

A Multinational Survey of Corporate Financial Policies

Gil Cohen and Joseph Yagil*

Questionnaire-based studies of corporate finance deal primarily with the American or the European market, and treat only a few aspects of corporate financial decisions. This study covers five countries - the US, the UK, Germany, Canada, and Japan, and deals with a broad range of corporate financial issues. As the prevailing theory states, firms regard investment policy as the most important policy and dividend policy as the least important, although both financing and dividend policies become more important with financial leverage. The most frequently used evaluation method is internal rate of return followed by the net present value. Risk measurement techniques were used most often in Japan and least in the US, perhaps suggesting Japanese managers' greater aversion to risk. Japan is found to be unique in its dividend policy preferences; almost all of the Japanese companies sampled (95%) pay a fixed amount per share, compared to only 26% for the other countries in the sample. [G3, G32, G35]

■ Questionnaires examining corporate financial practices have focused mainly on the American or European capital markets. Graham and Harvey (2001), hereafter GH, survey managers of American firms about their investment and capital structure policies. Brounen, de Jong and Koedijk (2004), hereafter BJK, confine their study to European CFOs.

We survey managers from five countries on three continents (the US, the UK, Germany, Canada and Japan), enabling us to provide a broad international perspective. We also address a broader range of corporate financial issues than previous authors. Neither GH or BJK, for example, address dividend policy issues. We provide useful comparisons of some of our results with results based on market data using S&P 500 companies and results in previous studies.

I. Theoretical Background and Literature Review

Finance theory identifies three types of policies corporate managers must optimize in order to maximize a

**Gil Cohen is at Emek Yezreel Academic College in Emek Yezreel, Israel. Joseph Yagil is an Associate Professor of Finance and Capital Markets at Haifa University in Haifa, Israel.*

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firm's value: 1) investment, 2) financing, and 3) dividend policies. Investment policy refers to both the amount and type of growth pursued and projects undertaken. Once they determine the amount and type of growth, managers establish financing policy, or the available financing methods and sources of funds. Finally, dividend policy establishes the allocation of net income between retained earnings and dividends to common equity holders.

Theory predicts that corporate managers would consider investment policy the most important policy, because it forms the basis for the firm's business operations and growth. We survey how managers rank the policies importance.

A. Investment Policy

Graham and Harvey's (2001) survey finds increased use of net present value (NPV) as an investment appraisal technique. More than half of the respondents used the company's cost of capital for appraisal of an international project, even though the risk in a particular project was likely to differ from the firm's overall risk. Brounen, et al (2004) have found that while large firms use NPV and the capital asset pricing model in assessing the financial feasibility of an investment, small firms continue to rely on the payback criterion. In our international survey, we examine the extent to which known criteria are used for investment appraisal and compare our results to those of GH and BJK.

Investment policy directly affects company value. Given that managers tend to identify with a company and value their personal contributions to its success, we would expect most managers to say their company is undervalued.

Another important issue in investment policy concerns is the types of risk measures that corporate managers consider. The CAPM implies that the relevant risk measure is the systematic risk coefficient (beta), rather than total risk (sigma), which includes specific risk that can be diversified away. In some cases, the manager's objective is survival rather than maximizing shareholder wealth. The risk measure to consider here is the probability of not covering the investment costs.

Determining the appropriate cost of capital for estimating project profitability is essential for correct valuation of the firm. Theory states that corporations should use the weighted average cost of capital (WACC). When the risk of a specific project or division is different from the risk of the entire corporation, a specific or division-specific cost of capital should be used. We examine whether corporate managers are aware of this issue and whether there is a connection between firm size and use of a divisional or specific cost of capital.

B. Financial Policy

A firm's financing policy is known to influence the firm's value and its risk. The value of the firm is affected by capital market imperfections such as corporate taxes, personal taxes and bankruptcy costs. We examine to what extent these factors and others influence financing policy.

Graham and Harvey (2001) conclude that the tax benefits of debt (in addition to financial flexibility, bond rating and profit fluctuation) are the most significant factors shaping a company's financing policy. Bond rating and financial flexibility are the primary factors influencing bond issue policy, while per share profit, the dilution effect and share price on the stock exchange are the primary factors influencing decisions regarding stock issues. Brounen, et al (2004) have also concluded that financial flexibility is the most important factor determining the firm's target capital structure. Molina (2005) focuses on whether firms are underleveraged. He finds that leverage has a strong effect on ratings that result in a higher impact on the ex ante costs of financial distress, which can offset the tax benefits of debt.

According to the pecking-order theory, firms prefer various financing sources according to some pecking order. That is, they first use internal sources of funds and only then resort to external financing - debt and equity, in that order. Next they make use of hybrid sources of capital such as convertibles or rights and warrants.

Another important financial decision is how and how much firms should hedge their financial risk.

Hentschel and Kothari (2001) examine whether companies use financial derivatives to change their risk level. They do not find a significant difference in risk level between firms that use financial derivatives frequently and those that rarely use them, and conclude that financial derivatives do not substantially reduce a firm's financial risk.

Graham and Rogers (2002) find that companies hedge risk in order to enhance their ability to borrow money. They also find a positive correlation between firm size and potential bankruptcy on the one hand and firm hedging level on the other. Bodnar, Gregory and Marston (1998) examine how often large firms in the US use financial derivatives to hedge risks. Their results show that while fewer than half of their sample use financial derivatives, among companies using these hedging techniques, there is a rising trend in their use.

C. Dividend Policy

There is a debate in the financial literature regarding the degree to which dividend policy affects company value. Modigliani and Miller (1958) claim that under perfect capital market conditions, a firm's value depends on its operating profitability rather than on whether it distributes its profits. Other researchers reach the opposite conclusion. Kalay and Michaely (2000), for example, claim that dividend policy has a positive impact on long-term stock returns.

Kumar and Lee (2001) posit that dividend smoothing is intended to attract investors to companies in financial distress.¹ Li and Lie (2006) argue that the decision to change the dividend and the amount of the change depend on the premium that the capital market places on dividends. In their view, the capital market rewards managers for considering investor demand for dividends. We examine the major factors influencing firm dividend policy and explore the frequency of use of various dividend policies.

