in that there is more of a chance the actual return observed is farther away from the average return.

SPARKING THE DIVIDEND FLAME

A key to lighting a fire under dividend growth—future dividend growth, not past growth—is high return on equity (ROE).²

To figure out what can generate high ROE, enter the DuPont model.

The DuPont Corporation’s Donaldson Brown developed the concept a century ago: ROE can be broken into the interaction among profit margins, asset turnover³ and the equity multiplier,⁴ all discussed below. It’s an interesting story; Brown’s formula was so important that it led to the company taking a major stake in a young General Motors. In later decades, the DuPont method became a staple of finance textbooks and the CFA Program curriculum⁵.

² Return on equity (ROE): Measures a corporation’s profitability by revealing how much profit a company generates with the money shareholders have invested.

³ Asset turnover: Sales divided by total assets. A higher ratio indicates that a company can generate greater sales per dollar of assets than a company with a lower ratio.

⁴ Equity multiplier: Total assets divided by total equity.

⁵ CFA Program curriculum: The collection of study materials provided by the CFA Institute to candidates for its exams. Those who pass the exams may become Chartered Financial Analyst charterholders.

THE FORMULA

The DuPont method splits ROE:

$$\text{Return on Equity} = \text{Profit Margin} \times \text{Asset Turnover} \times \text{Equity Multiplier}$$

And each of those is defined as:

$$\frac{\text{Net Income}}{\text{Total Equity}} = \frac{\text{Net Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Total Assets}} \times \frac{\text{Total Assets}}{\text{Total Equity}}$$

Notice that some denominators are also numerators. They cancel each other out, leading to income over equity, or ROE. If a firm wants to be profitable, it should have excellent margins and be efficient with its assets.

This is where the hand smacks the table.

To put some numbers together, if a company earns \$1 per share and pays a \$0.47 dividend, the percentage that gets sent to retained earnings, the retention ratio, is 53%. Now, multiply the retention ratio by ROE to get implied dividend growth:

$$\text{Retention Ratio} \times \text{ROE} = \text{Implied Dividend Growth}$$

If that company's ROE is 10%, tie it in with the 53% retention ratio to get 5.3% implied dividend growth.

Let's pick apart the WisdomTree U.S. Quality Dividend Growth Index using DuPont components, starting with profit margins (figure 4).

Figure 4: WisdomTree U.S. Quality Dividend Growth Index vs. MSCI USA, U.S. Growth and U.S. Value Indexes, Profit Margins		
Index	Profit Margin	WisdomTree Higher Margins than MSCI USA?
WisdomTree U.S. Quality Dividend Growth Index	9.9%	
MSCI USA	10.0%	
MSCI U.S. GROWTH INDEX	11.4%	X
MSCI U.S. VALUE INDEX	9.3%	

Sources: Bloomberg, WisdomTree, as of 02/28/19.

WisdomTree's Index has a 9.9% profit margin, about equal to that of the MSCI USA Index. If it is to have a higher ROE than the MSCI U.S. Growth and Value Indexes we will need to find operating efficiencies too.

Figure 5 covers asset turnover, a key operating metric and second component of the DuPont equation. At 52% for the WisdomTree Index, it is considerably higher than for the MSCI USA, indicating that firm assets tend to be well utilized.

Figure 5: WisdomTree Index vs. MSCI Indexes, Asset Turnover Ratio		
Index	Asset Turnover	WisdomTree Higher Sales per Assets than MSCI USA?
WisdomTree U.S. Quality Dividend Growth Index	52%	
MSCI USA	33%	
MSCI U.S. GROWTH INDEX	66%	✓
MSCI U.S. VALUE INDEX	25%	

Sources: Sources: Sources: Bloomberg, WisdomTree, as of 02/28/19. All references to "WisdomTree Index" indicate the WisdomTree U.S. Quality Dividend Growth Index. Past performance is not indicative of future results. You cannot invest directly in an index.

The last DuPont component, the equity multiplier, indicates that our index owns companies that use a little less debt than the MSCI USA (figure 6). Essentially, the WisdomTree Index components didn't have to leverage up in the quest for high ROE.

Figure 6: WisdomTree Index vs. MSCI Indexes, Equity Multiplier		
Index	Equity Multiplier	WisdomTree Lower Debt Financing than MSCI USA?
WisdomTree U.S. Quality Dividend Growth Index	4.4	
MSCI USA	4.6	
MSCI U.S. GROWTH INDEX	3.0	✓
MSCI U.S. VALUE INDEX	5.1	

Sources: Bloomberg, WisdomTree, as of 02/28/19. Past performance is not indicative of future results. You cannot invest directly in an index.

