

RESEARCH

Global Dividend-Paying Stocks: A Recent History

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Many investors prefer dividends over capital gains. What are the costs of investing only in firms that pay dividends or only in firms with high dividend yields? Does diversification suffer? How predictable are dividend payments? Using data from 1991 to 2012, we address these questions for a global portfolio.

INTRODUCTION

The findings of this paper can be summarized as follows:

- Global portfolios of dividend payers and nonpayers have had similar average returns. By focusing on only dividend payers, however, an investor would exclude 35%–40% of firms. Investors should be aware of the diversification tradeoffs that result from pursuing a portfolio focused on dividend-paying stocks.
- The propensity of firms to pay dividends has shown a global decline. The data show that the percentage of firms paying dividends globally dropped from 71% in 1991 to 61% in 2012, with declines occurring in both US and international markets. In addition, the propensity to pay dividends has shown a great deal of variation across countries.

- Although less volatile than the capital gain component of stock returns, the aggregate stream of dividend payments is subject to the same broad, macroeconomic risks that affect capital gains. As the experience of the financial crisis of 2008–2009 demonstrated, companies can and do cut dividends in the face of declining profits and economic conditions. In 2009, for example, 14% of firms around the world eliminated their dividend, and 43% of firms reduced their dividend.

LITERATURE, DATA, AND METHODOLOGY

Most of the existing literature on dividends focuses on the US market. Results from this literature include the declining propensity of US firms to pay dividends (Fama and French 2001) and an increasing concentration of dividend payments (DeAngelo, DeAngelo, and Skinner 2004). Literature examining dividends in international markets is relatively limited by comparison (Fama and French 1998, Denis and Osobov 2008, for example). Denis and Osobov study propensity to pay dividends in six major global markets in the cross-section and over time for an eight-year period. They document that dividend payments are relatively concentrated among larger, more profitable firms and that the propensity to pay dividends declined slightly from 1994 to 2002. Fama and French examined dividend yield along with price-to-book and price-to-earnings ratios to identify value factors and premia in international developed markets for a 20-year sample. The results provided out-of-sample confirmation of the presence of the value effect that they, among others, had documented in the US. Of the four variables tested, dividend yield produced the smallest value spread.

The data used in this paper is from a historical database of international equity securities constructed from data provided by Bloomberg. The study focuses on 23 developed markets.¹ The bottom 0.5% of firms ranked by total market cap in each market is excluded, and the sample is also generally restricted to exchange-traded stocks that meet minimum liquidity and listing requirements. The resulting universe ranges from roughly 8,700 to 13,200 firms per year, for a total of more than 31,000 distinct firms over the 22-year sample. We document the returns, yields, and dividend-paying behavior of firms in global developed

markets over the period 1991–2012, both in aggregate and at the firm level. Our results demonstrate some of the diversification tradeoffs that investors should be aware of in the pursuit of higher dividend yield.

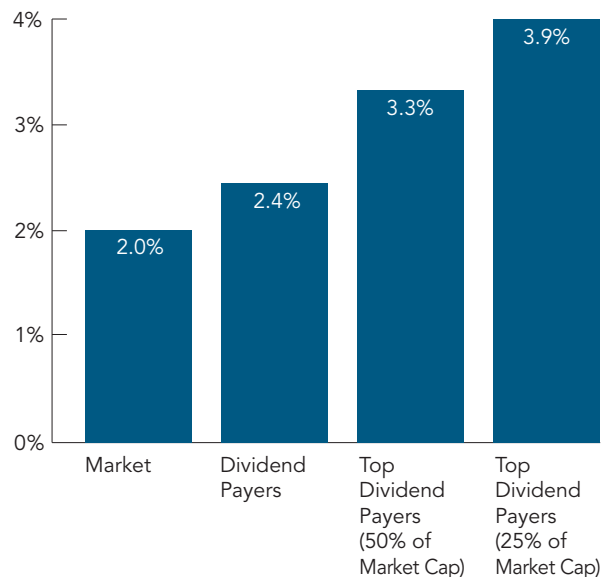
AVERAGE RETURNS, DIVIDEND YIELDS, AND CONCENTRATION