Brav, Graham and Michaely (2005) argue that the perception of stability in future earnings affects dividend policy as in Lintner (1956). They also find that the link between dividends and earnings has weakened over time. More managers now favor stock repurchases because they are viewed as more flexible than dividends and can be used in an attempt to time the equity market or to increase earnings per share.

Deangelo, Deangelo, and Skinner (2003) note that dividend centralization has increased in the last two decades. That is, while the number of companies

¹ Dividend smoothing is distributing a fixed dividend amount per share over time.

² See, for example, Fama (1998) and Thaler (1999).

distributing dividends has declined by half, the amount of the actual dividend has increased. They believe that the increase in dividend centralization has occurred because companies that once distributed small dividends have stopped paying dividends entirely or have been acquired by other companies. Companies that paid high dividends, however, have increased their dividend payments even more. Deangelo et al. (2003) find a positive correlation between company profitability and the amount of the dividend distributed.

Fama and French (2001) observe a drop in the number of companies paying cash dividends, from 66.5% in 1978 to 20.8% in 1999. This drop, they believe, is due to a change in the nature of companies trading in the American capital market, as a result of changes such as more flexible listing requirements. There has been a significant increase in the number of small companies on the stock exchange that operate with a low profit margin but offer significant growth opportunities. Such companies usually do not distribute dividends. Regardless of their type, small companies tend to distribute fewer dividends than large companies.

Dewenter and Warther (1998) compare the dividend policies of American and Japanese companies and test the impact of these policies on the stock price. Japanese companies seem to have fewer problems related to information asymmetry and agency costs than American companies. Therefore, share prices in Japan respond less to changes in dividend level than American company prices. We attempt to explain these differences.

Fenn and Liang (2001) explore how manager ownership of shares affects dividend policy. Their findings indicate that manager ownership is correlated with a high rate of dividend distribution. There is a strong negative correlation between dividend amount and the number of options given to managers and a positive correlation between the repurchase of shares and manager options. According to Fenn and Liang (2001), the increase in manager options can explain the increase in repurchases at the expense of dividend distributions.

We use our sample data to investigate the link between corporate governance factors and dividend policy. We also examine the relationship between the relative importance of dividend policy and various corporate governance variables including the percentage of public ownership, the percentage of ownership held by the three senior managers, the percentage of ownership held by the three major shareholders, and the total number of shareholders.

II. Methodology and Sample

There are generally two predominant methods used to test the relation between theory and practice regarding corporate decisions. One method is to use market data

and financial statements, and the other is to ask financial decision makers directly using a questionnaire. Each method has its advantages and disadvantages.

The main advantages of the questionnaire method are that one can get information "from the source" that is harder to obtain using alternative methods, and a manager's perspective is not always completely reflected in a firm's financial situation as depicted in the raw data. Questionnaires also have several limitations. Responses may be partial or evasive; questions are not always understood. Questionnaires may not produce reliable or valid responses.

To address the drawbacks of both methods, we compare the findings of each method, which we believe to be a new approach. We sent questionnaires to chief financial officers (CFOs) of major companies in the US, the UK, Germany, Canada, and Japan. We chose these countries because they had the highest GDP (gross domestic product) per capita among the Organization for Economic Cooperation and Development (OECD) countries at the time. The questionnaire can be downloaded from www.fma.org/JAF/Appendices/CohenYagilAppendix.pdf.

In each country, we selected the 300 largest companies in leading stock indexes: 1) the TOPIX500 in Japan, 2) S&P 500 in the US, 3) FT500 in the U.K, 4) DAX and MDAX in Germany, and 5) TG1000 in Canada.

Numbers of respondents ranged from 21 to 35 for each country (140 in total), for an average response rate of 9.3%. This is similar to the mean response rate obtained in previous studies.³ CFO names came from the companies' web sites.

To ensure that the questionnaire was understandable, we followed Graham and Harvey (2001), and both ran a pretest on MBA students in advanced finance courses and consulted with survey specialists. Each manager received a personal letter with the survey, describing the importance of the response. We offered to send the results of the study to anyone interested. To improve the response rate, we called some managers to assure them the information provided would be used for academic purposes only and would be kept completely anonymous.

We asked participants to return their questionnaires by fax, electronic or regular mail within three months of receipt. Following conventional practice, we compared the average responses to key questions on surveys arriving after three months and surveys arriving on time. We find no statistically significant differences.

Exhibit 1 summarizes the characteristics of the companies in the survey sample. The highest response rate was obtained in Canada (12%) and the lowest in Japan (7%).

³ Graham and Harvey (2001), for example, obtained a 9% response rate on a survey intended for American managers.

Exhibit 1. The Characteristics of the Survey Companies by Country

The total sales and foreign sales figures are based on Question 16 in the questionnaire which asked "Please choose one item from each category that best describes your company." The number of shareholders is based on Question 19 in the questionnaire which asked "If all stock options were exercised, how many people would own the Company's common stock?" The number of shareholders relative to size is the number of shareholders divided by the total sales. Credit rating for the firm's least risky debt is based on 1 = AAA, 2 = AA, ..., 6 = B.

	US	UK	Germany	Canada	Japan	Average
Number of Firms	27	28	29	35	21	28
Total Sales (M\$)	420	1,200	1,100	350	3,500	1,314
% of Foreign Sales	18	40	37	25	19	27.8
% of Public Ownership	88	82	57	86	64	75.4
Credit Rating of the Firm's Least Risky Debt	3.6	2.6	2.13	3.9	2.8	3.0
Number of Shareholders Relative to Size	10.3	12	2.5	7.7	5.1	7.5

The questionnaire is divided by topic, investment policy, and then by the financing and dividend policies. The questionnaire (presented in the Appendix) consists of 20 questions broken down into 63 sub-questions. Managers were asked to evaluate different variables such as methods used for investment appraisal and risk measurement, financial risk hedging techniques, financial leverage, and dividends.

We also constructed a market data sample drawn from the US S&P 500 index. We found complete information on 413 companies using data in Compustat and the Center for Research in Security Prices (CRSP).

III. Results

We discuss separately the investment, financing and dividend policies.⁴

A. Investment Policy

Exhibit 2 indicates that managers view investment significantly more important than either the financing or dividend policy: 4.23 of 5.00 categories (4.23/5.00), followed by financing policy (3.90/5.00) and dividend policy (2.78/5.00).