⁶ Sources: WisdomTree, Bloomberg, as of 01/21/19.

Now that we know ROE's components, let's put them together.

WisdomTree's resultant ROE is 22.8%; MSCI USA's is just 15.0% (figure 7).

Figure 7: WisdomTree Index vs. MSCI Indexes, DuPont Equation

Index	Net Income		Sales		Total Assets		Net Income	
	Profit Margin	WisdomTree Higher Margins than MSCI USA?	Asset Turnover	WisdomTree Higher Sales per Assets than MSCI USA?	Equity Multiplier	WisdomTree Lower Debt Financing than MSCI USA?	Return on Equity	WisdomTree Higher ROE than MSCI USA?
WisdomTree U.S. Quality Dividend Growth Index	9.9%		52%		4.4		22.8%	
MSCI USA	10.0%	X	33%	✓	4.6	✓	15.0%	✓
MSCI U.S GROWTH INDEX	11.4%		66%		3.0		22.9%	
MSCI U.S VALUE INDEX	9.3%		25%		5.1		12.1%	

Source: Bloomberg, Sources: Bloomberg, WisdomTree, as of 02/28/19. Past performance is not indicative of future results. You cannot invest directly in an index.

NOW, DIVIDEND GROWTH

Figure 8 shows that the WisdomTree Index pays out 66% of its earnings as dividends, retaining just 34%. But that 34% then gets reinvested at an ROE of 22.8%. The result is that, even though little is reinvested back in the businesses, the WisdomTree Index's implied dividend growth is 7.8%, which is only a little shy of the 9.4% growth implied for the MSCI USA Index. But the big driver for MSCI's "advantage" is the large earnings retention of the cap-weighted MSCI USA index.

Figure 8: WisdomTree vs. MSCI Indexes, Implied Dividend Growth

Index	DuPont Model		Dividend Discount Model			
	Return on Equity	WisdomTree Higher ROE than MSCI USA?	Payout Ratio	WisdomTree Lower Payout Ratio (More Reinvested in the Business) than MSCI USA?	Implied Div. Growth	WisdomTree Higher Implied Div. Growth?
WisdomTree U.S. Quality Dividend Growth Index	22.8%		66%		7.8%	
MSCI USA	15.0%	✓	37%	X	9.4%	X
MSCI U.S GROWTH INDEX	22.9%		24%		17.4%	
MSCI U.S VALUE INDEX	12.1%		45%		6.6%	

Source: Bloomberg, WisdomTree, as of 02/28/19. Past performance is not indicative of future results. You cannot invest directly in an index.

TO GET THIS STRAIGHT

Because of its big payout ratio, the WisdomTree U.S. Quality Dividend Growth Index yields 4.34%, about two points more than the 2.04% yield of the MSCI USA Index—and it has nearly the same implied dividend growth. The MSCI USA Index, yielding barely 2%, would need to grow rapidly for years on end to catch up. Interestingly, despite being so much more profitable, the WisdomTree Index is trading at 15.6x forward earnings, but the market is willing to pay more for the low-ROE MSCI USA, which has a multiple of 18.8x earnings.

Next, let's use these concepts for international equities.

SECOND VERSE, SAME AS THE FIRST

Figure 9 shows the DuPont model for the WisdomTree International Quality Dividend Growth Index compared to the MSCI EAFE Index of developed economy equities. In this case, the WisdomTree Index combines robust profit margins and efficient use of assets to generate a 20.1% ROE, considerably ahead of the 9.6% reading on this measure for the MSCI EAFE Index.

Figure 9: WisdomTree International Quality Dividend Growth Index vs. MSCI Indexes

Index	DuPont Model							
	Net Income		Sales		Total Assets		Net Income	
	Sales	X	Total Assets	X	Total Equity	=	Total Equity	
	(Profit Margin)		(Asset Turnover)		(Equity Multiplier)		(Return on Equity)	
	Profit Margin	WisdomTree Higher Margins than MSCI EAFE?	Asset Turnover	WisdomTree Higher Sales per Assets than MSCI EAFE?	Equity Multiplier	WisdomTree Lower Debt Financing than MSCI EAFE?	Return on Equity	WisdomTree Higher ROE than MSCI EAFE?
WisdomTree International Quality Dividend Growth Index	13.1%		67%		2.3		20.1%	
MSCI EAFE	7.7%	✓	19%	✓	6.7	✓	9.6%	✓
MSCI EAFE GROWTH INDEX	8.5%		39%		4.0		13.2%	
MSCI EAFE VALUE INDEX	7.3%		14%		7.7		8.1%	

Sources: Bloomberg, WisdomTree, as of 02/28/19. Past performance is not indicative of future results. You cannot invest directly in an index.