In 2012, 39% of firms, representing 17% of aggregate global market cap, did not pay dividends. An investor who focuses only on dividend-paying stocks is sacrificing diversification by doing so. Is the expected return of a portfolio of dividend-paying stocks different from a portfolio of non-dividend-paying stocks? Historical data suggests the answer to this question is no. Table 1 shows summary statistics of the total returns for 1991–2012 for the global market, dividend payers, and nonpayers. The monthly and annual average returns were similar for dividend payers and the market, while nonpayers had higher average returns. The simple average annual returns were 9.1% for the market, 9.1% for dividend payers and 11.1% for nonpayers. The small t-statistics indicate that these return differences are less than 0.5 standard errors from zero during the sample period. The table also shows that the standard deviation of the returns of nonpayers was higher than for dividend payers. The net result of all of this was that the compound average annual returns of all three categories were very similar: 7.4% for the market, 7.6% for dividend payers, and 7.6% for nonpayers.

To illustrate the tradeoff between pursuing higher dividend yield and diversification, Figure 1 on the next page shows the average annual dividend yield of four portfolios that increasingly target dividend-paying securities, based on sorting all firms in each country each year on dividend yield. For example, the Top Dividend Payers (50% of Market Cap) bar represents the average realized dividend yield of a portfolio containing the highest-yielding firms, which together represent 50% of aggregate market capitalization in each country, and by extension globally, at the beginning of each year. Also shown is the portfolio with 25% of aggregate market capitalization, as well as bars representing all dividend payers and the entire market.

1. The countries are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the Netherlands, the United Kingdom, and the United States.

Figure 1. **AVERAGE ANNUAL DIVIDEND YIELD BY PERCENTAGE OF MARKET CAP PORTFOLIOS, 1991–2012**



2012	2.7%	3.1%	4.1%	4.7%
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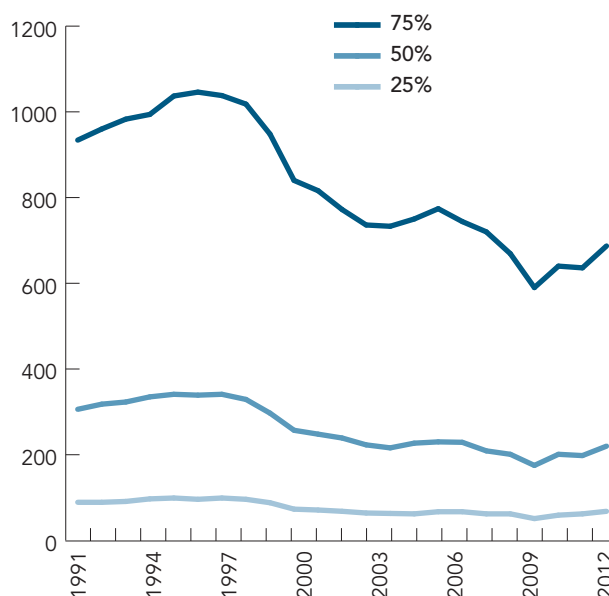
Source: Bloomberg.
Past performance is no guarantee of future results.

As the figure shows, an investor would have generated moderately more dividend income by holding a portfolio of dividend payers rather than the market. From 1991 to 2012, the dividend yield averaged 2.4% for dividend payers vs. 2.0% for the global market. And as of 2012, the dividend yield for payers was 3.1% vs. 2.7% for the global market. As mentioned previously, in 2012, a dividend payer-only portfolio would have excluded 39% of firms or 17% of global market cap.