Exhibit 2 also indicates a correlation between the importance of financing and investment policy with respect to financial leverage (debt/assets). For leverage levels higher than 60%, the surveyed CFOs regard financing policy as more important than investment policy; the difference is statistically significant for leverage levels that exceed 80%. While financing policy is perceived as more important with financial leverage, investment policy becomes less important with leverage.

⁴The question responses of the corporate managers appear in Exhibits 1-10.

Significant differences between countries are found with respect to the importance of dividend policy. It is considered more important in Japan (3.57/5.00) and the UK (3.46/5.00), and less important in Canada (2.06/5.00) and the US (2.58/5.00).

1. Investment Appraisal Techniques

The questionnaire asks about investment appraisal techniques: internal rate of return (IRR), net present value (NPV), profitability index (PI), pay back period (PBP), capital assets pricing model (CAPM), decision trees, sensitivity analysis and value at risk (VAR). Exhibit 3 suggests how often various investment appraisal techniques are used.

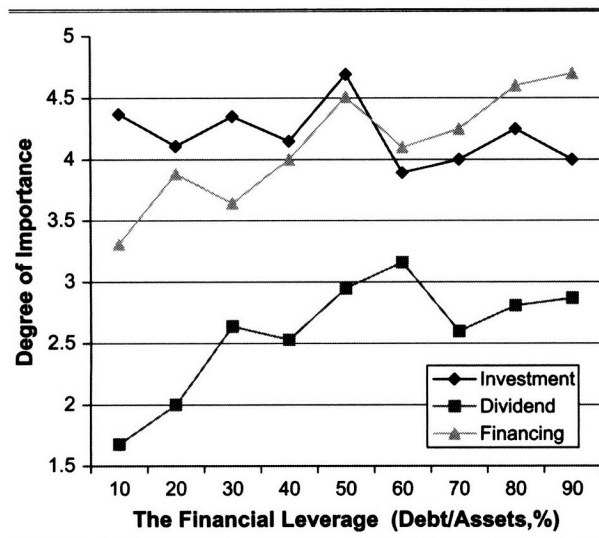
The most frequently used technique for investment appraisal is the IRR, followed by NPV, but the difference between the two is not statistically significant. Finance theory maintains that NPV is a superior method than IRR, which ought to manifest itself in more frequent use of NPV, but the widespread use of IRR seems to indicate that it is more convenient for ranking projects. Managers also use the PBP and sensitivity analysis more often than the rest of the examined techniques.

Graham and Harvey (2001) were also surprised by how often PBP is used because it does not take time into account. Brounen, et al (2004) also find in their European survey that PBP is the most commonly used investment appraisal technique, followed by the NPV and the IRR methods. The relatively high use of PBP is likely attributable to its simplicity and convenience. VAR and the PI were used less frequently.

Similar ranking of investment techniques are found in every country, although some variations are evident. We see in Exhibit 3 that, on average, UK managers use investment appraisal techniques more often than managers in other countries, while Japanese managers use them

Exhibit 2. The Financial Leverage and the Importance of the Investment, Financing and Dividend Policies

This figure is based on Question 11 in the questionnaire, which asked "How important are the following financial policies to your company?" The answers were based on a scale of 1 to 5 where 1 = Not Important and 5 = Very Important. The financial leverage data were taken from Question 7 in the questionnaire: "What is your firm's ratio of total liabilities/total assets?"



the least. These differences are apparently related to local business and management traditions.

Like GH and BJK, we also find a positive relation between firm size and the use of IRR, NPV and CAPM. This finding stems, in our view, from broader practical experience and a stronger grasp of financial theory among managers in large firms.⁵

2. Cost of Capital

We examine four discount rates to determine which are used most frequently to assess investment: 1) the project's risk-adjusted rate⁶, 2) the discount rate of the entire company (the weighted average cost of capital or WACC), 3) the divisional discount rate, and 4) the cost of the specific source of financing planned to fund the new project. We find that, as theory states, the WACC is used most frequently for investment appraisal (3.65/5.00). In second place is the risk-adjusted rate

⁵A positive relationship has also been found between the firm's size and the PBP method that can be due, as argued both GH and BJK, to its simplicity and convenience.

⁶The project's risk adjusted rate is a discount rate that reflects the project's risk level regardless of the adjustment method.

(2.85/5.00), followed by the cost of the specific source of funds used to finance the project (2.74/5.00). The divisional discount rate is in last place (2.03/5.00). BJK find that the divisional discount rate is almost never used in Europe. The more frequent use of the WACC (used by 85% of the managers in the survey) as compared to the risk-adjusted rate (68% of the managers) apparently occurs because the risk in most of the projects assessed is identical to the firm's risk, and it is correct to use the average cost of capital for such projects. Another possible explanation for the less frequent use of the risk-adjusted cost of capital lies in the difficulty of estimating the adjusted discount rate for individual projects.

This finding is similar to what GH find in their study of the US market: 58.8% of US managers use the WACC versus 50.9% who use the project risk-adjusted rate. BJK find that 43% of European companies use the WACC while only 26% use the risk-adjusted rate. They add that the CAPM is the most common method of estimating the cost of equity capital. BJK conclude that 45% of European managers rely on the CAPM for cost of equity estimation compared to 73.5% of the US managers in the GH research.

The relatively frequent use of the cost of the specific source of funds that we find indicates a lack of awareness of finance theory. Theory argues that the average cost of capital, rather than the specific discount rate, should be used.

Like BJK, we also find a positive (but not statistically significant) relation between firm size and the frequency of using the project risk-adjusted discount rate for investment appraisal. A positive and statistically significant relation is found between firm size and the frequency of using the divisional discount rate. These findings indicate that managers of large firms are more aware of financial theory than managers of small companies.

3. Risk Measurement Techniques

We evaluated three common risk measures that corporate managers may use: 1) the systematic risk factor (beta), 2) the standard deviation of the expected cash flow (sigma), and 3) the probability of not covering investment costs. Questionnaire responses indicate that the probability of not covering investment costs is the most frequently used technique (2.83/5.00), followed by the standard deviation of the expected cash flow (2.18/5.00) and beta (1.99/5.00).

Use of the risk techniques is highest in Japan (2.80/5.00) and lowest in the US (1.94/5.00). This finding may suggest Japanese managers are more averse to risk than US managers.