Now, multiply the 20.1% ROE by the 46% earnings retention ratio (equal to 100% minus the 54% payout ratio) to find implied dividend growth of 9.2% for the WisdomTree Index (figure 10). This compares favorably to the 4.3% growth implied for the MSCI EAFE Index.

Figure 10: WisdomTree International Quality Dividend Growth Index vs. MSCI Indexes, Implied Dividend Growth

Index	DuPont Model		Dividend Discount Model			
	Net Income Total Equity (Return on Equity)		Dividend Yield Earnings Yield (Payout Ratio)		(1 - Payout) x ROE (Implied Div. Growth)	
	Return on Equity	WisdomTree Higher ROE than MSCI EAFE?	Payout Ratio	WisdomTree Lower Payout Ratio (More Reinvested in the Business) Than MSCI EAFE?	Implied Div. Growth	WisdomTree Higher Implied Div. Growth?
WisdomTree International Quality Dividend Growth Index	20.1%		54%		9.2%	
MSCI EAFE	9.6%	✓	55%	✓	4.3%	✓
MSCI EAFE GROWTH INDEX	13.2%		47%		7.1%	
MSCI EAFE VALUE INDEX	8.1%		60%		3.3%	

Sources: Bloomberg, WisdomTree, as of 02/28/19. Past performance is not indicative of future results. You cannot invest directly in an index.

FILLING CORE ALLOCATIONS WITH QUALITY DIVIDEND GROWTH

The WisdomTree Indexes discussed here are constructed to identify highly profitable companies. To pass our screens, they need to use their assets efficiently and post robust profit margins. The ETFs that track our quality dividend growth Indexes can thus be used to represent a portfolio's core exposure to U.S. and international developed equities. These include:

- + WisdomTree U.S. Quality Dividend Growth Fund: **DGRW**
- + WisdomTree International Quality Dividend Growth Fund: **IQDG**
- + WisdomTree Dynamic Currency Hedged International Quality Dividend Growth Fund: **DHDG**

Investors should carefully consider the investment objectives, risks, charges and expenses of the Funds before investing. To obtain a prospectus containing this and other important information, please call 866.909.9473 or visit WisdomTree.com to view or download a prospectus. Investors should read the prospectus carefully before investing..

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The WisdomTree International Quality Dividend Growth Index is a fundamentally weighted Index designed to provide exposure to dividend-paying developed market companies. The WisdomTree U.S. Quality Dividend Growth Index is a fundamentally weighted index that consists of dividend-paying stocks with growth characteristics. The primary starting screening universe for this index is the constituents of the WisdomTree U.S. Dividend Index with market capitalization of at least \$2 billion. The Index is composed of the 300 companies in the WisdomTree U.S. Dividend Index with the best combined rank of growth and quality factors. The growth factor ranking is based on long-term earnings growth expectations, while the quality factor ranking is based on three-year historical averages for return on equity and return on assets. The Index is dividend weighted annually to reflect the proportionate share of the aggregate cash dividends each component company is projected to pay in the coming year, based on the most recently declared dividend per share.

The MSCI USA Index is designed to measure the performance of large- and mid-cap segments of the U.S. market. The MSCI USA Growth Index captures large- and mid-cap securities exhibiting overall growth-style characteristics in the U.S. The MSCI USA Value Index is a large- and mid-cap U.S. equity index aiming to capture securities exhibiting overall value-style characteristics. The Index screens for book value to price, 12-month forward earnings to price and dividend yield as value characteristics. The MSCI EAFE Index is a market cap-weighted index composed of companies that are representative of the developed market structure of developed countries in Europe, Australasia and Japan. The MSCI EAFE Growth Index is a market cap-weighted subset of stocks within the MSCI EAFE Index that have higher share prices relative to their earnings or dividends per share. The MSCI EAFE Value Index is a market cap-weighted subset of stocks within the MSCI EAFE Index that have lower share prices relative to their earnings or dividends per share.

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