The portfolios containing 50% and 25% of aggregate market cap have average dividend yields of 3.3% and 3.9%, substantially higher than the market and all payers. This result is related to the tendency for a large fraction of aggregate global dividends to be paid by the top dividend-paying firms. The top 25% of dividend payers accounted for 43% of aggregate global dividends in 2012. DeAngelo, DeAngelo, and Skinner (2004) documented an “increasing concentration in the supply of dividends” for US firms. We observe a similar pattern in our global data, particularly during the 1990s.

If aggregate dividends become more concentrated, a portfolio constructed to provide a high dividend yield may also become more concentrated. This is an important consideration for investors. To more clearly illustrate this increase in concentration, Figure 2 plots the number of firms paying 25%, 50%, and 75% of global dividends, sorting firms each year in each country by total dividends paid and taking the firms paying out the specified percentage of dividends. All three cuts of total dividends paid show a trend of increasing concentration over the 1991–2012 sample period. For instance, getting to 50% of global dividends required about 320 firms in 1991 but only 220 firms in 2012, a 31% decrease. Half of 2012 global dividends were paid by 2.4% of global firms.

Figure 2. **NUMBER OF FIRMS* PAYING GIVEN FRACTIONS OF GLOBAL DIVIDENDS**

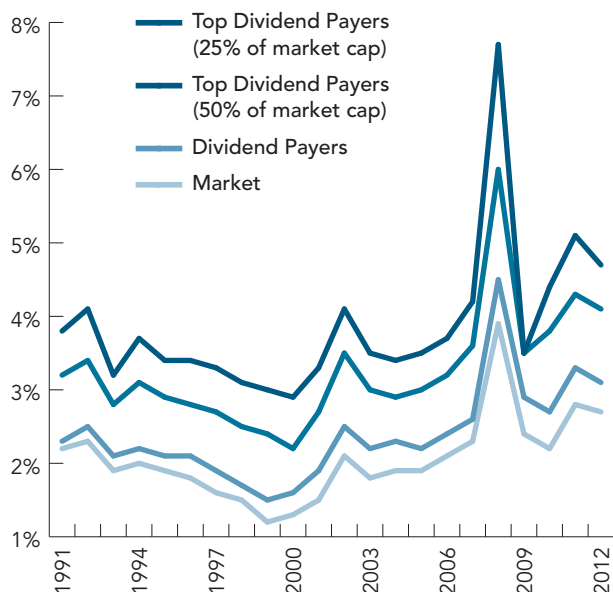


*Sorted by total dividends by country; annual universe averages approximately 11,000 firms.

Source: Bloomberg.

Figure 3 plots the annual dividend yield for the four dividend yield portfolios from Figure 1 over the entire sample. In addition to showing the mild upward trend in dividend yield over the sample period, the figure also shows the spike in dividend yield that occurred during the global financial crisis as a result of the sharp drop in equity values in 2008.

Figure 3. ANNUAL DIVIDEND YIELD

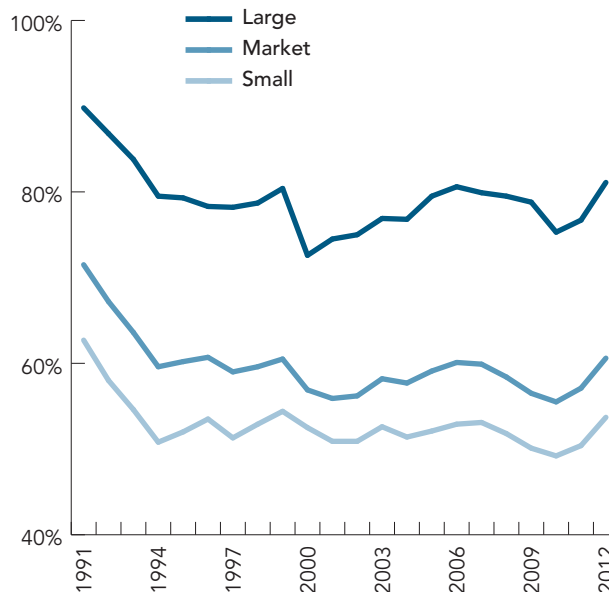


Source: Bloomberg.
Past performance is no guarantee of future results.