Exhibit 3. The Frequency of the Use of Investments Appraisal Techniques by Country

The results in this exhibit are based on Question 1 in the questionnaire, which asked "How frequently does your firm use the following techniques for investment appraisal?" The answers were based on a scale of 1 to 5 with 1 = Never and 5 = Always. In this exhibit, VAR is Value at Risk, PBP is Pay Back Period, and PI is Profitability Index.

	US	UK	Germany	Canada	Japan	Average
IRR	4.00	4.16	4.08	4.15	3.29	3.93
NPV	3.88	4.00	3.50	4.09	3.57	3.80
PBP	3.46	3.89	3.33	3.57	3.52	3.55
Sensitivity Analysis	3.73	4.04	3.46	3.70	2.62	3.51
CAPM	2.16	2.68	2.35	1.67	2.35	2.24
Decision Tree	2.40	1.87	2.04	1.87	1.90	2.02
PI	1.58	2.08	2.38	1.63	2.16	1.96
VAR	1.76	2.20	2.15	1.69	2.00	1.96
Average	2.87	3.11	2.91	2.79	2.67	

4. Perception of Company's Market Value

Question 10 asks managers if they believe their firm is incorrectly valued. The vast majority (72.5%) believe their firm is undervalued; while 26.5% think the firm is correctly valued and only 1.0% believe the firm is overvalued. No significant differences are found among countries.

We believe that assessment of a company's value is a psychological issue derived from a manager's judgment of the role he or she plays in the company's success and their own self-esteem. These findings are consistent with those of Heaton (2002), who demonstrates that managers are consistently optimistic and thus, tend to overestimate the firm's chances of success and underestimate its chances of failure.

B. Financial Policies

We discuss in order: 1) financial leverage and related issues, 2) the relative importance of different variables in making financing decisions, 3) the use of various sources of funds to finance new investments, and 4) risk hedging techniques.

1. Financial Leverage and Related Issues

Financial leverage is defined here as debt/assets in book value, where debt includes both short- and long-term debt, and assets include the total assets of the firm. The value of financial leverage for all the companies surveyed is 0.50 with a standard deviation of 0.26, and half of the companies have a financial leverage exceeding 0.50.

For the S&P 500 sample, financial leverage was much higher: 0.67 (short- and long-term debt divided by the firm's assets value) with a standard deviation of 0.18.

The American companies surveyed have lower financial leverage of 0.42 with a standard deviation of 0.27. At least part of the difference in the levels of financial leverage between the American companies surveyed and the S&P 500 companies can be attributed to the large size of the S&P 500 companies.

Exhibit 4 presents the financial leverage according to country, together with possible related explanatory variables. Note that Japan has the highest leverage, while the US has the lowest. Germany is in the middle, with average leverage of 0.47.

These results are partially consistent with the typical perception of Japan and Germany as credit-based economies, compared to the US and the UK, which are economies based on capital markets.⁷ Industrial structures in Japan are centered on banks that act as financing and ownership partners.

Desai, Foley, and Hines (2004) also link capital structure and firm ownership. They argue that multinational affiliates are financed with less external debt in countries with underdeveloped capital markets or weak creditor rights, reflecting significantly higher local borrowing costs. Increased borrowing from parent companies substitutes for three-quarters of the reduced external borrowing induced by capital market conditions.

The survey data show that 61% of managers estimate potential bankruptcy costs in their company to be less than 5% of the value of the firm's assets. Only 15% of the managers would expect bankruptcy costs to range between 10% and 20% of assets. This range is similar to the estimate of bankruptcy costs offered by Andrade and Kaplan (1998). The lower rate for our sample may stem from managers' overly optimistic perception of their ability to liquidate assets at fair market value. Such

⁷See, for example, Blinder (1992).

Exhibit 4. Mean Values of Selected Corporate Variables (%) By Country

In this exhibit, financial leverage is defined as debt/assets. Bankruptcy costs are based on Question 6 in the questionnaire, which asked "What is your estimate of your company's expected (potential) bankruptcy cost as a percent of the value of the assets. The question was answered on a scale of 1 to 5 where 1 = less than 5%, 2 = 5 to 10%, 3 = 10 to 15%, 4 = 15 to 20%, and 5 = more than 20%.

	US	UK	Germany	Canada	Japan	Average
Financial Leverage	41.6	49.0	47.6	50.0	62.1	50.0
Corporate Tax Rate	31.2	30.1	35.6	38.2	39.2	34.9
Bankruptcy Costs	1.5	2.5	2.0	1.9	1.7	1.9

optimism would be consistent with the idea that managers generally perceive their firms as undervalued.

2. Relative Importance of Different Variables in Making Financing Decisions

Theory posits that the value of the firm is affected by capital market imperfections such as corporate taxes, personal taxes and bankruptcy costs. The findings in Exhibit 5 indicate that the managers surveyed do consider these factors, but also regard some other factors as more important. One such factor is project cash flow. Other factors found relevant to the financing decision are financial flexibility, the market value of the stock and taxes (corporate and personal).

Some of these results are also similar to those of Graham and Harvey (2001) results in the US market, where financial flexibility and the stock price are found to be the most influential factors. Credit rank is less important in our study than for GH. Statistically significant differences are found between countries with respect to the importance of the corporate tax rate, potential bankruptcy cost and the company's credit rating.

Brounen, et al. (2004) establish that financial flexibility is the most important factor for determining proper financial leverage. They also find moderate support for the prediction that firms have a target debt ratio that is based on tax and bankruptcy considerations. Childs, Mauer, and Ott (2005) report that financial flexibility encourages the choice of short-term debt, thereby dramatically reducing the agency costs of under and over investment.

3. Use of Various Sources of Funds to Finance New Investments

Exhibit 6 describes how often various sources of capital are used to finance investments. The most common source of capital for financing new investments is retained earnings; warrants are the rarest. Capital sources

not related to ownership dilution (such as retained earnings and debt) are preferred over sources of funds that dilute ownership (such as common stock, options and convertibles). The results also indicate a clear preference for long-term over short-term debt financing.

These findings seem consistent with the pecking order theory, even though the theory suggests a dollar value order of financing preferences whereas our survey refers to frequency of use of different financing methods.

4. Risk Hedging Techniques

Exhibit 7 summarizes how often financial techniques are used for risk hedging in both the entire sample and individual countries. Forward contracts are the most commonly used method of hedging financial risks, while futures contracts are the rarest. Just over one-fifth of the sample companies (21%) report they rarely use any hedging technique.