PROPENSITY TO PAY DIVIDENDS

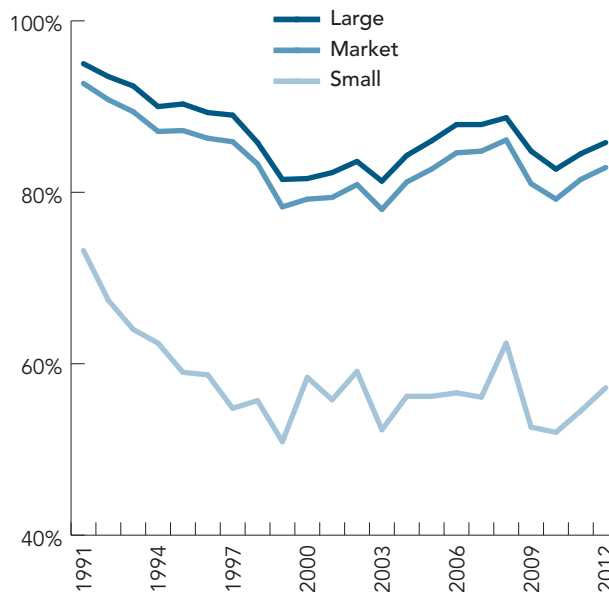
Figures 4a and 4b show, respectively, the percentage of firms and market cap represented by dividend payers. The figures document a moderate global decline in the propensity to pay dividends over the sample period, 1991–2012. For example, in 1991, 71% of companies, comprising 93% of global market cap, paid dividends. In 2012, approximately 61% percent of companies, representing 83% of total market cap, paid dividends. This decline occurs mainly during the 1990s.

Figure 4a. PROPENSITY TO PAY DIVIDENDS: PERCENTAGE OF FIRMS



Source: Bloomberg.

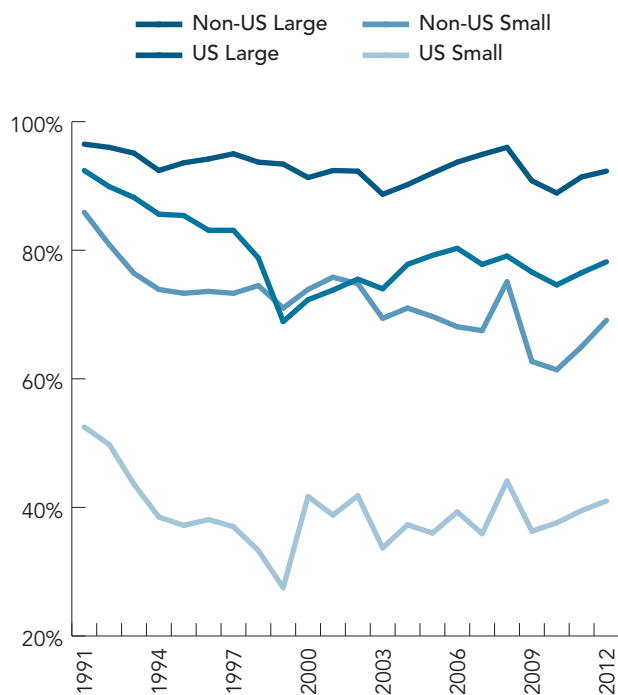
Figure 4b. PROPENSITY TO PAY DIVIDENDS: PERCENTAGE OF MARKET CAP



Source: Bloomberg.

Globally, large stocks were more likely than small stocks to pay dividends. However, the fraction of both large and small caps paying dividends declined from 1991–2012. Figure 4c shows the percentage of market cap of large and small firms paying dividends in US and international markets over 1991–2012. The figure shows that the propensity to pay dividends in the US has been lower, relative to international markets, for the entire sample period. This difference has been most pronounced in small caps. On average over the period, 72% of international small caps paid dividends, while only 39% of US small caps did.