The choice of forwards and swaps over futures and options implies a preference for risk hedging through the banking system rather than the stock market, as well as a preference for risk hedging instruments that meet particular needs of the hedging company over standardized hedging tools. Our results regarding the frequency of use of financial instruments are consistent with the results in those of Bodnar, et al. (1998). They find that more than half of companies do not use financial instruments at all for risk hedging, but increases in their use occur mainly among companies that used such financial instruments at least once in the past.

To measure the correlation between financial leverage and the rate of use of the various hedging strategies, we use Cronbach's alpha reliability measure.⁸ This method enables us to measure the degree to which different variables can be combined into a single variable based on similar distributions. The alpha value is 0.75, indicating that the different hedging methods can be defined as a single variable. There is a statistically significant positive correlation between this single variable and financial

⁸ Cronbach's alpha measures the co-variability of different factors.

Exhibit 5. The Relative Importance of Different Factors to Financing Decisions by Country

The findings in this exhibit are based on Question 5 in the questionnaire, which asked respondents to indicate the relative importance of the factors in the exhibit when they are making a financing decision. The responses were based on a scale of 1 to 5 with 1 = Not Important and 5 = Very Important. The factor Bankruptcy Costs refers to potential bankruptcy costs.

	US	UK	Germany	Canada	Japan	Average
Projected Cash Flow	4.52	4.54	4.57	4.71	4.25	4.52
Financial Flexibility	3.65	3.25	3.90	3.76	3.90	3.69
The Market Value of the Stock	3.72	3.36	3.28	3.50	3.95	3.56
Corporate Tax Rate	2.92	3.96	3.45	3.09	3.14	3.31
Transaction Costs	3.46	2.87	3.24	3.20	3.25	3.20
Credit Rating	2.73	2.83	3.38	2.61	4.24	3.16
Voting Control	2.96	2.83	3.12	2.94	3.05	2.98
Bankruptcy Costs	1.63	1.83	2.00	1.78	2.57	1.96
Personal Taxes	1.44	1.83	2.34	1.48	1.81	1.78

Exhibit 6. The Frequency of Different Sources of Funds Used to Finance New Investments by Country

The findings in this exhibit are based on Question 4 in the questionnaire, which asked "How frequently does your firm use the following sources of funds to finance a new investment?" The responses were based on a scale of 1 to 5 where 1 = Never and 5 = Always.

	US	UK	Germany	Canada	Japan	Average
Retained Earnings	3.50	3.75	4.00	3.40	4.35	3.80
Long-Term Debt	3.13	3.19	3.26	3.71	3.57	3.37
Short-Term Debt	2.79	3.12	2.89	2.73	3.19	2.94
External Common Equity	3.09	2.50	2.12	3.03	1.90	2.53
Convertibles	1.88	1.58	1.48	1.12	2.10	1.63
Warrants	1.62	1.48	1.12	1.55	1.57	1.47

Exhibit 7. The Frequency of the Use of Financial-Risk Hedging Techniques by Country

The results in this exhibit are based on Question 13 in the questionnaire, which asked "How often does your firm use the following hedging methods to control financial risks?" The responses were based on a scale of 1 to 5 where 1 = Rarely and 5 = Often. The number in parenthesis is the standard deviation.

	US	UK	Germany	Canada	Japan	Average
Forwards	2.67 (1.58)	3.70 (1.35)	3.16 (1.37)	3.00 (1.65)	3.57 (1.47)	3.22
Swaps	2.83 (1.59)	3.07 (1.38)	3.07 (1.57)	2.13 (1.46)	3.60 (1.31)	2.94
Options	2.04 (1.30)	2.72 (1.49)	2.62 (1.31)	2.07 (1.46)	3.10 (1.21)	2.51
Futures	2.42 (1.67)	2.85 (1.78)	2.36 (1.29)	2.55 (1.58)	2.05 (1.36)	2.44
Average	2.49	3.08	2.80	2.43	3.08	

leverage ($R = 0.33$, $p < 0.01$; where R is the correlation coefficient and p is the significance level). That is, as financial leverage increases, hedging techniques are used

more frequently. This result matches the conclusions of Leland (1998), who claims that hedging financial risks facilitates greater leverage.

We also find a strong and significantly positive correlation between the frequency of using hedging strategies and company size ($R = 0.508$, $p < 0.01$). The larger the company, the greater its use of hedging tools.

Graham and Rogers (2002) obtain similar results. The larger and more leveraged a company, the more frequently it uses financial tools for hedging. Graham and Rogers believe this positive correlation is derived from: 1) the greater professional know-how and more extensive experience of managers in larger companies than in smaller companies, 2) the indirect costs of bankruptcy, which increase with company size, and 3) the advantage larger firms have over smaller firms in better access to capital.

We find a significantly positive correlation between the extent of a company's international activities and how often it uses risk hedging methods. Companies with more extensive international activities use risk hedging methods more often. This finding is not surprising given the needs of international companies that are vulnerable to exchange rate risks.

C. Dividend Policy

Managers in our survey consider dividend policy the least important of a firm's three major financial policies. There is little discussion of dividend policy in previous surveys, yet there are several theories on dividend policy even though practitioners feel it is the least important policy.

There are significant differences among countries in the sample with respect to the importance of dividend policy. Japanese and British managers attribute more importance to it than American managers. These findings are in keeping with results that companies in the US and Canada distribute dividends less frequently than Japanese and European companies. Moreover, our findings show that the dividend policy becomes more important as financial leverage rises.

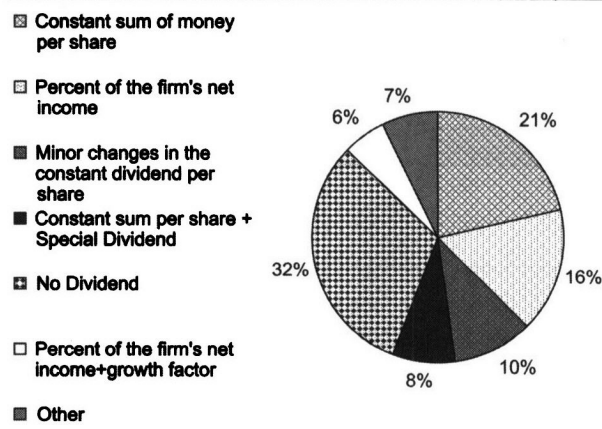
Exhibit 8 displays dividend policy results.