Figure 4c. PROPENSITY TO PAY DIVIDENDS: PERCENTAGE OF MARKET CAP FOR LARGE AND SMALL FIRMS IN US AND INTERNATIONAL MARKETS



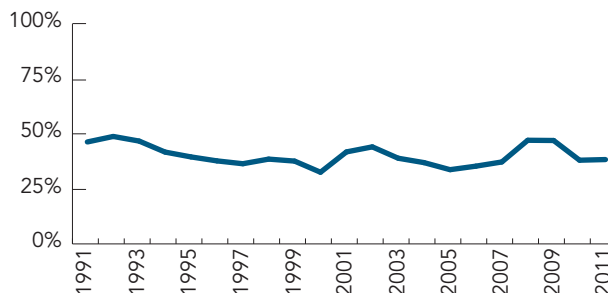
Source: Bloomberg.

Table 2 contains the averages over the sample period and shows that, on average, 79% of global large stocks paid dividends, while 53% of global small stocks paid dividends. Table 3 shows the characteristics at the end of 2012 of the firms that did and did not pay dividends in 2012. The table shows that non-dividend payers were generally smaller

companies with an average market cap of \$1.5 billion vs. \$5.0 billion for payers. Nonpayers, payers, and the market had similar weighted average book-to-market and earnings-to-price ratios in 2012. Although not shown in the table, these relationships have also generally held true over the 22-year sample considered here.

The average global aggregate dividend payout ratio—the ratio of total dividends to total earnings—was 40.5% over the sample period. From Figure 5, we see that, despite some year-to-year variation, there is no obvious trend in the proportion of aggregate global earnings that are distributed through dividends over the sample period. Although not shown separately, the payout ratios for US and international markets were very similar over time.

Figure 5. DIVIDEND PAYOUT: AGGREGATE DIVIDENDS/TOTAL POSITIVE EARNINGS OF DIVIDEND PAYERS

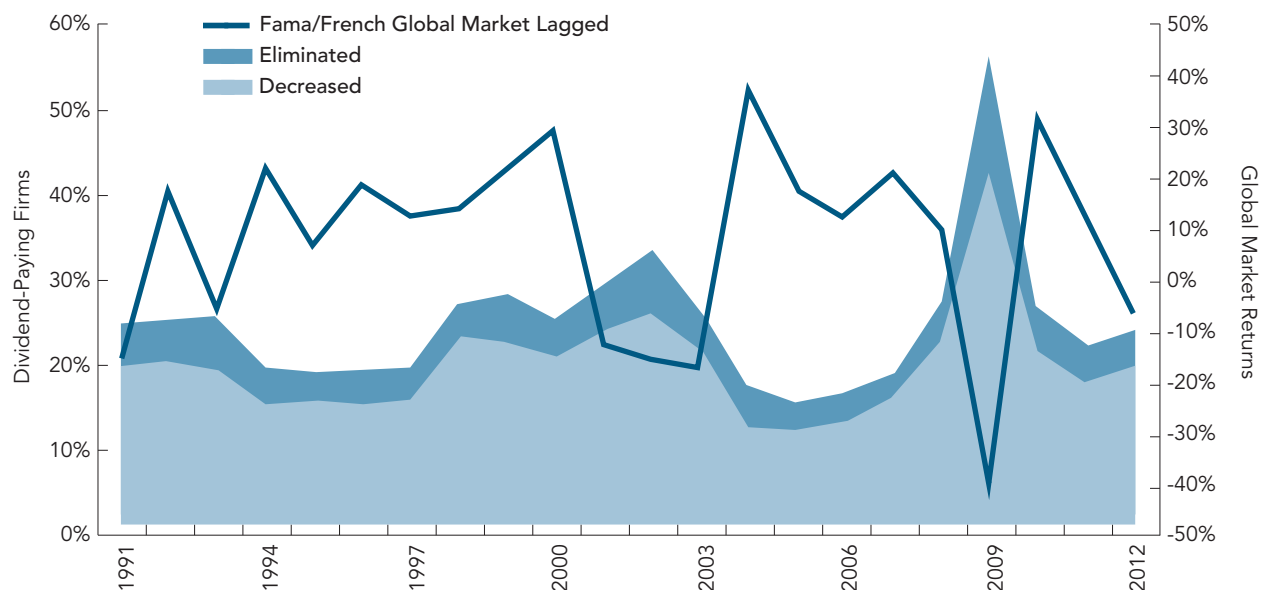


Source: Bloomberg.

DIVIDEND POLICY CHANGES

Figure 6 shows the percentage of firms each year that paid dividends the prior year and either cut or eliminated dividends in the current year, along with the lagged annual return for the global market index. There is a strong relation between changes in dividend policy and market conditions. In 2009, the year after the global market index fell by more than 40%, a total of 57% of dividend-paying firms either decreased or eliminated their dividends. As an example, consider General Electric, a member of the Dow Jones 30 companies. GE paid a quarterly dividend of \$0.28 per share during 2007 and \$0.31 per share during 2008. But this dividend was cut to \$0.10 per share in the second quarter of 2009.

Figure 6. DIVIDEND POLICY CHANGES AND GLOBAL MARKET RETURNS



Source: Bloomberg.
 Past performance is no guarantee of future results.

From 1991 to 2012, there was a 0.43 correlation coefficient between the percentage change in aggregate global dividends and the prior year’s market index return. Investors may be especially sensitive to what happens to aggregate dividends during market downturns. The year after 2008’s global market decline, aggregate dividends fell by 20%. The correlation between aggregate global dividends and lagged market returns may reduce the value of the perceived protection that dividend income provides against market volatility.

CROSS-COUNTRY VARIATION IN DIVIDEND PAYERS

Table 4 displays the high degree of cross-country variation in the percentage of firms that pay dividends. For example, 92% of Japanese stocks paid dividends in 2012, but only 38% of Australian stocks paid dividends. Much of the cross-country variation occurs among small-cap stocks. In 2012, the proportion of large companies paying dividends was higher than the proportion of small companies paying dividends for all countries except Ireland.

In fact, there are large cross-country differences in the fraction of firms that paid dividends throughout our 1991–2012 sample. Table 5 shows the historical cross-country comparisons of percent of payers and the annual

payout ratios. The table shows that the average percentage of dividend-paying firms varies quite a bit more across countries than the average percentage of dividend-paying market cap, reflecting that most of the cross-country variation occurs in small stocks.

The percentage of corporate earnings that are paid out as dividends also varies across countries. Table 5 shows that average dividend payout over the whole sample period ranges from 31% in Switzerland to 73% in New Zealand. The standard deviations indicate considerable variability within countries, as well. A detailed analysis of the reasons behind the large cross-country variation in dividend payment behavior is beyond the scope of this paper. However, different tax rates likely play a role. In the US, for instance, qualified dividends are currently taxed at a top rate of 20%—recently raised from 15%—while Hong Kong has no dividend tax.

If an investor focuses on dividend-paying stocks, it is important to understand that the inherent uncertainty about future tax rates and policy translates into added uncertainty about future dividend income streams. The recent uncertainty surrounding the extension or expiration

of the 15% dividend tax rate in the US, which became effective in 2003, is only the most recent example of this. While the US top dividend tax rate ended up being raised from 15% to 20%, one possible outcome of the policy debate was dividend tax rates reverting to ordinary income tax rates, which would have been an effective marginal tax rate of roughly 40% at the top. The tax treatment of dividends changes over time, and future dividend tax regime changes are difficult to predict in one country, let alone the 23 developed markets considered here. For example, if tax rates on dividends are raised relative to taxes on capital gains, it is likely firms will tend to reduce dividend payouts and increase the use of stock buybacks to deliver income to investors.