Of the 140 companies participating in the study, 32% report that they do not pay dividends at all. Fama and French (2001) demonstrate that the percentage of companies distributing dividends has fallen from 66.5% in 1978 to 20.8% in 1999. They explain these results by a change in the makeup of companies traded on the capital market. More newer and smaller companies are trading; they are characterized by significant growth rates and, unlike established companies, they tend not to distribute dividends at all.

The results of our international questionnaire indicate that 68.0% of the sample companies pay dividends, while 81.3% of the companies in the S&P 500 do so. These results reinforce the claim that larger companies

Exhibit 8. The Frequency of Different Dividend Policies for the Survey Sample

This figure is based on the results of Question 8 in the questionnaire, which asked "Which of the following dividend policies best describes your company's dividend policy?"



are more likely to distribute dividends than smaller companies.

Exhibit 8 also indicates that the most frequent policy is to pay a constant sum per share (39%) composed of a constant sum of money per share (21%), minor changes in the constant dividend per share (10%) and a constant sum per share plus a special dividend (8%). The second most common payout policy is a percentage of net profit (22%). Methods for arriving at this amount include paying a percentage of the firm's net income (16%) and a percentage of the firm's net income plus a growth factor (6%). Our analysis of the S&P 500 companies indicates that the average annual dividend per share distributed by S&P 500 companies is \$0.68, representing an average of 34% of earnings per share (compared to 37% for our sampled companies).

Exhibit 9 summarizes the factors influencing dividend policy. Forecasted cash flow has the greatest influence on dividend policy, while individual tax rates on dividends have the least. The effect of the dividend on the stock price is also ranked highly as a factor affecting dividend policy.

The relationship between ownership structure and firm performance has become a question in the financial literature.⁹ Thus we explore the correlation between dividend policy and corporate governance factors. The questionnaire includes four variables describing how a company is governed: 1) percentage of ownership

⁹ Studies include those of Boubakri, Cosset, and Guedhami (2005) and Brown, Dittmar, and Servaes (2005).

Exhibit 9. The Relative Importance of Different Factors to Dividend Policy Decisions by Country

The results in this exhibit are based on Question 9 in the questionnaire, which asked respondents to indicate the importance of the named factors in forming the company's dividend policy. The answers were based on a scale of 1 to 5 with 1 = Not Important and 5 = Very Important.

	US	UK	Germany	Canada	Japan	Average
Forecasted Cash Flow	3.32	4.00	3.52	3.79	3.50	3.63
Return on Investment	2.95	3.45	3.52	2.64	3.10	3.13
Stock Price	3.21	3.64	3.00	2.64	3.11	3.12
Cost of Raising New Funds	2.74	2.58	2.55	2.91	2.30	2.62
Alternative Return	2.65	2.86	2.55	1.86	2.58	2.50
Personal Dividend Tax Rate	1.58	2.11	1.89	1.36	1.65	1.72

held by the three largest stockholders, 2) percentage of ownership held by the three senior managers, 3) percentage of public ownership and 4) total number of shareholders.

A χ^2 analysis shows a significant correlation between these corporate governance variables and dividend policy ($p < 0.05$). One striking result is that the number of companies that do not distribute dividends increases with the percentage of ownership held by the three largest shareholders (similar to the results in Jensen, Solberg, and Zoran, 1992), and declines with the percentage of ownership held by the three senior managers. Managers who are also shareholders prefer to distribute dividends to themselves, while major shareholders (holding a significant ownership share) who are not managers prefer to retain profits in order to finance further growth.

These findings demonstrate an agency problem or conflicts of interest between shareholders and managers. Clearly, these conflicts of interest influence a firm's dividend policy. Fenn and Liang (2001) also find that managers ownership is related to a high rate of dividend distribution.

Correlation tests do not reveal a significant correlation between governance variables for the sampled companies and the rate of dividend distribution.

Market data for S&P 500 companies enable some interesting comparisons with survey results. We find positive and significant correlation between total number of shareholders and the rate of dividend distribution ($R = 0.311$, $p = 0$) and between the number of shareholders and the dividend yield ($R = 0.387$, $p = 0.02$). No significant correlation is found between the rate of ownership by the three senior managers and the dividend distribution rate.

The results for the S&P 500 sample suggest that as company ownership becomes more distributed, the rate of dividend distribution and the dividend yield increase. Moreover, according to the questionnaire data, as ownership becomes more distributed, managers think the divi-

dend has more of an impact on the share price ($R = 0.304$, $p < 0.01$). The correlation between dividend policy and ownership distribution can be ascribed to the influence of dividend distribution as a tool for attracting investors (see Lie, 2000).

We use a regression equation for the company governance variables to estimate the relation between the importance of dividend policy to the survey managers and the governance variables. The findings are summarized as:

$$\begin{aligned} \text{DivIMP} = & 3.938 - 0.01\text{Pub} - 0.349\text{Pown} - 0.161\text{MS} \\ & + 0.196\text{Num} \\ & (8.72) (-3.25) (-3.31) (-1.55) (2.64) \\ R^2 = & 0.174, N = 138, F = 7.26, p = 0.084 \end{aligned}$$

where:

DivIMP = importance of dividend policy to managers,
Pub = percent of public ownership,

Pown = percent of ownership held by the three senior managers,

MS = percent of ownership held by the three major shareholders, and

Num = total number of shareholders (1 = up to 100, 6 = more than 100,000).

The null hypothesis is: $\text{Pub} < 0$; $\text{Pown} < 0$; $\text{MS} < 0$ and $\text{Num} > 0$.

The results are consistent with the results obtained by Jensen, et al. (1992). These findings imply that dividend policy becomes less important with the percentage of the company's public ownership, the percentage of ownership held by the three senior managers, and the three largest shareholders, but becomes more important with the total number of shareholders.

Exhibit 10 presents the frequency of dividend policy types in the countries studied. Japan has the lowest percentage of companies that do not pay dividends (4.8%), while the percentages are particularly high in Canada and the US (60% and 52%). The high percentage of American companies that prefer not to distribute dividends at all is consistent with the finding of Fama and

Exhibit 10. The Frequency of Different Dividend Policies for the Survey Sample by Country (%)

The findings in this exhibit are based on Question 8 in the questionnaire, which asked "Which of the following dividend policies best describes your company's dividend policy?" The values in the exhibit represent the percentage of companies in each country that adopted one of the above dividend policies most frequently.

	US	UK	Germany	Canada	Japan	Average
Constant Sum of Money Per Share	24.0	14.8	3.4	17.1	47.6	21.4
Percent of the Firm's Net Income	8.0	33.3	27.6	11.4	0.0	16.0
Minor Changes in the Constant Dividend Per Share	4.0	7.4	17.2	0.0	23.8	10.4
Constant Sum Per Share + Special Dividend	0.0	0.0	13.8	2.9	23.8	8.1
Percent of the Firm's Net Income + Growth Factor	0.0	14.8	10.3	2.9	0.0	5.6
No Dividend	52.0	14.8	24.1	60.0	4.8	31.4
Other	12.0	14.9	3.6	5.7	0.0	7.1
Total	100	100	100	100	100	100

French (2001) that only 20.8% of companies in their sample distributed dividends.

Exhibit 10 also indicates that the most frequent dividend policy in Japan and the US is the payment of a fixed amount per share. In the UK and Germany, a higher percentage of companies distribute dividends than in the US but a lower percentage than in Japan. In the former, the most common policy is to distribute a per share dividend as a fixed percentage of net profit.

That such a high percentage of Japanese companies distribute dividends is, we believe, the result of an ongoing crisis in the Japanese banking system. Today, Japanese banks favor investments yielding high returns and short-term stability. To attract bank investment, companies must meet the banks' dividend expectations.

Most of the managers in Japan and the US did not specify their companies' dividend payout rates. Of the companies that did respond to this question, no significant difference is found between countries with respect to the payout rates. The highest rate is in Germany (52.2%) and the lowest in the UK (36.3%); the average for the entire sample is 37.3%.

Dewenter and Warther (1998) compare the dividend policies of American and Japanese companies by examining the relation between changes in dividend per share and stock price. Their results indicate Japanese stocks are less responsive to changes in the dividend amount, thus facilitating more frequent changes in the dividend amount and more adjustments to changes in profitability.

Approximately 55% of the managers from all the sampled countries claim that stock prices are not at all sensitive to the dividend amount, or only weakly sensitive. When managers claim that the stock price is sensitive to the dividend changes, the most common dividend policy is distribution of a fixed dividend per share.

No significant difference is found between Japan and the US with respect to managers' beliefs about the sensi-

tivity of the stock price to changes in the dividend amount (2.9/5.00 for Japanese stocks and 2.62/5.00 for US stocks). This result is contrary to the results of Dewenter and Warther (1998). Moreover, the most common dividend policy in Japan is distributing a fixed amount per share (47.6% of Japanese companies as compared to only 24.0% of American companies). We believe the difference between Dewenter and Warther's finding and ours is attributed to the financial crises in Japan that led investors to change their investment preferences towards rapid return investments with steady dividend payments.

Conroy, Eades, and Harris (2000) use a sample of Japanese companies to examine the effect of a company's profitability and dividend policy on stock return. They find that the stock return is affected more by the degree of investor surprise at corporate profitability changes and less by changes in the dividend information. In our results, Japanese managers, more so than managers in other countries, are convinced that the stock price of their firm is sensitive to changes in the dividend level. The differences between our findings and those of Conroy, et al. (2000) may reflect a difference in manager's perceptions and actual market data results.

V. Summary and Conclusions

We have investigated the three major corporate financial policies: 1) investment policy, 2) financing policy, and 3) dividend policy. Despite the importance of these policies, little is known about how chief financial officers in various countries actually make corporate financial decisions and whether there are inter-country differences. Previous questionnaire-based studies have concentrated mainly on either the American or European market and focused on only certain aspects of corporate financial decision. Our

data set adds information on 140 CFOs in five countries: 1) the US, 2) the UK, 3) Germany, 4) Canada, and 5) Japan. The questionnaire deals with a broad range of corporate financial issues, including dividend policy issues not so far examined.

Results found elsewhere indicate actual corporate financial decisions are not always consistent with theoretical predictions. Our inter-country survey enables us to compare corporate financial behavior under various economic circumstances. The research countries had the highest gross domestic product per capita among the OECD countries at the time the questions were asked, and the companies were selected using the leading stock indexes in each country.

In accordance with prevailing theory, investment policy is regarded as the most important policy, while dividend policy is the least important. Financing and dividend policies become more important with a company's level of financial leverage.

Net present value and internal rate of return are the most frequently used techniques for investment appraisal. The frequency of use of those and other techniques varies significantly across countries. Larger companies more often use established techniques for assessing investments. The most frequently used discount rate is the weighted average cost of capital. A surprising outcome is the relatively frequent use of the cost of the specific source of financing planned to fund a new project, particularly in companies with high levels of financial leverage, contrary to the prescription of finance theory.

Average financial leverage (debt/assets) for all the companies surveyed was 0.50. Japanese companies have the highest financial leverage (0.62), while US companies have the lowest (0.41). Germany is in the middle, with average leverage of 0.47. These results are largely consistent with the typical classification of Japan and Germany as credit-based economies, as opposed to the US and the UK, which are described as capital markets based. Managers prefer bank hedging methods (forwards and swaps) over market hedging (futures and options).

Dividend policy is regarded as the least important policy of the three major financial policies, and its level of importance is negatively correlated with the percentage of a company's public ownership, the percentage of ownership held by the three senior managers and by the three largest shareholders and positively correlated with the total number of shareholders.

Our findings indicate that the most frequent dividend policy is a constant amount per share followed by a percentage of the firm's net income. An extremely high percentage of Japanese companies (95.2%) distribute dividends, as compared to an average of 62.3% for the other four countries. The most common dividend distribution policy in Japan is a fixed amount per share with or without minor changes in the regular dividend or a special dividend (95.2%), as compared to 26.2% for the entire sample. Japan's unique dividend policy, we believe, is attributed to the credit crisis that began in the late 1990s, forcing investors to shorten their investment horizon. The dividend policy favored by American companies is to distribute a fixed amount per share (28%) with or without minor changes, followed by distribution of a percentage of net profits (8%). In Germany, which has the highest dividend payout rate (52%), the most common dividend policy is to distribute a fixed percent of net profits.