CONCLUSION

Many investors seem to have a preference for stocks that pay cash dividends because they generate income without selling shares. However, investors should be aware of the tradeoffs between diversification and the pursuit of higher dividend yield. For instance, global portfolios that purchase only dividend-paying stocks will exclude about 47% of available small-cap stocks. Investors may be able to achieve greater dividend yield from their portfolio by investing in higher yielding stocks. But, as we have seen, investors who desire increased yields sacrifice diversification to achieve that goal.

The financial crisis of 2008–2009, during which 57% of dividend-paying firms reduced or eliminated their dividend, reinforced the fact that dividends are equity income and subject to risk on par with what one expects from equity investments. After an investor determines appropriate investment goals, he or she often has to make tradeoffs to achieve them. This paper illustrates these tradeoffs for investors who desire more dividend income than provided by the global market. Investors should take a balanced approach—one that accounts for all investment related considerations—when choosing portfolios to achieve their investment goals.

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TABLE APPENDIX

Table 1. RETURNS IN USD: JAN 1991–DEC 2012

Returns are computed for global equity portfolios formed at the end of each December for the entire market and for stocks, based on the dividend-paying status of the firm during the preceding year.

	MARKET	PAYERS	NONPAYERS
Monthly Mean	0.70%	0.70%	0.80%
Monthly Std. Dev.	4.40%	4.18%	6.11%
Annual Mean	9.14%	9.06%	11.14%
Annual Std. Dev.	18.35%	16.79%	27.22%
Annualized Compound Return	7.42%	7.60%	7.58%
Monthly t-Stat of Difference with Market	—	0.10	0.58

Table 2. PROPENSITY TO PAY DIVIDENDS: 1991–2012 AVERAGES

Dividend-paying firms as a percentage of all firms by name count and market cap are computed as of the end of each December. The ratio of aggregate dividends paid to the total earnings of dividend-paying firms is computed as of the end of each December for the preceding year. The annual numbers are then averaged over the sample period. The figures are also broken out for large cap and small cap firms.

	US MARKET	INT'L MARKET	GLOBAL MARKET	GLOBAL LARGE CAPS	GLOBAL SMALL CAPS
Payers as % of Firm Count	43.9%	66.4%	59.7%	79.2%	52.8%
Payers as % of Total Mcap	75.6%	90.7%	83.7%	86.7%	58.0%
Aggregate Dividends/Total Earnings of Dividend Payers*	39.0%	41.6%	40.5%	40.5%	40.9%

* Dividend payout ratios through 2011 due to earnings availability.

Table 3. CHARACTERISTICS: 2012

Characteristics are computed for the market, dividend payers, and nonpayers as of December 31, 2012, based on dividend-paying status for calendar year 2012.

	MARKET	PAYERS	NONPAYERS
Wtd. Avg. B/M	0.58	0.58	0.62
Wtd. Avg. E/P	7.6%	7.7%	6.1%
Firm Count	9,286	6,144	3,142
Wtd. Avg. Tcap (USD millions)	\$64,701	\$69,471	\$32,498
Avg. Tcap (USD millions)	\$3,821	\$5,030	\$1,457

Table 4. **PERCENTAGE OF FIRMS PAYING DIVIDENDS: 2012**

For each country in the sample, dividend-paying firms as a percentage of all firms by name count and market cap are computed as of the end of 2012. Figures are also broken out for large cap and small cap firms.

	MARKET		LARGE STOCKS		SMALL STOCKS	
	% OF FIRMS	% OF MCAP	% OF FIRMS	% OF MCAP	% OF FIRMS	% OF MCAP
Australia	38.2	93.4	85.2	97.8	30.9	53.8
Austria	74.2	77.4	83.3	76.3	72.0	79.5
Belgium	64.8	89.3	88.2	92.3	59.5	67.2
Canada	47.5	87.8	80.7	92.3	34.6	44.9
Denmark	45.7	83.4	75.0	86.1	38.8	55.8
Finland	82.6	96.9	100.0	100.0	78.9	87.7
France	70.3	94.0	91.4	95.2	64.2	80.6
Germany	61.3	93.1	90.9	95.7	55.2	70.6
Greece	32.4	30.0	66.7	38.0	30.9	26.4
Hong Kong	49.0	86.9	83.3	90.4	42.0	52.3
Ireland	51.4	40.2	42.9	34.2	53.6	60.7
Italy	56.1	78.9	76.5	81.2	51.4	66.4
Japan	91.8	97.1	96.6	98.0	89.8	90.2
New Zealand	62.7	77.6	80.0	81.6	50.0	48.8
Norway	44.7	88.8	78.4	93.5	31.6	40.8
Portugal	44.1	59.0	66.7	65.1	39.3	41.2
Singapore	70.1	88.1	85.9	90.6	66.8	71.8
Spain	54.2	91.1	80.0	93.3	41.7	62.7
Sweden	63.0	96.2	97.8	98.6	54.1	76.2
Switzerland	53.0	68.4	53.1	70.3	52.9	54.2
Netherlands	63.9	83.9	77.1	85.0	56.5	67.3
United Kingdom	68.2	92.0	89.9	94.4	62.5	73.3
United States	48.1	74.6	67.0	78.2	38.9	41.0
Average	58.1	81.2	79.9	83.8	52.0	61.5
Std. Dev.	14.3	17.4	13.8	17.7	15.7	16.5

Table 5. **PERCENTAGE OF DIVIDEND PAYERS AND DIVIDEND PAYOUT RATIO: 1991–2012 AVERAGES**

For each country in the sample, dividend-paying firms as a percentage of all firms by name count and market cap are computed at the end of each December. These annual numbers are then averaged over the sample period. The dividend payout ratio is the ratio of aggregate dividends paid to the total earnings of dividend-paying firms. This figure is computed as of the end of each December for the preceding year and these annual figures are averaged over the sample period.

	% OF FIRMS PAYING DIVIDENDS		% OF MARKET CAP PAYING DIVIDENDS		DIVIDEND PAYOUT RATIO*	
	AVG.	STD. DEV.	AVG.	STD. DEV.	AVG.	STD. DEV.
Australia	47.0	7.1	91.5	2.6	61.1	7.4
Austria	66.0	10.4	78.8	9.8	34.0	11.1
Belgium	72.6	7.0	88.6	5.6	33.8	18.4
Canada	36.8	8.3	80.6	4.3	42.7	10.3
Denmark	55.6	14.0	83.5	6.5	32.6	18.8
Finland	75.5	14.8	89.4	13.9	49.4	24.1
France	69.1	4.8	90.1	3.9	37.7	8.7
Germany	63.2	9.1	90.1	4.6	43.6	11.5
Greece	63.1	15.8	74.4	18.2	42.6	10.2
Hong Kong	55.2	10.0	87.3	7.4	41.4	13.2
Ireland	66.9	16.6	75.9	17.1	35.9	8.6
Italy	64.3	7.7	86.9	5.0	48.1	15.7
Japan	85.9	4.3	94.5	2.7	34.0	8.7
New Zealand	66.4	5.8	86.2	5.6	73.0	15.5
Norway	42.8	10.1	75.8	9.0	40.2	13.1
Portugal	56.1	9.0	73.2	16.8	45.1	12.1
Singapore	70.4	9.7	88.4	5.4	33.2	11.0
Spain	68.1	6.8	87.4	9.7	35.9	7.1
Sweden	61.9	10.2	88.6	6.8	35.2	13.6
Switzerland	71.2	10.4	88.9	9.2	30.7	12.8
The Netherlands	68.0	9.8	88.9	6.5	48.0	10.9
United Kingdom	74.7	9.1	93.9	3.2	53.2	8.1
United States	43.9	4.9	75.6	5.7	38.9	6.7

* Dividend payout ratios through 2011 due to earnings availability.

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