The two factors cited as having the greatest impact on dividend policy are forecasted cash flow and the stock price. It is worth noting that the forecasted cash flow factor is the most influential factor in all three major corporate financial decisions (investment, financing and dividend).

Overall, we conclude that the actual corporate financial decision-making process is generally consistent with the expectations of theory. Various different types of corporate financial behavior are seen, however, largely because of the variety of economic environments in different countries. It would be interesting to extend this study to different industries in each country, or bull versus bear capital markets and developed versus emerging markets. ■

References

- Andrade, G. and S.N. Kaplan, 1998, "How Costly is Financial (No Economic) Distress? Evidence from Highly Leveraged Transactions," *Journal of Finance* 53 (No. 5, October), 1443-1493.
- Blinder, A.S., 1992, "Trading With Japan: Why the US Loses-Even on a Level Playing Field: International Perspective," *Business Economics* 27 (No. 1, January), 25-29.
- Bodnar, M.G., S.H. Gregory, and R.C. Marston, 1998, "1998 Wharton Survey of Financial Risk Management by U.S. Non-Financial Firms," *Financial Management* 27 (No. 4, Winter), 70-91.
- Boubakri, N., J.C. Cosset, and O. Guedhami, 2005, "Postprivatization Corporate Governance: The Role of Ownership Structure and Investor Protection," *Journal of Financial Economics* 76 (No. 2, May), 369-399.
- Brav, A., C.R. Harvey, and R. Michaely, 2005, "Payout Policy in the 21st Century," *Journal of Financial Economics* 77 (No. 3, September), 483-527.
- Brounen, D., A. de Jong, and K. Koedijk, 2004, "Corporate Finance in Europe: Confronting Theory with Practice," *Financial Management* 33 (No. 4, Winter), 71-101.

- Brown, K.C., A. Dittmar, and H. Servaes, 2005, "Corporate Governance, Incentives, and Industry Consolidations," *Review of Financial Studies* 18 (No. 1, Spring), 241-270.
- Childs, P.D., D.C. Mauer, and S.H. Ott, 2005, "Interactions of Corporate Financing and Investment Decisions: The Effects of Agency Conflicts," *Journal of Financial Economics* 76 (No. 3, June), 667-690.
- Conroy, R.M., K.M. Eades, and R.S. Harris, 2000, "A Test of the Relative Pricing Effects of Dividends and Earnings: Evidence from Simultaneous Announcements in Japan," *The Journal of Finance* 55 (No. 3, June), 1199-1227.
- DeAngelo, H., L. DeAngelo, and D.J. Skinner, 2003, "Are Dividends Disappearing? Dividends Concentration and the Consolidation of Earnings," *Journal of Financial Economics* 72 (No. 3, June), 425-456.
- Desai, M.A., C.F. Foley, and J.R. Hines, 2004, "A Multinational Perspective on Capital Structure Choice and Internal Capital Markets," *The Journal of Finance* 59 (No. 6, December), 2451-2487.
- Dewenter, K.L. and V.A. Warther, 1998, "Dividends, Asymmetric Information and Agency Conflicts: Evidence From a Comparison of Dividend Policies of Japanese and US Firms," *Journal of Finance* 53 (No. 3, June), 879-904.
- Fama, E.F., 1998, "Market Efficiency, Long Term Return, and Behavioral Finance," *Journal of Financial Economics* 49 (No. 3, September), 283-306.
- Fama, E.F. and K.R. French, 2001, "Disappearing Dividends: Changing Firm Characteristics or Lower Propensity to Pay?" *Journal of Financial Economics* 60 (No. 1, April), 3-43.
- Fenn, G.W. and N. Liang, 2001, "Corporate Pay Out Policy and Managerial Stock Incentives," *Journal of Financial Economics* 60 (No. 1, April), 45-72.
- Graham, J.R. and D.A. Rogers, 2002, "Do Firms Hedge in Response to Tax Incentives?" *The Journal of Finance* 57 (No. 2, April), 815-839.
- Graham, J.R. and C.R. Harvey, 2001, "The Theory and Practice of Corporate Finance: Evidence from the Field," *Journal of Financial Economics* 60 (No. 2-3, May/June), 187-243.
- Heaton, J.B., 2002, "Managerial Optimism and Corporate Finance," *Financial Management* 31 (No. 2, Summer), 33-45.
- Hentschel, L. and S.P. Kothari, 2001, "Are Corporations Reducing or Taking Risks with Derivatives," *Journal of Financial and Quantitative Analysis* 36 (No. 1, March), 93-118.
- Jensen, G.R., D.P. Solberg, and T.S. Zoran, 1992, "Simultaneous Determination of Insider Ownership, Debt, and Dividend Policies," *Journal of Financial and Quantitative Analysis* 27 (No. 2, June), 247-263.
- Kalay, A. and R. Michaely, 2000, "Dividends and Taxes: A Re-Examination," *Financial Management* 29 (No. 2, Summer), 55-75.
- Kumar, P. and B.S. Lee, 2001, "Discrete Dividend Policy with Permanent Earning," *Financial Management* 30 (No. 3, Autumn), 55-76.
- Leland, H.E., 1998, "Agency Costs, Risk Management, and Capital Structure," *The Journal of Finance* 53 (No. 4, August), 1213-1243.
- Li, W. and E. Lie, 2006, "Dividend Changes and Catering Incentives," *Journal of Financial Economics* 80 (No. 2, May), 293-308.
- Lie, E., 2000, "Excess Funds and Agency Problems: An Empirical Study of Incremental Cash Disbursements," *The Review of Financial Studies* 13 (No. 1, Spring), 219-248.
- Lintner, J., 1956, "Distributions of Incomes of Corporations among Dividends, Retained Earnings and Taxes," *American Economic Review* 46, 97-113.
- Modigliani, F. and M.H. Miller, 1958, "The Cost of Capital, Corporation Finance, and the Theory of Investment," *American Economic Review* 48 (No. 3, June), 261-297.
- Molina, C.A., 2005, "Are Firms Underleveraged? An Examination of the Effect of Leverage on Default Probabilities," *The Journal of Finance* 60 (No. 3, June), 1427-1459.
- Thaler, R.H., 1999, "The End of Behavioral Finance," *Financial Analysis Journal* 55 (No. 6, November/December), 12-17.